



Volume 1 of 1

Project Manual

**Old Newgate Prison and Copper Mine Museum
Roof(s) Replacement and Exterior Renovations
115 Newgate Road, East Granby, CT
Project No.: BI-RR-30**

**Prepared By:
OakPark Architects, LLC
312 Park Road
West Hartford, CT 06119**

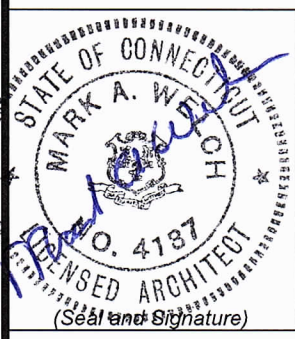
Melody A. Currey – Commissioner

**State of Connecticut
Department of Administrative Services
Construction Services
Office of Legal Affairs, Policy, and Procurement
450 Columbus Boulevard, Suite 1302
Hartford, CT 06103**

Project Manual Date: 3/30/2018

Project Title:	Old Newgate Prison and Copper Mine Museum Roof(s) Replacement and Exterior Renovations
Project Location:	115 Newgate Road, East Granby, CT
Project Number:	BI-RR-30
Architect/Engineer:	OakPark Architects, 312 Park Road, West Hartford, CT 06119

SEALS, SIGNATURES, AND DATES OF DESIGN PROFESSIONALS OF RECORD

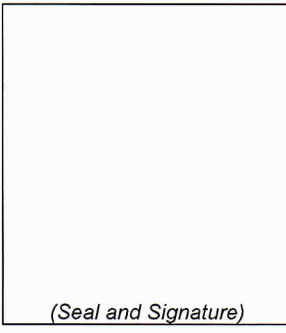


Architect Professional Certification:
I hereby certify that these documents were prepared or approved by me and that I am a duly registered Architect.

(Print Consultant Name)
Mark A. Welch
ARI.0004137

License No.
07/31/2018

Expiration Date

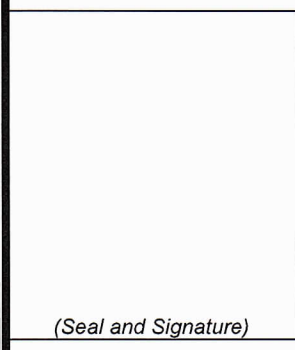


Civil Engineer Professional Certification:
I hereby certify that these documents were prepared or approved by me and that I am a duly registered Professional Engineer.

(Print Consultant Name)

License No.

Expiration Date

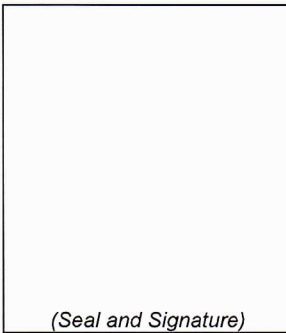


Structural Engineer Professional Certification:
I hereby certify that these documents were prepared or approved by me and that I am a duly registered Professional Engineer.

(Print Consultant Name)

License No.

Expiration Date

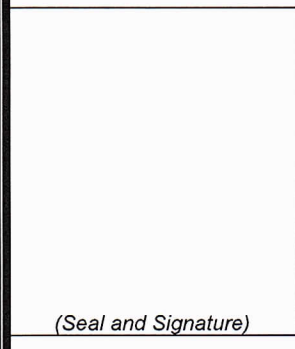


Electrical Engineer Professional Certification:
I hereby certify that these documents were prepared or approved by me and that I am a duly registered Professional Engineer.

(Print Consultant Name)

License No.

Expiration Date

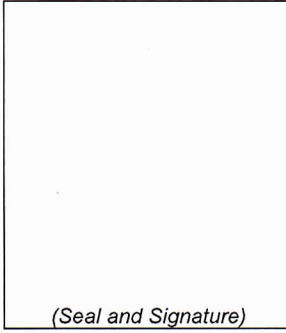


Mechanical Engineer Professional Certification:
I hereby certify that these documents were prepared or approved by me and that I am a duly registered Professional Engineer.

(Print Consultant Name)

License No.

Expiration Date



Fire-Protection Engineer Professional Certification:
I hereby certify that these documents were prepared or approved by me and that I am a duly registered Professional Engineer.

(Print Consultant Name)

License No.

Expiration Date

**End of Section
00 01 07 Seals Page**

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DIVISION 00 PROCUREMENT AND CONTRACTING REQUIREMENTS

Section No.	Title	Page Count	Not Used
00 01 01	Title Page	1	<input type="checkbox"/>
00 01 07	Seals Page	1	<input type="checkbox"/>
00 01 10	Table of Contents	8	<input type="checkbox"/>
00 01 15	List of Drawing Sheets	1	<input type="checkbox"/>
00 11 16	Invitation to Bid	4	<input type="checkbox"/>
00 21 13	NEW: Instructions To Bidders	16	<input type="checkbox"/>
00 25 13	NEW: Pre-Bid Meeting Agenda	3	<input type="checkbox"/>
00 30 00	General Statements for Available Information	4	<input type="checkbox"/>
00 31 19.26	General Statement for Existing Conditions Survey		<input checked="" type="checkbox"/>
00 31 24.13	General Statement for Environmental Assessment Information		<input checked="" type="checkbox"/>
00 31 26.23	General Statement for Hazardous Building Materials Inspection and Inventory	126	<input type="checkbox"/>
00 31 32.13	General Statement for Subsurface Geotechnical Report		<input checked="" type="checkbox"/>
00 31 33.11	Elevator Agreement		<input checked="" type="checkbox"/>
00 31 33.15	FM Global Checklist for Roofing Systems		<input checked="" type="checkbox"/>
00 40 14	Certificate (of Authority) <i>(Bidder Uploads to Biznet)</i>	2	<input type="checkbox"/>
00 40 15	CT DAS Contractor Prequalification Forms	4	<input type="checkbox"/>
00 41 00	Bid Proposal Form <i>(Bidder Uploads to Biznet)</i>	13	<input type="checkbox"/>
00 41 10	NEW: Bid Package Submittal Requirements	4	<input type="checkbox"/>
00 43 16	Standard Bid Bond <i>(Bidder Uploads to Biznet)</i>	1	<input type="checkbox"/>
00 45 14	General Contractor Bidder's Qualification Statement <i>(Bidder Uploads to Biznet)</i>	5	<input type="checkbox"/>
00 45 15	Objective Criteria Established for Evaluating Qualifications of Bidders	3	<input type="checkbox"/>
00 45 17	Named Subcontractor Bidder's Qualification Statement	7	<input type="checkbox"/>
00 52 03	Contract	3	<input type="checkbox"/>
00 52 73	Subcontract Agreement Form	3	<input type="checkbox"/>
00 62 16	Certificate of Insurance	1	<input type="checkbox"/>
00 62 16.1	Asbestos Attachment to Acord Form	1	<input type="checkbox"/>
00 72 13	General Conditions of the Contract for Construction – For Design-Bid-Build	25	<input type="checkbox"/>
00 72 13.1	Supplementary Conditions	2	<input type="checkbox"/>
00 73 27	Set-Aside Contractor Schedule	1	<input checked="" type="checkbox"/>
00 73 38	CHRO Contract Compliance Regulations	7	<input type="checkbox"/>
00 73 44	Prevailing Wage Rates/Contractor's Wage Certification/Payroll Certification	35	<input type="checkbox"/>
00 73 63	CT DOC Security Requirements	3	<input checked="" type="checkbox"/>
00 92 10	Additional Forms To be Submitted After Bond Commission Funding Approval	7	<input type="checkbox"/>
00 92 30	Procedures Regarding Taxation for Nonresident General/Prime Contractor and Subcontractors	2	<input type="checkbox"/>

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DIVISION 01 GENERAL REQUIREMENTS

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01 10 00	SUMMARY	6	<input type="checkbox"/>
01 11 00	Summary of Work	-	<input type="checkbox"/>
01 11 13	Work Covered By Contract Documents	-	<input type="checkbox"/>
01 12 16	Work Sequence - Phase(s);	-	<input type="checkbox"/>
01 12 19	Contract Interface	-	<input type="checkbox"/>
01 14 00	Work Restrictions	-	<input type="checkbox"/>
01 14 16	Coordination With Occupants	-	<input type="checkbox"/>
01 14 23	Subcontractor Evaluations	-	<input type="checkbox"/>
01 20 00	CONTRACT CONSIDERATIONS	17	<input type="checkbox"/>
01 21 00	Allowances	-	<input checked="" type="checkbox"/>
01 22 00	Unit Prices - General	-	<input type="checkbox"/>
01 22 13	Unit Price Schedules - Earth And Rock Excavation	-	<input checked="" type="checkbox"/>
01 22 16	Unit Price Schedule - Miscellaneous	-	<input checked="" type="checkbox"/>
01 22 19	Unit Price Schedule - Alterations	-	<input type="checkbox"/>
01 22 23	Unit Price Schedule - Environmental Remediation	-	<input type="checkbox"/>
01 22 27	Unit Price Schedule - Hazardous Building Materials Abatement	-	<input type="checkbox"/>
01 23 00	Supplemental Bids	-	<input checked="" type="checkbox"/>
01 25 00	Substitution Procedures	-	<input type="checkbox"/>
01 26 00	Contract Modification Procedures	-	<input type="checkbox"/>
01 29 76	Progress Payment Procedures	-	<input type="checkbox"/>
01 30 00	ADMINISTRATIVE REQUIREMENTS	19	<input type="checkbox"/>
01 31 13	Project Coordination	-	<input type="checkbox"/>
01 31 19	Project Meetings	-	<input type="checkbox"/>
01 32 16	Construction Progress Schedules	-	<input type="checkbox"/>
01 32 33	Photographic Documentation	-	<input type="checkbox"/>
01 33 00	Submittal Procedures	-	<input type="checkbox"/>
01 35 16	Alteration Project Procedures	-	<input type="checkbox"/>
01 35 19	Confined Space Entry	-	<input checked="" type="checkbox"/>
01 35 53	Security Procedures	-	<input type="checkbox"/>
01 40 00	QUALITY REQUIREMENTS	6	<input type="checkbox"/>
01 42 16	Definitions	-	<input type="checkbox"/>
01 42 19	Reference Standards	-	<input type="checkbox"/>
01 45 00	Quality Control	-	<input type="checkbox"/>
01 45 23	Testing For Indoor Air Quality, Baseline IAQ, & Materials	-	<input checked="" type="checkbox"/>

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01 51 13	Temporary Electricity And Lighting	-	<input type="checkbox"/>
01 51 16	Temporary Fire Protection	-	<input checked="" type="checkbox"/>
01 51 23	Temporary Heating, Cooling And Ventilating	-	<input checked="" type="checkbox"/>
01 51 33	Temporary Telecommunications	-	<input checked="" type="checkbox"/>
01 51 36	Temporary Water	-	<input type="checkbox"/>
01 52 13	Field Offices And Sheds	-	<input type="checkbox"/>
01 52 19	Temporary Sanitary Facilities	-	<input type="checkbox"/>
01 54 00	Construction Aids	-	<input type="checkbox"/>
01 55 13	Temporary Access Roads	-	<input checked="" type="checkbox"/>
01 55 16	Haul Routes	-	<input checked="" type="checkbox"/>
01 56 00	Temporary Barriers And Enclosures	-	<input type="checkbox"/>
01 56 43	Temporary Protection	-	<input type="checkbox"/>
01 57 19	Temporary Environmental Controls	-	<input checked="" type="checkbox"/>
01 57 21	Environmental Management	-	<input checked="" type="checkbox"/>
01 57 23	Temporary Storm Water Control	-	<input checked="" type="checkbox"/>
01 57 30	Indoor Environmental Control	-	<input checked="" type="checkbox"/>
01 57 40	Construction Indoor Air Quality Management Plan	-	<input checked="" type="checkbox"/>
01 58 13	Temporary Project Signage	-	<input type="checkbox"/>
01 60 00	PRODUCT REQUIREMENTS	1	<input type="checkbox"/>
01 60 00	Product Requirements	-	<input type="checkbox"/>
01 70 00	EXECUTION AND CLOSEOUT PROCEDURES	9	<input type="checkbox"/>
01 71 23	Field Engineering	-	<input type="checkbox"/>
01 73 29	Cutting and Patching	-	<input type="checkbox"/>
01 74 13	Progress Cleaning	-	<input type="checkbox"/>
01 74 19	Construction Waste Management & Disposal	-	<input checked="" type="checkbox"/>
01 75 00	Starting And Adjusting	-	<input checked="" type="checkbox"/>
01 77 00	Closeout Procedures	-	<input type="checkbox"/>
01 78 23	Operation And Maintenance Data	-	<input checked="" type="checkbox"/>
01 78 30	Warranties And Bonds	-	<input type="checkbox"/>
01 80 00	PERFORMANCE REQUIREMENTS	-	<input checked="" type="checkbox"/>
01 81 13	Sustainable Design Requirements	-	<input checked="" type="checkbox"/>
01 90 00	LIFE CYCLE ACTIVITIES	-	<input checked="" type="checkbox"/>
01 91 00	Commissioning	-	<input checked="" type="checkbox"/>

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TECHNICAL SPECIFICATIONS

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Section No.	Title	Page Count
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02 82 13	Asbestos Abatement	26
02 83 13	Lead Paint Activity	24

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Section No.	Title	Page Count

DIVISION 04 **MASONRY** Not Used

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04 01 20.11	Historic Masonry Restoration	7
04 01 20.19	Historic Masonry Testing	2
04 01 20.52	Historic Masonry Cleaning	6

DIVISION 05 **METALS** Not Used

Section No.	Title	Page Count

DIVISION 06 **WOOD, PLASTICS AND COMPOSITES** Not Used

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06 10 00	Carpentry	6

DIVISION 07 **THERMAL AND MOISTURE PROTECTION** Not Used

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07 71 23	Gutters and Downspouts	3
07 90 00	Joint Protection	4

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08 81 00	Glazing	5

DIVISION 09 **FINISHES** Not Used

Section No.	Title	Page Count
09 90 00	Painting and Coating	14

DIVISION 10	SPECIALTIES	Not Used <input checked="" type="checkbox"/>
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Section No.	Title	Page Count
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DIVISION 11	EQUIPMENT	Not Used <input checked="" type="checkbox"/>
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Section No.	Title	Page Count
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DIVISION 12	FURNISHINGS	Not Used <input checked="" type="checkbox"/>
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Section No.	Title	Page Count
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DIVISION 13	SPECIAL CONSTRUCTION	Not Used <input checked="" type="checkbox"/>
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Section No.	Title	Page Count
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DIVISION 14	CONVEYING SYSTEMS	Not Used <input checked="" type="checkbox"/>
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Section No.	Title	Page Count
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DIVISION 15	RESERVED	
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DIVISION 16	RESERVED	
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DIVISION 17	RESERVED	
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DIVISION 18	RESERVED	
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DIVISION 19	RESERVED	
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DIVISION 20	RESERVED	
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DIVISION 21	FIRE SUPPRESSION	Not Used <input checked="" type="checkbox"/>
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Section No.	Title	Page Count
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DIVISION 22	PLUMBING	Not Used <input checked="" type="checkbox"/>
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Section No.	Title	Page Count
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DIVISION 23	HEATING, VENTILATING AND AIR CONDITIONING	Not Used <input checked="" type="checkbox"/>
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Section No.	Title	Page Count

DIVISION 24	RESERVED	
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DIVISION 25	INTEGRATED AUTOMATION	Not Used <input checked="" type="checkbox"/>
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Section No.	Title	Page Count

DIVISION 26	ELECTRICAL	Not Used <input checked="" type="checkbox"/>
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Section No.	Title	Page Count

DIVISION 27	COMMUNICATIONS	Not Used <input checked="" type="checkbox"/>
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Section No.	Title	Page Count

DIVISION 28	ELECTRONIC SAFETY AND SECURITY	Not Used <input checked="" type="checkbox"/>
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Section No.	Title	Page Count

DIVISION 29	RESERVED	
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DIVISION 30	RESERVED	
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DIVISION 31	EARTHWORK	Not Used <input checked="" type="checkbox"/>
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DIVISION 32	EXTERIOR IMPROVEMENTS	Not Used <input checked="" type="checkbox"/>
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Section No.	Title	Page Count

DIVISION 33	UTILITIES	Not Used <input checked="" type="checkbox"/>
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Section No.	Title	Page Count

DIVISION 34	TRANSPORTATION	Not Used <input checked="" type="checkbox"/>
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Section No.	Title	Page Count

DIVISION 35	WATERWAYS AND MARINE	Not Used <input checked="" type="checkbox"/>
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Section No.	Title	Page Count

DIVISION 36	RESERVED	
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DIVISION 37	RESERVED	
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DIVISION 39	RESERVED	
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DIVISION 40	PROCESS INTEGRATION	Not Used <input checked="" type="checkbox"/>
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Section No.	Title	Page Count

DIVISION 41	MATERIAL PROCESSING	Not Used <input checked="" type="checkbox"/>
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Section No.	Title	Page Count

DIVISION 42	PROCESS HEATING, COOLING, AND DRYING	Not Used <input checked="" type="checkbox"/>
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Section No.	Title	Page Count

DIVISION 43	PROCESS GAS AND LIQUID HANDLING, PURIFICATION, AND STORAGE EQUIPMENT	Not Used <input checked="" type="checkbox"/>
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Section No.	Title	Page Count

DIVISION 44	POLLUTION CONTROL EQUIPMENT	Not Used <input checked="" type="checkbox"/>
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Section No.	Title	Page Count

DIVISION 45	INDUSTRY SPECIFIC MANUFACTURING EQUIPMENT	Not Used <input checked="" type="checkbox"/>
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Section No.	Title	Page Count

DIVISION 46	RESERVED	
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DIVISION 47	RESERVED	
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DIVISION 48	RESERVED	
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DIVISION 49	RESERVED	
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DIVISION 50	PROJECT-SPECIFIC AVAILABLE INFORMATION	Page Count	Not Used <input type="checkbox"/>
50 10 00	Existing Conditions Survey		<input checked="" type="checkbox"/>
50 20 00	Environmental Assessment Information		<input checked="" type="checkbox"/>
50 30 00	Hazardous Building Materials Inspection and Inventory	126	<input type="checkbox"/>
50 40 00	Subsurface Geotechnical Report		<input checked="" type="checkbox"/>
50 50 00	Elevator Agreement		<input checked="" type="checkbox"/>
50 60 00	FM Global Checklist For Roofing Systems		<input checked="" type="checkbox"/>

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Advertisement No.:	18-10	Advertisement Date:	May 11, 2018
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<p>INVITATION TO BID</p> <p>Connecticut Department of Administrative Services (CT DAS) Construction Services (CS) Office of Legal Affairs, Policy and Procurement 450 Columbus Blvd, Suite 1302, Hartford, CT 06103-1835</p>

Find Invitations to Bid on the State Contracting Portal:	Go to the DAS website www.ct.gov/das Click on “ State Contracting Portal ”; Select “ Administrative Services, Construction Services ”; Select the appropriate Invitation to Bid .
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Instructions for On-Line Bidding:	Follow the instructions in 6001 Construction On-line Bidding Instructions . (http://portal.ct.gov/-/media/DAS/Construction-Services/DAS-CS-Library/6000-Series/6001-Construction-On-Line-Bidding-Instructions.pdf) For questions, call 860-713-5794.
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Date and Time of Bid Opening:	<table border="1"> <tr> <td style="text-align: center;">June <i>(Month)</i></td> <td style="text-align: center;">27 <i>(Day)</i></td> <td style="text-align: center;">2018 <i>(Year)</i></td> </tr> </table>	June <i>(Month)</i>	27 <i>(Day)</i>	2018 <i>(Year)</i>	Time:	<table border="1"> <tr> <td style="text-align: center;">1:00 <i>(ET)</i></td> <td style="text-align: center;">PM</td> </tr> </table>	1:00 <i>(ET)</i>	PM
June <i>(Month)</i>	27 <i>(Day)</i>	2018 <i>(Year)</i>						
1:00 <i>(ET)</i>	PM							

This Invitation to Bid is for the following Project:

Construction Costs:	Greater Than \$500,000		
Bidding Limited To:	Contractors Prequalified by DAS for General Building Construction (Group C)		
Threshold Limits: (C.G.S. §29-276b)	This Project DOES NOT exceed Threshold Limits.		
Project Title:	Old Newgate Prison and Copper Mine Museum Roof(s) Replacement and Exterior Renovations		
Project Location:	115 Newgate Road East Granby, CT		
Project Number:	BI-RR-30		
Project Description:	Two roof replacements – the White Cottage and Viets Tavern; and exterior repair and painting of three buildings – the White Cottage, Yellow Cottage and Viets Tavern; Asbestos abatement – the Yellow and White Cottages; Lead abatement – Yellow and White Cottages and Viets Tavern		
Work Includes But Is Not Limited To The Following:	Roofing; Door, Window and Siding Repairs; Asbestos and Lead Abatement; Painting		
Date DAS Began Planning Project:	1/13/2017		
Special Requirements:	3 years on the job experience in historical preservation/construction projects of a similar nature		
Cost Estimate Range:	\$ 527,066.	To	\$ 572,750.
Plans and Specs Ready:	May 16, 2018		
Plans and Specs Download:	Plans and Specs are available for electronic download on the DAS State Contracting Portal.		



Advertisement No.:	18-10	Advertisement Date:	May 11, 2018
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Invitation to Bid (continued)

Contract Time Allowed:	Calendar Days:	120
Liquidated Damages:	\$ 1,065.00	Per Calendar Day Beyond Substantial Completion.
	\$ 984.00	Per Calendar Day Beyond 90 days After Substantial Completion
Pre-Bid Meeting Date:	May 23, 2018	
	<input type="checkbox"/>	Bidders are strongly encouraged to attend the Pre-Bid Meeting.
	<input checked="" type="checkbox"/>	Bidders are required to attend a MANDATORY Pre-Bid Meeting.
Pre-Bid Meeting Time:	10:00	<input checked="" type="checkbox"/> AM <input type="checkbox"/> PM
Pre-Bid Meeting Location:	115 Newgate Road, East Granby, CT – Meet on site	
Pre-Bid Meeting Contact:	DAS/CS Project Manager:	Halina Harabasz
	Phone No.:	860.713.5732
Pre-Bid Meeting Registration:	At the Pre-Bid Meeting, all prospective bidders shall <i>sign</i> his or her name on the official roster and <i>list</i> the name and address of the company he or she represents. For MANDATORY Pre-Bid Meetings, this shall be done no later than the designated start time of the Pre-Bid Meeting. No attendee will be allowed to register <i>after</i> the advertised start time. Bids submitted by contractors who have <i>not properly</i> registered and attended the MANDATORY Pre-Bid Meeting <i>shall be rejected</i> as non-responsive . See Section 00 25 13 Pre-Bid Meeting Agenda for additional details.	
Subcontractor and/or Supplier Small Business Enterprise (SBE) & Minority Business Enterprise (MBE) Set-Aside Requirements:	See 00 41 00 Bid Proposal Form	
Bid Proposal Submission and Other Bid Submittal Requirements:	See Sections 00 21 13 Instructions to Bidders, 00 41 00 Bid Proposal Form, and 00 41 10 Bid Package Submittal Requirements for Bid Proposal submission requirements, including requirements for Affidavits, Certifications, Addenda, Pre-Bid Equals and Substitution Requests, and other bidding documents.	
Bid Upload and Bid Opening:	Bids can be uploaded and edited electronically in BizNet UNTIL 1:00 p.m. on the Bid Opening Date and thereafter shall be locked down and publicly opened in the State Contracting Portal.	
Bid Results:	Within approximately two (2) days after the Bid Opening Date, the Bid Results will be posted on the State Contracting Portal.	
Guide to the Code of Ethics For Current or Potential State Contractors (for contracts greater than \$500,000):	Anyone seeking a contract with a value of more than \$500,000 shall electronically download the “Guide to the Code of Ethics For Current or Potential State Contractors” from the of Office of State Ethics (OSE) website www.ct.gov/ethics , then click on the “Publications” link:	
Prevailing Wage Rates:	Prevailing wages are required on this project, in accordance with the schedule provided in the bid documents, pursuant to Connecticut General Statutes Section 31-53 (a) through (h), as amended. Each contractor who is awarded a contract on or after October 1, 2002 shall be subject to provisions of the Connecticut General Statutes, Section 31-55a concerning annual adjustments to prevailing wages. Wage Rates will be posted each July 1st on the Department of Labor website www.ctdol.state.ct.us . Such prevailing wage adjustment shall not be considered a matter for any contract amendment.	
To access Executive Orders:	Go to www.ct.gov > Governor Dannel P. Malloy > Press Room > Executive Orders.	



Advertisement No.:	18-10	Advertisement Date:	May 11, 2018
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Invitation to Bid (continued)

IMPORTANT NOTE: *The Commissioner of the CT Department of Administrative Services reserves the right to do any of the following without liability, including but not limited to: (a) waive technical defects in the bid proposal as he or she deems best for the interest of the State; (b) negotiate with a contractor in accordance with Connecticut General Statutes Section 4b-91; (c) reject any or all bids; (d) cancel the award or execution of any contract prior to the issuance of the "Notice To Proceed;" and, (e) advertise for new bids.*

All Project Questions, Bid Questions, and Pre-Bid Equals and Substitution Requests must be submitted fourteen (14) Calendar Days prior to the Bid Due Date.

All **Project Questions** and **Pre-Bid Equals and Substitution Requests** must be emailed (not phoned) to the **Architect/Engineer** with a copy to the **Construction Administrator** and the **DAS/CS Project Manager** listed below.

Architect/Engineer:	OakPark Architects, LLC	Email:	markw@oakparkarchitects.com
Construction Administrator:	TBD	Email:	TBD
DAS/CS Project Manager:	Halina Harabasz	Email:	halina.harabasz@ct.gov

All **Bid Questions** must be emailed to the **DAS/CS Procurement Unit Supervisor** listed below.

DAS/CS Associate Fiscal Administrative Officer:	Mellanee Walton	Email:	mellanee.walton@ct.gov
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Instructions to Bidders

DAS | Construction Services | Office of Legal Affairs, Policy, and Procurement

1.0 General Bid Proposal Information

1.1 On-Line Bidding:

1.1.1 The Department of Administrative Services (DAS) Construction Services (CS) has streamlined the Bid process by allowing contractors to submit their **Bid Package Documents on line** through the **State Contracting Portal** and **BizNet**. Rather than submitting paper Bid Package Documents, contractors simply respond to an **Invitation to Bid** on the **State Contracting Portal** by retrieving and uploading their documents electronically through their **BizNet** account. Once completed, the Bid Proposal must be **electronically signed prior** to the date and time of the **Bid Opening**. See **Page 1** of the **Invitation to Bid** for the **Date and Time of the Bid Opening**.

1.1.2 All Bidders shall **electronically** upload their **Bid Package Documents** to BizNet following the **instructions** in the DAS/CS publication, [6001 Construction On-line Bidding Instructions](#), available for download here: Go to the DAS Homepage (www.ct.gov/DAS), Doing Business With The State > State Building Construction > Publications and Forms > DAS Construction Services Library > 6000 Series > **6001 Construction On Line Bidding Instructions**. For questions, call 860-713-5794 or 860-713-5783.

1.2 Bid Opening:

All Bids shall be publicly opened in BizNet by the awarding authority as stated in **Section 00 11 16 Invitation to Bid**.

1.3 Withdrawal of Bid:

Any **Bid** once uploaded into BizNet cannot be deleted. A Bid may only be **withdrawn** by uploading a written **Letter of Withdrawal** to BizNet using the "**Other Solicitation Document**" link **prior** to the date and time of the Bid Opening.

1.4 Disqualification from Bidding:

Any contractor who violates any provision of **Connecticut General Statutes (C.G.S.) § 4b-95**, as revised, shall be **disqualified** from bidding on other contracts for a period not to exceed **twenty-four (24) months**, commencing from the date on which the violation is discovered, for each violation.

1.5 Waive Minor Irregularities:

1.5.1 The awarding authority **shall** be authorized to **waive minor irregularities** which he or she considers in the best interest of the State, provided the reasons for any such waiver are stated in writing by the awarding authority and made a part of the contract file.

1.5.2 **No** such bid shall be rejected because of the failure to submit prices for, or information relating to, any item or items for which no specific space is provided in the bid form furnished by the awarding authority, but this sentence shall not be applicable to any failure to furnish prices or information required by **C.G.S. § 4b-95**, as revised, to be furnished in the bid form provided by the awarding authority.

1.6 Minimum Percentage of Work:

The awarding authority **may** require in the **Bid Proposal Form** that the contractor agree to perform a stated, minimum percentage of work with its **own forces**, in accordance with **C.G.S. § 4b-95(b)**.

1.7 Set-Aside Contracts:

The awarding authority **may also** require the contractor to set aside a portion of the contract for subcontractors who are eligible for **set-aside contracts**.

1.8 Connecticut Sales And Use Taxes:

1.8.1 **All Bidders shall** familiarize themselves with the current statutes and regulations of the **Connecticut Department of Revenue Services (DRS)**, including the Regulations of Connecticut State Agencies (R.C.S.A.) §12-426-18 and all relevant state statutes. The tax on materials or supplies exempted by such statutes and regulations shall not be included as part of a bid; see the **Contractor's Exempt Purchase Certificate (CERT-134)**, available for download from the DRS website (www.ct.gov/drs).

1.8.2 The State of Connecticut construction contract has the following tax exemptions: (1) Purchasing of materials which will be physically incorporated and become a permanent part of the project; and (2) Services that are resold by the contractor. For example, if a General Contractor hires a plumber, carpenter or electrician, a resale certificate may be issued to the subcontractor because these services are considered to be integral and inseparable component parts of the building contract.

1.8.3 The following items are **not** exempt from taxes when used to fulfill a State of Connecticut construction contract: Tools, supplies and equipment used in fulfilling the construction contract.

1.9 Union Labor:	
Attention is called to the fact that there may or could be construction work carried on at the site by union labor. This fact must be kept in mind by all Bidders.	
1.10 Rejection of Bids:	
The awarding authority <i>shall reject</i> every such Bid Proposal , including but not limited to, the following reasons:	
1.10.1	A Bid Proposal Form that does <i>not</i> contain the signature of the bidder or its authorized representative.
1.10.2	A Bid Proposal Form that is <i>not</i> accompanied by the following documents in BizNet: <ul style="list-style-type: none"> .1 Section 00 43 16 Standard Bid Bond, completed for <i>either</i> the Bid Bond option <i>or</i> Certified Check option; .2 A Certified Check (if applicable) delivered to the DAS/CS Office of Legal Affairs, Policy, and Procurement <i>prior</i> to the date and time of the Bid Opening; .3 A DAS Contractor Prequalification Certificate for the Bidder for Projects <i>greater</i> than \$500,000; .4 A DAS Update (Bid) Statement for the Bidder for Projects <i>greater</i> than \$500,000; .5 A Gift and Campaign Contribution Certification – Office of Policy and Management (OPM) Ethics Form 1; .6 A Consulting Agreement Affidavit – OPM Ethics Form 5. NOTE: If the Bidder fails to submit or upload the Consulting Agreement Affidavit required under C.G.S. § 4a-81, such bidder shall be <i>disqualified</i> and the award shall be made to the next lowest responsible qualified bidder or new bids or proposals shall be sought; .7 An Ethics Affidavit (Regarding State Ethics) – OPM Ethics Form 6; .8 An Iran Certification – OPM Ethics Form 7.
1.10.3	A Bid Proposal Form that: <ul style="list-style-type: none"> .1 Fails to acknowledge all Addenda in the space provided in the Bid Proposal Form; .2 Fails to correctly list the Named Subcontractors on the Bid Proposal Form; .3 Fails to correctly state a Named Subcontractor's price on the Bid Proposal Form; and .4 Fails to list Named Subcontractors who are DAS Prequalified at the time of the bid.
1.10.4	A Bid Proposal Form that is <i>not</i> submitted on the forms furnished for the specific project. NOTE: In no event will bids or changes in bids be made by telephone, telegraph, facsimile or other communication technology except through BizNet. All pages of the Bid Proposal Form <i>must</i> be uploaded to BizNet prior to the date and time of the Bid Opening.
1.10.5	A Bid Proposal Form that has omitted items, omitted pages, added items not called for, altered the form, contains conditional bids, contains alternative bids, or contains obscure bids.
1.10.6	A paper Bid Package sent to the DAS/CS Office of Legal Affairs, Policy, and Procurement. Such bids will be returned to the bidder unopened.
1.10.7	Any Bidder that does <i>not</i> make all required pre-award submittals <i>within</i> the designated time period. DAS/CS <i>may</i> reject such bids as non-responsive .
1.11 Pre-Bid Meeting:	
1.11.1	See Section 00 11 16 Invitation to Bid and Section 00 25 13 Pre-Bid Meeting Agenda for details.
1.11.2	When a Pre-Bid Meeting is “ strongly encouraged ”, all attendees shall sign his or her name to the official roster and list the name and address of the company he or she represents.
1.11.3	When a Pre-Bid Meeting is MANDATORY , all attendees will be required to register. Proper registration means that the attendee has signed his or her name to the official roster and listed the name and address of the company he or she represents on the official roster no later than the designated start time of the MANDATORY Pre-Bid Meeting . Bidders are advised to register early as no attendee will be allowed to register <i>after</i> the advertised start time of the MANDATORY Pre-Bid Meeting . All bids submitted by all contractors who have <i>not</i> properly registered and attended the MANDATORY Pre-Bid Meeting shall be rejected as non-responsive.
1.11.4	All Bidders Attending a Pre-Bid Meeting at a Connecticut Department of Corrections (DOC) Facility: Prior to the Pre-Bid Meeting , download the “ Security Background Questionnaire ” from the CT DOC website (www.ct.gov/doc under “ Forms ”), complete and submit the form as directed, and obtain approval, otherwise admission to the Pre-Bid Meeting will be denied . It is recommended that the approved form be brought as evidence of approval to attend the Pre-Bid Meeting.

1.12 Pre-Bid Equals and Substitution Requests Procedures:	
1.12.1	All submissions requesting "Equals and/or Substitutions" shall be made by the Bidder in accordance with Section 01 25 00 Substitution Procedures of the Division 01 General Requirements and Article 15, Materials: Standards of Section 00 72 13 General Conditions . Every submission shall contain all the information necessary for DAS/CS to evaluate the submission and the request. Failure to submit sufficient information to make a proper evaluation, including submittal of data for the first manufacturer listed as well as the data for the " Equals and/or Substitutions " proposed, shall result in a rejection of the submission and request. Upon receipt of the submission and request, DAS/CS shall notify the Bidder that the request has been received and as soon as possible shall render a decision on such submission and request.
1.12.2	Pre-Bid-Opening Substitution of Materials and Equipment: The Owner will consider requests for equals or substitutions <i>if received fourteen (14) Calendar Days prior</i> to the Bid Opening Due Date , as stated in the Invitation To Bid . The Equal or Substitute Product Request (Form 7001) must be used to submit requests. Download Form 7001 from the DAS Homepage (www.ct.gov/DAS) > Doing Business With The State > State Building Construction > Publications and Forms > DAS Construction Services Library > 7000 Series.
1.12.3	Equals and/or Substitutions Requests Submittal: Requests for Equals or Substitutions shall be submitted to the DAS/CS Project Manager, Architect / Engineer, and Construction Administrator .
1.12.4	Substitution Request Deadline: Any substitution request not complying with requirements will be denied. Substitution requests sent after the Deadline will be denied.
1.12.5	Addendum: An Addendum shall be issued to inform all prospective bidder of any accepted substitution in accordance with our addenda procedures.
1.12.6	Time Extensions: No extensions of time will be allowed for the time period required for consideration of any Substitution or Equal.
1.12.7	Post Contract Award Substitution of Materials and Equipment: All requests for "Equals and Substitutions" after the Award of the Contract shall be made only by the Prime Contractor for materials or systems specified that are no longer available. The requests will not be considered if the product was not purchased in a reasonable time after award, in accordance with Article 15, Materials: Standards of Section 00 72 13 General Conditions .
1.13 Joint Ventures:	
1.13.1	Each entity in a Joint Venture shall submit with the Venture's bid a letter on their respective company letterheads stating: <ul style="list-style-type: none"> · Their agreement to bid as a Joint Venture with the other named Joint Venture, and set forth the name and address of the other Joint Venture(s). · The respective percentage of the project work that would be the responsibility of each of the Joint Ventures.
1.13.2	Prequalification: Each entity in a Joint Venture shall submit its Prequalification Certificate and Update (Bid Statement) . Each entity in a Joint Venture shall be prequalified at the time of the bid and during the entire project construction. Each entity in a Joint Venture shall have the prequalification single project limit , and remaining aggregate capacity balance to meet the value of its respective percentage of the joint proposed bid.
1.13.3	Each entity in a Joint Venture shall submit Section 00 45 14 General Contractor Bidder's Qualification Statement .
1.13.4	Bonding: The Joint Venture shall obtain the required bonding from a surety for the total amount of the contract price.
1.13.5	Insurance: Each entity in a Joint Venture shall have the required insurance coverages and limits to meet the insurance requirements of the contract. The Joint Venture shall provide Builder's Risk insurance .
1.13.6	Bid Submission and Contract Signing: If a Joint Venture submits a bid proposal, it shall be considered to be a proposal by each of the Joint Ventures, jointly and severally, for the performance of the entire contract as a Joint Venture in accordance with the terms and conditions of the contract. Each entity in a Joint Venture is required to sign the contract acknowledging that each Joint Venture shall be jointly and severally liable for the performance of the entire contract.
1.13.7	Certificate of Legal Existence: Each entity in a Joint Venture shall obtain a Certificate of Legal Existence and submit it with the contract documents.
1.14 Procedure for Alleged Violation(s) of Part II Chapter 60 of C.G.S. Bidding and Contracts:	
1.14.1	The Regulations of Connecticut State Agencies establishes a procedure for promptly hearing and ruling on claims alleging a violation or violations of the contract bidding provisions of Part II of Chapter 60 of the Connecticut General Statutes (hereinafter "Chapter 60"). In view of the fact that time is normally of the essence in awarding construction contracts under Chapter 60, the grievance procedures are intended to be quick, informal and conclusive so as to avoid delays which can increase costs and jeopardize the very ability of the State to proceed with needed public works projects.
1.14.2	Download " 6510 Procedure for Alleged Violation(s) " and " 6505 Petition for Alleged Violation(s) " from the DAS Homepage (www.ct.gov/DAS) > Doing Business With The State > State Building Construction > Publications and Forms > DAS Construction Services Library > 6000 Series > Scroll down to locate documents.

1.15 Labor Market Area:	
1.15.1	All Bidders <i>shall</i> have read C.G.S. §§ 31-52 and 31-52a , as revised. These sections relate to the preference of State citizens and the preference of residents of the labor market area in which the work under the contract is to be done and the penalties for violations thereof.
1.15.2	In order to avoid violations by the contractor and to cooperate with and assist the State in the implementation of the statutory mandates, any bidder awarded a contract with the State shall be required to provide the State with the following information: <ul style="list-style-type: none"> .1 The names and addresses of employees utilized by the contractor and by its subcontractors and how long each such employee has resided in Connecticut. .2 How long each employee has resided in the labor market area, as established by the State Labor Commissioner, in which the work under the contract is to be done. Labor market areas are indicated on the end of this section. .3 Within thirty (30) days after the start of work, the contractor shall submit a signed statement setting forth the procedures the contractor and its subcontractors have taken to assure that they have sought out qualified residents of the labor market area. Also, the statement shall include information as to how many persons were considered for employment and how many were actually hired. Such procedures will include, but not be limited to, obtaining names of available persons from area Employment Security Offices. .4 In the same manner as Subsection 3.9.2.3 above, the statement shall indicate the steps taken to assure that the contractor and its subcontractors have sought out qualified residents of this State.
1.15.3	The contractor shall cooperate with and provide information to the DAS/CS Project Manager or their designee assigned to collect and verify the information required. The State may request that all such information be updated during the term of the contract at reasonable times.
1.15.4	All such information gathered and compiled by the State shall be forwarded to the Labor Commissioner.
1.15.5	Pursuant to C.G.S. § 31-52b, as revised: <p style="padding-left: 40px;">“The provisions of C.G.S. § 31-52 and 31-52a shall not apply where the State or any subdivision thereof may suffer the loss of revenue granted or to be granted from any agency or department of the federal government as a result of said sections or regulative procedures pursuant thereto.”</p> <p>However, no exception shall be determined to be applicable unless stated in writing by the Commissioner of the Department of Administrative Services.</p>
1.15.6	Website Link: For guidance on the CT DOL Labor Market Areas (LMA) go to the CT DOL website http://www.ctdol.state.ct.us/ , under “Program Services”, click on “Labor Market information”.
1.16 Executive Orders:	
1.16.1	All Executive Orders of which are incorporated into and are made a part of the Contract as if they had been fully set forth in it. The Contract is subject to the provisions of the following: <ul style="list-style-type: none"> .1 Executive Order No. 3: Governor Thomas J. Meskill, promulgated June 16, 1971, concerning labor employment practices; .2 Executive Order No. 17: Governor Thomas J. Meskill promulgated February 15, 1973, concerning the listing of employment openings; .3 Executive Order No. 16: Governor John G. Rowland promulgated August 4, 1999, concerning violence in the workplace; .4 Executive Order No. 14: Governor M. Jodi Rell, promulgated April 17, 2006, concerning procurement of cleaning products and services; and .5 Executive Order No. 49: Governor Dannel P. Malloy, promulgated May 22, 2015, concerning the requirement for certain state contractors to disclosure campaign contributions to candidates for statewide public office or The General Assembly and to ensure convenient public access to information related to gifts and campaign contribution disclosure affidavits by state contractors.
1.16.2	All Executive Orders are available for download from the State of Connecticut website. Go to www.ct.gov , click on “Governor Dannel P. Malloy”, click on “Press Room”, and click on “Executive Orders”.
1.17 Retaliation For Disclosure of Information:	
1.17.1	Each contract between a state or quasi-public agency and a large state contractor shall provide that, if an officer, employee, or appointing authority of a large state contractor takes or threatens to take any personnel action against any employee of the contractor in retaliation for such employee’s disclosure of information to the Auditors of Public Accounts or the Attorney General under the provisions of C.G.S. § 4-61dd (a) , the contractor shall be liable for a civil penalty of not more than five thousand dollars for each offense, up to a maximum of twenty per cent of the value of the contract. Each violation shall be a separate and distinct offense and in the case of a continuing violation each calendar day’s continuance of the violation shall be deemed to be a separate and distinct offense. The executive head of the state or quasi-public agency may request the Attorney General to bring a civil action in the Superior Court for the judicial district of Hartford to seek imposition and recovery of such civil penalty.
1.17.2	Each large state contractor shall post a notice of the provisions of C.G.S. § 4-61dd relating to large state contractors in a conspicuous place that is readily available for viewing by the employees of the contractor.

1.18 Laws of the State of Connecticut:

Forum and Choice of Law. The Bidder agrees that in the event it is awarded a Contract, the Bidder and the State deem the Contract to have been made in the City of Hartford, State of Connecticut. Both parties agree that it is fair and reasonable for the validity and construction of the Contract to be, and it shall be, governed by the laws and court decisions of the State of Connecticut, without giving effect to its principles of conflicts of laws. To the extent that any immunities provided by Federal law or the laws of the State of Connecticut do not bar an action against the State, and to the extent that these courts are courts of competent jurisdiction, for the purpose of venue, the complaint shall be made returnable to the Judicial District of Hartford only or shall be brought in the United States District Court for the District of Connecticut only, and shall not be transferred to any other court, provided, however, that nothing here constitutes a waiver or compromise of the sovereign immunity of the State of Connecticut. The Bidder waives any objection which it may now have or will have to the laying of venue of any claims in any forum and further irrevocably submits to such jurisdiction in any suit, action or proceeding.

1.19 State's Sovereign Immunity:

Nothing in this Agreement shall be construed as a waiver or limitation upon the **State's sovereign immunity**. To the extent this Section is found to be inconsistent with any other part of this Agreement, this Section shall control. This Section of the Agreement shall survive the completion and/or termination of this Agreement.

2.0 Bid Proposal Form Instructions:

2.1 Bid Proposal Form:

2.1.1 All Bidders shall upload **ALL** pages of **Section 00 41 00 Bid Proposal Form** to BizNet, prior to the date and time of the Bid Opening.

2.2 Threshold Projects:

2.2.1 See **page 1** of the **Bid Proposal Form** to determine if this Project exceeds the **Threshold Limits**.

2.2.2 If this Project exceeds Threshold Limits, **all Bidders** shall list their Firm's **Major Contractor Registration License Number** in the **Bid Proposal Form**.

2.2.3 The **Apparent Low Bidder** shall also provide the Subcontractor(s) **Major Contractor Registration License** number(s) to the DAS/CS Office of Legal Affairs, Policy, and Procurement within **ten (10) business days after** receipt of the Letter of Intent from DAS/CS.

2.2.4 Summary of Registration Requirements for Major Contractors: Any person engaged in the business of construction, structural repair, structural alteration, dismantling or demolition of a structure or addition that exceeds the threshold limits provided in **C.G.S §29-276b**, or any person who, under the direction of a general contractor, performs or offers to perform any work that impacts upon the structural integrity of a structure or addition, including repair, alteration, dismantling or demolition of a structure or addition that exceeds the threshold limits shall engage in or offer to perform the work of a Major Contractor unless such person has first obtained a license or certificate of registration from the Connecticut Department of Consumer Protection (DCP). Individuals must be licensed under the requirements of **C.G.S §20-341gg "Registration of Major Contractors"**. DCP shall issue a certificate of registration to any person who is prequalified pursuant to section 4a-100 who applies for registration in accordance with this section.

2.2.5 The Bidder and all Subcontractors that engage in work that impacts upon the structural integrity of a structure or addition must register as a **Major Contractor** with DCP and obtain a **Major Contractor License** issued by DCP **PRIOR** to the date and time of the Bid Opening for this Project.

2.2.6 For further information go to the DCP Website: <http://www.ct.gov/dcp>

2.3 Proposed Lump Sum Base Bid, Allowances, and Contingent Work:

2.3.1 The proposed **Lump Sum Base Bid** shall be set forth in the space **provided on Section 00 41 00 Bid Proposal Form**.

2.3.2 The **Proposed Lump Sum Base Bid** shall *include* all **Allowances**, all work indicated on the drawings and/or described in the specifications *except* for **Contingent Work**. See the **Bid Proposal Form, Section 01 20 00 Contract Considerations, and Section 01 23 13 Supplemental Bids** of Division 01 General Requirements for details regarding **Contingent Work**.

2.3.3 "**Contingent Work**" includes **Unit Prices** (for Earth and Rock Excavation, Environmental Remediation, and/or Hazardous Building Materials Abatement) and **Supplemental Bids**. See **Section 01 20 00 Contract Considerations** and **Section 01 23 13 Supplemental Bids**, respectively, for applicability.

2.3.4 The **Proposed Lump Sum Base Bid** shall be shown in *both numerical figures* and "**printed**" words **dollar amount**. In the event of any discrepancy the "**printed**" words **dollar amount** shall govern.

2.4 Addenda and Interpretations:	
2.4.1	The Number of Addenda issued by the State of Connecticut shall be set forth in the space provided on the Bid Proposal Form . It shall be the Bidder's responsibility to make inquiry as to, and to obtain, the Addenda issued, if any.
2.4.2	Addenda , if issued, will be posted on the State Contracting Portal.
2.4.3	Failure to acknowledge all Addenda in the space provided in the Bid Proposal Form shall be cause for rejection of the bid.
2.4.4	Attaching Addenda to the Bid Proposal Form does not constitute an acknowledgement of all Addenda and does not relieve the Bidder from the requirement for the Bidder to acknowledge all Addenda in the space provided on the Bid Proposal Form.
2.4.5	No interpretations of the meaning of the plans, specifications or other contract documents will be made orally at any time. Every request for such interpretation shall be in writing to the awarding authority and to be given consideration shall be received at least fourteen (14) Calendar Days <i>prior</i> to the date fixed for the opening of bids. Any and all such interpretations and any supplemental instructions will be in the form of written Addenda to the specifications which, if issued, will be posted on the State Contracting Portal.
2.4.6	Contractors who have subscribed through BizNet to receive daily e-mail alert notices when new Bids/RFPs are issued will be notified via a daily CT DAS " Connecticut Procurement Portal Daily Notice ".
2.5 Bidder's Qualification Statement and Objective Criteria for Evaluating Bidders:	
2.5.1	All Bidders shall download, complete, and upload Section 00 45 14 General Contractor Bidder's Qualification Statement to BizNet prior to the date and time of the Bid Opening. See BizNet for a template. This information shall be considered as part of the Bid Proposal Form . Failure of a Bidder to answer any question or provide required information may be grounds for the awarding authority to disqualify and reject the bid.
2.5.2	All Bidders shall comply with Section 00 45 15 Objective Criteria Established for Evaluating Qualifications of Bidders . The Objective Criteria Established for Evaluating Qualifications of Bidders are to assure that the State of Connecticut will secure the "lowest responsible and qualified bidder" who has the ability and capacity to successfully complete the Bid Proposal Form and the Work. Failure to comply with any portion of this requirement may cause rejection of the bid. Note: Individual Specification Sections may contain General Contractor and/or Subcontractor Qualification requirements that <i>exceed</i> those in Section 00 45 15 Objective Criteria Established for Evaluating Qualifications of Bidders .
2.6 Bidder's Prequalification Requirements for Projects exceeding \$500,000:	
2.6.1	All Bidders for Projects with estimated Construction Costs greater than \$500,000 shall upload a current copy of their " DAS Prequalification Certificate " and " DAS Update (Bid) Statement " for the applicable Class of Work on page 1 of Section 00 11 16 Invitation to Bid to Biznet <i>prior</i> to the date and time of the Bid Opening.
2.6.2	Pursuant to C.G.S. § 4b-91(a)(2) and C.G.S. §4a-100 , as revised, every contract for the construction, reconstruction, alteration, remodeling, repair or demolition of any public building or any other public work by the state that is estimated to exceed five hundred thousand dollars (\$500,000) shall be awarded only to the lowest responsible and qualified Bidder who is " prequalified " by DAS in the Class of Work for this Project , as specified in Section 00 11 16 Invitation to Bid . No person who's Contract or Subcontract exceeds \$500,000 in value may perform work as a Contractor or Subcontractor, unless the person is prequalified , <i>at the time of bid submission</i> , in accordance with C.G.S. § 4a-100 , as amended, C.G.S. § 4b-91(a)(2) , and C.G.S. §4b-91 (j) . "Prequalified" includes the contractor's or substantial subcontractor's prequalification classifications, aggregate work capacity ratings and single project limits.
2.6.3	Failure to upload either the " DAS Prequalification Certificate " or " DAS Update (Bid) Statement " to Biznet prior to the date and time of the Bid Opening shall cause rejection of the bid and shall not be considered a minor irregularity under C.G.S. § 4b-95 .
2.6.4	See Section 00 40 15 CT DAS Prequalification Forms for instructions on preparing and/or downloading your Firm's " DAS Contractor Prequalification Certificate " and " DAS Update (Bid) Statement ".
2.6.5	Bidder's Certification: Within ten (10) business days after receipt of the Letter of Intent from DAS/CS, the Apparent Low Bidder shall submit a Bidder's Certification certifying that the information in the bid is true, that there has been no substantial change in the Bidder's financial position or corporate structure since its most recent DAS Prequalification Certificate and DAS Update (Bid) Statement and that the bid was made without fraud or collusion with any person. See Section 00 92 10 Additional Forms of this Project Manual for a sample form.

2.7 Named Subcontractor Requirements:	
2.7.1	All Bid Proposals shall be for the complete work as specified and shall include the names of any Subcontractors for the four (4) Classes of Work specified in C.G.S. § 4b-93(a) , as revised, and for each other class of work for which the awarding authority has required a separate section pursuant to said subsection, together with the dollar amounts of their subcontracts. The contractor shall be selected on the basis of such bids.
2.7.2	The Named Subcontractor Bid Price shall be the price set forth in the space provided on the Bid Proposal Form .
2.7.3	No bid shall be rejected because of an error in setting forth the Name of a Subcontractor as long as the Subcontractor or Subcontractors designated are clearly identifiable.
2.7.4	No bid shall be rejected because the Named Subcontractor's plans and specifications do not accompany the bid or are not submitted with the bid.
2.7.5	Failure to correctly state a Named Subcontractor's price on the Bid Proposal Form shall be cause for rejection of the Bid.
2.7.6	Named Subcontractor Replacement: The awarding authority may require the Bidder to replace a Named Subcontractor whenever the awarding authority determines in their sole discretion that such replacement is in the best interest of the State .
2.7.7	Named Subcontractor Substitution:
.1	The awarding authority shall not permit substitution of a subcontractor for one Named in accordance with the provisions of C.G.S. § 4b-95 , as revised, except for "Good Cause" .
.2	The awarding authority shall not permit substitution of a subcontractor for any designated sub-trade work bid to be performed by the Bidder's own forces in accordance with the provisions of C.G.S. § 4b-95 except for "Good Cause" .
.3	"Good Cause": The term "good cause" includes but is not limited to, a subcontractor's or, where appropriate, a Bidder's: (1) death or physical disability, if the listed subcontractor is an individual; (2) dissolution, if a corporation or partnership; (3) bankruptcy; (4) inability to furnish any performance and payment bond shown on the bid form; (5) inability to obtain, or loss of, a license necessary for the performance of the particular category of work; (6) failure or inability to comply with a requirement of law applicable to contractors, subcontractors, or construction, alteration, or repair projects; and (7) failure to perform its agreement to execute a subcontract under C.G.S. § 4b-96, as revised.
2.7.8	Named Subcontractor DAS Prequalification Requirement for Subcontracts exceeding \$500,000:
.1	The Three (3) Apparent Lowest Bidders shall receive <i>VIA EMAIL</i> a "Set-Aside Contractor Schedule Request" ("Request") from the DAS/CS Office of Legal Affairs, Policy, and Procurement. For Subcontracts greater than \$500,000 , the Three (3) Apparent Lowest Bidders shall submit within ten (10) Calendar Days after receipt of the Request current DAS Prequalification Certificate(s) and Update (Bid) Statement(s) for each Named Subcontractor in Table 2.7 of the Bid Proposal Form , to the extent the Class of Work for the Named Subcontractor is a Prequalification Classification . This information shall be considered as part of the Bid Proposal Form and failure to comply with any portion of this requirement may cause rejection of the bid.
.2	Instructions for downloading "DAS Contractor Prequalification Certificates" and "DAS Update (Bid) Statement" can be found in Section 00 40 15 CT DAS Prequalification Forms .
.3	In accordance C.G.S. §4b-91 (j) , no person whose subcontract <i>exceeds</i> five hundred thousand dollars in value may perform work as a subcontractor on a project, which project is estimated to cost more than five hundred thousand dollars and is paid for, in whole or in part, with state funds, <i>unless, at the time of bid submission</i> , the person is prequalified in accordance with C.G.S. §4a-100 , as amended. "Prequalified" includes the contractor's or substantial subcontractor's prequalification classifications, aggregate work capacity ratings and single project limits. For Subcontracts estimated to exceed \$500,000 , the Named Subcontractor must be "prequalified" by DAS in the Class of Work specified in Table 2.7 of Section 00 41 00 Bid Proposal Form <i>at the time of bid submission</i> , pursuant to C.G.S. §4b-91(j) and C.G.S. § 4a-100 , as amended. This requirement also applies to the Bidder, if the Bidder is a Named Subcontractor.
2.7.9	Named Subcontractor Bidder's Qualification Statements (Section 00 45 17)
.1	The Three (3) Apparent Lowest Bidders shall receive <i>VIA EMAIL</i> a "Set-Aside Contractor Schedule Request" ("Request") from the DAS/CS Office of Legal Affairs, Policy, and Procurement. For Projects with estimated Construction Costs greater than \$500,000 , the Three (3) Apparent Lowest Bidders shall submit within ten (10) Calendar Days after receipt of the Request completed Section 00 45 17 Named Subcontractor Bidder's Qualification Statement(s) of this Project Manual for each Named Subcontractor in Table 2.7 of the Bid Proposal Form . This information shall be considered as part of the Bid Proposal Form and failure to comply with any portion of this requirement may cause rejection of the bid.
.2	Important Note: Individual Technical Specification Sections may contain qualification requirements that exceed those from Section 00 45 17 Named Subcontractor Bidder's Qualification Statement .

2.7 Named Subcontractor Requirements (continued):	
2.7.10 Bidder Performing Work as Named Subcontractor:	
.1	In accordance with C.G.S. § 4b-95(c) , it shall be presumed that the Bidder intends to perform, with its own employees, all work in such four (4) Classes of Work and such other classes, for which no Subcontractor is named in Table 2.7 of the Bid Proposal Form . In accordance with C.G.S. § 4b-92 , as revised, the Bidder's qualifications for performing such work shall be subject to review.
.2	If the Bidder has listed itself as a Named Subcontractor(s) for a Class(es) of Work in Table 2.7 of the Bid Proposal Form and the proposed dollar value of the Subcontract(s) is greater than \$500,000, then to the extent the Class(es) of Work is a Prequalification Classification , the Bidder shall provide a current DAS Prequalification Certificate and Update (Bid) Statement for each of the applicable Class(es) of Work within ten (10) Calendar Days after receipt of the "Set-Aside Contractor Schedule Request" from DAS/CS.
2.8 Set-Aside Requirements:	
2.8.1 Bidder's DAS Set-Aside Certificate:	All Small Business Enterprise (SBE) / Minority Business Enterprise (MBE) Bidders shall upload a copy of their Firm's current "DAS Set-Aside Certificate" to BizNet prior to the date and time of the Bid Opening.
2.8.2 Bidder Contract Compliance Monitoring Report For Projects With Construction Costs Estimated To Be Less Than \$500,000:	All Firm's shall upload a completed copy of the CHRO Employment Information Form, " Bidder Contract Compliance Monitoring Report " with their Bid Proposal Form prior to the date and time of the Bid Opening. The report is posted on the CHRO Webpage (http://www.ct.gov/chro/cwp/view.asp?a=2525&Q=315900&chroPNavCtr= 45679).
2.8.3 All Bidders shall be required	to award not less than the percentage(s) stated on page 1 of Section 00 41 00 Bid Proposal Form to Subcontractors who are currently certified and eligible to participate under the State of Connecticut Set-Aside Program for SBE and/or MBE contractors, in accordance with C.G.S. § 4a-60g. Failure to meet these requirements shall cause rejection of the bid. The MBE participation does count as part of the SBE participation.
2.8.4 Set-Aside Contractor Schedule Request:	The SBE/MBE participation requirement <i>must be met</i> even if the Bidder is <i>certified</i> and <i>eligible</i> to participate in the Small Business Set-Aside Program . To facilitate compliance with this requirement for set-aside subcontractors, the Three (3) Apparent Lowest Bidders shall receive VIA EMAIL a "Set-Aside Contractor Schedule Request" ("Request") from the DAS/CS Office of Legal Affairs, Policy, and Procurement. As directed in the Request, the Three (3) Apparent Lowest Bidders shall submit within ten (10) Calendar Days after receipt of the Request, a list of certified set-aside contractors to be used on this project along with the dollar amounts to be paid to each. (See Section 00 73 27 Set-Aside Contractor Schedule for a sample Request.) A copy of the current DAS Set-Aside Certificate for each Subcontracted SBE and/or MBE firm(s) listed in the " Set-Aside Contractor Schedule " must be attached to the Request. This information will be considered as part of your Bid Proposal Form and failure to comply with any portion of this requirement within the ten (10) days, including but not limited to failure to list or meet the necessary dollar amount or percentage of the bid price, will be cause to reject your bid.
2.8.5 Percentage of Work Performed by SBE/MBE Contractors and Subcontractors:	The percentage of the work performed by the SBE/MBE Contractors and Subcontractors on this project shall not be less than the percentage noted in Subsection 5.1 Amount of Work Required to Be Done by "Set-Aside" Contractors of Section 00 73 38 Commission on Human Rights (CHRO) Contract Compliance Regulations .
2.8.6 To view and/or download a Set-Aside Certificate:	Go to the DAS Homepage (www.ct.gov/DAS) > Small and Minority Businesses > Apply for Small Business Enterprise or Minority Business Enterprise Certification (SBE or MBE) > View/Search SBE/MBE Directory.
2.9 Insurance Coverages:	
2.9.1	The Insurance coverages required for this project shall be those listed in Article 35 Contractors Insurance of Section 00 73 13 General Conditions of this Project Manual. See Section 00 41 00 Bid Proposal Form and Section 00 62 16 Certificate of Insurance of this Project Manual for additional details.
2.9.2	The Apparent Low Bidder shall submit the Firm's Certificate of Liability Insurance Acord® form within ten (10) business days after receipt of the Letter of Intent from DAS/CS.

3.0 All Other Required Bid Documents, Affidavits, and Certifications:

3.1 Affidavits and Certifications:

3.1.1 Gift and Campaign Contribution Certification – OPM Ethics Form 1: All Bidders

- .1 **All Bidders:** In accordance with Executive Order No. 49, and pursuant to C.G.S. §§ 4-250, 4-252(c) and 9-612(f)(2), as revised, any principal or key personnel of the person, firm or corporation submitting a bid or proposal for a contract that has a value of **\$50,000** or more, shall be required to upload to BizNet a **Gift and Campaign Contribution Certification** prior to the date and time of the Bid Opening.
- .2 Any bidder or proposer that **does not** upload the **Gift and Campaign Contribution Certification** to BizNet prior to the date and time of the Bid Opening as required under this section shall be **disqualified** and DAS shall award the contract to the next highest ranked proposer or the next lowest responsible qualified bidder or seek new bids or proposals. Failure to upload this form to BizNet **prior** to the date and time of the Bid Opening shall not be considered a minor irregularity under CGS 4b-95.
- .3 Once uploaded, an updated **Gift and Campaign Contribution Certification** shall be uploaded within **30 days** of any changes to the submitted information.
- .4 **Annually**, on or within **two (2)** weeks of the **anniversary** date of the execution of this contract, the Contractor shall upload a completed **Annual Certification** with authorizing resolution. For the purposes of this paragraph, the execution date of the contract will be the date the DAS Commissioner signs the contract.

3.1.2 Consulting Agreement Affidavit – OPM Ethics Form 5: All Bidders

- .1 **All Bidders:** Pursuant to C.G.S. §§ 4a -81a and 4a -81b, as revised, a **Consulting Agreement Affidavit** must be completed and uploaded to BizNet prior to the date and time of the Bid Opening for contracts with a value of **\$50,000** or more.
- .2 In the event that a Bidder or vendor fails or refuses to upload the **Consulting Agreement Affidavit** to BizNet prior to the date and time of the Bid Opening, as required under C.G.S. § 4a-81, such bidder shall be **disqualified** and the award shall be made to the next lowest responsible qualified bidder or new bids or proposals shall be sought. Failure to upload this form to BizNet **prior** to the date and time of the Bid Opening shall not be considered a minor irregularity under CGS 4b-95.
- .3 Once uploaded, an updated **Consulting Agreement Affidavit** shall be amended and uploaded not later than (1) **thirty (30) days** after the effective date of any such change or (2) upon the submittal of any new bid or proposal, whichever is earlier. For the purposes of this paragraph, the **execution date** of the contract will be the date the DAS Commissioner signs the contract.
- .4 Other Contributions by Individuals. Principals of Investment Services Firms, State Contractors, Principals Of State Contractors, Prospective State Contractors Or Principals Of Prospective State Contractors. Lists. Subcontracts Study. State Officials or Employees: All acquisitions, agreements and contracts are subject to the provisions of the C.G.S. § 9-612 regarding **Campaign Contribution or Contributions**.

3.1.3 Ethics Affidavit – OPM Ethics Form 6: All Bidders and Apparent Low Bidder

- .1 **All Bidders:** Pursuant to C.G.S. §§ 1-101mm and 1-101qq, as revised, when DAS/CS is seeking a contract for a large state construction or procurement contract having a cost of more than **\$500,000**, DAS shall inform all potential consultant and contractor firms of the summary of state ethics laws developed by the Office of State Ethics (OSE) pursuant to C.G.S. § 1-81b. "Large State Contract" means an agreement or a combination or series of agreements between a state agency and a person, firm or corporation, having a total value of more than **\$500,000** in a calendar or fiscal year a project for the construction, alteration or repair of any public building or public work. For a **Guide to the Code of Ethics For Current or Potential State Contractors** go to the Office of State Ethics (OSE) website (www.ct.gov/ethics), then click on the "**Publications**" link.
- .2 **All Bidders:** Pursuant to C.G.S. § 1-101qq, as revised, DAS is also required to notify all potential consultant and contractor firms or a large state construction or procurement contract that they must upload an **Affirmation of Receipt of State Ethics Laws Summary** to BizNet prior to the date and time of the Bid Opening affirming that their key employees have read and understand the summary and agree to comply with the provisions of state ethics law.
- .3 Failure to upload this affidavit to BizNet prior to the date and time of the Bid Opening **shall** result in **rejection** of the bid and shall not be considered a minor irregularity under CGS 4b-95.
- .4 **Apparent Low Bidder:** Furthermore, the **Apparent Low Bidder** shall provide the **Summary of the State Ethics Laws** to each **Named Subcontractor** and any other **Subcontractor** or **Subconsultant** with a contract valued over **\$500,000** and obtain a **Subcontractor and Subconsultant State Ethics Affidavit** stating that the key personnel of the subcontractor have read, understand, and agree to comply with provisions of the state ethics laws. The **Apparent Low Bidder** shall submit such subcontractor(s) affidavits to the DAS/CS Office of Legal Affairs, Policy, and Procurement within **ten (10) business days** after receipt of the Letter of Intent from DAS/CS.

3.1 Affidavits and Certifications Forms (continued):	
3.1.4 Iran Certification – OPM Ethics Form 7: All Bidders	
.1	All Bidders: Pursuant to C.G.S. § 4-252a, when DAS/CS is seeking a contract for a large state construction or procurement contract having a cost of more than \$500,000 , an Iran Certification must be completed and uploaded to BizNet prior to the date and time of the Bid Opening .
.2	Pursuant to C.G.S. § 4-252a, <i>“This form must always be submitted with the bid or proposal, or if there was no bid process, with the resulting contract, regardless of where the principal place of business is located. Entities whose principal place of business is located outside of the United States are required to complete the entire form, including the certification portion of the form. United States subsidiaries of foreign corporations are exempt from having to complete the certification portion of the form. Those entities whose principal place of business is located inside of the United States must also fill out the form, but do not have to complete the certification portion of the form.”</i>
3.1.5 Nondiscrimination Certification – Form A, B, C, D, or E: All Bidders	
.1	All Bidders: Pursuant to C.G.S. §§ 4a-60 and 4a-60a, as amended, a contractor must provide an awarding State agency with written representation or documentation that certifies the contractor complies with the State's nondiscrimination agreements and warranties prior to the award of any contract with the State. A Nondiscrimination Certification is required for all State contracts, regardless of type, term, cost or value. The appropriate form must be uploaded to BizNet prior to the date and time of the Bid Opening.
.2	Once uploaded, an updated Nondiscrimination Certification shall be uploaded within 30 days of any changes to the submitted information.
.3	Annually , on or within two (2) weeks of the anniversary date of the execution of this contract, the Contractor shall upload a completed Annual Certification with authorizing resolution. For the purposes of this paragraph, the execution date of the contract will be the date the DAS Commissioner signs the contract.
3.1.6	For instructions on how to electronically download <i>and</i> upload Affidavits and Non-Discrimination Forms , go to the DAS Homepage (www.ct.gov/DAS) > Doing Business with the State > Create a BizNet Account for Doing Business with the State > Documents/Forms > Vendor Guide to Uploading Affidavits and Nondiscrimination Forms Online.
3.2 Security For Faithful Performance:	
3.2.1 Certified Check or Bid Bond: All Bidders	
.1	All Bidders for bids in excess of \$50,000 shall submit <i>either</i> a Certified Check or a Bid Bond , in the form required by the awarding authority. See Section 00 43 16 Standard Bid Bond in BizNet for a template and important instructions regarding submitting the Bid Bond or Certified Check. Complete and upload Section 00 43 16 Standard Bid Bond to Biznet prior to the date and time of the Bid Opening for either the Bid Bond option or the Certified Check option.
.2	Certified Check Option: The Certified Check shall be drawn to the order of “Treasurer, State of Connecticut” , in which it is understood shall be cashed and the proceeds thereof used so far as may be necessary to reimburse the State of Connecticut for losses and damages arising by virtue of the Bidder's failure to file the required Bonds and execute the required contract if this proposal is accepted by the Awarding Authority.
.3	Bid Bond Option: The Bid Bond shall be in the form required by the awarding authority, having as surety thereto such surety company or companies acceptable to the DAS Commissioner and as are authorized to do business in this State, for an amount not less than 10 percent of the bid.
.4	Return of Certified Check: All checks submitted by unsuccessful Bidders shall be returned to them <i>after</i> the contract has been awarded.
.5	Failure to submit the Bid Bond or Certified Check prior to the date and time of the Bid Opening shall cause rejection of the bid and shall not be considered a minor irregularity under CGS 4b-95.
.6	Forfeiture of Certified Check or Bid Bond: Failure of the successful bidder to execute a contract awarded as specified and bid shall result in the forfeiture of the certified check or bid bond.
3.2.2 Performance Bond: Apparent Low Bidder:	Within ten (10) business days after receipt of the Letter of Intent from DAS/CS, the Apparent Low Bidder shall substitute for the certified check or bid bond accompanying its bid an executed performance bond , in the amount not less than 100 percent of the contract price, conditioned upon the faithful performance of the contract, and having as surety thereto such surety company or companies satisfactory to the Commissioner and as are authorized to transact business in this State. This bond is to be furnished pursuant to C.G.S. § 49-41 , as revised. See Section 00 92 10 Additional Forms of this Project Manual for a template.
3.2.3 Labor and Material Bond: Apparent Low Bidder:	Within ten (10) business days after receipt of the Letter of Intent from DAS/CS, the Apparent Low Bidder shall submit a labor and material bond in the amount not less than 100 percent of the contract price which shall be binding upon the award of the contract to such bidder, with surety or sureties satisfactory to the Commissioner and as are authorized to transact business in this State, for the protection of persons supplying labor or materials in the prosecution of the work provided for in the contract for the use of each such person. Any such bond furnished shall have as principal the name of the successful Bidder. This bond is to be furnished pursuant to C.G.S. § 49-41 , as revised. See Section 00 92 10 Additional Forms of this Project Manual for a template.

3.2 Security For Faithful Performance (continued):

3.2.4 The following section of the General Statutes of Connecticut, as revised, is inserted as information concerning this bond and will be incorporated into the Contract for the Work:

C.G.S. § 49-41a. Enforcement of payment by general contractor to subcontractor and by subcontractor to his subcontractors. (a) When any public work is awarded by a contract for which a payment bond is required by section 49-41, the contract for the public work shall contain the following provisions: (1) A requirement that the general contractor, within thirty days after payment to the contractor by the State or a municipality, pay any amounts due any subcontractor, whether for labor performed or materials furnished, when the labor or materials have been included in a requisition submitted by the contractor and paid by the State or a municipality; (2) a requirement that the general contractor shall include in each of its **subcontracts** a **provision** requiring each **subcontractor** to pay any amounts due any of its subcontractors, whether for labor performed or materials furnished, within thirty days after such subcontractor receives a payment from the general contractor which encompasses labor or materials furnished by such subcontractor.

(b) If payment is not made by the general contractor or any of its subcontractors in accordance with such requirements, the subcontractor shall set forth his claim against the general contractor and the subcontractor of a subcontractor shall set forth its claim against the subcontractor through notice by registered or certified mail. Ten days after the receipt of that notice, the general contractor shall be liable to its subcontractor, and the subcontractor shall be liable to its subcontractor, for interest on the amount due and owing at the rate of one percent per month. In addition, the general contractor, upon written demand of its subcontractor, or the subcontractor, upon written demand of its subcontractor, shall be required to place funds in the amount of the claim, plus interest of one per cent, in an interest-bearing escrow account in a bank in this State, provided the general contractor or subcontractor may refuse to place the funds in escrow on the grounds that the subcontractor has not substantially performed the work according to the terms of his or its employment. In the event that such general contractor or subcontractor refuses to place such funds in escrow, and the party making a claim against it under this section is found to have substantially performed its work in accordance with the terms of its employment in any arbitration or litigation to determine the validity of such claim, then such general contractor or subcontractor shall pay the attorney's fees of such party.

(c) No payment may be withheld from a subcontractor for work performed because of a dispute between the general contractor and another contractor or subcontractor.

(d) This section shall not be construed to prohibit progress payments prior to final payment of the contract and is applicable to all subcontractors for material or labor whether they have contracted directly with the general contractor or with some other subcontractor on the work.

3.2.5 Surety Sheet: Apparent Low Bidder: Within **ten (10) business days after** receipt of the Letter of Intent from DAS/CS, the **Apparent Low Bidder shall** submit a Surety Sheet that provides information regarding the Surety Company and Agent. See **Section 00 92 10 Additional Forms** of this Project Manual for a template.

3.3 Certificate (of Authority):

3.3.1 All Bidders for bids in excess of \$50,000 shall upload a signed and scanned **Section 00 40 14 Certificate (of Authority)** to BizNet prior to the date and time of the Bid Opening. See BizNet for a template.

3.3.2 The Apparent Low Bidder shall submit a *second* Certificate (of Authority) within ten (10) business days after receipt of the Letter of Intent from DAS/CS.

3.4 Security Requirements for CT Department of Correction (CT DOC) Facilities:

3.4.1 All Bidders for Projects at a CT DOC Facility shall read and comply with **Section 00 73 63 CT DOC Security Requirements** for Contract Forces on CT DOC Facilities.

3.4.2 *NEW:* All Bidders for Projects at a CT DOC Facility: Prior to the Pre-Bid Meeting, all Bidders shall download the "Security Background Questionnaire" from the CT DOC website (www.ct.gov/doc , under "Forms"), complete and submit the form as directed, and obtain approval, otherwise admission to the Pre-Bid Meeting will be denied. It is recommended that the approved form be brought as evidence of approval to attend the Pre-Bid Meeting.

3.5 Affirmative Action Plan & Employment Information Form (DAS-45): Apparent Low Bidder

3.5.1 For Projects greater than \$500,000 and/or Firms with 50 or more employees, the Apparent Low Bidder shall submit the Firm's Affirmative Action Plan and Employment Information Form (DAS-45) to CHRO within fifteen (15) calendar days after receipt of the "Request for the *Affirmative Action Plan and Employment Information Form* Letter" from DAS/CS. See **Section 00 73 38 Commission on Human Rights and Opportunities/ Contract Compliance Regulations**.

3.5.2 The Apparent Low Bidder shall submit a copy of the Transmittal Letter to the DAS/CS Office of Legal Affairs, Policy, and Procurement within fifteen (15) calendar days after receipt of the "Request for the *Affirmative Action Plan and Employment Information Form* Letter" from DAS/CS.

3.6 Prevailing Wage: Apparent Low Bidder

- 3.6.1 The **Apparent Low Bidder** shall submit the “**Contractor’s Wage Certification Form**” to CT Department of Labor (CT DOL) within **fifteen (15) calendar days after** receipt of the “Request for the *Affirmative Action Plan and Employment Information Form* Letter” from DAS/CS. See **Section 00 73 44 Prevailing Wage Rates/Contractor’s Wage Certification/Payroll Certification** of this Project Manual.
- 3.6.2 Each contractor who is awarded a contract on or after October 1, 2002 shall be subject to provisions of **C.G.S. § 31-53, as revised**. See **Section 00 73 44 Prevailing Wage Rates/Contractor’s Wage Certification/Payroll Certification** of this Project Manual.
- 3.6.3 **Annual Adjustment Of Prevailing Wage Rates:** In determining bid price, consideration should be given to **C.G.S. § 31-53 and 31-55a**, as revised, regarding **annual adjustment of prevailing wage rates**. Annual adjustments of prevailing wage rates will **not** be considered a matter for a contract amendment.

3.7 **NEW PROCESS:** General Permit for the Discharge of Stormwater & Dewatering Wastewaters from Construction Activities: Apparent Low Bidder

- 3.7.1 All DAS/CS construction projects disturbing **one or more total acres of land area** on a site **regardless of project phasing** must file a Department of Energy and Environmental Protection (DEEP) [General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities \(DEEP-WPED-GP-015\)](#) (“Construction Stormwater General Permit” or “General Permit”) registration and Stormwater Pollution Control Plan (SWPCP) with the DEEP. **The DAS/CS Design Consultant shall be responsible for registering the Construction Stormwater General Permit and SWPCP on the DEEP ezFile Portal prior to bidding.**
- 3.7.2 Once the Apparent Low Bidder is under contract with DAS/CS, and prior to the commencement of any construction activities, the Apparent Low Bidder (“Contractor”) shall be required to provide the necessary information from all applicable contractors and/or subcontractors working on the Project to the DAS/CS Design Consultant so the Consultant may finalize the SWPCP and transfer the General Permit obligations to the Contractor.
- 3.7.3 All Contractors and Subcontractors listed on the SWPCP shall be required to sign the SWPCP “Contractor Certification Statement” and License Transfer Form **prior** to commencement of any construction activity.

3.8 Section 00 52 73 Subcontract Agreement Forms: Apparent Low Bidder

- 3.8.1 The **Apparent Low Bidder** shall submit a completed **Section 00 52 73 Subcontract Agreement Form** of this Project Manual for **each** Named Subcontractor within **ten (10) Business Days** after receipt of the “Letter of Intent” from DAS/CS. This information **shall** be considered as part of the **Bid Proposal Form** and failure to comply with any portion of this requirement **may cause rejection** of the bid.
- 3.8.2 Each **Named Subcontractor** shall be the matter of a **Subcontract** as required by **C.G.S. § 4b-96**.

3.9 Non-Resident Contractors and Taxation: Apparent Low Bidder

- 3.9.1 **Nonresident contractors** must comply with the provisions **C.G.S. § 12-430 (7), Procedures for Nonresident Contractors**, and the regulations established pursuant to that section. See **Section 00 92 30 Procedures Regarding Taxation for Nonresident General/Prime Contractor and Subcontractors** of this Project Manual for additional details.
- 3.9.2 **Apparent Low Bidder who is a Nonresident Contractor:** Within **ten (10) business days after** receipt of the “**Letter of Intent**” from DAS/CS, a certificate(s) from DRS must be provided which evidences that C.G.S. §12-430 for non-resident contractors has been met. As described in Section 00 92 30 “Procedures Regarding Taxation for Nonresident General/Prime Contractor and Subcontractors”, **Verified Nonresident** General/Prime Contractors must submit a copy of their “**Notice of Verified Status**” (Verification Letter) from DRS. **Unverified Nonresident** General/Prime Contractors must submit a copy of **Form AU-965 “Acceptance of Surety Bond”** from DRS.

3.10 Certificate of Legal Existence: Apparent Low Bidder

- 3.10.1 A **corporation** that is awarded the contract must comply with the laws of this State regarding the procurement of a certificate of authority to transact business in this State from the **Secretary of the State**. A “**Certificate of Legal Existence**” which is not older than **ninety (90) calendar days** from the date of the contract signing must be filed with the DAS/CS Office of Legal Affairs, Policy, and Procurement within **ten (10) business days after** receipt of the “Letter of Intent” from DAS/CS.

3.11 State Election Enforcement Commission (SEEC) Form 10: Apparent Low Bidder

3.11.1 The **Apparent Low Bidder** shall submit a **State Election Enforcement Commission's (SEEC) Form 10** "Notice to Executive Branch State Contractors and Prospective State Contractors of Campaign Contribution and Solicitation Limitations" within **ten (10) business days after** receipt of the "Letter of Intent" from DAS/CS for contracts with a value of \$50,000 or more.

3.11.2 Pursuant to C.G.S. § 9-612, as revised, a State Contract means an agreement or contract with the state or any state agency or any quasi-public agency having a value in a calendar year of **\$50,000** or more, or a combination or series of such **agreements** or **contracts** having a value of **\$100,000** or more, the **authorized signatory** to this **submission** in response to the State's solicitation expressly **acknowledges receipt** of, and must submit **in writing**, the **SEEC Form 10 notice** advising prospective state contractors of the state campaign contribution and solicitation prohibitions, and will inform its principals of the contents of the **notice**.

3.11.3 For instructions on how to download "**SEEC Form 10**", go to the SEEC Homepage (www.ct.gov/seec); click on "Forms" at the top of the page; click on "Contractor Reporting Forms"; click on "SEEC Form 10" and follow the directions.

3.12 OSHA Training Course: Successful Bidder

3.12.1 Pursuant to **C.G.S. §. 31-53b (a)**, as revised, each contract entered into for the construction, remodeling, refinishing, refurbishing, rehabilitation, alteration or repair of any public building project by the state or any of its agents, or by any political subdivision of the state or any of its agents, where the total cost of all work to be performed by all contractors and subcontractors in connection with the contract is at least **one hundred thousand dollars (\$100,000)**, shall contain a provision requiring that, not later than **thirty (30) days** after the date such contract is awarded, **each contractor furnish proof to the Labor Commissioner** that all employees performing manual labor on or in such public building, pursuant to such contract, have completed a **course of at least ten (10) hours** in duration in **construction safety and health** approved by the federal Occupational Safety and Health Administration or, in the case of telecommunications employees, have completed at **least ten (10) hours** of training in accordance with 29 CFR 1910.268.

4.0 Nondiscrimination and Affirmative Action

This contract is subject to Federal and state laws, including Title VII of the 1964 Civil Rights Act, 42 U.S.C. § 2000e-2(a)(1), and the Connecticut Fair Employment Practices Act, C.G.S. §46a-60 et seq., prohibit various forms of discrimination and illegal harassment in employment.

4.1 Nondiscrimination and Affirmative Action Provisions:

4.1.1 **This section is inserted in connection with C.G.S. § 4a-60, as revised.**

4.1.2 References in this section to "contract" **shall** mean this Contract and references to "contractor" **shall** mean the Contractor/Bidder.

4.1.3 **C.G.S. § 4a-60, as revised:**

(a) Every contract to which the state or any political subdivision of the state other than a municipality is a party shall contain the following provisions:

(1) The contractor agrees and warrants that in the performance of the contract such contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such contractor that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States or of the state of Connecticut; and the contractor further agrees to take affirmative action to insure that applicants with job-related qualifications are employed and that employees are treated when employed without regard to their race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such contractor that such disability prevents performance of the work involved;

(2) The contractor agrees, in all solicitations or advertisements for employees placed by or on behalf of the contractor, to state that it is an "affirmative action-equal opportunity employer" in accordance with regulations adopted by the commission;

(3) The contractor agrees to provide each labor union or representative of workers with which such contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such contractor has a contract or understanding, a notice to be provided by the commission advising the labor union or workers' representative of the contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment;

- (4) The contractor agrees to comply with each provision of this section and sections 46a-68e and 46a-68f and with each regulation or relevant order issued by said commission pursuant to sections 46a-56, 46a-68e and 46a-68f; and
- (5) The contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the contractor as relate to the provisions of this section and section 46a-56.
- (b) If the contract is a public works contract, the contractor agrees and warrants that he will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such public works project.
- (c) (1) Any contractor who has one or more contracts with the state or a political subdivision of the state that is valued at less than fifty thousand dollars for each year of the contract shall provide the state or such political subdivision of the state with a written or electronic representation that complies with the nondiscrimination agreement and warranty under subdivision (1) of subsection (a) of this section, provided if there is any change in such representation, the contractor shall provide the updated representation to the state or such political subdivision not later than thirty days after such change.
- (2) Any contractor who has one or more contracts with the state or a political subdivision of the state that is valued at fifty thousand dollars or more for any year of the contract shall provide the state or such political subdivision of the state with any one of the following:
 - (A) Documentation in the form of a company or corporate policy adopted by resolution of the board of directors, shareholders, managers, members or other governing body of such contractor that complies with the nondiscrimination agreement and warranty under subdivision (1) of subsection (a) of this section;
 - (B) Documentation in the form of a company or corporate policy adopted by a prior resolution of the board of directors, shareholders, managers, members or other governing body of such contractor if (i) the prior resolution is certified by a duly authorized corporate officer of such contractor to be in effect on the date the documentation is submitted, and (ii) the head of the agency of the state or such political subdivision, or a designee, certifies that the prior resolution complies with the nondiscrimination agreement and warranty under subdivision (1) of subsection (a) of this section; or

4.1.3 - C.G.S. § 4a-60, as revised: (continued)

- (C) Documentation in the form of an affidavit signed under penalty of false statement by a chief executive officer, president, chairperson or other corporate officer duly authorized to adopt company or corporate policy that certifies that the company or corporate policy of the contractor complies with the nondiscrimination agreement and warranty under subdivision (1) of subsection (a) of this section and is in effect on the date the affidavit is signed.
- (3) Neither the state nor any political subdivision shall award a contract to a contractor who has not provided the representation or documentation required under subdivisions (1) and (2) of this subsection, as applicable. After the initial submission of such representation or documentation, the contractor shall not be required to resubmit such representation or documentation unless there is a change in the information contained in such representation or documentation. If there is any change in the information contained in the most recently filed representation or updated documentation, the contractor shall submit an updated representation or documentation, as applicable, either (A) not later than thirty days after the effective date of such change, or (B) upon the execution of a new contract with the state or a political subdivision of the state, whichever is earlier. Such contractor shall also certify, in accordance with subparagraph (B) or (C) of subdivision (2) of this subsection, to the state or political subdivision, not later than fourteen days after the twelve-month anniversary of the most recently filed representation, documentation or updated representation or documentation, that the representation on file with the state or political subdivision is current and accurate.
- (d) For the purposes of this section, "contract" includes any extension or modification of the contract, "contractor" includes any successors or assigns of the contractor, "marital status" means being single, married as recognized by the state of Connecticut, widowed, separated or divorced, and "mental disability" means one or more mental disorders, as defined in the most recent edition of the American Psychiatric Association's "Diagnostic and Statistical Manual of Mental Disorders", or a record of or regarding a person as having one or more such disorders. For the purposes of this section, "contract" does not include a contract where each contractor is (1) a political subdivision of the state, including, but not limited to, a municipality, (2) a quasi-public agency, as defined in section 1-120, (3) any other state, as defined in section 1-267, (4) the federal government, (5) a foreign government, or (6) an agency of a subdivision, agency, state or government described in subparagraph (1), (2), (3), (4) or (5) of this subsection.
- (e) For the purposes of this section, "minority business enterprise" means any small contractor or supplier of materials fifty-one per cent or more of the capital stock, if any, or assets of which is owned by a person or persons: (1) Who are active in the daily affairs of the enterprise, (2) who have the power to direct the management and policies of the enterprise, and (3) who are members of a minority, as such term is defined in subsection (a) of section 32-9n; and "good faith" means that degree of diligence which a reasonable person would exercise in the performance of legal duties and obligations. "Good faith efforts" shall include, but not be limited to, those reasonable initial efforts necessary to comply with statutory or regulatory requirements and additional or substituted efforts when it is determined that such initial efforts will not be sufficient to comply with such requirements.
- (f) Determination of the contractor's good faith efforts shall include but shall not be limited to the following factors: The contractor's employment and subcontracting policies, patterns and practices; affirmative advertising, recruitment and training; technical assistance activities and such other reasonable activities or efforts as the commission may prescribe that are designed to ensure the participation of minority business enterprises in public works projects.

- (g) The contractor shall develop and maintain adequate documentation, in a manner prescribed by the commission, of its good faith efforts.
- (h) The contractor shall include the provisions of subsections (a) and (b) of this section in every subcontract or purchase order entered into in order to fulfill any obligation of a contract with the state and such provisions shall be binding on a subcontractor, vendor or manufacturer unless exempted by regulations or orders of the commission. The contractor shall take such action with respect to any such subcontract or purchase order as the commission may direct as a means of enforcing such provisions including sanctions for noncompliance in accordance with section 46a-56; provided, if such contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the commission, the contractor may request the state of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the state and the state may so enter.

4.2 Nondiscrimination Provisions Regarding Sexual Orientation:

4.2.1 This section is inserted in connection with C.G.S. § 4a-60a, as revised.

4.2.2 References in this section to "contract" **shall** mean this Contract and references to "contractor" **shall** mean the Contractor/Bidder.

4.2.3 C.G.S. § 4a-60a, as revised:

- (a) Every contract to which the state or any political subdivision of the state other than a municipality is a party shall contain the following provisions:
 - (1) The contractor agrees and warrants that in the performance of the contract such contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of sexual orientation, in any manner prohibited by the laws of the United States or of the state of Connecticut, and that employees are treated when employed without regard to their sexual orientation;
 - (2) The contractor agrees to provide each labor union or representative of workers with which such contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such contractor has a contract or understanding, a notice to be provided by the Commission on Human Rights and Opportunities advising the labor union or workers' representative of the contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment;
 - (3) The contractor agrees to comply with each provision of this section and with each regulation or relevant order issued by said commission pursuant to section 46a-56; and
 - (4) The contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the contractor which relate to the provisions of this section and section 46a-56.
- (b) (1) Any contractor who has one or more contracts with the state or a political subdivision of the state that is valued at less than fifty thousand dollars for each year of the contract shall provide the state or such political subdivision of the state with a written representation that complies with the nondiscrimination agreement and warranty under subdivision (1) of subsection (a) of this section.
- (2) Any contractor who has one or more contracts with the state or a political subdivision of the state that is valued at fifty thousand dollars or more for any year of the contract shall provide the state or such political subdivision of the state with any of the following:
 - (A) Documentation in the form of a company or corporate policy adopted by resolution of the board of directors, shareholders, managers, members or other governing body of such contractor that complies with the nondiscrimination agreement and warranty under subdivision (1) of subsection (a) of this section;
 - (B) Documentation in the form of a company or corporate policy adopted by a prior resolution of the board of directors, shareholders, managers, members or other governing body of such contractor if (i) the prior resolution is certified by a duly authorized corporate officer of such contractor to be in effect on the date the documentation is submitted, and (ii) the head of the agency of the state or such political subdivision, or a designee, certifies that the prior resolution complies with the nondiscrimination agreement and warranty under subdivision (1) of subsection (a) of this section; or
 - (C) Documentation in the form of an affidavit signed under penalty of false statement by a chief executive officer, president, chairperson or other corporate officer duly authorized to adopt company or corporate policy that certifies that the company or corporate policy of the contractor complies with the nondiscrimination agreement and warranty under subdivision (1) of subsection (a) of this section and is in effect on the date the affidavit is signed.
- (3) Neither the state nor any political subdivision shall award a contract to a contractor who has not provided the representation or documentation required under subdivisions (1) and (2) of this subsection, as applicable. After the initial submission of such representation or documentation, the contractor shall not be required to resubmit such representation or documentation unless there is a change in the information contained in such representation or documentation. If there is any change in the information contained in the most recently filed representation or updated documentation, the contractor shall submit an updated representation or documentation, as applicable, either (A) not later than thirty days after the effective date of such change, or (B) upon the execution of a new contract with the state or a political subdivision of the state, whichever is earlier.

Such contractor shall also certify, in accordance with subparagraph (B) or (C) of subdivision (2) of this subsection, to the state or political subdivision, not later than fourteen days after the twelve-month anniversary of the most recently filed representation, documentation or updated representation or documentation, that the representation on file with the state or political subdivision is current and accurate.

- 4) For the purposes of this section, "contract" includes any extension or modification of the contract, and "contractor" includes any successors or assigns of the contractor. For the purposes of this section, "contract" does not include a contract where each contractor is (A) a political subdivision of the state, including, but not limited to, a municipality, (B) a quasi-public agency, as defined in section 1-120, (C) any other state, as defined in section 1-267, (D) the federal government, (E) a foreign government, or (F) an agency of a subdivision, agency, state or government described in subparagraph (A), (B), (C), (D) or (E) of this subdivision.
- (c) The contractor shall include the provisions of subsection (a) of this section in every subcontract or purchase order entered into in order to fulfill any obligation of a contract with the state and such provisions shall be binding on a subcontractor, vendor or manufacturer unless exempted by regulations or orders of the commission. The contractor shall take such action with respect to any such subcontract or purchase order as the commission may direct as a means of enforcing such provisions including sanctions for noncompliance in accordance with section 46a-56; provided, if such contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the commission, the contractor may request the state of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the state and the state may so enter.

End of Section
00 21 13 Instructions to Bidders



Pre-Bid Meeting Agenda:

DAS ● Construction Services ● Office of Legal Affairs, Policy, and Procurement

1.0 Pre-Bid Meeting:

1.1

The Construction Administrator-Owner/Architect will conduct a Pre-Bid Meeting. For the Pre-Bid Meeting Date, Time, and Location see Section 00 11 16 Invitation To Bid for this Specific Bid.

1.2

Attendance:

1.2.1	General Contractor:	Attendance at the Pre-Bid Meeting is Mandatory .
1.2.2	Subcontractors:	Attendance at the Pre-Bid Meeting is recommended.
1.2.3	Pre-Bid Meeting Sign-in Sheet:	It is Mandatory that all attendees sign the Pre-Bid Meeting Sign-in Sheet .
1.2.4	Unscheduled Site Visits:	IMPORTANT: Please do not make any Site Visits to Old Newgate Prison and Copper Mine Museum Roof(s) Replacement and Exterior Renovations, 115 Newgate Road, East Granby, CT without notifying the DAS Project Manager, Halina Harabasz prior to your intent to visit.

1.3

Bidder Questions:

1.3.1 Submit **written** questions to be discussed at the Pre-Bid Meeting a **minimum of two (2) Calendar Days prior** to Pre-Bid Meeting date. See the **Invitation to Bid** for instructions on submitting questions.

2.0 Pre-Bid Meeting Agenda:

The Pre-Bid Meeting Agenda will include a review of topics, **as applicable to the Project**, which may affect proper preparation and submittal of bids, including, but not limited to, the following:

2.1

Procurement and Contracting Requirements:

2.1.1	Section 00 11 16 – Invitation to Bid
2.1.2	Section 00 21 13 – Instructions to Bidders
2.1.3	Section 00 41 00 – Bid Proposal Form
2.1.4	Section 00 41 10 – Bid Package Submittal Requirements
2.1.5	Section 00 30 00 – General Statements for Available information
2.1.6	Division 50 – Project-Specific Available Information
2.1.7	Bonding
2.1.8	Insurance
2.1.9	Bid Security
2.1.10	Notice of Award



2.0 Pre-Bid Meeting Agenda (continued):

2.2	Communication During Bidding Period:
2.2.1	Obtaining Bid Documents
2.2.2	Access to DAS Website, BizNet, and State Contracting Portal
2.2.3	Bidder's Requests for Information: See General Requirements Sections 01 26 00
2.2.4	Substitution Procedures (Prior to Bid): See General Requirements Section 01 25 00
2.2.5	Substitutions following Contract Award: See General Requirements Section 01 25 00
2.2.6	Addenda Procedures: See Item No. 2.8 of this form
2.3	Contract Considerations:
2.3.1	Allowances: See General Requirements Section 01 20 00
2.3.2	Unit Prices: See General Requirements Sections 01 20 00
2.3.3	Supplemental Bid: See General Requirements Section 01 23 13 or 01 20 00, as applicable
2.4	Construction Documents:
2.4.1	Summary of Work: See General Requirements Section 01 11 00
2.4.2	Temporary Facilities and Controls: See General Requirements Section 01 50 00
2.4.3	Work Sequence: See General Requirements Section 01 11 10 or 01 12 16, as applicable
2.4.4	Work Restrictions: See General Requirements Section 01 14 00
2.5	Separate Contracts:
2.5.1	Work by Owner
2.5.2	Work of Other Contracts
2.6	Project Schedule:
2.6.1	Project Schedule
2.6.2	Contract Time
2.6.3	Liquidated Damages
2.6.4	Other Bidder Questions
2.7	Site/Facility Visit or Walkthrough:
2.7.1	<input checked="" type="checkbox"/> A Site/Facility Visit or Walkthrough is scheduled for the Pre-Bid Meeting
2.7.2	<input type="checkbox"/> A Site/Facility Visit or Walkthrough is NOT scheduled for the Pre-Bid Meeting
2.8	Post Pre-Bid Meeting Addendum:
2.8.1	No Interpretations of the meaning of the plans, specifications or other contract documents will be made orally at any time. Every bidder request for such interpretation shall be in writing to the awarding authority and to be given consideration shall be received at least fourteen (14) Calendar Days prior to the Bid Due Date. Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the specifications which, <i>if</i> issued, will be emailed to the Bidders.



3.0 Pre-Bid Meeting Minutes:

3.1 Recording and Distribution of Pre-Bid Meeting Minutes:

- 3.1.1 The **Construction Administrator - TBD** is responsible for conducting the Pre-Bid Meeting and will record and distribute meeting minutes to attendees **[and others known by the issuing office to have received a complete set of Procurement and Contracting Documents]**.

3.2 Pre-Bid Meeting Minutes as “Available Information”

- 3.2.1 Minutes of the Pre-Bid Meeting are issued as “Available Information” and **do not** constitute a modification to the Procurement and Contracting Documents. **Modifications to the Procurement and Contracting Documents are issued by written Addendum only.**

3.3 Pre-Bid Meeting Sign-in Sheet:

- 3.3.1 Minutes will include the list of meeting attendees.

3.4 List of Planholders:

- 3.4.1 Minutes will include the list of planholders.

00 25 13 Pre-Bid Meeting Agenda



00 30 00 GENERAL STATEMENTS FOR AVAILABLE INFORMATION NOT USED

- A. Summary:** This Section is **not** a Bidding Document, but directs Bidders to **Division 50 00 00 Project-Specific Available Information** that provides project-specific information available for review by Bidders.
- B. Bidder Responsibility:** The Bidder is responsible for information, including but not limited to, any interpretations and opinions of information contained in any plans, reports, evaluations, and logs, or shown on any drawings, or indicated on any drawings. **Division 50 00 00 Project-Specific Available Information** is provided to Bidders for their use in the preparation of a Bid.
- C. Measurement:** **Division 50 00 00 Project-Specific Available Information** **shall** be utilized for determination of payment for the Work during construction of the project.
- D. Payment:** **No** separate payment will be made for **any** Work under **Division 50 00 00 Project-Specific Available Information**.
- E. Related Sections:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section. **See Division 50 00 00 Project-Specific Available Information** for information that is available for this Project.
- F.** Please read the following **General Statement(s)** that describe the type of project-specific information that is available in **Division 50 00 00 Project-Specific Available Information**:

00 30 00	General Statements For Available Information Table Of Contents	Not Used
00 31 19.26	General Statement for Existing Conditions Survey	<input checked="" type="checkbox"/>
00 31 24.13	General Statement for Environmental Assessment Information	<input checked="" type="checkbox"/>
00 31 26.23	General Statement for Hazardous Building Materials Inspection and Inventory	<input type="checkbox"/>
00 31 32.13	General Statement for Subsurface Geotechnical Report	<input checked="" type="checkbox"/>
00 31 33.11	Elevator Agreement	<input checked="" type="checkbox"/>
00 31 33.15	FM Global Checklist for Roofing Systems	<input checked="" type="checkbox"/>



00 31 19.26	GENERAL STATEMENT FOR EXISTING CONDITIONS SURVEY	Not Used <input checked="" type="checkbox"/>
00 31 24.13	GENERAL STATEMENT FOR ENVIRONMENTAL ASSESSMENT INFORMATION	Not Used <input checked="" type="checkbox"/>
00 31 26.23	GENERAL STATEMENT FOR HAZARDOUS BUILDING MATERIALS INSPECTION AND INVENTORY	Not Used <input type="checkbox"/>

A. Related Documents:

Asbestos Abatement:

- Section 01 35 16 Alteration Project Procedures
- Section 02 82 13 Asbestos Abatement
- Section 50 30 00 Hazardous Building Inspection and Inventory

Lead-Based Paint Abatement:

- Section 01 35 16 Alteration Project Procedures
- Section 02 83 13 Lead Paint Activity
- Section 50 30 00 Hazardous Building Inspection and Inventory

B. Description of Work:

1. Work Involving Asbestos Containing Material (ACM): Not Used

- 1.1 The Contractor is responsible for abating all ACM that is visible and accessible as part of this project. See Specification Section 02 82 13.
- 1.2 Testing for asbestos has been conducted at the facility scheduled for renovation, demolition, reconstruction, alteration, remodeling, or repair. Results of the asbestos testing are for information purposes only. Under no circumstance shall this information be the sole means used by the Contractor for determining the extent of asbestos. The Contractor shall be responsible for verification of all field conditions affecting performance of the Work.
- 1.3 The results of testing are located in the **Available Information** Section at the end of the Technical Specification Sections. Refer to Section 01 35 16 - Alteration Project Procedures for more information on Work involving ACM.

2. Work Involving Lead-Based Paint (LBP): Not Used

- 2.1 This facility was constructed **prior to 1978** and is likely to have painted surfaces containing lead-based paint. The Contractor shall conduct all demolition and removal Work, specified in the technical sections of this specification, in conformance with the regulations as specified in Section 01 35 16 - Alteration Project Procedures.
- 2.2 Testing for lead-based paint (LBP) has been conducted at the facility scheduled for renovation, demolition, reconstruction, alteration, remodeling, or repair. The Results of the LBP testing are for information purposes only. Under no circumstance shall this information be the sole means used by the Contractor for determining the extent of LBP. The Contractor shall be responsible for verification of all field conditions affecting performance of the Work.
- 2.3 The results of testing are located in the **Available Information** Section at the end of the Technical Specification Sections. Refer to Section 01 35 16 - Alteration Project Procedures for more information on Work involving LBP.
- 2.4 In accordance with the United States Environmental Protection Agency's (EPA) Lead-Based Paint Renovation, Repair, and Painting Program (RRP) issued by the EPA on April 22, 2008 and regulated by 40 CFR 745, contractors performing renovation, repair and painting projects that disturb lead-based paint in homes, child care facilities, and schools built before 1978 must be certified and must follow specific work practices to prevent lead contamination. EPA requires that firms performing renovation, repair, and painting projects that disturb lead-based paint in pre-1978



homes, child care facilities and schools be certified by EPA and that they use certified renovators who are trained by EPA-approved training providers to follow lead-safe work practices. The Contractor must be a Renovation Firm that has completed an EPA Lead-Safe Certification Program and be certified to conduct lead-based paint activities and renovations under the RRP rule. The Contractor shall have at least one "Certified Renovator" assigned to jobs where LBP is disturbed.

3. Work Involving Polychlorinated Biphenyls (PCBs) in Building Materials: Not Used

- 3.1 If this facility was constructed **between 1950 and 1978** it is likely to have caulk and/or glazing containing PCBs.
- 3.2 Testing for PCBs has been conducted at the facility scheduled for renovation, demolition, reconstruction, alteration, remodeling, or repair. Results of the PCB testing are summarized in **Division 50 00 00 Project-Specific Available Information, Section 50 30 00 Hazardous Building Materials Inspection and Inventory** at the end of the Technical Specification Sections.
- 3.3 The Contractor shall be responsible for verification of all field conditions affecting performance of the Work.

4. Work Involving Mold: Not Used

- 4.1 Testing for Mold has been conducted at the facility scheduled for renovation, demolition, reconstruction, alteration, remodeling, or repair. Results of the Mold testing are summarized in **Division 50 00 00 Project-Specific Available Information, Section 50 30 00 Hazardous Building Materials Inspection and Inventory** at the end of the Technical Specification Sections.
- 4.2 The Contractor shall be responsible for verification of all field conditions affecting performance of the Work.

5. Work Involving Universal Wastes Not Used
(Products Containing Persistent Bioaccumulative Toxic Chemicals (PBT's)):

- 5.1 A Universal Waste Inventory for products containing Persistent Bioaccumulative Toxic Chemicals (PBTs) such as Polychlorinated Biphenols (PCBs), Di-2-ethylhexyl Phthalate (DEHP), and Mercury, has been conducted at the facility scheduled for renovation, demolition, reconstruction, alteration, remodeling, or repair. Results of the inventory are summarized in **Division 50 00 00 Project-Specific Available Information, Section 50 30 00 Hazardous Building Materials Inspection and Inventory** at the end of the Technical Specification Sections.
- 5.2 The Contractor shall be responsible for verification of all field conditions affecting performance of the Work.
- 5.3 Examples of PBT materials include fluorescent light fixtures and exit signs, ballasts, high density discharge (HID) lamps, certain types of construction products containing vinyl, and mercury containing electrical switches and thermostats; for the purposes of this paragraph, PCB's in building material such as caulk and glazing or any other type of material not listed above is not applicable to this paragraph.

End of Section
00 31 26.23 General Statement for Hazardous Building Materials Inventory



**Section 00 30 00
General Statements for Available Information**

Page 4 of 4

00 31 32.13	GENERAL STATEMENT FOR SUBSURFACE GEOTECHNICAL REPORT	Not Used <input checked="" type="checkbox"/>
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00 31 33.11	ELEVATOR AGREEMENT	Not Used <input checked="" type="checkbox"/>
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00 31 33.15	GENERAL STATEMENT FOR FM GLOBAL CHECKLIST FOR ROOFING SYSTEMS	Not Used <input checked="" type="checkbox"/>
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**End of Section
00 30 00 General Statements for Available Information**

Certificate (of Authority)

DAS Construction Services Project No.:

I ,
(Signer's Name)¹ (Signer's Title)

of , an entity lawfully organized and existing under the laws
(Name of Entity)

of , do hereby certify that the following is a true and correct
(Name of State or Commonwealth)

copy of a resolution adopted on the day of , 20 by the governing body of
(Day)² (Month)² (Year)²

, in accordance with all of its documents of governance and
(Name Of Entity)

management and the laws of and further certify that such resolution has not
(Name of State or Commonwealth)

been modified, rescinded or revoked, and is at present in full force and effect.

RESOLVED: that ,
(Name of Signer of Contract Documents)³ (Title of Signer of Contract Documents)³

of is empowered and authorized, on behalf of the entity,
(Name of Entity)

to execute and deliver contracts and amendments thereto, and all documents required by the Governor, the Connecticut Department of Administrative Services, the Connecticut State Properties Review Board and the Office of the Attorney General associated with such contracts and amendments.

IN WITNESS WHEREOF, the undersigned has executed this certificate this day of , 20 .
(Day)⁴ (Month)⁴ (Year)⁴

(Signature)

(Print Name)

(Title)

Reference Notes:

- 1 The signer of this certificate must be someone *other than* the signer of the contract documents *except for* a sole managing member of an LLC or the sole officer or sole principal of a corporation. *If* the signer is a sole managing member of an LLC, *then* along with this certificate the signer must provide a letter on company letterhead that indicates the signer is a sole member and managing member. If the signer is the sole officer or sole principal of a corporation, then the signer must provide with the certificate a letter on company letterhead setting forth this fact.
- 2 This date must be on or before the **date of signing** of the Bid Proposal (or Contract).
- 3 This person shall sign the Contract and other required documents.
- 4 This date must be on or after the **date of signing** of the Bid Proposal (or Contract).

For Your Information:

Certificate (of Authority)

All Bidders:

Complete page 1, print, sign, and scan to PDF. Upload the PDF form to BizNet.

What the **Certificate** is saying is that the organization authorized the signatory to sign the pertinent **documents other than** the Certificate (of Authority) and that, as of the date of **execution** of the CERTIFICATE (i.e., the date set forth in the "In Witness Whereof" blanks) there has been no change in that authorization.

Instructions For Completing The Certificate (of Authority)

The Certificate (of Authority) to Accompany the Bid Proposal Form:

1. 1st Paragraph:

- 1.1 First, enter the name and title of the individual signing the Certificate (of Authority).
- 1.2 Second, enter the legal name of the entity (exactly as it is shown on the Secretary of State registry).
- 1.3 Third, enter the name of the state or commonwealth the entity is registered in.
- 1.4 Fourth, enter the date the resolution was adopted by the governing body. This **date** is **on** or **before** the date the **Bid Proposal** is signed.
- 1.5 Fifth, enter the name of the state or commonwealth the entity is registered in.

2. 2nd Paragraph:

- 2.1 First, enter the name and title of the individual signing bid documents for the entity.
- 2.2 Second, enter the legal name of the entity (exactly as it is shown on the Secretary of State registry).

3. Last Paragraph:

- 3.1 Enter the **Witness Date**¹. This date will likely be the date of execution of the **Bid Proposal form**.

¹ ***This Witness Date Should Not Be Before The Date Of Execution Of The Bid Proposal.***

The Certificate (of Authority) to Accompany the Contract:

1. 1st Paragraph:

- 1.1 First, enter the name and title of the individual signing the Certificate (of Authority).
- 1.2 Second, enter the legal name of the entity (exactly as it is shown on the Secretary of State registry).
- 1.3 Third, enter the name of the state or commonwealth the entity is registered in.
- 1.4 Fourth, enter the date the resolution was adopted by the governing body. This **date** is **on** or **before** the date the **Contract** is signed.
- 1.5 Fifth, enter the name of the state or commonwealth the entity is registered in.

2. 2nd Paragraph:

- 2.1 First, enter the name and title of the individual signing contract documents for the entity.
- 2.2 Second, enter the legal name of the entity (exactly as it is shown on the Secretary of State registry).

3. Last Paragraph:

- 3.1 Enter the **Witness Date**¹. This date will likely be the date of execution of the **Contract**.

¹ ***This Witness Date Should Not Be Before The Date Of Execution Of The Contract.***

End of Section 00 40 14 Certificate (of Authority)

State of Connecticut Department of Administrative Services (DAS) Contractor Prequalification Forms

IMPORTANT INFORMATION – PLEASE READ

For Projects with estimated Construction Costs greater than \$500,000

WHEN YOU SUBMIT A BID YOU MUST INCLUDE WITH YOUR OTHER DOCUMENTS THE FOLLOWING:

1. A copy of your “DAS Contractor Prequalification Certificate”.

This document may be found at the [DAS Contractor Prequalification Search](#):

Go to the DAS Homepage (www.ct.gov/DAS), click on “Doing Business with the State”, click on “Apply for DAS Construction Contractor Prequalification”, click on “How To”, and then click on “Search Prequalified Companies”.

To search for your company, just type in your company name and click on “Go” to pull up your company. When your company information appears you will notice that your company name is shown as a blue link. Just click on this link and it will take you to your Prequalification Certificate.

2. A “DAS Update (Bid) Statement”.

This document may be found and completed on-line at the [Bid Statement Online Application](#).

Go to the DAS Homepage (www.ct.gov/DAS), click on “Doing Business with the State”, click on “Apply for DAS Construction Contractor Prequalification”, click on “Documents/Forms”, click on “Update Bid Statement”, and then click on “Bid Statements”.

Follow instructions in the “[Instructions for Prequalification](#)”.

Go to the DAS Homepage (www.ct.gov/DAS), click on “Doing Business with the State”, click on “Apply for DAS Construction Contractor Prequalification”, click on “How To”, and then click on “View Instructions for Prequalification”.

Should you have any questions or concerns, please call (860) 713-5280.



» **DAS Contractor Prequalification Certificate**

Contractor Prequalification Company Information

Company: **Sample Corporation**

Address: 165 Capitol Avenue
 Hartford, CT 06106

Prequalification Contact: **John T. Reed**

Telephone: (860) 111-2222

Fax: (860) 111-3333

Email: jreed@samplecorp.com

Web Addr: www.samplecorp.com

Contractor Prequalification History

Active Date	Expiration Date	Single Project	AWC
Oct 8, 2004	Oct 7, 2005	\$20,000,000.00	\$50,000,000.00

Prequalification Classification(s)

Classification	Description
GENERAL BUILDING CONSTRUCTION (GROUP C)	The undertaking of general contracts for the construction of buildings (i.e. new construction, renovation, rehabilitation, alteration, addition, etc.). The contract must include a variety of construction practices and supervision of a minimum of three sub-trades. Includes buildings that are truly custom, requiring extensive detailing, or that have large amounts of integrated scientific or complex mechanical/electrical equipment in order for them to function. Examples include hospitals, chemistry buildings, special collections buildings, historic preservation to a landmark structure, and/or any other structure that is truly one of a kind within the State's inventory. Note: If you are prequalified for General Building Construction under Group C, you are automatically prequalified for Group A and Group B.

Prequalification Licenses

License #	Trade	Active	Expire
000009	Asbestos Contractor	Sep 8, 2004	Aug 31, 2005
900235	Major Contractor	Jul 1, 2004	Jun 30, 2005
667 Class A	Demolition Contractor	Apr 1, 2004	Mar 31, 2005

This certificate prequalifies the named company to bid solely. It is not a statement of the company's capacity to perform a specific project. That responsibility lies with the awarding authority.

It is the Department of Administrative Services' (DAS) recommendation that all awarding authorities verify the above information by visiting the DAS website: <http://www.das.state.ct.us> - click on contractor prequalification (under the business section).

For information regarding the DAS Contractor Prequalification Program visit the above mentioned website or call (860) 713-5280.

eProcurement Business Event Services Jobs Human Resources Resource Director News	
CT.gov Home About DAS Contact DAS Press Room DAS Home Quick Links FAQ Site Map	
	The Department of Administrative Services. Review our Privacy Policy. All State disclaimers and permissions apply. Need to contact us? Send e-mail to das.webmaster@state.ct.us
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	The software to view and print Adobe Acrobat documents (PDF Files) is available free from the Adobe website. To get a free copy of the software, click the "Get Acrobat" image.

State of Connecticut
Department of Administrative Services (DAS) Contractor Prequalification
Update Bid Statement
 (Statement to be included with the bid)

Public Act No. 04-141 - AN ACT REVISING PREQUALIFICATION REQUIREMENTS FOR STATE CONSTRUCTION CONTRACTS.

On and after October 1, 2004, each bid submitted for a contract shall include a copy of a prequalification certificate issued by the Commissioner of Administrative Services. The bid shall also be accompanied by an update statement in such form as the Commissioner of Administrative Services prescribes. The form for such update statement shall provide space for information regarding all projects completed by the bidder since the date the bidder's prequalification certificate was issued or renewed, all projects the bidder currently has under contract, including the percentage of work on such projects not completed, the names and qualifications of the personnel who will have supervisory responsibility for the performance of the contract, any significant changes in the bidder's financial position or corporate structure since the date the certificate was issued or renewed, any change in the contractor's qualification status, and such other relevant information as the Commissioner of Administrative Services prescribes. Any bid submitted without a copy of the prequalification certificate and an update statement shall be invalid.

Name of Project that company is bidding on:		
Project Number:		
Name of Company:		
FEIN:		
Company Address:		
Prequalification Contact and Telephone Number		
Date of Prequalification with the DAS:	Single Limit:	Aggregate Work Capacity (AWC):
* This amount equals your company's AWC minus the Total \$ Amount of Work Remaining.		* Remaining Aggregate Work Capacity:

Please list all of your company's (100%) completed projects since date of Prequalification:
 (Please add additional page(s) if required)

Name of Project	Owner of Project	Date Project Completed	Total Contract Amount

(Please add additional page(s) if required. Please total the Work Remaining column)

Name of Project	Owner of Project	Total Contract Amount	% Complete	Work Remaining (\$)
Total \$ Amount of Work Remaining →				

Please list the names and titles of the personnel who will have supervisory responsibility for the performance of the contract being bid on:

(Please add additional page(s) if required)

Individual Name	Title of individual
SAMPLE	

Have there been any changes in your company's financial condition or business organization, which might affect your company's ability to successfully complete this contract?

Yes or No

If yes, please explain:

I, certify under penalty of law that all of the information contained in this Update Statement is true and accurate to the best of my knowledge as of the date below.

Signature

Date

It is the responsibility of the Awarding Authority to determine if any of the information provided above will impact the contractor's performance on this project.

The DAS' Contractor Prequalification Program can be reached at (860) 713-5280

Rev.12.22.2004

Bid Proposal Form
 DAS ● Construction Services ● Office of Legal Affairs, Policy, and Procurement
 450 Columbus Boulevard, Suite 1302 ● Hartford, CT 06103

Date and Time of Bid Opening:	See page 1 of Section 00 11 16 Invitation To Bid.
Instructions for On-Line Bidding:	Follow the instructions in 6001 Construction On-line Bidding Instructions , available for download from the DAS/CS Library (http://portal.ct.gov/DASCSLibrary) > 6000 Series – Bid Phase Forms. For questions, call 860-713-5794 or 860-713-5783.

- Instructions for Completing This Bid Proposal Form:**
- **Download** and **save** the Bid Proposal Form to your computer. Close the form. Open your *saved* Bid Proposal Form and type required information in blue boxes. (Remember to keep saving to your computer.)
 - On your Word Toolbar, **click “View” then “Edit Document” or “Print Layout”** in order to edit the form.
 - When your Bid Proposal Form is complete, perform a final “save” to your computer! **Print ALL pages and sign** your Bid Proposal Form. **Scan ALL** pages of your Bid Proposal Form to **PDF**. Upload the **PDF** Bid Proposal Form to BizNet.
 - **Duly Authorized Signature:** A duly authorized representative of the Bidder or Bidder’s partnership, firm, corporation or business organization must sign the Bid Proposal Form.
 - **No Facsimile Signature** is permitted. **All information below** is to be filled in by the **Bidder**.
 - *If* an Addendum is issued that **changes** the **Bid Proposal Form** *then* the **Revised Bid Proposal Form** (issued with the Addendum) **must** be uploaded instead.
 - Upload to BizNet **only** the additional **Bid Package Documents** as described in **Table 1** of **Section 00 41 10 Bid Package Submittal Requirements**.
 - A signed and scanned **Certificate (of Authority), Section 00 40 14, must** be uploaded to Biznet **prior** to the date and time of the Bid Opening.
 - *Any Bid Proposal Form* that has omitted or added items, altered the form, contains conditional, alternative, or obscure bids, or is submitted *without* the signature of the bidder or its authorized representative, **will be rejected**.
 - See **Section 00 21 13 Instructions to Bidders** for additional information.

1.0 General Bid Proposal Information:	
Construction Costs:	Greater Than \$500,000
Bidding Limited To :	Contractors Prequalified by DAS for General Building Construction (Group C)
Threshold Limits: (C.G.S. §29-276b)	This Project DOES NOT exceed Threshold Limits.
Set Aside Requirements:	The requirements for Set-Aside participation for Small Business Enterprise (SBE) & Minority Business Enterprise (MBE) firms have been waived.
Project Title:	Old Newgate Prison and Copper Mine Museum Roof(s) Replacement and Exterior Renovations
Project Location:	115 Newgate Road East Granby, CT
Project Number:	BI-RR-30
Pre-Bid Meeting:	See Section 00 11 16 Invitation to Bid and Section 00 25 13 Pre-Bid Meeting .
Plans and Specifications prepared by A/E:	OakPark Architects, LLC, 312 Park Road, West Hartford, CT 06119

1.1 Commencement and Acceptance: (See Section 00 73 13 General Conditions, Article 4 - Commencement and Progress of Work and Article 1 - Definitions)

The Selected Bidder shall commence Work within **fourteen (14) Calendar Days after** receiving a “**Construction Start Date and Notice to Proceed**” by the Commissioner or authorized representative and continue for

120
90

Calendar Days for “**Substantial Completion**” of the project; **and** then continue

90

Calendar Days for “**Acceptance**” of the Work.

1.2 Liquidated Damages: (See Section 00 73 13 General Conditions, Article 8 – Damages & Article 1 - Definitions)

1.2.1 Liquidated Damages – Substantial Completion:

The Selected Bidder shall be assessed \$

1,065.00

 per **Calendar Day beyond** the date established for Substantial Completion of the Contract according to the **Contract Time** as defined in **Article 1.28 of Section 00 73 13 General Conditions**, and not otherwise excused or waived pursuant to the Contract Documents, as defined in **Article 1.23 of Section 00 73 13 General Conditions**.

1.2.2 Liquidated Damages – Acceptance:

The Selected Bidder shall be assessed \$

984.00

 per **Calendar Day beyond ninety (90) days after** the date of said Substantial Completion that the Selected Bidder fails to achieve **Acceptance**, as defined in **Article 1.1 of Section 00 73 13 General Conditions** and not otherwise excused or waived as described above.

1.3 Bid Proposal Statements and Conditions: This **Bid Proposal Form** shall be submitted according to, and in compliance with, the foregoing and following statements, conditions, and/or information:

1.3.1 This Bid Proposal Form is submitted in accordance with Chapter 60 Construction And Alterations Of State Buildings, Part II Bidding And Contracts of the Connecticut General Statutes (C.G.S.), as amended, particularly C.G.S. § 4b-91(a)(5)(A) – (C), and pursuant to, and in compliance with, the **Invitation to Bid** (Section 00 11 16), the **Instructions to Bidders** (Section 00 21 13), the **Bid Package Submittal Requirements** (Section 00 41 10), and the **Contract** (Section 00 52 03).

1.3.2 The Bidder proposes to furnish the labor and/or materials, installed as required for the Project named and numbered on this **Bid Proposal Form**, submitted herein, furnishing all necessary equipment, machinery, tools, labor and other means of construction, and all materials specified in the manner and at the time prescribed strictly in accordance with the provisions of the **Contract** including, but not limited to, the specifications and/or drawings together with all **Addenda** issued by the Awarding Authority and received by the Bidder, prior to the scheduled **Date and Time of the Bid Opening** as stated on **page 1** of the **Invitation To Bid**, and in conformity with requirements of the Awarding Authority and any laws or Departmental regulations of the State of Connecticut or of the United States which may affect the same, for and in consideration of the price(s) stated on this **Bid Proposal Form**, hereof.

1.3.3 The Bidder acknowledges that the **Proposed Lump Sum Base Bid** submitted on this **Bid Proposal Form** includes all work indicated on the drawings and/or described in the specifications, **except** for the **Contingent Work** described in **Subsection 2.4**.

1.3.4 The Bidder acknowledges and agrees to furnish all labor and materials required for this **Project**, in accordance with the accompanying **Plans and Specifications** prepared by the **Architect/Engineer** listed on **page 1** of this Bid Proposal Form, for the **Contract Sum** specified in the **Proposed Lump Sum Base Bid** in **Subsection 2.1** of this Bid Proposal Form, subject to **additions** and **deductions** according to the terms of the specifications, and including the number of **Addenda** stated in **Subsection 2.2** of this Bid Proposal Form.

1.4 Award:

1.4.1 All Bid Proposals shall be subject to the provisions of **Section 00 21 13 Instructions to Bidders** and for purpose of award, consideration shall be given only to Bid Proposals submitted by qualified and responsible Bidders.

1.4.2 The award shall be made on the **lowest Lump Sum Bid** and any or all **Supplemental Bid(s)** as stated in **Subsection 2.4.2** of this **Bid Proposal Form**, taken sequentially, as applicable, provided funds are available.

1.4.4 In the event of any **discrepancy** between the amount written in words and the amount written in numerical figures, the amount written in words shall be controlling.

2.0 Bid Proposal Requirements:

Bidder Information:

Bid Uploaded On:
(Month) (Day) (Year)

Proposal Of:
(Complete Bidder's Legal Company Name As Registered With the CT Secretary of State)

Firm Address: , ,
(Avenue / Street) (Town / City) (State) (Zip Code)

Contact Person:
(Name) (Title)

Contact Information:
(Phone Number) (Fax Number) (Email Address)

Threshold Project: Major Contractor Registration License No.:

All Bidders for Projects that exceed Threshold Limits (see page 1 of this Bid Proposal Form): Insert your Firm's **Major Contractor Registration License Number** in the space provided above. **NOTE:** If this Project does **NOT** exceed Threshold Limits, insert **"Not Applicable"** in the blue box above. Delete this note by **pressing the spacebar**.

2.1 Proposed Lump Sum Base Bid:

2.1.1 All Bidders: Insert the **Proposed Lump Sum Base Bid** in the spaces provided below, including **both numerical figures** and **"printed words" dollar amount**. The **Proposed Lump Sum Base Bid** shall *include* all **Allowances**, all work indicated on the drawings and/or described in the specifications **except for Contingent Work**.

2.1.2 The **Proposed Lump Sum Base Bid** shall be shown in **both numerical figures** and **"printed words" dollar amount**. In the event of any discrepancy the **"printed" words dollar amount** shall govern.

2.1.3 The **Proposed Lump Sum Base Bid** is:

\$
(Place Numerical Figures in the Box Above)

Dollars
(Insert "Printed Words" Dollar Amount in the Box Above)

2.2 Number of Addenda:

2.2.1 All Bidders: Insert the **Number of Addenda** issued by the State of Connecticut in the space provided below.

2.2.2 Failure to acknowledge the **correct number** of all **Addenda** in **the box below** in this **Bid Proposal Form** shall cause **rejection** of the bid.

2.2.3 The Bidder acknowledges that their **Proposed Lump Sum Base Bid Proposal** **includes:**

Number of Addenda. If none, enter "0".

2.3 Allowances:

See Section 01 20 00 Contract Considerations in Division 01 General Requirements for Allowances for applicability.

2.4 Contingent Work:

2.4.1 Base Bid Quantities and Defined Unit Prices: See **Section 01 20 00 Contract Considerations** in Division 01 General Requirements for **applicability** regarding Base Bid Quantities and Defined Unit Prices for Earth and Rock Excavation, Miscellaneous Items, Alterations Items, Environmental Remediation, and/or Hazardous Building Materials Abatement.

2.4.2 Supplemental Bids:

.1 See **Section 01 23 13 Supplemental Bids** in Division 01 General Requirements for **applicability**.

.2 **All Bidders: If Supplemental Bids are applicable** to this Project, insert the **Supplemental Bids** in the spaces provided below. Any **Supplemental Bids** listed below, *if* accepted by the Owner, will be taken cumulatively and in numerical order as scheduled. No Supplemental Bid will be skipped or taken out of numerical order as scheduled.

Supplemental Bid No. 1: NOT APPLICABLE		
ADD: \$	<input style="width: 90%;" type="text"/>	<input style="width: 90%;" type="text"/> Dollars
	<i>(Insert Numerical Figures)</i>	<i>(Insert "Printed Words" Dollar Amount)</i>
Supplemental Bid No. 2: NOT APPLICABLE		
ADD: \$	<input style="width: 90%;" type="text"/>	<input style="width: 90%;" type="text"/> Dollars
	<i>(Insert Numerical Figures)</i>	<i>(Insert "Printed Words" Dollar Amount)</i>
Supplemental Bid No. 3: NOT APPLICABLE		
ADD: \$	<input style="width: 90%;" type="text"/>	<input style="width: 90%;" type="text"/> Dollars
	<i>(Insert Numerical Figures)</i>	<i>(Insert "Printed Words" Dollar Amount)</i>
Supplemental Bid No. 4: NOT APPLICABLE		
ADD: \$	<input style="width: 90%;" type="text"/>	<input style="width: 90%;" type="text"/> Dollars
	<i>(Insert Numerical Figures)</i>	<i>(Insert "Printed Words" Dollar Amount)</i>

2.5 Bidder's Qualification Statement and Objective Criteria for Evaluating Bidders:

2.5.1 All Bidders: Download **Section 00 45 14 General Contractor Bidder's Qualification Statement** from BizNet for a template and instructions. Complete and upload **Section 00 45 14 General Contractor Bidder's Qualification Statement** to Biznet **prior** to the date and time of the Bid Opening. Information with regards to the **General Contractor's Bidder's Qualification Statement** is submitted and is made part of this **Bid Proposal Form**. Failure of a Bidder to answer any question or provide required information **shall** be grounds for the awarding authority to **disqualify** and **reject** the bid, pursuant to Connecticut General Statutes §4b-92.

2.5.2 All Bidders shall comply with **Section 00 45 15 Objective Criteria Established for Evaluating Qualifications of Bidders**. **Note:** Individual Specification Sections may contain General Contractor and/or Subcontractor Qualification requirements that exceed those in **Section 00 45 15 Objective Criteria Established for Evaluating Qualifications of Bidders**.

2.6 Bidder's Prequalification Requirements for Projects Exceeding \$500,000:

All Bidders for Projects with estimated Construction Costs greater than \$500,000: Upload to BizNet a current copy of your Firm's "**DAS Contractor Prequalification Certificate**" and "**Update (Bid) Statement**" for the applicable **Class of Work** on **page 1** of this **Bid Proposal Form** **prior** to the date and time of the Bid Opening. Failure to comply with this requirement **shall** cause rejection of the bid and shall not be considered a minor irregularity under **C.G.S. § 4b-95**. See **Section 00 40 15 CT DAS Prequalification Forms** for instructions on preparing and/or downloading your Firm's "**DAS Contractor Prequalification Certificate**" and "**DAS Update (Bid) Statement**".

2.7 Named Subcontractors and Classes of Work:

2.7.1 All Bidders for Projects with one or more Classes of Work checked in Table 2.7 below: Complete Table 2.7 according to the instructions below. Failure to properly provide all of the **required information** in Table 2.7 may cause **rejection** of the bid.

Table 2.7: Named Subcontractors and Classes of Work:

<input type="checkbox"/>	Electrical Work: NOT APPLICABLE	Complete Subcontractor Name:	
		Proposed Dollar Value of Subcontract:	\$
<input type="checkbox"/>	HVAC Work: NOT APPLICABLE	Complete Subcontractor Name:	
		Proposed Dollar Value of Subcontract:	\$
<input type="checkbox"/>	Masonry Work: NOT APPLICABLE	Complete Subcontractor Name:	
		Proposed Dollar Value of Subcontract:	\$
<input type="checkbox"/>	Plumbing Work: NOT APPLICABLE	Complete Subcontractor Name:	
		Proposed Dollar Value of Subcontract:	\$
<input type="checkbox"/>	Environmental Remediation: NOT APPLICABLE	Complete Subcontractor Name:	
		Proposed Dollar Value of Subcontract:	\$
<input checked="" type="checkbox"/>	Hazardous Materials Abatement: Enter information in blue boxes below:	Complete Subcontractor Name:	
		Proposed Dollar Value of Subcontract:	\$

2.7.2 Instructions For Table 2.7:

- .1 Each **Class of Work** set forth in a separate section of the specifications pursuant to this Section shall be a **subtrade** designated in **Table 2.7** of this **Bid Proposal Form** and shall be the matter of a **subcontract**.
- .2 When a box is checked in **Table 2.7**, the Bidder shall insert the name of the Subcontractor with the **largest** proposed Subcontract Value; this is known as the **“Named Subcontractor”**. The Bidder shall provide all of the information for each **checked Class of Work**.
- .3 If a **Bidder** intends to use a **Subcontractor** to perform **any portion** of the Named **Classes of Work**, including circumstances where the Subcontractor is a Small Business Enterprise (SBE) or a Minority Business Enterprise (MBE), *then* it must list the Subcontractor or SBE/MBE Subcontractor as the case may be, for such Class of Work. A **Bidder** may **not** substitute itself for any of the Named Classes of Work. The Bidder **should not list itself** as the **Named Subcontractor** if it intends to use a **Subcontractor** to perform any portion of the Classes of Work listed in **Table 2.7**. The Bidder should name the Subcontractor.
- .4 For each **Class of Work** specified in **Table 2.7**, the Bidder shall list the **Subcontractor** with the **largest Proposed Dollar Value of Subcontract** for each Class of Work as the **Named Subcontractor** and the **Proposed Dollar Value** of its Subcontract. If the Bidder intends to use **more than one** Subcontractor to perform a Class of Work, then it shall indicate the Subcontractor Name and Subcontract Value for the **largest** single Named Subcontractor.
- .5 If a Bidder customarily performs any of the specified Classes of Work and is Prequalified by DAS for the Class of Work *at the time of the Bid Opening Date* if the work is greater than \$500,000, the Bidder may list **itself** as a Subcontractor together with its **price** in the space provided in **Table 2.7**. Failure to properly provide all of the **required information** in **Table 2.7** **shall cause rejection** of the bid.
- .6 If the Bidder does **not** name **itself** or a **Subcontractor** for a specified Class of Work, it shall be presumed that the Bidder intends to perform with its own employees **all work** in such specified classes. The Bidder shall be required to perform with its own employees **all** of the work of the specified class. Subcontracting any portion of such specified class of work subsequently, will be considered a violation of **C.G.S. § 4b-95** and subject the Bidder to disqualification under **C.G.S. § 4b-95(e)**.
- .7 In the event the Bidder either lists itself or is presumed to perform with its own employees all work in a specified class, no such sub-bid by a Bidder shall be considered unless the Bidder can show to the satisfaction of the awarding authority, based on objective criteria established for such purpose, that it customarily performs such subtrade work and is qualified to do the character of work required by the applicable section of the specifications.

2.8 Set Aside Requirements: (see Section 00 73 38 "CHRO Contract Compliance Regulations")

2.8.1 All SBE/MBE Bidders: Submit a current copy of your Firm's "DAS Set-Aside Certificate" *with* your Bid Proposal Form *prior* to the date and time of the Bid Opening.

2.8.2 For Projects Less Than \$500,000: Upload a completed copy of the CHRO Employment Information Form, "Bidder Contract Compliance Monitoring Report" *with* your Bid Proposal Form *prior* to the date and time of the Bid Opening. The report is on the CHRO Webpage (<http://www.ct.gov/chro/cwp/view.asp?a=2525&Q=315900&chroPNavCtr=#45679>).

2.8.3 All Bidders shall be required to award not less than the percentage(s) stated on **page 1 of this Bid Proposal Form** to Subcontractors who are currently certified and eligible to participate under the State of Connecticut Set-Aside Program for **SBE and/or MBE** contractors, in accordance with C.G.S. § 4a-60g. **Failure** to meet these requirements **shall** cause rejection of the bid.

2.9 Insurance Coverages: The **limits of liability** for the Insurance required for this project shall be those listed in **Article 35 Contractors Insurance of Section 00 73 13 General Conditions**. Also see Section 00 62 16 Certificate of Insurance.

2.9.1 Special Hazards Insurance:

None is Required.

"X-C-U" Coverage (explosion, collapse, and underground damage) **shall be required** in accordance with **Article 35 Contractors Insurance of Section 00 73 13 General Conditions**.

Asbestos Abatement Insurance is required.

2.9.2 Builders Risk Insurance:

None is Required.

The Bidder **shall be required to maintain Builder's Risk Insurance** providing coverage for the entire Work at the project site, portions of the Work located away from the site but intended for use at the site, and portions of the Work in transit. Coverage shall be written on an All-Risk, Replacement Cost, and completed Value Form basis in an amount at least equal to the projected completed value of the Work and the policy shall state that the State of Connecticut shall be named as a loss payee not as an additional insured for these coverages.

2.9.3 Commercial General Liability Insurance:

NOTE: There is a new requirement regarding **commercial general liability (CGL) insurance**: All selected firms are required to provide an endorsement to the CGL insurance stating that the State of Connecticut is an additional insured. Please be advised that a blanket endorsement **may not** be acceptable.

2.9.4 Owners and Contractors Protective Liability Insurance:

The Bidder shall maintain **Owner's and Contractor's Protective Liability** insurance providing a total limit of **\$1,000,000** for all damages arising out of bodily injury or death of persons in any one accident or occurrence and for all damages arising out of injury or destruction of property in any one accident or occurrence and subject to a total (aggregate) limit of **\$2,000,000** for all damages arising out of bodily injury to or death of persons in all accidents or occurrences and out of injury to or destruction of property during the policy period. This coverage shall be for and in the name of the State of Connecticut.

2.9.5 Umbrella Liability Insurance:

This project requires **Umbrella Liability Insurance**. The Bidder shall provide an endorsement to the Umbrella Liability Insurance stating that the State of Connecticut is an additional insured. Select the correct **Umbrella Limit** for this **Project's Contract Value** using the "Umbrella Liability Insurance Table" below.

Umbrella Liability Insurance Table:			
Contract Value			Umbrella Limit
\$1.00	to	\$500,000.00	\$1,000,000.00
\$500,000.01	to	\$1,000,000.00	\$2,000,000.00
\$1,000,000.01	to	\$10,000,000	\$5,000,000.00
\$10,000,000.01	to	\$30,000,000	\$10,000,000.00
\$30,000,000.01	to	\$80,000,000	\$15,000,000.00
\$80,000,000.01	to	\$150,000,000	\$20,000,000.00
\$150,000,000.01	to	\$300,000,000	\$25,000,000.00

3.0 Bid Proposal Acknowledgements:

The Bidder *acknowledges and agrees* to the following:

3.1 To Upload to BizNet Submit the Bid Proposal Form (all pages), All Other Bid Documents, Affidavits, and Certifications:

3.1.1 The Bidder acknowledges and agrees to electronically upload to DAS BizNet all pages of the **Bid Proposal Form, All Other Bid Documents, Affidavits, and Certifications**, as stated in as stated in **Section 00 21 13 Instructions to Bidders and Section 00 41 10 Bid Package Submittal Requirements**.

3.1.2 Failure to upload any of the items marked with an asterisk (*) in **Table 1** of **Section 00 41 10 Bid Package Submittal Requirements** *shall* cause rejection of the bid and *shall not* be considered a minor irregularity under **C.G.S. § 4b-95**.

3.1.3 If there are any delays in the receipt of other documents then the Bid shall remain valid for the same additional number of days. For example, if the documents are submitted four (4) Calendar Days later; then the bid shall remain valid for ninety-four (94) Calendar Days.

3.1.4 Failure to submit the documents before the stated deadline **may** result in rejection of the bid at the sole discretion of the Commissioner of Administrative Services.

3.2 To Hold Bid Price:

The Bidder acknowledges and agrees to hold the **Proposed Lump Sum Base Bid** in **Subsection 2.1** of this Bid Proposal Form for **ninety (90) Calendar Days** and any extensions caused by the Bidder's delays in required submissions. The Bidder and the State may mutually agree to extend this period. The agreement to extend the **ninety (90) Calendar Day** period may occur after the expiration of the original **ninety (90) Calendar Day** period.

3.3 To Use and Accept Allowances:

When applicable to this Project, the Bidder *acknowledges and agrees* to accept and use the **Allowances** as shown in **Section 01 20 00 Contract Considerations** of Division 01 General Requirements as part of the **Proposed Lump Sum Base Bid** listed in **Subsection 2.1** of this Bid Proposal Form.

3.4 To Use and Accept the Following Contingent Work:

3.4.1 Unit Prices: When applicable to this Project, the Bidder *acknowledges and agrees* to accept and use the **Units, Add Unit Prices, and Deduct Unit Prices** as shown in **Section 01 20 00 Contract Considerations** of Division 01 General Requirements in evaluating either additions to or deductions from the Work.

3.4.2 Supplemental Bid: When applicable to this Project and if accepted by the Owner, the Bidder *acknowledges and agrees* to provide all labor, material and equipment to complete the Work in accordance with the **Supplemental Bid** described in **Section 01 23 13 Supplemental Bids** of Division 01 General Requirements and provided by the Bidder in **Subsection 2.4.2** of this Bid Proposal Form.

3.5 To Use the Named Subcontractors Listed in Table 2.7:

The Bidder *agrees* that each of the **Named Subcontractors** stated in **Table 2.7** of this Bid Proposal Form will be used for the **Class of Work** indicated, for the **Proposed Total Subcontract Value dollar amount stated**, unless a **substitution** is permitted by the awarding authority as provided for in and in accordance with C.G.S. § 4b-96, as amended.

3.6 To Make Good Faith Efforts to Employ MBEs:

The Bidder acknowledges and agrees to make **good faith efforts** to employ **Minority Business Enterprises (MBEs)** as **Subcontractors** and **Suppliers** of materials under such Contract.

3.7 To Submit a Certified Check or Bid Bond (if required):

The Bidder acknowledges and agrees to submit a **Certified Check** or **Standard Bid Bond** *prior* to the due date and time of the Bid Opening (if required). Download **Section 00 43 16 Standard Bid Bond** from BizNet for a template and instructions.

3.8 To Accept the Current Prevailing Wage Rate Schedule:

The U. S. Secretary of Labor's latest decision and the State of Connecticut Department of Labor (DOL) Prevailing Wage Rate Schedule are all incorporated in the documents. The higher rate (Federal or State) for any given occupation shall prevail. At the time of bidding, the Bidder agrees to accept the current Prevailing Wage Rate Schedule, as well as the annual adjustment to the prevailing wage rate that is in effect each July 1st, as provided by DOL. See **Section 00 73 44 Prevailing Wage Rates/Contractor's Wage Certification/Payroll Certification**. Annual adjustments of prevailing wage rates will *not* be considered a matter for a contract amendment with DAS/CS.

3.0 Bid Proposal Acknowledgements (continued):

3.9 To Comply With CHRO Requirements:

If applicable, the Apparent Low Bidder acknowledges and agrees to provide the Commission on Human Rights and Opportunities with such information as is requested by the Commission concerning their **employment practices and procedures** as they relate to the current provisions of the Connecticut General Statutes governing Contract requirements within **fifteen (15) calendar days after** receipt of the "Request for the *Affirmative Action Plan and Employment Information Form Letter*" from the DAS/CS Office of Legal Affairs, Policy, and Procurement.

3.10 To Ensure Executive Order No. 11246 for Equal Employment Opportunity & Non-Segregated Facilities Has Been Met:

The Apparent Low Bidder acknowledges and agrees to ensure that Executive Order No. 11246 for Equal Employment Opportunity & Non-Segregated Facilities has been met for their firm and their Subcontractors. The Apparent Low Bidder also agrees to certify (if required) to the compliance of non-segregated facilities.

3.11 To Obtain and Maintain Required Insurance Coverages:

The Bidder acknowledges and agrees to obtain and maintain the required Insurance Coverages and submit the Firm's "**Certificate of Liability Insurance Acord® form**" within **ten (10) business days after** receipt of the "Letter of Intent" from the DAS/CS Office of Legal Affairs, Policy, and Procurement, as discussed in **Section 00 62 16 Certificate of Insurance** and **Article 35, "Contractors Insurance"** in **Section 00 73 13 General Conditions**.

3.12 To Comply With Security Requirements for CT Department of Correction Facilities:

When applicable to this Project, the Bidder acknowledges and agrees to comply with **Section 00 73 63 CT Department of Correction (CT DOC) Security Requirements** for Contract Forces on CT DOC Facilities.

3.13 To Ensure C.G.S. § 12-430 for Non-Resident Contractors Has Been Met:

If applicable, the Apparent Low Bidder acknowledges and agrees to provide either a copy of the "**Notice of Verified Status**" (Verification Letter) from the Connecticut Department of Revenue Services (DRS) (for **Verified Nonresident** General/Prime Contractors) or a copy of **Form AU-965 "Acceptance of Surety Bond"** from DRS (for **Unverified Nonresident** General/Prime Contractors) within **ten (10) business days after** receipt of the "Letter of Intent" from the DAS/CS Office of Legal Affairs, Policy, and Procurement which evidences that **C.G.S. § 12-430** for non-resident contractors has been met, as described in **Section 00 92 30 Procedures Regarding Taxation for Nonresident General/Prime Contractor and Subcontractors**.

3.14 To Execute Contract:

If selected as the Prime Contractor, the Bidder acknowledges and agrees to **execute a Contract** in accordance with the terms of this **Bid Proposal Form** and the **Contract** within **fifteen (15) Calendar Days** (legal State holidays excluded) **after** notification thereof by the awarding authority. See **Section 00 52 03 Contract** for a sample.

4.0 Confidentiality of Documents:

- 4.1** The **undersigned** agrees that if not selected as the Prime Contractor for this project, all plans and specifications in their possession for the project shall be destroyed.
- 4.2** The **undersigned** agrees that if selected as the Prime Contractor for this project:
- 4.2.1** The **plans and specifications** shall not be disseminated to anyone except for construction of this project.
- 4.2.2** The **following provision** shall be included in all of its contracts with subcontractors and sub-consultants:
- “Any and all drawings, specifications, maps, reports, records or other documents associated with the contract shall only be utilized to the extent necessary for the performance of the work and duties under this contract. Said drawings, specifications, maps, reports, records and other documents may not be released to any other entity or person except for the sole purpose of the work described in this contract. No other disclosure shall be permitted without the prior written consent of DAS Construction Services. When any such drawings, specifications, maps, reports, records or other documents are no longer needed, they shall be destroyed.”*
- 4.2.3** Upon completion of the construction and the issuance of a certificate of occupancy, the plans and specifications shall be returned to DAS Construction Services, or destroyed, or retained in a secure location and not released to anyone without first obtaining the permission of DAS Construction Services.

5.0 Bid Proposal Declarations:

I (we), the undersigned, hereby declare that I am (we are) the only person(s) interested in the Bid Proposal and that it is made without any connection with any other person making any Bid Proposal for the same work. No person acting for, or employed by, the State of Connecticut is directly or indirectly interested in this Bid Proposal, or in any Contract which may be made under it, or in expected profits to arise therefrom. This Bid Proposal is made without directly or indirectly influencing or attempting to influence any other person or corporation to bid or refrain from bidding or to influence the amount of the Bid Proposal of any other person or corporation. This Bid Proposal is made in good faith without collusion or connection with any other person bidding for the same work and this proposal is made with distinct reference and relation to the plans and specifications prepared for this Contract. I (we) further declare that in regard to the conditions affecting the Work to be done and the labor and materials needed, this Bid Proposal is based solely on my (our) own investigation and research and not in reliance upon any representations of any employee, officer or agent of the State.

6.0 Duly Authorized Signature:

Type of Business: *(Check Applicable Box)*

<input type="checkbox"/> Limited Liability Corporation (LLC) <input type="checkbox"/> Partnership <input type="checkbox"/> Sole Proprietor <input type="checkbox"/> Doing Business As (d/b/a) <i>(If d/b/a box is checked provide complete name below)</i> <input style="width: 100%;" type="text"/> <i>(Doing Business As Name)</i>	<input type="checkbox"/> Corporation <i>(If Checked, Provide Corporate Seal Below)</i> <div style="border: 1px solid black; width: 100px; height: 100px; margin: 0 auto;"></div> <i>(Provide <u>exact</u> corporate name from corporate seal below)</i> <input style="width: 100%;" type="text"/> <i>(Name On Corporate Seal)</i>
--	---

Signed:	<input style="width: 90%;" type="text"/> <i>(Month)</i>	<input style="width: 90%;" type="text"/> <i>(Day)</i>	<input style="width: 90%;" type="text"/> <i>(Year)</i>
Bidder's Signature:	<input style="width: 100%;" type="text"/> <i>(Duly Authorized)</i>		<input style="width: 100%;" type="text"/> <i>(Title)</i>
	<input style="width: 100%;" type="text"/> <i>(Print Named)</i>		<input style="width: 100%;" type="text"/> <i>(Date)</i>

Bid Package Submittal Requirements:

DAS | Construction Services | Office of Legal Affairs, Policy, and Procurement
450 Columbus Boulevard, Suite 1302 | Hartford, CT 06103

1.1	On-Line Bidding:
1.1.1	All Bidders shall electronically upload their Bid Package Documents to BizNet following the instructions in the DAS/CS publication, 6001 Construction On-line Bidding Instructions , available for download here: Go to the DAS Homepage (www.ct.gov/DAS) > Doing Business With The State > State Building Construction > Publications and Forms > DAS Construction Services Library > 6000 Series > 6001 Construction On Line Bidding Instructions .
1.1.2	For questions, call 860-713-5783 or 860-713-5794.

1.2	Bid Package Submittal Requirements:
	All Bidders are required to electronically upload Bid Package Documents to BizNet <i>prior</i> to the date and time of the Bid Opening. Additional documents must be either electronically uploaded to BizNet or submitted as paper copies to the appropriate Agency . See Tables 1, 2, and 3 for specific submittal requirements.
1.2.1	All Bidders: See Table 1. All Documents in Table 1 <u>must be electronically uploaded to BizNet.</u>
1.2.2	Three (3) Apparent Lowest Bidders: See Table 2.
1.2.3	Apparent Low Bidder: See Table 3.

1.3	Deadlines for Receipt of Bid Package Documents:
1.3.1	Table 1: Bid Package Documents must be uploaded to BizNet <i>prior</i> to the date and time of the Bid Opening. Failure to upload to BizNet any of the items marked with an asterisk (*) prior to the Bid Opening shall cause rejection of the bid and shall not be considered a minor irregularity under CGS 4b-95.
1.3.2	Tables 2 and 3: See the tables for additional deadlines. Failure to submit the documents before the stated deadlines may result in rejection of the bid at the sole discretion of the Commissioner of Administrative Services.

1.4	Delays in Receipt of Supportive Documents from the Three Apparent Lowest Bidders:		
1.4.1	If there are any delays in the receipt of the supportive documents specified in Tables 2 and 3, then the Bids shall remain valid for the same additional number of days. <table border="1" style="width: 100%; margin-left: 20px;"> <tr> <td style="width: 20px;">.1</td> <td>For example, since the Three (3) Apparent Lowest Bidders are required to Hold The Bid Price for ninety (90) calendar days, if supportive documents are submitted four (4) calendar days later, then the bid shall remain valid for ninety-four (94) calendar days.</td> </tr> </table>	.1	For example, since the Three (3) Apparent Lowest Bidders are required to Hold The Bid Price for ninety (90) calendar days , if supportive documents are submitted four (4) calendar days later, then the bid shall remain valid for ninety-four (94) calendar days .
.1	For example, since the Three (3) Apparent Lowest Bidders are required to Hold The Bid Price for ninety (90) calendar days , if supportive documents are submitted four (4) calendar days later, then the bid shall remain valid for ninety-four (94) calendar days .		
1.4.2	Failure to submit the documents before the stated deadline may result in rejection of the bid at the sole discretion of the Commissioner of Administrative Services.		

TABLE 1 ALL BIDDERS			
Construction Costs:		The Bid Proposal Form, Other Bid Package Documents, Affidavits, and Certifications <u>shall</u> be electronically uploaded to BizNet by <u>all</u> Bidders prior to the Date and Time of the Bid Opening.	Form Location
Less Than \$500,000	Greater Than \$500,000		
Bid Proposal Form and Other Bid Package Documents			
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	* Section 00 41 00 Bid Proposal Form	BizNet
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	* Section 00 43 16 Standard Bid Bond or Certified Check	BizNet
	<input checked="" type="checkbox"/>	* DAS Prequalification Certificate	BizNet
	<input checked="" type="checkbox"/>	* DAS Update (Bid) Statement	BizNet
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	* Section 00 45 14 General Contractor Bidder's Qualification Statement	BizNet
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Section 00 40 14 Certificate (of authority)	BizNet
<input checked="" type="checkbox"/>		DAS Set-Aside Certificate	BizNet
<input checked="" type="checkbox"/>		Bidder Contract Compliance Monitoring Report	CHRO Website
Affidavits and Certifications			
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	* Gift and Campaign Contribution Certification – OPM Ethics Form 1	BizNet
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	* Consulting Agreement Affidavit – OPM Ethics Form 5	BizNet
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	* Ethics Affidavit (Regarding State Ethics) – OPM Ethics Form 6	BizNet
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	* Iran Certification – OPM Ethics Form 7	BizNet
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Nondiscrimination Certification – Form A, B, C, D, or E	BizNet

*** NOTE:** Failure to electronically upload any of the items marked above with an asterisk (*) prior to the date and time of the Bid Opening shall cause rejection of the bid and shall not be considered a minor irregularity under CGS 4b-95.

TABLE 2 THREE (3) APPARENT LOWEST BIDDERS			
Construction Costs:		WHEN APPLICABLE:	Form Location
Less Than \$500,000	Greater Than \$500,000	Submit within ten (10) Calendar Days <i>after</i> receipt of the “ Set-Aside Contractor Schedule Request ” from the DAS/CS Procurement Unit:	
	<input checked="" type="checkbox"/>	Set-Aside Contractor Schedule for each subcontracted SBE and/or MBE firm(s) (See Section 00 73 27 Set-Aside Contractor Schedule for a sample Request.)	Email From DAS/CS Procurement Unit
	<input checked="" type="checkbox"/>	DAS Set-Aside Certificate(s) for each subcontracted SBE and/or MBE firm(s) listed in the Set-Aside Contractor Schedule.	Download from BizNet
	<input checked="" type="checkbox"/>	Section 00 45 17 Named Subcontractor Bidder’s Qualification Statements for each Named Subcontractor listed in the Bid Proposal Form.	Copy from Project Manual
	<input checked="" type="checkbox"/>	DAS Prequalification Certificate(s) and Update (Bid) Statement(s) for each Named Subcontractor listed in the Bid Proposal Form with Subcontracts greater than \$500,000.	Download from BizNet

TABLE 3 APPARENT LOW BIDDER			
Construction Costs:		When Applicable, submit the following documents as noted:	Form Location
Less Than \$500,000	Greater Than \$500,000		

Submit within fifteen (15) calendar days <i>after</i> receipt of the “ Request for the Affirmative Action Plan and Employment Information Form Letter ” from the DAS/CS Procurement Unit:			
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	If Contractor has 50 or more employees and/or the Project is equal to or greater than \$500,000, submit to CHRO: Affirmative Action Plan and Employment Information Form (DAS-45).	CHRO Website & BizNet
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Submit to DAS/CS Procurement Unit: Copy of Transmittal Letter to confirm the Affirmative Action Plan was filed with CHRO.	(copy of transmittal letter)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Submit to CT Department of Labor: Contractors Wage Certification Form. See Section 00 73 44 Prevailing Wage Rates/Contractor’s Wage Certification/Payroll Certification.	Copy from Project Manual

TABLE 3 APPARENT LOW BIDDER (continued)			
Construction Costs:		Submit within ten (10) business days <i>after</i> receipt of the “Letter of Intent” from the DAS/CS Procurement Unit:	Form Location
Less Than \$500,000	Greater Than \$500,000		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Section 00 40 14 Certificate (of authority)	Email From DAS/CS Procurement Unit
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Section 00 52 03 Contract	Email From DAS/CS Procurement Unit
	<input checked="" type="checkbox"/>	Section 00 52 73 Subcontract Agreement Form (Named & Listed)	Email From DAS/CS Procurement Unit
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Certificate of Liability Insurance Acord® form (See Section 00 62 16 Insurance Certificate Form for details)	Email From DAS/CS Procurement Unit
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Certificate of Asbestos Abatement Liability Insurance (for asbestos abatement only) (See Section 00 62 16.1 Asbestos Abatement Liability Insurance for details)	Email From DAS/CS Procurement Unit
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Section 00 92 10: Additional Forms	Performance Bond
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Labor & Material Bond
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Surety Sheet
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Bidder’s Certification: Financial Position & Corporate Structure
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Power of Attorney from the Surety Company	Surety Company
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Nonresident (Out of State) Contractors: <u>Verified Nonresident</u> General/Prime Contractors must submit a copy of their “ Notice of Verified Status ” (Verification Letter) from the CT Department of Revenue Services (DRS). <u>Unverified Nonresident</u> General/Prime Contractors must submit a copy of Form AU-965 “Acceptance of Surety Bond” from the DRS. (See Section 00 92 30 Procedures Regarding Taxation for Nonresident General/Prime Contractor and Subcontractors for additional details.)	CT Department of Revenue Services
	<input checked="" type="checkbox"/>	Ethics Affidavit (Regarding State Ethics) OPM Ethics Form 6 for each Named Subcontractor	BizNet
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Threshold Projects Only: Submit Major Contractor Registration License Number(s) for Subcontractors	CT Department of Consumer Protection
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	SEEC Form 10	SEEC Website
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Certificate of Legal Existence from Corporations	Secretary of the State

End of Section
 00 41 10 Bid Package Submittal Requirements

INSTRUCTIONS FOR CERTIFIED CHECK OR BID BOND (select one):

All Bidders:

Edit this page, print, sign, and scan to PDF. Upload the PDF form to BizNet.

- CERTIFIED CHECK OPTION:** *Prior* to the Date and Time of the Bid Opening:
(1) Check the box for "Certified Check Option";
(2) Print, scan to PDF, and upload the PDF form to Biznet; and
(3) Deliver the Certified Check, made payable to "Treasurer, State of Connecticut", to the following address:
State of Connecticut
Department of Administrative Services, Construction Services
Office of Legal Affairs, Policy, and Procurement
450 Columbus Boulevard, North Tower, Suite 1302
Hartford, CT 06103-1835
- BID BOND OPTION** (see template below): *Prior* to the Date and Time of the Bid Opening:
(1) Check the box for "Bid Bond Option";
(2) Complete the **Standard Bid Bond** (below), print, sign, scan to PDF, and upload the PDF Bid Bond to Biznet.

Standard Bid Bond

DAS | Construction Services | Office of Legal Affairs, Policy, and Procurement

KNOW ALL MEN BY THESE PRESENTS, That we, _____
_____, hereinafter called the Principal,
of _____, as Principal,
and _____, hereinafter
called the Surety, a corporation organized and existing under the laws of the
State of _____, and duly authorized to transact a
surety business in the State of Connecticut, as Surety, are held and firmly bound unto the State of
Connecticut, as Obligee, in the penal sum of ten (10) percent of the amount of the bid set forth in a
proposal hereinafter mentioned, _____
_____,
lawful money of the United States of America, for the payment of which, well and truly to be made to the Obligee,
the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns,
jointly and severally, firmly by these presents.
THE CONDITION OF THIS OBLIGATION IS SUCH, That, whereas the Principal has submitted
or is about to submit a proposal to the Obligee related to a contract for Project No.: _____
NOW, THEREFORE, if the said contract be awarded to the Principal and the Principal shall, within such time as
may be specified, enter into the said contract in writing with the State of Connecticut and give the required
bonds, with surety acceptable to the Obligee, or if the Principal shall fail to do so, pay to the Obligee the
damages which the Obligee may suffer by reason of such failure not exceeding the penalty of this bond, then
this obligation shall be void, otherwise to remain in full force and effect.

SIGNED, SEALED AND DELIVERED this _____ day of _____, 20 _____

_____ (Principal's Signature)	by	_____ Surety
_____ (Print Name)		_____ Its attorney in fact Signature
_____ Company Name		_____ (Print Name)

General Contractor Bidder's Qualification Statement

DAS | Construction Services | Office of Legal Affairs, Policy, and Procurement

Instructions:

- All Bidders are **required** to **upload this form to BizNet**, properly completed, **prior to the date and time of the Bid Opening**.
- Failure of a Bidder to answer any question or provide required information **shall** be grounds for the awarding authority to disqualify and reject the bid, pursuant to Connecticut General Statutes §4b-92.
- If a question or request for information does not pertain to your organization in any way, use the symbol "NA" (Not Applicable).
- Attach additional information on 8 ½" x 11" sheets with your letterhead as necessary and reference specific section and subsection numbers.
- **NOTE:** The Department reserves the right to request any additional or supplemental information necessary to complete its evaluation of a Bidder's qualification.

1.0 Project Information:

1.1 DAS/CS Project Number:

1.2 Project Name:

1.3 Project Location:

2.0 Projects with Construction Costs Estimated To Be Greater than \$500,000:

- Select the applicable **Class of Work** as stated in the **00 11 16 Invitation to Bid**.
- Select **YES** if your Firm has the applicable the **DAS Prequalification Certificate and Update (Bid) Statement** or **NO** if it does not.
- If **YES**, upload the applicable **DAS Prequalification Certificate and Update (Bid) Statement** to BizNet **prior** to the date and time of the Bid Opening.

Not Applicable - Construction Costs Less than \$500,000

Class of Work:

Does your Firm have the applicable
DAS Prequalification Certificate and
Update (Bid) Statement?

2.1 **General Building Construction (Group A):**

YES NO

2.2 **General Building Construction (Group B):**

YES NO

2.3 **General Building Construction (Group C):**

YES NO

2.4 **General Trades (Interior Work Only):**

YES NO

2.5 **CPS Projects ONLY: Insert Class of Work**

YES NO

3.0 Firm's Present Legal Name: (the *complete legal name exactly* as it appears with the **Secretary of State registry**. The appropriate **title** must be used throughout the documents, for example: General Partner, Member, Manager, Sole Member, etc.)

Name:

4.0 How many years has your Firm been in business under its **Present Legal Name**?

Years:

5.0 How many years has your Firm been in business as a General Contractor?

Years:

6.0 Indicate **all** other **names** by which your Firm has been known and the **length of time** known by each name:

6.1

<i>Years</i>	<i>Months</i>

6.2

<i>Years</i>	<i>Months</i>

6.3

<i>Years</i>	<i>Months</i>

7.0 This Firm's **Certification** with the CT Secretary of State:

Check Box

Type of Business Entity:

Certification Year

Corporation

Partnership

Sole Proprietorship

Limited Liability Company (LLC)

Other:

8.0 Attach resumes of all **supervisory personnel**, such as **Principals, Project Managers, and Superintendents**, who will be directly involved with the project on which you are now a bidder. Indicate their construction related training, certifications and licenses and the number of years of actual construction experience. Indicate the number of years of this actual construction experience which were in a Supervisory capacity.

9.0 Named Subcontractor – Bidder Intends to Self-Perform:

Check **YES** or **NO** for each “Named Subcontractor” **Class of Work** which your firm intends to perform with its own employees for this Contract; see **Section 2.7** of **Section 00 41 00 Bid Proposal Form**.

NOTE: For Projects with Construction Costs estimated to be greater than \$500,000, complete **Section 00 45 17 Named Subcontractor Bidder's Qualification Statement** for each **Named Subcontractor Class of Work** checked **YES** and submit within ten (10) calendar days *after* receipt of the “Set-Aside Contractor Schedule Request” from DAS/CS Office of Legal Affairs, Policy, and Procurement.

<input type="checkbox"/>	Not Applicable – No Named Subcontractors &/or Not Self-Performing	
	Named Subcontractor Class of Work	Does your Firm intend to self-perform this Named Subcontractor Class of Work?
9.1	Electrical:	YES <input type="checkbox"/> NO <input type="checkbox"/>
9.2	HVAC:	YES <input type="checkbox"/> NO <input type="checkbox"/>
9.3	Masonry:	YES <input type="checkbox"/> NO <input type="checkbox"/>
9.4	Plumbing:	YES <input type="checkbox"/> NO <input type="checkbox"/>
9.5	Environmental Remediation:	YES <input type="checkbox"/> NO <input type="checkbox"/>
9.6	Hazardous Materials Abatement:	YES <input type="checkbox"/> NO <input type="checkbox"/>

10.0 Named Subcontractor - Class of Work Greater than \$500,000 and Self-Performing:

- Select the applicable **Named Subcontractor Class of Work** which your firm intends to perform with its own employees for this Contract.
- Select **YES** if your Firm has the applicable the **DAS Prequalification Certificate and Update (Bid) Statement** or **NO** if it does not.
- If **YES**, submit the applicable **DAS Prequalification Certificate and Update (Bid) Statement** within ten (10) calendar days *after* receipt of the “Set-Aside Contractor Schedule Request” from DAS/CS Office of Legal Affairs, Policy, and Procurement.

<input type="checkbox"/>	Not Applicable – No Class of Work Greater \$500,000 &/or Not Self-Performing	
	Named Subcontractor Class of Work Greater Than \$500,000	Does your Firm have the applicable DAS Prequalification Certificate and Update (Bid) Statement?
10.1	<input type="checkbox"/> Electrical:	YES <input type="checkbox"/> NO <input type="checkbox"/>
10.2	<input type="checkbox"/> HVAC:	YES <input type="checkbox"/> NO <input type="checkbox"/>
10.3	<input type="checkbox"/> Masonry:	YES <input type="checkbox"/> NO <input type="checkbox"/>
10.4	<input type="checkbox"/> Plumbing:	YES <input type="checkbox"/> NO <input type="checkbox"/>

11.0 List all construction projects your Firm has completed in the **past five (5) years**. Provide **all** of the information listed below. DAS/CS *may* reject a bid as **non-responsive** if the bidder does not make **all** required pre-award submittals within the designated time period. Attach additional sheets as necessary **using the following format**:

IMPORTANT NOTE: **Two (2)** of the construction projects completed in the past five (5) years shall be (1) single project contracts that have reached substantial completion, not aggregate projects; (2) of commercial and/or institutional construction work (this includes compliance with general requirements); (3) within the Cost Estimate Range stated in Section 00 11 16 Invitation to Bid for this project; and (4) of the size and complexity of this Project. Failure to identify to **two** such projects **shall** result in rejection of the bid.

11.1 Project Title:		
11.2 Project Location:		
11.3 Construction Start Date:		
11.4 Construction Finish Date:		
11.5 Describe the Scope of Work your Firm performed:		
11.6 Original Contract Amount:		
11.7 Final Contract Amount:		
11.8 Original Contract Duration (Calendar Days):		
11.9 Final Contract Duration (Calendar Days):		
11.10 Owner:		
11.11 Owner's Representative:		
	<i>(Name)</i>	<i>(Phone Number)</i>
11.12 Design Firm:		
11.13 Design Firm's Representative:		
	<i>(Name)</i>	<i>(Phone Number)</i>

12.0 References:

Furnish references from **architects, engineers or owners** indicating that your Firm has satisfactorily completed in a timely manner contract work for projects within the cost estimate range, size and complexity of this project. Provide explanations where delays have occurred. This information should cover work done over the past five years.

13.0 Construction Scheduler:

For Projects greater than \$5 Million: Submit the **name, resume and references** of the **Construction Scheduler** in accordance with the requirements called for in Section **01 32 16.13 Critical Path Method Schedules** of the General Requirements.

Not Applicable – Project Less Than \$5 Million

14.0 List and explain if your Firm has ever failed to complete a contract or if any officer or partner of your Firm has ever been an officer or partner of another organization that failed to complete a contract. Indicate below the circumstances leading to the project failure and the name of the company which provided the bonding for the failed contract(s):

Not Applicable

15.0 List and explain if your Firm has ever had a contract terminated, indicating the circumstances leading to the project termination of contract(s):

Not Applicable

16.0 List and explain all legal or administrative proceedings against your Firm or any officers, principals, partners, members, or employees of the organization currently pending or concluded adversely within the last five years, and any judicial or administrative sanctions that are still in effect against such organization, and any of its officers, principals, partners, members, or employees. (Exclude Occupational Safety and Health Act [OSHA] violations which are called for elsewhere in this statement). Add attachments as necessary.

Not Applicable

17.0 List and explain any disbarments or suspensions that have been imposed on your Firm in the past five years or that were still in effect during the five year period or that are still in effect. Such list must include disbarments and suspensions of officers, principals, partners, members, and employees of your Firm:

Not Applicable

18.0 List and explain any other reason(s) that precludes your Firm or any officer, principal, partner, member, or employees thereof from bidding on a contract in Connecticut or any other jurisdiction:

Not Applicable

19.0 List and explain all willful or serious violations your Firm has had of any OSHA or of any standard, order or regulation promulgated pursuant to such act, during the three year period preceding the bid, provided such violations were cited in accordance with the provisions of any State Occupational Safety and Health Act or Occupational Safety and Health Act of 1970. Indicate whether these were abated within the time fixed by the citation or whether the citation was appealed. If appealed what is the status or disposition. Add attachments as necessary.

Not Applicable

20.0 List and explain any criminal convictions your Firm has had related to the injury or death of any employee in the three-year period preceding the bid: Add attachments as necessary.

Not Applicable

21.0 List and explain any changes in your Firm's financial condition or business organization, which might affect your Firm's ability to successfully complete this contract:

Not Applicable

22.0 **NEW:** List and explain if your Firm has ever failed to submit an Affirmative Action Plan to the Commission on Human Rights and Opportunities (CHRO). Indicate below the circumstances leading to the failure to submit the Affirmative Action Plan to CHRO:

Not Applicable

23.0 **NEW:** List and explain if your Firm's Affirmative Action Plan has ever been disapproved by CHRO or determined to be noncompliant. Indicate below the circumstances leading to the disapproval or finding of noncompliance of your Affirmative Action Plan by CHRO:

Not Applicable

24. Signature

Dated at

Signed this

 day of , 20

Name of Firm:

Firm Address:

Signature:

Print or Type Name:

Title:

25. Notary Statement

Mr./Mrs./Ms. being duly sworn

deposes and says that he/she is the of
(Position or Title)

, and that the answers to the foregoing
(Firm Name)

questions and all statements therein contained are true and correct.

Subscribed and sworn before me this day of , 20

Notary Public

My Commission Expires

, 20

End of Section

00 45 14 General Contractor Bidder's Qualification Statement

Objective Criteria Established for Evaluating Qualifications of Bidders:

CT DAS | Construction Services | Office of Legal Affairs, Policy, and Procurement

The following items are established pursuant to Sections 4b-92, 4b-94 and 4b-95a of the Connecticut General Statutes (C.G.S.) as amended.

The **Objective Criteria Established for Evaluating Qualifications of Bidders** (Section 00 45 15) are to assure that the State of Connecticut will secure the "lowest responsible and qualified bidder" who has the ability and capacity to successfully complete the Bid Proposal Form and the Work. Failure to comply with any portion of this requirement **may** cause **rejection** of the bid. **Note:** Individual Specification Sections **may** contain General Contractor and/or Subcontractor Qualification requirements that **exceed** those in **Section 00 45 15 Objective Criteria Established for Evaluating Qualifications of Bidders**.

THE BIDDER MUST HAVE OR HAVE COMPLETED THE FOLLOWING:

1.1 DAS Prequalification Requirements:

For Projects with Construction Costs greater than \$500,000, **all Bidders** shall upload to BizNet a valid Department of Administrative Services (DAS) **Prequalification Certificate** and **Update (Bid) Statement** *prior* to the date and time of the Bid Opening.

1.2 Evaluation:

1.2.1 **All Bidders** shall upload to BizNet **Section 00 45 14 General Contractor's Bidder Qualifications Statement** *prior* to the date and time of the Bid Opening.

1.2.2 If applicable, the **Three (3) Lowest Bidders** shall submit **Section 00 45 17 Named Subcontractor's Bidder Qualification Statement(s)** to DAS Construction Services (DAS/CS) Office of Legal Affairs, Policy, and Procurement within **ten (10)** calendar days **after** receipt of the "Set-Aside Contractor Schedule Request" *from* DAS/CS.

1.2.3 The Bidder must demonstrate that the Bidder and, if applicable, its Named Subcontractors, meet the **objective criteria** for this specific project.

1.2.4 The **responses** to the Statement(s) must identify two (2) **projects completed** – single project contracts that have reached substantial completion, not aggregate projects – of commercial and/or institutional construction work (this includes compliance with general requirements) during the past five (5) years within the Cost Estimate Range stated in Section 00 11 16 **Invitation to Bid** for this project, and of the size and complexity of this project. The failure to identify to such projects shall result in rejection of the bid.

1.2.5 If the Bidder identifies two projects that meet the above criteria, the **State's evaluation** shall be based on the **performance record** of the prospective Bidder as a general, prime contractor and its named subcontractors during the course of the two (2) comparable projects, and not just the end result. The state will conduct the evaluation based on its interpretation of its objective criteria. **Evaluation criteria** shall include: Faithful and efficient performance; fulfilment of contract obligations; financial, managerial and technical abilities; and integrity and the absence of any conflicts of interest. Any one or all of the factors noted in this paragraph as well as in the other criteria set forth in this **Section 00 45 15** may be grounds for the determination by the State, in its sole discretion, of the Bidder's responsibility and qualifications necessary for the faithful performance of the work required of this project.

1.3 References:

Furnished **references from architects, engineers or owners** indicating that it has satisfactorily completed in a timely manner contract work for projects and provide explanations where delays have occurred. This information should cover work done over the **past five years**. Review of DAS/CS projects shall be included in the evaluation of the bidder's qualifications and anticipated future performance.

1.4	Qualified Personnel:
1.4.1	Shown that it customarily employs or has on its payroll supervisory personnel, qualified to perform the work required for this project and to coordinate the work called for in the Bid Specifications.
1.4.2	If the project is for \$5 Million or more, submit the name, resume and references of the Construction Scheduler in accordance with the requirements called for in Section 01 32 16.13 Critical Path Method Schedules of the General Requirements.
1.5	Past Performance:
	Demonstrated a good track record of past performance on State or other projects relative to quantity, quality, timeliness, cost, cooperation and harmonious working relationships with subcontractors, suppliers and client agencies. DAS/CS will review the Bidders past performance ratings prepared by DAS/CS or prepared as part of the DAS Contractor Prequalification Program. This review may focus on the comments relative to: Quality of Supervision, Adherence to Contract Documents, On Time Project Completion, Subcontractor performance, and the handling of Change Orders. Unacceptable ratings for several criteria shall be sufficient cause to deem a bidder not responsible.
1.6	Financial Responsibility:
	Shown that it is financially responsible to perform the work as bid. If requested, additional financial information shall be provided. Prompt and proper payments to its subcontractors and material suppliers is a critical factor to be considered by DAS/CS.
1.7	[Left Blank]
1.8	Equipment Requirements:
	Shown that it owns or possesses, rented, or leased equipment of the type customarily required by contractors in the performance of contract work and that such equipment, if needed, is available for this project.
1.9	Materials and Suppliers:
	Purchased materials over the past three years from suppliers who customarily sell such materials in quantity to contractors.
1.10	Physical Facilities:
	Control of adequate physical facilities from which the work can be performed.
1.11	Compliance with Subcontractor Requirements:
	Demonstrated that on previous state projects the bidder complied in good faith with the requirements of listing subcontractors as outlined in C.G.S. Sections 4b-93 and 4b-95.
1.12	Threshold Building and Major Contractor Requirements:
	Demonstrated that all major subcontractors are in compliance with the provisions of C.G.S. Section 20-341gg, as revised, concerning licensure requirements to perform work on any structure that exceeds the threshold limits contained in C.G.S. Section 29-276b, as revised.
1.13	OSHA Requirements:
	Proven that the Bidder has not been found to be in violation of three or more willful or serious violations of Occupational Safety and Health Administration (OSHA) regulations in the past three years.

1.14 Criminal Convictions and Injuries or Death of Employees:

Not received a **criminal conviction** related to the injury or death of any employee in the three-year period preceding the bid.

1.15 Legal or Administrative Proceedings:

Listed all **legal** (court and/or arbitration) or **administrative proceedings** currently pending as well as any legal (court and/or arbitration) or administrative proceeding related to procurement or performance of any public or private construction contracts which has concluded adversely within the last three years.

1.16 Contract Performance and Surety:

Identified any situations where: (1) the bidder failed to complete a construction contract; or (2) bonds were called during the past three years. If applicable, attach a sheet providing explanation including date(s) and location(s).

1.17 State Tax Requirements:

Not been found to be in violation of any **state tax** requirements of the Connecticut Department of Revenue Services in the five (5)-year period preceding the bid.

1.18 State and Federal Labor Requirements:

Not been found to be in violation of any State or Federal **labor laws** as required through the Department of Labor including violations of prevailing wage laws in the five (5)-year period preceding the bid.

1.19 Change Order Pricing and State Ethics:

Been found to be in compliance with all statutory and regulatory requirements. This Item shall include, but not be limited to, any DAS/CS determinations related to improper Change Order pricing relative to C.G.S. Section 1-101nn of The State Ethics Statutes.

1.20 Internal Revenue Services (IRS) Requirements:

Not been found in violation of any of the **Internal Revenue Service Tax Requirements** regarding classification of employees and independent contractors in the five (5)-year period preceding the bid.

1.21 Workers Compensation and Insurance Requirements:

Not been found to be in any violation of C.G.S. Section 31-288 relating to employee classification for purposes of Workers' Compensation insurance premiums in the five (5)-year period preceding the bid.

NOTE: The foregoing Item Numbers **1.13** and **1.14** are meant to comport with C.G.S. Section 31-57b.

End of Section
00 45 15 Objective Criteria Established for Evaluating Qualifications of Bidders

Named Subcontractor Bidder's Qualification Statement

DAS | Construction Services | Office of Legal Affairs, Policy, and Procurement

Instructions:

- This Section is **only applicable** to Projects with Construction Costs **Greater than \$500,000.00**. See **Subsection 2.7 Named Subcontractors and Classes of Work** of **00 41 00 Bid Proposal Form** for applicability.
- If a question or request for information does not pertain to your organization in any way, use the symbol "NA" (Not Applicable). Attach additional information on 8 ½" x 11" sheets with your letterhead as necessary and reference specific subsection number.
- Submit this form for **each** of the Named Subcontractors, within **ten (10)** calendar days **after** receipt of the "Set-Aside Contractor Schedule Request" to:

State of Connecticut
Department of Administrative Services, Construction Services
Office of Legal Affairs, Policy, and Procurement
450 Columbus Boulevard, Suite 1302
Hartford, CT 06103

1.0 Project Information:

1.1 DAS/CS Project Number:

1.2 Project Name:

1.3 Project Location:

2.0 Named Subcontractor Class of Work:

Check the applicable Class of Work:

2.1 Electrical Work:

2.2 HVAC Work:

2.3 Masonry Work:

2.4 Plumbing Work:

2.5 Environmental Remediation:

2.6 Hazardous Materials Abatement:

3.0 Subcontractor's Present Legal Name:

Name:

4.0 How many years has the **Subcontractor** been in business under its **Present Legal Name**?

Years:

5.0 How many years has the **Subcontractor** been in business as a Subcontractor for this Class of Work?

Years:

6.0 If the **Subcontractor** has not always been a Subcontractor for this Class of Work then list the trade(s) that your firm customarily performed prior to the time that you became a Subcontractor in this **Class of Work**:

6.1

6.2

6.3

7.0 Indicate **all** other **names** by which this **Subcontractor** has been known and the **length of time** known by each name:

7.1	<input style="width: 95%; height: 40px;" type="text"/>	<input style="width: 40px; height: 25px;" type="text"/>	<input style="width: 40px; height: 25px;" type="text"/>
		<i>Years</i>	<i>Months</i>
7.2	<input style="width: 95%; height: 40px;" type="text"/>	<input style="width: 40px; height: 25px;" type="text"/>	<input style="width: 40px; height: 25px;" type="text"/>
		<i>Years</i>	<i>Months</i>
7.3	<input style="width: 95%; height: 40px;" type="text"/>	<input style="width: 40px; height: 25px;" type="text"/>	<input style="width: 40px; height: 25px;" type="text"/>
		<i>Years</i>	<i>Months</i>

8.0 The **Subcontractor's Certification** with the CT Secretary of State:

Check Box	Type of Business Entity:	Certification Year
<input type="checkbox"/>	Corporation	<input style="width: 100%; height: 25px;" type="text"/>
<input type="checkbox"/>	Partnership	<input style="width: 100%; height: 25px;" type="text"/>
<input type="checkbox"/>	Sole Proprietorship	<input style="width: 100%; height: 25px;" type="text"/>
<input type="checkbox"/>	Limited Liability Company (LLC)	<input style="width: 100%; height: 25px;" type="text"/>
<input type="checkbox"/>	Other: <input style="width: 350px; height: 25px;" type="text"/>	<input style="width: 100%; height: 25px;" type="text"/>

9.0 Attach resumes of all supervisory personnel, such as Principals, Project Managers, and Superintendents, who will be directly involved with this project on which you are now a **Named Subcontractor Bidder** for a specific **Class of Work**. Indicate the number of years of construction experience and number of years of which they were in a Supervisory capacity.

10.0 List all sub-trades which your firm customarily performs with own employees – **this table must be completed for electrical and plumbing trades for all projects.**

	Trade Name	License Holder Name	Connecticut D.C.P. License No.: Format: Prefix - Number - Suffix
10.1			
10.2			
10.3			
10.4			
10.5			

11.0 Trade References:
 Names, addresses and telephone numbers of several firms with whom your organization has regular business dealings (attach separate sheets as necessary).

12.0 List all construction projects your firm currently has under contract. Provide all of the information listed below. DAS/CS *may* reject a bid as **non-responsive** if the bidder does not make **all** required pre-award submittals within the designated time period. Attach additional sheets as necessary **using the following format:**

12.1	Project Title:		
12.2	Project Location:		
12.3	Construction Start Date:		
12.4	Construction Finish Date:		
12.5	Describe the Scope of Work your Firm performed:		
12.6	Original Contract Amount:		
12.7	Final Contract Amount:		
12.8	Original Contract Duration (Calendar Days):		
12.9	Final Contract Duration (Calendar Days):		
12.10	*Briefly describe any complaints about your Firm's quality control or construction management.		
	*Attach a separate sheet if more space is required.		
12.11	Owner:		
12.12	Owner's Representative:		
		<i>(Name)</i>	<i>(Phone Number)</i>
12.13	Design Firm:		
12.14	Design Firm's Representative:		
		<i>(Name)</i>	<i>(Phone Number)</i>
12.15	General Contractor:		
12.16	G.C.'s Representative:		
		<i>(Name)</i>	<i>(Phone Number)</i>

13.0 List **all** construction projects your firm has completed in the **past five (5) years or list the ten (10) projects** your firm has most recently completed. Provide **all** of the information listed below. DAS/CS *may* reject a bid as **non-responsive** if the bidder does not make **all** required pre-award submittals within the designated time period. Attach additional sheets as necessary **using the following format:**

13.1	Project Title:	<input type="text"/>	
13.2	Project Location:	<input type="text"/>	
13.3	Construction Start Date:	<input type="text"/>	
13.4	Construction Finish Date:	<input type="text"/>	
13.5	Describe the Scope of Work your Firm performed:	<input type="text"/>	
13.6	Original Contract Amount:	<input type="text"/>	
13.7	Final Contract Amount:	<input type="text"/>	
13.8	Original Contract Duration (Calendar Days):	<input type="text"/>	
13.9	Final Contract Duration (Calendar Days):	<input type="text"/>	
13.10	*Briefly describe any complaints about your Firm's quality control or construction management.	<input type="text"/>	
	*Attach a separate sheet if more space is required.		
13.11	Owner:	<input type="text"/>	
13.12	Owner's Representative:	<input type="text"/>	<input type="text"/>
		<i>(Name)</i>	<i>(Phone Number)</i>
13.13	Design Firm:	<input type="text"/>	
13.14	Design Firm's Representative:	<input type="text"/>	<input type="text"/>
		<i>(Name)</i>	<i>(Phone Number)</i>
13.15	General Contractor:	<input type="text"/>	
13.16	G.C.'s Representative:	<input type="text"/>	<input type="text"/>
		<i>(Name)</i>	<i>(Phone Number)</i>

14.0 Has your Firm ever failed to complete a contract or has any officer or partner of your Firm ever been an officer or partner of another organization that failed to complete a contract? If so, indicate below the circumstances leading to the project failure and the name of the company which provided the bonding for the failed contract(s):

Not Applicable

15.0 List all legal or administrative proceedings currently pending or concluded adversely within the last five years which relate to procurement or performance of any public or private construction contracts. (Exclude Occupational Safety and Health Act [OSHA] violations which are called for elsewhere in this statement). Add attachment as necessary.

Not Applicable

16.0 List all willful or serious violations of any OSHA or of any standard, order or regulation promulgated pursuant to such act, during the three year period preceding the bid, provided such violations were cited in accordance with the provisions of any State Occupational Safety and Health Act or Occupational Safety and Health Act of 1970. Indicate whether these were abated within the time fixed by the citation or whether the citation was appealed. If appealed what is the status or disposition. Add attachments as necessary.

Not Applicable

17.0 Has your Firm had any criminal convictions related to the injury or death of any employee in the three-year period preceding the bid? Please list any such convictions below. Add attachments as necessary.

Not Applicable

18. Signature

Dated at

Signed this day of , 20

Name of Firm:

Firm Address:

(Signature)

(Print or Type Name)

(Title)

19. Notary Statement

Mr./Mrs./Ms. being duly sworn
deposes and says that he/she is the of
(Position or Title)

, and that the answers to the foregoing
(Firm Name)
questions and all statements therein contained are true and correct.

Subscribed and sworn before me this day of , 20

Notary Public

My Commission Expires , 20

Contract

DAS | Construction Services | Office of Legal Affairs, Policy, and Procurement

Contract For:

Dated as of by and between the **State of Connecticut** (herein called the
(Month, Day, Year)

“State”) acting herein by its Commissioner, Department of Administrative Services under the provisions of the Connecticut General Statutes (C.G.S.) Sections 4-8, 4a-1, 4a-1a, 4a-2, 4b-1, and 4b-3, as revised, and (herein called the “Contractor”).

(Print Name of Contractor)

WITNESSETH, that the State and the Contractor in consideration of the hereinafter contained mutual promises and covenants, do hereby agree as follows:

1. CONTRACT AND CONTRACT DOCUMENTS:

The **Invitation for Bids**, the enumerated **Plans**, the **Specifications** and **Amendments** thereto, the **Addenda**, the **Bid Proposal** as accepted by the Commissioner, Department of Administrative Services, **Order of Award**, which Order is made a part of this **Contract**, the **General Conditions**, the **General Requirements**, the **Contract** and the **Bonds** shall form part of this **Contract** and the **provisions** thereof shall be as binding upon the parties as if they were fully set forth herein. The tables of contents, titles, headings, running headlines and marginal notes contained herein and in said Documents, are solely to facilitate to various provisions of the Contract Documents and in no way affect, limit, or cast light upon the interpretations of the provisions to which they refer. Whenever the term “Contract Documents” is used, it shall mean and include this **Contract**, the **Invitation for Bids**, the enumerated **Plans**, **Specifications** and **Amendments** thereto, the **Addenda**, the **Bid Proposal** as accepted by the Commissioner, Department of Administrative Services, the **General Conditions**, the **General Requirements**, the **Bonds**, the **Notice to Bidders**, the **Wage Scales**, the **Supplementary Conditions**, and the **Insurance Certificates**.

2. SCOPE OF THE WORK:

The Contractor shall furnish all plant, labor, materials, supplies, equipment, and other facilities and things necessary or proper for or incidental to the work contemplated by this Contract as required by and in strict accordance with applicable Plans, Specifications and Amendments thereto, and Addenda (hereinafter enumerated), and as required by and in strict accordance with such changes as are ordered and approved pursuant to this Contract, and will perform all other obligations imposed on him by this Contract.

3. ENUMERATION OF PLANS, SPECIFICATIONS AND ADDENDA:

The following is an enumeration of the Plans, Specifications, and Addenda:

Prepared By:	<input type="text"/> <i>(Print Name of Architect/Engineer Firm)</i>
Plans and Specifications:	<input type="text"/>
Addenda:	<input type="text"/>

4. COMPENSATION TO BE PAID THE CONTRACTOR

The State will pay and the Contractor will accept in full consideration for the performance of the Contractor's obligation hereunder the sum of:

<input type="text"/>	Dollars and 00/100 (\$	<input type="text"/>)
----------------------	------------------------	----------------------	---

5. PROVISIONS REQUIRED BY LAW DEEMED INSERTED

Each and every provision of law and clause required by law to be inserted in this Contract shall be deemed to be inserted herein and the Contract shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party, the Contract shall forthwith be physically amended to make such insertion.

For all State contracts as defined in the **C.G.S. §9-612(f)(1)(C)**, having a value in a calendar year of \$50,000 or more or a combination or series of such agreements or contracts having a value of \$100,000 or more, the authorized signatory to this Agreement expressly acknowledges receipt of the State Elections Enforcement Commission's notice advising state contractors of campaign contribution and solicitation prohibitions, and will inform its principals of the contents of the notice. See **SEEC Form 10**.

Contractor hereby irrevocably assigns to the State of Connecticut all rights, title and interest in and to all **Claims* associated with this Contract** that Contractor now has or may or will have and that arise under the antitrust laws of the United States, **15 USC Section 1, et seq.** and the antitrust laws of the State of Connecticut, **C.G.S. §35-24, et seq.**, including but not limited to any and all Claims for overcharges. This assignment shall become valid and effective immediately upon the accrual of a Claim without any further action or acknowledgment by the parties.

***Definition of Claims associated with this Contract:** "All actions, suits, claims, demands, investigations and proceedings of any kind, open, pending or threatened, whether mature, unmaturing, contingent, known or unknown, at law or in equity, in any forum."

IN WITNESS WHEREOF, the Commissioner, Department of Administrative Services for and on behalf of the State of Connecticut, and the Contractor have executed this contract on the day and year first written.

Attested By:		State Of Connecticut	
WITNESS:	<input type="text"/>	By:	<input type="text"/>
	<i>(Signature)</i>		<i>(Signature)</i>
Print Name:	<input type="text"/>	Print Name:	Melody A. Currey
WITNESS:	<input type="text"/>	Its:	Commissioner
	<i>(Signature)</i>		Department of Administrative Services
Print Name:	<input type="text"/>	Date Signed:	<input type="text"/>
			<div style="border: 1px solid black; width: 100%; height: 100%;"></div>
			SEAL
WITNESS:	<input type="text"/>	Contractor:	<input type="text"/>
	<i>(Signature)</i>	By:	<input type="text"/>
Print Name:	<input type="text"/>		<i>(Signature)</i>
WITNESS:	<input type="text"/>	Its:	<input type="text"/> , Duly Authorized
	<i>(Signature)</i>	Print Name:	<input type="text"/>
Print Name:	<input type="text"/>	Print Title:	<input type="text"/>
		Date Signed:	<input type="text"/>

End of Section
00 52 03 Contract

Subcontract Agreement Form

DAS | Construction Services | Office of Legal Affairs, Policy, and Procurement

In accordance with the requirements of the Connecticut General Statutes (C.G.S.) §4b-96, the Contractor selected for the Contract shall provide to each of its listed or substitute Named Subcontractors the relevant subcontract, along with a notice setting forth the time limit for execution of such subcontract. The Contractor selected for the Contract shall file with the State of Connecticut Department of Administrative Services (DAS) Construction Services Office of Legal Affairs, Policy, and Procurement an executed copy of each subcontract within ten (10) days (Saturdays, Sundays and legal holidays excluded) of presentation of the subcontract to each subcontractor. Each subcontract shall include at least the provisions set forth in the **Subcontract** form found in C.G.S. §4b-96 and shall follow the order of this **Subcontract Agreement Form**.

C.G.S. §4b-96. Subcontract, form. Procedure on failure of subcontractor to execute subcontract. General bidder's responsibilities.

Within five days after being notified of the award of a general contract by the awarding authority, or, in the case of an approval of a substitute subcontractor by the awarding authority, within five days after being notified of such approval, the general bidder shall present to each listed or substitute subcontractor (1) a subcontract in the form set forth in this section and (2) a notice of the time limit under this section for executing a subcontract. If a listed subcontractor fails within five days, Saturdays, Sundays and legal holidays excluded, after presentation of a subcontract by the general bidder selected as a general contractor, to perform his agreement to execute a subcontract in the form hereinafter set forth with such general bidder, contingent upon the execution of the general contract, the general contractor shall select another subcontractor, with the approval of the awarding authority. When seeking approval for a substitute subcontractor, the general bidder shall provide the awarding authority with all documents showing (A) the general bidder's proper presentation of a subcontract to the listed subcontractor and (B) communications to or from such subcontractor after such presentation. The awarding authority shall adjust the contract price to reflect the difference between the amount of the price of the new subcontractor and the amount of the price of the listed subcontractor if the new subcontractor's price is lower and may adjust such contract price if the new subcontractor's price is higher. The general bidder shall, with respect to each listed subcontractor or approved substitute subcontractor, file with the awarding authority a copy of each executed subcontract within ten days, Saturdays, Sundays and legal holidays excluded, of presentation of a subcontract to such subcontractor. The subcontract shall be in the following form:

(See page 2 and page 3)

SUBCONTRACT

THIS AGREEMENT made this day of , 20, by and between a corporation organized and existing under the laws of (a partnership consisting of) (an individual doing business as) hereinafter called the "Contractor" located at (insert complete address) _____, and a corporation organized and existing under the laws of (a partnership consisting of) (an individual doing business as) hereinafter called the "Subcontractor", located at (insert complete address) _____.

WITNESSETH that the Contractor and the Subcontractor for the considerations hereafter named, agree as follows:

1. The Subcontractor agrees to furnish all labor and materials required for the completion of all work specified in Section No. of the specifications for (Name of Subtrade) and the plans referred to therein and addenda No. , , , and , and for the (Complete title of project and the project number taken from the title page of the specifications) all as prepared by (Name of Architect or Engineer) for the sum of (\$) and the Contractor agrees to pay the Subcontractor said sum for said work. This price includes the following alternates:

Supplemental No. (s) , , , , , .

(a) The Subcontractor agrees to be bound to the Contractor by the terms of the hereinbefore described plans, specifications (including all general conditions stated therein which apply to his trade) and addenda No. , , , and , and , and to assume to the Contractor all the obligations and responsibilities that the Contractor by those documents assumes to the (Awarding Authority) , hereinafter called the "Awarding Authority", except to the extent that provisions contained therein are by their terms or by law applicable only to the Contractor.

(b) The Contractor agrees to be bound to the Subcontractor by the terms of the hereinbefore described documents and to assume to the Subcontractor all the obligations and responsibilities that the Awarding Authority by the terms of the hereinbefore described documents assumes to the Contractor, except to the extent that provisions contained therein are by their terms or by law applicable only to the Awarding Authority.

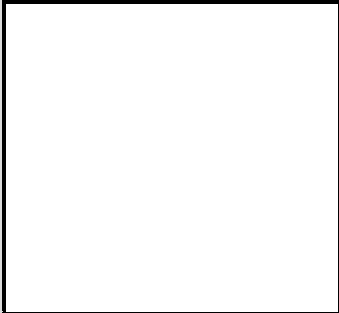
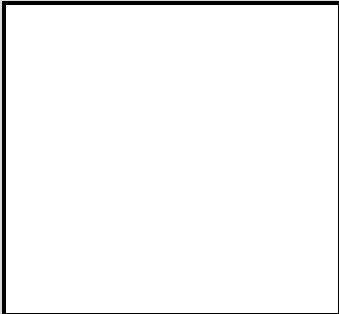
2. The Contractor agrees to begin, prosecute and complete the entire work specified by the Awarding Authority in an orderly manner so that the Subcontractor will be able to begin, prosecute and complete the work described in this subcontract; and, in consideration thereof, upon notice from the Contractor, either oral or in writing, the Subcontractor agrees to begin, prosecute and complete the work described in this Subcontract in an orderly manner in accordance with completion schedules prescribed by the general contractor for each subcontract work item, based on consideration to the date or time specified by the Awarding Authority for the completion of the entire work.

3. The Subcontractor agrees to furnish to the Contractor, within a reasonable time after the execution of this subcontract, evidence of workers' compensation insurance as required by law and evidence of public liability and property damage insurance of the type and in limits required to be furnished to the Awarding Authority by the Contractor.

4. The Contractor agrees that no claim for services rendered or materials furnished by the Contractor to the Subcontractor shall be valid unless written notice thereof is given by the Contractor to the Subcontractor during the first forty (40) days following the calendar month in which the claim originated.

5. This agreement is contingent upon the execution of a general contract between the Contractor and the Awarding Authority for the complete work.

IN WITNESS WHEREOF, the parties hereto have executed this agreement the day and year first above-written.

Subcontractor	
	<input type="text"/>
	Subcontractor
	By: <input type="text"/>
	<i>(Print Name)</i>
	Its: <input type="text"/>
	Duly Authorized
ATTEST: <input type="text"/>	<input type="text"/>
<i>(Signature)</i>	<i>(Subcontractor Signature)</i>
Date: <input type="text"/>	Date: <input type="text"/>
Contractor	
	<input type="text"/>
	Contractor
	By: <input type="text"/>
	<i>(Print Name)</i>
	Its: <input type="text"/>
	Duly Authorized
ATTEST: <input type="text"/>	<input type="text"/>
<i>(Signature)</i>	<i>(Contractor Signature)</i>
Date: <input type="text"/>	Date: <input type="text"/>

**End of Section
00 52 73 Subcontract Agreement Form**



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
	PHONE (A.C. No. EXT):	FAX (A.C. No.):
INSURED Contractor's Legal Name and Address	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	
	INSURER A:	NAIC#
	INSURER B:	
	INSURER C:	
	INSURER E:	

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADD. SUIN INSR. W/O	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-WIDE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC		Policy Number must be provided	Policy Effective Date must be provided	Policy Expiration Date must be provided	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADY INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMPYOP AGG \$ 2,000,000
	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS		Policy Number must be provided	Policy Effective Date must be provided	Policy Expiration Date must be provided	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	<input type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> EXCESS LIAB OCCUR CLAIMS-MADE DED. RETENTION \$					EACH OCCURRENCE \$ AGGREGATE \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N/A	Policy Number must be provided	Policy Effective Date must be provided	Policy Expiration Date must be provided	<input checked="" type="checkbox"/> WC STATUTORY LIMITS E.L. EACH ACCIDENT \$ 100,000 E.L. DISEASE - EA EMPLOYEE \$ 100,000 E.L. DISEASE - POLICY LIMIT \$ 500,000
	Owner's and Contractor's Protective Liability Builder's Risk (include here when applicable)					Bodily Injury or Death (per occ.) Total \$ 1,000,000 Property Damages Total (aggregate) \$ 2,000,000 Completed Value

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Indicate Project Number and Title here

The State of Connecticut is an Additional Insured with respect to General Liability and Umbrella/Excess Liability Insurance coverage.

If Builder's Risk and or Inland Marine/Transit Insurance is required then the State is endorsed as a Loss Payee.

CERTIFICATE HOLDER State of Connecticut Department of Administrative Services, Construction Services Office of Legal Affairs, Policy and Procurement 450 Columbus Boulevard, Suite 1302 Hartford, CT 06103-1838	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE Agent of Producer
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ACORD 25 (2010/05)

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End of Section
 00 62 16 Certificate of Insurance

Asbestos Abatement Liability Insurance

DAS | Construction Services | Office of Legal Affairs, Policy, and Procurement

Contractor shall provide Asbestos Abatement Liability insurance **with limits of no less than \$1,000,000.00 per occurrence**. Such insurance shall include all operations associated with hazardous materials removal and shall be written on an **occurrence basis form**. The State of Connecticut shall be named as an Additional Insured.

Asbestos abatement coverage may alternatively be provided under a Commercial General Liability policy provided the policy is specifically endorsed to provide asbestos abatement coverage.

End of Section
00 62 16.1 Asbestos Attachment To Accord Form

**General Conditions of the Contract for Construction
 For Design-Bid-Build
 Department of Construction Services
 State of Connecticut
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ARTICLE 1
DEFINITIONS

WHENEVER THE FOLLOWING TERMS, OR PRONOUNS IN PLACE OF THEM, ARE USED THE INTENT AND MEANING SHALL BE AS FOLLOWS:

1.1 ACCEPTANCE: The Owner's acknowledgement of the Work from the Contractor upon certification by the Construction Administrator and Architect or Engineer that all Work has been completed.

1.2 ADDITIONAL OR DELETED WORK: Work required by the Department that, in the judgment of the Commissioner, involves any addition to, deduction from, or modification of the Work required by the Contract Documents.

1.3 AGENCY: The (User) Agency of the State of Connecticut having administrative authority of the facility in which the Work is being performed.

1.4 APPLICATION FOR PAYMENT, PARTIAL PAYMENT OR REQUISITION: Contractor's certified request for payment for completed portions of the Work and, if the Contract so provides, for materials or equipment suitably stored pending their incorporation into the Work.

1.5 ARCHITECT OR ENGINEER: A sole proprietor, partnership, firm, corporation or other business organization under Contract with the Owner, commissioned to prepare Contract Drawings and Specifications, to advise the Owner and in certain cases, to perform regular inspections during construction and when authorized to perform the duties of the Construction Administrator.

1.6 AS-BUILT DRAWINGS: Construction Drawings revised by the Contractor to show all significant Modifications made during the construction process.

1.7 BASE BID: Monetary value stated in the Bid Proposal Form as the sum for which the Bidder offers to perform the Work described in the Bidding Documents, exclusive of adjustments for Supplemental Bids.

1.8 BID BOND: Form of Bid Security executed by the Bidder as Principal and by a Surety to guarantee that the Bidder will enter into a Contract within a specified time and furnish any required bond as mandated by Connecticut General Statute Section 4b-92.

1.9 BIDDER: A sole proprietor, partnership, firm, corporation or other business organization submitting a Bid on the Bid Proposal Form for the Work contemplated.

1.10 BIDDING DOCUMENTS: Collectively, the Bidding Requirements and the proposed Contract Documents, including any addenda issued prior to receipt of Bids.

1.11 BID OR BID PROPOSAL FORM: A complete and duly signed proposal to perform Work (or a designated portion thereof) for a stipulated sum submitted in accordance with the Bidding Documents.

1.12 BID SECURITY: Certified check or Bid Bond submitted with Bid Proposal Form, which provides that the Bidder, if awarded the Contract, will execute such Contract in accordance with the requirements of the Bidding Documents.

1.13 BUILDER'S RISK INSURANCE: A specialized form of property insurance which provides coverage for loss or damage to the Work pursuant to the Contract Documents.

1.14 CASH ALLOWANCE: An amount established in the Contract Documents for inclusion in the Contract Sum to cover the cost of prescribed items not specified in detail, and as shown in the Allowance Schedule.

1.15 CERTIFICATE OF ACCEPTANCE: A document issued by the Owner to the Contractor stating that all Work specified in the Certificate of Acceptance has been completed and accepted by the Owner.

1.16 CERTIFICATE OF COMPLIANCE: A document stating that for the portion of the Project completed, either the design portion or the construction portion, has been performed in substantial compliance with all applicable building codes.

1.17 CERTIFICATE OF OCCUPANCY: Document issued by the authority having jurisdiction certifying that all or a designated portion of a building is approved for its designated use.

1.18 CERTIFICATE OF SUBSTANTIAL COMPLETION: A document prepared by the Architect or Engineer and approved by the Owner on the basis of an inspection stating:

- 1.18.1** that the Work, or a designated portion thereof, is determined to be Substantially Complete;
- 1.18.2** the date of Substantial Completion;
- 1.18.3** the responsibilities of the Owner and the Contractor for security maintenance, heat, utilities, damage to the Work and insurance; and
- 1.18.4** the time within which the Contractor shall complete the remaining Work.

1.19 CHANGE ORDER: Written authorization signed by the Owner, authorizing a modification in the Work, an adjustment in the Contract Sum, or an adjustment in the Contract Time.

1.20 COMMISSIONER: The State of Connecticut, Department of Construction Services (CT DCS) Commissioner acting directly or through specifically authorized CT DCS personnel or agent(s) having authority to perform duties defined in Article 25.

1.21 COMMISSIONING AGENT (CxA): An independent entity under contract directly with the Owner or Owner's Representative responsible for performing the specified commissioning procedures.

1.22 CONSTRUCTION ADMINISTRATOR: A sole proprietor, partnership, firm, corporation or other business organization, under Contract or employed by the Owner commissioned and/or authorized to oversee the fulfillment of all requirements

of the Contract Documents. The authorized Construction Administrator may be a Department of Construction Services Assistant Project Manager, Department of Construction Services Project Manager, a Clerk of the Works, an Architect, a Consulting Architect, a Consulting Construction Administrator, a Consulting Engineer etc. or any other designee as authorized and identified by the Owner.

1.23 CONSTRUCTION CHANGE DIRECTIVE: A written authorization signed by the Owner, directing a modification in the Work and stating a proposed basis for adjustment, if any, in the Contract Sum, Contract Time or both. Any Construction Change Directive effecting an adjustment to the Contract Sum or Contract Time shall result in a Change Order.

1.24 CONTRACT DOCUMENTS OR CONTRACT: The Agreement between Owner and Contractor, Conditions of the Contract (General Conditions, Supplementary Conditions, General Requirements and other Conditions), Drawings, Specifications, and Addenda issued prior to execution of the Contract, other documents listed in the Agreement and Modifications issued after execution of the Contract, all of which shall constitute the Contract.

1.25 CONTRACTOR OR GENERAL CONTRACTOR: A sole proprietor, partnership, firm or Corporation, under direct Contract with the Department of Construction Services, responsible for performing the Work under the Contract Documents. Whenever the words "Contractor" or "General Contractor" are used it shall be understood to mean Contractor.

1.26 CONTRACTOR'S LIABILITY INSURANCE: Insurance purchased and maintained by the Contractor that insures the Contractor for claims for property damage, bodily injury or death.

1.27 CONTRACT START DATE OR DATE OF COMMENCEMENT OF THE WORK: The date, specified by the Owner in the Notice to Proceed, on which the Contractor is required to start the Work.

1.28 CONTRACT SUM: The sum stated in the Contract, which is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

1.29 CONTRACT TIME: The period of time allotted in the Contract Documents for Substantial Completion of the Work, including authorized adjustments thereto. The Contract Time is the sum of all Working Days and Non-Working Days as further defined herein and specified in the Contract Documents.

1.30 DAY: Whenever the word Day is used it shall be understood to mean calendar day stated on the Bidding Documents, unless stated otherwise.

1.31 DEPARTMENT OF CONSTRUCTION SERVICES (CT DCS) PROJECT MANAGER: The individual employed by the Owner, designated and authorized by the Commissioner, to be

responsible for the overall management and oversight of the Project, and to represent the (User) Agency.

1.32 DIESEL VEHICLE EMISSIONS CONTROL: The reduction of air pollution emissions from diesel powered vehicles through the use of diesel engine emission control technologies.

1.33 EQUAL(S): Any deviation from the Specification which is defined as follows: A replacement for the specified material, device, procedure, equipment, etc., which is recognized and accepted as substantially equal to the first listed manufacturer or first listed procedure specified after review by the Architect/Engineer, and may be rejected or approved at the sole discretion of the Owner. All equals must be substantially equivalent to the first manufacturer or first procedure listed in the Specifications with reference to all of the following areas: the substance and function considering quality, workmanship, economy of operation, durability, and suitability for purposes intended; size, rating, and cost. The equal does not constitute a modification in the scope of Work, the Schedule, or Architect/Engineer's design intent of the specified material, device, procedure, equipment, etc.

1.34 FINAL INSPECTION: Review of the Work by the Architect or Engineer and Owner to determine whether Acceptance has been achieved.

1.35 FINAL PAYMENT: The last payment made by the Owner to the Contractor, made after notice of the Acceptance. Payment shall include the entire unpaid balance of the Contract Sum as adjusted by modifications.

1.36 GENERAL CONDITIONS: The General Conditions of the Contract for Construction, part of Division 00 of the Specifications.

1.37 GENERAL REQUIREMENTS: That part of the Contract Documents entitled General Requirements, which is Division 01 of the Specifications.

1.38 GUARANTEE: See Warranty.

1.39 LIQUIDATED DAMAGES: A sum established in a Contract, usually as a fixed sum per Day, as the predetermined measure of damages to be paid to the Owner due to the Contractor's failure to complete the Work within the Contract Time.

1.40 LUMP SUM: An item or category priced as a whole rather than broken down into its elements.

1.41 MOBILE SOURCE: A source designed or constructed to move from one location to another during normal operation except portable equipment and includes, but is not limited to, automobiles, buses, trucks, tractors, earth moving equipment, hoists, cranes, aircraft, locomotives operating on rails, vessels for transportation on water, lawnmowers, and other small home appliances.

1.42 NON-WORKING DAYS: All Saturdays, Sundays, Legal State Holidays (12), and any other Days identified in the

Contract Documents that the Contractor is not permitted to execute the Work. The restriction of Non-Working Days may be suspended upon the approval or direction of the Commissioner.

1.43 NOTICE TO BIDDER: A notice contained in the Bidding Document informing prospective Bidders of the opportunity to submit Bids on a Project.

1.44 NOTICE TO PROCEED: Written notice, issued by the Commissioner or the Commissioner's authorized representative, to the Contractor authorizing the Contractor to proceed with the Work and establishing the date for commencement of the Contract Time.

1.45 OWNER OR DEPARTMENT: The State of Connecticut, Department of Construction Services acting through its Commissioner or specifically authorized Department personnel or agent.

1.46 OVERHEAD: Indirect costs including: supervision (any position over the foreman), field and home office expense, insurance, and small tools and consumables.

1.47 PAYMENT, BOND, LABOR BOND OR MATERIAL BOND: A bond in which the Contractor and the Contractor's surety guarantee to the Owner that the Contractor will pay for labor and materials furnished for use in the performance of the Contract, as required by Connecticut General Statutes Section 49-41.

1.48 PERFORMANCE BOND OR SURETY BOND: A bond in which the Contractor and the Contractor's surety guarantee to the Owner that the Work will be performed in accordance with the Contract Documents, as required by Connecticut General Statutes Section 49-41.

1.49 PERFORMANCE SPECIFICATION: A description of the desired results or performance of a product, material, assembly, procedure, or a piece of equipment with criteria for identifying the standard.

1.50 PLANS OR DRAWINGS: All Drawings or reproductions of Drawings pertaining to the construction of the Work contemplated and its appurtenances.

1.51 PROJECT: The total construction of which the Work performed under the Contract Documents may be the whole or a part.

1.52 PROJECT MANUAL: The set of documents assembled for the Work which includes, but is not limited to, Contract Documents, Bidding Requirements, Sample Forms, General Conditions of the Contract for Construction, General Requirements, and the Specifications.

1.53 PROPRIETARY SPECIFICATION: A specification that describes a product, procedure, function, material, assembly, or piece of equipment by trade name and/or by naming the manufacturer(s) or manufacturer's procedure, exact model number, item, etc., of those products acceptable to the Owner.

1.54 RETAINAGE: A percentage of each Application for Payment and a percentage of the total Contract Sum retained by the Owner.

1.55 SCHEDULE: A Critical Path Method (CPM) or Construction Schedule as required by the Contract Documents which shall be a diagram, graph or other pictorial or written Schedule showing all events expected to occur and operations to be performed and indicating the Contract Time, start dates, durations and finish dates as well as Substantial Completion and Acceptance of the Work, rendered in a form permitting determination of the optimum sequence and duration of each operation.

1.56 SCHEDULE OF VALUES: A document furnished by the Contractor to the Architect or Engineer and Owner stating the portions of the Contract Sum allocated to the various portions of the Work, which is to be used for reviewing the Contractor's Applications for Payment.

1.57 SECONDARY SUBCONTRACTOR: A sole proprietor, partnership, firm or Corporation under direct Contract with the Subcontractor to the General Contractor.

1.58 SENSITIVE RECEPTOR SITES: Areas where concentrations of diesel emissions may be harmful to sensitive populations, including, but not limited to, hospitals, school and university buildings being occupied during a student semester, residential structures, daycare facilities, elderly housing, and convalescent facilities.

1.59 SHOP DRAWINGS: Drawings provided to Architect or Engineer and Owner by a Contractor that illustrate construction, materials, dimensions, installation, and other pertinent information for the incorporation of an element or item into the construction as detailed Contract Documents.

1.60 SPECIFICATIONS: The description, provisions and other requirements pertaining to the method and manner of performing the Work and/or to the quantities and quality of materials to be furnished under the Contract.

1.61 SUBCONTRACTOR: A sole proprietor, partnership, corporation or other business organization under direct Contract with the Contractor supplying labor and/or materials for the Work at the site of the Project.

1.62 SUBMITTALS: Documents including, but not limited to, samples, manufacturer's data, Shop Drawing, or other such items submitted to the Owner and Architect or Engineer by the Contractor for the purpose of approval or other action, as required by the Contract Documents.

1.63 SUBSTANTIAL COMPLETION: The stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents.

1.64 SUBSTITUTION: Any deviation from the specified requirements, which is defined as follows: A replacement for

the specified material, device, procedure, equipment, etc., which is not recognized or accepted as equal to the first manufacturer or procedure listed in the Specification after review by the Architect/Engineer, and may be rejected or approved by the Owner. The Substitution is not equal to the specified requirement in comparison to the first manufacturer or first procedure listed in the Specifications in one or more of the following areas: the substance and function considering quality, workmanship, economy of operation, durability, and suitability for purposes intended; size, cost, and rating. The Substitution constitutes a modification in the scope of Work, the Schedule, or the Architect/Engineer's design intent of the specified material, device, procedure, equipment, etc.

1.65 SUPERINTENDENT: The Contractor's representative at the site who is responsible for continuous field supervision, coordination, in, completion of the Work, and, unless another person is designated in writing by the Contractor to the Owner and the Construction Administrator, for the prevention of accidents.

1.66 SUPPLEMENTAL BID: The monetary value stated in the Bid to be added to the amount of the Base Bid if the corresponding Work, as described in the Bidding Documents, is accepted.

1.67 SUPPLEMENTARY CONDITIONS: An extension in the Bid to be added to the amount of the Base Bid if the corresponding Work, as described in the Bidding Documents, is accepted.

1.68 THRESHOLD LIMIT BUILDING: Any proposed (new) structures or additions as defined by the Connecticut General Statutes Section 29-276b.

1.69 UNIT PRICE: The monetary value stated by the Owner or the Contractor, as a price per unit of measurement for materials or services as described in the Contract Documents and/or Bidding Documents.

1.70 WARRANTY: A written, legally enforceable assurance of specified quality or performance of a product or Work or of the duration of satisfactory performance.

1.71 WORK: The construction and services required by the Contract Documents, and including all labor, materials, equipment and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.

ARTICLE 2 CONDITIONS OF WORK

2.1 The Contractor shall carefully examine and study the conditions under which the Work is to be performed and the site of the Work, and compare the Contract Documents with each other and to information furnished by the Owner including but not limited to the Plans and Specifications, the form of the Contract, General Conditions, Supplementary Conditions, General Requirements, Bonds and all other Contract Documents associated with the Work.

2.2 The Contractor shall report to the Construction Administrator all errors, inconsistencies or omissions discovered. The Contractor shall not be liable to the Owner for damage resulting from errors, inconsistencies or omissions in the Contract Documents unless the Contractor recognized such errors, inconsistencies or omission and failed to report it to the Construction Administrator. If the Contractor performs any actions or construction activity knowing it involves an error, inconsistency or omission in the Contract Documents without notice to the Construction Administrator, the Contractor shall assume responsibility for such performance and related costs for the correction and shall not be allowed to submit any claim related to error, inconsistencies or omission.

2.3 The Contractor shall take field measurements and verify field conditions and shall carefully compare such field measurements and conditions and other information known to the Contractor with the Contract Documents before commencing activities. Errors, inconsistencies or omissions discovered shall be reported to the Construction Administrator at once; and it will be assumed that the Contractor has been satisfied as to all requirements of the Contract Documents. Any deterrent conditions at the site of the Work which are obvious and apparent upon examination of the site but are not indicated on the Plans shall be corrected by the Contractor without additional compensation.

2.4 In performing the Work, the Contractor must employ such methods or means as will not cause any interruption of or interference with the Work of any other Contractor, nor any inordinate disruption with the normal routine of the Owner, institution or Agency operating at the site.

2.5 No claims for additional compensation will be considered when additional costs result from conditions made known to, discovered by, or which should have been discovered by, the Contractor prior to Contract signing.

2.6 All Communications from the Contractor concerning proposed changes to the Contract Sum, Contract Time, or Work shall be in writing.

2.7 The Contractor shall perform the Work in accordance with the Contract Documents and approved Submittals pursuant to Article 5.

ARTICLE 3 CORRELATION OF CONTRACT DOCUMENTS

3.1 The Contract Documents are complementary, and what is called for by any one shall be as binding as if called for by all. Where discrepancies or conflict occur in the Contract Documents the following order of precedence shall be utilized:

3.1.1 Amendments and addenda shall take precedence over previously issued Contract Documents.

3.1.2 The Supplementary Conditions take precedence over the General Conditions.

3.1.3 The General Conditions take precedence over the General Requirements.

3.1.4 The Specifications shall take precedence over the Plans.

3.1.5 Stated dimensions shall take precedence over scaled dimensions.

3.1.6 Large-scale detail Drawings shall take precedence over small-scale Drawings.

3.1.7 The Schedules contained in the Contract Documents shall take precedence over other data on the Plans.

3.2 Neither party to the Contract shall take advantage of any obvious error or apparent discrepancy in the Contract Documents. The Contractor shall give immediate written notification of any error or discrepancy discovered to the Construction Administrator, who shall take the necessary actions to obtain such corrections and interpretations as may be deemed necessary for the completion of the Work in a satisfactory and acceptable manner. The Contractor shall then promptly proceed under the direction of the Owner and the provisions of Article 13. The Contractor's failure to provide immediate notice shall mean the Contractor will not be entitled to any additional compensation, either monetary or Contract Time adjustment, with respect to any discrepancy.

3.3 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become familiar with local conditions under which the Work is to be performed, and correlated personal observations with requirements of the Contract Documents.

3.4 Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings, shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

3.5 Unless otherwise stated in the Contract Documents, words which have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

ARTICLE 4 **COMMENCEMENT AND PROGRESS OF WORK**

4.1 The Work shall start upon the date given in the Notice to Proceed. The Contractor shall complete all the Work necessary for Final Payment, including but not limited to Substantial Completion, Contract close-out, testing and demonstration of all systems as required for Acceptance, punchlist Work, training and submission of Record Documents, manuals, Guarantees and Warranties as stated in the Contract Document.

4.2 Time is of the essence with respect to the Contract Time. By executing the Contract, the Contractor confirms and agrees that the Contract Time is a reasonable period to perform the Work. The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time. The Contractor may, at his discretion, plan to complete the Work and achieve Substantial Completion in less time than the Contract Time.

4.3 The Contractor's early completion Schedule

notwithstanding, the Owner reserves the right to order Modifications to the Work in accordance with Article 13 at any time during the Contract Time.

4.4 The Contractor shall not be entitled to costs for delay due to Owner ordered Modifications or any other circumstances for the period of time between the Contractor's elected early completion and the end of the Contract Time. Such costs include, but are not limited to, extended home office costs, field office costs, or supervisory and management costs incurred in performance of the Work. Early completion of the Work shall not merit additional compensation.

4.5 If the Contractor is delayed at any time in the progress of Work by acts of God, such as fire or flood or any action, injunction or stop order issued by any court, judge or officer of the court or any other court action beyond the Owner's control, then the Contract Time may be extended by Change Order for such reasonable time as demonstrated by the Contractor's Schedule and as the Owner may determine that such event has delayed the Work. In any event, the granting of an extension of time shall be solely within the discretion of the Owner.

4.6 Except as otherwise may be provided herein, extensions of time shall be the Contractor's sole remedy for such delay. No payment or compensation of any kind shall be made to the Contractor for damages because of hindrance in the orderly progress of Work caused by the aforesaid causes.

4.7 The Contractor acknowledges that the Contract amount includes and anticipates any and all delays, whether avoidable or unavoidable, from said orders, which may issue from any court, judge, court officer, or act of God, and that such delays shall not, under any circumstances, be construed as compensable delays.

4.8 Any extension of the Contract Time shall be by Change Order pursuant to Article 13.

4.9 The Contractor shall employ a competent project manager who shall represent the Contractor. Communications given to the project manager shall be binding as if given to the Contractor. The project manager will be employed full time on the Project and be located and assigned to the Project site during and for the duration of the Work.

4.10 The Contractor shall employ a competent Superintendent and necessary assistants who will be in attendance at the project site during the performance of the Work.

4.11 Upon execution of the Contract, materials may be purchased. No material escalation costs will be valid or compensable unless the Owner directs, in writing, a delay in the procurement.

ARTICLE 5 **SUBMITTALS, PRODUCT DATA, SHOP** **DRAWINGS AND SAMPLES**

5.1 Contractor shall review, approve, and submit to the Construction Administrator all Submittals including but not limited to, product data, Shop Drawings, and samples, with such promptness as to cause no delay in the Work.

5.2 Correction or approval of such Submittals, Shop Drawings, product data and samples will be made with reasonable promptness by the Architect or Engineer. Approval will be general only and shall not relieve the Contractor from responsibility for errors in dimensions, for construction and field coordination of the Work or for any departure from the Contract Documents, unless such departure has received the Owner's written approval.

5.3 No Work governed by such Shop Drawings, Schedules or samples shall be fabricated, delivered or installed until approved by the Architect or Engineer.

5.4 No damages for delays or time extensions will be granted, even if approvals deviate from the approved Schedule.

ARTICLE 6 SEPARATE CONTRACTS

6.1 The Owner reserves the right to perform Work in connection with the Contract with the Owner's own forces, or to let separate contracts relating to the Contract (Project) site or in connection with Work on adjoining sites. In such cases, the Contractor shall afford such parties reasonable opportunity for storage of materials and equipment and coordinate and connect the Work with the work on adjoining sites or other Projects, and shall fully cooperate with such parties in the matter required under Article 7 herein.

6.2 Contractors working in the same vicinity shall cooperate with one another and, in case of dispute, decision of the Owner shall be final and binding to all Contractors involved, including Contractors under separate Contracts.

6.3 The Contractor shall assume all liability, financial or otherwise, in connection with this Contract and shall protect and hold harmless the Owner from any and all damages or claims that may arise because of inconvenience or delay which the Contractor may cause other Contractors. If the Contractor experiences a loss because of the presence and operations of other Contractors working adjacent to or within the limits of the same Project, then as between the Owner and the Contractor, the Contractor shall bear such loss.

6.4 Insofar as possible, the Contractor shall arrange the Work and shall place and dispose of the materials being used so as not to interfere with the operations of other Contractors adjacent to or within the limits of the same Project. The Contractor shall join its Work with that of others in an acceptable manner, and perform the Work in proper accordance with that of the others.

6.5 In no event shall the Owner be responsible for any claim or damages that are the result of the Contractor's failure

to coordinate the Work with any other Contractor or Subcontractor.

ARTICLE 7 COOPERATION OF TRADES

7.1 The Contractor shall be responsible for and shall control all activities of their Subcontractors. The Subcontractors shall consult and cooperate with one another. Each Subcontractor shall furnish all necessary information to other Subcontractors and shall lay out and install their own Work so as to avoid any delays or interference with the Work of others.

7.2 Any cost or changes, cutting and/or repairing, made necessary by the failure to observe the above requirements shall be borne by the party or parties responsible for such failure or neglect or their faulty Work installed.

ARTICLE 8 DAMAGES

8.1 The Liquidated Damages, provided in the Bidding Documents, will be assessed at two distinct times, as follows:

8.1.1 Liquidated Damages – Substantial Completion:

If the Contractor fails to achieve Substantial Completion of the Work by the Substantial Completion Date, and such delay is not otherwise excused under this Contract, then the Contractor agrees to pay to the Owner Liquidated Damages for the dollar amount specified in the Bid Proposal Form for this Project, for each Day beyond Substantial Completion that the Contractor fails to achieve Substantial Completion. The parties to this Contract acknowledge and agree that the actual damages that are to be anticipated as a result of the neglect, failure, or refusal of the Contractor to substantially complete the Project by the established Substantial Completion Date are uncertain in amount or extremely difficult to determine. Accordingly, the parties to this Contract do intend and in fact now agree to liquidate damages in advance and stipulate that the amount set forth in this subparagraph is reasonable and an appropriate remedy and is intended to constitute compensatory damages and does not constitute a penalty of any kind. The parties understand and agree that, by including a provision for Liquidated Damages in this Contract, or in pursuing any relief pursuant to such provision:

.1 the parties do not intend to set a price for the privilege not to perform;

.2 the availability of Liquidated Damages may not be relied upon as a basis for argument that the Owner has an adequate remedy at law; and

.3 the remedies available to the Owner under this Agreement are cumulative and not exclusive.

8.1.2 Liquidated Damages – Acceptance:

If the Contractor fails to complete all of the Work required for Acceptance of the Work within ninety (90) Days of Substantial Completion then the Contractor agrees to pay

to the Owner Liquidated Damages for the dollar amount specified in the Bid Proposal Form for each Day in excess of ninety (90) Days beyond the Substantial Completion Date that the Contractor fails achieve Acceptance. The parties to this Contract acknowledge and agree that the actual damages that are to be anticipated as a result of the failure of the Contractor to complete all of the Work required for Acceptance within ninety (90) Days of the established Substantial Completion Date are uncertain in amount or extremely difficult to determine. Accordingly, the parties to this Contract do intend and in fact now agree to liquidate damages in advance and stipulate that the amount set forth in this subparagraph is reasonable and an appropriate remedy and is intended to constitute compensatory damages and does not constitute a penalty of any kind. The parties understand and agree that, by including a provision for Liquidated Damages in this Contract, or in pursuing any relief pursuant to such provision:

- .1 the parties do not intend to set a price for the privilege not to perform;
- .2 the availability of Liquidated Damages may not be relied upon as a basis for argument that the Owner has an adequate remedy at law; and
- .3 the remedies available to the Owner under this Agreement are cumulative and not exclusive.

8.2 The Liquidated Damages or any portion thereof may be waived at the sole discretion of the Commissioner.

8.3 No payment by the Owner, either partial or final, shall be construed to waive the Owner's right to seek Liquidated Damages.

8.4 In the event a court determines that the Contract herein is null and void for any reason, Contractor agrees that Contractor will not seek or pursue any lawsuit or claim for damages, including, but not limited to, claims for loss of Overhead or anticipated profits, against the Owner and the Owner shall not be liable for any damages which Contractor may incur as a result of such decision. In addition, if the court enjoins the Owner from entering into or proceeding with the Contract herein, the Owner shall not be liable for any damages arising out of or relating to the award of such Contract which Contractor may have incurred as a result of the injunction.

ARTICLE 9 MINIMUM WAGE RATES

9.1 In accordance with the provisions of the Connecticut General Statutes Section 31-53, the following applies:

"The wages paid on an hourly basis to any person performing the work of any mechanic, laborer, or worker on the work herein contracted to be done and the amount of payment or contribution paid or payable on behalf of each such person to any employee welfare fund, as defined in subsection (h) of this section, shall be at a rate equal to the rate customary or prevailing for the same work in the same trade or occupation in the town in which such public works project is being constructed. Any contractor who is not obligated by agreement

to make payment or contribution on behalf of such persons to any such employee welfare fund shall pay to each mechanic, laborer or worker as part of such person's wages the amount of payment or contribution for such person's classification on each payday."

9.2 Each Contractor who is awarded a Contract on or after October 1, 2002 shall be subject to provisions of the Connecticut General Statutes, Section 31-53 as amended by Public Act 02-69, "An Act Concerning Annual Adjustments to Prevailing Wages."

No wage adjustment will be made to the Contract for any wage increase under this Article.

ARTICLE 10 POSTING MINIMUM WAGE RATES

10.1 The Contractor shall post at conspicuous points on the site of the Contract a Schedule showing all determined wage rates for all trades and all authorized deductions, if any, from wages to be paid.

10.2 The Contractor shall provide weekly certified payrolls to the Owner for all persons working on the site.

ARTICLE 11 CONSTRUCTION SCHEDULES

11.1 Unless otherwise specified in the Contract Documents, within twenty-one (21) Days from the Contract Start Date, the Contractor shall submit the following to the Owner for approval:

11.1.1 A comprehensive Schedule of Submittals required by the Specifications. Said Schedule shall include Submittal dates, required approval dates and date material must be on site.

11.1.2 The Contractor shall allow a minimum of 14 Days for the Owner and its agents' review of Submittals. No extension of the Contract Time shall be granted for revisions and resubmission. Further, the Contractor shall allow a minimum of eight weeks for testing and Acceptance of the Work by the Owner.

11.1.3 When the Contract Documents specify a "CPM Schedule" a detailed Critical Path Method Schedule is required using software approved by the Owner and/or Construction Administrator with as many activities as necessary to make the Schedule an effective tool for planning and monitoring the progress of the Work. The Contractor shall show all pertinent activities requiring coordination between trades.

11.1.4 When the Contract Documents specify a "Construction Schedule" a detailed Construction Schedule is required using software approved by the Owner as a horizontal bar chart with a separate bar for each major portion of the Work or operation to make the Schedule an effective

tool for planning and monitoring the progress of the Work.

11.2 Unless otherwise specified under the Contract Documents, the Contractor shall provide a monthly update of the CPM Schedule or Construction Schedule in the format required by the Owner as well as a disk of the updated Schedule and program. If, in the opinion of the Owner, the Work is falling behind Schedule, the Contractor shall submit a revised Schedule demonstrating a recovery plan to ensure Substantial Completion of the Work within the Contract Time.

11.3 Overtime, increased manpower, and additional shifts: If ordered by the Owner in writing, the Contractor shall work overtime, and/or add additional manpower and/or shifts:

11.3.1 If the Contractor is not behind Schedule, the Owner will pay the Contractor the actual additional premium portion of the wages for overtime or additional shift work not included in the Contract price, but the Contractor shall not be entitled to Overhead and Profit.

11.3.2 If the Contractor, through its sole or partial fault or neglect is behind Schedule, the Owner may order the Contractor, at the Contractor's expense, to increase its manpower or to work any overtime or additional shifts or take other action necessary to expedite the Work to meet the Project Schedule.

11.3.3 If the Schedule is shown to be more than 21 Days behind in any critical activity, overtime, increase manpower and/or additional shifts shall be implemented immediately regardless of who is at fault. A disagreement over the cause of the impact will not relieve the Contractor from the obligation of complying with this Article. Once liability for the impact is determined, compensation will be determined in accordance with 11.3.1 or 11.3.2.

11.3.4 The Owner reserves the right to suspend activity under Paragraph 11.3. Suspension shall be in writing and at the sole discretion of the Commissioner.

11.4 Requisitions for partial payment will not be processed until the Contractor has complied with this requirement.

ARTICLE 12 **PREFERENCE IN EMPLOYMENT**

12.1 Should this Contract be for the construction or repair of any building, then in the employment of labor to perform the Work specified herein, preference shall be given to citizens of the United States, who are, and continuously for at least three (3) months prior to the date hereof, have been residents of the labor market area, as established by the State of Connecticut Labor Commissioner, in which such Work is to be done, and if no such qualified person is available, then to citizens who have continuously resided in the county in which the Work is to be performed for at least three (3) months prior to the date hereof, and then to citizens of the state who have continuously resided in the State at least three months prior to the date hereof.

12. Should this Contract be for a Construction Services

Project other than for the construction, remodeling or repairing of public buildings covered by Connecticut General Statutes 31-52, then in the employment of mechanics, laborers or workmen to perform the Work specified herein, preference will be given to residents of the state who are, and continuously for at least six (6) months prior to the date hereof have been residents of this State, and if no such person is available then to residents of other states.

12.3 The provisions of this Article shall not apply where the state or any subdivision thereof may suffer the loss of revenue granted or to be granted from any Agency or Department of the federal government as a result of this Article or regulations related thereto.

ARTICLE 13 **COMPENSATION FOR CHANGES IN THE WORK**

13.1 At any time, without invalidating the Contract and by a written order and without notice to the sureties, the Owner, through the Construction Administrator, may order modifications in the Work consisting of additions, deletions or other revisions. Upon request, the Contractor shall supply the Construction Administrator promptly with a detailed proposal for the same, showing quantities of and Unit Prices for the Work and that of any Subcontractor involved.

13.2 Modifications to the Work will be authorized by a written Change Order, or if necessary to expedite the Work, a written Construction Change Directive, issued by the Owner as provided for in Article 25. Change Orders and Construction Change Directives shall be processed in accordance with the terms of the Contract Documents. Upon receipt of the written Change Order, the Contractor shall proceed with the Work when and as directed.

13.3 If a Change Order makes the Work less expensive for the Contractor, the proper deductions shall be made from the Contract Sum, said deductions to be computed in accordance with the provisions listed in this Article 13.

13.4 The Contractor shall not be entitled to an extension of time if in the opinion of the Owner the Additional Work in conjunction with the Work can be performed without impact on the Contract Time.

13.5 The Contractor may request, and the Owner may grant additional Contract Time when, in the opinion of the Owner, the Contractor has demonstrated that the Additional Work cannot be performed in conjunction with the Work without impact on the original Substantial Completion and/or Acceptance (if applicable) date.

13.6 The amount of compensation to be paid to the Contractor for any Additional or Deleted Work that results in a Change Order shall be determined in one of the following manners:

13.6.1 **AMOUNT OF COMPENSATION FOR CHANGE ORDER COSTS: LABOR, EQUIPMENT, BENEFITS AND MATERIAL:**

13.6.1.1 Unit Price: As stated in the Contract Documents.

13.6.1.2 Unit Price: As subsequently agreed upon by the Contractor and Owner

13.6.1.3 Lump Sum: Agreed upon sum by the Owner and the Contractor. The Owner may rely on costs, prices, and documentation provided by the Contractor or Subcontractor in agreeing to a Lump Sum. If the Owner believes that additional information is necessary to substantiate the accuracy of the cost, the Owner reserves the right to request and receive additional information from the Contractor. The Lump Sum must be based upon the following itemized costs:

13.6.1.3.1 Labor: (Contractor's or Subcontractor's own forces) No Change Order Proposal shall be negotiated if the request is solely for the increased labor rate over those originally carried by the Contractor in its original bid. Additional foreman hours shall not be included unless additional crews are added and/or a compensable time extension is granted. Project Executive time shall not be included as a direct cost as it is part of the overhead mark-up allowed. Project manager hours shall not be included unless a compensable time extension is granted.

13.6.1.3.2 Material: (Actual cost to the Contractor or Subcontractor) Cost shall not be based upon list pricing unless it reflects the actual prices being paid and no discounts or other offsets are being received by the Contractor or Subcontractor. No Change Order Proposal shall be negotiated if the request is solely for the escalation of material prices over those originally carried by the Contractor in its original bid.

13.6.1.3.3 Benefits: (The established rates of the following benefit costs inherent to the particular labor involved):

- 13.6.1.3.3.1** Workers Compensation.
- 13.6.1.3.3.2** Federal Social Security.
- 13.6.1.3.3.3** Connecticut Unemployment Compensation.
- 13.6.1.3.3.4** Fringe Benefits.

13.6.1.4 Rented Equipment: (Used directly on the Work and by the Contractor's or Subcontractor's own forces).

13.6.1.5 Owned Equipment: (Used directly on the Work and by the Contractor's or Subcontractor's own forces). Daily rate is not to exceed 3% of the monthly rental rate as identified by a nationally recognized construction cost estimating guide or service.

13.6.1.6 Small Tools:
Include items such as shovels, picks, rakes, ladders, and power tools which are expected to be utilized on a project. Trade related equipment, hand tools, and power tools normally supplied with the labor or are normally expected to be owned in the performance of the typical work for a trade are not compensable. These costs shall not be approved as part of the Direct Cost of a Change Order as they are included in the Contractor's overhead mark-up percentage.

13.6.2 OVERHEAD AND PROFIT PERCENTAGES: (Maximum allowable percentages applied to labor, equipment, and material)

13.6.2.1 Contractor's mark-up for Work performed by its own forces:

Change Order Amount	Overhead and Profit
\$0 to \$ 5,000	20%
\$5,001 to \$15,000	17%
\$15,001 to \$25,000	15%
\$25,000 and greater	12%

13.6.3 OVERHEAD AND PROFIT PERCENTAGES: (Maximum allowable percentages applied to labor, equipment, benefits and material)

13.6.3.1 Contractor's mark-up for Work performed by its Subcontractor's forces and not allowable for any subsidiary in which the Contractor has a majority ownership:

Change Order Amount	Overhead and Profit
\$0 and greater	6%

13.6.4 OVERHEAD AND PROFIT PERCENTAGES: (Maximum allowable percentages applied to labor, equipment, benefits and material) Subcontractor's mark-up for Work performed by its own forces:

Change Order Amount	Overhead and Profit
\$0 to \$ 5,000	20%
\$5,001 to \$15,000	17%
\$15,001 to \$25,000	15%
\$25,000 and greater	12%

13.6.5 OVERHEAD AND PROFIT PERCENTAGES: (Maximum allowable percentages applied to labor, equipment, benefits and material)

13.6.5.1 Subcontractor's mark-up for Work performed by its Secondary Subcontractor's forces. Limited to one level (tier) below the Subcontractor and not allowable for any subsidiary in which the Subcontractor has a majority ownership.

Change Order Amount	Overhead and Profit
\$0 and greater	6%

13.7 BOND COSTS

13.7.1 Actual additional bonding costs associated with the value of the Change Order will be compensable only when supported by written documentation by the bonding company that the Change Order requires an increase to the original Performance, Payment, Labor or Material Bond.

13.7.2 The Contractor shall notify the bonding company at each \$500,000 increase to the contract value as the cumulative result of change orders. A copy of the Consent of Surety must be provided to the Owner prior to the execution of any change order which exceeds each cumulative \$500,000.

13.8 Trade discounts, rebates, and amounts received from the sales by the Contractor of surplus materials and equipment shall accrue to the Owner.

13.9 If the parties cannot agree upon a Lump Sum, then the Commissioner, through the Project Manager, may at the option of the Commissioner take the following action(s):

13.9.1 Issue a Construction Change Directive for the Additional or Deleted Work. The amount of compensation shall be computed by the actual net costs to the Contractor determined by time and material or Unit Prices based upon the same information required in Subparagraphs 13.6.1.3.3.1 through 13.6.1.5:

13.9.1.1 Labor: (Contractor's or Subcontractor's own forces).

13.9.1.2 Material: (Used by Contractor's or Subcontractor's own forces).

13.9.1.3 Benefits: (The established rates of the following benefit costs inherent to the particular labor involved):

13.9.1.3.1 Workers Compensation.

13.9.1.3.2 Federal Social Security.

13.9.1.3.3 Connecticut Unemployment Compensation.

13.9.1.3.4 Fringe Benefits.

13.9.1.4 Rented Equipment: (Used directly on the Work and by the Contractor's or Subcontractor's own forces).

13.9.1.5 Owned Equipment: (Used directly on the Work and by the Contractor's or Subcontractor's own forces). Daily rate is not to exceed 3% of the monthly rental rate that can be identified by a nationally recognized construction cost estimating guide or service.

13.9.2 Issue a Change Order adjusting the Contract Sum in the amount as determined by the Commissioner.

13.10 For any Change Order or Construction Change Directive the Contractor shall, when requested, promptly furnish in a form satisfactory to the Construction Administrator and the Owner a complete detailed accounting of all costs relating to the Additional Work, including but not limited to certified payrolls and copies of accounts, bills and vouchers to substantiate actual costs. Further, the Owner reserves the right to access and make copies of the Contractor's records at any time upon written request from the Commissioner.

13.11 Failure of the Contractor to negotiate in good faith issues of time and costs or failure to provide requested documentation within fourteen (14) Days, or a time period accepted by the Commissioner, shall constitute a waiver by the Contractor of any claim. In such cases the Owner may elect to issue a unilateral Change Order in an amount deemed to be fair and equitable by the Commissioner. The provisions hereof shall not affect the power of the Contractor to act in case of emergency, threatened injury to persons, or damage to Work on any adjoining property. In this case the Commissioner, through the Project Manager, shall issue a Change Order for such amount as the Commissioner finds to be reasonable cost of such Work.

ARTICLE 14 DELETED WORK

14.1 Without invalidating any of the terms of the Contract, the Commissioner may order deleted from the Contract any items or portions of the Work deemed necessary by the Commissioner.

14.2 The compensation to be deducted from the Contract Sum for such deletions shall be determined in the manner provided for under the provisions of Article 13 or in the event none of the provisions of Article 13 are applicable then by the value as estimated by the Owner.

ARTICLE 15 MATERIALS: STANDARDS

15.1 Unless otherwise specifically provided for in the Specifications, all equipment, materials and articles incorporated in the Work are to be new and of the best grade of their respective kinds for the purposes. Wherever in the Contract Documents a particular brand, make of material, device, or equipment is shown or specified, the first manufacturer listed in the specification section is to be regarded as the standard. When the specification is proprietary and only one manufacturer is listed, the Contractor shall use the named manufacturer and no Substitutions or Equals will be allowed.

15.2 Any other brand, make of material, device, equipment, procedure, etc. which is a deviation from the specified requirement is prohibited from use, but may be considered by the Owner for approval as an Equal or Substitution. The Contractor is to adhere to the specific requirements of the Contract Documents. Substitutions are discouraged and are only approved by the Commissioner as an exception.

15.3 Submittals – Equals and Substitution Requests:

15.3.1 Substitution of Materials and Equipment before Bid Opening. The Owner will consider requests for Equals or Substitutions, if made prior to the receipt of the Bid. The information on all materials shall be consistent with the information herein.

15.3.1.1 Statement of Variances – a statement of variances must list all features of the proposed Substitution which differ from the Drawings, Specifications and/or product(s) specified and must further certify that the Substitution has no other variant features. A request will be denied if submitted without sufficient evidence.

15.3.1.2 Substitution Denial – any Substitution request not complying with the above requirements will be denied. Substitution request sent after the deadline established in the Notice to Bidder will be denied.

15.3.1.3 An addendum shall be issued to inform all prospective Bidders of any accepted Substitution in accordance with Owner's addenda procedures.

15.3.2 Substitution of Materials and Equipment After Bid Opening: Subject to the Architect or Engineer's determination, if the material or equipment is Equal to the

one specified or pre-qualified and the CT DCS Project Manager's approval of such determination, Substitution of Material or Equipment may be allowed after the Letter of Award is issued only:

15.3.2.1 If the specified or pre-qualified item is delayed by unforeseeable contingencies beyond the control of the Contractor which would cause a delay in the Project completion;

15.3.2.2 If any specified or pre-qualified item is found to be unusable or unavailable due to a change by the manufacturer or other circumstances; or

15.3.2.3 If the Contractor desires to provide a more recently developed material, equipment, or manufactured model from the same named manufacturer than the one specified or pre-qualified; or

15.3.2.4 If the specified material and/or equipment inadvertently lists only a single manufacturer.

15.4 Contractor shall submit each request for Equal or Substitution to the Architect or Engineer who shall review each request and make the following recommendations to the Owner:

15.4.1 Acceptance or non-acceptance of the adequacy of the submission and required back-up,

15.4.2 Determination of the category of the request for Substitution or Equal, and

15.4.3 Overall recommendation for approval or rejection of the Substitution or Equal. The determination of the category as a Substitution may be grounds for an immediate rejection by the Owner.

15.5 Approval of the Owner for each Equal or Substitution shall be obtained before the Contractor proceeds with the Work. The decision of the Commissioner, in this regard, shall be final and binding on the Contractor.

15.6 No extension of time will be allowed for the time period required for consideration of any Substitution or Equal. No extension of time will be allowed and no responsibility will be assumed by the Owner when a Contractor submits a request for Substitution or Equal, whether such request be approved or denied, and the Contractor shall not be entitled to any claim for damages for delay.

15.7 If the Contractor submits any request for an Equal or a Substitution, he shall bear the burden of proof that such requested Equal or Substitution meets the requirements of the Plans and Specifications.

15.8 The Contractor shall purchase no materials or supplies for the Work which is subject to any chattel mortgage or which are under a conditional sale or other agreement by which an interest is retained by the seller. The Contractor warrants that the Contractor has good title to all materials and supplies used by him in the Work.

15.9 All products and systems supplied to the State as a result of a purchase by a Contractor shall be certified that, to the best of the supplier's knowledge, there are no materials that are classified as hazardous materials being used within the assembly. Hazardous materials include, but are not limited

to, products such as asbestos, lead, and other materials that have proven to cause a health risk by their presence.

ARTICLE 16 INSPECTION AND TESTS

16.1 The purpose of the inspections will be to assure that the Work is performed in accordance with the Contract Documents. These inspections shall include, but not be limited to, all inspections and testing as required by the Owner, and any authorities have jurisdiction.

16.2 All material and workmanship, if not otherwise designated by the Specifications, shall be subject to inspection, examination and test by the Commissioner at any and all times during manufacture and/or construction and at any and all places where such manufacture and/or construction is carried on. The Contract Documents additionally identify the parties responsible for performing and paying for the required testing and inspections. All required tests performed in a laboratory will be obtained and paid for by the Owner, except when the tests show the Work to be defective. The Contractor shall pay for all the costs associated with re-tests and re-inspections for all tests and inspections which fail. The Owner will issue a deduct Change Order to recover said retesting costs from the Contractor. All other tests, unless otherwise specified, shall be made at the Contractor's expense. Notice of the time of all tests to be made at the site shall be given to all interested parties, including the Owner.

16.3 Without additional cost to the Owner, the Contractor shall promptly furnish facilities, labor and materials necessary to coordinate and perform operational tests and checkout of the Work. The Contractor shall furnish promptly all reasonable facilities, labor, and materials necessary to make all such testing safe and convenient.

16.4 If, at any time before final payment and Acceptance of the Work, the Commissioner considers it necessary or advisable to examine of any portion of the Work already completed by removing or tearing out the same, the Contractor shall, upon request, furnish promptly all necessary facilities, labor, and materials. If such Work is found to be defective in any material respect, as determined by the Owner, because of a fault of the Contractor or any of the Contractor's Subcontractors, or if any Work shall have been covered without the approval or consent of the Commissioner (whether or not it is found to be defective), the Contractor shall be liable for testing costs and all costs of correction, including removal and/or demolition of the defective Work, including labor, material, and testing, including labor, material, re-testing or re-inspecting, services of required consultants, additional supervision, the Commissioner's and the Construction Administrator's administrative costs, and other costs for services of other consultants.

16.5 Cost of Systems Commissioning Retesting: The cost to retest a pre-functional or functional test, if the Contractor is responsible for the deficiency, shall be the Contractor's. If the Contractor is not responsible, any cost

recovery for retesting costs shall be negotiated with the Contractor.

16.5.1 For a deficiency identified, not related to any pre-functional checklist or start-up fault, the following shall apply: The Commissioning Agent (CxA) and Construction Administrator will direct the retesting of the equipment once at no "charge" to the Contractor for their time. However, the Commissioning Agent's and Construction Administrator's time for additional testing will be charged to the Contractor.

16.5.2 The time for the Systems Commissioning Agent and Construction Administrator to direct any retesting required because a specific pre-functional checklist or start-up test item, reported to have been successfully completed, but determined during functional testing to be faulty, will be back charged to the Contractor.

16.5.3 Any required retesting by any Subcontractor shall not be considered a justified reason for a claim of delay or for a time extension by the Contractor.

ARTICLE 17 **ROYALTIES AND PATENTS**

17.1 If the Contractor desires to use any design, device, material or process covered by a patent or copyright, the Contractor shall provide for such use by suitable legal agreement with the holder of said patent or copyright. The Contractor shall furnish a copy of this legal agreement to the Owner.

17.2 The Contractor shall indemnify and hold harmless the Owner and Construction Administrator for any costs, expenses and damage which it may be obliged to pay by reason of any infringement of a patent or a copyright, at any time during the prosecution or after the Final payment of the Work.

ARTICLE 18 **SURVEYS, PERMITS AND REGULATIONS**

18.1 Unless otherwise provided for, the Contractor shall furnish surveys necessary for the execution of the Work. The Owner will furnish the Contractor with two base lines and a benchmark.

18.2 The Contractor shall obtain and pay for permits and licenses necessary for the execution of the Work and the occupancy and use of the completed Work.

18.3 The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations including building and fire safety codes relating to the performance of the Work.

18.4 If underground utilities may be involved in part of the Work the Contractor is required to request "Call-Before-You-Dig" to verify the location of underground utilities at least (3) Working Days, as further defined under Paragraph 1.71 herein, prior to the start of any excavation. The Contractor shall also notify the Owner and Agency at least (3) Working Days prior to the start of any excavation. If "Call-Before-You-Dig" fails or refuses to respond to the Contractor's request, then the Contractor shall obtain the services of a qualified

underground utility locating firm, at no additional cost to the Owner, to verify locations of underground utilities prior to the start of any excavation. The Contractor shall be held responsible for providing safety, protecting the Work and protecting workmen as necessary to perform the Work. The Contractor shall be responsible for maintaining and protecting all original utility mark-out at no additional cost to the Owner.

ARTICLE 19 **PROTECTION OF THE WORK,** **PERSONS AND PROPERTY**

19.1 The Contractor shall continuously and adequately protect the Work against damage from any cause, and shall protect materials and supplies furnished by the Contractor or Subcontractors, whether or not incorporated in the Work, and shall make good any damage unless it be due directly to errors in the Contract Documents or is caused by agents or employees of the Owner.

19.2 To the extent required by law, by public authority, or made necessary in order to safeguard the health and welfare of the personnel or occupants of any of the state institutions, the Contractor shall adequately protect adjacent property and persons, and provide and maintain all facilities, including but not limited, to passageways, guard fences, lights, and barricades necessary for such protection.

19.3 The Contractor shall take all necessary precautions for the safety of employees on the Work and shall comply with applicable provisions of federal and state safety laws and building codes to prevent accidents or injury to persons on, about, or adjacent to the premises where the Work is being performed. The Contractor shall also comply with the applicable provisions of the Associated General Contractors' "Manual of Accident Prevention in Construction", the standards of the Connecticut Labor Department and Occupational Safety and Hazard Association (OSHA).

19.4 The Contractor shall erect and properly maintain at all times, as required by the conditions and progress of the Work, all necessary safeguards for the protection of employees of the State and the public, and shall post danger signs warning against any dangerous condition or hazard created by such things as protruding nails, well holes, elevator hatchways, scaffolding, window openings, excavations, tripping hazards or slipping, stairways and falling materials.

19.5 The Contractor shall designate a qualified and responsible on-site staff person, whose duty shall be the prevention of accidents. The name and position of the designated person shall be reported to the Owner by the Contractor at the commencement of the Contract.

19.6 The Contractor shall at all times protect excavations, trenches, buildings, and all items of Work from damage by rain, water from melted snow or ice, surface water run off and subsurface water usual for the vicinity at the time of operations; and provide all pumps and equipment and enclosures to insure such protection.

19.7 The Contractor shall construct and maintain all necessary temporary drainage and provide all pumping necessary to keep excavation, basements, footings and foundations free of water.

19.8 The Contractor shall remove all snow and ice as may be required for access to the site and proper protection and prosecution of the Work.

19.9 The Contractor shall install bracing, shoring, sheathing, sheet piling, caissons and any other underground facilities as required for safety and proper execution of the Work, and shall remove this portion of the Work when no longer necessary.

19.10 During cold weather the Contractor shall protect all Work from damage. If low temperature makes it impossible to continue operations safely in spite of cold weather precautions, the Contractor may cease Work upon the written approval of the Commissioner.

ARTICLE 20 **TEMPORARY UTILITIES**

20.1 Unless expressly provided for otherwise in the Contract Documents, the Contractor shall include in the proposed contract bid price as stated on the Bid Proposal Form, the costs of all temporary utilities required for Project completion and protection of the Work. Said temporary utilities include, but are not limited to, lighting, heating, cooling, electrical power, water, telephone, sanitary facilities, and potable water.

ARTICLE 21 **CORRECTION OF WORK**

21.1 The Contractor shall promptly and without expense to the Owner remove from the premises all materials rejected by or unacceptable to the Commissioner as failing to conform to the Contract Documents, whether incorporated in the Work or not.

21.2 The Contractor shall promptly and without expense to the Owner replace any such materials, which do not conform to the Contract Documents, and shall bear the expense of making good all Work of other Contractors or Subcontractors destroyed or damaged by such removal or replacement.

21.3 If the Contractor, after receipt of notice from the Owner, shall fail to remove such rejected or unacceptable materials within a reasonable time as fixed in said notice, the Owner may remove and store such materials at the expense of the Contractor.

21.4 Such action shall not affect the obligation of the Contractor to replace and complete assembly and installation of the Work and to bear the expenses referred to above. Prior to the correction of rejected or unacceptable Work or if the Commissioner deems it inexpedient or undesirable to correct any portion of the Work which was rejected, deemed unacceptable, or not done in accordance with the Contract

Documents, the Contract Sum shall be reduced by such amount as, in the judgment of the Commissioner, shall be equitable.

21.5 No extension of time will be given to the Contractor for correction of rejected or unacceptable Work. All significant punchlist Work shall be completed before Substantial Completion is determined. The remaining minor punchlist Work, as determined by the Commissioner, shall be completed within ninety (90) Days of established Substantial Completion date.

21.6 Final Payment shall not relieve the Contractor of responsibility for the defects in material or workmanship.

21.7 Unless expressly provided for otherwise in the Contract Documents, the Contractor shall remedy any rejected or unacceptable Work, and any Work found to be not conforming to the Contract Documents which is discovered within 18 Months after the date of Substantial Completion. The Contractor shall pay for any damage to other Work caused by such nonconforming Work or any damage created in correcting the nonconforming Work.

ARTICLE 22 **GUARANTEES and WARRANTIES**

22.1 Unless expressly provided for otherwise in the Contract Documents, the Contractor shall provide a Warranty on the Work for an 18-Month period from the date of Substantial Completion. The Contractor shall warrant that the equipment, materials and workmanship are of good quality and new, unless permitted elsewhere by the Contract Documents, and that the Work shall be free from defects not inherent in the quality required or permitted and that the Work conforms to the Contract Documents.

22.2 Disclaimers and limitations from manufactures, Subcontractors, suppliers or installers to the Contractor shall not relieve the Contractor of the Warranty on the Work. The Contract Documents detail the related damages, reinstatement of Warranty, replacement cost and Owner's recourse.

ARTICLE 23 **CUTTING, FITTING, PATCHING, AND DIGGING**

23.1 The Contractor will perform or will cause the Subcontractors to perform all cutting, fitting, or patching of the portion(s) of the Work that may be required to make the several parts thereof joined and coordinated in a manner satisfactory to the Commissioner and in accordance with the Plans and Specifications.

23.2 The responsibility for defective or ill-timed Work shall be with the Contractor, but such responsibility shall not in any way relieve the Subcontractor who performed such Work. Except with the consent of the Commissioner, neither the Contractor nor any of its Subcontractors shall cut or alter the Work of any other Contractor or Subcontractor.

**ARTICLE 24
CLEANING UP**

24.1 The Contractor shall, on a daily basis, keep the premises free from accumulations of waste material or rubbish.

24.2 Prior to Acceptance of the Work, the Contractor shall remove from and about the site of the Work, all rubbish, all temporary structures, tools, scaffolding, and surplus materials, supplies, and equipment which may have been used in the performance of the Work. If the Commissioner in his sole discretion determines that the Contractor has failed to clean the work site, the Owner may remove the rubbish and charge the cost of such removal to the Contractor. A deduct Change Order will be issued by the Owner to recover such cost.

**ARTICLE 25
ALL WORK SUBJECT TO CONTROL OF THE
COMMISSIONER**

25.1 The Commissioner hereby declares that the CT DCS Project Manager is the Commissioner's only authorized representative to act in matters involving the Owner's, and/or Architect's or Engineer's, ability to revoke, alter, enlarge or relax any requirement of the Contract Documents; to settle disputes between the Contractor and the Construction Administrator; and act on behalf of the Commissioner. In all such matters, the provisions of Articles 13 and 14 herein shall guide the CT DCS Project Manager.

25.2 In no event may the Contractor act on any instruction of the Agency without written consent of the Owner. In the event the Contractor acts without such consent, he does so at his own risk and at his own expense, not only for the Work performed, but for the removal of such Work as determined necessary by the Commissioner.

25.3 In the performance of the Work, The Contractor shall abide by all orders, directions, and requirements of the Commissioner at such time and places and by such methods and in such manner and sequence as the Commissioner may require.

25.4 The Commissioner shall determine the amount, quality, acceptability and fitness of all parts of the Work, shall interpret the plans, Specifications, Contract Documents and extra work orders and shall decide all other questions in connection with the Work.

25.5 The Contractor shall employ no plant, equipment, materials, methods, or persons to which the Commissioner objects and shall remove no plant materials, equipment, or other facilities from the site of the Work without the permission of the Commissioner. Upon request, the Commissioner shall confirm in writing any oral order, direction, requirement or determination.

25.6 In accordance with Section 4b-24 of the Connecticut General Statutes, the public auditors of the State of Connecticut and the auditors or accountants of the

Commissioner of Construction Services shall have the right to audit and make copies of the books of any Contractor employed by the Commissioner.

**ARTICLE 26
AUTHORITY OF THE CONSTRUCTION
ADMINISTRATOR**

26.1 The Construction Administrator employed by the Commissioner is authorized to inspect all Work for conformance to the Contract Documents. The Construction Administrator is authorized to reject all Work found to be defective, unacceptable and nonconforming to the Contract Documents. Such inspections and rejections may extend to all or any part of the Work, and to the preparation or manufacture of the material to be used.

26.2 The Construction Administrator is not empowered to revoke, alter, enlarge, or relax any requirements of the Contract Documents, or to issue instructions contrary to the Contract Documents. The Construction Administrator shall in no case act as foreman or perform other duties for the Contractor, nor shall the Construction Administrator interfere with the management of the Work by the Contractor. Any advice, which the Construction Administrator may give the Contractor, shall in no way be construed as binding the Commissioner or Owner in any way, nor releasing the Contractor from the fulfillment of the terms of the Contract.

26.3 In any dispute arising between the Contractor and the Construction Administrator with reference to inspection and rejection of the Work, the Construction Administrator may suspend Work on the non-compliant portion of the Work until the dispute can be referred to and decided by the Commissioner.

**ARTICLE 27
SCHEDULE OF VALUES,
APPLICATION FOR PAYMENT**

27.1 Immediately after the signing of the Contract, the Contractor shall furnish for the use of the Commissioner, as a basis for estimating partial payments, a certified Schedule of Values, totaling the Contract Sum and broken down into quantities and unit costs, as outlined in the Contract Documents and as directed by the Owner. The Schedule of Values must reflect true costs and be in sufficient detail to be an effective tool for monitoring the progress of the Work Upon request of the Commissioner; the Contractor shall supply copies of signed Contracts, vendor quotations, etc. as back up to the Schedule of Values.

27.2 Approval of the Schedule of Values by the Commissioner is required prior to any payment by the Owner.

27.3 The Schedule of Values shall include a breakdown of the Contractor's general condition costs.

27.3.1 Non-recurring costs, (i.e. Mobilization costs, utility hook-ups, temporary heat) will be paid at the time of occurrence.

27.3.2 Reoccurring costs will be paid in proportion to the percent of completion of the Project.

27.3.3 Further detail can be found in the General Requirements 01.29.76; paragraphs 1.3.B.4 for this project.

27.4 The Schedule of Values shall include a breakdown of Contract closeout costs including systems certification testing and acceptance, training, Warranties, Guarantees, As-Built Drawings and attic stock.

27.5 The Contractor shall make periodic applications for payment, which shall be subdivided into categories corresponding with the approved Schedule of Values and shall be in such numbers of copies as may be designated by the Commissioner.

ARTICLE 28 PARTIAL PAYMENTS

28.1 Commissioner will examine the Contractor's Applications For Payments to determine, in the opinion of the Commissioner, the amounts that properly represent the value of the Work completed and the materials suitably stored on the site.

28.2 In making such Application For Payment for the Work, there shall be deducted **seven** and **one-half** percent (7.5%) of the amount of each Application for Payment to be retained by the Owner as Retainage until Final Completion.

28.2.1 The Commissioner has the sole discretion in the determination of reduction in Retainage. At fifty percent (50%) completion of the Work the Owner shall issue a "Contractor's Performance Evaluation". If the Contractor receives a performance evaluation score of "Good" or better, then the Retainage withheld may be reduced to five percent (5%). All subsequent Applications for Payment shall be subject to five percent (5%) Retainage. Upon Substantial Completion, the Retainage may be reduced at the request of the Contractor and recommendation of the CT DCS Project Manager. In the event of a reduction in Retainage to below five percent (5%), the minimum Retainage withheld shall not be less than the CT DCS Project Manager's estimate of the remaining Work or two and one-half percent (2.5%), which ever is greater. All requests for Retainage Reduction shall be done on CT DCS Form 7048 General Contractor Retainage Reduction Request, which can be found at the end of the General Conditions.

28.2.2 Subsequent to Substantial Completion, in limited circumstances, at the sole discretion of the Commissioner, a reduction of Retainage below Two and one-half percent (2.5%) may be considered.

28.2.3 A "Good" Contractor's Performance Evaluation score shall be defined as a minimum total score of sixty percent (60%).

28.3 The decision of the Commissioner to reduce the Retainage rate will be based upon the Contractor's Performance Evaluation score for completed portions of the

Work as set out above and other factors that the Commissioner may find appropriate as follows:

28.3.1 The Contractor's timely submission of an appropriate and complete CPM Schedule or Construction Schedule and Schedule of Values, in compliance with the Contract requirements and the prompt resolution of the Owner's and/or Architect's or Engineer's comments on the submitted material resulting in an appropriate basis for progress of the Work.

28.3.2 The Contractor's timely and proper submission of all Contract Document required submissions: including, but not limited to, Shop Drawings, material certificates and material samples and the prompt resolution of the Owners and/or Architect's or Engineer's comments on the submitted material, resulting in an appropriate progress of the Work.

28.3.3 The Contractor's provision of proper and adequate supervision and home office support of the Project.

28.3.4 The Work completed to date has been installed or finished in a manner acceptable to the Owner.

28.3.5 The progress of the Work is consistent with the approved CPM Schedule or Construction Schedule.

28.3.6 All approved credit change orders have been invoiced.

28.3.7 All Change Order requests for pricing are current.

28.3.8 The Contractor has and is maintaining a clean worksite in accordance with the Contract Documents.

28.3.9 All Subcontractor payments are current at the time of reduction request.

28.3.10 Contractor is compliant with set-aside provisions of the contract.

28.3.2.11 Pursuant to C.G.S. Sec. 4a-101, the General Contractor shall compile evaluation information during the performance of the contract on each of its subcontractors who are performing work with a value in excess of five hundred thousand dollars (\$500,000.00). The General Contractor shall complete and submit to the State of Connecticut Department of Construction Services (CT DCS) evaluations of each such subcontractor upon fifty percent (50%) completion of the project and upon Substantial Completion of the project. The General Contractor acknowledges that its failure to complete and submit these evaluations in a timely manner may, by statute; result in a delay in project funding and, consequently, payment to the General Contractor.

28.4 No payments will be made for improperly stored or protected materials or unacceptable Work.

28.5 At his or her sole discretion, the Commissioner may allow to be included in the monthly requisitions payment requests for materials and equipment stored off the site.

28.5.1 In the event the Commissioner allows the Contractor to include in its requisitions payment requests for materials and equipment stored off the site, the Contractor shall also submit any additional bonds and/or insurance certificates relating to off-site stored materials

and equipment, and follow such other procedures as may be required by the State to obtain the Commissioner's approval of such requests.

28.5.2 The Architect or Engineer, or Construction Administrator shall have inspected said materials and equipment and recommended payment therefore. The Contractor shall pay for the cost of the Architect's or Engineer's, or Construction Administrator's time and expense in performing these inspection services.

ARTICLE 29
DELIVERY OF STATEMENT SHOWING
AMOUNTS DUE FOR WAGES, MATERIALS, AND
SUPPLIES

29.1 For each Application for Payment under this Contract, the Owner reserves the right to require the Contractor and every Subcontractor to submit a written verified statement, in a form satisfactory to the Owner, showing in detail all amounts then due and unpaid by such Contractor or Subcontractor for daily or weekly wages to all laborers employed by it for the performance of the Work or to other persons for materials, equipment or supplies delivered at the site.

29.2 The term "laborers" as used herein shall include workmen, workwomen, and mechanics.

29.3 Failure to comply with this requirement may result in the Owner withholding the Application for Payment pursuant to Article 28.

ARTICLE 30
SUBSTANTIAL COMPLETION AND ACCEPTANCE

30.1 Substantial Completion:

30.1.1 When the Contractor considers that the Work or a portion thereof is Substantially Complete, the Contractor shall request an inspection of said Work in writing to the Construction Administrator. The request shall certify that the Contractor has completed its own inspection prior to the request and that the Contractor is compliant with all requirements of Section 01 77 00 of the General Requirements. The request must also include a statement that a principal or senior executive of the Contractor is ready, willing and able to attend a walk through inspection with the Architect or Engineer.

30.1.2 Upon receipt of the request, the Architect or Engineer, Construction Administrator and Owner, will make an inspection to determine if the Work or designated portion thereof is Substantially Complete. A principal or senior executive of the Contractor shall accompany the Architect or Engineer during each inspection/re-inspection. If the inspection discloses any item, whether or not included on the inspection list, which is not in accordance with the requirements of the Contract Documents, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item.

30.1.3 The Contractor shall then submit a request for another inspection. The determination of Substantial Completion is solely within the discretion of the Owner. Any

costs for re-inspection beyond one, shall be at the expense of the Contractor and such costs will be recovered by issuance of a credit Change Order. When the Work or designated portion thereof is determined to be Substantially Complete, the Contractor will be provided a Certificate of Substantial Completion from the Owner. The Certificate of Substantial Completion shall establish the date when the responsibilities of the Contractor for security, maintenance, heat, utilities, damage to the Work, and insurance, are transferred to the Owner and shall fix the time within which the Contractor shall finish all items on the inspection list accompanying the Certificate. If the punch list is not complete in 90 Days, the Owner reserves the right to complete the outstanding punch list items with their own forces or by awarding separate contracts and to deduct the cost thereof from the amounts remaining due to the Contractor.

30.1.4 The Certificate of Substantial Completion shall be signed by the Construction Administrator, Owner, and Architect or Engineer. Upon Substantial Completion of the Work or designated portion thereof and upon application by the Contractor and certification by the Construction Administrator and Architect or Engineer, the Owner shall make payment reflecting adjustment in Retainage, if any, for such Work or portion thereof as provided in the Contract Documents.

30.2 Acceptance:

30.2.1 Upon completion of the Work, the Contractor shall forward to the Construction Administrator a written notice that the Work is ready for inspection and Acceptance.

30.2.2 When the Work has been completed in accordance with terms and conditions of the Contract Document as determined by the Owner a Certificate of Acceptance shall be issued by the Owner.

ARTICLE 31
FINAL PAYMENT

31.1 The Owner reserves the right to retain for a period of thirty (30) Days after filing of the Certificate of Acceptance the amount therein stated less all prior payments and advances whatsoever to or for the account of the Contractor.

31.2 All prior estimates and payments, including those relating to extra or additional Work, shall be subject to correction by the Final Payment.

31.3 No Application for Payment, Final or Partial, shall act as a release to the Contractor or the Contractor's sureties from any obligations under this Contract.

31.4 The Architect or Engineer and Construction Administrator will promptly issue the Certificate for Payment, stating that to the best of their knowledge, information and belief, and on the basis of their observations and inspections, the Work has been completed in accordance with terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor and noted in said Final Payment is due and payable.

31.5 Final Payment shall not be released until a Certificate of Acceptance and a Certificate of Compliance have been issued.

31.6 Neither Final Payment nor any Retainage shall become due until the Contractor submits to the Owner the following:

31.6.1 An affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied.

31.6.2 A certificate evidencing that insurance required by the Contract Documents to remain in force after Final Payment is currently in effect and will not be canceled or allowed to expire without at least 30 Days prior written notice to the Owner.

31.6.3 A written statement that the Contractor knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents.

31.6.4 Written consent of surety, if any, to Final Payment.

31.6.5 If required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts, releases and waivers of liens, claims, security interests or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such lien, including all costs and reasonable attorney's fees.

ARTICLE 32

OWNER'S RIGHT TO WITHHOLD PAYMENTS

32.1 The Commissioner may withhold a portion of any Payment due the Contractor that may, in the judgment of the Commissioner, be necessary:

32.1.1 To assure the payment of just claims then due and unpaid to any persons supplying labor or materials for the Work.

32.1.2 To protect Owner from loss due to defective, unacceptable or non-conforming Work not remedied by the Contractor.

32.1 To protect the Owner from loss due to injury to persons or damage to the Work or property of other Contractors, Subcontractors, or others caused by the act or neglect of the Contractor or any of its Subcontractors.

32.2 The Owner shall have the right to apply any amount withheld under this Article as the Owner may deem proper to satisfy protection from claims. The amount withheld shall be considered a payment to the Contractor.

32.3 The Owner has the right to withhold payment if the Contractor fails to provide accurate submissions of Submittals,

up date the status including but not limited to the following: As-Built Drawings, request for information (RFI) log, Schedule, submittal log, Change Order log, certified payrolls and daily reports and all other requirement of the Contract Documents.

32.4 If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such lien, including all costs and reasonable attorney's fees.

ARTICLE 33

OWNER'S RIGHT TO STOP WORK OR TERMINATE CONTRACT

33.1 The Commissioner shall have the authority to suspend the Work wholly or in part, for such period or periods as the Commissioner considers being in the best interests of the State, or in the interests of public necessity, convenience or safety. During such periods the Contractor shall store all materials and equipment, in such a manner to prevent the materials and equipment from being damaged in any way, and the Contractor shall take precautions to protect the Work from damage.

33.1.1 If the Commissioner, in writing, orders the performance of all or any portion of the Work to be suspended or delayed for an unreasonable period of time (i.e. not originally anticipated, customary, or inherent in the construction industry) and the Contractor believes that additional compensation and/or Contract Time is due as a result of such suspension or delay, the Contractor shall submit to the Commissioner in writing a request for a Contract adjustment within 7 Days of receipt of the notice to resume Work. The request shall set forth the specific reasons and support for said adjustment.

33.1.2 The Commissioner shall evaluate any such requests received. If the Commissioner agrees that the cost and/or time required for the performance of the Contract has increased as a result of such suspension and that the suspension was caused by conditions beyond the control of and not the fault of the Contractor, its suppliers, or Subcontractors, and was not caused by weather, then the Commissioner will make a reasonable adjustment, excluding profit, of the Contract terms. The Commissioner will notify the Contractor of the determination as to what adjustments of the Contract, if any, that the Commissioner deems warranted.

33.1.3 No Contract adjustment will be made unless the Contractor has submitted the request for adjustment within the time prescribed.

33.1.4 No Contract adjustment will be made under this Article to the extent that performance would have been suspended or delayed by any other cause within the Contractor's control or by any factor for which the Contractor is responsible under the Contract; or that such an adjustment is provided for or excluded under other term or condition of this Contract.

33.2 Notwithstanding any provision or language in the

Contract to the contrary, the State may terminate the Contract whenever the Commissioner determines at his sole discretion that such termination is in the best interests of the State. Any such termination shall be effected by delivery to the Contractor of a written Notice of Termination specifying the extent to which performance of Work under the Contract is terminated, and the date upon which such termination shall be effective.

33.2.1 In the event of such termination, the Contractor shall be entitled to reasonable compensation as determined by the Commissioner, however, no claim for lost Overhead or profits shall be allowed.

33.2.2 All Work and materials obtained by the Contractor for the Work, that have been incorporated into the Work, inspected, tested as required, accepted by the Commissioner, and paid for by the State, shall become the property of the State.

33.2.3 Materials obtained by the Contractor for the Work that have been inspected, tested as required, and accepted by the Commissioner, and that are not incorporated into the Work, shall, at the option of the Commissioner, be purchased from the Contractor at actual cost as shown by receipted bills. To this cost shall be added all actual costs for delivery at such points of delivery as may be designated by the Commissioner, as shown by actual cost records.

33.2.4 Termination of the Contract shall not relieve the Contractor or its Surety of their responsibilities for the completed Work, nor shall it relieve the Contractor's Surety of its obligations to ensure completion of the Work and to pay legitimate claims arising out of Work.

ARTICLE 34

SUBLETTING OR ASSIGNING OF CONTRACT

34.1 The Contract or any portion thereof, or the Work provided for therein, or the right, title, or interest of the Contractor therein may not be sublet, sold, transferred, assigned, or otherwise disposed of to any person, firm, or corporation without the written consent of the Commissioner.

34.2 No person, firm, or corporation other than the Contractor to whom the Contract was awarded shall be permitted to commence Work at the site of the Contract until such consent has been granted.

ARTICLE 35

CONTRACTOR'S INSURANCE

35.1 The Contractor shall not start Work under the Contract until they have obtained insurance as stated in SECTIONS 00 62 16 CERTIFICATE OF INSURANCE and 00 40 13 BID PROPOSAL FORM, subsections 4.4.2 and 4.4.3, of the Project Manual and until the insurance has been approved by the Owner. The Contractor shall not allow any Subcontractor to start Work until the same insurance has been obtained by the Subcontractor and approved by the Owner or the Contractor's insurance provides coverage on behalf of the Subcontractor. The Contractor shall send Certificates of Liability Insurance to the Bidding and Contracts Unit, Department of Construction Services, 165 Capitol Avenue, Room G-35, Hartford, CT 06106 unless otherwise directed in

writing. Presented below is a narrative summary of the insurance required.

35.1.1 Commercial General Liability Insurance including contractual liability, products/completed operations, broad form property damage and independent Contractors. The limits shall be no less than \$1,000,000 each occurrence and \$2,000,000 annual aggregate. Coverage for hazards of explosion, collapse and underground (X-C-U) and for asbestos abatement when applicable to this Contract, must also be included when applicable to the Work to be performed. The State of Connecticut, the Department of Construction Services, and their respective officers, agents, and employees shall be named as an Additional Insured. This coverage shall be provided on a primary basis.

35.1.2 Owner's and Contractor's Protective Liability insurance providing a total limit of \$1,000,000 for all damages arising out of bodily injury or death of persons in any one accident or occurrence and for all damages arising out of injury or destruction of property in any one accident or occurrence and subject to a total (aggregate) limit of \$2,000,000 for all damages arising out of bodily injury to or death of persons in all accidents or occurrences and out of injury to or destruction of property during the policy period. This coverage shall be for and in the name of the State of Connecticut.

35.1.3 Automobile Liability The operation of all motor vehicles including those owned, non-owned and hired or used in connection with the Contract shall be covered by Automobile Liability insurance providing for a total limit of \$1,000,000 for all damages arising out of bodily injuries to or death of all persons in any one accident or occurrence and for all damages arising out of injury to or destruction of property in any one accident or occurrence. In cases where an insurance policy shows an aggregate limit as part of the automobile liability coverage, the aggregate limit must be at least \$2,000,000. This coverage shall be provided on a primary basis. Should the Contractor not own any automobiles, the automobile & liability requirement shall be amended to allow the Contractor to maintain only hired and non-owned liability coverage.

35.1.4 Excess Liability (Other than Umbrella Form) insurance in the amount of \$5,000,000 for bids of \$1,000,000 - \$10,000,000 and in the amount of \$10,000,000 for bids of \$10,000,001 - \$20,000,000. Refer to Section 00 92 00 Amendments of the Project Manual for Excess Liability insurance requirements for bids exceeding \$20,000,000.

35.1.5 Workers' Compensation and Employer's Liability as required by Connecticut Law and **Employers' Liability** with a limit of not less than \$100,000 per occurrence, \$500,000 disease policy limit and \$100,000 disease each employee. When Work is on or contiguous to navigable bodies of waterways and ways adjoining, the Contractor shall include the Federal Act endorsement for the U.S. Longshoremen's and Harbor Workers Act.

35.1.6 Special Hazards Insurance, if required, will be stated in SECTION 00 40 13 BID PROPOSAL FORM, subsection 4.4.2 of this Project Manual. This includes coverage for explosion, collapse or underground damage and for asbestos abatement when applicable to this Contract and shall be no less than \$1,000,000 each occurrence.

35.1.7 Builder's Risk Insurance, if required, will be stated in Section 00 40 13 Bid Proposal Form, subsection 4.4.3 of this Project Manual.

35.1.8 Inland Marine/Transit Insurance: With respect to property with values in excess of \$100,000 which is rigged, hauled or situated at the site pending installation, the Contractor shall maintain inland marine/transit insurance provided the coverage is not afforded by a Builder's Risk policy.

35.1.9 When required to be maintained, the Builder's Risk and/or Inland Marine/Transit Insurance policy shall endorse the State of Connecticut as a Loss Payee and the policy shall state it is for the benefit of and payable to the State of Connecticut.

35.2 Satisfying Limits Under an Umbrella Policy: If necessary, the Contractor may satisfy the minimum limits required above for either Commercial General Liability, Automobile Liability, and Employer's Liability coverage under an Umbrella or Excess Liability policy. The underlying limits may be set at the minimum amounts required by the Umbrella or Excess Liability policy provided the combined limits meet at least the minimum limit for each required policy. The Umbrella or Excess Liability policy shall have an Annual Aggregate at a limit not less than two (2) times the highest per occurrence minimum limit required above for any of the required coverages. The State of Connecticut shall be specifically endorsed as an Additional Insured on the Umbrella or Excess Liability policy, unless the Umbrella or Excess Liability policy provides continuous coverage to the underlying policies on a complete "Follow-Form" basis.

35.3 The Contractor shall, at its sole expense, maintain in full force and effect at all times during the life of the Contract or the performance of Work hereunder, insurance coverage as described herein. Certificates shall include a minimum thirty (30)-day endeavor to notify requirement to the Owner prior to any cancellation or non-renewal.

35.4 The Contractor shall be fully and solely responsible for any costs or expenses as a result of a coverage deductible, coinsurance penalty, or self-insured retention, including any loss not covered because of the operation of such deductible, coinsurance penalty, or self-insured retention.

35.5 The requirement contained herein as to types and limits of insurance coverage to be maintained by the Contractor are not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by the Contractor.

35.6 Hold Harmless Provisions: The Contractor shall at all times indemnify and save harmless the State of Connecticut, the Department of Construction Services, and their respective officers, agents, and employees, on account of any and all claims, damages, losses, litigation, expenses, counsel fees and compensation arising out of injuries (including death) sustained by or alleged to have been sustained by the officers, agents, and employees of said State or Department, or of the Contractor, his Subcontractor, or materialmen and from injuries (including death) sustained by or alleged to have been sustained by the public, any or all persons on or near the Work, or by any other person or property, real or personal (including property of said State or Department) caused in whole or in part by the acts, omissions, or neglect or the Contractor including, but not limited to, any neglect in safeguarding the Work or through the use of unacceptable materials in constructing the Work of the Contractor, any Subcontractor, materialman, or anyone directly employed by them or any of them while engaged in the performance of the Contract, including the entire elapsed time from the date of the Notice to Proceed or the actual Commencement Of The Work whichever occurs first until its completion as certified by the Department of Construction Services.

ARTICLE 36 FOREIGN MATERIALS

36.1 Preference shall be given to articles or materials manufactured or produced in the United States, Canada, and Mexico, (the members of the North American Free Trade Agreement (NAFTA)); and the products shall meet all of the referenced standards and Specifications for conditions of performance, quality, and price with duty being equal.

36.2 Only articles or materials manufactured or produced in the United States, Canada, and Mexico, (the members of the North American Free Trade Agreement (NAFTA)), will be allowed. The foregoing provisions shall not apply to foreign articles or materials required by the Contract Documents.

ARTICLE 37 HOURS OF WORK

37.1 No person shall be employed to work or be permitted to work more than eight (8) hours in any Day or more than forty (40) hours in any week for any Work provided in the Contract, in accordance with Connecticut General Statute Section 31-57.

37.2 The operation of such limitation of hours of work may be suspended during an emergency, upon the approval of the Commissioner, in accordance with Connecticut General Statute Section 31-57.

ARTICLE 38 CLAIMS

38.1 General: When filing a formal claim under Section 4-61 (referred to as "Section 4-61" below) of the Connecticut

General Statutes (as revised), either as a lawsuit in the Superior Court or as a demand for arbitration, the Contractor must follow the procedures and comply with the requirements set forth in this Article. This Section does not, unless so specified, govern informal claims for additional compensation which the Contractor may bring before the Department. The Contractor should understand, however, that the Department may need, before the Department can resolve such a claim, the same kinds of documentation and other substantiation that it requires under this Article. It is the intent of the Department to compensate the Contractor for actual increased costs caused by or arising from acts or omissions on the part of the Department that violate legal or contractual duties owed to the Contractor by the Department.

38.2 Notice of Claim: Whenever the Contractor intends to file a formal claim against the Department under Section 4-61, seeking compensation for additional costs, the Contractor shall notify the Commissioner in writing (in strict compliance with Section 4-61) of the details of said claim. Such written notice shall contain all pertinent information described in Paragraph 38.5 below.

Once formal notice of a claim under Section 4-61(b) (as revised) has been given to the Commissioner, the claimant may not change the claim in any way, in either concept or monetary amount, (1) without filing a new notice of claim and demand for arbitration to reflect any such change, and (2) without the minimum period of six months after filing of the new demand commencing again and running before any hearing on the merits of the claim may be held. The only exception to this limitation will be for damages that continue to accrue after submission of the notice, in ways described and anticipated in the notice.

38.3 Record Keeping: The Contractor shall keep daily records of all costs incurred in connection with its Work on behalf of the Department. The daily records shall identify each aspect of the Project affected by matters related to any claim for additional compensation that the Contractor has filed, intends to file, or has reason to believe that it may file against the Department; the specific Project locations where Project work has been so affected; the number of people working on the affected aspects of the Project at the pertinent time(s); and the types and number of pieces of equipment on the Project site at the pertinent time(s). Any potential or anticipated effect on the Project's progress or Schedule which may result in a claim by the Contractor shall be noted contemporaneously with the cause of the effect, or as soon thereafter as possible.

38.4 Claim Compensation: The payment of any claim, or any portion thereof, that is deemed valid by the Department shall be made in accordance with the following provisions of this Article:

38.4.1 Compensable Items: The liability of the Department for claims will be limited to the following specifically identified items of cost, insofar as they have not otherwise been paid for by the Department, and insofar as they were caused solely by the actions or omissions of the Department or its agents (except that with regard to payment for extra work, the Department will pay to the Contractor the Overhead and profit percentages provided for in Article 13.):

38.4.1.1 Additional Project-site labor expenses.

38.4.1.2 Additional costs for materials.

38.4.1.3 Additional, unabsorbed Project-site Overhead (e.g., for mobilization and demobilization).

38.4.1.4 Additional costs for active equipment.

38.4.1.5 For each Day of Project delay or suspension caused solely by actions or omissions of the Department either:

38.4.1.5.1 an additional ten percent (10%) of the total amount of the costs identified in Subparagraphs 38.4.1.1 through 38.4.1.4 above; except that if the delay or suspension period prevented the Contractor from incurring enough Project costs under Subparagraphs 38.4.1.1 through 38.4.1.4 during that period to require a payment by the Department that would be greater than the payment described in Subparagraph 38.4.1.5.2 below, then the payment for affected home office Overhead and profit shall instead be made in the following *per diem* amount :

38.4.1.5.2 six percent (6%) of the original total Contract amount divided by the original number of Days of Contract Time. Payment under either 38.4.1.5.1 or 38.4.1.5.2 hereof shall be deemed to be complete and mutually satisfactory compensation for any unabsorbed home office overhead and any profit related to the period of delay or suspension.

38.4.1.6 Additional equipment costs. Only actual equipment costs shall be used in the calculation of any compensation to be made in response to claims for additional Project compensation. Actual equipment costs shall be based upon records kept in the normal course of business and in accordance with generally accepted accounting principles. Under no circumstances shall Blue Book or other guide or rental rates be used for this purpose (unless the Contractor had to rent the equipment from an unrelated party, in which case the actual rental charges paid by the Contractor, so long as they are reasonable, shall be used). Idle equipment, for instance, shall be paid for based only on its actual cost to the Contractor.

38.4.1.7 Subcontractor costs limited to, and determined in accordance with, Subparagraphs 38.4.1.1 through 38.4.1.5 above and applicable statutory and case law. Such Subcontractor costs may be paid for by the Department only: (a) in the context of an informal claims settlement; or (b) if the Contractor has itself paid or legally assumed, present unconditional liability for those Subcontractor costs.

38.4.2 Excusable But Not Compensable Items: The Contractor may be allowed Days but the Department will have no liability for the following non-compensable items:

38.4.2.1 Abnormal or unusually severe weather

38.4.2.2 Acts of God

38.4.2.3 Force Majeure

38.4.2.4 Concurrent Delay

38.4.3 Non-Compensable Items: The Department will have no liability for the following specifically-identified non-compensable items:

- 38.4.3.1** Profit, in excess of that provided for herein.
- 38.4.3.2** Loss of anticipated profit.
- 38.4.3.3** Loss of bidding opportunities.
- 38.4.3.4** Reduction of bidding capacity.
- 38.4.3.5** Home office overhead in excess of that provided for in Subparagraph 38.4.1.5 hereof.
- 38.4.3.6** Attorneys fees, claims preparation expenses, or other costs of claims proceedings or resolution.
- 38.4.3.7** Subcontractor failure to perform
- 38.4.3.8** Any other consequential or indirect expenses or costs, such as tort damages, or any other form of expense or damages not provided for in these specifications or elsewhere in the Contract.

38.5 Required Claim Documentation: All claims shall be submitted in writing to the Commissioner, and shall be sufficient in detail to enable the Department to ascertain the basis and the amount of each claim, and to investigate and evaluate each claim in detail. As a minimum, the Contractor must provide the following information for each and every claim and sub-claim asserted:

38.5.1 detailed factual statement of the claim, with all dates, locations and items of Work pertinent to the claim.

38.5.2 A statement of whether each requested additional amount of compensation or extension of time is based on provisions of the Contract or on an alleged breach of the Contract. Each supporting or breached Contract provision and a statement of the reasons why each such provision supports the claim must be specifically identified or explained.

38.5.3 Excerpts from manuals or other texts which are standard in the industry, if available, that support the Contractor's claim.

38.5.4 The details of the circumstances that gave rise to the claim.

38.5.5 The date(s) on which any and all events resulting in the claim occurred, and the date(s) on which conditions resulting in the claim first became evident to the Contractor.

38.5.6 Specific identification of any pertinent document, and detailed description of the substance of any material oral communication, relating to the substance of such claim.

38.5.7 If an extension of time is sought, the specific dates and number of Days for which it is sought, and the basis or bases for the extension sought. A critical path method, bar chart, or other type of graphical schedule that supports the extension must be submitted.

38.5.8 When submitting any claim over \$50,000, the Contractor shall certify in writing, under oath and in accordance with the formalities required by the contract, as to the following:

38.5.8.1 That supporting data is accurate and complete to the Contractor's best knowledge and belief;

38.5.8.2 That the amount of the dispute and the dispute itself accurately reflects what the Contractor in good faith believes to be the Department's liability;

38.5.8.3 The certification shall be executed by:

38.5.8.3.1 If the Contractor is an individual, the certification shall be executed by that individual.

38.5.8.3.2 If the Contractor is not an individual, the certification shall be executed by a senior company official in charge at the Contractor's plant or location involved or an officer or general partner of the Contractor having overall responsibility for the conduct of the Contractor's affairs.

38.6 Auditing of Claims: All claims filed against the Department shall be subject to audit by the Department or its agents at any time following the filing of such claim. The Contractor and its Subcontractors and suppliers shall cooperate fully with the Department's auditors. Failure of the Contractor, its Subcontractors, or its suppliers to maintain and retain sufficient records to allow the Department or its agents to fully evaluate the claim shall constitute a waiver of any portion of such claim that cannot be verified by specific, adequate, contemporaneous records, and shall bar recovery on any claim or any portion of a claim for which such verification is not produced. Without limiting the foregoing requirements, and as a minimum, the Contractor shall make available to the Department and its agents the following documents in connection with any claim that the Contractor submits:

38.6.1 Daily time sheets and foreman's daily reports.

38.6.2 Union agreements, if any.

38.6.3 Insurance, welfare, and benefits records.

38.6.4 Payroll register.

38.6.5 Earnings records.

38.6.6 Payroll tax returns.

38.6.7 Records of property tax payments.

38.6.8 Material invoices, purchase orders, and all material and supply acquisition contracts.

38.6.9 Materials cost distribution worksheets.

38.6.10 Equipment records (list of company equipment, rates, etc.).

38.6.11 Vendor rental agreements.

38.6.12 Subcontractor invoices to the Contractor, and the Contractor's certificates of payments to Subcontractors.

38.6.13 Subcontractor payment certificates.

38.6.14 Canceled checks (payroll and vendors).

38.6.15 Job cost reports.

38.6.16 Job payroll ledger.

38.6.17 General ledger, general journal (if used), and all subsidiary ledgers and journals, together with all supporting documentation pertinent to entries made in these ledgers and journals.

38.6.18 Cash disbursements journals.

38.6.19 Financial statements for all years reflecting the operations on the Project.

38.6.20 Income tax returns for all years reflecting the operations on the Project.

38.6.21 Depreciation records on all company equipment, whether such records are maintained by the company involved, its accountant, or others.

38.6.22 If a source other than depreciation records is used to develop costs for the Contractor's internal purposes in establishing the actual cost of owning and operating equipment, all such other source documents.

38.6.23 All documents which reflect the Contractor's actual profit and overhead during the years that the Project was being performed, and for each of the five years prior to the commencement of the Project.

38.6.24 All documents related to the preparation of the Contractor's bid, including the final calculations on which the total proposed Contract bid price as stated in the Bid Proposal Form was based.

38.6.25 All documents which relate to the claim or to any sub-claim, together with all documents that support the amount of damages as to each claim or sub-claim.

38.6.26 Worksheets used to prepare the claim, which indicate the cost components of each item of the claim, including but not limited to the pertinent costs of labor, benefits and insurance, materials, equipment, and Subcontractors' damages, as well as all documents which establish the relevant time periods, individuals involved, and the Project hours and the rates for the individuals.

38.6.27 The name, function, and pertinent activity of each Contractor's or Subcontractor's official, or employee, involved in or knowledgeable about events that give rise to, or facts that relate to, the claim.

38.6.28 The amount(s) of additional compensation sought and a break-down of the amount(s) into the categories specified as payable under Paragraph 38.4 above.

38.6.29 The name, function, and pertinent activity of each Department official, employee, or agent involved in or knowledgeable about events that give rise to, or facts that relate to, the claim.

ARTICLE 39

DIESEL VEHICLE EMISSIONS CONTROL

39.1 The Contractor shall be responsible for compliance with the following provisions:

39.1.1 All Contractor and Subcontractor diesel powered non-road construction equipment with engine horsepower (HP) ratings of 60 HP and above, that are on the Project or are assigned to the Contract for a period in excess of 30 consecutive Days, shall be retrofitted with emission control devices in order to reduce diesel emissions. In addition, all motor vehicles and/or construction equipment (both on-highway and non-road) shall comply with all pertinent State and Federal regulations relative to exhaust emission controls and safety.

39.1.2 Retrofit emission control devices shall consist of oxidation catalysts, or similar retrofit equipment control technology that is:

39.1.2.1 Included on the U.S. Environmental Protection Agency (EPA) "Verified Technology List," as may be amended from time to time
<http://www.epa.gov/otaq/retrofit/retroverifiedlist.htm>
and

39.1.2. Verified by EPA to provide a minimum emissions reduction of 20% particulate matter (PM₁₀), 40% carbon monoxide (CO), and 50% hydrocarbons (HC).

39.1.3 Construction shall not proceed until all diesel powered non-road construction equipment meeting the criteria in provision 39.1.1 have been retrofitted, unless the Commissioner grants a waiver under provision 39.2.

39.1.4 The Contractor shall at least monthly, assess which diesel powered non-road construction equipment are subject to these provisions. The Contractor shall notify the CT DCS Project Manager of any violations of these provisions.

39.1.5 Idling of delivery and/or dump trucks, or other diesel powered equipment shall be limited to three (3) minutes during non-active use in accordance with the Regulations of Connecticut State Agencies Section 22a-74-18(b)(3)(C), which states, in part:

"[N]o person shall cause or allow a Mobile Source to operate for more than three (3) consecutive minutes when such Mobile Source is not in motion, except as follows:

When a Mobile Source is forced to remain motionless because of traffic conditions or mechanical difficulties over which the operator has no control,

When it is necessary to operate defrosting, heating or cooling equipment to ensure the safety or health of the driver or passengers,

When it is necessary to operate auxiliary equipment that is located in or on the Mobile Source to accomplish the intended use of the Mobile Source, (To bring the Mobile Source to the manufacturer's recommended)

When a Mobile Source is in queue to be inspected by U.S. military personnel prior to gaining access to a U.S. military installation."

39.1.6 All Work shall be conducted to ensure that no harmful effects are caused to adjacent Sensitive Receptor Sites. Diesel powered engines shall be located away from fresh air intakes, air conditioners, and windows.

39.1.7 If any diesel powered non-road construction equipment is found to be in non-compliance with these provisions by the CT DCS Project Manager, the Contractor will be issued a Non-Conformance Notice and given a 24 hour period in which to bring the equipment into compliance or remove it from the Project. The Contractor's failure to comply with these provisions shall be reason to withhold payment as described in Article 33.

39.1.8 Any costs associated with these provisions shall be included in the general cost of the contract. In addition, there shall be no time granted to the Contractor for compliance with these provisions. The Contractor's compliance with these provisions and any associated regulations shall not be grounds for a Change Order.

39.2 The Commissioner reserves the right to waive all or portions of these provisions at his/her discretion. The Contractor may request a waiver to all or portions of these provisions with written justification to the Commissioner as to why the Contractor cannot comply with these provisions. A waiver, to be effective, must be granted in writing by the Commissioner.

END

Appendix 1



7048
General Contractor
Retainage Reduction Request
(SAMPLE)

To: Allen V. Herring, P.E., CT DCS Chief Engineer
Room 265, 165 Capitol Avenue, Hartford, CT 06106

From: (Insert GC's Name), General Contractor

Subject: Project No. () Reduction of Retainage at ()% project completion

In accordance with the General Conditions, Article 28 Progress Payments, (insert GC's name) hereby requests a reduction of retainage to an amount of insert written percent Percent (insert numerical percent%). The following list of items required under the General Conditions is in compliance with the terms of the contract and has been verified by the General Contractor.

- DAS Contractor Performance Evaluation Score is a minimum of **Sixty (60%) Percent**.
- Timely submission of an appropriate and complete CPM Schedule and Schedule of Values, in compliance with the Contract requirements and the prompt resolution of the Owner's and/or A/E's comments on the submitted material resulting in an appropriate basis for progress of the Work.
- Timely and proper submission of all Contract Document required submissions: including but not limited to Shop Drawings, material certificates and material samples and the prompt resolution of the Owner's and/or Architect's or Engineer's comments on the submitted material resulting in an appropriate progress of the Work.
- Proper and adequate supervision and home office support of the Project.
- The Work completed to date has been installed or finished in a manner acceptable to the Owner.
- The progress of the Work is consistent with the approved CPM Schedule.
- All approved credit Change Orders have been invoiced.
- All Change Order requests for pricing are current.
- The General Contractor has and is maintaining a clean worksite in accordance with the Contract Documents.
- All Subcontractor payments are current at the time of reduction request.
- General Contractor is compliant with set-aside provisions of the contract.

General Contractor Certification: _____
(Written Name) (Signature) (Date)

Project Manager Recommendation: _____
(Written Name) (Signature) (Date)

Approved:
Allen V. Herring, P.E.
CT DCS Chief Engineer

(Signature) (Date)



**Supplementary Conditions of the Contract for Construction
For Design - Bid - Build
Department of Administrative Services • Construction Services
State of Connecticut**

1.0 Supplementary Conditions:

- 1.1 These Supplementary Conditions modify the State of Connecticut, Department of Construction Services, Section 00 72 13 General Conditions of the Contract for Construction for Design – Bid- Build (Rev. 03.26.12), and other provisions of the Contract Documents as indicated below. All provisions which are not so modified remain in full force and effect.
- 1.2 The terms used in these Supplementary Conditions which are defined in the Section 00 72 13 General Conditions of the Contract for Construction for Design – Bid- Build (Rev. 03.26.12), have the meanings assigned to them in the General Conditions.

2.0 Section 00 72 13 General Conditions Of The Contract For Construction For Design - Bid – Build:

- 2.1 **ADD:** Subsection 3.6 to **ARTICLE 3, CORRELATION OF CONTRACT DOCUMENTS**, as follows:

3.6 In accordance with Public Act No. 13-247 (Effective June 19, 2013), wherever the term "Commissioner of Construction Services" is used in the "Bidding Documents" or "Project Manual" the term "Commissioner of Administrative Services" shall be substituted in lieu thereof; and wherever the term "Department of Construction Services" is used in "Bidding Documents" or "Project Manual", the term "Department of Administrative Services" shall be substituted in lieu thereof.

- 2.2 **DELETE:** Subsection 28.2 in its entirety from **ARTICLE 28, PARTIAL PAYMENTS**.

ADD: Subsection 28.2 to **ARTICLE 28, PARTIAL PAYMENTS**, as follows:

28.2 In making such Application For Payment for the Work, there shall not be more than **seven** and **one-half percent (7.5%)** deducted from the amount of each Application for Payment to be retained by the Owner as Retainage until Final Completion.

28.2.1 At **fifty percent (50%)** completion of the Work the Retainage shall be reduced to **five percent (5%)**. All subsequent Applications for Payment shall be subject to **five percent (5%) Retainage**. Upon Substantial Completion, and in the Commissioner's sole discretion and based upon the factors set forth in **Section 28.3**, the Retainage may be reduced upon the request of the Contractor and recommendation of the CT DAS Project Manager. In the event of a reduction in Retainage to below **five percent (5%)**, the minimum Retainage withheld shall not be less than the CT DAS Project Manager's estimate of the remaining Work or **two and one-half percent (2.5%)**, whichever is greater. All requests for Retainage Reduction shall be done on **CT DAS Form 7048 General Contractor Retainage Reduction Request**, which can be found at the end of the General Conditions.

28.2.2 Subsequent to Substantial Completion, in limited circumstances, at the sole discretion of the Commissioner and based upon factors set forth in **subsection 28.3**, a reduction of Retainage below **two and one-half percent (2.5%)** may be considered.

28.2.3 A "Good" Contractor's Performance Evaluation score shall be defined as a minimum total score of sixty percent (60%).

- 2.3 **ADD** Subsections **Definitions** to **ARTICLE 1 DEFINITIONS**, as follows:

- 2.3.1 **DELETE:** 1.71 in its entirety from **ARTICLE 1 DEFINITIONS**.

ADD: Subsection 1.71 to **ARTICLE 1 PARTIAL DEFINITIONS**, as follows:

1.71 **WORK:** The construction and services required by the Contract Documents, and including all labor, materials, equipment and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project and "Work Phase".

ADD: Subsection 1.72 to **ARTICLE 1 DEFINITIONS**, as follows:

1.72 **WORK PHASE:** Construction of the Project by sequence or time intervals, which may include but not be limited to separate Construction Start Dates, Substantial Completion Dates, Application for Payments, Change Orders, Liquidated Damages, Retainage, and Subcontractors for each Work Phase.



2.4 **DELETE:** Appendix 1 from Section 00 72 13.1 in its entirety.
ADD: New Appendix 1 to Section 00 72 13.1 as follows:

	7048 General Contractor (GC) Retainage Reduction Request <i>(Sample)</i>
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Page 2 of 1

To:	Department of Administrative Services (DAS) Construction Services Office of Legal Affairs, Policy and Procurement 450 Columbus Blvd, Suite 1302 – North Tower Hartford, CT 06103		
From:	<input type="text" value="GC's Name"/>	General Contractor (GC)	
Subject:	DAS Project Number: <input type="text" value="DAS Project Number"/>		
	Reduction of Retainage at: <input type="text" value="Written Percent"/>	Percent (<input type="text" value="##.#"/> %)	
Date:	<input type="text" value="Click or tap to enter a date."/>		

In accordance with the General Conditions, Article 28 Progress Payments,
 ,
 hereby requests a reduction of retainage to an amount of Percent (%)
 The following list of items required under the General Conditions is in compliance with the terms of the contract and has been verified by the General Contractor (GC).

- DAS Construction Services Contractor Performance Evaluation Score is a minimum of **Sixty (60%) Percent**.
- Timely submission of an appropriate and complete CPM Schedule and Schedule of Values, in compliance with the Contract requirements and the prompt resolution of the Owner's and/or A/E's comments on the submitted material resulting in an appropriate basis for progress of the Work
- Timely and proper submission of all required Contract Document submissions including but not limited to Shop Drawings, material certificates, material samples and the prompt resolution of the Owner's and/or A/E's comments on the submitted material resulting in an appropriate progress of the Work.
- Proper and adequate supervision and home office support of the Project.
- The Work completed to date has been installed or finished in a manner acceptable to the Owner.
- The progress of the Work is consistent with the approved CPM Schedule.
- All approved credit Change Orders have been invoiced.
- All Change Order requests for pricing are current.
- The GC has and is maintaining a clean worksite in accordance with the Contract Documents.
- All Subcontractor payments are current at the time of reduction request.
- GC is compliant with set-aside provisions of the contract.

General Contractor Certification:	<input type="text"/> <i>(Written Name)</i>	<input type="text"/> <i>(Signature)</i>	<input type="text"/> <i>(Date)</i>
Project Manager Recommendation:	<input type="text"/> <i>(Written Name)</i>	<input type="text"/> <i>(Signature)</i>	<input type="text"/> <i>(Date)</i>
DAS Chief Engineer or Authorized Representative:	<input type="text"/> <i>(Written Name)</i>	<input type="text"/> <i>(Signature)</i>	<input type="text"/> <i>(Date)</i>

END

END OF SECTION

**State Of Connecticut
Department of Administrative Services
Construction Services**

March 26, 2015

To: All Department of Administrative Services, Construction Services Contractors
Subject: Set-Aside Contract Laws

Dear Sir/Madam:

The administration of Governor Dannel P. Malloy is committed to supporting the subject programs by encouraging all contractors on State projects to improve their efforts in these areas.

State law requires contractors doing business with the State to demonstrate non-discrimination by making "good faith efforts" in both hiring and in sub-contracting practices General Statute Section (C.G.S. §) 4a-60.

What does "good faith efforts" mean? It means that you, as contractors, must act affirmatively. It is not good enough to say you can't find minorities and women. You must seek them out. That is the law, and the Department of Administrative Services (DAS) / Construction Services (CS) is committed to enforcing the law. At the same time, we are ready to assist you in making "good faith efforts."

DAS is required by C.G.S. § 4a-60g (b) and (c) to set aside projects (amounting to **twenty-five percent (25%)** of its annual contract awards) for small business and **twenty-five percent (25%)** of that amount for minority business enterprises. DAS may require any general contractor to set aside a portion of the contract for subcontractors who are small businesses or minority business enterprises in lieu of setting aside a project or in addition to setting aside a project.

Therefore, unless otherwise specified in the **Bid Proposal Form**, DAS will require contractors to subcontract **twenty-five percent (25%)** of the total contract value to small businesses certified by DAS and further will require contractors to subcontract 25% of that 25% to minority and women small contractors certified as minority business enterprises by DAS. These statutory goals represent the minimum values expected to be achieved by this program.

Together, we can meet the challenge of providing equal opportunity for minority and women-owned businesses and workers in our State. We expect superior results in the areas of affirmative action, equal employment opportunity, and set-aside contracts. The DAS standard in these areas is not just minimal effort. Our goal is to uphold the letter and the spirit of the law.

For more information on Non-Discrimination and Affirmative Action Provisions for State Contracts please visit the Commission on Human Rights and Opportunities (**CHRO**) Website at www.ct.gov/chro.

Sincerely yours,

Melody A. Currey
Commissioner

PB:pb

Non-Discrimination and Affirmative Action Provisions for State Contracts

Section 1	CHRO – Contract Compliance Regulations Notification to Bidders:
1.1	<p>The contract to be awarded is subject to contract compliance requirements mandated by:</p> <ul style="list-style-type: none">1.1.1 The Connecticut General Statutes (C.G.S.) § 4a-60 and 4a-60a;1.1.2 C.G.S. § 46a-71(d) and 46a-81i (d) when the awarding agency is the State; and1.1.3 The Contract Compliance Regulations codified in the Regulations of Connecticut State Agencies (RSCA) §46a-68j-21 through 43, which establish a procedure for awarding all contracts covered by C.G.S. §4a-60 and 46a-71(d).
1.2	<p>According to the Contract Compliance Regulations §46a-68j-30(9), every agency awarding a contract subject to the contract compliance requirements has an obligation to “aggressively solicit the participation of legitimate minority business enterprises as bidders, contractors, subcontractors and suppliers of materials.”</p> <p>“Minority business enterprise” is defined in C.G.S §4a-60-as a small contractor or supplier of materials fifty-one (51%) percent or more of the capital stock or assets of which is owned by a person or persons:</p> <ul style="list-style-type: none">1.2.1 who are active in the daily affairs of the enterprise;1.2.2 who have the power to direct the management and policies of the enterprise; and1.2.3 who are members of a minority, as such term is defined in subsection (a) of C.G.S. §32-9n.”
1.3	<p>“Minority” groups are defined in C.G.S. §32-9n as:</p> <ul style="list-style-type: none">1.3.1 Black Americans, including all persons having origins in any of the Black African racial groups not of Hispanic origin;1.3.2 Hispanic Americans, including all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race;1.3.3 Persons who have origins in the Iberian Peninsula, including Portugal, regardless of race;1.3.4 Women;1.3.5 Asian Pacific Americans and Pacific Islanders; or1.3.6 American Indians and persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification.1.3.7 “Individuals with a disability” is also a minority business enterprise as provided by C.G.S. § 4a-60g (4).
1.4	<p>The above “Minority business enterprise” definitions apply to the contract compliance requirements by virtue of Contract Compliance Regulations §46a-68j-21(11).</p> <p>The awarding agency will consider the following factors when reviewing the bidder’s qualifications under the contract compliance requirements:</p> <ul style="list-style-type: none">1.4.1 the bidder’s success in implementing an affirmative action plan;1.4.2 the bidder’s success in developing an apprenticeship program complying with RSCA §46a-68-1 to 46a-68-17, inclusive;1.4.3 the bidder’s promise to develop and implement a successful affirmative action plan;1.4.4 the bidder’s submission of employment statistics contained in the “Employment Information Form”, indicating that the composition of its workforce is at or near parity when compared to the racial and sexual composition of the workforce in the relevant labor market area; and1.4.5 the bidder’s promise to set aside a portion of the contract for legitimate minority business enterprises. See Contract Compliance Regulations § 46a-68j-30(10) (E).

Note: The Commission on Human Rights and Opportunities (**CHRO**) “Employment Information Form” shall be submitted to the DAS/CS Office of Legal Affairs, Policy, and Procurement on behalf of the awarding agency, the Department of Administrative Services (DAS).

Section 2	Non-Discrimination and other Contract Compliance Requirements:
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Pursuant to **C.G.S. § 4a-60** and **§4a-60a** and the **RSCA §46a-68j-21 to 46a-68j-43**, a contractor agrees to the following:

- 2.1** Not to discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, sexual orientation, mental retardation, or physical disability including, but not limited to, blindness (unless it is shown that such disability prevents performance of the work involved) in the performance of a contract, in any manner prohibited by the federal and Connecticut anti-discrimination and contract compliance laws;
- 2.2** To undertake affirmative action which will insure that applicants with job-related qualifications are employed and that employees are treated, when employed, without regard to whether they belong to any of the groups identified in Paragraph # 1) above;
- 2.3** To include a statement that the contractor is an “affirmative action-equal opportunity employer”, in all solicitations or advertisements for employees placed by or on behalf of the contractor;
- 2.4** To provide each labor union or representative of workers with which such contractor has a collective bargaining agreement and each vendor with which such contractor has a contract, a notice advising them of the contractor’s commitments under **C.G.S. § 4a-60** and **§4a-60a**. The notice is available by contacting **CHRO**;
- 2.5** To post copies of the notice referred to in item 4) in conspicuous places available to employees and applicants;
- 2.6** To provide **CHRO** with such information requested by said agency, permit access to pertinent books, records, and accounts, concerning the employment practices and procedures of the contractor as relate to the provisions of **C.G.S. §4a-60, §4a-60a** and **§46a-56** and, cooperate fully with **CHRO**; and,
- 2.7** To include the language of **C.G.S. § 4a-60 (a)** and **§4a-60a (a)** in every subcontract or purchase order executed to fulfill any obligation of the contract with DAS.

Section 3	Affirmative Action Requirements for Certain Public Works Contracts for Construction:
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Pursuant to **C.G.S. § 46a-68c** and **§46a-68d** and, the **RSCA § 46a-68j-21 to 46a-68j-29**, the following must file an affirmative action plan with the Commission:

- 3.1** A successful bidder on a ¹ “**public works contract**” with a value of **\$500,000** or more. The plan must be filed within **thirty (30)** days after a bid has been accepted by an awarding agency but before a contract is awarded. A plan may be filed in advance of or, at the same time as a bid is submitted.
- 3.2** A contractor with **fifty (50)** or more employees who has been awarded a “**public works contract**” in excess of **\$50,000** in any fiscal year. A plan must be filed within **thirty (30) days** of the date a contract is awarded.

CHRO must review a plan within **sixty (60) days** of receipt and must either approve or reject a plan. Should **CHRO** approve an affirmative action plan, **CHRO** will issue a certificate of compliance. This certificate of compliance shall be proof of a successful bidder’s or a contractor’s eligibility to bid or be awarded contracts for a period of **two (2)** years from the date of the certificate. This certificate does not excuse a successful bidder or contractor from being monitored by the **CHRO** for implementation of its affirmative action plan or, from its reporting requirements under **C.G.S. 46a-68e** and **§ 46a-68f**. (Refer to Section 6) Also, **CHRO** may revoke the certificate if a successful bidder or contractor does not implement its affirmative action plan.

Should **CHRO** opt to disapprove an affirmative action plan, **CHRO** must notify the successful bidder or contractor in writing within **ten (10) days** of the disapproval. The notice will state the reason for disapproval and may provide necessary proposals to bring the plan into compliance. The successful bidder or contractor must then submit a new or amended plan, within **thirty (30) days** of the date the notice of disapproval is mailed by **CHRO**.

Section 3

(Continued):

In addition, **CHRO** may conditionally approve an affirmative action plan for a successful bidder on a public works contract valued at **\$500,000** or more. **CHRO** must notify the successful bidder in writing within **ten (10) days** of the conditional disapproval and state the reason for conditional approval and, may provide necessary proposals to bring the plan into compliance. The successful bidder must then submit a new or amended plan or, provide written assurances that it will amend its plan to conform to affirmative action requirements, within **thirty (30) days** of the date the notice is mailed by **CHRO**.

Note: The awarding agency (DAS) will provide a successful bidder or contractor with a copy of **CHRO**'s Affirmative Action Plan format. All sections of this Affirmative Action Plan format must be completed by the successful bidder or contractor and forwarded to **CHRO**. Also, the awarding agency (DAS) shall withhold **2%** of the total contract price per month from any payment made to a contractor until such time as the contractor has developed an affirmative action plan, which has been approved by **CHRO**.

¹ **“public works contract”** means any agreement between any individual, firm or corporation and the state or any political subdivision of the state other than a municipality for construction, rehabilitation, conversion, extension, demolition or repair of a public building, highway or other changes or improvements in real property, or which is financed in whole or in part by the state, including, but not limited to, matching expenditures, grants, loans, insurance or guarantees.-**C.G.S. § 46a-68b**.

Section 4

“Good Faith Efforts” to Include Minority Business Enterprises as Subcontractors”:

In addition to, or in the absence of, any other subcontractor requirements included in this project, contractors are required to make ² **“good faith efforts”** to include minority business enterprises in the work of this project as subcontractors (for services and/or material suppliers). For the purpose of identifying minority business enterprises, a minority business enterprise shall be a subcontractor which has a valid certification as such from DAS and/or a subcontractor for which an affidavit has been submitted by the contractor attesting that the subcontractor named as a minority business enterprise meets the minority business enterprise criteria set out in **C.G.S. § 4a-60(b)**.

² **“Good faith efforts”** means *“that **degree of diligence** which a reasonable person would exercise in the performance of legal duties and obligations”* and includes, but is not limited to, the following **factors**: the contractor’s employment and subcontracting policies and practices; affirmative advertising, recruitment, training, technical assistance activities and such other reasonable activities or efforts as **CHRO** may recommend to ensure the participation of minority business enterprises in state projects.

Section 5

Set-Aside Program:

This contract may be subject to the provisions the **Set-Aside Program for Small Contractors** found at **C.G.S. § 4a-60g** and may be awarded only to a contractor certified as a small and/or minority business enterprise by DAS. The notification as to this special provision will be found in the **Bid Proposal Form** for this contract. The listing of eligible "Set-Aside" contractors is found on the [DAS Website for SBE or MBE Certification](#). In the event that the **Set-Aside Program for Small Contractors** applies to this contract, the following special provisions will also apply:

5.1 Amount of Work Required to Be Done by "Set-Aside" Contractors

A contractor awarded a contract on a project pursuant to the provisions of **C.G.S. § 4a-60g**, as amended, shall be required to perform not less than **thirty (30)** per cent of the work with his/her own forces and shall ensure that not less than **fifty (50)** per cent of the work be performed by contractors or subcontractors who are certified as small contractors or minority business enterprises pursuant to **C.G.S. § 4a-60g**.

The primary product/service performed by contractors working on a contract awarded under **C.G.S. § 4a-60g** must be the same as the primary product/service described for the contractors on their "Certificate of Eligibility" which is provided to them by DAS.

5.2 Alternate Bonding Available to "Set Aside" Contractors

In lieu of a performance, bid, labor and materials or other required bond, a contractor or subcontractor awarded a contract under **C.G.S. § 4a-60g** may provide to the awarding authority (DAS) and the awarding authority shall accept a "Letter of Credit". Any such "Letter of Credit" shall be in an amount equal to **ten per cent (10%)** of the contract for any contract that is less than **one hundred thousand (\$100,000) dollars**, and in the amount of **twenty-five per cent (25%)** for any contract that is **one hundred thousand (\$100,000) dollars** or more.

5.3 Procedures to Follow Regarding Substitution of Named Project "Set-Aside" Subcontractors.

The awarding authority (DAS) may also require the contractor to set aside a portion of the contract for subcontractors who are eligible for set aside contracts. The awarding authority shall not permit substitution of a subcontractor for one named in accordance with the provisions of **C.G.S. § 4b-95** or substitution of a subcontractor for any designated sub-trade work bid to be performed by the contractor's own forces, except for good cause.

Pursuant to **C.G.S. § 4b-95**, the term "**good cause**" includes but is not limited to a subcontractor's or, where appropriate, a general contractor's:

5.3.1 Death or physical disability, if the listed subcontractor is an individual;

5.3.2 Dissolution, if a corporation or partnership;

5.3.3 Bankruptcy;

5.3.4 Inability to furnish any performance and payment bond shown on the bid form;

5.3.5 Inability to obtain, or loss of, a license necessary for the performance of the particular category of work;

5.3.6 Failure or inability to comply with a requirement of law applicable to contractors and subcontractors, or to subcontracts for construction, alteration, or repair projects;

5.3.7 Failure to perform his/her agreement to execute a subcontract under **C.G.S. § 4b-96**.

Any general contractor who violates any provision of **C.G.S. § 4b-95** shall be disqualified from bidding on other contracts that are subject to the provisions of **Chapter 60 - Construction and Alterations of State Buildings of the C.G.S**, for a period **not to exceed twenty-four (24) months**, commencing from the date on which the violation is discovered, for each violation.

Section 6	Contract Monitoring and Reporting:
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- 6.1 CHRO** has the authority to monitor state contractors pursuant to **C.G.S. § 46a-68e** and **46a-68f** and **RSCA-§46a-68j-23(3)**. In addition, under the **RSCA §46a-68j-25(e)** and **46a-68j-26 (g)**, **CHRO** has the authority to monitor the implementation of an affirmative action plan regarding:
- 6.1.1** a successful bidder who has been awarded a public works contract valued at **\$500,000 or more** and;
 - 6.1.2** a contractor with **fifty (50)** or more employees who has been awarded a public works contract **in excess of \$50,000 in any fiscal year**.
- 6.2** In order to monitor the implementation of these plans **CHRO** requires that the following contract monitoring reports be compiled and submitted:
- 6.2.1 Monthly Employment Utilization Report (Form CHRO: 257):** A contractor, on behalf of itself and all subcontractors who perform work on the project during a given month, is required to report on the work hour participation of minority male and female workers in each trade category on the project. The report must be submitted to the contract awarding agency (**DAS**) and to the Commission by the 15th day following the end of each calendar month during the term of the on-site construction work of the project.
Website page: <http://www.ct.gov/chro>, then click on **Forms**, then click on **Contract Compliance Forms and Reports**.
 - 6.2.2 Quarterly Small Contractor and Minority Business Enterprise Payment Status Report (Form CHRO: 258).** A contractor is required to report on the participation of small contractors or minority business enterprises identified to participate on the project. The report must be submitted to the contract awarding agency (**DAS**) and to the Commission by the 15th day following the end of each calendar quarter during the term of the on-site construction work of the project.
Website page: <http://www.ct.gov/chro>, then click on **Forms**, then click on **Contract Compliance Forms and Reports**.
 - 6.2.3** In addition, the Commission expects that a contractor will designate an Equal Opportunity/Contract Compliance Officer for its public works project who will compile the above monthly and quarterly reports, as well as, undertake the following responsibilities for implementation of its project Affirmative Action Plan (AAP):
 - .1** Maintain a project Equal Employment Opportunity (EEO) file to include all records, correspondence and other documentation relate to the project AAP.
 - .2** Communicate to and inform all project subcontractors, regardless of tier, and labor referral organizations (if applicable) about project equal employment and AAP commitments and performance requirements.
 - .3** Participate in project job meetings to inform project subcontractors about project equal employment and AAP performance requirements.
 - .4** Track the use of employment recruitment sources identified in the project AAP regarding all employment opportunities with all subcontractors on the project. Also, maintain documentation of all contacts with these recruitment sources and their responses.

The Commission will forward a copy of the monthly and quarterly report to each contractor on a public works project.

NOTES:	Bidders and state contractors may review the full text of the before referenced Connecticut General Statutes by accessing either the State Law Library's web site (http://www.cslib.org/psaindex.htm) or the State Legislatures' web site (http://www.cga.ct.gov).
	The full text of the RSCA 46a-68j-21 through 46a-68j-43 may be reviewed by accessing the Commission's web site: http://www.ct.gov/chro/cwp/view.asp?a=2525&Q=315900&chroPNavCtr=#45679 In the alternative, bidders or state contractors may request a copy of these state statutes and regulations by contacting the Commission at (860) 541-3400 (in Hartford) or 1 (800) 477-5737.

Section 7	CHRO Contract Compliance Forms:
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The following CHRO Contract Compliance Forms are available on the CHRO Website:

- 7.1 **Monthly Employment Utilization Report (Form CHRO-257 and CHRO-257a):**
 - <http://www.ct.gov/chro/lib/chro/257s.pdf>
- 7.2 **Cumulative Utilization Report (Form CHRO-257b):**
 - <http://www.ct.gov/chro/lib/chro/257b.pdf>
- 7.3 **Monthly Small Contractor & MBE Payment Status Report (Form CHRO-258a) and Quarterly Small Contractor & MBE Payment Status Report (Form CHRO-258):**
 - <http://www.ct.gov/chro/lib/chro/258s.pdf>

**End of Section
00 73 38 CHRO / Contract Compliance Regulations**

**Minimum Rates and Classifications
 for Building Construction**

**Connecticut Department of Labor
 Wage and Workplace Standards Division**

By virtue of the authority vested in the Labor Commissioner under provisions of Section 31-53 of the General Statutes of Connecticut, as amended, the following pages are declared to be the prevailing rates and welfare payments and will apply only where the contract is advertised for bid within 20 days of the date on which the rates are established. Any contractor or sub-contractor not obligated by agreement to pay to the welfare and pension fund shall pay this amount to each employee as part of his hourly wage.

Project Number:	BI-RR-30	Project Town:	East Granby, CT
Project: Old Newgate Prison and Copper Mine Museum			
Roof(s) Replacement and Exterior Renovations			
115 Newgate Road			
East Granby, CT			

The following pages contain:

Contractors Wage Certification Form	1 page
Notice to all Mason Contractors reference Section 31-53 of C.G.S. (Prevailing Wages)	1 page
Prevailing Wage Rates - English	15 pages
Informational Bulletin - Occupational Classifications	6 pages
Informational Bulletin – The 10-Hour OSHA Construction Safety and Health Course	2 pages
Footnotes	2 pages
Special Notice re: Wage Rate Adjustments	1 pages
Weekly Payroll Certification Form (WWS-CP1)	1 page
Fringe Benefits Explanation (P)	1 page
Weekly Payroll Certification Form (WWS-CP2)	1 page

As of: May 11, 2018



Opportunity * Guidance * Support



THIS IS A PUBLIC WORKS PROJECT

Covered by the

PREVAILING WAGE LAW

CT General Statutes Section 31-53

**If you have QUESTIONS regarding your wages
CALL (860) 263-6790**

Section 31-55 of the CT State Statutes requires every contractor or subcontractor performing work for the state to post in a prominent place the prevailing wages as determined by the Labor Commissioner.

CONNECTICUT DEPARTMENT OF LABOR
WAGE AND WORKPLACE STANDARDS DIVISION

CONTRACTORS WAGE CERTIFICATION FORM
Construction Manager at Risk/General Contractor/Prime Contractor

I, _____ of _____
Officer, Owner, Authorized Rep. Company Name

do hereby certify that the _____
Company Name

Street

City

and all of its subcontractors will pay all workers on the

Project Name and Number

Street and City

the wages as listed in the schedule of prevailing rates required for such project (a copy of which is attached hereto).

Signed

Subscribed and sworn to before me this _____ day of _____, _____.

Notary Public

Return to:

Connecticut Department of Labor
Wage & Workplace Standards Division
200 Folly Brook Blvd.
Wethersfield, CT 06109

Rate Schedule Issued (Date): _____

November 29, 2006

Notice
To All Mason Contractors and Interested Parties
Regarding Construction Pursuant to Section 31-53 of the
Connecticut General Statutes (Prevailing Wage)

The Connecticut Labor Department Wage and Workplace Standards Division is empowered to enforce the prevailing wage rates on projects covered by the above referenced statute.

Over the past few years the Division has withheld enforcement of the rate in effect for workers who operate a forklift on a prevailing wage rate project due to a potential jurisdictional dispute.

The rate listed in the schedules and in our Occupational Bulletin (see enclosed) has been as follows:

Forklift Operator:

- **Laborers (Group 4) Mason Tenders** - operates forklift solely to assist a mason to a maximum height of nine feet only.
- **Power Equipment Operator (Group 9)** - operates forklift to assist any trade and to assist a mason to a height over nine feet.

The U.S. Labor Department conducted a survey of rates in Connecticut but it has not been published and the rate in effect remains as outlined in the above Occupational Bulletin.

Since this is a classification matter and not one of jurisdiction, effective January 1, 2007 the Connecticut Labor Department will enforce the rate on each schedule in accordance with our statutory authority.

Your cooperation in filing appropriate and accurate certified payrolls is appreciated.

Sec. 31-53b. Construction safety and health course. New miner training program. Proof of completion required for mechanics, laborers and workers on public works projects. Enforcement. Regulations. Exceptions. (a) Each contract for a public works project entered into on or after July 1, 2009, by the state or any of its agents, or by any political subdivision of the state or any of its agents, described in subsection (g) of section 31-53, shall contain a provision requiring that each contractor furnish proof with the weekly certified payroll form for the first week each employee begins work on such project that any person performing the work of a mechanic, laborer or worker pursuant to the classifications of labor under section 31-53 on such public works project, pursuant to such contract, has completed a course of at least ten hours in duration in construction safety and health approved by the federal Occupational Safety and Health Administration or, has completed a new miner training program approved by the Federal Mine Safety and Health Administration in accordance with 30 CFR 48 or, in the case of telecommunications employees, has completed at least ten hours of training in accordance with 29 CFR 1910.268.

(b) Any person required to complete a course or program under subsection (a) of this section who has not completed the course or program shall be subject to removal from the worksite if the person does not provide documentation of having completed such course or program by the fifteenth day after the date the person is found to be in noncompliance. The Labor Commissioner or said commissioner's designee shall enforce this section.

(c) Not later than January 1, 2009, the Labor Commissioner shall adopt regulations, in accordance with the provisions of chapter 54, to implement the provisions of subsections (a) and (b) of this section. Such regulations shall require that the ten-hour construction safety and health courses required under subsection (a) of this section be conducted in accordance with federal Occupational Safety and Health Administration Training Institute standards, or in accordance with Federal Mine Safety and Health Administration Standards or in accordance with 29 CFR 1910.268, as appropriate. The Labor Commissioner shall accept as sufficient proof of compliance with the provisions of subsection (a) or (b) of this section a student course completion card issued by the federal Occupational Safety and Health Administration Training Institute, or such other proof of compliance said commissioner deems appropriate, dated no earlier than five years before the commencement date of such public works project.

(d) This section shall not apply to employees of public service companies, as defined in section 16-1, or drivers of commercial motor vehicles driving the vehicle on the public works project and delivering or picking up cargo from public works projects provided they perform no labor relating to the project other than the loading and unloading of their cargo.

(P.A. 06-175, S. 1; P.A. 08-83, S. 1.)

History: P.A. 08-83 amended Subsec. (a) by making provisions applicable to public works project contracts entered into on or after July 1, 2009, replacing provision re total cost of work with reference to Sec. 31-53(g), requiring proof in certified payroll form that new mechanic, laborer or worker has completed a 10-hour or more construction safety course and adding provision re new miner training program, amended Subsec. (b) by substituting "person" for "employee" and adding "or program", amended Subsec. (c) by adding "or in accordance with Federal Mine Safety and Health Administration Standards" and setting new deadline of January 1, 2009, deleted former Subsec. (d) re "public building", added new Subsec. (d) re exemptions for public service company employees and delivery drivers who perform no labor other than delivery and made conforming and technical changes, effective January 1, 2009.

Project: Old Newgate Prison And Copper Mine Museum Roof(s) Replacement And Exterior Renovations

**Minimum Rates and Classifications
for Building Construction**

ID# : B 24789

**Connecticut Department of Labor
Wage and Workplace Standards Division**

By virtue of the authority vested in the Labor Commissioner under provisions of Section 31-53 of the General Statutes of Connecticut, as amended, the following are declared to be the prevailing rates and welfare payments and will apply only where the contract is advertised for bid within 20 days of the date on which the rates are established. Any contractor or subcontractor not obligated by agreement to pay to the welfare and pension fund shall pay this amount to each employee as part of his/her hourly wages.

Project Number:

Project Town: East Granby

State#: BI-RR-30

FAP#:

Project: Old Newgate Prison And Copper Mine Museum Roof(s) Replacement And Exterior Renovations

CLASSIFICATION	Hourly Rate	Benefits
1a) Asbestos Worker/Insulator (Includes application of insulating materials, protective coverings, coatings, & finishes to all types of mechanical systems; application of firestopping material for wall openings & penetrations in walls, floors, ceilings	38.25	27.96
<hr/>		
1b) Asbestos/Toxic Waste Removal Laborers: Asbestos removal and encapsulation (except its removal from mechanical systems which are not to be scrapped), toxic waste removers, blasters.**See Laborers Group 7**		
<hr/>		
1c) Asbestos Worker/Heat and Frost Insulator	39.00	28.76

As of: Friday, May 11, 2018

Project: Old Newgate Prison And Copper Mine Museum Roof(s) Replacement And Exterior Renovations

2) Boilermaker	38.34	26.01
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3a) Bricklayer, Cement Mason, Concrete Finisher (including caulking), Stone Masons	33.48	32.06 + a
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3b) Tile Setter	34.90	25.87
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3c) Terrazzo Mechanics and Marble Setters	31.69	22.35
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3d) Tile, Marble & Terrazzo Finishers	26.70	21.75
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3e) Plasterer	33.48	32.06
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As of: Friday, May 11, 2018

Project: Old Newgate Prison And Copper Mine Museum Roof(s) Replacement And Exterior Renovations

-----LABORERS-----

4) Group 1: Laborers (common or general), acetylene burners, carpenter tenders, concrete specialists, wrecking laborers, fire watchers.	30.05	20.10
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4a) Group 2: Mortar mixers, plaster tender, power buggy operators, powdermen, fireproofers/mixer/nozzleman (Person running mixer and spraying fireproof only).	30.30	20.10
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4b) Group 3: Jackhammer operators/pavement breaker, mason tender (brick), mason tender (cement/concrete), forklift operators and forklift operators (masonry).	30.55	20.10
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4c) **Group 4: Pipelayers (Installation of water, storm drainage or sewage lines outside of the building line with P6, P7 license) (the pipelayer rate shall apply only to one or two employees of the total crew who primary task is to actually perform the mating of pipe sections) P6 and P7 rate is \$26.80.	30.55	20.10
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4d) Group 5: Air track operator, sand blaster and hydraulic drills.	30.55	20.10
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As of: Friday, May 11, 2018

Project: Old Newgate Prison And Copper Mine Museum Roof(s) Replacement And Exterior Renovations

4e) Group 6: Blasters, nuclear and toxic waste removal. 31.80 20.10

4f) Group 7: Asbestos/lead removal and encapsulation (except it's removal from mechanical systems which are not to be scrapped). 31.05 20.10

4g) Group 8: Bottom men on open air caisson, cylindrical work and boring crew. 28.38 20.10

4h) Group 9: Top men on open air caisson, cylindrical work and boring crew. 27.86 20.10

4i) Group 10: Traffic Control Signalman 16.00 20.10

5) Carpenter, Acoustical Ceiling Installation, Soft Floor/Carpet Laying, Metal Stud Installation, Form Work and Scaffold Building, Drywall Hanging, Modular-Furniture Systems Installers, Lathers, Piledrivers, Resilient Floor Layers. 32.60 25.34

As of: Friday, May 11, 2018

Project: Old Newgate Prison And Copper Mine Museum Roof(s) Replacement And Exterior Renovations

5a) Millwrights 33.14 25.74

6) Electrical Worker (including low voltage wiring) (Trade License required: E1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9) 39.15 25.17+3% of gross wage

7a) Elevator Mechanic (Trade License required: R-1,2,5,6) 51.71 32.645+a+b

-----LINE CONSTRUCTION-----

Groundman 26.50 6.5% + 9.00

Linemen/Cable Splicer 48.19 6.5% + 22.00

As of: Friday, May 11, 2018

Project: Old Newgate Prison And Copper Mine Museum Roof(s) Replacement And Exterior Renovations

8) Glazier (Trade License required: FG-1,2) 36.28 20.45 + a

9) Ironworker, Ornamental, Reinforcing, Structural, and Precast Concrete Erection 35.47 33.39 + a

----OPERATORS----

Group 1: Crane handling or erecting structural steel or stone, hoisting engineer 2 drums or over, front end loader (7 cubic yards or over), work boat 26 ft. and over and Tunnel Boring Machines. (Trade License Required) 39.30 24.05 + a

Group 2: Cranes (100 ton rate capacity and over); Excavator over 2 cubic yards; Piledriver (\$3.00 premium when operator controls hammer); Bauer Drill/Caisson. (Trade License Required) 38.98 24.05 + a

Group 3: Excavator; Backhoe/Excavator under 2 cubic yards; Cranes (under 100 ton rated capacity), Grader/Blade; Master Mechanic; Hoisting Engineer (all types of equipment where a drum and cable are used to hoist or drag material regardless of motive power of operation), Rubber Tire Excavator (Drott-1085 or similar); Grader Operator; Bulldozer Fine Grade. (slopes, shaping, laser or GPS, etc.). (Trade License Required) 38.24 24.05 + a

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Project: Old Newgate Prison And Copper Mine Museum Roof(s) Replacement And Exterior Renovations

Group 4: Trenching Machines; Lighter Derrick; Concrete Finishing Machine; CMI Machine or Similar; Koehring Loader (Skooper). 37.85 24.05 + a

Group 5: Specialty Railroad Equipment; Asphalt Paver; Asphalt Reclaiming Machine; Line Grinder; Concrete Pumps; Drills with Self Contained Power Units; Boring Machine; Post Hole Digger; Auger; Pounder; Well Digger; Milling Machine (over 24" Mandrell) 37.26 24.05 + a

Group 5 continued: Side Boom; Combination Hoe and Loader; Directional Driller; Pile Testing Machine. 37.26 24.05 + a

Group 6: Front End Loader (3 up to 7 cubic yards); Bulldozer (rough grade dozer). 36.95 24.05 + a

Group 7: Asphalt roller, concrete saws and cutters (ride on types), vermeer concrete cutter, Stump Grinder; Scraper; Snooper; Skidder; Milling Machine (24" and under Mandrell). 36.61 24.05 + a

Group 8: Mechanic, grease truck operator, hydroblaster; barrier mover; power stone spreader; welding; work boat under 26 ft.; transfer machine. 36.21 24.05 + a

As of: Friday, May 11, 2018

Project: Old Newgate Prison And Copper Mine Museum Roof(s) Replacement And Exterior Renovations

Group 9: Front end loader (under 3 cubic yards), skid steer loader regardless of attachments, (Bobcat or Similar): forklift, power chipper; landscape equipment (including Hydroseeder). 35.78 24.05 + a

Group 10: Vibratory hammer; ice machine; diesel and air, hammer, etc. 33.74 24.05 + a

Group 11: Conveyor, earth roller, power pavement breaker (whiphammer), robot demolition equipment. 33.74 24.05 + a

Group 12: Wellpoint operator. 33.68 24.05 + a

Group 13: Compressor battery operator. 33.10 24.05 + a

Group 14: Elevator operator; tow motor operator (solid tire no rough terrain). 31.96 24.05 + a

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Project: Old Newgate Prison And Copper Mine Museum Roof(s) Replacement And Exterior Renovations

Group 15: Generator Operator; Compressor Operator; Pump Operator; Welding Machine Operator; Heater Operator. 31.55 24.05 + a

Group 16: Maintenance Engineer/Oiler. 30.90 24.05 + a

Group 17: Portable asphalt plant operator; portable crusher plant operator; portable concrete plant operator. 35.21 24.05 + a

Group 18: Power safety boat; vacuum truck; zim mixer; sweeper; (Minimum for any job requiring a CDL license). 32.79 24.05 + a

-----PAINTERS (Including Drywall Finishing)-----

10a) Brush and Roller 32.72 20.45

As of: Friday, May 11, 2018

Project: Old Newgate Prison And Copper Mine Museum Roof(s) Replacement And Exterior Renovations

10b) Taping Only/Drywall Finishing	33.47	20.45
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10c) Paperhanger and Red Label	33.22	20.45
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10e) Blast and Spray	35.72	20.45
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11) Plumber (excluding HVAC pipe installation) (Trade License required: P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2)	41.62	30.36
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12) Well Digger, Pile Testing Machine	37.26	24.05 + a
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13) Roofer (composition)	35.97	19.73
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As of: Friday, May 11, 2018

Project: Old Newgate Prison And Copper Mine Museum Roof(s) Replacement And Exterior Renovations

14) Roofer (slate & tile)	36.47	19.73
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15) Sheetmetal Worker (Trade License required for HVAC and Ductwork: SM-1,SM-2,SM-3,SM-4,SM-5,SM-6)	37.18	35.29
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16) Pipefitter (Including HVAC work) (Trade License required: S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4, G-1, G-2, G-8 & G-9)	41.62	30.36
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-----TRUCK DRIVERS-----

17a) 2 Axle	29.13	22.32 + a
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17b) 3 Axle, 2 Axle Ready Mix	29.23	22.32 + a
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As of: Friday, May 11, 2018

Project: Old Newgate Prison And Copper Mine Museum Roof(s) Replacement And Exterior Renovations

17c) 3 Axle Ready Mix	29.28	22.32 + a
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17d) 4 Axle, Heavy Duty Trailer up to 40 tons	29.33	22.32 + a
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17e) 4 Axle Ready Mix	29.38	22.32 + a
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17f) Heavy Duty Trailer (40 Tons and Over)	29.58	22.32 + a
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17g) Specialized Earth Moving Equipment (Other Than Conventional Type on-the-Road Trucks and Semi-Trailers, Including Euclids)	29.38	22.32 + a
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18) Sprinkler Fitter (Trade License required: F-1,2,3,4)	43.92	15.84 + a
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As of: Friday, May 11, 2018

Project: Old Newgate Prison And Copper Mine Museum Roof(s) Replacement And Exterior Renovations

19) Theatrical Stage Journeyman	25.76	7.34
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As of: Friday, May 11, 2018

Project: Old Newgate Prison And Copper Mine Museum Roof(s) Replacement And Exterior Renovations

Welders: Rate for craft to which welding is incidental.

**Note: Hazardous waste removal work receives additional \$1.25 per hour for truck drivers.*

***Note: Hazardous waste premium \$3.00 per hour over classified rate*

ALL Cranes: When crane operator is operating equipment that requires a fully licensed crane operator to operate he receives an extra \$4.00 premium in addition to the hourly wage rate and benefit contributions:

1) Crane handling or erecting structural steel or stone; hoisting engineer (2 drums or over)

2) Cranes (100 ton rate capacity and over) Bauer Drill/Caisson

3) Cranes (under 100 ton rated capacity)

Crane with 150 ft. boom (including jib) - \$1.50 extra

Crane with 200 ft. boom (including jib) - \$2.50 extra

Crane with 250 ft. boom (including jib) - \$5.00 extra

Crane with 300 ft. boom (including jib) - \$7.00 extra

Crane with 400 ft. boom (including jib) - \$10.00 extra

All classifications that indicate a percentage of the fringe benefits must be calculated at the percentage rate times the "base hourly rate".

Apprentices duly registered under the Commissioner of Labor's regulations on "Work Training Standards for Apprenticeship and Training Programs" Section 31-51-d-1 to 12, are allowed to be paid the appropriate percentage of the prevailing journeymen hourly base and the full fringe benefit rate, providing the work site ratio shall not be less than one full-time journeyman instructing and supervising the work of each apprentice in a specific trade.

The Prevailing wage rates applicable to this project are subject to annual adjustments each July 1st for the duration of the project.

Each contractor shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.

It is the contractor's responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's website.

The annual adjustments will be posted on the Department of Labor's Web page: www.ct.gov/dol. For those without internet access, please contact the division listed below.

The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project.

All subsequent annual adjustments will be posted on our Web Site for contractor access.

Contracting Agencies are under no obligation pursuant to State labor law to pay any increase due to the annual adjustment provision.

As of: Friday, May 11, 2018

Project: Old Newgate Prison And Copper Mine Museum Roof(s) Replacement And Exterior Renovations

Effective October 1, 2005 - Public Act 05-50: any person performing the work of any mechanic, laborer, or worker shall be paid prevailing wage

All Person who perform work ON SITE must be paid prevailing wage for the appropriate mechanic, laborer, or worker classification.

All certified payrolls must list the hours worked and wages paid to All Persons who perform work ON SITE regardless of their ownership i.e.: (Owners, Corporate Officers, LLC Members, Independent Contractors, et. al)

Reporting and payment of wages is required regardless of any contractual relationship alleged to exist between the contractor and such person.

~~Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clause (29 CFR 5.5 (a) (1) (ii)).

Please direct any questions which you may have pertaining to classification of work and payment of prevailing wages to the Wage and Workplace Standards Division, telephone (860)263-6790.

As of: Friday, May 11, 2018

Information Bulletin ***Occupational Classifications***

The Connecticut Department of Labor has the responsibility to properly determine "job classification" on prevailing wage projects covered under C.G.S. Section 31-53(d).

Note: This information is intended to provide a sample of some occupational classifications for guidance purposes only. It is not an all-inclusive list of each occupation's duties. This list is being provided only to highlight some areas where a contractor may be unclear regarding the proper classification. If unsure, the employer should seek guidelines for CTDOL.

Below are additional clarifications of specific job duties performed for certain classifications:

- **ASBESTOS WORKERS**

Applies all insulating materials, protective coverings, coatings and finishes to all types of mechanical systems.

- **ASBESTOS INSULATOR**

Handle, install apply, fabricate, distribute, prepare, alter, repair, dismantle, heat and frost insulation, including penetration and fire stopping work on all penetration fire stop systems.

- **BOILERMAKERS**

Erects hydro plants, incomplete vessels, steel stacks, storage tanks for water, fuel, etc. Builds incomplete boilers, repairs heat exchanges and steam generators.

- **BRICKLAYERS, CEMENT MASONS, CEMENT FINISHERS, MARBLE MASONS, PLASTERERS, STONE MASONS, PLASTERERS. STONE MASONS, TERRAZZO WORKERS, TILE SETTERS**

Lays building materials such as brick, structural tile and concrete cinder, glass, gypsum, terra cotta block. Cuts, tools and sets marble, sets stone, finishes concrete, applies decorative steel, aluminum and plastic tile, applies cements, sand, pigment and marble chips to floors, stairways, etc.

- **CARPENTERS, MILLWRIGHTS. PILEDRIVERMEN. LATHERS. RESILEINT FLOOR LAYERS, DOCK BUILDERS, DIKERS, DIVER TENDERS**

Constructs, erects, installs and repairs structures and fixtures of wood, plywood and wallboard. Installs, assembles, dismantles, moves industrial machinery. Drives piling into ground to provide foundations for structures such as buildings and bridges, retaining walls for earth embankments, such as cofferdams. Fastens wooden, metal or rockboard lath to walls, ceilings and partitions of buildings, acoustical tile layer, concrete form builder. Applies firestopping materials on fire resistive joint systems only. Installation of curtain/window walls only where attached to wood or metal studs. Installation of insulated material of all types whether blown, nailed or attached in other ways to walls, ceilings and floors of buildings. Assembly and installation of modular furniture/furniture systems. Free-standing furniture is not covered. This includes free standing: student chairs, study top desks, book box desks, computer furniture, dictionary stand, atlas stand, wood shelving, two-position information access station, file cabinets, storage cabinets, tables, etc.

- **LABORER, CLEANING**

- The clean up of any construction debris and the general (heavy/light) cleaning, including sweeping, wash down, mopping, wiping of the construction facility and its furniture, washing, polishing, and dusting.

- **DELIVERY PERSONNEL**

- If delivery of supplies/building materials is to one common point and stockpiled there, prevailing wages are not required. If the delivery personnel are involved in the distribution of the material to multiple locations within the construction site then they would have to be paid prevailing wages for the type of work performed: laborer, equipment operator, electrician, ironworker, plumber, etc.

- An example of this would be where delivery of drywall is made to a building and the delivery personnel distribute the drywall from one "stockpile" location to further sub-locations on each floor. Distribution of material around a construction site is the job of a laborer or tradesman, and not a delivery personnel.

- **ELECTRICIANS**

Install, erect, maintenance, alteration or repair of any wire, cable, conduit, etc., which generates, transforms, transmits or uses electrical energy for light, heat, power or other purposes, including the Installation or maintenance of telecommunication, LAN wiring or computer equipment, and low voltage wiring. ***License required per Connecticut General Statutes: E-1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9.**

- **ELEVATOR CONSTRUCTORS**

Install, erect, maintenance and repair of all types of elevators, escalators, dumb waiters and moving walks. **License required by Connecticut General Statutes: R-1,2,5,6.*

- **FORK LIFT OPERATOR**

Laborers Group 4) Mason Tenders - operates forklift solely to assist a mason to a maximum height of nine (9) feet only.

Power Equipment Operator Group 9 - operates forklift to assist any trade, and to assist a mason to a height over nine (9) feet.

- **GLAZIERS**

Glazing wood and metal sash, doors, partitions, and 2 story aluminum storefronts. Installs glass windows, skylights, store fronts and display cases or surfaces such as building fronts, interior walls, ceilings and table tops and metal store fronts. Installation of aluminum window walls and curtain walls is the "joint" work of glaziers and ironworkers, which require equal composite workforce.

- **IRONWORKERS**

Erection, installation and placement of structural steel, precast concrete, miscellaneous iron, ornamental iron, metal curtain wall, rigging and reinforcing steel. Handling, sorting, and installation of reinforcing steel (rebar). Metal bridge rail (traffic), metal bridge handrail, and decorative security fence installation. Installation of aluminum window walls and curtain walls is the "joint" work of glaziers and ironworkers which require equal composite workforce.

- **INSULATOR**

- Installing fire stopping systems/materials for "Penetration Firestop Systems": transit to cables, electrical conduits, insulated pipes, sprinkler pipe penetrations, ductwork behind radiation, electrical cable trays, fire rated pipe penetrations, natural polypropylene, HVAC ducts, plumbing bare metal, telephone and communication wires, and boiler room ceilings.

- **LABORERS**

Acetylene burners, asphalt rakers, chain saw operators, concrete and power buggy operator, concrete saw operator, fence and guard rail erector (except metal bridge rail (traffic), decorative security fence (non-metal)).

installation.), hand operated concrete vibrator operator, mason tenders, pipelayers (installation of storm drainage or sewage lines on the street only), pneumatic drill operator, pneumatic gas and electric drill operator, powermen and wagon drill operator, air track operator, block paver, curb setters, blasters, concrete spreaders.

- **PAINTERS**

Maintenance, preparation, cleaning, blasting (water and sand, etc.), painting or application of any protective coatings of every description on all bridges and appurtenances of highways, roadways, and railroads. Painting, decorating, hardwood finishing, paper hanging, sign writing, scenic art work and drywall hhg for any and all types of building and residential work.

- **LEAD PAINT REMOVAL**

- Painter's Rate

1. Removal of lead paint from bridges.
2. Removal of lead paint as preparation of any surface to be repainted.
3. Where removal is on a Demolition project prior to reconstruction.

- Laborer's Rate

1. Removal of lead paint from any surface NOT to be repainted.
2. Where removal is on a *TOTAL* Demolition project only.

- **PLUMBERS AND PIPEFITTERS**

Installation, repair, replacement, alteration or maintenance of all plumbing, heating, cooling and piping. ****License required per Connecticut General Statutes: P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2 S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4.***

- **POWER EQUIPMENT OPERATORS**

Operates several types of power construction equipment such as compressors, pumps, hoists, derricks, cranes, shovels, tractors, scrapers or motor graders, etc. Repairs and maintains equipment. ****License required, crane operators only, per Connecticut General Statutes.***

- **ROOFERS**

Covers roofs with composition shingles or sheets, wood shingles, slate or asphalt and gravel to waterproof roofs, including preparation of surface. (demolition or removal of any type of roofing and or clean-up of any and all areas where a roof is to be relaid.)

- **SHEETMETAL WORKERS**

Fabricate, assembles, installs and repairs sheetmetal products and equipment in such areas as ventilation, air-conditioning, warm air heating, restaurant equipment, architectural sheet metal work, sheetmetal roofing, and aluminum gutters. Fabrication, handling, assembling, erecting, altering, repairing, etc. of coated metal material panels and composite metal material panels when used on building exteriors and interiors as soffits, fascia, louvers, partitions, canopies, cornice, column covers, awnings, beam covers, cladding, sun shades, lighting troughs, spires, ornamental roofing, metal ceilings, mansards, copings, ornamental and ventilation hoods, vertical and horizontal siding panels, trim, etc. The sheet metal classification also applies to the vast variety of coated metal material panels and composite metal material panels that have evolved over the years as an alternative to conventional ferrous and non-ferrous metals like steel, iron, tin, copper, brass, bronze, aluminum, etc. Fabrication, handling, assembling, erecting, altering, repairing, etc. of architectural metal roof, standing seam roof, composite metal roof, metal and composite bathroom/toilet partitions, aluminum gutters, metal and composite lockers and shelving, kitchen equipment, and walk-in coolers. To include testing and air –balancing ancillary to installation and construction.

- **SPRINKLER FITTERS**

Installation, alteration, maintenance and repair of fire protection sprinkler systems.

****License required per Connecticut General Statutes: F-1,2,3,4.***

- **TILE MARBLE AND TERRAZZO FINISHERS**

Assists and tends the tile setter, marble mason and terrazzo worker in the performance of their duties.

- **TRUCK DRIVERS**

~How to pay truck drivers delivering asphalt is under REVISION~

Truck Drivers are requires to be paid prevailing wage for time spent "working" directly on the site. These drivers remain covered by the prevailing wage for any time spent transporting between the actual construction location and facilities (such as fabrication, plants, mobile factories, batch plant, borrow pits, job headquarters, tool yards, etc.) dedicated exclusively, or nearly so, to performance of the contract or project, which are so located in proximity to the actual construction location that it is reasonable to include them. ****License required, drivers only, per Connecticut General Statutes.***

For example:

- Material men and deliverymen are not covered under prevailing wage as long as they are not directly involved in the construction process. If, they unload the material, they would then be covered by prevailing wage for the classification they are performing work in: laborer, equipment operator, etc.
- Hauling material off site is not covered provided they are not dumping it at a location outlined above.
- Driving a truck on site and moving equipment or materials on site would be considered covered work, as this is part of the construction process.

➤ *Any questions regarding the proper classification should be directed to:*
Public Contract Compliance Unit
Wage and Workplace Standards Division
Connecticut Department of Labor
200 Folly Brook Blvd, Wethersfield, CT 06109
(860) 263-6543.

Informational Bulletin

THE 10-HOUR OSHA CONSTRUCTION SAFETY AND HEALTH COURSE

(applicable to public building contracts entered into *on or after July 1, 2007*, where the total cost of all work to be performed is at least \$100,000)

- (1) This requirement was created by Public Act No. 06-175, which is codified in Section 31-53b of the Connecticut General Statutes (pertaining to the prevailing wage statutes);
- (2) The course is required for public building construction contracts (projects funded in whole or in part by the state or any political subdivision of the state) entered into on or after July 1, 2007;
- (3) It is required of private employees (not state or municipal employees) and apprentices who perform manual labor for a general contractor or subcontractor on a public building project where the total cost of all work to be performed is at least \$100,000;
- (4) The ten-hour construction course pertains to the ten-hour Outreach Course conducted in accordance with federal OSHA Training Institute standards, and, for telecommunications workers, a ten-hour training course conducted in accordance with federal OSHA standard, 29 CFR 1910.268;
- (5) The internet website for the federal OSHA Training Institute is http://www.osha.gov/fso/ote/training/edcenters/fact_sheet.html;
- (6) The statutory language leaves it to the contractor and its employees to determine who pays for the cost of the ten-hour Outreach Course;
- (7) Within 30 days of receiving a contract award, a general contractor must furnish proof to the Labor Commissioner that all employees and apprentices performing manual labor on the project will have completed such a course;
- (8) Proof of completion may be demonstrated through either: (a) the presentation of a *bona fide* student course completion card issued by the federal OSHA Training Institute; *or* (2) the presentation of documentation provided to an employee by a trainer certified by the Institute pending the actual issuance of the completion card;
- (9) Any card with an issuance date more than 5 years prior to the commencement date of the construction project shall not constitute proof of compliance;

- (10) Each employer shall affix a copy of the construction safety course completion card to the certified payroll submitted to the contracting agency in accordance with Conn. Gen. Stat. § 31-53(f) on which such employee's name first appears;
- (11) Any employee found to be in non-compliance shall be subject to removal from the worksite if such employee does not provide satisfactory proof of course completion to the Labor Commissioner by the fifteenth day after the date the employee is determined to be in noncompliance;
- (12) Any such employee who is determined to be in noncompliance may continue to work on a public building construction project for a maximum of fourteen consecutive calendar days while bringing his or her status into compliance;
- (13) The Labor Commissioner may make complaint to the prosecuting authorities regarding any employer or agent of the employer, or officer or agent of the corporation who files a false certified payroll with respect to the status of an employee who is performing manual labor on a public building construction project;
- (14) The statute provides the minimum standards required for the completion of a safety course by manual laborers on public construction contracts; any contractor can exceed these minimum requirements; and
- (15) Regulations clarifying the statute are currently in the regulatory process, and shall be posted on the CTDOL website as soon as they are adopted in final form.
- (16) Any questions regarding this statute may be directed to the Wage and Workplace Standards Division of the Connecticut Labor Department via the internet website of <http://www.ctdol.state.ct.us/wgwkstnd/wgemenu.htm>; or by telephone at (860)263-6790.

THE ABOVE INFORMATION IS PROVIDED EXCLUSIVELY AS AN EDUCATIONAL RESOURCE, AND IS NOT INTENDED AS A SUBSTITUTE FOR LEGAL INTERPRETATIONS WHICH MAY ULTIMATELY ARISE CONCERNING THE CONSTRUCTION OF THE STATUTE OR THE REGULATIONS.

**Connecticut Department of Labor
Wage and Workplace Standards Division
FOOTNOTES**

⇒ Please Note: If the “Benefits” listed on the schedule for the following occupations includes a letter(s) (+ a or + a+b for instance), refer to the information below.

Benefits to be paid at the appropriate prevailing wage rate for the listed occupation.

If the “Benefits” section for the occupation lists only a dollar amount, disregard the information below.

Bricklayers, Cement Masons, Cement Finishers, Concrete Finishers, Stone Masons
(Building Construction) and
(Residential- Hartford, Middlesex, New Haven, New London and Tolland Counties)

- a. Paid Holiday: Employees shall receive 4 hours for Christmas Eve holiday provided the employee works the regularly scheduled day before and after the holiday. Employers may schedule work on Christmas Eve and employees shall receive pay for actual hours worked in addition to holiday pay.

Elevator Constructors: Mechanics

- a. Paid Holidays: New Year’s Day, Memorial Day, Independence Day, Labor Day, Veterans’ Day, Thanksgiving Day, Christmas Day, plus the Friday after Thanksgiving.
- b. Vacation: Employer contributes 8% of basic hourly rate for 5 years or more of service or 6% of basic hourly rate for 6 months to 5 years of service as vacation pay credit.

Glaziers

- a. Paid Holidays: Labor Day and Christmas Day.

Power Equipment Operators
(Heavy and Highway Construction & Building Construction)

- a. Paid Holidays: New Year’s Day, Good Friday, Memorial day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, provided the employee works 3 days during the week in which the holiday falls, if scheduled, and if scheduled, the working day before and the working day after the holiday. Holidays falling on Saturday may be observed on Saturday, or if the employer so elects, on the preceding Friday.

Ironworkers

- a. Paid Holiday: Labor Day provided employee has been on the payroll for the 5 consecutive work days prior to Labor Day.

Laborers (Tunnel Construction)

- a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. No employee shall be eligible for holiday pay when he fails, without cause, to work the regular work day preceding the holiday or the regular work day following the holiday.

Roofers

- a. Paid Holidays: July 4th, Labor Day, and Christmas Day provided the employee is employed 15 days prior to the holiday.

Sprinkler Fitters

- a. Paid Holidays: Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day, provided the employee has been in the employment of a contractor 20 working days prior to any such paid holiday.

Truck Drivers

(Heavy and Highway Construction & Building Construction)

- a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas day, and Good Friday, provided the employee has at least 31 calendar days of service and works the last scheduled day before and the first scheduled day after the holiday, unless excused.

STATUTE 31-55a

- SPECIAL NOTICE -

To: All State and Political Subdivisions, Their Agents, and Contractors

Connecticut General Statute 31-55a - Annual adjustments to wage rates by contractors doing state work.

Each contractor that is awarded a contract on or after October 1, 2002, for (1) the construction of a state highway or bridge that falls under the provisions of section 31-54 of the general statutes, or (2) the construction, remodeling, refinishing, refurbishing, rehabilitation, alteration or repair of any public works project that falls under the provisions of section 31-53 of the general statutes shall contact the Labor Commissioner on or before July first of each year, for the duration of such contract, to ascertain the prevailing rate of wages on an hourly basis and the amount of payment or contributions paid or payable on behalf of each mechanic, laborer or worker employed upon the work contracted to be done, and shall make any necessary adjustments to such prevailing rate of wages and such payment or contributions paid or payable on behalf of each such employee, effective each July first.

- The prevailing wage rates applicable to any contract or subcontract awarded on or after October 1, 2002 are subject to annual adjustments each July 1st for the duration of any project which was originally advertised for bids on or after October 1, 2002.
- Each contractor affected by the above requirement shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.
- It is the **contractor's** responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's Web Site. The annual adjustments will be posted on the Department of Labor Web page: www.ctdol.state.ct.us. For those without internet access, please contact the division listed below.
- The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project. All subsequent annual adjustments will be posted on our Web Site for contractor access.

Any questions should be directed to the Contract Compliance Unit, Wage and Workplace Standards Division, Connecticut Department of Labor, 200 Folly Brook Blvd., Wethersfield, CT 06109 at (860)263-6790.

***FRINGE BENEFITS EXPLANATION (P):**

Bona fide benefits paid to approved plans, funds or programs, except those required by Federal or State Law (unemployment tax, worker’s compensation, income taxes, etc.).

Please specify the type of benefits provided:

- 1) Medical or hospital care _____ 4) Disability _____
- 2) Pension or retirement _____ 5) Vacation, holiday _____
- 3) Life Insurance _____ 6) Other (please specify) _____

CERTIFIED STATEMENT OF COMPLIANCE

For the week ending date of _____,

I, _____ of _____, (hereafter known as Employer) in my capacity as _____ (title) do hereby certify and state:

Section A:

1. All persons employed on said project have been paid the full weekly wages earned by them during the week in accordance with Connecticut General Statutes, section 31-53, as amended. Further, I hereby certify and state the following:

- a) The records submitted are true and accurate;
- b) The rate of wages paid to each mechanic, laborer or workman and the amount of payment or contributions paid or payable on behalf of each such person to any employee welfare fund, as defined in Connecticut General Statutes, section 31-53 (h), are not less than the prevailing rate of wages and the amount of payment or contributions paid or payable on behalf of each such person to any employee welfare fund, as determined by the Labor Commissioner pursuant to subsection Connecticut General Statutes, section 31-53 (d), and said wages and benefits are not less than those which may also be required by contract;
- c) The Employer has complied with all of the provisions in Connecticut General Statutes, section 31-53 (and Section 31-54 if applicable for state highway construction);
- d) Each such person is covered by a worker’s compensation insurance policy for the duration of his employment which proof of coverage has been provided to the contracting agency;
- e) The Employer does not receive kickbacks, which means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided directly or indirectly, to any prime contractor, prime contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contract or in connection with a prime contractor in connection with a subcontractor relating to a prime contractor; and
- f) The Employer is aware that filing a certified payroll which he knows to be false is a class D felony for which the employer may be fined up to five thousand dollars, imprisoned for up to five years or both.

2. OSHA~The employer shall affix a copy of the construction safety course, program or training completion document to the certified payroll required to be submitted to the contracting agency for this project on which such persons name first appears.

 (Signature) (Title) Submitted on (Date)

Additional Forms to Be Submitted After Bond Commission Funding Approval

DAS | Construction Services | Office of Legal Affairs, Policy, and Procurement

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Labor And Material Bond	2
Surety Sheet	1
Bidder's Certification: Financial Position and Corporate Structure	1

PERFORMANCE BOND
Know All Men by These Presents

THAT [] of the
Town of [], County [] and
State of [], as Principal (hereinafter called the Principal),
and [], []

(Insert place of Business)

(a surety company authorized to transact business in the State Of Connecticut) as Surety(ies) (hereinafter called the Surety) are held and firmly bound unto the State of Connecticut (hereinafter called the Obligee) in the full penal sum of

[]

(\$ []) Dollars, lawful money of the United States, to be paid to said State of Connecticut, to the which payment well and truly to be made and done, the said Principal binds himself, his heirs, executors, administrators and assigns (or itself, its successors and assigns), and the said Surety (ies) binds itself, its successors and assigns jointly and severally firmly by these presents.

Signed, sealed and delivered this [] day of [] 20 [] .

THE CONDITION OF THIS OBLIGATION IS SUCH THAT

WHEREAS said Principal will enter into a certain written contract with said Obligee, to be dated-the

[] day of [] 20 [] , which written , as amended, contract shall provide for the following:

- Project Title:** []
- Project Location:** []
- Contract Number:** []
- Project Number:** []

which contract, including any hereafter made extension, modification or alteration thereof, together with all plans and specifications now made or which may hereafter be made in extension, modification or alteration thereof, is hereby referred to, incorporated in, and made a part of this bond as though herein fully set forth.

NOW, THEREFORE, if the said Principal shall well and truly keep, perform and execute all the undertaking, covenants, terms, conditions, and agreements of said contract, as it may be extended, modified or altered, and during the *period* of any guaranty required under the contract, according to its provisions on his or its part to be kept and performed or shall indemnify and reimburse the Obligee for any loss that it may suffer through the failure of the Principal to faithfully observe and perform each and every obligation and duty imposed upon the Principal by the said contract, as it may be extended, modified or altered, at the time and in the manner therein specified, then this obligation shall be null and void, otherwise it shall remain and be in full force and effect.

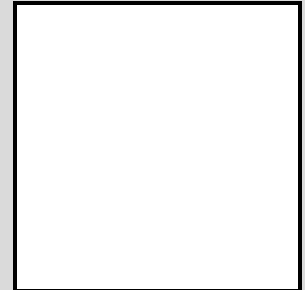
Any alterations which may be made in the terms of the contract, or in the work done or to be done under it, or the giving by the Obligee of any extension of time for the performance of the contract or any other forbearance on the part of either the Obligee or the Principal, one to the other, shall not in any way release the Principal, and/or the Surety(ies) or either of them, their representatives, heirs, executors, administrators, successors or assigns from liability hereunder, and notice to the Surety(ies) of any such alteration, modification, extension or forbearance is hereby specifically and absolutely waived.

In the event that the Surety(ies) assumes the contract or obtains a bid or bids for completion of the contract, the Surety(ies) shall ensure that the contractor chosen to complete the contract is prequalified pursuant to section 4a-100 of the Connecticut General Statutes, in the requisite classification and has the aggregate work capacity rating and single project limit necessary to complete the contract.

IN TESTIMONY WHEREOF, the said Principal has hereunto set his / its hand and seal, and the said Surety(ies) has/have caused this instrument to be signed by its/their attorney in fact and its corporate seal to be hereunto affixed, the day and year first written.

Witness as to Principle

SEAL



(Print Name)

, Its

Duly Authorized

(Print Name)

Witness as to Surety

SEAL



(Print Name)

by

Its attorney in fact

(Print Name)

Note: If more than one surety, add additional lines for additional surety name and address, person signing and title, and two witnesses. Obtain Power of Attorney for each surety.

End Performance Bond

**LABOR AND MATERIAL BOND
Know All Men by These Presents**

THAT [] of the
Town of [], County [] and
State of [], as Principal (hereinafter called the Principal),
and [], []
(Insert place of Business)

(a surety company authorized to transact business in the State Of Connecticut) as Surety(ies) (hereinafter called the Surety) are held and firmly bound unto the State of Connecticut (hereinafter called the Obligee) in the full penal sum of

[]

(\$ []) Dollars, lawful money of the United States, to be paid to said State of Connecticut, to the which payment well and truly to be made and done, the said Principal binds himself, his heirs, executors, administrators and assigns (or itself, its successors and assigns), and the said Surety (ies) binds itself, its successors and assigns jointly and severally firmly by these presents.

Signed, sealed and delivered this [] day of [] 20 [] .

THE CONDITION OF THIS OBLIGATION IS SUCH THAT

WHEREAS said Principal will enter into a certain written contract with said Obligee, to be dated the [] day of [] 20 [] , which written, as amended, contract shall provide for the following:

- Project Title:** []
- Project Location:** []
- Contract Number:** []
- Project Number:** []

which contract, including any hereafter made extension, modification or alteration thereof, together with all plans and specifications now made or which may hereafter be made in extension, modification or alteration thereof, is hereby referred to, incorporated in, and made a part of this bond as though herein fully set forth.

NOW, THEREFORE, if the said Principal shall promptly pay for all materials furnished and labor supplied or performed in the prosecution of the work included in and under the aforesaid contract, as it may be extended, modified or altered, and/or required by the General Statutes of Connecticut, as amended, whether or not the material or labor enters into and becomes a component part of the real asset, then this obligation shall be null and void, otherwise it shall remain and be in full force and effect. This bond is provided pursuant to Section 49-41 et seq. of the General Statutes of Connecticut and shall be governed thereby.

Any party, whether a subcontractor or otherwise, who furnishes materials or supplies or performs labor or services in the prosecution of the work under said contract, as it may be extended, modified or altered, and who is not paid therefor, may bring a suit on this bond in the name of the person suing and prosecute the same to final execution and judgment for such sum or sums as may be justly due.

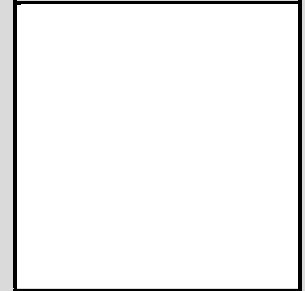
Any alterations which may be made in the terms of the contract, or in the work done or to be done under it, or the giving by the Obligee of any extension of time for the performance of the contract or any other forbearance on the part of either the Obligee or the Principal, one to the other, shall not in any way release the Principal, and/or the Surety(ies) or either of them, their representatives, heirs, executors, administrators, successors or assigns from liability hereunder, and notice to the Surety(ies) of any such alteration, modification, extension or forbearance is hereby specifically and absolutely waived.

In the event that the Surety(ies) assumes the contract or obtains a bid or bids for completion of the contract, the Surety(ies) shall ensure that the contractor chosen to complete the contract is prequalified pursuant to section 4a-100 of the Connecticut General Statutes, in the requisite classification and has the aggregate work capacity rating and single project limit necessary to complete the contract.

IN TESTIMONY WHEREOF, the said Principal has hereunto set his / its hand and seal, and the said Surety(ies) has/have caused this instrument to be signed by its/their attorney in fact and its corporate seal to be hereunto affixed, the day and year first written.

Witness as to Principle

SEAL



(Print Name)

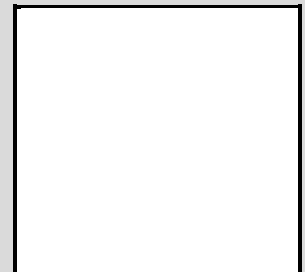
, Its

Duly Authorized

(Print Name)

Witness as to Surety

SEAL



(Print Name)

by

Its attorney in fact

(Print Name)

Note: If more than one surety, add additional lines for additional surety name and address, person signing and title, and two witnesses. Obtain Power of Attorney for each surety.

End Labor and Material Bond

Surety Sheet

State Of Connecticut
Department of Administrative Services, Construction Services
Office of Legal Affairs, Policy, and Procurement
450 Columbus Boulevard, Suite 1302
Hartford, CT 06103

1. Surety Company

Name of Surety Co.:

Address of Home Office:

Telephone Number:

2. Agent

Name of Surety Co.:

Address of Agency:

Telephone Number:

Attorney-In-Fact:

Telephone Number:

DAS Project Number:

Contractor's Name:

End Surety Sheet

**Bidder's Certification:
Financial Position and Corporate Structure**

(Your Name)

(Name Of Company)

The bidder for this contract (hereinafter "bidder"), certifies under penalty of false statement that the information in the bid is true, that there has been no substantial change in the bidder's financial position or corporate structure since its most recent prequalification certificate was issued or renewed pursuant to CGS § 4b-91, as amended, other than those changes noted in the update statement, and that the bid was made without fraud or collusion with any person.

(Signature)

(Print Name)

(Date)

(DAS Project Number)

End Bidder's Certification: Financial Position and Corporate Structure

**End of Section
00 92 10 Additional Forms To Be Submitted After Bond Commission Funding Approval**

Procedures Regarding Taxation For Nonresident General / Prime Contractor and Subcontractors

DAS | Construction Services | Office of Legal Affairs, Policy, and Procurement

According to [Connecticut General Statutes § 12-430\(7\)](#), there are two types of Nonresident Contractors and Subcontractors (*Verified* or *Unverified*) who are required to furnish security for Connecticut taxes arising from jobs performed in Connecticut.

Detailed information can be found by visiting the Connecticut Department of Revenue Services (DRS) website at www.ct.gov/drs:

- Under the “**For Businesses**” title, click on “**Withholding Tax**”;
- Click on “**Registering**”;
- Click on “**5. What tax types do I need to register for with DRS**”;
- Read the information for “**Out-of-State**” contractors.
- Click on “[SN 2012\(2\)](#)” for the “Procedure Governing Nonresident Contractors”.

Forms can be downloaded from the DRS website (www.ct.gov/drs) as follows:

- Click on “**Forms**” at the top of the page;
- Under “**Current Year Forms**”:
 - Click on “**Miscellaneous Tax Forms**”;
 - Click on “**Bond Forms**”
- Download the appropriate form.

For questions regarding the nonresident contractor bond law, call **DRS** at **860-541-7538**.

1.0 Verified Nonresident Contractors and Subcontractors

Verified Nonresident Contractors are treated just like Resident Contractors. A Verified Nonresident General or Prime Contractor is not required to file a surety bond with DRS. A Verified Nonresident Subcontractor is not required for the General or Prime Contractor to hold back a portion of the amount owed the Subcontractor under the contract.

1.1 Verification Procedure for General/Prime Contractors and Subcontractors:

1.1.1 Register with DRS via REG-1 for all appropriate taxes.

1.1.2 Submit Form AU-960 “Nonresident Contractor Request for Verified Contractor Status” to DRS. If you have a 3 year filing history with DRS and no delinquencies, then just complete **Part I & Part I**, otherwise go to **Part III**.

1.1.3 Submit Form AU-961 “Verification Bond” to DRS.

1.1.4 If Verified by DRS, submit “**Notice of Verified Status**” (Verification Letter issued by DRS) to the Connecticut Department of Administrative Services / Construction Services (DAS/CS) Office of Legal Affairs, Policy, and Procurement as specified in Section 00 41 00 Bid Proposal Form.

**2.0 Unverified Nonresident Contractors and Subcontractors
(for Contracts Greater Than \$250,000):**

The requirements for Unverified Nonresident Contractors and Unverified Nonresident Subcontractors (for Contracts greater than \$250,000) are different for General/Prime Contractors and their Subcontractors:

2.1 Unverified Nonresident General or Prime Contractors:

- 2.1.1** Submit **Form AU-964 “Surety Bond and Release” to DRS**. The Unverified Nonresident General/Prime Contractor is required to file a good and valid surety bond with DRS using Form AU-964 “Surety Bond and Release” for 5% of the contract price to secure payment of required taxes by both the General/Prime Contractor and its Subcontractors.
- 2.1.2** The General/Prime Contractor must provide proof to DAS/CS that they have posted a good and valid surety bond with DRS by providing a copy of **Form AU-965 “Acceptance of Surety Bond”** that verifies acceptance of the bond by DRS*.

2.2 Unverified Nonresident Subcontractors:

- 2.2.1** The Resident or Verified or Unverified Nonresident General/Prime Contractor is required to hold back 5% of its payments to the Unverified Nonresident Subcontractor. The General/Prime Contractor must keep the hold-backs in a special fund in trust for the state.
- 2.2.2** The Unverified Nonresident Subcontractor can request that the money be released from the General/Prime Contractor by submitting **Form AU-967 “Request for Certificate of Compliance” to DRS**. It must be signed by the General/Prime Contractor and the Nonresident Subcontractor and submitted **to DRS within 90 days of the completion date**.
- 2.2.3** If **Form AU-968 “Certificate of Compliance”** is issued by DRS, DRS will instruct the General/Prime Contractor holding back the 5% to release the withheld amount to the Nonresident Subcontractor. If the “Certificate of Compliance” is denied or not requested within **90 days of the completion date of the contract**, the General/Prime Contractor holding back the 5% will remit the withheld amount on their own Sales & Use tax returns.
- 2.2.4** The 5% holdback does not take the place of any tax returns due from the Unverified Nonresident Contractor.
- 2.2.5** The General/Prime Contractor must give the Unverified Nonresident Subcontractor written notice of the hold-back requirements by the time the Subcontractor begins work under the contract.

*Document(s) must be submitted to the DAS/CS Office of Legal Affairs, Policy, and Procurement as specified in Section 00 41 00 “Bid Proposal Form”.

End of Section

**00 92 30 Procedures Regarding Taxation
For Nonresident General/Prime Contractor & Subcontractors**

01 10 00 SUMMARY

A. **Summary:** Section 01 10 00 Summary contains the following Subsections:

01 11 00	Summary of Work	Not Used <input type="checkbox"/>
01 11 13	Work Covered By Contract Documents	Not Used <input type="checkbox"/>
01 11 16	Work Under Other Contracts	Not Used <input type="checkbox"/>
01 12 16	Work Sequence - Phase(s);	Not Used <input type="checkbox"/>
01 12 19	Contract Interface	Not Used <input type="checkbox"/>
01 14 00	Work Restrictions	Not Used <input type="checkbox"/>
01 14 16	Coordination With Occupants	Not Used <input type="checkbox"/>
01 14 23	Subcontractor Evaluations	Not Used <input type="checkbox"/>

01 11 00 SUMMARY OF WORK

- A. **Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. **Project Number:** BI-RR 30.
- C. **Project Title:** OLD NEWGATE PRISON AND COPPER MINE MUSEUM - ROOF(S) REPLACEMENT AND EXTERIOR RENOVATIONS.
 It is to be completed and ready for use by the Owner and Agency within the Contract Time specified in Division 00, Section 00 11 16 "Invitation To Bid".
- D. **Project Location:** The Old Newgate Prison and Copper Mine Museum, located in East Granby, Connecticut.
- E. **The Project Description:**
1. Roof replacement (White Cottage and Viets Tavern). Exterior repair and painting of The White Cottage, Yellow Cottage and Viets Tavern.
 2. The buildings are existing and are on the Connecticut Historic Register.
 3. The Authorities Having Jurisdiction for Threshold Projects, Non-Threshold Projects, and/or Connecticut State University System (CSUS) 2020 Projects, as defined by the Connecticut General Statutes, are the Connecticut Department of Administrative Services (DAS) / Construction Services (CS) Office of State Building Inspector (OSBI) and Office of State Fire Marshal (OSFM)..

01 11 13 WORK COVERED BY CONTRACT DOCUMENTS

- A. **Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. The Work includes but is not limited to the following:
1. **Yellow Cottage:**
 - a) Selective Demolition
 - Remove existing storm door.
 - Remove unattached siding.
 - b) Carpentry
 - Repair/ replace rear porch door.
 - Siding re-attachment and replacement per drawings.
 - Replace rotted sash or replace window at north first floor
 - Window sash replacement.
 - c) Joint Protection
 - Siding penetrations.
 - d) Glazing

Replace broken window glass.

Remove existing glazing compound and install new glazing compound at all windows.

e) Painting and coating

Scrape, prepare and paint wood siding, exterior trim and non-glass portions of windows.

f) Lead Abatement

Paint scraping.

g) Asbestos abatement

Caulking at seven (7) first floor windows.

h) Repointing and capping chimney

g) Asbestos abatement - There is ACM in the caulking of some windows. refer to drawings for locations.

2. Viets Tavern:

a) Carpentry

Replace, re-attach, reposition siding per drawings.

Replace building skirt and drip board.

Replace and repair missing/damaged trim.

b) Wood Shingles

Remove existing wood shingles and felt paper.

Replace rotted roof slats.

Remove sheathing and rotted slats at barn.

Install new slats at barn roof.

Install new wood shingle roof throughout.

c) Gutters and Downspouts

Remove and replace all.

New aluminum gutters and downspouts at Western Elevation.

d) Joint Protection

Siding penetrations.

e) Glazing

Replace broken window glass.

Remove existing glazing compound and install new glazing compound at all windows.

f) Painting and coating

Scrape, prepare and paint wood siding, exterior trim and non-glass portions of windows.

g) Lead Abatement

Paint scraping.

h) Repointing and capping three (3) chimneys

3. White Cottage:

a) Carpentry

Replace missing skirt boards sills and corner boards.

Re-attach or replace siding per drawings.

Repair or Replace missing/damaged window trim, sill or drip

b) Wood Shingles

Remove existing wood shingles and felt paper.

Replace rotted roof slats.

Install new wood shingles roof throughout.

c) Gutters and Downspouts

Remove existing and salvage for owner.

New aluminum gutters and downspouts front and back.

d) Joint Protection

Caulk siding penetrations.

e) Glazing

Replace broken window glass.

Remove existing glazing compound and install new glazing compound at all windows.

f) Painting and coating

Scrape, prepare and paint wood siding, exterior trim and non-glass portions of windows.

g) Lead Abatement

Paint scraping.

h) Asbestos abatement

Glazing compound at three (3) basement windows.

j) Repointing and capping chimney

C. The Contractor will include in his bid, all items required in order to carry out the intent of the work as described, shown and implied in the Contract Documents.

D. It shall be the Contractor's responsibility upon discovery to immediately notify the Construction Administrator (CA), in writing, of errors, omissions, discrepancies, and instances of non-compliance with applicable codes and regulations within the documents, and of any work which will not fit or properly function if installed as indicated on the Contract Documents. Any additional costs arising from the Contractor's failure to provide such notification shall be borne by the Contractor.

E. **The Work will be constructed under a single lump sum.**

F. Examination Of Site:

1. It is not the intent of the Documents to show all existing conditions. All contractors are advised to visit and examine the site with the Construction Administrator prior to submitting bids.

2. Contractors should investigate and satisfy themselves as to the conditions affecting the work, including but no restricted to those bearing upon transportation, disposal, handling and storage of materials, availability of labor, water, electric power, uncertainties of weather, roads or similar physical conditions of the ground, the character of equipment, and facilities needed preliminary to and during the prosecution of the Work. The Contractor should further satisfy himself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, as well as from information presented by the Contract Documents. Any failure by the Contractor to acquaint himself with the available information shall not relieve him from the responsibility for estimating properly the difficulty and cost of successfully performing the Work.

3. There is no Geo-Technical Reports for this project. .

4. **Pre-Bid Conference:**

4.1 A Pre-Bid Conference and tour of the site will be conducted as scheduled in Division 00 Section 00 11 16 "Invitation to Bid". This scheduled conference is the only official opportunity for the bidders to tour the site with the Owner, Architect, Engineer, Construction Administrator, and Agency.

G. Project Documents:

1. The Specifications and Drawings are intended to describe and illustrate the materials and labor necessary for the work of this Project.
 2. Throughout the Technical Specifications, the Connecticut Department of Transportation Standard Specifications for Roads, Bridges, and Incidental Construction Form 814A, current addition including any interim and supplemental specifications are referenced. Where so referenced the requirements set forth therein are applicable and made a part hereof Copies of Form 814A are available from the Connecticut Department of Transportation at a nominal charge.
- H. The General Contractor will be given **10** sets of the Contract Documents on or about the time of execution of Contract, free of charge. If additional copies are wanted, they will be available at the direct additional cost of their reproduction, to the contractor.
- I. The Contractor shall receive **one (1)** set of AutoCAD compatible (latest version) Floor Plans on disks at no cost on or about the time of execution of the Contract from the Architect. Additional sets of AutoCAD compatible (latest version) Floor Plans on disks from the Architect at the cost of their reproduction, to the contractor.

01 12 16 WORK SEQUENCE - PHASE(S)

- A. **Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. The entire Project shall be constructed in **one** Phase(s). Work of these Phase(s) shall be substantially complete, ready for occupancy within **120** Calendar Days of commencement of the Work (the "Contract Time").

01 12 19 CONTRACT INTERFACE

- A. **Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. **Owner:** The Owner is the State of Connecticut, Department of Administrative Services.
1. The authorized representative for the Owner is **Halina E. Harabasz**, DAS/CS Project Manager. The DAS/CS Project Manager is located at Room **1201** 450 Columbus Blvd, Suite 1201, Hartford, CT, 06103. Phone: **(860) 713-5732**; Fax: **(860) 326-0516**; E-mail: **halina.harabasz@ct.gov**.
 2. The DAS/CS Project Manager is the authorized representative for the Department of Administrative Services Commissioner to act in matters involving revoking, altering, enlarging or relaxing any requirement of the contract documents.
- C. **Agency:** The Connecticut State (User) Agency is **Department of Economic and Community Development**.
1. The Agency Representative is **Elizabeth Shapiro**. The Agency Representative's title is **Director of Operations, Preservation and Museums, Connecticut Office of the Arts and State Historic Preservation Office, Dept. of Economic & Community Development State of Connecticut**. The Agency Representative is located at **450 Columbus Boulevard, Suite 5 Hartford, Connecticut, 06103**. Phone: **(860) 500-2360** Fax: **(860) 326-0516**; E-mail: **Elizabeth.Shapiro@ct.gov**
 2. The Agency Representative has the administrative authority for the facility and or site where the work is being performed but does not have the authority to change the contract documents or direct the contractor.
- D. **Architect And Engineer:** The Architectural Firm is **OakPark Architects LLC**, and is located at **312, Park Road, West Hartford, CT 06119**. The Architect representing the firm for this project is **Mark A. Welch**. Phone: **860-232-6664**; Fax: **860-232-6121**; E-mail: **markw@oakparkarchitects.com**.
1. The Architect and Engineer or their accredited representative is referred to in the Contract Documents as "Architect" or "Architects" or "Engineer" or "Engineers" or by pronouns which imply them. As information for the Contractor, the Architect's or Engineer's status is defined as follows:
 - 1.1 The Architect and Engineer will not make interpretations or decisions directly to the Contractor. All interpretations or decisions will be conveyed through the Construction Administrator.

- 1.2 As the authorized representative of the Department of Administrative Services Commissioner, the Architect and Engineer is responsible for review of shop drawings, materials, and equipment intended for the work, in accordance with the "General Conditions", and the "Supplementary Conditions".
- 1.3 Wherever the Architect or Engineer is mentioned in the documents in connection with an administrative function, it shall include the Construction Administrator in that function except for shop drawings.
- E. Construction Administrator:** The Construction Administrator is TBD, and is located at TBD, Connecticut, TBD. Phone: TBD; Fax: TBD; E-mail: TBD.
1. The Construction Administrator is referred to in the Contract Documents as "Construction Administrator" or "Construction Manager" or by pronouns which imply it. All communications concerning the project will be directed through the Construction Administrator or a designated representative(s).
2. As information to the Contractor, the Construction Administrator's status is defined as follows:
- 2.1 The Construction Administrator is the Owner's Agent who will, among other things, monitor the General Contractor's performance, scheduling and construction, process shop drawings, material, and equipment submittals, review and process periodic billings, review and recommend cost changes.
- 2.2 The Construction Administrator will process all requests for information, interpretations and decisions regarding the meaning and intent of the Contract Documents, consulting with appropriate parties prior to rendering the interpretations or decisions to the Contractor. All such requests and replies shall be in writing.
- F. PMWeb Project Management:**
1. DAS/CS is using PMWeb as the project management collaborative software tool for this project.
2. The General Contractor is required to utilize PMWeb for the duration of this project and shall provide all project information via this program management software. This includes, but is not limited to contracts, applications for payment, change orders, change order proposals, requests for information, etc.
3. The General Contractor shall **NOT** carry a cost for PMWeb in their bid.
4. The DAS/CS Project Manager [or the Construction Administrator (CA)] shall arrange for training. This training is for the General Contractor's Staff, the DAS/CS Project Manager, the Construction Administrator, the A/E, and their representatives.
5. DAS/CS will be establishing a project specific email "file" address for this project. The General Contractor shall send an electronic "file" copy of all project documents to this email address, to include but not limited to all project correspondence, project emails, forms, etc.
6. The General Contractor is required to scan all documents that contain wet (ink) signatures and send a copy of those documents electronically to the DAS/CS Project Manager and the project specific email "file" address. The hard copy of the wet signature documents shall be transmitted as directed by the DAS/CS Project Manager. This includes, but is not limited to all contracts, change orders, applications for payment, closeout documentation, etc.

01 14 00 WORK RESTRICTIONS

- A. Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B.** The Contractor shall confine his operations, including storage of apparatus, equipment and materials to the contract limit lines as directed by the Construction Administrator.
- C.** The areas and/or spaces, including their access, shall be maintained free and clear throughout the contract term.
- D.** Parking for Contractor's employees will be limited to an area (or areas) designated by the Construction Administrator. The Contractor may be required to provide identification stickers for employees' cars.

01 14 16 COORDINATION WITH OCCUPANTS

- A. Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. Full Agency Occupancy During Construction:** The Agency will not occupy the site and existing building during the entire construction .

01 14 23 SUBCONTRACTOR EVALUATIONS:

- A.** Pursuant to C.G.S. Sec. 4a-101, the General Contractor shall compile evaluation information during the performance of the contract on each of its subcontractors who are performing work with a value in excess of five hundred thousand dollars (\$500,000.00). The General Contractor shall complete and submit to the DAS/CS evaluations of each such subcontractor upon fifty percent (50%) completion of the project and upon Substantial Completion of the project. The General Contractor acknowledges that its failure to complete and submit these evaluations in a timely manner may, by statute, result in a delay in project funding and, consequently, payment to the General Contractor. The General Contractor agrees to indemnify and hold the State harmless from any loss, damage, or expense that results from or is caused by the General Contractor's failure to complete and submit the evaluations to DAS/CS in accordance with this provision.

End
Section 01 10 00 Summary

01 20 00 CONTRACT CONSIDERATIONS

A. **Summary:** Section 01 20 00 Contract Considerations contains the following subsections:

01 21 00	Allowances	Not Used <input checked="" type="checkbox"/>
01 22 00	Unit Prices - General	Not Used <input type="checkbox"/>
01 22 13	Unit Price Schedules - Earth And Rock Excavation	Not Used <input checked="" type="checkbox"/>
01 22 16	Unit Price Schedule - Miscellaneous	Not Used <input checked="" type="checkbox"/>
01 22 19	Unit Price Schedule – Alterations	Not Used <input type="checkbox"/>
01 22 23	Unit Price Schedule – Environmental Remediation	Not Used <input checked="" type="checkbox"/>
01 22 27	Unit Price Schedule – Hazardous Building Materials Abatement	Not Used <input type="checkbox"/>
01 23 00	Supplemental Bids	Not Used <input checked="" type="checkbox"/>
01 25 00	Substitution Procedures	Not Used <input type="checkbox"/>
01 26 00	Contract Modification Procedures	Not Used <input type="checkbox"/>
01 29 76	Progress Payment Procedures	Not Used <input type="checkbox"/>

01 22 00 UNIT PRICES - GENERAL

- A. **Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. **Definition - Unit Price:** Amount the General Contractor acknowledges in the Bid Proposal Form as a price per unit of measurement for materials or services as described in the Bidding Documents or in the Contract Documents.
- C. **Procedures:**
1. Unit Prices included in the Contract Documents are to be used for determining compensation to the Contractor or Owner for changes to the scope of the work indicated in the Contract Documents, and included in the Lump Sum Contract Price. Special Unit Prices are for items complete, in place, and shall be inclusive of furnishing and installing of all material, labor, trucking, overhead, profit, equipment, hoisting, excavation, stockpiling, loading, engineering, scaffolding, power hookups, protection, shop drawings, taxes, permits, appliances, delivery, disposal, insurance, supervision, cost of bond, etc. and shall remain in effect until completion of the Contract..
 2. **Unit Price:** Is identified by the Owner as a price per unit of measurement for materials or services added to or deducted from the Contract Sum by appropriate modification, if the estimated quantities of Work required by the Contract Documents are increased or decreased.
 3. **Increases or Decreases:** Should the amount of the Work required be increased or decreased because of changes in the work ordered in writing by the DAS/CS Project Manager, the Undersigned agrees that the following supplemental UNIT PRICES will be decreased 10% for a reduction of work. Each Unit Price shall include all equipment, tools, labor, permits, fees, etc., incidental to the completion of the work involved. All items marked with an asterisk (*) in the unit price schedules shall include the completion of the excavation, formation and compaction of sub-grade and the disposal of surplus or unsuitable materials in accordance with the Plans and Specifications or as directed by the Construction Administrator.
- D. The Owner reserves the right to reject the Contractor's measurement of work-in-place that involves use of established unit prices, and to have this work measured, at the Owner's expense, by an independent surveyor acceptable to the Contractor.
- E. **Defect Assessment:** Replace the Work, or portions of the Work, not conforming to the specified requirements. If, in the opinion of the Architect/Engineer it is not practical to remove and replace the work the Architect/Engineer will direct an appropriate remedy or adjust the payment.
- F. **Unit Price Schedule:** A "Unit Price Schedule" is included at the end of this Section. Specification Sections referenced in the Schedule contain requirements for materials described under each unit price.

01 22 19 UNIT PRICE SCHEDULE - ALTERATIONS

- A. **Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. **Unit Price Schedule – Alterations:**

1.	Alteration Items	Unit	\$ Add	\$ Deduct
	1.1.1 <i>1x4 Roof Sheathing</i>	SQ. FT	\$8.50	\$8.50
	1.2.1 <i>Metal Flashing-24oz copper</i>	SQ. FT	\$25.00	N/A

2. Unit prices shall be negotiated if there is a change in scope of work.

01 22 23 UNIT PRICE SCHEDULE – ENVIRONMENTAL REMEDIATION NOT USED

01 22 27 UNIT PRICE SCHEDULE – HAZARDOUS BUILDING MATERIALS ABATEMENT

- A. **Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions, other Division 01 Specification Sections, and Technical Specifications apply to this Section.
- B. **Unit Price Schedule – Hazardous Building Materials Abatement:**

1.	ASBESTOS ABATEMENT	UNIT	\$ ADD/ DEDUCT
	AR-001 CLEAN-UP OF ACM DEBRIS BY HEPA VACUUMING	SF	\$0.23
	AR-002 REMOVAL OF PIPE INSULATION INCLUDING FITTINGS (FULL CONTAINMENT - < 6" DIA)	LF	\$1.63
	AR-003 REMOVAL OF PIPE INSULATION INCLUDING FITTINGS(FULL CONTAINMENT - 6" - 12" DIA)	LF	\$2.68
	AR-004 REMOVAL OF PIPE INSULATION INCLUDING FITTINGS(FULL CONTAINMENT - >12" DIA)	LF	\$3.65
	AR-005 GLOVE BAG REMOVAL OF PIPE OR FITTING INSULATION (MINI-CONTAINMENT - FIRST 25)	EA	\$26.05
	AR-006 GLOVE BAG REMOVAL OF PIPE OR FITTING INSULATION (MINI-CONTAINMENT - QUANTITY BETWEEN 25-50)	EA	\$20.56
	AR-007 GLOVE BAG REMOVAL OF PIPE OR FITTING INSULATION (MINI-CONTAINMENT - QUANTITY IN EXCESS OF 50)	EA	\$18.30
	AR-008 REMOVAL OF EQUIPMENT INSULATION	SF	\$3.81
	AR-009 REMOVAL OF HVAC DUCT INSULATION	SF	\$3.81
	AR-010 REMOVAL OF HVAC DUCT SYSTEM FLEXIBLE CONNECTOR	SF	\$2.77
	AR-011 REMOVAL OF RESILIENT FLOORING INCLUDING MASTIC	SF	\$1.05
	AR-012 REMOVAL OF RESILIENT FLOORING (NO MASTIC)	SF	\$0.67
	AR-013 REMOVAL OF SPRAYED ON FIREPROOFING	SF	\$2.61
	AR-014 REMOVAL OF PLASTER CEILING SYSTEM (INCLUDING BLACK IRON AND METAL LATH)	SF	\$2.68
	AR-015 REMOVAL OF ACOUSTIC OR METAL PAN CEILING SYSTEM (INCLUDING GRID)	SF	\$1.74
	AR-016 REMOVAL OF ACOUSTIC CEILING PANELS (CLEAN GRID FOR REUSE)	SF	\$1.45
	AR-017 REMOVAL OF ACOUSTIC PLASTER FINISH MATERIAL (SCRAPE)	SF	\$2.45
	AR-018 PATCH AND/OR SEAL DAMAGED INSULATION	SF	\$1.05

AR-019	REMOVAL OF CONTAMINATED SOIL (2" DEPTH)	SF	\$1.69
AR-020	REMOVAL OF TRANSITE MATERIAL	SF	\$0.92
AR-021	REMOVAL OF ROOFING OR ROOF FLASHING MATERIAL	SF	\$1.34
AR-022	REMOVAL OF UNDERGROUND PIPE OR PIPE INSULATION (INCLUDING HAND EXCAVATION)	LF	\$10.75
AR-023	REMOVAL OF CARPET OVER RESILIENT FLOORING	SF	\$0.83
AR-024	REMOVAL OF WALL BASE AND MASTIC	LF	\$0.95
AR-025	REMOVAL OF DRYWALL PARTITION (INCLUDING WALL FRAMING)	SF	\$0.90
AR-026	REMOVAL OF CMU WALL	SF	\$1.82
AR-027	PREP WORK AREA	SF	\$1.09
AR-028	SOLID BARRIERS OR ACCESS TUNNELS (2"x4"@16", 1/2" PLYWOOD)	SFSA	\$1.26
AR-029	SELECTIVE DEMOLITION TO ACCESS CONCEALED ACM	SF	\$1.11
AR-030	REMOVAL OF FLOOR LEVELING MATERIAL	SF	\$0.79

2. LEAD-BASED PAINT ABATEMENT		UNIT	\$ ADD/ DEDUCT
SP-001	REMOVE LOOSE PAINT FROM WALLS OR CEILINGS (WET SCRAPING OR BRUSHING)	SF	\$0.89
SP-002	STRIP PAINT FROM FLAT SURFACES	SF	\$2.93
SP-003	STRIP PAINT FROM COLUMNS AND STRUCTURAL FRAMING MEMBERS	SF	\$3.68
SP-004	STRIP PAINT FROM STAIR TREADS, RISERS AND STRINGERS	SF	\$5.08
SP-005	STRIP PAINT FROM TRIM	LF	\$2.82
SP-006	STRIP PAINT FROM DOORS (DOOR OPENING SIZE)	SF	\$4.54
SP-007	STRIP PAINT FROM WINDOW (WINDOW SIZE)	SF	\$7.08
SP-008	STRIP PAINT FROM RADIATOR	SF	\$8.75
SP-009	STRIP PAINT FROM HANDRAIL	LF	\$7.35
SP-010	STRIP PAINT FROM PIPING	SF	\$6.30
SP-011	CLEAN-UP OF MATERIALS CONTAINING LEAD (DIRT, BUILDING DEBRIS, ETC.)	CF	\$3.43
SP-012	HEPA VACUUMING AND WASHING SURFACE (SMOOTH SURFACE)	SF	\$0.63
SP-013	HEPA VACUUMING AND WASHING SURFACE (POROUS SURFACE)	SF	\$1.05
SP-014	REMOVE EXTERIOR SOIL (6" DEPTH)	SF	\$4.50

3. MOLD ABATEMENT		UNIT	\$ ADD/ DEDUCT
IAQ-001	CLEANING AND HEPA VACUUMING OF CONTAMINATED COMPONENTS OR MATERIALS	SF	\$0.61
IAQ-002	REMOVAL OF CONTAMINATED PIPE INSULATION	LF	\$0.61
IAQ-003	REMOVAL OF CONTAMINATED BUILDING INSULATION	SF	\$0.61
IAQ-004	REMOVAL OF CONTAMINATED HVAC DUCT OR EQUIPMENT INSULATION	SF	\$0.61
IAQ-005	REMOVAL OF CONTAMINATED CARPET	SF	\$0.88
IAQ-006	REMOVAL OF CONTAMINATED DRYWALL PARTITION (INCLUDING WALL FRAMING)	SF	\$1.05
IAQ-007	REMOVAL OF CONTAMINATED PLASTER	SF	\$1.87
IAQ-008	REMOVAL OF CONTAMINATED SUSPENDED CEILING PANELS	SF	\$0.59
IAQ-009	PREP WORK AREA	SF	\$0.99
IAQ-010	SOLID BARRIERS OR ACCESS TUNNELS (2"x4"@16", 1/2" PLYWOOD)	SFSA	\$2.09
IAQ-011	SELECTIVE DEMOLITION TO ACCESS CONTAMINATED COMPONENTS OR MATERIALS	SF	\$1.15

4. REWORK ITEMS DURING ABATEMENT ACTIVITIES		UNIT	\$ ADD/ DEDUCT
RW-001	REINSULATE PIPE 1" THICK FIBERGLAS ASJ	SF	\$2.83
RW-002	REINSULATE PIPE 1 1/2" THICK FIBERGLAS ASJ	SF	\$3.62
RW-003	REINSULATE PIPE 2" THICK FIBERGLAS ASJ	SF	\$4.30
RW-004	REINSULATE PIPE FITTING 1" THICK FIBERGLAS ASJ	EA	\$4.37
RW-005	REINSULATE PIPE FITTING 1 1/2" THICK FIBERGLAS ASJ	EA	\$5.34
RW-006	REINSULATE PIPE FITTING 2" THICK FIBERGLAS ASJ	EA	\$6.50

RW-007	REINSULATE MECHANICAL EQUIPMENT 3 PCF, 2" THICK	SF	\$3.50
RW-008	REINSULATE HVAC DUCT SYSTEM (FLEXIBLE DUCT WRAP) 0.75 PCF, 1 1/2" THICK	SF	\$2.25
RW-009	REINSULATE HVAC DUCT SYSTEM (RIGID BOARD) 3 PCF, 1 1/2" THICK	SF	\$6.00
RW-010	REPLACE HVAC DUCT SYSTEM FLEXIBLE CONNECTOR	SF	\$7.83
RW-011	REPLACE TRIM COMPONENT (WOOD CASING, JAMB, APRON, ETC.)	LF	\$1.26
RW-012	REPLACE INTERIOR DOOR (SOLID CORE FLUSH OR 6-PANEL PINE)	EA	\$207.50
RW-013	REPLACE WINDOW (SASH ONLY)	EA	\$207.50
RW-014	REPLACE WINDOW (COMPLETE UNIT INCLUDING FRAME)	EA	\$375.00
RW-015	PAINT FLAT SURFACES (PRIMER + FINISH COAT)	SF	\$0.27
RW-016	PAINT COLUMNS AND STRUCTURAL FRAMING MEMBERS (PRIMER + FINISH COAT)	SF	\$2.89
RW-017	PAINT STAIR TREADS, RISERS AND STRINGERS (PRIMER + FINISH COAT)	SF	\$2.89
RW-018	PAINT HANDRAIL (PRIMER + FINISH COAT)	LF	\$0.27
RW-019	PAINT TRIM COMPONENT (CASING, JAMB, APRON, ETC., PRIMER + FINISH COAT)	LF	\$0.83
RW-020	PAINT DOORS (DOOR OPENING SIZE - INCLUDES BOTH FACES PRIMER + FINISH COAT)	SF	\$1.67
RW-021	PAINT WINDOW (INCLUDES INTERIOR & EXTERIOR PRIMER + FINISH COAT)	SF	\$1.97
RW-022	PAINT RADIATOR (PRIMER + FINISH COAT)	SF	\$2.97
RW-023	PAINT PIPING (PRIMER + FINISH COAT)	LF	\$0.29
RW-024	REPLACE EXTERIOR SOIL (6" LOAM AND SEED)	SF	\$7.19
RW-025	ASPHALT PAVING	SF	\$3.43

5.	MISCELLANEOUS ABATEMENT ITEMS	UNIT	\$ ADD/ DEDUCT
MI-001	MOBILIZATION (1 PER WORK AREA)	EA	\$262.50
MI-002	WORKER DECON (1 PER WORK AREA)	EA	\$262.50
MI-003	CONTAINMENT BARRIERS TO SEPARATE THE WORK AREA (SOFT BARRIER)	SF	\$1.02
MI-004	CONTAINMENT BARRIERS TO SEPARATE THE WORK AREA (HARD BARRIER)	SF	\$2.55
MI-005	TEMP ELECTRICAL CONNECTION (LICENSED ELECTRICIAN)	EA	\$450.00
MI-006	TEMP ELECTRICAL GENERATOR	DY	\$375.00
MI-007	DISPOSAL OF ACM WASTE (INCLUDES TRANSPORTATION)	CY	\$60.00
MI-008	DISPOSAL OF HAZARDOUS WASTE MATERIAL (INCLUDES TRANSPORTATION)	TON	\$380.00
MI-009	DISPOSAL OF CONSTRUCTION DEBRIS (INCLUDES TRANSPORTATION)	TON	\$30.00
MI-010	ABATEMENT SUPERVISOR (LICENSED)	HR	\$81.00
MI-011	STAND-BY ABATEMENT PERSONNEL (EACH LICENSED WORKER)	HR	\$74.00
MI-012	ENCAPSULATION UTILIZING LIQUID COATING SYSTEM	SF	\$0.69
MI-013	ENCAPSULATION UTILIZING HEAVY BODIED REINFORCED COATING SYSTEM	SF	\$1.03
MI-014	FIXED SCAFFOLDING	SF	\$16.00
MI-015	EXCAVATION TO EXPOSE UNDERGROUND PIPE	CY	\$25.00
MI-016	PROJECT NOTIFICATION AND FEES	EA	\$0.00
MI-017	PROJECT BOND (3% OF CONTRACT)	EA	\$0.00

6.	COMPONENT REPLACEMENT DURING ABATEMENT ACTIVITIES	UNIT	\$ ADD/ DEDUCT
CR-001	REMOVE TRIM COMPONENT (CASING, BASE, APRON, ETC.)	LF	\$0.49
CR-002	REMOVE DOOR (DOOR ONLY)	SF	\$0.27
CR-003	REMOVE DOOR (INCLUDING JAMB, NO TRIM)	SF	\$0.61
CR-004	REMOVE WINDOW (SASH ONLY)	SF	\$0.40
CR-005	REMOVE WINDOW (COMPLETE UNIT INCLUDING FRAME)	SF	\$0.92
CR-006	REMOVE RADIATOR	SF	\$0.77
CR-007	REMOVE MISCELLANEOUS ITEM	CF	\$7.56

01 25 00 SUBSTITUTION PROCEDURES

- A. Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. Summary**
1. This Section includes administrative and procedural requirements for handling requests for equals and substitutions made after award of the Contract.
 2. Related Sections: The following Sections contain requirements that relate to this Section:
 - 2.1 Division 01 Section 01 33 00 "Submittal Procedures" specifies requirements for submitting the Contractor's Construction Schedule and the Submittal Schedule.
 - 2.2 Division 01 Section 01 42 19 "Reference Standards" specifies the applicability of industry standards to products specified.
 - 2.3 Division 01 Section 01 60 00 "Product Requirements" specifies requirements governing the Contractor's selection of products and product options.
- C. Definitions**
1. Definitions in this Article do not change or modify the meaning of other terms used in the Contract Documents.
 2. **Equals or Substitutions General:** Changes in products, materials, equipment, and methods of construction required by the Contract Documents proposed by the Contractor after award of the Contract.
- D. Submittals**
1. **Equals and Substitution Request Submittals:** The Owner will consider requests for equals or substitutions if made prior to the Receipt of the Competitive Bid. The information on all materials shall be consistent with the information herein. After the contract award, substitutions will be considered for materials or systems specified that are no longer available. It will not be considered if the product was not purchased in a reasonable time after award. The Contractor shall submit all equal and substitutions requests on the **"Equal or Substitute Product Request"** Form, an example is shown at the end of this Section and the Form is available from the Construction Representative (CA). See Article 15 in the General Conditions for further refinement and information.
 - 1.1 The Contractor is required to prepare and submit three (3) copies of the required data for the first manufacturer listed or procedure listed in the specifications section with reference to all of the following areas: the substance and function considering quality, workmanship, economy of operation, durability and suitability for purposes intended including the size, rating and cost. All submissions must include all the required data for the first listed manufacturer or procedure as specified, as well as the required data for the proposed Equal or Substitution. This will enable the Owner and Architect to determine that the proposed Equal or Substitution is or is not substantially equal to the first listed manufacturer or procedure.
 2. Identify the product or the fabrication or installation method to be replaced in each request. Include related Specification Section and Drawing numbers.
 3. Provide complete documentation showing compliance with the requirements for equals or substitutions, and the following information, as appropriate:
 - 3.1 Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by the Owner and separate contractors that will be necessary to accommodate the proposed Equal or Substitution.
 - 3.2 A detailed comparison chart of significant qualities of the proposed substitution with those of the Work specified. Significant qualities may include elements, such as performance, weight, size, durability, and visual effect.

- 3.3 Product Data, including Shop Drawings and descriptions of products and fabrication and installation procedures.
 - 3.4 Samples, where applicable or requested.
 - 3.5 A statement indicating the effect on the Contractor's Construction Schedule compared to the schedule without approval of the Equal or Substitution. Indicate the effect on overall Contract Time.
 - 3.6 Cost information, broken down, including a proposal of the net change, if any in the Contract Sum.
 - 3.7 The Contractor's certification that the proposed Equal or Substitution conforms to requirements in the Contract Documents in every respect and is appropriate for the applications indicated.
 - 3.8 The Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of the failure of the Equal or Substitution to perform adequately.
4. **Architect's Action:** If necessary, the Architect will request additional information or documentation for evaluation within **seven (7)** Calendar Days of receipt of the original request for equal or substitution request. The Architect will notify the Construction Administrator who will notify the Owner of recommended acceptance or rejection of the proposed equal or substitution, within **fourteen (14)** Calendar Days of receipt of the request, or **seven (7)** Calendar Days of receipt of additional information or documentation, whichever is later. The Construction Administrator will give final acceptance or rejection by the Owner not less than **seven (7)** Calendar Days after notification.
- 1.1 Any request deemed an "Equal" and accepted by the Construction Administrator, Architect, Owner, and Agency will result in written notification to the Contractor and will not be in the form of a change order for an "Equal".
 - 1.2 Any request deemed a "Substitution" and rejected or approved by Construction Administrator, Architect, and Owner may result in written notification to the Contractor and may be in the form of a Change Order if the "Substitution" is approved.

E. Equal Or Substitutions

1. **Conditions:** The Architect will consider the Contractor's request for Equal or Substitution of a product or method of construction when one or more of the following conditions are satisfied, as determined by the Architect. If the following conditions are not satisfied, the Architect will return the requests to the Construction Administrator without action except to record noncompliance with these requirements.
- 1.1 The proposed request does not require extensive revisions to the Contract Documents.
 - 1.2 The proposed request is in accordance with the general intent of the Contract Documents.
 - 1.3 The proposed request is timely, fully documented, and/or properly submitted.
 - 1.4 The proposed request can be provided within the Contract Time. However, the Architect will not consider the proposed request if it is a result of the Contractor's failure to pursue the Work promptly or coordinate activities properly.
 - 1.5 The proposed request will offer the Owner a substantial advantage, in cost, time, energy conservation, or other considerations, after deducting additional responsibilities the Owner must assume. However, if the proposed request requires the Owner to incur additional responsibilities, including but not limited to, additional compensation to the Architect for redesign and evaluation services, increased cost of other construction by the Owner or similar considerations, then the Owner will have just cause to reject the request for Equal or Substitution.
 - 1.6 The proposed request can receive the necessary approvals, in a timely manner, required by governing authorities having jurisdiction.
 - 1.7 The proposed request can be provided in a manner that is compatible with the Work as certified by the Contractor.



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Equal or Substitute
Product Request

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Request Phase: Pre-Bid <input type="checkbox"/> Post Bid <input type="checkbox"/> <i>(See Article 15 Materials: Standards, General Conditions)</i>	
(If Pre-bid only) Current Bid Due Date: <input style="width: 100px;" type="text"/>	Request No.: <input style="width: 100px;" type="text"/> Dated: <input style="width: 100px;" type="text"/>
To: State of Connecticut Department of Administrative Services, Construction Services	DAS Project No.: <input style="width: 100px;" type="text"/>
	Project Name / Location: <input style="width: 100px;" type="text"/>

References: Specification(s): Section(s): <input style="width: 100px;" type="text"/>	Paragraph(s): <input style="width: 100px;" type="text"/>
Drawing(s): Drawing(s) No(s): <input style="width: 100px;" type="text"/>	Detail(s) No(s): <input style="width: 100px;" type="text"/>
Contractually Specified Product:	<input style="width: 100%; height: 20px;" type="text"/>
Contractor Proposed Product:	<input style="width: 100%; height: 20px;" type="text"/>
Proposed Product is:	Equal: <input type="checkbox"/> Substitute: <input type="checkbox"/> Model No.: <input style="width: 100px;" type="text"/>

IMPORTANT:
See Attached Data For Both Specified And Proposed Products
As Required By Article 15 General Conditions.

Data attached:	Drawings: <input type="checkbox"/>	Product Data: <input type="checkbox"/>	Reports: <input type="checkbox"/>	Samples: <input type="checkbox"/>
	Tests: <input type="checkbox"/>	Other: <input style="width: 100px;" type="text"/>		

Reason(s) for not providing the Specified Product:
<input style="width: 100%; height: 100%;" type="text"/>

Similar Installation:	Project Name: <input style="width: 150px;" type="text"/>	Architect's Name: <input style="width: 150px;" type="text"/>
	Project Location: <input style="width: 150px;" type="text"/>	Owner's Name: <input style="width: 150px;" type="text"/>
		Date Installed: <input style="width: 150px;" type="text"/>



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Equal or Substitute
Product Request

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Will proposed substitution impact other parts of the Work?	No	<input type="checkbox"/>	Yes	<input type="checkbox"/>	<i>If Yes Attach An Explanation.</i>	
Will proposed substitution increase Contract Time?	No	<input type="checkbox"/>	Yes	<input type="checkbox"/>	<i>By Number Of Calendar Days</i> <input style="width: 50px;" type="text"/>	
Actual Dollar Savings to the State of Connecticut if substitution is accepted: \$ <input style="width: 150px;" type="text"/>						
The Undersigned Certifies: That The Proposed Request For An Equal Or Substitute Product Conforms To All Of The Requirements Of Division 01 General Requirements, Section 01 25 00 Substitution Procedures.						
Request Submitted By General Contractor / CMR: <input style="width: 300px;" type="text"/> <div style="text-align: right; font-size: small;"><i>(Firm's Typed Name)</i></div>						
By:	<input style="width: 150px;" type="text"/> <div style="font-size: x-small;"><i>(Typed Name)</i></div>	<input style="width: 100px;" type="text"/> <div style="font-size: x-small;"><i>(Title)</i></div>	<input style="width: 150px;" type="text"/> <div style="font-size: x-small;"><i>(Signature)</i></div>	<input style="width: 80px;" type="text"/> <div style="font-size: x-small;"><i>(Date)</i></div>		
Contractor / CMR Send copies to : DAS PM: <input type="checkbox"/> CA: <input type="checkbox"/>						
Consultant's Request Received on (Date): <input style="width: 80px;" type="text"/> Consultant's Review – This Substitution Request is:						
<input type="checkbox"/>	Approved:	<i>(Submittal(s) in accordance with Div. 01 General Requirements, Section 01 33 00 Submittal Procedures.)</i>				
<input type="checkbox"/>	Approved as Noted:	<i>(Submittals in accordance with Div. 01 General Requirements, Section 01 33 00 Submittal Procedures.)</i>				
<input type="checkbox"/>	Rejected:	Use Specified Materials.				
<input type="checkbox"/>	Rejected:	Request Not Received Within Specified Time Period - Use Specified Materials.				
Reviewed Issued By:						
Name: <input style="width: 250px;" type="text"/> <div style="text-align: right; font-size: x-small;"><i>(Typed Name)</i></div>						
Title: <input style="width: 250px;" type="text"/>						
Signature: <input style="width: 150px;" type="text"/> <input style="width: 100px;" type="text"/> <div style="display: flex; justify-content: space-between; font-size: x-small;"><i>(Signature)</i><i>(Date)</i></div>						
CONSULTANT Send copies to: DAS PM <input type="checkbox"/> CA <input type="checkbox"/> Chief Architect <input type="checkbox"/> Chief Engineer <input type="checkbox"/>						
If Approved: As noted by Consultant, DAS Chief Architect: <input style="width: 200px;" type="text"/> <input style="width: 80px;" type="text"/> <div style="display: flex; justify-content: space-between; font-size: x-small;"><i>(Signature)</i><i>(Date)</i></div>						
Copies: Project File Red R2						

END

01 26 00 CONTRACT MODIFICATION PROCEDURES

- A. Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. Summary**
1. This Section specifies administrative and procedural requirements for handling and processing contract modifications.
- C. Related Sections:** The following Sections contain requirements that relate to this Section:
1. Division 01 Section 01 25 00 "Substitution Procedures" for administrative procedures for handling requests for substitutions made after award of the Contract.
 2. Division 01 Section 01 29 76 "Progress Payment Procedures" for administrative procedures governing Applications for Payment.
 3. Division 01 Section 01 32 16 "Construction Progress Schedules" for requirements for construction scheduling and reporting progress of work.
 4. Division 01 Section 01 33 00 "Submittal Procedures" for requirements for submittal of the Construction Progress Schedule.
 5. Division 00 General Requirements "Article 13" "Change Orders".
- D. Requests For Information**
1. In the event that the Contractor or subcontractor, at any tier, determines that some portion of the drawings, specifications, or other contract documents requires clarification or interpretation by the Architect, the Contractor shall submit a "Request for Information" in writing to the Architect via the Construction Administrator. "Requests for Information" may only be submitted by the Contractor and shall only be submitted on the "Request for Information" forms as required by the Owner.
 - 1.1 In the "Request for Information", the Contractor shall clearly and concisely set forth the issue for which clarification or interpretation is sought and why a response is needed from the Architect.
 - 1.1 In the "Request for Information", the Contractor shall set forth an interpretation or understanding of the requirement along with reasons why such an understanding was reached.
 - 1.2 The Owner acknowledges that this is a complex project. Based upon the owner's past experience with projects of similar complexity, the Owner anticipates that there will probably be some "Requests for Information" on this project.
 - 1.3 The Architect will review all "Requests for Information" to determine whether they are valid "Requests for Information". If it is determined that the document is not a valid "Request for Information", it will be returned to the Contractor, unreviewed as to content, for resubmittal on the proper form and in the proper manner.
 - 1.4 A "Requests for Information Response" shall be issued within **seven (7)** Calendar Days of receipt of the request from the Contractor unless the Owner determines that a longer time is necessary to provide an adequate response. If a longer time is determined necessary by the Owner, the Owner will, within **seven (7)** Calendar Days of receipt of the request, notify the Contractor of the anticipated response time. If the Contractor submits a "Request for Information" on an activity with **seven (7)** Calendar Days or less of float on the current project schedule, the Contractor shall not be entitled to any time extension due to the time it takes the Architect to respond to the request provided that the Architect responds within the **seven (7)** Calendar Days set forth above.
 - 1.5 A "Request for Information Response" from Architect will not change any requirement of the Contract Documents. In the event the Contractor believes that the "Request for Information Response" will cause a change to the requirements of the Contract Documents, the Contractor shall within **seven (7)** Calendar Days give written notice to the Construction Administrator stating that the Contractor believes the "Request for Information Response" will result in a "Change Order" and the Contractor intends to submit a "Change Order Proposal" request. Failure to give such

written notice **seven (7)** Calendar Days shall waive the Contractor's right to seek additional time or cost under the requirement these Requirements.

E. Minor Changes In The Work

1. The Architect, through the Construction Administrator, will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or Contract Time, on the "Supplemental Instructions" form as required by the Owner.

F. Proposal Request

1. **Architect/Owner-Initiated Requests For Proposals:** The Architect or Owner will issue a detailed description of proposed changes in the Work via the Construction Administrator that will require adjustment to the Contract Sum or Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications. Such requests shall be on a "Proposal Request" form as required by the Owner.

1.1 "Proposal Request" is issued for information only. Do not consider them as an instruction either to stop work in progress or to execute the proposed change.

1.1.1 Within **fourteen (14)** Calendar Days of receipt of a "Proposal Request", submit a "Change Order Proposal" with the required information necessary to execute the change to the Construction Administrator for the Architect's/Owner's review.

1.1.2 Include a list of quantities of products required and unit costs, with the total amount of purchases to be made. Where requested, furnish survey data to substantiate quantities.

1.1.3 Indicate applicable delivery charges, equipment rental, and amounts of trade discounts.

1.1.4 Include a statement indicating the effect the proposed change in the Work will have on the Contract Time.

1.1.5 The Agency is tax exempt. All Contractor and Subcontractor services provided under your Contract with the State of Connecticut may not be exempt from taxes. The Department of Revenue Services can guide you as to which services are exempt and which are not. Please contact the State of Connecticut, Department of Revenue Services at 1-800-382-9463 or 860-541-3280.

1.1.6 Dollar values shown on the Schedule of Values shall not be the governing (or deciding) final amounts for change orders involving either additional charges or deletions.

G. Change Order Proposal:

1. When either a "Request for Information" from the Contractor or a "Proposal Request" from the Architect or Owner results in conditions that may require modifications to the Contract, the Contractor may propose changes by submitting a request for a "Change Order Proposal" to the Architect via the Construction Administrator on forms as required by the Owner. These forms shall also include "Change Order Proposal Worksheets" as required by the Owner.

1.1 Include statements outlining the reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and Contract Time.

1.2 Include a list of quantities of products required and unit costs, with the total amount of purchases to be made. Where requested, furnish survey data to substantiate quantities as directed by Article 13 of the General Conditions of the Contract for Construction.

1.3 Indicate applicable delivery charges, equipment rental, and amounts of trade discounts.

1.4 Comply with requirements in Division 01 Section 01 25 00 "Substitution Procedures" if the proposed change requires an equal or substitution of one product or system for a product or system specified.

- 1.5 The State of Connecticut construction contract has the following tax exemptions:
 - 1.5.1 Purchasing of materials which will be physically incorporated and become a permanent part of the project.
 - 1.5.2 Tools, supplies and equipment used in fulfilling the construction contract are not exempt.
 - 1.5.3 Services that are resold by the contractor are exempt, i.e. if a General Contractor hires a plumber, carpenter or electrician, a resale certificate may be issued to the subcontractor because these services are considered to be integral and inseparable component parts of the building contract.
 2. **"Change Order Request" Forms:** Use "Change Order Proposal" and "Change Order Proposal Worksheets" forms as required by Owner.
 3. A "Change Order Proposal" cannot be submitted without either prior submission of a "Request for Information" from the Contractor or as a response to a "Proposal Request" submitted by the Architect or Owner.
 4. Any "Change Order Request" submitted without a prior submittal of a "Request for Information" or as a response to a "Proposal Request" will be immediately rejected and returned to the Contractor.
- H. Construction Change Directive:**
1. **"Construction Change Directive":** When the Owner and the Contractor disagree on the terms of a "Change Order Proposal" resulting from either a "Request for Information" or "Proposal Request", then the Architect through the Construction Administrator may issue a "Construction Change Directive" on a "Construction Change Directive" form as authorized by the Owner. The "Construction Change Directive" instructs the Contractor to proceed with a change in the Work, for subsequent inclusion in a "Change Order".
 - 1.1 The "Construction Change Directive" contains a complete description of the change in the Work. It also designates the method to be followed to determine change in the Contract Sum or Contract Time.
 - 1.2 Contractor must proceed with the Work once a "Construction Change Directive" is issued.
 - 1.3 The change in the Contract Sum and Contract Time resulting from the issuance of a "Construction Change Directive" will be based on "Time & Material" or "Unit Prices".
 - 1.4 Issuance of "Construction Change Directive" does not guarantee payment for the Work described in the "Construction Change Directive".
 2. **Documentation:** The Contractor shall maintain detailed records on a time and material basis of work required by the "Construction Change Directive".
 - 2.1 After completion of the change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.
 - 2.2 The final value shall be negotiated based on the supporting data to determine the value of the work.
 3. **Change Order Procedures:**
 - 3.1 Upon the Owner's approval of a Contractor's "Change Order Proposal", the Construction Administrator will issue a "Change Order" for signatures of the Architect, Owner and the Contractor on a "Change Order" form as required by the Owner.

01 29 76 PROGRESS PAYMENT PROCEDURES

- A. **Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. **Summary:**
 1. This Section specifies procedures for preparation and submittal of the Contractor's Applications for Payment.

2. **Related Sections:** The following Sections contain requirements that relate to this Section.
 - 2.1 **Division 00 Notice to Bidders:** Article 10.
 - 2.2 **General Conditions:** Articles: 27 "Schedule of Values, Application for Payment"; 28 "Partial Payments"; 31 "Final Payment"; and 32 "Owner's Right to Withhold Payments".
 - 2.3 Division 01 Section 01 32 16 "Construction Progress Schedules" for requirements for construction scheduling and reporting progress of work.
 - 2.4 Division 01 Section 01 33 00 "Submittal Procedures".
 - 2.5 Division 01 Section 01 77 00 "Closeout Procedures" for requirements for Final Payment.

C. Schedule Of Values:

1. **Coordination:** Coordinate preparation of the "Schedule of Values" with preparation of the Construction Schedule. Use "Schedule of Values" form as required by the Owner.
 - 1.1 Submit the "Schedule of Values" to the Construction Administrator at the earliest possible date but no later than **twenty-one (21)** Calendar Days after Contract Start Date.
 - 1.2 **Sub-schedules:** Where Work is separated into phases requiring separately phased payments, provide sub-schedules showing values correlated with each phase of payment.
2. **Format and Content:** Use the Project Manual Table of Contents as a guide to establish the format for the "Schedule of Values". Provide at least one line item for each Specification Section on electronic media printout.
 - 2.1 Identification: Project identification on the Schedule of Values shall include, but not be limited to, the following:
 - 2.1.1 **Owner;**
 - 2.1.2 **Project Number;**
 - 2.1.3 **Project Name;**
 - 2.1.4 **Project Location;**
 - 2.1.5 **Contractor's name and address.**
 - 2.2 Arrange the "Schedule of Values" in tabular format as required by the Owner, containing separate columns including, but not limited to, the following Items:
 - 2.2.1 **Item Number;**
 - 2.2.2. **Description of Work with Related Specification Section or Division Number;**
 - 2.2.3. **Scheduled Values broken down by description number, type material, units of each material.**
 - .1 **Include break down of General Condition requirements, i.e. bonds, insurance premiums, taxes, job mobilization, temporary facilities, field supervision and layout, operation and maintenance manuals, punch list activities, project record documents, demonstration and training, overhead, and profit as separate line items.**
 - 2.2.4. **Name of subcontractor;**
 - 2.2.5 **Name of manufacturer or fabricator;**
 - 2.2.6 **Name of supplier;**
 - 2.2.7 **Retainage;**
 - 2.2.8 **Contract sum in sufficient detail.**
3. Percentage of Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.

4. Provide a breakdown of the Contract Sum in sufficient detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual Table of Contents. Break principal subcontract amounts down into several line items. In addition, the following items listed below must be included.
 - 4.1 Project Coordination (01 31 13): a lump sum of this cost for payment at the submittal of this product a minimum cost of 1/10th of one percent of the base bid total project cost or \$5,000 whichever is greater.
 - 4.2 Photographic Documentation (01 32 33): a monthly cost of \$1,000 per month to be paid each month upon receipt of the photographs or forfeit of that month's payment.
 - 4.3 Submittal Procedures (01 33 00): a lump sum payment calculated at 1/20th of 1% of the base bid total project cost upon receipt of the schedule.
 - 4.4 As-Built Updates (01 31 00) a monthly cost, a minimum payment of \$1,000 with forfeit of that monthly payment if not done.
 - 4.5 Progress Cleaning (01 74 13): a monthly cost. A minimum payment of \$1,000 to \$3,000 (based on size & complexity of the project) with forfeit of that monthly payment if not done.
 - 4.6 Starting and Adjusting (01 75 00): a lump sum cost upon completion. (to be determined by DAS/CS Project Manager with Architect/Engineer & Construction Administrator advice).
 - 4.7 Construction Progress Schedules (01 32 16): For the Base Schedule a lump sum payment or 40% of the total schedule budget, with the remainder paid on an even payment over the duration of the project.
5. Round amounts to nearest whole dollar; the total shall equal the Contract Sum.
6. **Unit-Cost Allowances:** Show the line-item value of unit-cost allowances, as a product of the unit cost, multiplied by the measured quantity. Estimate quantities from the best indication in the Contract Documents.
7. **General Conditions:** Show line items for indirect costs and margins on actual costs only when such items are listed individually in Applications for Payment. Each item in the Schedule of Values and Applications for Payment shall be complete. Include the total cost and proportionate share of general overhead and profit margin for each item.
 - 7.1 Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the Schedule of Values or distributed as general overhead expense, at the Contractor's option.

D. Applications For Payment:

1. Each Application for Payment shall be consistent with previous applications and payments as certified by the Architect and Construction Administrator and paid for by the Owner.
 - 1.1 The initial "Application for Payment", the "Application for Payment" at time of "Substantial Completion", and the final "Application for Payment", involve additional requirements.
2. **Payment-Application Terms:** The Owner will process monthly progress payments. The Contractor may submit applications for payment on a monthly basis.
3. **Payment-Application Forms:** Use the "Application for Payment" form as required by the Owner. Present the required information on electronic media printout or Owner approved form; multiple pages should be used if required.
 - 3.1 For each item, provide a column including but not limited to the following items:
 - 3.2 Item Number.
 - 3.3 Description of Work and Related Specification Section or Division.
 - 3.4 Scheduled Value, break down by units of material and units of labor.
 - 3.5 Work Completed from previous application.
 - 3.6 Work Completed this period.
 - 3.6.1 Materials presently stored.

- 3.6.2 Total Completed and stored to date of application.
 - 3.6.3 Percentage of Completion.
 - 3.6.4 Balance to Finish.
 - 3.6.5 Retainage.
- E. **Application Preparation:** Complete every entry on the Application form. At the time of Final Payment only, include an executed Application form by a person authorized to sign legal documents on behalf of the Contractor. The Construction Administrator will return incomplete Applications without action.
 - 1. Entries shall match data on the "Schedule of Values".
 - 2. Include amounts of Change Orders issued prior to the last day of the construction period covered by the application.
- F. Transmittal: Except for final payment, submit to the Construction Administrator by a method ensuring receipt within **forty-eight (48)** hours. **One (1)** complete, signed and notarized original of each Application for Payment, including lien waivers and similar attachments when required, along with **six (6)** copies. For Final Payment, **nine (9)** complete, signed and notarized copies shall be submitted.
 - 1. Transmit each copy with a transmittal form listing attachments and recording appropriate information related to the application, in a manner acceptable to the Architect.
- G. **Applications for Payment:** Administrative actions and submittals, that must precede or coincide with submittal of the first Application for Payment and all subsequent Application for Payments including, but not limited to, the following items:
 - 1. **Subcontractor Evaluations:**

Pursuant to C.G.S. Sec. 4a-101, the General Contractor shall compile evaluation information during the performance of the contract on each of its subcontractors who are performing work with a value in excess of five hundred thousand dollars (\$500,000.00). The General Contractor shall complete and submit to the DAS/CS evaluations of each such subcontractor **upon fifty percent (50%) completion of the project and upon Substantial Completion of the project**. The General Contractor acknowledges that its failure to complete and submit these evaluations in a timely manner may, by statute; result in a delay in project funding and, consequently, payment to the General Contractor. The General Contractor agrees to indemnify and hold the State harmless from any loss, damage, or expense that results from or is caused by the General Contractor's failure to complete and submit the evaluations to DAS/CS in accordance with this provision.
 - 2. List of subcontractors and suppliers' name, FEIN/Social Security numbers, and Connecticut Tax Registration Numbers;
 - 3. List of principal suppliers and fabricators;
 - 4. Schedule of Values;
 - 5. Contractor's Construction Schedule (preliminary if not final);
 - 6. Schedule of principal products;
 - 7. Submittal Schedule (preliminary if not final);
 - 8. List of Contractor's staff assignments;
 - 9. List of Contractor's principal consultants;
 - 10. Copies of all applicable permits;
 - 11. Copies of authorizations and licenses from governing authorities for performance of the Work;
 - 12. Proof that subcontractors have been paid amounts included on the Contractor's Application for Payment within thirty (30) days after the Owner has paid the Contractor for the particular Application for Payment in accordance with Connecticut General Statute § 49-41a (a)(1).
 - 13. Releases of Lien from subcontractors with amounts included on the Contractor's Application for Payment when Contractor has been paid by the Owner for the particular Application for Payment but the subcontractors have not been paid.

- 14. Proof that as-built documents are updated as required by Section 01 77 00 "Closeout Procedures."
- 15. Initial as-built survey and damage report, if required.
- 16. Update the "Contractor's Master Subcontract Agreement List" and submit copies all recently executed Subcontract Agreements in accordance with CGS § 4b-96.
 - 16.1 The "Contractor's Master Subcontract Agreement List" shall list all Subcontract Agreements in order of Contract Sum magnitude (from high to low) in the following format:

Contractor's Master Subcontract Agreement List				
Subcontractor Name	Minority Or Small Business Designation	Trade	Address	Contract Sum

- 17. In accordance with 42-158j (b):
 Each payment requisition submitted shall include a statement showing the status of all pending construction change orders, other pending change directives and approved changes to the original contract or subcontract. Such statement shall identify the pending construction change orders and other pending change directives, and shall include the date such change orders and directives were initiated, the costs associated with their performance and a description of any work completed. As used in this section, "pending construction change order" or "other pending change directive" **means an authorized directive for extra work that has been issued to a contractor or a subcontractor and identified by an official Change Order Number or Construction Change Directive Number assigned by the State of Connecticut.**

H. Application for Payment at Substantial Completion: Following issuance of the Certificate of Substantial Completion submit an Application for Payment form; use the form as required by the Owner. Present the required information on electronic media printout as applicable that include, but are not limited, to the following:

- 1. **Subcontractor Evaluations:**
 Pursuant to C.G.S. Sec. 4a-101, the General Contractor shall compile evaluation information during the performance of the contract on each of its subcontractors who are performing work with a value in excess of five hundred thousand dollars (\$500,000.00). **The General Contractor shall complete and submit to the DAS/CS evaluations of each such subcontractor upon fifty percent (50%) completion of the project and upon Substantial Completion of the project.** The General Contractor acknowledges that its failure to complete and submit these evaluations in a timely manner may, by statute; result in a delay in project funding and, consequently, payment to the General Contractor. The General Contractor agrees to indemnify and hold the State harmless from any loss, damage, or expense that results from or is caused by the General Contractor's failure to complete and submit the evaluations to DAS/CS in accordance with this provision.
- 2. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- 3. Administrative actions and submittals that shall precede or coincide with this application include, but are not limited to, the following:
 - 3.1 **Occupancy permits and similar approvals;**
 - 3.2 **Warranties (guarantees) and maintenance agreements;**
 - 3.3 **Test/adjust/balance records;**
 - 3.4 **Maintenance instructions;**
 - 3.5 **Meter readings;**
 - 3.6 **Startup performance reports;**
 - 3.7 **Changeover information related to Owner's occupancy, use, operation, and maintenance;**
 - 3.8 **Final cleaning;**

- 3.9 *Application for reduction of retainage and consent of surety;*
- 3.10 *Advice on shifting insurance coverage;*
- 3.11 *Final progress photographs;*
- 3.12 *List of incomplete Work, recognized as exceptions to Architect's Certificate of Substantial Completion.*

I. **Final Payment Application:** Administrative actions and submittals that must precede or coincide with submittal of the final Application for Payment include, but are not limited, to the following:

- 1. *Completion of Project Closeout requirements.*
- 2. *Completion of list of items remaining to be completed as indicated on the attachment to the Certificate of Substantial Completion.*
- 3. *Ensure that unsettled claims will be settled.*
- 4. *Ensure that incomplete Work is not accepted and will be completed in accordance with a schedule prepared by the Contractor which is acceptable to the Owner.*
- 5. *Transmittal of required Project construction records to the Owner (including as-built documents specified in Section 01 77 00 "Closeout Procedures").*
- 6. *Certified property survey.*
- 7. *Proof that taxes, fees, and similar obligations were paid.*
- 8. *Removal of temporary facilities and services.*
- 9. *Removal of surplus materials, rubbish, and similar elements (Reference Section 01 74 19 "Construction Waste Management & Disposal").*
- 10. *Change of door locks to Owner's access.*
- 11. *The requirements of the General Conditions and Supplementary Conditions for Final Acceptance, Final Completion, Final Inspection, and Final Payment.*
- 12. *Asbestos, lead or other hazardous material manifests.*
- 13. *Completion of "Contractor Reporting Form" as supplied by DAS/CS, for all Contractors, Subcontractors, Vendors, Suppliers, etc. who work on the Contract. The form includes the following information:*
 - 13.1 *Contractor/Subcontractor name.*
 - 13.2 *FEIN/Social Security Numbers*
 - 13.3 *Connecticut Tax Registration Numbers*
 - 13.4 *Type of work*
 - 13.5 *Name of business and address*
 - 13.6 *Remittance address.*

End
Section 01 20 00
Contract Considerations

01 30 00 ADMINISTRATIVE REQUIREMENTS

A. **Summary:** Section 01 30 00 Administrative Requirements contains the following Subsections:

01 31 13	Project Coordination	Not Used <input type="checkbox"/>
01 31 19	Project Meetings	Not Used <input type="checkbox"/>
01 32 16	Construction Progress Schedules	Not Used <input type="checkbox"/>
01 32 33	Photographic Documentation	Not Used <input type="checkbox"/>
01 33 00	Submittal Procedures	Not Used <input type="checkbox"/>
01 35 16	Alteration Project Procedures	Not Used <input type="checkbox"/>
01 35 19	Confined Space Entry	Not Used <input checked="" type="checkbox"/>
01 35 53	Security Procedures	Not Used <input type="checkbox"/>

01 31 13 PROJECT COORDINATION

- A. **Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. **Related Sections:** The following Sections contain requirements that relate to this section.
1. **Section 01 29 76 “Progress Payment Procedures”** submission of Schedule of Values and Applications for payment.
- C. **Construction Administrator:**
1. The Construction Administrator is identified in Division 01 **Section 01 12 19 “Contract Interface”**.
 2. **Construction Mobilization:**
 - 2.1 Cooperate with the Construction Administrator in the allocation of mobilization areas of the site, for field offices and sheds, for agency facility access, traffic, and parking facilities.
 - 2.2 During Construction, coordinate use of site and facilities through the Construction Administrator.
 - 2.3 Comply with Construction Administrators procedures for intra-project communications; submittals, reports and records, schedules, coordination drawings, and recommendations; and resolution of ambiguities and conflicts.
 - 2.4 Comply with instructions of the Construction Administrator for use of temporary utilities and construction facilities.
 - 2.5 Coordinate field engineering layout as specified in Division 01 **Section 01 71 23 “Field Engineering”** for work under the instructions of the Construction Administrator.
- D. Coordinate construction operations included in various Sections of these Specifications to assure efficient and orderly installation of each part of the Work. Coordinate construction operations included under different Sections that depend on each other for proper installation, connection, and operation.
1. Schedule construction operations in the sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
 2. Coordinate installation of different components to assure maximum accessibility for required maintenance, service, and repair.
 3. Make provisions to accommodate items scheduled for later installation.
- E. Where necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and attendance at meetings.
1. Prepare similar memoranda for the Construction Administrator, Owner and separate contractors where coordination of their work is required.
- F. **Administrative Procedures:** Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and assure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:

1. **Preparation of schedules.**
 2. **Installation and removal of temporary facilities.**
 3. **Delivery and processing of submittals.**
 4. **Progress meetings.**
 5. **Project closeout activities.**
- G. General Coordination Provisions:**
1. Inspection of Conditions: Require the Installer of each major component to inspect both the substrate and conditions under which Work is to be performed and coordinate such inspections with the Construction Administrator and authorities having jurisdictions. If unsatisfactory conditions exist notify the Construction Administrator immediately. Do not proceed until unsatisfactory conditions have been corrected in an acceptable manner.
 2. The Contractor shall coordinate temporary enclosures with required inspections and tests to minimize the necessity of uncovering completed construction for that purpose.
 - 2.1 **Coordination Drawings:**
 - 2.1.1 Not Required
 3. The Construction Administrator will meet with the Contractor on all major items of coordination.
 4. See also **Division 00 General Conditions, Article 7 “Cooperation of Trades”**.

01 31 19 PROJECT MEETINGS

- A. Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. Pre-construction Conference:**
1. The Contractor will attend a Pre-construction Conference before starting construction, as scheduled by the Construction Administrator convenient to the Owner, the Construction Administrator, Architect, and Contractor. This meeting will take place within **fourteen (14)** Calendar Days after the written Notice to Proceed and before the Contract Start Date. Hold the conference at the Project Site or another convenient location as directed by the Construction Administrator. The Construction Administrator shall conduct the Pre-construction Conference to review the Contractor and Subcontractor responsibilities and personnel assignments.
 2. **Attendees:** Authorized representatives of the Construction Administrator, Owner, Architect, and their consultants; the Contractor and its superintendent; major subcontractors; agency; and other concerned parties shall attend the conference. All participants at the conference shall be familiar with the Project and authorized to conclude matters relating to the Work.
 3. **Agenda:** Discuss items of significance that could affect progress, including the following:
 - 3.1 **Tentative construction schedule;**
 - 3.2 **Critical work sequencing;**
 - 3.3 **Progress meeting schedule;**
 - 3.4 **Designation of responsible personnel;**
 - 3.5 **Procedures for processing field decisions and Change Orders;**
 - 3.6 **Procedures for processing Applications for Payment;**
 - 3.7 **Distribution of Contract Documents;**
 - 3.8 **Submittal of Shop Drawings, Product Data, and Samples;**
 - 3.9 **Preparation of record documents;**
 - 3.10 **Use of the premises;**
 - 3.11 **Parking availability;**
 - 3.12 **Office, work, and storage areas;**
 - 3.13 **Equipment deliveries and priorities;**

- 3.14 **Safety procedures;**
- 3.15 **First aid;**
- 3.16 **Security;**
- 3.17 **Housekeeping;**
- 3.18 **Working hours;**
- 3.19 **Coordination with Audio-Visual and Telecommunications.**

C. Progress Meetings:

1. The Construction Administrator will conduct progress meetings, bi-weekly, at the Project Site or at regular intervals as agreed upon at the Pre-construction Conference. The Construction Administrator will notify the Owner, the Architect, and the Contractor of the scheduled Progress Meeting dates. Coordinate dates of Progress Meetings with preparation of Application for Payment requests.
2. **Attendees:** In addition to representatives of the Contractor, Construction Administrator, Owner and the Architect, subcontractor, supplier, or other entity concerned with current progress or involved in planning, coordination, or performance of future activities may be requested to attend these meetings on an as needed basis. All participants at the meeting shall be familiar with the Project and authorized to conclude matters relating to the Work. The Contractor shall include the site superintendent as a minimum.
3. **Agenda:** Progress Meetings shall review and correct or approve minutes of the previous Progress Meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to the status of the Project.
 - 3.1 **Construction Schedule:** Review progress since the last Progress Meeting. Determine where each activity is in relation to the required Contractor's "Construction Schedule" and whether each activity is on time or ahead or behind Schedule. Determine how Work that is behind Schedule will be expedited; secure commitments from parties involved to do so. Discuss whether Schedule revisions are required to insure that current and subsequent activities will be completed within the Contract Time.
 - 3.2 Review the present and future needs of each entity present
4. **Reporting:** The Construction Administrator will distribute minutes of the meeting to each party present, promptly and before the next scheduled meeting, and to parties who should have been present.
5. A schedule of regular Project Meetings will be established at the Pre-construction Conference.

01 32 16 CONSTRUCTION PROGRESS SCHEDULES

A. Related Documents

1. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

B. Summary

1. This Section includes administrative and procedural requirements for the preparation, submittal, and updating of the Contractor's construction schedules and reporting progress of the Work.
 - 1.1. Refer to the General Conditions and the Agreement for definitions and specific dates of Contract Time.
2. This Section includes the following:
 - 2.1. Format.
 - 2.2. Content.
 - 2.3. Revisions to schedules.
 - 2.4. Submittals.
 - 2.5. Distribution.

3. **Related Sections:** The following Sections contain requirements that relate to this Section:
 - 3.1 Division 01 Section 01 29 76 "Progress Payment Procedures" specifies requirements for submitting Schedule of Values and Application for Payments.
 - 3.2 Division 01 Section 01 31 19 "Project Meetings" specifies requirements for submitting and distributing meeting and conference minutes.
 - 3.3 Division 01 Section 01 33 00 "Submittal Procedures" specifies requirements for submitting the Submittal Schedule.
 - 3.4 Division 01 Section 01 45 00 "Quality Control" specifies requirements for submitting inspection and test reports.
 - 3.5 Division 01 Section 01 60 00 "Product Requirements" specifies requirements for submitting the list of products.
- C. **Definitions**
 1. **Construction Schedule:** A method of planning and scheduling a construction project utilizing a horizontal bar chart with a separate bar for each major portion of the Work or operation to make the schedule an effective tool for planning and monitoring the progress of the work.
- D. **Quality Assurance**
 1. **The Contractor's Consultant:** Retain a consultant to provide planning, evaluating, and reporting by CPM scheduling.
 - 1.1. **In-House Option:** The Owner may waive the requirement to retain a consultant if the Contractor can demonstrate that:
 - 1.1.1. The Contractor has the computer equipment required to produce construction schedules.
 - 1.1.2. The Contractor employs skilled personnel with experience in construction scheduling and reporting techniques.
 - 1.2. **Program:** Use **Microsoft Project** latest version.
 - 1.3. **Standards:** Comply with procedures contained in AGC's "Construction Planning & Scheduling."
- E. **Preliminary Schedule**
 1. Preliminary Gantt schedule is to be prepared by the General Contractor and submitted to the Construction Administrator within **seven (7)** days of award of contract. This schedule is to cover all items of Work from the start of the project up to the completion of the project. This schedule must be revised when the actual schedule of significant items varies more than one week from the proposed schedule.
- F. **Construction Schedule Format**
 1. **Format:** Utilize a horizontal bar chart (Gantt) with a separate bar for each major portion of the Work or operation, identifying first work day of each week.
 2. **Program:** Use **Microsoft Project**, latest version.
 3. **Sequence of Listings:** Utilize the Table of Contents of this Project Manual and the chronological order **of the start of each item of work.**
 4. **Scale and Spacing:** Provide space for notations and revisions.
 5. **Sheet Size:** To be coordinated with Construction Administrator.
 6. **Weather Days Allowance:** The Contractor shall include as a separate identifiable activity on the Critical Path of the Construction Schedule, and activity labeled "Weather Days Allowance." Insert this activity immediately prior to the substantial completion milestone.
 - 6.1 The Contractor shall be fully responsible for determining the number of weather delay days to be included in the Construction Schedule. This determination shall be based on the normal anticipated weather for the project location and the nature of the project work. The Construction Schedule shall be based on the contractor's determined weather delay allowance., The weather delay activity shall be included in the construction schedule immediately prior to the Substantial Completion milestone.

- 6.2** The minimal allowed duration of the Weather Days Allowance shall be calculated as follows (decimals rounded to nearest whole number):

$$\frac{\text{Contract Time}}{\text{(Calendar Days)}} \text{ multiplied by } 7 \text{ equals } \frac{\text{Weather Days Allowance}}{\text{(Calendar Days)}}$$

365

- 6.3** The Contractor shall insert an activity in the Critical Path of the Construction Schedule to reflect weather day occurrences when weather days are experienced and accepted by the Owner. Identify this activity as a weather delay.
- 6.4** The Contractor shall reduce duration of Weather Days Allowance activity as weather delays are experienced and inserted into the schedule. Remaining weather days in Weather Day Allowance at completion of project is considered float. Weather delay, when justified, are considered allowable, non compensable.

G. Content

1. Show complete sequence of construction by activity, with dates beginning and completion of each element of construction.
2. Identify each item by specification section numbers.
3. Identify work of separate phases and other logically grouped activities.
4. Show accumulated percentages of completion of each item, and total percentage of Work completed, as of the **first** day of each month.
5. Provide separate schedule of submittal dates for shop drawings, product data, and samples, Owner/Agency furnished products and any products identified as under Allowances, and dates reviewed submittals will be required from Architect/Engineer. Indicate decision dates for selection of finishes.
6. Indicate delivery dates for Owner/Agency furnished products and any products identified as under Allowances.
7. Indicate critical path with original baseline indicated.
8. Coordinate content with Schedule of Values specified in Section 01 29 76 "Progress Payment Procedures."

H. Submittals and Revisions To Schedules

1. An initial bar graph schedule is to be prepared by the General Contractor and submitted to the Construction Administrator. Refer to Article 1.5.
2. Indicate progress of each activity to date of submittal, and projected completion date of each activity.
3. Identify activities modified since previous submittal, major changes in scope, and other identifiable changes.
4. Provide narrative report to define problem areas, anticipated delays, and impact on Schedule. Report corrective action taken, or proposed, and its effect.
5. Schedules must be revised monthly and when the actual schedule of significant items varies more than **seven (7) days** from the proposed schedule.
6. Submit revised Construction Schedules for each Application for Payment.
7. Submit **four (4)** copies of the Construction Schedule to the Construction Administrator.

I. Distribution

1. Distribute copies of the Construction Schedules to Construction Administrator, Architect, Owner, Subcontractors, suppliers, and other concerned parties.
2. Instruct recipients to promptly report, in writing, problem anticipated by projections indicated in schedules.

01 32 33 PHOTOGRAPHIC DOCUMENTATION

- A. Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. Related Sections:** The following Sections contain requirements that relate to this section

1. **Section 01 29 76 "Progress Payment Procedures"** submission of Schedule of Values and Applications for payment.
- C. On the date the work is begun and every **thirty (30)** days thereafter (typically at the end of the month- until the work is at least 95 percent complete), the Contractor shall have photographs of the construction taken by a professional photographer or an individual approved by the Owner.
- D. Photographs: Provide a digital camera to take **twenty-four (12)** or more photos each time. Deliver 1 sets of photo files on CD-ROM and one set of prints to the Construction Administrator for DAS/CS. Label each CD-ROM with project name and the date the photographs were taken. With each submittal provide an index sheet of digital photos and where the photos were taken.
- E. As photographs are a record of the work progress, they shall be taken each month, whether or not they show work done during the preceding month. Deliver digital photos to the Construction Administrator within **ten (10)** Calendar Days of their taking.

01 33 00 SUBMITTAL PROCEDURES

- A. **Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. **Summary**
 1. This Section includes administrative and procedural requirements for submittals required for performance of the Work, including but not limited to the following:
 - 1.1 **Submittal schedule.**
 - 1.2 **Shop Drawings.**
 - 1.3 **Product Data.**
 - 1.4 **Samples.**
 - 1.5 **Quality assurance submittals.**
 - 1.6 **Proposed "Substitutions/Equals".**
 - 1.7 **Warranty samples.**
 - 1.8 **Coordination Drawings.**
 - 1.9 **O & M Manuals**
- C. **Administrative Submittals:** Refer to other Division 01 Sections and other Contract Documents for requirements for administrative submittals. Such submittals include, but are not limited to, the following:
 1. **Permits.**
 2. **Applications for Payment.**
 3. **Performance and payment bonds.**
 4. **Contractor's construction schedule.**
 5. **Daily construction reports.**
 6. **Construction Photographs.**
 7. **Insurance certificates.**
 8. **List of subcontractors.**
 9. **Subcontractors/Suppliers FEIN #'s and Connecticut tax registration #.**
- D. **Related Sections:** The following Sections contain requirements that relate to this Section:
 1. Division 01 Section 01 25 00 "Substitution Procedures" specifies requirements for submittal of requests for equals and substitutions.
 2. Division 01 Section 01 29 76 "Progress Payment Procedures" specifies requirements for submittal of the Schedule of Values.
 3. Division 01 Section "Project Coordination" 01 31 13 for Project Coordination documents.
 4. Division 01 Section 01 31 19 "Project Meetings" specifies requirements for submittal and distribution of meeting and conference minutes.
 5. Division 01 Section 01 32 16 "Construction Progress Schedules" for requirements for construction scheduling and reporting progress of work.

6. Division 01 Section 01 32 33 "Photographic Documentation" specifies requirements for submittal of periodic construction photographs.
7. Division 01 Section 01 45 00 "Quality Control" specifies requirements for submittal of inspection and test reports and mockups.
8. Division 01 Section 01 77 00 "Closeout Procedures" specifies requirements for submittal of Project Record Documents and warranties at project closeout.
9. Division 01 Section 01 78 30 "Warranties and Bonds".

E. Definitions

1. Coordination Drawings show the relationship and integration of different construction elements that require careful coordination during fabrication or installation to fit in the space provided or to function as intended and as identified in the Specification Divisions 02 through 49.
 - 1.1 Preparation of Coordination Drawings is specified in Division 01 Section 01 31 13 "Project Coordination" and may include components previously shown in detail on Shop Drawings or Product Data.
2. Field samples are full-size physical examples erected on-site to illustrate finishes, coatings, or finish materials. Field samples are used to establish the standard by which the Work will be judged.
3. Mockups are full-size assemblies for review of construction, coordination, testing, or operation; they are not Samples.

F. Submittal Procedures

1. **Coordination:** Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.
 - 1.1 Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 - 1.2 Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination.
 - 1.2.1 The Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received.
 - 1.2.2 The Architect reserves the right to reject incomplete submitted packages.
 - 1.3 **Processing:** To avoid the need to delay installation as a result of the time required to process submittals, allow sufficient time for submittal review, including time for re-submittals.
 - 1.3.1 Allow **fourteen (14)** calendar days for initial review. Allow additional time if the Architect must delay processing to permit coordination with subsequent submittals.
 - 1.3.2 If an intermediate submittal is necessary, process the same as the initial submittal.
 - 1.4 Allow **fourteen (14)** calendar days for reprocessing each submittal.
 - 1.5 No extension of Contract Time will be authorized because of failure to transmit submittals to the Architect sufficiently in advance of the Work to permit processing.
2. **Submittal Preparation:** Place a permanent label, title block or **8-1/2 inches x 11 inches** cover page approved by the Architect, on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.
 - 2.1 The minimum number of copies required for each submittal shall be **seven (7)** or as determined otherwise at the pre-construction conference or by the Construction Administrator.
 - 2.2 Provide a space approximately **4 inches by 5 inches** on the label, beside the title block or on the cover page on Shop Drawings to record the Contractor's review and approval markings and the action taken.

- 2.3 Include the following information on the label for processing and recording action taken.
- 2.3.1 ***Project Name and State of Connecticut Project Number.***
 - 2.3.2 ***Date.***
 - 2.3.3 ***Name and address of the Architect and Construction Administrator.***
 - 2.3.4 ***Name and address of the Contractor.***
 - 2.3.5 ***Name and address of the subcontractor.***
 - 2.3.6 ***Name and address of the supplier.***
 - 2.3.7 ***Name of the manufacturer.***
 - 2.3.8 ***Number and title of appropriate Specification Section.***
 - 2.3.9 ***Drawing number and detail references, as appropriate.***
 - 2.3.10 ***Indicate either initial or resubmittal.***
 - 2.3.11 ***Indicate deviations from Contract Documents.***
 - 2.3.12 ***Indicate if "equal" or "substitution".***
3. Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Transmit each submittal from the Contractor to the Architect using a transmittal form. Copy the Construction Administrator on the transmittal. The Architect will return all submittals to the Contractor after action is taken with a complete copy of the submittal package and one complete copy of the submittal package. The Architect will not accept submittals received from sources other than the Contractor.
- 3.1 On the transmittal, record relevant information and requests for data. On the form, or separate sheet, record deviations from Contract Document requirements, including variations and limitations. Include Contractor's certification that information complies with Contract Document requirements.

G. Submittal Schedule:

1. After development and review by the Owner and Architect acceptance of the Contractor's Construction or CPM schedule prepare a complete schedule of submittals. Submit the schedule to the Construction Administrator within **thirty (30)** Calendar Days of Contract Award.
- 1.1 Coordinate Submittal Schedule with the list of subcontracts, Schedule of Values, and the list of products as well as the Contractor's Construction or CPM Schedule.
 - 1.2 Prepare the schedule in chronological order. Provide the following information:
 - 1.2.1 Schedule date for the initial submittal.
 - 1.2.2 Related section number.
 - 1.2.3 Submittal category (Shop Drawings, Product Data, or Samples).
 - 1.2.4 Name of Subcontractor.
 - 1.2.5 Description of the part of Work covered.
 - 1.2.6 Scheduled date for resubmittal.
 - 1.2.7 Scheduled date for the Architect's final release of approval.
2. **Submittal Schedule:** Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or modifications to submittals noted by the Architect and additional time for handling and reviewing submittals required by those corrections.
- 2.1 Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.
 - 2.2 Initial Submittal: Submit concurrently with start-up construction schedule. Include submittals required during the first 60 days of construction. List

- those submittals required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
- 2.3** Final Submittal: Submit concurrently with the first complete submittal of Contractor's construction schedule.
- 2.3.1** Submit revised submittal schedule to reflect changes in current status and timing for submittals.
- 3. Coordination:** Coordinate preparation and processing of submittals with performance of construction activities.
- 3.1** Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
- 3.2** Submit all submittal items required for each specification section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
- 3.3** Submit action submittals and informational submittals required by the same specification section as separate packages under separate transmittals.
- 3.4** Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
- 3.4.1** **Architect and Construction Administrator reserve** the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- 3.5** **Processing Time:** Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on **Architect's** receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
- 3.5.1** **Initial Review:** Allow **fourteen (14)** Calendar Days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. **Architect** will advise Contractor when a submittal being processed must be delayed for coordination with related submittals not yet received. Additional time will be required if processing must be delayed to permit review of related subsequent submittals.
- 3.5.2** **Intermediate Review:** If intermediate submittal is necessary, process it in same manner as initial submittal.
- 3.5.3** **Resubmittal Review:** Allow **fourteen (14)** Calendar Days for review of each resubmittal.
- 3.5.4** **Mass Submittals:** **Six (6)** or more submittals in **one (1)** Calendar Day or **twenty (20)** or more submittals in **seven (7)** Calendar Days. If "Mass Submittals" are received, Architect's review time stated above may be extended as necessary to perform proper review. Architect will review "Mass Submittals based upon priority determined by Architect after consultation with Owner and Contractor.
- 3.6** **Distribution:** Following response to the initial submittal, print and distribute copies to the Construction Administrator, Architect, Owner, subcontractors, and other parties required to comply with submittal dates indicated. Post copies in the Project meeting room and field office.
- 3.6.1** When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.
- 3.7** **Schedule Updating:** Revise the schedule after each meeting or activity where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each meeting.

H. Daily Construction Reports

1. Prepare a daily construction report recording the following information concerning events at the site, and submit duplicate copies to the Construction Administrator at weekly intervals:
 - 1.1 **List of subcontractors at the site.**
 - 1.2 **Approximate count of personnel at the site.**
 - 1.3 **High and low temperatures, general weather conditions.**
 - 1.4 **Accidents and unusual events.**
 - 1.5 **Meetings and significant decisions.**
 - 1.6 **Stoppages, delays, shortages, and losses.**
 - 1.7 **Meter readings and similar recordings.**
 - 1.8 **List of equipment on site and identify if idle or in use.**
 - 1.9 **Orders and requests of governing authorities.**
 - 1.10 **Change Orders received, start and end dates.**
 - 1.11 **Services connected, disconnected.**
 - 1.12 **Equipment or system tests and startups.**
 - 1.13 **Partial Completion's, occupancies.**
 - 1.14 **Substantial Completion's authorized.**
 - 1.15 **Equals or Substitutions approved or rejected.**

I. Shop Drawings

1. Submit newly prepared information drawn accurately to scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not a Shop Drawing.
2. Shop Drawings include fabrication and installation Drawings, setting diagrams, schedules, patterns, templates and similar Drawings. Include the following information:
 - 2.1 Dimensions.
 - 2.2 Identification of products and materials included by sheet and detail number.
 - 2.3 Compliance with specified standards.
 - 2.4 Notation of coordination requirements.
 - 2.5 Notation of dimensions established by field measurement.
 - 2.6 Sheet Size: Except for templates, patterns and similar full-size Drawings, submit Shop Drawings on sheets at least **8-1/2 by 11 inches** but no larger than **36 by 48 inches**.
 - 2.6.1 Submit **one (1)** reproducible media and **seven (7)** prints as directed by the Construction Administrator. The Contractor's submittal shall identify the specification section and/or drawing number applicable to the submittal.
 - 2.6.2 Details shall be large scale and/or full size.
3. The Contractor shall review the Shop Drawings, stamp with this approval, and submit them with reasonable promptness and in orderly sequence so as to cause no delay in his Work or in the Work of any subcontractor. Shop Drawings shall be properly identified as specified for item, material, workmanship, and project number. At the submission, the Contractor shall inform the Architect, in writing of any deviation in the shop drawings from the requirements of the Contract Documents.
4. The Architect will review and comment on shop drawings with reasonable promptness so as to cause no delay, but only for conformance with the design concept of the project and with the information given in the Contract Documents. Refer to Article 5 of the General Conditions. Shop Drawings received by the Architect that indicate insufficient study of drawings and specifications, illegible portions or gross errors, will

be rejected outright. Such rejections shall not constitute an acceptable reason for granting the Contractor additional time to perform the work.

5. The Contractor shall make any corrections required by the Architect and shall resubmit the required number of corrected copies of Shop Drawings until fully reviewed.
6. Upon final review submit **four (4)** additional prints, same as submitted, for use by the Construction Administrator.
7. The Architect's review and comments on Shop Drawings shall not relieve the Contractor of responsibility for any deviation from the requirements of the Contract Documents.
8. Only final reviewed Shop Drawings are to be used on the Project site.
9. The Work installed shall be reviewed in accordance with the Shop Drawings and the drawings and specifications. Final Review of the Shop Drawings by the Architect shall constitute acceptance by the State and the Architect of a variation or departure that is **clearly identified**. If the contractor believes notations made by the Architect/Engineer increases the value or scope of the CD's, the contractor must provide written notice to the Construction Administrator within seven (7) days of this issue. Final reviewed Shop Drawings shall not replace or be used as a vehicle to issue or incorporate change orders or substitutions. Substitutions shall be submitted in accordance with Division 01 Section 01 25 00 "Substitution Procedures".

J. Shop Drawings For Roofing Systems: *This project is not subject to FM Global Review.*

1. The State Insurance Carrier (SIC) requires **two (2)** weeks prior notice of roofing system shop drawing reviews.
2. See Section **00 31 33.15 General Statement For FM Global Checklist For Roofing Systems** and Section **50 60 00 FM Global Checklist for Roofing Systems**.

K. Product Data

1. Collect Product Data into a single submittal for each element of construction or system. Product Data includes printed information, schedules, such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams, and performance curves.
 - 1.1 Mark each copy to show applicable choices and options. Where printed Product Data includes information on several products that are not required, mark copies to indicate the applicable information. Include the following information:
 - 1.1.1 **Manufacturer's printed recommendations.**
 - 1.1.2 **Compliance with trade association standards.**
 - 1.1.3 **Compliance with recognized testing agency standards.**
 - 1.1.4 **Application of testing agency labels and seals.**
 - 1.1.5 **Notation of dimensions verified by field measurement.**
 - 1.1.6 **Notation of coordination requirements.**
 - 1.2 Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed.
 - 1.3 **Preliminary Submittal:** Submit a preliminary single copy of Product Data where selection of options is required.
 - 1.4 **Submittals:** Submit **seven (7)** copies of each required submittal; submit **five (5)** copies where required for maintenance manuals. The Architect will retain **one (1)** and will return the other marked with action taken and corrections or modifications required.
 - 1.4.1 Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.
 - 1.5 **Distribution:** Furnish copies of final submittal to installers, subcontractors, suppliers, manufacturers, fabricators, and others required for performance of construction activities. Show distribution on transmittal forms.

- 1.5.1 Do not proceed with installation until a copy of Product Data is in the Installer's possession.
- 1.5.2 Do not permit use of unmarked copies of Product Data in connection with construction.

L. Samples

- 1. Submit full-size, fully fabricated Samples cured and finished as specified and physically identical with the material or product proposed. Samples include partial sections of manufactured or fabricated components, cuts or containers of materials, color range sets, and swatches showing color, texture, and pattern.
 - 1.1 Store, mount or display Samples on site in the manner to facilitate review of qualities indicated. Prepare Samples to match the Architect's sample. Include the following:
 - 1.1.1 **Specification Section number and reference.**
 - 1.1.2 **Generic description of the Sample.**
 - 1.1.3 **Sample source.**
 - 1.1.4 **Product name or name of the manufacturer.**
 - 1.1.5 **Compliance with recognized standards.**
 - 1.1.6 **Availability and delivery time.**
 - 1.2 Submit Samples for review of size, kind, color, pattern, and texture. Submit Samples for a final check of these characteristics with other elements and a comparison of these characteristics between the final submittal and the actual component as delivered and installed.
 - 1.2.1 Where variation in color, pattern, texture, or other characteristic is inherent in the material or product represented, submit at least **three (3)** multiple units that show approximate limits of the variations.
 - 1.2.2 Refer to other Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation, and similar construction characteristics.
 - 1.2.3 Refer to other Sections for Samples to be returned to the Contractor for incorporation in the Work. Such Samples must be undamaged at time of use. On the transmittal, indicate special requests regarding disposition of Sample submittals.
 - 1.2.4 Samples not incorporated into the Work, or otherwise designated as the Owner's property, are the property of the Contractor and shall be removed from the site prior to Substantial Completion.
 - 1.3 **Preliminary Submittals:** Submit a full set of choices where Samples are submitted for selection of color, pattern, texture, or similar characteristics from a range of standard choices, unless otherwise noted in specification section.
 - 1.3.1 The Architect will review and return preliminary submittals with the Architects notation, indicating selection and other action.
 - 1.4 **Submittals:** Except for Samples illustrating assembly details, workmanship, fabrication techniques, connections, operation, and similar characteristics, submit **three (3)** sets. The Architect will return **one (1)** set marked with the action taken.
 - 1.5 Maintain sets of Samples, as returned, at the Project Site, for quality comparisons throughout the course of construction.
 - 1.5.1 Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.
 - 1.5.2 Sample sets may be used to obtain final acceptance of the construction associated with each set.
- 2. **Distribution of Samples:** Prepare and distribute additional sets to subcontractors, manufacturers, fabricators, suppliers, installers, and others as required for performance of the Work. Show distribution on transmittal forms.

- 2.1 Field samples are full-size examples erected on-site to illustrate finishes, coatings, or finish materials and to establish the Project standard.
 - 2.1.1 Comply with submittal requirements to the fullest extent possible. Process transmittal forms to provide a record of activity.

M. Quality Assurance Submittals

- 1. Submit quality-control submittals, including design data, certifications, manufacturer's instructions, manufacturer's field reports, and other quality-control submittals as required under other Sections of the Specifications.
- 2. **Certifications:** Where other Sections of the Specifications require certification that a product, material, or installation complies with specified requirements, submit a notarized certification from the manufacturer certifying compliance with specified requirements.
 - 2.1 **Signature:** Certification shall be signed by an officer of the manufacturer or other individual authorized to sign documents on behalf of the company.
- 3. **Inspection and Test Reports:** Requirements for submittal of inspection and test reports from independent testing agencies are specified in Division 01 Section 01 45 00 "Quality Control."

N. Architect's Action:

- 1. Except for submittals for the record or information, where action and return is required, the Architect will review each submittal, mark to indicate action taken, and return promptly.
 - 1.1 Compliance with specified characteristics is the Contractor's responsibility.
- 2. **Action Stamp:** The Architect will stamp each submittal with a uniform, action stamp. The Architect will mark the stamp appropriately to indicate the action taken, as follows:
 - 2.1 **Final Unrestricted Release:** When the Architect marks a submittal "Approved for fabrication," the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents. Final payment depends on that compliance.
 - 2.2 **Final-But-Restricted Release:** When the Architect marks a submittal "Incorporate Notations," the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents. Submit corrected copies for record. Final payment depends on that compliance.
 - 2.3 **Returned for Resubmittal:** When the Architect marks a submittal "Rejected, or Revise and Resubmit," do not proceed with Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal according to the notations; resubmit without delay. Repeat if necessary to obtain different action mark.
 - 2.3.1 Do not use, or allow others to use, submittals marked "Rejected, or Revise and Resubmit" at the Project Site or elsewhere where Work is in progress.
 - 2.4 **Other Action:** Where a submittal is for information or record purposes or special processing or other activity, the Architect will return the submittal marked "Action Not Required."
- 3. **Unsolicited Submittals:** The Architect will discard unsolicited submittals without action.

01 35 16 ALTERATION PROJECT PROCEDURES

- A. Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. Summary**
 - 1. This Section includes administrative and procedural requirements for performing alteration and renovation Work.
 - 2. **Related Sections:** The following Sections contain requirements that relate to this Section:

- 2.1 Division 00 Section 00 30 00 "General Statements for Available Information" for information that is available in addition to the Bidding Documents for review by bidders. Such information may include an existing conditions survey, contaminated soil reports, contaminated groundwater reports, hazardous building material reports, geotechnical data, etc.
- 2.2 Division 01 Section 01 31 13 "Project Coordination" for procedures for coordinating cutting and patching with other construction activities.
- 2.3 Division 01 Section 01 73 29 "Cutting and Patching" for procedures for cutting and patching.
- 2.4 Division 02 Section 02 41 19 "Selective Structure Demolition" for demolition of selected portions of the building for alterations.
- 2.5 Refer to other Sections for specific requirements and limitations applicable to performing alteration Work with individual parts of the Work.
- 2.6. **Division 50 00 00 Project-Specific Available Information**

3. Definitions:

- 3.1 Clean Fill: Either (1) natural soil or (2) rock, brick, ceramics, concrete, and asphalt paving fragments which are virtually inert and pose neither a pollution threat to ground or surface waters nor a fire hazard.
- 3.2 Contaminated Soil: Treated or untreated soil and/or sediment 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 the Remediation Standard Regulations (RCSA Section 22a-133k-1).
- 3.3 Hazardous Soil: Soil that is classified as a hazardous waste. Soil is classified as hazardous waste if it exhibits a hazardous waste characteristic or if it contains RCRA-listed hazardous constituents above Connecticut's RCRA "Contained-In" Policy dated May 2002.
- 3.4 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.
- 3.5 Polluted Soil: Soil affected by a release of a substance at a concentration above the analytical detection limit for such substance in accordance with RCSA 22a-133k-1(a)(45) or for naturally occurring substance at a concentration that exceeds concentrations that naturally occur in the environment.
- 3.6 Regulated Soil: Includes Polluted Soil, Contaminated Soil, and Hazardous Soil.
- 3.7. Groundwater Remediation Wastewater: Wastewater generated in connection with investigating pollution or remediating polluted groundwater or soil. Groundwater remediation wastewater includes without limitation groundwater withdrawn from a groundwater recovery well; groundwater which collects in an excavation or foundation drain or other subsurface facility or structure; groundwater contaminated runoff and stormwater impacted by on-site pollutants from any construction activity; condensate resulting from construction or maintenance of a soil vapor extraction system; and wastewater generated by developing, testing, sampling, or purging a well.

C. Products For Patching And Extending Work:

1. **New Materials:** As specified in product sections; match existing Products and Work for patching and extending Work.
2. **Type and Quality of Existing Products:** Determine by inspecting and testing Products where necessary, referring to existing Work as a standard.

D. Salvageable Materials

1. The **Contractor** shall be responsible for removing the following salvageable items from premises and transporting said items to **Barn** on **Site**, CT.
 - 1.1 **Gutters and Downspouts at White Cottage:**

2. The **Contractor** shall notify the Construction Administrator in writing **seven (7)** Calendar Days prior to removing all salvageable items from the existing alteration project location and unloading all salvageable items at **Barn, on Site** and store items in the appropriate location as directed by **Owner** personnel.

E. Inspection, Testing, and Abatement

1. General:

- 1.1 Observe all existing conditions prior to submitting a bid. Include in the bid, existing conditions and their impact, particularly to cost and health and safety of workers and occupants, and proper function and operation of the facility. Be aware of other work being performed. Failure to visit the site shall in no way provide relief from the necessity of furnishing materials or performing any work that may be required to complete the work in accordance with the Contract Documents without additional cost to the Owner. All site visits shall be scheduled with the Owner.
- 1.2 The quantities, locations and the extent of work indicated are best estimates, which are limited by the physical constraints imposed by occupancy of the facility. Consider all aspects of the substrates within the identified plan area. Material information and quantities were obtained from site surveys. Accordingly, variations (plus or minus 10 percent) in quantities within the limits of the work area are considered as having no impact on contract sum and contract performance period. Where additional abatement work is required beyond the above variations, the contract sum and contract performance period shall be adjusted under provisions of Division 01 of the Specifications.
- 1.3 Verify that demolition is complete and areas are ready for installation of new Work.
- 1.4 Beginning of restoration Work means acceptance of existing conditions.

2. Project Procedures for Work Involving Lead-Based Paint (LBP):

- 2.1 The **Contractor** is responsible for abating all **Lead-Based Paint (LBP)** prior to the start of any Work involving renovation, demolition, reconstruction, alteration, remodeling, or repair (if necessary), unless noted differently below or specified differently elsewhere.
- 2.2 The **Contractor** shall conduct all demolition and removal Work, specified in the Technical Specifications Sections of this Project Manual, in conformance with the regulations as specified in this **Section 01 35 16 Alteration Project Procedures** and as specified in **Section 02 83 00 Lead Remediation**.
- 2.3 If testing for LBP has been conducted at the facility scheduled for renovation, demolition, reconstruction, alteration, remodeling, or repair, then the results of the LBP testing are summarized in **Division 50 00 00 Project-Specific Available Information, Section 50 30 00 Hazardous Building Materials Inspection and Inventory** at the end of the Technical Specification Sections. Under no circumstance shall this information be the sole means used by the Contractor for determining the extent of LBP. The Contractor shall be responsible for verification of all field conditions affecting performance of the Work.
- 2.4 If the Contractor should encounter any material suspected or known to contain **LBP that was not previously identified and assigned as the Contractor's responsibility**, then the Contractor should immediately notify the Construction Administrator **in writing** of same. It is the State's responsibility to have the material tested and abated (if necessary). The Owner will respond within **four (4) Calendar Days** after receiving the Contractor's written request to the Construction Administrator for testing the suspect material. **If necessary, the Contractor will abate LBP within a reasonable time period after the Owner's issuance of a Change Order for the additional abatement work.**
 - 2.4.1 When the **Owner** requests the **Contractor** undertake the responsibilities for **additional abatement and disposal of the LBP**, then the compensation to the Contractor by Owner for the

Work shall be determined by the “Unit Prices” stated in **Section 01 20 00 Contract Considerations.**

- 2.5 Exposure levels for lead in the construction industry are regulated by 29 CFR 1926.62. Construction activities disturbing surfaces containing lead-based paint (LBP) which are likely to be employed, such as sanding, grinding, welding, cutting and burning, have been known to expose workers to levels of lead in excess of the Permissible Exposure Limit (PEL). Conduct demolition and removal Work specified in the technical sections of this specification in conformance with these regulations. In addition, construction debris/waste may be classified as hazardous waste. Disposal of hazardous waste material shall be in accordance with 40 CFR Parts 260 through 271 and Connecticut Hazardous Waste Management Regulations Section 22a-209-1; 22a-209-8(c); 22a-449(c)-11; and 22a-449(c)-100 through 110.
 - 2.6 The Contractor's Work shall be based on a child under the age of six (6) years in residence; the Work shall also be in accordance with Connecticut Regulations Section 19a-111-1 through 11.
 - 2.7 If this facility was constructed **prior to 1978** it is likely to have painted surfaces containing lead-based paint.
 - 2.8 In accordance with the United States Environmental Protection Agency's (EPA) Lead-Based Paint Renovation, Repair, and Painting Program (RRP) issued by the EPA on April 22, 2008, as amended, and regulated by 40 CFR 745, contractors performing renovation, repair and painting projects that disturb lead-based paint in homes, child care facilities, and schools built before 1978 must be certified and must follow specific work practices to prevent lead contamination. EPA requires that firms performing renovation, repair, and painting projects that disturb lead-based paint in pre-1978 homes, child care facilities and schools be certified by EPA and that they use certified renovators who are trained by EPA-approved training providers to follow lead-safe work practices. The Contractor must be a Renovation Firm that has completed an EPA Lead-Safe Certification Program and be certified to conduct lead-based paint activities and renovations under the RRP rule. The Contractor shall have at least one “Certified Renovator” assigned to jobs where LBP is disturbed.
- 3. Project Procedures for Work Involving Asbestos Containing Material (ACM):**
- 3.1 The **Contractor** is responsible for abating all **Asbestos Containing Material (ACM)** that is visible and accessible.
 - 3.2 In **demolition projects, every attempt** should be made by the **Contractor to remove all ACM.**
 - 3.3 If testing for asbestos has been conducted at the facility scheduled for renovation, demolition, reconstruction, alteration, remodeling, or repair, then the results of the asbestos testing are summarized in **Division 50 00 00 Project-Specific Available Information, Section 50 30 00 Hazardous Building Materials Inspection and Inventory** at the end of the Technical Specification Sections. Under no circumstance shall this information be the sole means used by the Contractor for determining the extent of asbestos. The Contractor shall be responsible for verification of all field conditions affecting performance of the Work.
 - 3.4 If the Contractor should encounter any material suspected or known to contain asbestos **not previously identified and assigned as the Contractor's responsibility**, then the Contractor should immediately notify the Construction Administrator **in writing** of same. It is the Owner's responsibility to have the material tested and abated (if necessary). The Owner will respond within **twenty four (24) hours** after receiving the Contractor's written request to the Construction Administrator for testing the suspect material. **If necessary, the Contractor will abate ACM within a reasonable time period after the Owner's issuance of a Change Order for the additional abatement work.**
 - 3.4.1 When the **Owner** requests the **Contractor** undertake the responsibilities for the **abatement and disposal of the ACM**, then the compensation to the Contractor by Owner for the Work shall be

determined by the "Unit Prices" stated in Section 01 20 00
Contract Considerations.

- 3.5 No attempt has been made to locate hazardous material associated with existing site utilities, though it is presumed that at least some asbestos may be discovered associated with underground piping during the course of site and site utilities work. If and when such materials appear, the Contractor shall notify the Owner, who shall direct additional work outside of this Agreement to assist in cutting up and disposing of same. The Contractor shall assist the hazardous materials contractor(s) with excavating, heavy lifting, and the like at no additional cost to the Owner.

4. **Project Procedures for Work Involving Mold:**

- 4.1 The Contractor is responsible for abating all Mold (any form of fungi, including mold or mildew, and myotoxins, spores, scents or by-products produced or released by fungi) prior to the start of any Work involving renovation, demolition, reconstruction, alteration, remodeling, or repair (if necessary), unless noted differently below or specified differently elsewhere.
- 4.2 The Contractor shall conduct all demolition and removal Work, specified in the Technical Specifications Sections of this Project Manual, in conformance with the regulations as specified in Section 01 35 16 **Alteration Project Procedures** and Section 02 85 00 **Mold and Other Hazardous Materials Remediation Specifications.**
- 4.3 If the Owner has tested the facility scheduled for renovation, demolition, reconstruction alteration, remodeling or repair for Mold, then the results are located in Division 50 00 00 **Project-Specific Available Information, Section 50 30 00 Hazardous Building Materials Inspection and Inventory** at the end of the Technical Specification Sections. Under no circumstance shall this information be the sole means used by the Contractor for determining the extent of Mold. It is the Contractor's responsibility to verify all materials and field conditions prior to renovation, demolition, reconstruction, alteration, remodeling, or repair that may affect the performance of their Work.
- 4.4 If the Contractor should encounter any material suspected or known to contain **Mold that was not previously identified and assigned as the Contractor's responsibility**, he should immediately notify the Construction Administrator **in writing** of same. It is the State's responsibility to have the material tested and abated (if necessary). The Owner will respond within **four (4) Calendar Days** after receiving the Contractor's written request to the Construction Administrator for testing the suspect material. **[If necessary, the Contractor will abate Mold within a reasonable time period after the Owner's issuance of a Change Order for the additional abatement work.] [The Owner will abate Mold (if necessary) within a reasonable time period, i.e. within ten (10) calendar days.]**
- 4.4.1 When the Owner requests the Contractor undertake the responsibilities **for the abatement and disposal of Mold**, then the compensation to the Contractor by Owner for the Work shall be determined by the "Unit Prices" stated in Section 01 20 00 **Contract Considerations.**
- 4.5 Disposal of all hazardous materials shall be in accordance with but not limited to applicable provisions of 40 CFR Parts 761 Subpart K, 761, and 761.65 and the Connecticut General Hazardous Waste Statute Sec. 22a-454.

5. See also **General Conditions Article 23 "Cutting, Fitting, Patching and Digging"**.

F. **Preparation:**

1. Cut, move, or remove items as are necessary for access to alterations and renovation Work. Replace and restore at completion.

2. Remove unsuitable material not marked for salvage, such as rotted wood, corroded metals, and deteriorated masonry and concrete. Replace materials as specified for finished Work.
 3. Remove debris and abandoned items from area and from concealed spaces.
 4. Prepare surface and remove surface finishes to provide for proper installation of new Work and finishes.
 5. Close openings in exterior surfaces to protect existing Work and salvage items from weather and extremes of temperature and humidity. Insulate ductwork and piping to prevent condensation in exposed areas.
- G. Installation:**
1. Coordinate Work of alterations and renovations to expedite completion and if required sequence Work to accommodate Owner occupancy.
 2. Remove, cut and patch Work in a manner to minimize damage and to provide restoring Products and finishes to original and or specified condition in accordance with **Section 01 73 29 "Cutting and Patching"**.
 3. Refinish visible existing surfaces to remain in renovated rooms and spaces, to specified condition for each material, with neat transition to adjacent finishes in accordance with **Section 01 73 29 "Cutting and Patching"**.
 4. In addition to specified replacement of equipment and fixtures, restore existing plumbing, heating, ventilation, air conditioning, electrical, systems to full operational condition.
 5. Recover and refinish Work that exposes mechanical and electrical Work exposed accidentally during the Work.
 6. Install Products as specified in individual sections.
- H. Transitions:**
1. Where new Work abuts or aligns with existing, perform a smooth and even transition. Patch work to match existing adjacent Work in texture and appearance.
 2. When finished surfaces are cut so that a smooth transition with new Work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation to Architect/Engineer.
- I. Adjustments:**
1. Where removal of partitions or walls result in adjacent spaces becoming one, rework floors, walls, and ceilings to a smooth plane without breaks, steps, or bulkheads.
 2. Where a change of plane of $\frac{1}{4}$ inch in **12 inches** or more occurs, request recommendation from Architect/Engineer for providing a smooth transition.
 3. Trim existing doors as necessary to clear new floor finish. Refinish trim as required.
 4. Fit Work at penetrations of surfaces as specified in Section 01045 "Cutting and Patching".
- J. Repair of Damaged Surfaces:**
1. Patch or replace portions of existing surfaces that are damaged, lifted, discolored, or showing imperfections.
 2. Repair substrate prior to patching finish.
- K. Finishes:**
1. Finish surfaces as specified in individual Product sections.
 2. Finish patches to produce uniform finish and texture over entire area. When finish cannot be matched, refinish entire surface to nearest intersections.
- L. Cleaning:**
1. In addition cleaning specified in **Section 01 77 00 "Closeout Procedures"**, clean Agency occupied areas of Work.

- A. Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B.** Provide a security program and facilities to protect work, existing facilities, and Owner's operations from unauthorized entry, vandalism, and theft. Coordinate with Owner's security program.
- C.** The General Contractor shall be solely responsible for damage, loss, or liability due to theft or vandalism.
- D. Identification Badges for General Contractor's Personnel and Visitors:**
 - 1.** The General Contractor will provide each person working or visiting at the site with an identification badge, bearing the name of the General Contractor, subcontractors, design professionals, and a number. As badges are assigned, a record shall be kept by the General Contractor and given to the Construction Administrator and User Agency Administrator. Update and correct the records of all badges issued on a semi-monthly basis.
 - 2.** Badges are to be worn on outer garment where visible at all times while at the construction site, return them to the General Contractor's field office at the end of each day and pick them up there each morning.
- E. Parking Stickers:** All vehicles parking in the General Contractor's parking lot and those used around the site require an ID sticker. They will be issued by the User Agency. Each General Contractor shall apply for parking stickers through the Construction Administrator no more than semi-monthly and shall keep record of all stickers issued.

End
Section 01 30 00
Administrative Requirements

01 40 00 QUALITY REQUIREMENTS

A. **Summary:** Section 01 40 00 Quality Requirements contains the following Subsections:

01 42 16	Definitions	Not Used <input type="checkbox"/>
01 42 19	Reference Standards	Not Used <input type="checkbox"/>
01 45 00	Quality Control	Not Used <input type="checkbox"/>
01 45 23	Testing For Indoor Air Quality, Baseline IAQ, & Materials	Not Used <input checked="" type="checkbox"/>

01 42 16 DEFINITIONS

A. **Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

B. **Definitions**

1. **General:** Basic contract definitions are included in the General Conditions of the Contract for Construction.
2. **"Indicated":** The term "indicated" refers to graphic representations, notes, or schedules on the Drawings, or other paragraphs or Schedules in the Specifications, and similar requirements in the Contract Documents. Terms such as "shown," "noted," "scheduled," and "specified" are used to help the reader locate the reference. Location is not limited to this term.
3. **"Directed":** Terms such as "directed," "requested," "authorized," "selected," "approved," "required," and "permitted" mean directed by the Architect, requested by the Architect, and similar phrases.
4. **"Approved":** The term "approved," when used in conjunction with the Architect's action on the Contractor's submittals, applications, and requests, is limited to the Architect's duties and responsibilities as stated in the Conditions of the Contract.
5. **"Regulations":** The term "regulations" includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the construction industry that control performance of the Work.
6. **"Furnish":** The term "furnish" means supply and deliver to the Project Site, ready for unloading, unpacking, assembly, installation, and similar operations.
7. **"Install":** The term "install" describes operations at the Project Site including the actual unloading, unpacking, assembly, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
8. **"Provide":** The term "provide" means to furnish and install, complete and ready for the intended use.
9. **"Installer":** An installer is the Contractor or another entity engaged by the Contractor, either as an employee, subcontractor, or contractor of lower tier, to perform a particular construction activity, including installation, erection, application, or similar operations. Installers are required to be experienced in the operations they are engaged to perform.
 - 9.1 The term "experienced," when used with the term "installer," means having a minimum of *five (5)* previous projects similar in size and scope to this Project, being familiar with the special requirements indicated, and having complied with requirements of authorities having jurisdiction.
 - 9.2 **Trades:** Using terms such as "carpentry" does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to tradespersons of the corresponding generic name.
 - 9.3 **Assigning Specialists:** Certain Sections of the Specifications require that specific construction activities shall be performed by specialists who are recognized experts in those operations. The specialists must be engaged for those activities, and their assignments are requirements over which the Contractor has no option. However, the ultimate responsibility for fulfilling contract requirements remains with the Contractor.

- 9.3.1 This requirement shall not be interpreted to conflict with enforcing building codes and similar regulations governing the Work. It is also not intended to interfere with local trade-union jurisdictional settlements and similar conventions.
10. **"Project Site"**: Is the space available to the Contractor for performing construction activities, either exclusively or in conjunction, with others performing other Work as part of the Project. The extent of the Project Site is shown on the Drawings and may or may not be identical with the description of the land on which the Project is to be built.
11. **"Testing Agencies"**: A testing agency is an independent entity engaged to perform specific inspections or tests, either at the Project Site or elsewhere, and to report on and, if required, to interpret results of those inspections or tests.

01 42 19 REFERENCE STANDARDS

- A. **Related Documents**: Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. **Industry Standards**:
1. **Applicability of Standards**: Except where the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
 2. **Publication Dates**: Comply with the standards in effect as of the date of the Contract Documents unless a specific date is indicated in the Contract Documents or the governing regulations cited herein.
 3. **Conflicting Requirements**: Where compliance with *two (2)* or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent and highest quality requirement. Request a decision from the Architect before proceeding on requirements that are different but apparently equal, and where it is uncertain which requirement is the most stringent.
 4. **Minimum Quantity or Quality Levels**: The quantity or quality level shown or specified shall be the minimum acceptable. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of the requirements. Request a clarification from the Architect regarding uncertainties before proceeding.
 5. **Copies of Standards**: Each entity engaged in construction on the Project is required to be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.
- C. Where copies of standards are needed to perform a required construction activity, the Contractor shall obtain copies directly from the publication source.
1. **Abbreviations and Names**: Trade association names and titles of general standards are frequently abbreviated. Where such acronyms or abbreviations are used in the Specifications or other Contract Documents, they mean the recognized name of the trade association, standards-generating organization, authorities having jurisdiction, or other entity applicable to the context of the text provision. Refer to Thompson Gale's "Encyclopedia of Associations," available in most libraries.
- D. **Governing Regulations And Authorities**:
1. **Copies of Regulations**: Obtain copies of the **"latest applicable State Codes"** and the following regulations and retain at the Project Site to be available for reference by parties who have a reasonable need during submittals, planning, and progress of the Work, until Substantial Completion.
 - 1.1 **Connecticut State Building Code** - [2016].
 - 1.1.1 CT Supplement - [2016].
 - 1.1.2 CT Amendments - [2016].
 - 1.1.3 International Building Code - [2012].

- 1.1.4 International Existing Building Code - [2012].
 - 1.1.5 International Mechanical Code - [2012].
 - 1.1.6 International Plumbing Code - [2012].
 - 1.1.7 International Energy Conservation Code - [2012].
 - 1.1.8 National Electric Code (NFPA 70) - [2014].
 - 1.1.9 ICC/ANSI A117.1-Accessible and Usable Buildings and Facilities - 2009].
 - 1.2. **Connecticut Fire Safety Code - [2016].**
 - 1.2.1 CT Supplement - [2016].
 - 1.2.2 CT Amendments – [2016].
 - 1.2.3 International Fire Safety Code - [2012].
 - 1.2.4 NFPA 101 - [2012].
 - 1.3. **Connecticut Fire Prevention Code - [2015].**
 - 1.3.1 NFPA 101 – [2015].
 - 1.4. **Occupational Safety and Health Administration (OSHA)**
 - 1.4.1 OSHA 29 CFR Part 1910 Occupational Safety and Health Regulations - [1999].
 - 1.4.2 OSHA 29 CFR Part 1926 Occupational Safety and Health Regulations for Construction - [1999].
2. The “**latest applicable State Codes**” are available for download from the DAS website (www.ct.gov/das) > Doing Business With The State > State Building Construction > Publications and Forms > Office of State Building Inspector *and* Office of State Fire Marshal. Also visit the www.ctdol.state.ct.us Connecticut Department of Labor website.

E. Submittals:

- 1. **Permits, Licenses, and Certificates:** For the Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents.

01 45 00 QUALITY CONTROL

- A. Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. Summary**
 - 1. This Section includes administrative and procedural requirements for quality-control services.
 - 2. Quality-Control services include fire alarm acceptance testing, inspections, tests, and related actions, including reports performed by Contractor, by independent agencies, and by governing authorities. They do not include contract enforcement activities performed by the Owner.
 - 3. Inspection and testing services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with Contract Document requirements.
 - 4. Requirements of this Section relate to customized fabrication and installation procedures, not production of standard products.
 - 4.1 Specific quality-control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
 - 4.2 Specified inspections, tests, and related actions do not limit Contractor's quality-control procedures that facilitate compliance with Contract Document requirements.

4.3 Requirements for Contractor to provide quality-control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.

C. Related Sections: The following Sections contain requirements that relate to this Section:

1. Division 01 Section **01 33 00 "Submittal Procedures"** specifies requirements for development of a schedule of required tests and inspections.
2. Division 01 Section **01 73 29 "Cutting and Patching"** specifies requirements for repair and restoration of construction disturbed by inspection and testing activities.
3. Division 01 Section **01 77 00 "Closeout Procedures"**, specific requirements for contract closeout procedures.

D. Responsibilities

1. Contractor Responsibilities: Unless otherwise indicated as the responsibility of another identified entity, the Owner, through the Construction Administrator, shall provide inspections, tests, and other quality-control services specified elsewhere in the Contract Documents and required by authorities having jurisdiction. All tests required by the individual specification sections are required to be scheduled and notification given to the Construction Administrator **24 / 48** hours in advance of the test/inspection as applicable. Costs for these services are not included in the Contract Sum.

1.1 Where individual Sections specifically indicate that certain inspections, tests, and other quality-control services are the Contractor's responsibility, the Contractor shall employ and pay a qualified independent testing agency to perform quality-control services. Costs for these services are included in the Contract Sum.

1.2 Where individual Sections specifically indicate that certain inspections, tests, and other quality-control services are the Owner's responsibility, the Owner will employ and pay a qualified independent testing agency to perform those services.

1.2.1 Such services include Special Inspections as required by the latest edition of the "Connecticut State Building Code".

1.2.2 Where the Owner has engaged a testing agency for testing and inspecting part of the Work, and the Contractor is also required to engage an entity for the same or related element, the Contractor shall not employ the entity engaged by the Owner. The Owner will engage the services of a qualified Special Inspector for this project. The Special Inspector, as a representative of the Owner, shall document and confirm compliance with the provisions of the Connecticut State Building Code for Special Inspections.

1.2.3 Materials and assemblies for this project will be tested and construction operations inspected as the work progresses. Failure to detect any defective work or material shall not in any way prevent later rejection when such defect is discovered nor shall it obligate the State for final acceptance.

1.2.4 The Owner's use of testing and inspection services shall in no way relieve the Contractor of the responsibility to furnish materials and finished construction in full compliance with the Contract Documents and the Connecticut State Building Code.

2. Retesting: The Contractor is responsible for retesting where results of inspections, tests, or other quality-control services prove unsatisfactory and indicate noncompliance with Contract Document requirements, regardless of whether the original test was Contractor's responsibility.

2.1 The cost of retesting construction, revised or replaced by the Contractor, is the Contractor's responsibility where required tests performed on original construction indicated non-compliance with Contract Document requirements.

2.2 The Owner will issue a credit change order to cover all costs incurred related to all re-tests/re-inspections due to non-compliance to the Contract Documents, including but not limited to the Owner's costs and the Consultant's costs.

3. **Associated Services:** Cooperate with agencies performing required inspections, tests, and similar services, and provide reasonable auxiliary services as requested. Notify the Agency sufficiently in advance of operations to permit assignment of personnel. Auxiliary services required include, but are not limited to, the following:
 - 3.1 **Provide access to the Work.**
 - 3.2 **Furnish incidental labor and facilities necessary to facilitate inspections and tests.**
 - 3.3 **Take adequate quantities of representative samples of materials that require testing or assist the agency in taking samples.**
 - 3.4 **Provide facilities for storage and curing of test samples.**
 - 3.5 **Deliver samples to testing laboratories.**
 - 3.6 **Provide an approved design mix proposed for use for material mixes that require control by the testing agency.**
 - 3.7 **Provide security and protection of samples and test equipment at the Project Site.**
4. **Duties of the Testing Agency:** The independent testing agency engaged to perform inspections, sampling, and testing of materials and construction specified in individual Sections shall cooperate with the Construction Administrator, Architect and the Contractor in performance of the testing agency's duties. The testing agency shall provide qualified personnel to perform required inspections and tests.
 - 4.1 The testing agency shall notify the Construction Administrator and the Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 - 4.2 The testing agency is not authorized to release, revoke, alter, or enlarge requirements of the Contract Documents or approve or accept any portion of the Work.
 - 4.3 The testing agency shall not perform any duties of the Contractor.
5. Owner will pay for the services of an independent testing agency laboratory to perform inspections, tests and other services required by the Specifications except as noted below, listed for which the Owner will issue a deduct change order to cover the cost associated with these tests:
 - 5.1 When the Contractor notifies the Construction Administrator and/or Testing Agency less than **24 hours** before the expected time of testing.
 - 5.2 When the Contractor requires testing for his own convenience.
 - 5.3 When the Contractor schedules a test and is not ready for the required test.
6. Submit reports of tests that are part of the submittal requirements which indicate compliance or non-compliance with the specified standard.
7. See also General Conditions Article 16 "Inspections & Tests".

E. Submittals

1. Unless the Contractor is responsible for this service, the independent testing agency shall submit a certified written report, in duplicate, of each inspection, test, or similar service to the Construction Administrator. If the Contractor is responsible for the service, submit a certified written report, in duplicate, of each inspection, test, or similar service through the Contractor.
 - 1.1 Submit additional copies of each written report directly to the governing authority, when the authority so directs.
 - 1.2 Report Data: Written reports of each inspection, test, or similar service include, but are not limited to, the following:
 - 1.2.1 Date of issue.
 - 1.2.2 Project title and number.
 - 1.2.3 Name, address, and telephone number of testing agency.
 - 1.2.4 Dates and locations of samples and tests or inspections.
 - 1.2.5 Names of individuals making the inspection or test.

- 1.2.6 Designation of the Work and test method.
 - .1 Identification of product and Specification Section.
 - .2 Complete inspection or test data.
 - .3 Test results and an interpretation of test results.
 - .4 Ambient conditions at the time of sample taking and testing.
 - .5 Comments or professional opinion on whether inspected or tested Work complies with Contract Document requirements.
 - .6 Name and signature of laboratory inspector.
 - .7 Recommendations on re-testing.

F. Quality Assurance

- 1. **Qualifications for Service Agencies:** Engage inspection and testing service agencies, including independent testing laboratories, that are pre-qualified as complying with the National Voluntary Laboratory Accreditation Program and that specialize in the types of inspections and tests to be performed.
 - 1.1 Each independent inspection and testing agency engaged on the Project shall be authorized by authorities having jurisdiction to operate in the state where the Project is located.
- 2. **Mockups:** Provide full-size, physical assemblies that are constructed on-site. Mockups will be used to verify selections made under sample submittals, to demonstrate aesthetic effects and, where indicated, qualities of materials and execution, and to review construction, coordination, testing, or operation; they are not samples. *[Approved mockups establish the standard by which the Work will be judged.]*

G. Repair And Protection

General: Upon completion of inspection, testing, sample taking and similar services, repair damaged construction and restore substrates and finishes. Comply with Contract Document requirements for Division 01 **Section 01 73 29 "Cutting and Patching."**

- 1. Protect constructions exposed by or for quality-control service activities, and protect repaired construction.
- 2. Repair and protection is Contractor's responsibility, regardless of the assignment of responsibility for inspection, testing, or similar services.

End

**Section 01 40 00
Quality Requirements**

01 50 00 TEMPORARY FACILITIES AND CONTROLS

- A. **Summary:** Section 01 50 00 Temporary Facilities And Controls contains the following subsections:

01 51 13	Temporary Electricity And Lighting	Not Used <input type="checkbox"/>
01 51 16	Temporary Fire Protection	Not Used <input checked="" type="checkbox"/>
01 51 23	Temporary Heating, Cooling And Ventilating	Not Used <input checked="" type="checkbox"/>
01 51 33	Temporary Telecommunications	Not Used <input checked="" type="checkbox"/>
01 51 36	Temporary Water	Not Used <input type="checkbox"/>
01 52 13	Field Offices And Sheds	Not Used <input type="checkbox"/>
01 52 19	Temporary Sanitary Facilities	Not Used <input type="checkbox"/>
01 54 00	Construction Aids	Not Used <input type="checkbox"/>
01 55 13	Temporary Access Roads	Not Used <input checked="" type="checkbox"/>
01 55 16	Haul Routes	Not Used <input checked="" type="checkbox"/>
01 56 00	Temporary Barriers And Enclosures	Not Used <input type="checkbox"/>
01 56 43	Temporary Protection	Not Used <input type="checkbox"/>
01 57 19	Temporary Environmental Controls	Not Used <input checked="" type="checkbox"/>
01 57 21	Environmental Management	Not Used <input checked="" type="checkbox"/>
01 57 23	Temporary Storm Water Control	Not Used <input checked="" type="checkbox"/>
01 57 30	Indoor Environmental Control	Not Used <input checked="" type="checkbox"/>
01 57 40	Construction Indoor Air Quality Management Plan	Not Used <input checked="" type="checkbox"/>
01 58 13	Temporary Project Signage	Not Used <input type="checkbox"/>

01 51 13 TEMPORARY ELECTRICITY AND LIGHTING

- A. **Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. Power and lighting may be taken from the power company's nearest pole with temporary poles, if needed, to extend the line to project. If permanent power lines have been installed before beginning project, then temporary lines can be brought in from the last pole.
- C. Provide service required for construction with branch wiring and distribution boxes located to provide power and lighting by construction-type extension cords. Meter shall be provided and installed by the Contractor.
- D. Connect to existing service, provide branch wiring and distribution boxes located to provide power and lighting by construction-grade extension cords. Owner will pay cost of energy used. Take measures to conserve energy. Provide lighting for construction operations. At the termination of construction, return the facilities to their original condition.

01 51 36 TEMPORARY WATER

- A. **Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. Install water service and distribution piping of sizes and pressures adequate for construction until permanent water service is in use.
1. **Sterilization:** Sterilize temporary water piping prior to use.
- C. **Existing Water Service:** Water for construction purposes may be taken from the existing service. The Contractor shall provide connections, approved backflow prevention device, meter and pipe to the water main or nearest hydrant, subject to the approval of DAS/CS. Upon completion of work, the Contractor shall remove the temporary connections and backfill if necessary. If new water service is installed before construction is complete, the new system may be used provided it is returned to the Owner in as-new condition. The Contractor shall pay for the water used, as metered.

01 52 13 FIELD OFFICES AND SHEDS

- A. Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. Support Facilities Installation: Not required**
- C. General Contractor Provided Field Offices/Equipment: Not Required**
Storage and Fabrication Sheds: Install storage and fabrication sheds sized, furnished, and equipped to accommodate materials and equipment involved, including temporary utility service. Sheds may be open shelters or fully enclosed spaces within the building or elsewhere on-site.
 - 1. Storage sheds for tools, materials and equipment shall be weathertight with heat, lighting and ventilation for products requiring controlled conditions.
 - 2. Remove temporary materials, equipment services and construction before Substantial Completion.
 - 3. Clean and repair damage caused by installation or use of temporary facilities. Restore existing facilities used during construction to be specified or to original condition.

01 52 19 TEMPORARY SANITARY FACILITIES

- A. Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. General Contractor's Construction Work:** Provide toilet facilities for General Contractor's and subcontractor's employees engaged on the Project, including employees of other contractors in accordance with the OSHA Table D-1 (29CFR CH.XVII, OSHA Standard 1926.51)_below. Locate toilets where directed and maintain them in a sanitary condition.

Number Of Employees	Minimum Number Of Facilities*
20 or less	1 toilet
20 or more	1 toilet and 1 urinal per 40 employees
200 or more	1 toilet and 1 urinal per 50 employees
*Toilet/Urinal Combinations shall count as only one facility.	

- 1. Job sites, not provided with a sanitary sewer, shall be provided with one of the following toilet facilities unless prohibited by State Codes:
 - 1.1 Chemical toilets;
 - 1.2 Recirculating toilets;
 - 1.3 Combustion toilets.
- 2. Inside buildings, locate toilet facilities no more than 4 stories or 60 feet above or below, nor more than 500 feet travel on the same level from the work location of any person.
- 3. Locate toilet facilities no more than 1000 feet from any work location.
- C.** The General Contractor shall provide, where directed, chemical toilets with toilet tissue, plus wash basins with water, soap and paper towels. The General Contractor shall maintain the facilities in a sanitary condition.
- D.** If women are employed in the work, provide separate, designated facilities for them of the same kind. Provide an adequate number of each kind of facility for each gender.

01 54 00 CONSTRUCTION AIDS

- A. Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B.** The General Contractor shall furnish tools, apparatus and appliances, hoists and/or cranes and power for same, scaffolding, runways, ladders, temporary supports and bracing and similar work or material necessary to insure convenience and safety in the execution of the Contract Documents except where this is otherwise specified in any Technical Specification Section. All such items shall meet the approval of DAS/CS but responsibility for design, strength, and safety shall remain with the General Contractor. All such items shall comply with

Federal OSHA regulations and applicable codes, statutes, rules and regulations, including compliance with the requirements of the current edition of the "Manual of Accident Prevention in Construction" published by the A.G.C. (Associated General Contractors of America) and the standards of the Connecticut Department of Labor (DOL).

- C. Staging/laydown areas, exterior, and interior, required for the execution of the Contract Documents, shall be furnished, erected, relocated if necessary, and removed by the general Contractor. Staging/laydown shall be maintained in a safe condition without charge to the Owner and for the use of all trades as needed.

01 56 43 TEMPORARY PROTECTION

- A. **Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. Protect buildings, equipment, furnishings, grounds, and plantings from damage. Any damage shall be repaired or otherwise made good at no expense to the State.
- C. Provide protective coverings and barricades to prevent damage. The General Contractor shall be held responsible for, and must make good at his own expense, any water, or other type of damage due to improper coverings. Protect the public and building personnel from injury.
- D. Provide temporary protection for installed products. Control traffic in immediate area to minimize damage.
- E. Provide protective coverings for walls, projections, jambs, sills and soffits of openings. Protect finished floors and stairs from traffic, movement of heavy objects and storage. Prohibit traffic and storage on waterproofed and roofed surfaces and on lawn and landscaped areas.
- F. See also **Division 00 General Condition, Article 19 "Protection of the Work, Persons, and Property.**

01 57 19 TEMPORARY ENVIRONMENTAL CONTROLS

- A. **Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. **Temporary Environmental Controls:** General Contractor is to provide the following controls.
 - 1. **Rodent and Pest Control:** Before deep foundation work has been completed, retain a local exterminator or pest control company to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests. Employ this service to perform extermination and control procedures at regular intervals so the Project will be free of pests and their residues at materials.
 - 2. Dust Control (construction and demolition);
 - 3. Noise Control;
 - 4. Pollution Control;
 - 5. Traffic Control.

01 58 13 TEMPORARY PROJECT SIGNAGE

- A. **Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. **Project Sign:** General Contractor shall engage an experienced sign painter to apply graphics. The General Contractor shall request the Construction Administrator shall provide the General Contractor with all of the detailed illustration of the sign of the project sign, including but limited, format, wording, font size, color selection, and State Seal. Within seven (7) Calendar Days of the Date of the Commencement of the Work the General Contractor shall erect a Project Sign at the construction site, in a location designated by the DAS/CS Project Manager and Construction Administrator.
 - 1. **Groundbreaking Ceremonies Sign:** For groundbreaking ceremonies only, provide a temporary tripod for the sign illustrated and described below. Make the tripod of 12 ft long 2" x 4"s (Stud Grade), beveled and bolted at the top. Provide approximately 5-ft between legs at grade. Provide a 6-ft long, 2" x 4" seat for the sign; locate 5-ft above grade and nail in place. Nail sign at four (4) places where edges intersect tripod legs. Drive a 24" long, pointed 2" x 4" stake into the earth next to each leg and nail to legs.

2. **Project Sign:** The General Contractor shall fabricate the Project Sign as follows:
 - 2.1 ¼ inch, exterior grade, A-B Fir plywood;
 - 2.2 mounted on preservative treated fir posts;
 - 2.3 painted both sides and all edges of sign and the posts with two coats of exterior, white, alkyd primer;
 - 2.4 borders and letters painted with "bulletin" (sign) paint;
 - 2.5 have a self-adhesive decal of the State seal to be provided by the Construction Administrator;
3. **Project Sign Detail:** Sign letter sizes, fonts, colors and related information are shown in the illustration available for download from the on-line DAS website (www.ct.gov/das) > Doing Business With The State > State Building Construction > State Building Construction Projects – Publications and Forms > 3000 Series.
- C. The General Contractor shall remove and properly dispose of the Project Sign within **seven (7)** Calendar days after Acceptance of the Work of the project.

End
Section 01 50 00
Temporary Facilities And Controls

01 60 00 PRODUCT REQUIREMENTS

A. **Summary:** Section 01 60 00 Product Requirements contains the following subsections:

01 60 00	Product Requirements
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01 60 00 PRODUCT REQUIREMENTS

- A. **Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. **Materials and Equipment:** Shall be delivered, stored and handled to prevent intrusion of foreign matter and damage by weather or breakage. Packaged materials shall be delivered and stored in original, unbroken packages.
1. Promptly inspect shipments to assure that products comply with requirements, that quantities are correct and products are undamaged.
 2. Packages, materials and equipment showing evidence of damage will be rejected and replaced at no additional cost to the Owner.
- C. **Storage and Protection:**
1. Store products in accordance with manufacturers' instructions with seals and labels intact and legible. Store sensitive products in weathertight enclosures; maintain within temperature and humidity range required by manufacturer.
 2. For exterior storage of fabricated products, place on sloped supports above ground. Cover products subject to deterioration with impervious sheet covering; provide ventilation to avoid condensation.
 3. Store loose granular material on solid surfaces in a well-drained area; prevent mixing with foreign matter.
 4. Arrange storage to provide access for inspection. Periodically inspect to insure products are undamaged and are maintained under required conditions. Keep log showing date, time and problems, if any.
 5. Stone, masonry units and similar materials shall be stored on platforms or dry skids and shall be adequately covered and protected against damage.
 6. The Contractor shall prepare, as directed by the Owner, one area or space in the building for storage of State-owned equipment.

End
Section 01 60 00
Product Requirements

01 70 00 EXECUTION AND CLOSEOUT REQUIREMENTS

- A. **Summary:** Section 01 70 00 Execution and Closeout Procedures contains the following subsections:

01 71 23	Field Engineering	Not Used <input type="checkbox"/>
01 73 29	Cutting and Patching	Not Used <input type="checkbox"/>
01 74 13	Progress Cleaning	Not Used <input type="checkbox"/>
01 74 19	Construction Waste Management & Disposal	Not Used <input checked="" type="checkbox"/>
01 75 00	Starting And Adjusting	Not Used <input checked="" type="checkbox"/>
01 77 00	Closeout Procedures	Not Used <input type="checkbox"/>
01 78 23	Operation And Maintenance Data	Not Used <input checked="" type="checkbox"/>
01 78 30	Warranties And Bonds	Not Used <input type="checkbox"/>

01 71 23 FIELD ENGINEERING

- A. **Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. The General Contractor shall provide field engineering services to establish and record grades, lines, and elevations.
- C. The General Contractor shall retain a Professional Engineer or Land Surveyor registered by the State of Connecticut to lay out the building, underground utility lines, and other site work from the horizontal and vertical control information furnished by the Owner and to establish and record the necessary elevations, at no additional cost to the State.
- D. The General Contractor shall forward a letter from his Land Surveyor or Professional Engineer stating that the control information furnished by the Owner is accurate or shall identify inaccuracies, if they exist. The General Contractor shall not take advantage of errors, which may be included in the control information. Stakes and markings shall be preserved.

01 73 29 CUTTING AND PATCHING

- A. **Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. It is the responsibility of the Contractor to provide chases, channels or openings where needed.
- C. The Contractor shall install sleeves, inserts, and hangers furnished by the trades needing same.
- D. After installing work into openings, channels, and/or chases, the Contractor shall close same. If finishes are to be restored, the new work shall match the original and shall be done by the trade customarily responsible for the particular kind of work.
- E. Written permission shall be obtained from the Contractor before cutting beams, arches, lintels or other structural members.
- F. Requirements for Structural Work: Do not cut and patch structural elements in a manner that would change their load-carrying capacity or load-deflection ratio.
1. Contractor shall obtain written approval from the Architect/Engineer of the cutting and patching proposal before cutting and shall submit all Architect/Engineer approval letters to the Construction Administrator before patching the following structural elements:
 - 1.1 **Foundation construction.**
 - 1.2 **Bearing and retaining walls.**
 - 1.3 **Structural concrete.**
 - 1.4 **Lintels.**
- G. Do cutting and patching to integrate all elements of the work. Provide penetrations of existing surfaces. Provide samples for testing. Seal penetrations through floors, walls, ceilings, and roofs, as applicable; restore or preserve fire-rated and smoke-barrier construction. Construction and finishes shall match original work.

- H. The Contra shall verify dimensions for built-in work and/or work adjoining that of other trades before ordering any material or doing any work. Discrepancies shall be submitted to the Construction Administrator before proceeding with the work.
- I. Existing Warranties: Replace, patch, and repair material and surfaces cut or damaged by methods and with materials in such a manner as not to void any warranties required or existing.
- J. Also see Division 00 General Conditions **Article 23 “Cutting, Fitting, Patching, and Digging”**.

01 74 13 PROGRESS CLEANING

- A. **Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. **This Section includes:**
 - 1. Cleaning requirements during construction operations.
 - 2. Final cleaning prior to turning the project over to the Owner.
- C. **Quality Assurance**
 - 1. Coordinate with **Section 01 57 21 – Environmental Management**.
 - 2. Coordinate with **Section 01 77 00 – Closeout Procedures**.
 - 2.1 Contractor shall provide progress cleaning that minimizes sources of food, water, and harborage available to pests.
- D. Utilize non-toxic cleaning materials and methods also meeting the requirement of the Secretary of the Interior's Standards for Rehabilitation.
 - 1. Use natural cleaning materials where feasible. Natural cleaning materials include:
 - 1.1 abrasive cleaners: substitute 1/2 lemon dipped in borax.
 - 1.2 ammonia: substitute vinegar, salt and water mixture, or baking soda and water.
 - 1.3 disinfectants: substitute 1/2 cup borax in gallon water.
 - 1.4 drain cleaners: substitute 1/4 cup baking soda and 1/4 cup vinegar in boiling water.
 - 1.5 upholstery cleaners: substitute dry cornstarch.
- E. Maintain areas under the General Contractor's control free of waste materials, debris, and rubbish. Maintain in a clean and orderly condition.
- F. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces before closing the space.
- G. Periodically clean interior areas before start of surface finishing and continue cleaning on an as-needed basis.
- H. The General Contractor shall control cleaning operations so that dust and other particulates will not adhere to wet or newly-coated surfaces.
- I. Remove waste materials, debris, and rubbish from site daily and dispose of legally off-site. No scrap/debris shall remain inside the building or anywhere on site upon final acceptance of the project.
- J. **Final Cleaning:**
 - 1. At completion of Work, remove all remaining waste materials, rubbish, tools, equipment, machinery and surplus materials, and clean all exposed surfaces; leave Project clean and ready for occupancy.
 - 1.1 After review of trees to remain by Architect and Owner, remove tree tags.
 - 1.2 Provide final cleaning in accordance with ASTM E1971 and the approved Integrated Pest management (IPM) plan.
- K. See also **Division 00 General Conditions, Article 24 “Cleaning Up”**.

01 77 00 CLOSEOUT PROCEDURES

- A. Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. Substantial Completion:**
1. Upon completion of the work, the General Contractor shall submit to the State a Certificate of Substantial Completion wherein the General Contractor certifies that all conditions of the Contract Documents have been met, and that the facility is ready for occupancy by the Agency. Issuance of a Certificate of Substantial Completion by the Owner shall be a pre-condition for payment by the Owner.
 - 1.1 **Preliminary Procedures: Before requesting inspection for Certification of Substantial Completion, complete the following. List exceptions in the request.**
 - 1.2 **In the Application for Payment that coincides with, or first follows, the date Substantial Completion is claimed, show 100 percent (100%) completion for the portion of the Work claimed as substantially complete.**
 - 1.2.1 **Include supporting documentation for completion as indicated in the Contract Documents and a statement showing all accounting of the Contract Documents.**
 - 1.2.3 **If 100 percent (100%) completion cannot be shown, include a list of incomplete items, the value of incomplete construction, and reasons the Work is not complete shall be provided as well as a schedule for completion of work.**
 - 1.3 **Advise the Owner of pending insurance changeover requirements.**
 - 1.4 **Submit specific warranties, workmanship bonds, maintenance agreements, final certifications, and similar documents.**
 - 1.5 **Obtain and submit releases enabling the Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.**
 - 1.6 **Submit as-built record drawings, maintenance manuals, damage or settlement surveys, property surveys, and similar final record information.**
 - 1.7 **Deliver tools, spare parts, extra stock, and similar items.**
 - 1.8 **Complete final cleanup requirements, including touchup painting.**
 - 1.9 **Touch up and otherwise repair and restore marred, exposed finishes.**
 - 1.10 **Compliance with other terms as outlined in the Contract Documents.**
 - 1.11 **List of all the General Contractor's suppliers, sub-contractors, etc. Include name of firm, address, FEIN number and CT Tax I.D. number.**
 2. **Inspection Procedures:** The General Contractor shall be ready and prepared when they request a Substantial Completion inspection. If the inspection reveals that the work is not complete, there are extensive punchlist items and as the items listed above are not complete, the Construction Administrator, Owner, and Agency will determine the inspection has failed.
 3. The General Contractor is responsible for all costs to re-inspect due to a failed inspection.
 - 3.1 The General Contractor will repeat inspection when requested and assured that the Work is substantially complete.
 - 3.2 Results of the completed inspection will form the basis of requirements for Acceptance of the Work.
- C. Acceptance of the Work**
1. **Preliminary Procedures:** Before requesting a Final Inspection and Certificate of Acceptance and Final Payment, complete the following. List exceptions in the request.
 - 1.1 Submit a request for the Final Inspection and Certificate of Acceptance, with releases and supporting documentation not previously submitted and

- accepted. Include insurance certificates for products and completed operations where required. Submit an updated final statement, accounting for final additional changes to the Contract Sum.
- 1.2 Submit a certified copy of the Architect's Final Inspection list of items to be completed or corrected, endorsed and dated by the Architect. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance and shall be endorsed and dated by the Architect.
 - 1.3 Submit final meter readings for utilities, a measured record of stored fuel, and similar data as of the date of Substantial Completion or when the Owner took possession of and assumed responsibility for corresponding elements of the Work.
 - 1.4 Submit consent of surety to Final Payment.
 - 1.5 Submit evidence of final, continuing insurance coverage complying with insurance requirements.
- D. Reinspection Procedure:** The Inspection Group will re-inspect the Work upon receipt of notice from the Construction Administrator that the Work, including inspection list items from earlier inspections, has been completed, except for items whose completion is delayed under circumstances acceptable to the Owner.
1. Upon completion of re-inspection, the Construction Administrator will prepare a Certificate of Acceptance for issuance by the Owner. If the Work is incomplete, the Construction Administrator will advise the General Contractor of Work that is incomplete or of obligations that have not been fulfilled but are required for Acceptance.
- E.** Issuance of a Certificate of Acceptance, in accordance with CGS § 4-61(b)(2) as amended, by the Owner does not alter the responsibility of the General Contractor to complete all Work in accordance with the Contract Documents.
- F. General Contractor's Record Documents:** Within **thirty (30)** Calendar Days after receipt of the General Contractor's "As-Built Drawings" the Architect/Engineers shall convert the General Contractor "As-Built" information into an electronic CADD format as required by the Owner, using the original Architect/Engineer contract documents as base drawings. The Architect shall produce "Record Documents" that show all of the significant modifications made during the course of the project.. The Architect's shall produce **two (2)** sets of electronic CADD format "Record Documents" on electronic media as required by the Owner and (1) set of reproducible Mylar's "Record Documents". The original Mylar "Cover Sheet" that includes the original Architect/Engineer Team Members dated signatures and professional seals shall be the Record Documents Cover Sheet. The Architect's final "Record Documents" (electronic media and reproducible Mylar's) shall be made at the Architect's expense and shall become the property of the State.
- G. General Contractor's Record Specifications:** The General Contractor shall maintain one complete copy of the Project Manual, Include with the Project Manual one copy of other written construction documents, such modifications issued in printed form during construction.
1. Mark these documents to show substantial variations in actual Work performed in comparison with the text of the Specifications and modifications.
 2. Give particular attention to the Technical Specifications and selection of options and information on concealed construction that cannot otherwise be readily discerned later by direct observation.
 3. Note related record drawing information and Product Data.
 4. Upon completion of the Work, submit record Specifications to the Construction Administrator for the Owner's records.
- H. General Contractor's As-Built Product Data:** The General Contractor shall maintain one copy of each As-Built Product Data submittal and a markup of record drawings and As-Built Specifications.
1. Mark these documents to show significant variations in actual Work performed in comparison with information submitted. Include variations in products delivered to the site and from the manufacturer's installation instructions and recommendations.
 2. Give particular attention to concealed products and portions of the Work that cannot otherwise be readily discerned later by direct observation.

3. Upon completion of markup, submit complete set of As-Built Product Data to the Construction Administrator for the Owner's records.
 4. The Architect and Engineers will be responsible for the accuracy of As-Built Drawings.
- J. General Contractor's Record Sample Submitted:** Immediately prior to Substantial Completion, the appropriate Architect/Engineer Team Members shall meet with the Owner, Construction Administrator, and the Agency's personnel at the Project Site to determine which Samples are to be transmitted to the Owner for record purposes. Comply with the Owner/Agency instructions regarding delivery to the Owner/Agency Sample storage area.
- K. General Contractor's Miscellaneous Record Submittals:** Refer to other Specification Sections for requirements of miscellaneous record keeping and submittals in connection with actual performance of the Work. Immediately prior to the date or dates of Substantial Completion, complete miscellaneous records and place in good order. Identify miscellaneous records properly and bind or file, ready for continued use and reference. Submit to the Construction Administrator for the Owner's records.
- L. Maintenance Manuals:** Organize operation and maintenance data into suitable sets of manageable size. Bind properly indexed data in individual, heavy-duty, **2-inch, 3-ring**, vinyl-covered binders, with pocket folders for folded sheet information. Mark appropriate identification on front and spine of each binder according to Section **01 78 23 "Operation and Maintenance Data"**. The manual shall include, but not be limited to, the following types of information:
1. **Attic stock list.**
 2. **Copies of warranties.**
 3. **Inspection procedures.**
 4. **Shop Drawings and Product Data.**
 5. **List of vendors and addresses.**
- M. Closeout Procedures:**
1. Operation and Maintenance Instructions: Arrange for each Installer of equipment that requires regular maintenance to meet with the Agency's personnel to provide instruction in proper operation and maintenance. Provide instruction by manufacturer's representatives if installers are not experienced in operation and maintenance procedures. Include a detailed review of the following items:
 - 1.1 **Maintenance manuals.**
 - 1.2 **Record documents.**
 - 1.3 **Cleaning.**
 - 1.4 **Warranties and bonds.**
 2. As part of instruction for operating equipment, demonstrate the following procedures:
 - 2.1 **Economy and efficiency adjustments.**
 - 2.2 **Effective energy utilization.**
- N. Final Cleaning:**
1. **General:** The Contract Documents require general cleaning during construction. Regular site cleaning is included in **Section 01 74 13 "Progress Cleaning"**.
 2. Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to the condition expected in a normal, commercial building cleaning and maintenance program. Comply with manufacturer's instructions. Complete the following cleaning operations before requesting inspection for Certification of Substantial Completion and Certification of Occupancy.
 3. **Interior: N/A**
 4. **Exterior:**
 - 4.1 Clean the site, including landscape development areas, of rubbish, litter, and other foreign substances. Sweep paved areas broom clean; remove stains, spills, and other foreign deposits. Rake grounds that are neither paved nor planted, to a smooth, even-textured surface.
 - 4.2 Clean exposed exterior hard-surfaced finishes to a dust-free condition, free of stains, films, and similar foreign substances

- 4.3 Clean roofs, gutters and downspouts.
- 4.4 Remove waste and surplus materials, rubbish and construction equipment and facilities from the site, and deposit it legally elsewhere.
- 4.5 Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other substances that are noticeable vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Remove paint spots; wash and polish glass.
- 5. **Pest Control:** N/A
- 6. **Removal of Protection:** Remove temporary protection and facilities installed for protection of the Work during construction.
- 7. **Compliance:** Comply with regulations of authorities having jurisdiction and safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on the Agency's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from the site and dispose of lawfully.
 - 7.1 Where extra materials of value remain after completion of associated Work, they become the Agency's property. Dispose of these materials as directed by the Construction Administrator.
 - 7.2 Leave building clean and ready for occupancy. If the Design Builder fails to clean up, the Owner may do so, with the cost charged to the Developer.

01 78 30 WARRANTIES AND BONDS

- A. **Related Documents:** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.
- B. **Summary:** This Section includes administrative and procedural requirements for warranties required by the Contract Documents, including manufacturer's standard warranties on products and special warranties.
 - 1. Refer to the General Conditions for terms of the General Contractor's period for correction of the Work.
- C. **Related Sections:** The following Sections contain requirements that relate to this Section:
 - 1. Division 01 Section **01 33 00 "Submittal Procedures"** specifies procedures for submitting warranties.
 - 2. Division 01 **Section 01 77 00 "Closeout Procedures"** specifies contract closeout procedures.
 - 3. Division 01 **Section 01 78 23 "Operation and Maintenance Data"** specifies required operation and maintenance data.
 - 4. The Divisions 02 through 49 Sections for specific requirements for warranties on products and installations specified to be warranted.
 - 5. Certifications and other commitments and agreements for continuing services to Owner are specified elsewhere in the Contract Documents.
- D. **Disclaimers and Limitations:** Manufacturer's disclaimers and limitations on product warranties do not relieve the General Contractor of the warranty on the Work that incorporates the products. Manufacturer's disclaimers and limitations on product warranties do not relieve the suppliers, manufacturers, and subcontractors required to countersign special warranties with the General Contractor.
- E. **Related Damages and Losses:** When correcting failed or damaged warranted construction, remove and replace construction that has been damaged as a result of such failure or must be removed and replaced to provide access for correction of warranted construction.
- F. **Reinstatement of Warranty:** When Work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.
- G. **Replacement Cost:** Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of the Contract Documents. The General Contractor is responsible for the cost of replacing or rebuilding

defective Work regardless of whether the Owner has benefited from use of the Work through a portion of its anticipated useful service life.

- H. **Owner's Recourse:** Expressed warranties made to the Owner are in addition to implied warranties and shall not limit the duties, obligations, rights, and remedies otherwise available under the law. Expressed warranty periods shall not be interpreted as limitations on the time in which the Owner can enforce such other duties, obligations, rights, or remedies.
 - 1. **Rejection of Warranties:** The Owner reserves the right to reject warranties and to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
- I. Where the Contract Documents require a special warranty, or similar commitment on the Work or part of the Work, the Owner reserves the right to refuse to accept the Work, until the General Contractor presents evidence that entities required to countersign such commitments are willing to do so.
- J. The General Contractor shall warranty all materials and workmanship for a period of **eighteen (18)** months from the date of Substantial Completion. In addition, the General Contractor shall furnish the warranties listed below. Submit four copies of each to the Architect in the supplier's standard form or in the form given below if there is no standard form available.
- K. **Specification/Warranty Table:** The General Contractor shall provide for all warranties as shown in the Specification/Warranty table:

Specification / Warranty Table

Item No.	Section No.	Specification Product/Warranty
1.	07 07 31 29	Wood Shingles (roofing, siding): 25 year for material and workmanship.
2.	07 07 71 23	Exterior - Interior Caulking and Sealants: 5 year, material and workmanship.
3.	09 09 90 00	Painting and Coatings: 3 year, material and workmanship.

Specification / Warranty Table (Continued)

Item No.	Section No.	Specification Product/Warranty
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- L. Submit certification that finish materials are fire rated as specified.
- M. Form of Warranty: Warranties shall be submitted in following format:

Warranty

Commissioner: (Insert Commissioner's Name)
Department of Administrative Services
Division of Construction Services
165 Capitol Avenue
Hartford, Connecticut 06106

Project Number: (Insert DAS Project Number)
Project Title: (Insert Project Title)

I (We) hereby warranty

the _____ work on the referenced project for a period of _____ years
 from _____, 20 _____ against failures of workmanship and materials in accordance
 with the requirements of Section _____, Page _____, Paragraph _____, of the Specifications.

Installer | Subcontractor | Vendor/Suppliers | Manufacturer

Installer or Subcontractor or Vendor/Suppliers or Manufacturer Name: _____

Installer or Subcontractor or Vendor/Suppliers or Manufacturer Signature: _____

General Contractor's Name _____

General Contractor's Signature: _____

or

General Contractor's Authorized Agent Signature: _____

- N. Bonds shall be by approved Surety Companies, made out to the Commissioner, Department of Administrative Services on companies' standard form.
- O. Warranties, Guarantees, or bonds supplied by the General Contractor's Subcontractors or Vendors/Suppliers or Manufacturers shall reference the project name, number, and location and be certified by the General Contractor to be for the product and installation on the project and must be countersigned by the General Contractor.
- P. **Submittals:**
 1. Submit written warranties prior to the date certified for Substantial Completion. If the General Contractor's Certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion for the Work, or a designated portion of the Work, submit written warranties upon request of the Owner.
 2. Forms for special warranties are included in this Section. Prepare a written document utilizing the appropriate form, ready for execution by the General Contractor's, and by the General Contractor's subcontractor or vendor/supplier, or manufacturer. Submit a draft to the Owner, through the Construction Administrator, for approval prior to final execution.
 - 2.1 Refer to the Divisions 02 through 48 Sections for specific content requirements and particular requirements for submitting special warranties.
 3. **Form of Submittal:** At Acceptance of the Work compile **two (2)** copies of each required warranty properly executed by the General Contractor, and by the General Contractor's subcontractor or vendor/supplier, or manufacturer. Organize the

warranty documents into an orderly sequence based on the table of contents of the Project Manual.

4. Bind warranties and bonds in heavy-duty, commercial-quality, durable 3-ring, vinyl-covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive **8-1/2-inch** by **11-inch (115-by-280-mm)** paper.
 - 4.1 Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product, and the name, address, and telephone number of the Installer.
 - 4.2 Identify each binder on the front and spine with the typed or printed title "WARRANTIES," DAS/CS Project Number, Project Title, name of the General Contractor, and name of General Contractor's subcontractor or vendor/supplier, or manufacturer.
 - 4.3 When warranted construction requires operation and maintenance manuals, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.

End

Section 01 70 00
Execution and Closeout Procedures

PART 1 - GENERAL

RELATED DOCUMENTS

Drawings and general provisions of Contract, including General and Supplementary General Conditions and Division-I Specification sections, apply to work of this section.

1.01 SUMMARY

- A. The work of this section includes, but is not limited to, the demolition and removal from the site of existing construction, materials and systems as indicated on Drawings. General items to be demolished include the following:
 - 1. Removal of existing damaged window sills, jambs, heads and sash as indicated.
 - 2. Removal of existing damaged siding.
 - 3. Removal of existing wood shingles to sheathing.
 - 4. Disconnect and reconnect siding mounted exterior light fixtures and wiring during painting. Electrical service drop to remain in place.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Carefully examine all of the Contract Documents for requirements which effect the work of this section. Certain construction, systems, or equipment identified in the Contract Documents or by the Architect in the field shall remain in-place or be removed and stored by others for future service and shall be protected.
- B. Other specification sections which directly relate to the work of this section include, but not necessarily limited to, the following:
 - 1. Section 01 11 00 – Summary of Work
 - 2. Section 01 73 29 - Cutting and Patching

1.04 PROJECT CONDITIONS

- A. Occupancy: Areas to be demolished will be unoccupied prior to start of work. Section 01 11 00 Summary of Work; occupancy requirements.
- B. Condition of Structures: Owner assumes no responsibility nor makes any claim as to the actual condition or structural adequacy of any existing construction to be demolished. The Contractor shall investigate and assure himself of the condition of the work to be demolished and shall take all precautions to ensure safety of persons and property.
- C. Salvage: Items of value which are not indicated to be returned to the Owner or reused on this project shall become the property of the Contractor. Storage or sale of items on the project site is prohibited.

1. Items indicated to be salvaged by owner shall be removed with extreme care to prevent damage. All components and parts of salvaged items shall be saved and packaged. Store salvaged items as directed by Owner or Architect. Items to be salvaged and returned to the Owner or reused on this project include, but are not limited to, the following:
 - a. Owner shall advise through Owner's Representative any additional items to be salvaged.

- D. Traffic: Conduct operations and removal of debris to ensure minimum interference with the normal use of public passages and other adjacent facilities. Do not close or obstruct traffic ways, corridors, streets, walks or other used facilities without the written permission of the Owner and authorities having jurisdiction.

- E. Protection: Ensure the safe passage of persons in and around the building during demolition. Prevent injury to persons and damage to property. Protect items to remain. Maintain fire protection systems in operation throughout the work of this project. Secure work areas and to prevent unauthorized entry into the work site.

- F. Dust and Noise Control: Take special care to control dust and noise to avoid creating a nuisance. Obtain Architect's and Owner's approval of means, methods and techniques use to control dust and noise.

- G. Utilities: Maintain all utilities except those requiring removal or relocation. Keep utilities in service and protect from damage. Do not interrupt utility serving used areas without first obtaining permission from the Building Owner. Provide temporary services as set forth in "General Requirements".

1.05 QUALITY ASSURANCE

- A. The work of this project involves a significant historic site. Old Newgate Prison is a National Register historic site. All work activities must be undertaken with sufficient care to protect this historic resource and must be supervised by personnel who are familiar with the Secretary of Interior's Standards for Rehabilitation.

- B. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section. Demolition Contractors will be required to provide evidence of qualifications. Comply with submittal requirements in 1.06, Submittals, of this Section.

- C. All activities which have the potential to disturb subsoils or otherwise disturb archaeological resources, shall be monitored by the Owner's archaeologist. Notify the Owner at least **three (3)** Calendar Days hours in advance of such activities.

- D. Provide testing services as specified in Section 04 01 20.19, Historic Masonry Testing of these Specifications.

1.06 SUBMITTALS

- A. Comply with pertinent provisions of Division 1, General Conditions.
- B. Submit qualifications, resumes and experience on similar projects, along with project profiles. Documentation shall include, but not be limited to:
 - 1. Resumes, training and employment in the applicable field;
 - 2. Evidence of possession of required licenses and/or business permits; and
 - 3. Evidence of at least **three (3)** years in the aggregate of on the job experience in historic preservation projects of a similar nature.

In addition to the documentation required above, provide a minimum of **three (3)** references, one of which is an Owner of a completed project of the Subcontractor and one of which is an Architect or Engineer for a completed project. Provide any additional information, including photographs, as applicable, in order to show historic preservation experience to be approved by the Architect and Owner prior to the start of the work.

For individual craftsmen, **three (3)** references from past employers will be required. The Architect, and Owner under this provision, may waive other requirements of this Specification Section.

- C. Submit detailed schedule indicating proposed methods and operations to be used in demolition. Include information for disconnecting utilities and legal disposal of refuse.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 DEMOLITION

- A. Demolish areas as noted on demolition plan and as indicated herein, completely and legally remove debris from site. Use demolition methods within limitations of governing regulations.
- B. Proceed with demolition systematically from top to bottom. Demolish in small sections and avoid overloading. Remove all associated adhesives, clips, hangers and other attachment devices with removal of finishes.
 - 1. Doors, Windows and Frames: Where doors and frames are indicated to be removed from walls or partitions which are to remain, remove doors and frames carefully so as to minimize damage to wall. Repair and patch wall as necessary to accommodate new doorframe or other new work. Protect exterior openings from weather.
- C. Upon completion of demolition work, all surfaces shall be broom clean and all nails, wires, hangers, and other items shall be removed down to bare substrates.

- D. Remove all debris from site and dispose of legally. Burning on site is not permitted.
- E. Pollutants:
1. Definitions:
 - a. Pollutants: means any solid, liquid, gaseous or thermal irritant or contaminant, including gas, alkalis, and chemicals, "waste" and any of the following: heat, smoke, vapor, soot or fumes.
 - b. Waste: includes, but is not limited to, materials to be recycled, reconditioned or reclaimed.
 2. In the event any "pollutants" are encountered, discharged, dispersed, released, or escaped in the performance of the work, the Contractor shall immediately notify the Owner.

END OF SECTION

PART 1 GENERAL

1.1 SCOPE

- A. Work under this item shall include the abatement of asbestos containing materials (ACM) and associated work by persons who are knowledgeable, qualified, trained and licensed in the removal, treatment, handling, and disposal of ACM and the subsequent cleaning of the affected environment. ACM shall include material composed of any type of asbestos in amounts greater than one percent (1%) by weight. The Contractor performing this work shall possess a valid Asbestos Abatement Contractor license issued by the Connecticut Department of Public Health (CTDPH).
- B. These Specifications govern all work activities that disturb asbestos containing materials. All activities shall be performed in accordance with, but not limited to, the current revision of the Occupational Safety and Health Administration (OSHA) General Industry Standard for Asbestos (29 CFR 1926.1001), the OSHA Asbestos in Construction Regulations (29 CFR 1926.1101), the United States Environmental Protection Agency (USEPA) Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP) Regulations (40 CFR Part 61 Subpart M), the CTDPH Standards for Asbestos Abatement, Licensure and Training (19a-332a-1 through 16, 20-440-1 through 9 & 20-441), and the Connecticut Department of Energy and Environmental Protection (CTDEEP) Special Waste Disposal Regulations (22a-209-8(i)).
- C. The asbestos abatement work shall include the removal and disposal of all exterior ACM as identified on the Contract drawings and Specifications prior to the planned renovation/demolition project. A full asbestos NESHAP survey was performed by TRC, Inc. for this site. The survey report is located in Division 50 00 00 Project-Specific Available Information Section at the end of the Technical Specification Sections. The CT Department of Administrative Services/Construction Services (CTDAS/CS) will retain the services of a State of Connecticut licensed Project Monitor for protection of its interests and those using the building.
- D. Deviations from these Specifications require the written approval of the Engineer and Owner.
- E. The Contractor may elect to utilize an Alternative Work Practice (AWP), if approved by the CTDPH and the Engineer/Owner prior to the initiation of the abatement activities. An AWP is a variance from certain CTDPH asbestos regulatory requirements, which must provide the equivalent or a greater measure of asbestos emission control than the standard work practices prescribed by the CTDPH.
- F. The Engineer/Construction Manager for this project will be TRC, Inc.

1.2 DESCRIPTION OF WORK

- A. The following details the extent of each phase of operation designated for this project. Phase areas may be combined or divided at the direction of the Engineer/Construction Manager.

Proceed through the sequencing of the work phases under the direction of the Engineer/Construction Manager.

- B. The asbestos abatement work shall include the removal of asbestos-containing materials as specified herein. This abatement project was designed by Mr. Donald LePage, a State of Connecticut licensed Asbestos Project Designer (#000233).

YELLOW COTTAGE (114 NEWGATE ROAD)

Exterior – First Floor & Second Floor

Includes the removal of:

- **Window caulking (WC1)**

Notes:

- **ACM window caulking (WC1) will be impacted and removed, as part of the paint stabilization described in Section 028313. Removal of all ACM window caulking is part of this scope.**
- **Window caulking (WC1) also contains lead paint, therefore any impact to abatement of this material will also coincide with lead paint activity as outlined in Section 028313.**
- **All windows with ACM window caulking are to remain, unless otherwise noted on the contract drawings. The caulking is to be removed, keeping glass panes and windows wholly intact to be re-caulked and re-used.**

A regulated area(s) shall be established at the perimeter of the work area(s), and access shall be controlled by the Contractor. A remote personnel decontamination unit shall be utilized. Removal shall be undertaken in accordance with OSHA Class II and USEPA Asbestos NESHAP requirements. Visual inspection shall be performed by project monitor prior to work area being deregulated. No containment required for exterior abatements. See drawing ASB-1 located in Division 50 00 00 Project-Specific Available Information at the end of the Technical Specifications Sections for ACM locations.

WHITE COTTAGE (105 NEWGATE ROAD)

Exterior – Basement

Includes the removal of:

- **Window glazing (WG2)**

Notes:

- **ACM window glazing (WG2) will be impacted and removed, as part of the paint stabilization described in Section 028313. Removal of all ACM window glazing is part of this scope.**

- **Window glazing (WG2) also contains lead paint, therefore any impact to abatement of this material will also coincide with lead paint activity as outlined in Section 028313.**
- **All windows with ACM window glazing are to remain, unless otherwise noted on the contract drawings. The glazing is to be removed, keeping glass panes and windows wholly intact to be re-glazed and re-used.**

A regulated area(s) shall be established at the perimeter of the work area(s), and access shall be controlled by the Contractor. A remote personnel decontamination unit shall be utilized. Removal shall be undertaken in accordance with OSHA Class II and USEPA Asbestos NESHAP requirements. Visual inspection shall be performed by project monitor prior to work area being deregulated. No containment required for exterior abatements. See drawing ASB-2 located in Division 50 00 00 Project-Specific Available Information at the end of the Technical Specifications Sections for ACM locations.

VIETS TAVERN (106 NEWGATE RD)

No asbestos containing materials were discovered at the Viets Tavern

1.3 DEFINITIONS

Accessible - A space easily accessed and which can be entered or seen without demolition.

Adequately Wet - Sufficiently mix or penetrate with liquid to prevent the release of particulates. If visible emissions are observed coming from asbestos-containing material, then that material has not been adequately wetted. However, the absence of visible emissions is not sufficient evidence of being adequately wet.

AHERA - Asbestos Hazard Emergency Response Act - U. S. EPA regulation 40 CFR Part 763 under Section 203 of Title II of the Toxic Substances Control Act (TSCA), 15 U.S.C. 2643. This rule mandates inspections, accreditations of persons involved with asbestos, and -final air clearances following abatement in public and private schools, and public and commercial buildings.

Alternative Work Practice (AWP) - State of Connecticut Department of Public Health - approved deviation from Asbestos Standards (Sections 19a-332a-1 to 19a-332a-16 inclusive). Alternative Work Practice methods may be used if pre-approved by DPH or with the approval of DPH, the Design Consultant and the CTDAS/CS Project Monitor when not pre-approved. Approval of alternative work practice procedures shall not relieve the Contractor from any codes, regulations or standards required by this specification.

Asbestos - The term asbestos includes chrysotile, amosite, crocidolite, asbestiform tremolite, asbestos, anthophyllite asbestos, actinolite asbestos and any of these minerals that has been chemically treated and/or altered.

Asbestos Abatement - The removal, encapsulation, enclosure, renovation, repair, demolition or other disturbance of asbestos-containing materials except activities which are related to the removal or repair of asbestos cement pipe and are performed as defined in Section 25-32a of the Connecticut General Statutes.

Asbestos-Containing Waste Materials - Mill tailings or any waste that contains commercial asbestos and is generated by a source subject to the provisions of this subpart. This term includes filters from control devices, friable asbestos waste material, and bags or other similar packaging contaminated with commercial asbestos. As applied to demolition and renovations operations, this term also includes regulated asbestos-containing material waste and materials contaminated with asbestos including disposable equipment and clothing.

Asbestos Control Area - An area where asbestos abatement operations are performed which is isolated by physical boundaries which assist in the prevention of the uncontrolled release of asbestos dust, fibers, or debris. Two examples of an Asbestos Control Area are a "full containment" and a "glovebag".

Asbestos Fiber - A particulate form of asbestos, tremolite, anthophyllite, actinolite, or a combination of these minerals having a length of five micrometers or longer, with a length-to-diameter ratio of at least 3 to 1.

Authorized Asbestos Disposal Facility - A location approved by the Connecticut Department of Environmental Protection for handling and disposing of asbestos waste or by an equivalent regulatory agency if the material is disposed of outside the State of Connecticut.

Category I Non-Friable Asbestos-Containing Material (ACM) - Asbestos-containing packings, gaskets, resilient Floor coverings and asphalt roofing products containing more than 1 percent asbestos as determined using the method specified in Appendix A, subpart F, 40 CFR part 763, section 1, Polarized Light Microscopy.

Category II Non-Friable ACM - Any material, excluding Category I non-friable ACM, containing more than 1 percent asbestos as determined using the method specified in Appendix A, subpart F, 40 CFR part 763, section 1, Polarized Light Microscopy that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Class I Asbestos Work - Activities involving the removal of TSI and surfacing ACM and PACM.

Class II Asbestos Work - Activities involving the removal of ACM which is not TSI or surfacing material. This includes, but is not limited to, the removal of asbestos-containing wallboard, floor tile and sheeting, roofing and siding shingles, and construction mastics.

Class III Asbestos Work - Repair and maintenance operations, where ACM, including TSI and surfacing material, is likely to be disturbed.

Class IV Asbestos Work - Maintenance and custodial activities during which employees contact ACM and PACM and activities to clean up waste and debris containing ACM and PACM.

Competent Person - In addition to the definition in 29 CFR 1926.32(f), one who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure, who has the authority to take prompt corrective measures to eliminate them, as specified in 29 CFR 1926.32(f): in addition, for Class I and Class II work who is specifically

trained in a training course which meet the criteria of EPA's Model Accreditation Plan (40 CFR 763).

Concealed Space - Space which is out of sight. Examples of a concealed space include area above ceilings; below floors; between double walls; furred-in areas; pipe and duct shafts; and similar spaces.

Critical Barrier - A minimum of two layers of six (6) mil polyethylene sheeting taped securely over windows, doorways, diffusers, grilles and any other openings between the Work Area and uncontaminated areas outside of the Work Area, including the outside of the building.

Decontamination Enclosure System - A series of rooms separated from the Work Area and from each other by air locks, for the decontamination of workers and equipment.

Demolition - The wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations or the intentional burning of any facility.

DEEP - The Connecticut Department of Energy and Environmental Protection, 79 Elm Street, Hartford, CT 06106.

DPH - The Connecticut Department of Public Health, 410 Capitol Avenue, Hartford, CT 06134.

Differential Pressure - A difference in the static air pressure between the Work Area and occupied areas, and is developed by the use of HEPA filtered exhaust fans. This differential is generally in the range of 0.02 to 0.04 inches of water column.

Encapsulant - Specific materials in various forms used to chemically entrap asbestos fibers in various configurations to prevent these fibers from becoming airborne. There are four types of encapsulant as follows:

1. Removal Encapsulant (can be used as a wetting agent).
2. Bridging Encapsulant (used to provide a tough durable surface coating to asbestos-containing material).
3. Penetrating Encapsulant (used to penetrate the asbestos containing material down to substrate, encapsulating all asbestos fibers).
4. Lock-down Encapsulant (used to seal off "lock-down" minute asbestos fibers left on surfaces from which asbestos containing materials have been removed).

Encapsulation - The application of an encapsulant to asbestos-containing building materials to control the possible release of asbestos fibers into the air.

Engineering Controls - Controls to include, but not be limited to, pressure differential equipment, decontamination enclosures, critical barriers and related procedures.

Equipment Decontamination Enclosure System - The portion of a Decontamination Enclosure System designed for controlled transfer of materials and equipment into or out of the Work Area, typically consisting of a Washroom and a Holding Area.

Exposed - Open to view.

Finished Space - Space used for habitation or occupancy where rough surfaces are plastered, paneled or otherwise treated to provide a pleasing appearance.

Fixed Critical Barrier - Barrier constructed of 2" x 4" wood or metal framing 16" O.C., with plywood on the occupied side and two layers of six (6) mil polyethylene sheeting on the Work Area side to prevent unauthorized access or air flow.

Fixed Object - A piece of equipment or furniture in the Work Area which cannot be removed from the Work Area, as determined by the Design Consultant.

Friable Asbestos Material - Material containing more than 1 percent asbestos as determined using the method specified in Appendix A, subpart F, 40 CFR part 763, Section 1, Polarized Light Microscopy, that when dry can be crumbled, pulverized or reduced to powder by hand pressure. If the asbestos content is less than 10 percent as determined by a method other than point counting by polarized light microscopy (PLM), verify the asbestos content by point counting using PLM.

Glovebag - A sealed compartment with attached inner gloves used for the handling of asbestos-containing materials. Properly installed and used glovebags provide a small Work Area enclosure typically used for small scale asbestos stripping operations. Information on glovebag installation, equipment and supplies, and work practices is contained in 29 CFR 1926.1101).

Glovebag Technique - A method with limited applications for removing small amounts of friable asbestos-containing material from HVAC ducts, short piping runs, valves, joints, elbows, and other non-planar surfaces in a non-contaminated work area. The glovebag assembly is a manufactured or fabricated device consisting of a glovebag (typically constructed of six (6) mil polyethylene or polyvinyl chloride plastic), two inward projecting long sleeves, an internal tool pouch, and an attached, labeled receptacle for asbestos waste. The glovebag is constructed and installed in such a manner that it surrounds the object or material to be removed and contains all asbestos fibers released during the process. This technique requires AWP application and may only be used if pre-approved by DPH or with the approval of the Design Consultant and DPH when not pre-approved.

HEPA Filter Equipment - High-efficiency particulate air (HEPA) filtered vacuum and/or exhaust ventilation equipment with a filter system capable of trapping and retaining asbestos fibers. Filters shall be of 99.97 percent efficiency for retaining fibers of 0.3 microns in diameter or larger.

Inaccessible - A space not accessible and which cannot be entered or seen without demolition.

Lock-Down - The procedure of spraying polyethylene sheeting and building materials with an encapsulant type sealant to seal in non-visible asbestos-containing residue.

Mini-Containment - A procedure using a single layer of polyethylene sheeting to contain the Work Area. Access to the mini-containment is controlled by an air lock which also serves as a Holding

Area. This procedure requires AWP application and may only be used if pre-approved by DPH or with the approval of the Design Consultant and DPH when not pre-approved.

Movable Object - A piece of equipment or furniture in the Work Area which can be removed from the Work Area, as determined by the Design Consultant.

Negative Exposure Assessment - For any one specific asbestos job which will be performed by employees who have been trained in compliance with the standard, the employer may demonstrate that employee exposures will be below the PELs by data which conform to the following criteria:

1. Objective data demonstrating that the product or material containing asbestos minerals or the activity involving such product or material cannot release airborne fibers in concentrations exceeding the TWA and excursion limit under those work conditions having the greatest potential for releasing asbestos; or
2. Where the employer has monitored prior asbestos jobs for the PEL and the excursion limit within 12 months of the current or projected job, the monitoring and analysis were performed in compliance with the asbestos standard in effect; and the data were obtained during work operations conducted under workplace conditions closely resembling the processes, type of material, control methods, work practices, and environmental conditions used and prevailing in the employer's current operations, the operations were conducted by employees whose training and experience are not more extensive than that of employees performing the current job, and these data show that under the conditions prevailing and which will prevail in the current workplace there is a high degree of certainty that employee exposures will not exceed the TWA and excursion limit; or
3. The results of initial exposure monitoring of the current job made from breathing zone air samples that are representative of the 8-hour TWA and 30-minute short-term exposures of each employee covering operations which are most likely during the performance of the entire asbestos job to result in exposures over the PELs.

Non-Friable Asbestos-Containing Material - Material containing more than 1 percent asbestos as determined using the method specified in Appendix A, subpart F, 40 CFR part 763, section 1, Polarized Light Microscopy, which when dry cannot be crumbled, pulverized or reduced to powder by hand pressure.

NPE - Negative pressure enclosure.

Owner or Operator of a Demolition or Renovation Activity - Any person who owns, leases, operates, controls and supervises the facility being demolished or renovated or any person who owns, leases, operates, controls or supervises the demolition or renovation, or both.

Permissible Exposure Limit (PEL) - (1) time-weighted average unit (TWA). The employer shall ensure that no employee is exposed to an airborne concentration of asbestos in excess of 0.1 fiber per cubic centimeter (f/cc) or air as an eight (8) hour time-weighted average time (TWA). (2) excursion limit. The employer shall ensure that no employee is exposed to an airborne concentration of asbestos in excess of 1.0 fibers per cubic centimeter of air (f/cc) as averaged over a sampling period of thirty (30) minutes.

Personal Monitoring - Air sampling within the breathing zone of an employee.

Pre-Clean - The process of cleaning an area before asbestos abatement activities begin to ensure all dust and debris in the area considered to be asbestos-containing are properly contained and disposed of. This increases the likelihood the area will pass aggressive air sampling clearance requirements after asbestos-containing materials have been removed.

Presumed Asbestos-Containing Material (PACM) - TSI and surfacing material found in buildings constructed no later than 1980.

Project Monitor - The certified and licensed individual contracted or employed by the building owner or contractor to supervise and/or conduct air monitoring and analysis schemes. This individual is responsible for recognition of technical deficiencies in procedures during both planning and on-site phases of an abatement project. Requirements for Project Monitor are defined in the Connecticut DPH regulations (Sections 20-440-1 through 9). In addition to these requirements, this person shall be listed in the American Industrial Hygiene Association's Asbestos Analysts Registry.

Regulated Area – An area established by the employer to demarcate areas where Class I, II and III work is conducted and any adjoining area where debris and waste from such asbestos work accumulate; a work area within which airborne concentrations of asbestos exceed, or there is a reasonable possibility they may exceed the Permissible Exposure Limit.

Regulated Asbestos-Containing Material (RACM) - (a) Friable asbestos material, (b) Category I non-friable ACM that has become friable, (c) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or (d) Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

Renovation - Altering a facility or one or more facility components in any way, including the stripping or removal of RACM from a facility component. Operations in which load-supporting members are wrecked or taken out are demolitions.

Repair - Overhauling, rebuilding, reconstructing or reconditioning of structures or substrates where asbestos, tremolite, anthophyllite or actinolite is present.

Thermal System Insulation (TSI) - Materials applied to pipes, fittings, breeching, tanks, ducts or other structural components to prevent heat loss or gain.

Unfinished Space - Space used for storage, utilities or work area where appearance is not a factor. Examples of an unfinished space include crawlspace; pipe tunnel and similar spaces.

Visible Emissions - Any emissions, which are visually detectable without the aid of instruments, coming from RACM or asbestos-containing waste material or from any asbestos milling, manufacturing, or fabricating operation. This does not include condensed, uncombined water vapor.

Visible Residue - Any debris or dust on surfaces in areas within the Work Area where asbestos abatement has taken place and which is visible to the unaided eye. All visible residue is assumed to contain asbestos.

Waste Generator - Any owner or operator of a source whose act or process produces asbestos-containing waste material.

Waste Shipment Record - The shipping document, required to be originated and signed by the waste generator, used to track and substantiate the disposition of asbestos-containing waste material.

Wet Cleaning - The process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning tools which have been dampened with water, and afterwards thoroughly decontaminated or disposed of as asbestos-contaminated waste.

Work Area - Specific area or location where the actual work is being performed or such other area of a facility which the Design Consultant determines may be hazardous to public health as a result of such asbestos abatement.

Worker Decontamination Enclosure System - The portion of a Decontamination Enclosure System designed for controlled passage of workers and authorized visitors, typically consisting of a Clean Room, a Shower Room and an Equipment Room.

1.4 SUBMITTALS AND NOTICES

- A. The Contractor shall submit, in accordance with CTDPH Standard 19a-332a-3, proper notification using the prescribed form, to the Commissioner, State of Connecticut, Department of Public Health not fewer than ten (10) days prior to the commencement of work as follows:
1. Asbestos abatement projects involving greater than ten (10) linear feet (LF) or twenty-five (25) square feet (SF) of ACM (friable or non-friable) within a facility (i.e. interior abatement) and/or greater than 10 LF or 25 SF of friable ACM outside a facility, require an Asbestos Abatement Notification.
 2. At sites scheduled for demolition, asbestos abatement of exterior non-friable ACM or interior abatement involving less than 10 LF or 25 SF of ACM (friable or non-friable), and/or exterior abatement involving less than 10 LF or 25 SF of friable ACM require a Demolition Notification. In most cases, the Demolition Contractor is responsible for filing the Demolition Notification not fewer than ten (10) days prior to the commencement of demolition. However, if a portion of the demolition activities are scheduled to be conducted in conjunction with and/or under the supervision of an Asbestos Abatement Contractor (i.e. in the event of a structure which has been condemned, structurally damaged, and/or deemed unsafe for asbestos abatement activities); then it is the responsibility of the Asbestos Abatement Contractor to submit the Demolition Notification.

3. In the event that an Asbestos Abatement Notification has been submitted and the subject facility is scheduled for demolition, a separate Demolition Notification form does not need to be submitted. In such cases, the submission of the Asbestos Abatement Notification form shall be deemed as satisfying the requirement for the notification of the demolition of the facility.
 4. The Contractor filing the proper notification is responsible for all associated fees.
 5. If the Contractor intends to dispose of ACM waste within the State of Connecticut, a copy of the Asbestos Abatement/Demolition Notification must also be submitted to the Department of Environmental Protection, Solid Waste Management Unit, and the Contractor must obtain a CTDEEP Special Waste Disposal authorization.
- B. Any Alternative Work Practice (AWP) methods must be pre-approved by CTDPH and the Engineer/Owner. Should the Contractor desire to use AWP procedures that have not been pre-approved, the Contractor shall submit in writing a description of the proposed methods to the Engineer/Owner and CTDPH for review and approval. Alternative procedures shall provide equivalent or greater protection than procedures which they replace. The Contractor is responsible for all fees associated with filing AWP applications which have not been pre-approved. Submission of AWP applications requires a CTDPH Project Designer License. The Contractor shall not proceed with any AWP other than those listed in this Specification without approval from both the CTDPH and the Engineer/Owner.
- C. Seven (7) working days prior to the commencement of asbestos abatement work (Pre-abatement Meeting), the Contractor shall submit to the Engineer/Owner for review and acceptance and/or acknowledgment of the following:
1. Copies of all required notifications.
 2. AWP applications/approvals.
 3. Permits and licenses for the removal, transport, and disposal of asbestos-containing or contaminated materials, including a CTDPH valid asbestos removal contractor's license.
 4. Documentation dated within the previous twelve (12) months, certifying that all employees have received USEPA Model Accreditation Plan approved asbestos worker/supervisor training in the proper handling of materials that contain asbestos; understand the health implications and risks involved, including the illnesses possible from exposure to airborne asbestos fibers; understands the use and limits of respiratory equipment to be used; and understands the results of monitoring of airborne quantities of asbestos as related to health and respiratory equipment as indicated in 29 CFR 1926.1101 on an initial and annual basis, and copies of all employees CTDPH asbestos worker and/or supervisor licenses.
 5. Documentation from the Contractor, typed on company letterhead and signed by the Contractor, certifying that all employees listed herein have received the following:

- a. Medical monitoring within the previous twelve (12) months, as required in 29 CFR 1926.1101
 - b. Respirator fit testing within the previous twelve (12) months, as detailed in 29 CFR 1910.134 (for all employees who must also don a tight-fitting face piece respirator)
6. Copies of the EPA/State-approved certificates for the proposed asbestos landfill.
7. Name and qualifications of the Asbestos Abatement Site Supervisor. This individual shall be the OSHA Competent Person for the abatement activities, shall have a minimum of three years working experience as an Asbestos Abatement Site Supervisor, shall be capable of identifying existing asbestos hazards and shall have the authority to implement corrective measures to eliminate such hazards. The Asbestos Abatement Site Supervisor shall be on-site at all times asbestos abatement is occurring, shall comply with applicable Federal, State and Local regulations which mandate work practices, and shall be capable of performing the work of this contract. The Competent Person/Site Supervisor shall also have prior experience with the abatement of ACM from historic wooden windows and structures in accordance with, and be knowledgeable of, the U.S. Department of the Interior, National Park Service Cultural Resources, Historic Preservation Briefs 9, 10 & 37.
- D. No abatement shall commence until a copy of all required submittals have been received and found acceptable to the Engineer. Those employees added to the Contractor's original list will be allowed to perform work only upon submittal to, and receipt of, all required paperwork by the Engineer.
- E. Provide the Engineer/Owner, within 30 days of completion of asbestos abatement, a compliance package; which shall include, but not be limited to, the following:
1. Asbestos Abatement Site Supervisor job log;
 2. OSHA personnel air sampling data and exposure assessments;
 3. Completed waste shipment records.

1.5 SEQUENCE OF WORK

- A. The Contractor shall proceed in accordance with the sequence of work as directed by the Engineer/Construction Manager. Work shall be divided into convenient Work Areas, each of which is to be completed as a separate unit.
- B. The Contractor shall use the following sequence for the asbestos abatement work:
1. Release of work area to Contractor.
 2. A visual inspection of the work area to determine pre-existing damage to facility components.

3. Removal of all moveable objects from the Work Areas undergoing abatement by the Contractor.
4. All temporary utilities required for the project shall be on site and operational prior to the initiation of asbestos work.
5. Abatement of all asbestos-containing materials by the Contractor.
6. Final visual inspections by the Project Monitor.
7. Interior NPE work area air sampling by the Project Monitor for re-occupancy (if applicable).
8. Cleanup by the Contractor. Work Areas must be returned to their original condition or as directed by the Engineer/Project Monitor.
9. Removal of waste from the site.

PART 2 PRODUCTS

2.1 MATERIALS

- A. All materials shall be delivered to the job site in the original packages, containers, or bundles bearing the name of the manufacturer, the brand name and product technical description.
- B. No damaged or deteriorating materials shall be used. If material becomes contaminated with asbestos, the material shall be decontaminated or disposed of as asbestos-containing waste material. The cost to decontaminate and dispose of this material shall be at the expense of the Contractor.
- C. Fire retardant polyethylene sheet shall be in roll size to minimize the frequency of joints, with factory label indicating four (4) or six (6) mil thickness.
- D. Six (6) mil polyethylene disposable bags shall have pre-printed OSHA/EPA/DOT labels and shall be transparent.
- E. Tape (or equivalent) capable of sealing joints in adjacent polyethylene sheets and for the attachment of polyethylene sheets to finished or unfinished surfaces must be capable of adhering under both dry and wet conditions.
- F. Surfactant is a chemical wetting agent added to water to improve penetration and shall consist of fifty (50) percent polyoxyethylene ether and fifty (50) percent polyoxyethylene ester, or equivalent. The surfactant shall be mixed with water to provide a concentration one (1) ounce surfactant to five (5) gallons of water, or as directed by the manufacturer.

- G. Spray equipment must be capable of mixing necessary chemical agents with water, generating sufficient pressure and volume; and equipped with adequate hose length to access all necessary work areas.
- H. Mechanical mastic removal equipment shall be suitable for the application and shall be operated in a manner which prevents damage to the underlying floor. Sanders, grinders, wire brushes and needle-gun type removal equipment shall be equipped with a High Efficiency Particulate Air (HEPA) filtered vacuum dust collection system.
- I. Containers for storage, transportation and disposal of asbestos containing waste material shall be impermeable and both air and watertight.
- J. Labels and warning signs shall conform to OSHA 29 CFR 1926.1101, USEPA 40 CFR Part 61.152, and USDOT 49 CFR Part 172 as appropriate.
- K. Encapsulant, a material used to chemically entrap asbestos fibers to prevent these fibers from becoming airborne, shall be of the type which has been approved by the Engineer. Use shall be in accordance with manufacturer's printed technical data. The encapsulant shall be clear and must be compatible with new materials being installed, if any.
- L. Glovebag assembly shall be manufactured of six (6) mil transparent polyethylene or PVC with two (2) inward projecting long sleeve gloves, an internal pouch for tools, and an attached labeled receptacle for waste.
- M. Any planking, bracing, shoring, barricades and/or temporary sheet piling, necessary to appropriately perform work activities shall conform to all applicable federal, state and local regulations.
- N. Air filtration devices and vacuum units shall be equipped with HEPA filters.

2.2 TOOLS AND EQUIPMENT

- A. Air monitoring equipment of the type and quantity required to monitor operations and conduct personnel exposure surveillance shall conform to OSHA requirements.
- B. Protective clothing, respirators, filter cartridges, air filters and sample filter cassettes shall be provided in sufficient quantities for the project.
- C. Electrical equipment, protective devices and power cables shall conform to all applicable codes.
- D. Shower stalls and plumbing shall include sufficient hose length and drain system or an acceptable alternate. Showers shall be equipped with hot and cold or warm running water. One shower stall shall be provided for each eight workers. Water is filtered through a 5 micron and a 10 micron filter prior to being discharged into the city sewer/sanitary system. The contractor may need to supply their own water as the closest operating water supply is at the Visitors Center.

- E. The Contractor may need to supply electrical power to the site by either fuel operated generator(s) or temporary restoration of electrical service. Electrical power supply will be sufficient for maintaining in operation all equipment required for this project throughout the duration of the project.
- F. Exhaust air filtration units shall be equipped with HEPA filters capable of providing sufficient air exhaust to create a minimum pressure differential of 0.02 inches of water column, and to allow a sufficient flow of air through the area providing 4 air changes per hour. An automatic warning system shall be incorporated into the equipment to indicate pressure drop or unit failure. No air movement system or air filtering equipment shall discharge unfiltered air outside the Regulated Area. The Contractor shall provide actual airflow measurement of filtration units while the unit is in place and calculate actual air exchange rates.
- G. Pressure differential monitoring equipment shall be provided to ensure exhaust air filtration devices provide the minimum pressure differential required between the Work Area and occupied areas of the facility.
- H. Vacuum units, of suitable size and capabilities for the project, shall have HEPA filters capable of trapping and retaining at least 99.97 percent of all monodispersed particles of three micrometers in diameter or larger.
- I. Ladders and/or scaffolds shall be of adequate length, strength and sufficient quantity to support the work schedule.
- J. Other materials such as lumber, nails and hardware necessary to construct and dismantle the decontamination enclosures and the barriers that isolate the Work Area shall be provided as appropriate for the work.
- K. Spray equipment shall be capable of mixing wetting agent with water and capable of generating sufficient pressure and volume. Hose length shall be sufficient to reach all of the Regulated area.
- L. Mechanical mastic removal equipment shall be suitable for the application and shall be operated in a manner which prevents excessive damage to the underlying floor.

PART 3 EXECUTION

3.1 GENERAL REQUIREMENTS

- A. The Abatement Contractor/Subcontractor shall possess a valid State of Connecticut Asbestos Contractor License. Should any portion of the work be subcontracted, the subcontractor must also possess a valid State of Connecticut Asbestos Contractor License. The Asbestos Abatement Site Supervisor employed by the Contractor shall be in control on the job site at all times during asbestos abatement work. All employees of the Contractor who shall perform work (i.e. Asbestos Abatement Site Supervisor, Asbestos Abatement

Worker) shall be properly certified/licensed by the State of Connecticut to perform such duties.

- B. All labor, materials, tools, equipment, services, testing, insurance (with specific coverage for work on asbestos), and incidentals which are necessary or required to perform the work in accordance with applicable governmental regulations, industry standards and codes, and these Specifications shall be provided by the Contractor. The Contractor shall be prepared to work all shifts and weekends throughout the course of this project.
- C. Prior to beginning work, the Engineer and Contractor shall perform a visual survey of each work area and review conditions at the site for safety reasons. In addition, the Contractor shall instruct all workers in all aspects of personnel protection, work procedures, emergency evacuation procedures and use of equipment including procedures unique to this project.
- D. The Contractor shall:
 - 1. Shutdown and isolate heating, cooling, and ventilating air systems to prevent contamination and fiber dispersal to the other areas of the building.
 - 2. Shut down and lock out electrical power, including all receptacles and light fixtures, when feasible. The use or isolation of electrical power will be coordinated with all other ongoing uses of electrical power at the site.
 - 3. Coordinate all power and fire alarm isolation with the appropriate representatives.
 - 4. When necessary, provide temporary power and adequate lighting and ensure safe installation of electrical equipment, including ground fault protection and power cables, in compliance with applicable electrical codes and OSHA requirements. The Contractor is responsible for proper connection and installation of electrical wiring.
- E. If sufficient electrical service is unavailable, the Contractor may need to supply electrical power to the site by fuel operated generator(s). Electrical power supply shall be sufficient for all equipment required for this project in operation throughout the duration of the project. If the Contractor elects to supply electrical power to the work site through the use of generators, the Contractor shall ensure that each work area is a manageable size such that removal, final cleaning and re-occupancy testing can be accomplished within one work shift while negative air machines are operating.
- F. Negative pressure must be continuously maintained in each work area, until the area achieves satisfactory re-occupancy criteria and is approved by the Project Monitor to be deregulated. Negative air pressure must be maintained twenty-four (24) hours per day and the Contractor shall establish temporary electrical service to the site, rather than utilize generators.

- G. Water service may not be available at the site. Contractor shall supply sufficient water for each shift to operate the decontamination shower units as well as to maintain the work areas adequately wet.
- H. Ladders and/or scaffolds shall be in compliance with OSHA requirements, and of adequate length, strength and sufficient quantity to support the scope of work. Use of ladders/scaffolds shall be in conformance with OSHA 29 CFR 1926 Subpart L and X requirements.
- I. Work performed at heights exceeding six feet (6') shall be performed in accordance with the OSHA Fall Protection Standard 29 CFR 1926 Subpart M including the use of fall arrest systems as applicable.
- J. Data provided regarding asbestos sampling conducted throughout the structure(s) is for informational purposes only. Under no circumstances shall this information be the sole means used by the Contractor for determining the presence and location of all asbestos containing materials. The Contractor shall verify all field conditions affecting performance of the work as described in these Specifications in accordance with OSHA, USEPA, USDOT, CTDPH and CTDEEP standards. Compliance with the applicable requirements is solely the responsibility of the Contractor.
- K. The Owner will provide a Project Monitor to oversee the activities of the Contractor. No asbestos work shall be performed until the Project Monitor is on-site. Pre-abatement, during abatement and post-abatement air sampling will be conducted as deemed necessary by the Project Monitor. Waste stream testing will be performed, as necessary, by the Project Monitor prior to waste disposal.

3.2 PREPARATION OF WORK AREA ENCLOSURE SYSTEM

- A. Pre-clean the work areas using HEPA filtered equipment (vacuum) and/or wet methods as appropriate, collecting and properly containing all dust and debris as asbestos-containing/asbestos contaminated waste. Vacuum units, of suitable size and capabilities for the project, shall have HEPA filters capable of trapping and retaining at least 99.97 percent of all monodispersed particles of three micrometers in diameter or larger. Do not use methods that raise dust, such as dry sweeping or vacuuming with equipment not equipped with HEPA filters.
- B. After pre-cleaning, movable objects shall be removed from the work areas with the utmost care to prevent damage of any kind and relocated to a temporary storage location coordinated with the Engineer. The Contractor is responsible for protecting all fixed objects that are permanent fixtures or are too large to remove and remain inside the Regulated Area. Fixed objects shall be enclosed with one layer of six (6) mil polyethylene sheeting sealed with tape.
- C. Where non-ACM insulation exists within a Regulated Area, the Contractor has the option of removing the non-ACM insulation material and disposing of as ACM debris, or decontaminating and protecting non-ACM insulation material with two (2) layers of six (6)

mil polyethylene sheeting. Any non-ACM insulation removed shall be replaced with new material of equal or better quality at the Contractor's expense.

3.3 WORKER DECONTAMINATION ENCLOSURE SYSTEM

- A. The Contractor shall establish contiguous to the Regulated Area, a Worker Decontamination Enclosure System consisting of Equipment Room, Shower Room and Clean Room in series, as detailed below. Access to the Regulated Area shall only be through this enclosure.
- B. Access between rooms in the Worker Decontamination Enclosure System shall be through airlocks. Other effective designs are permissible. The Clean Room, Shower Room and Equipment Room located within the Worker Decontamination Enclosure, shall be contiguously connected with taped airtight edges, thus ensuring the sole source of airflow originates from outside the regulated areas, once the negative pressure differential within the Regulated Area is established.
- C. The Clean Room shall be adequately sized to accommodate workers and shall be equipped with a suitable number of hooks, lockers, shelves, etc., for workers to store personal articles and clothing. Changing areas of the Clean Room shall be suitably screened from areas occupied by the public.
- D. The Shower Room shall be of sufficient capacity to accommodate the number of workers. One shower stall shall be provided for each eight (8) workers. Showers shall be equipped with hot and cold or warm running water through the use of electric hot water heaters supplied by the Contractor. No worker or other person shall leave a Regulated Area without showering. Shower water shall be collected and filtered using best available technology and dumped down an approved sanitary drain. Shower stalls and plumbing shall include sufficient hose length and drain system or an acceptable alternate.

3.4 EQUIPMENT DECONTAMINATION ENCLOSURE SYSTEM

- A. The Contractor shall establish contiguous to the Regulated Area an Equipment/Waste Removal Decontamination Enclosure System consisting of two (2) totally enclosed chambers divided by a double flap curtained opening. Other effective designs are permissible. This enclosure must be constructed so as to ensure that no personnel enter or exit through this unit.
- B. The Contractor shall ensure that no personnel or equipment be permitted to leave the Regulated Area until proper decontamination procedures (including HEPA vacuuming, wet wiping and showering) to remove all asbestos debris have occurred. No asbestos-contaminated materials or persons shall enter the Clean Room.

3.5 SEPARATION OF WORK AREAS FROM OCCUPIED AREAS

- A. Seal off all windows, doorways, skylights, ducts, grilles, diffusers, vents, light fixtures, electrical receptacles, suspended ceiling tile systems and any other openings between the Regulated Area and the uncontaminated areas outside of the Regulated Area, including the

outside of the building, with critical barriers consisting of a minimum of one (1) layer of six (6) mil polyethylene sheeting securing the edges with tape. Doorways and corridors which will not be used for passage during work and separate the regulated areas from occupied areas must be sealed with fixed critical barriers constructed of 2" x 4" wood or metal framing 16" O.C., with ½" plywood on the occupied side and two layers of six (6) mil polyethylene sheeting on the Regulated Area side to prevent unauthorized access or air flow.

- B. The Contractor shall create a negative pressure differential in the range of 0.02 to 0.04 inches of water column between the Regulated Area and surrounding areas by the use of acceptable negative air pressure equipment. Exhaust air filtration units shall be equipped with HEPA filters capable of providing sufficient air exhaust to create a minimum pressure differential of 0.02 inches of water column, and to allow a sufficient flow of air through the area providing 4 air changes per hour. The Contractor shall provide a sufficient quantity of HEPA air filters to maintain the pressure differential throughout the duration of the project. An automatic warning system shall be incorporated into the equipment to indicate pressure drop or unit failure. Continuously monitor the pressure differential between the Regulated Area and surrounding area to ensure exhaust air filtration equipment maintains a minimum pressure differential of 0.02 inches of water column. The Contractor shall provide actual air flow measurement of filtration units while the unit is in place and calculate actual air exchange rates. No air movement system or air filtering equipment shall discharge unfiltered air outside the Regulated Area.
- C. A Negative Pressure Enclosure (NPE) shall be constructed via covering of floor and wall surfaces with polyethylene sheeting sealed with tape. Polyethylene shall be applied alternately to floors and walls. Cover floors first, with a layer of six (6) mil polyethylene sheeting, so that polyethylene extends at least twelve (12) inches up on wall. Cover wall with a layer of four (4) mil polyethylene sheeting to twelve (12) inches beyond the wall/floor intersection, thus overlapping the floor material by a minimum of twenty-four (24) inches. Repeat the process for the second layer of polyethylene. There shall be no seams at wall-to-floor joints. Protect carpet and floor tile with two additional layers of six (6) mil reinforced polyethylene in addition to the prior two layers required.
- D. Conspicuously label and maintain emergency and fire exits from the Regulated Area satisfactory to fire officials.
- E. Post warning signs meeting the specifications of OSHA 29 CFR 1910.1001 and 29 CFR 1926.1101 at each Regulated Area. In addition, signs shall be posted at all approaches to Regulated Areas so that an employee or building occupant may read the sign and take the necessary protective steps before entering the area. Additional signs may require posting following construction of workplace enclosure barriers.

3.6 ALTERNATE EXTERIOR NON-FRIABLE ASBESTOS SET-UP PROCEDURES

- A. In lieu of the establishment of a negative pressure enclosure (NPE) system as described by CTDPH Sections 19a-332a-5(c), 5(d), 5(e), and 5(h), non-friable ACM will be removed from exterior work areas within an outdoor Regulated Area(s). The regulated work area will be established by the use of appropriately labeled barrier tape and postings in

compliance with CTDPH 19a-332a-5(a) as well as OSHA 29 CFR 1926.1101. A remote personnel decontamination unit as specified in Section 19a-332a-6 will be required. This method shall only be utilized provided exposure assessment air sampling data collected during the removal of the exterior non-friable materials indicates that the exposure levels during removal of such materials do not exceed 0.1 asbestos f/cc. Should exposure assessment air sampling data exceed this level, and engineering efforts to reduce the airborne fiber levels not be successful in reducing the levels to less than 0.1 f/cc, removal shall occur within these areas under full containment conditions.

3.7 ALTERNATE “SPOT REPAIR” ASBESTOS PROCEDURES

- A. In lieu of the establishment of a negative pressure enclosure (NPE) system as described by CTDPH Sections 19a-332a-5(c), 5(d), 5(e), and 5(h), less than 3 LF or 3 SF of ACM will be removed as a “spot repair” in accordance with CTDPH Section 19a-332a-10. A regulated area will be established by the use of appropriately labeled barrier tape and postings in compliance with CTDPH 19a-332a-5(a) as well as OSHA 29 CFR 1926.1101. A remote personnel decontamination unit as specified in Section 19a-332a-6 will be required. Air-tight barriers will be constructed to assure that asbestos fibers released during abatement activities are contained within the work area. (Glovebags are permitted, as specified below.) ACM will be adequately wet prior to disturbance and remain wet until placed in leak-tight container. Following abatement, clean-up methods within the work area will include HEPA-filtered vacuuming or wet cleaning techniques until no visible residue remains.
- B. Glovebags utilized to perform “spot repair” activities on asbestos containing pipe insulation/mudded fitting insulation, in conformance with OSHA 29 CFR 1926.1101(g)(5)(ii), shall be:
1. constructed of 6 mil poly, seamless at bottom, unmodified
 2. installed so that it completely covers the circumference of pipe or other structure where work is to be done, with impermeable dropcloths placed on all surfaces beneath the work area
 3. smoke-tested for leaks and sealed, as needed
 4. used only once, may not be moved
 5. used only on surfaces with temperatures <150°F
 6. collapsed by removing air via HEPA-vacuum, prior to disposal
 7. adhered to surfaces which are intact, surfaces with loose and friable material shall be sealed in two layers of 6 mil poly or otherwise rendered intact
 8. capable of sustaining integrity at connection site to attached waste bag, which must have equivalent of sliding valve for disconnection (as applicable)
 9. performed by a minimum of two (2) persons
- C. Glovebags may also be used for “spot repair” abatement procedures involving additional materials (e.g. floor tile/linoleum, transite, etc.) provided that the glovebag is capable of fully enclosing the material to be removed.

3.8 PERSONNEL PROTECTION

- A. The Contractor shall utilize all appropriate engineering controls and safety and protective equipment while performing the work in accordance with OSHA, USEPA, USDOT, CTDEEP and CTDPH regulations.
- B. The Contractor shall provide and require all workers to wear protective clothing in the Regulated Areas where asbestos fiber concentrations may reasonably be expected to exceed the OSHA established Permissible Exposure Limits (PEL) or where asbestos contamination exists. Protective clothing shall include impervious coveralls with elastic wrists and ankles, head covering, gloves and foot coverings.
- C. Respiratory protection shall be provided and selection shall conform to the requirements of OSHA 29 CFR 1910.134 and 29 CFR 1926.1101 as well as the requirements of the CTDPH regulations and 42 CFR Part 84. A formal respiratory protection program must be implemented in accordance with 29 CFR 1926.1101 and 29 CFR 1910.134.
- D. All other necessary personnel protective equipment (i.e. hardhat, work boots, safety glasses, hearing protection, etc.) required to perform the asbestos abatement work activities shall conform to all applicable federal, state and local regulations.
- E. All other qualified and authorized persons entering into a Regulated Area (i.e. Project Monitor, Regulatory Agency Representative) shall adhere to the requirements of personnel protection as stated in this section.

3.9 ASBESTOS ABATEMENT PROCEDURES

- A. The Asbestos Abatement Site Supervisor, as the OSHA Competent Person shall be at the site at all times.
- B. The Contractor shall not begin abatement work until authorized by the Project Monitor, following a pre-abatement visual inspection.
- C. All workers and authorized persons shall enter and leave the Regulated Area through the Worker Decontamination Enclosure System, leaving contaminated protective clothing in the Equipment Room for reuse or disposal of as asbestos contaminated waste. No one shall eat, drink, smoke, chew gum or tobacco, or apply cosmetics while in a Regulated Area.
- D. During removal, the Contractor shall spray asbestos materials with amended water using airless spray equipment capable of providing a "mist" application to reduce the release of airborne fibers. Spray equipment shall be capable of mixing wetting agent with water and capable of generating sufficient pressure and volume. Hose length shall be sufficient to reach all of the Regulated Area. Do not "flood" the area with hose type water supply equipment with the potential to create water releases from the regulated area.
- E. The Contractor shall continue to spray the asbestos materials with amended water, as necessary, throughout removal activities to ensure the asbestos materials remain adequately wet. The asbestos materials shall not be allowed to dry out.

- F. In order to minimize airborne asbestos concentrations inside the Regulated Area, the Contractor shall remove the adequately wetted asbestos in manageable sections. In addition, asbestos materials removed from any elevated level shall be carefully lowered to the floor.

- G. The Contractor shall promptly place the adequately wet asbestos material in disposal containers (six (6) mil polyethylene bags/fiber drum/poly-lined dumpsters, etc.) as it is removed. Large components removed intact may be wrapped in two (2) layers of six (6) mil polyethylene sheeting secured with tape. As the disposal containers are filled, the Contractor shall promptly seal the containers, apply caution labels and clean the containers before transportation to the equipment decontamination area. Bags shall be securely sealed to prevent accidental opening and leakage by taping in gooseneck fashion. Small components and asbestos-containing waste with sharp-edged components (e.g. nails, screws, metal lath, tin sheeting) which could tear polyethylene bags and sheeting shall be placed in clean drums and sealed with locking ring tops. All waste containers shall be leak-tight, (typically consisting of two layers of 6 mil poly (or bags)), and shall be properly labeled and placarded with OSHA Danger labels, DOT shipping labels, markings and placards and USEPA NESHAP generators labels. Containers shall be decontaminated by wet cleaning and HEPA vacuuming within the equipment decontamination area prior to exiting the regulated area. Wet clean each container thoroughly before moving to Holding Area.

- H. If at any time during asbestos removal, the Project Monitor should suspect contamination of areas outside the Regulated Area, the Contractor shall immediately stop all abatement work and take steps to decontaminate these areas and eliminate causes of such contamination. Unprotected individuals shall be prohibited from entering contaminated areas until air sampling and/or visual inspections determine decontamination.

- I. After completion of abatement work, all surfaces from which asbestos has been removed shall be wet brushed, using a nylon brush, wet wiped and sponged or cleaned by an equivalent method to remove all visible material (wire brushes are not permitted). During this work the surfaces being cleaned shall be kept wet. Cleaning shall also include the use of HEPA filtered vacuum equipment.

3.10 CLEAN-UP PROCEDURES

- A. The Contractor shall also remove and containerize all visible accumulations of asbestos-containing and/or asbestos-contaminated debris which may have splattered or collected on the polyethylene engineering controls/barriers.

- B. The Contractor shall clean surfaces of contaminated containers and equipment thoroughly by vacuuming with HEPA filtered equipment and wet sponging or wiping before moving such items into the Equipment Decontamination Enclosure System for final cleaning and removal to uncontaminated areas.

- C. The Contractor shall remove contamination from the exteriors of the air filtration devices, scaffolding, ladders, extension cords, hoses and other equipment inside the Regulated Area. Cleaning may be accomplished by brushing, HEPA vacuuming and/or wet cleaning. The

Contractor shall wet wipe the Regulated Area beginning at the point farthest away from the negative air filtration units using cotton rags or lint free paper towels. Rags and towels shall be disposed of after each use. Workers should avoid the use of dirty rags to insure proper cleaning of surfaces. Mop the entire floor with a clean mop head and amended water. Water shall be changed frequently. For those Regulated Areas where lead is also disturbed, the cleaning shall also include a wet washing with a high phosphate detergent solution and HEPA vacuuming. Waste water shall be filtered using best available technology into leak-proof containers prior to being transported to a sanitary sewer for discharge.

- D. Once the Regulated Area surfaces have dried, the Project Monitor shall perform a thorough post abatement visual inspection utilizing protocols from the ASTM Standard E1368-90 *Standard Practice for Visual Inspection of Asbestos Abatement Projects*. All surfaces within the Regulated Area, including but not limited to ledges, beams, and hidden locations shall be inspected for visible residue. Evidence of asbestos contamination identified during this inspection will necessitate further cleaning as heretofore specified. The area shall be re-cleaned at the Contractor's expense, until the standard of cleaning is achieved.
- E. Once the area has received a satisfactory post-abatement visual inspection, any equipment, tools or materials not required for completion of the work, shall be removed by the Contractor from the Regulated Area. Negative air filtration devices shall remain in place and operating for the remainder of the clean-up operation.
- F. Following the post-abatement visual, the Contractor shall apply a lock-down encapsulant to all surfaces within the Regulated Area from which asbestos has been removed and the cleaned inner layer of polyethylene.

3.11 AIR MONITORING REQUIREMENTS

- A. The Contractor shall:
 - 1. Provide air monitoring equipment including sample filter cassettes of the type and quantity required to properly monitor operations and personnel exposure surveillance throughout the duration of the project.
 - 2. Conduct personnel exposure assessment air sampling, as necessary, to assure that workers are using appropriate respiratory protection in accordance with OSHA Standard 1926.1101. Documentation of air sampling results must be recorded at the work site within twenty-four (24) hours and shall be available for review until the job is complete.
- B. The Project Monitor, acting as the representative of the Engineer during abatement activities, will:
 - 1. Collect air samples in accordance with the current revision of the NIOSH 7400 Method of Air Sampling for Airborne Asbestos Fibers while overseeing the activities of the Abatement Contractor. Frequency and duration of the air sampling during abatement will be representative of the actual conditions at the abatement

site. The size and configuration of the asbestos project will be a factor in the number of samples required to monitor the abatement activities and shall be determined by the Project Monitor. The following schedule of samples may be collected by the Project Monitor:

- a. Pre-Abatement (Optional)
 - i. Background areas
 - ii. Area(s) adjacent to Work Area(s)
 - iii. Work Area(s)

- b. During Abatement (Optional)
 - i. At the exhaust of air filtering device
 - ii. Within Regulated Area(s)
 - iii. Area(s) adjacent to Regulated Areas(s)
(exterior to critical barriers)
 - iv. At the Decontamination Enclosure System

- c. Post-Abatement (re-occupancy air clearance testing) **(REQUIRED)**
 - i. Interior Regulated NPE Area - At least five (5) per homogenous area

Abatement Activity	Pre-Abatement	During Abatement	Post-Abatement
Greater than 160 SF/260 LF – Interior	PCM	PCM	TEM
Greater than 3 LF/3 SF and Less than 160 SF/260 LF – Interior	PCM	PCM	PCM
Spot Removal and Glovebag Procedures (<3 LF/3 SF)	---	PCM	---
Exterior Friable/Non-Friable	---	PCM	---

- C. If air samples collected outside of the Regulated Area during abatement activities indicate airborne fiber concentrations greater than original background levels, or greater than 0.1 f/cc, as determined by Phase Contrast Microscopy, whichever is larger, an examination of the Regulated Area perimeter shall be conducted and the integrity of barriers shall be restored. Cleanup of surfaces outside the Regulated Area using HEPA vacuum equipment or wet cleaning techniques shall be done prior to resuming abatement activities.

3.12 POST-ABATEMENT RE-OCCUPANCY PROCEDURES

- A. For interior NPE Regulated Areas, clearance air sampling will be performed by the Project Monitor as specified in the Air Sampling Schedule. Clearance sampling will be undertaken using aggressive sampling techniques. Sampling and analysis of clearance samples will follow State of Connecticut Regulations, Section 19a-332a-12. Areas which do not comply shall continue to be cleaned by and at the Contractors expense, until the specified Standard of Cleaning is achieved as evidenced by results of air testing. When the Regulated Area passes the re-occupancy clearance, controls established by these Specifications may be removed.

1. Air sampling will not begin until after the area has received an acceptable post abatement visual inspection, encapsulation has been completed, and no visible water, liquid encapsulant or condensation remain in the Regulated Area.
2. Sampling equipment will be placed at random throughout the Regulated Area.
3. The following aggressive air sampling procedures will be used within the Regulated Area during all air clearance monitoring:
 - a. Before starting the sampling pumps, direct the exhaust from forced air equipment (such as a 1 horsepower leaf blower) against all walls, ceilings, floors, ledges and other surfaces in the Regulated Area.
 - b. Pre-calibrate the sampling pump flow rates through the use of a rotameter calibrated to a primary standard.
 - c. Start the sampling pumps and sample for the required time.
 - d. Post-calibrate the sampling pump flow rates.
4. Air volumes taken for clearance sampling shall be sufficient to accurately determine (to a 95 percent probability) fiber concentrations to 0.010 f/cc of air (1,200 liters).
5. Analysis shall follow the requirements of CTDPH 19a-332a-12.
6. Each homogeneous Regulated Area which does not meet the clearance criteria shall be thoroughly re-cleaned using HEPA vacuuming and/or wet cleaning, with the negative pressure ventilation system in operation. New samples shall be collected in the Regulated Area as described above. The process shall be repeated until the Regulated Area passes the test, with the cost of repeat sampling being borne entirely by the Contractor.
7. For an asbestos abatement project with more than one homogeneous Regulated Area, the release criterion shall be applied independently to each Regulated Area.
8. These clearance sampling procedures may also be implemented for exterior NPE work areas at the discretion of the Engineer.

3.13 POST ABATEMENT WORK AREA DEREGULATION

- A. The Contractor shall remove all remaining polyethylene, including critical barriers, and Decontamination Enclosure Systems leaving negative air filtration devices in operation. HEPA vacuum and/or wet wipe any visible residue which is uncovered during this process. All waste generated during this disassembly process shall be discarded as ACM waste.
- B. A final visual inspection of the work area shall be conducted by the Competent Person and the Project Monitor to ensure that all visible accumulations of suspect materials have been removed and that no equipment or materials associated with the abatement project remain.

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

3.14 WASTE DISPOSAL

- A. Unless otherwise specified, all removed materials and debris resulting from execution of this project shall become the responsibility of the Contractor and removed from the premises. Materials not scheduled for reuse shall be removed from the site and disposed of in accordance with all applicable Federal, State and Local requirements.
- B. Waste removal dumpsters and cargo areas of transport vehicles shall be lined with a layer of six (6) mil polyethylene sheeting to prevent contamination from leaking or spilled containers. Floor sheeting shall be installed first, and shall be extended up sidewalls 12-inches. Wall sheeting shall overlap floor sheeting 24-inches and shall be taped into place.
- C. OSHA “Danger” signs must be attached to vehicles used to transport asbestos-containing waste prior to loading ACM waste. The signs must be posted so that they are plainly visible.
- D. Waste haulers and disposal facilities utilized shall match those indicated on the submitted CTDPH notification.
- E. Ensure all waste containers (bags, drums, etc.) are properly packed, sealed and labeled with USEPA NESHAP generator labels, OSHA danger labels and DOT shipping labels. For each shipment of ACM waste, the Contractor shall complete an EPA-approved asbestos waste shipment record.
- F. Authorized representatives signing waste shipment records on behalf of the generator must have USDOT Shipper Certification training in accordance with HMR 49 CFR Parts 171-180.
- G. Transport vehicles hauling ACM waste shall have appropriate USDOT placards visible on all four (4) sides of the vehicle.
- H. The Contractor shall dispose of asbestos-containing and/or asbestos contaminated material at an EPA authorized site and must be in compliance with the requirements of the Special Waste Provisions of the Office of Solid Waste Management, Department of Environmental Protection, State of Connecticut, or other designated agency having jurisdiction over solid waste disposal.
- I. Any asbestos-containing and/or asbestos-contaminated waste materials which also contain other hazardous contaminants shall be disposed of in accordance with the EPA’s Resource Conservation and Recovery Act (RCRA), CTDEEP and ConnDOT requirements. Materials may be required to be stored on-site and tested by the Project Monitor to determine proper waste disposal requirements.

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END OF SECTION 02 82 13

PART 1 GENERAL

1.1 SCOPE

- A. Work under this item shall include the special handling measures and work practices required for renovation (construction) activities impacting various materials containing or covered by lead paint, including the loading, transportation and final off-site disposal of non-hazardous and/or hazardous lead construction waste, and the subsequent cleaning of the affected environment. Lead paint includes paint found to contain **any** detectable amount of lead by Atomic Absorption Spectrophotometry (AAS) or X-Ray Fluorescence (XRF).
- B. All activities shall be performed in accordance with, but not limited to, the current revision of the Occupational Safety and Health Administration (OSHA) Lead in Construction Regulations (29 CFR 1926.62), the United States Environmental Protection Agency (USEPA) Resource Conservation and Recovery Act (RCRA) Hazardous Waste Regulations (40 CFR Parts 260 through 274), the Connecticut Department of Energy and Environmental Protection (CTDEEP) Hazardous Waste Regulations (22a-209-1 and 22a-449(c)) and the United States Department of Transportation (USDOT) Hazardous Materials Regulations (49 CFR Parts 171 through 180).
- C. All activities shall be performed by individuals with appropriate levels of OSHA lead awareness and hazard communication training and shall supervised by the Contractors Competent Person on the job site at all times. The Contractors Competent Person is one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.
- D. Hazardous lead debris shall be transported from the Project by a licensed hazardous waste transporter and disposed of at an EPA permitted hazardous waste facility within 90 days from the date of generation.
- E. Deviations from these Specifications require the written approval of the Engineer/Construction Manager.
- F. The Engineer/Construction Manager for this project will be TRC, Inc.

1.2 DESCRIPTION OF WORK

- A. All work impacting the lead painted materials identified below shall be conducted within an established Regulated Area with a remote wash facility/decontamination system and the OSHA Lead in Construction Standard. In accordance with 29 CFR 1926.62, engineering controls and work practices shall be utilized to prevent the spread of lead dust and debris beyond the Regulated Area and limit the generation of airborne lead. All wastes containing lead paint shall be properly contained and secured for storage, transportation and disposal.

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- B. Data for random lead testing conducted on surfaces throughout the buildings as well as any waste characterization results are available from the Engineer for informational purposes only. Under no circumstances shall this information be the sole means used by the Contractor for determining the extent of lead painted materials. The Contractor shall be responsible for verification of all field conditions affecting performance of the work as described in these Specifications in accordance with OSHA, USEPA, USDOT and CTDEEP standards. Compliance with the applicable requirements is solely the responsibility of the Contractor. The Lead Based Paint Measurement Summary Table is located in Division 50 00 00 Project-Specific Available Information Section at the end of the Technical Specifications Section.
- C. The Contractor shall conduct exposure assessments for all tasks which impact lead paint in accordance with OSHA 29 CFR 1926.62(d) and shall implement appropriate personal protective equipment until negative exposure assessments are developed.
- D. The following details the extent of each phase of operation designated for this project. Phase areas may be combined or divided at the direction of the Engineer/Construction Manager. Proceed through the sequencing of the work phases under the direction of the Engineer/Construction Manager.

a. This Specification applies to the following three buildings:

- 1. Viets Tavern Exterior (106 Newgate Road) (See sample numbers 242-268 of The Lead Based Paint Measurement Summary Table)**
- 2. Yellow Cottage Exterior (114 Newgate Road) (See sample numbers 361-368 of The Lead Based Paint Measurement Summary Table)**
- 3. White Cottage Exterior (105 Newgate Road) (See sample numbers 415-429 of The Lead Based Paint Measurement Summary Table)**

Refer to Figure 1 Attachment, located after the Lead Based Paint Measurement Summary Table at the end of the Technical Specifications in Division 50 00 00 Project-Specific Available Information Section for approximate building locations.

- b. The scope of work for this project includes the stabilization of defective/delaminating paint on all exterior surfaces (wall siding, wall trim, windows and window components, doors and door components, etc.) of identified buildings in preparation for the building exteriors to be repainted. Scraping (using wet methods) is the surface preparation technique which shall be utilized to perform this work. Any other surface preparation techniques (such as sanding, sandblasting, etc.) are not permitted without prior authorization from the Engineer or Owner. Stabilization of defective/delaminating paint will be considered complete following a final visual inspection from the Engineer.**

Surface preparation techniques (such as wet scraping) which are utilized on surfaces coated with lead paint must be conducted in accordance with the

OSHA worker protection and USEPA RCRA/CTDEEP waste disposal standards. All work impacting those materials shall be conducted within an established lead control (regulated) area with a remote handwash facility/decontamination system in accordance with OSHA Lead in Construction Standards. In accordance with OSHA 29 CFR 1926.62, engineering controls and work practices shall be utilized to prevent the spread of lead dust and debris beyond the Regulated Area and limit the generation of airborne lead. All wastes containing lead paint shall be properly contained and secured for storage, transportation and disposal.

Prior to disposal, the waste stream generated from this work shall require proper TCLP characterization. The Engineer will be responsible for performing the TCLP waste stream characterization.

- c. Lead paint has been identified on various exterior components in each of the three buildings:
- **Viets Tavern (106 Newgate Road):** wood window components, wood door components, wood walls/siding, CMU foundation walls
 - **Yellow Cottage (114 Newgate Road):** wood window components, wood siding
 - Yellow Cottage first floor windows contain ACM window caulk (WC1). See drawing ASB-1 located in Division 50 00 00 Project-Specific Available Information Section at the end of the Technical Specification Sections for ACM locations. Lead paint activity on these windows will coincide with asbestos abatement as outlined in Section 028213.
 - **White Cottage (105 Newgate Road):** wood window & door casings, wood siding
 - White Cottage basement windows contain ACM window glaze (WG2). See drawing ASB-2 located in Division 50 00 00 Project-Specific Available Information Section at the end of the Technical Specification Sections for ACM locations. Lead paint activity on these windows will coincide with asbestos abatement as outlined in Section 028213.

All exterior painted components to be impacted as part of this work shall be presumed to contain lead paint.

1.3 DEFINITIONS

Abatement: Any set of measures designed to eliminate lead hazards in accordance with the established CTDPH and OSHA standards, including , but not limited to, the encapsulation, replacement, removal, enclosure or covering of paint, plaster, soil, dust or other material containing toxic levels of lead and all preparation, clean-up, disposal and re-occupancy clearance testing.

Abatement Area: A room or area isolated with containment in accordance with CTDPH Section 19a-111-4(c)(2) where lead abatement is occurring.

Abrasive Removal: A method of abatement that entails the removal of lead-based paint using mechanical removal equipment logically fitted with a high efficiency particulate accumulator (HEPA) dust collection system.

Action Level: Employee exposure, without regard to the use of respirators, to an airborne concentration of lead of 30 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) calculated as an eight hour time weighted average (TWA).

Agency: The authoritative force, usually at a state level, or their representative.

Atomic Absorption Spectrophotometer (AAS): An instrument which measures the lead content in parts per million (ppm) using a lead source lamp, a flame capable of measuring the absorbed energy and converting it to concentration.

Biological Monitoring: The analysis of a person's blood and/or urine to determine the level of lead contamination in the body.

Certificate: A document issued by the department indicating successful completion of an approved training course.

Certified Historic Property: Any building, structure, or site which has been determined historic by the Connecticut Historical Commission.

Certified Lead Abatement Supervisor: Any person who completes an appropriate approved training course and obtains a certificate as a lead abatement supervisor from the department. A lead abatement supervisor oversees lead abatement activities.

Certified Lead Abatement Worker: Any person who completes an appropriate approved training course and obtains a certificate as a lead abatement worker from the department. A lead abatement worker performs lead abatement activities.

Certified Lead Inspector: Any lead consultant who completes an appropriate approved training course and obtains a certificate as a lead inspector from the department. A certified lead inspector conducts inspections to determine the presence of lead in paint, other surface coverings and various environmental media.

Certified Lead Inspector Risk Assessor: Any lead consultant who completes an appropriate approved training course and obtains a certificate as a lead inspector risk assessor from the department. A certified lead inspector risk assessor conducts inspections and collects and interprets information to assess the level of risk from lead hazards.

Certified Lead Planner-Project Designer: Any lead consultant who completes an appropriate approved training course and obtains a certificate as a lead planner-project designer from the department. A certified lead planner-project designer designs lead abatement and management activities.

Chemical Removal: A method of abatement which entails the removal of lead-based paint using chemical paint strippers.

Chewable Surface: Any projection one-half (0.5) inch or greater from an interior or exterior surface up to five (5) feet in height that can be mouthed by a child as defined in CTDPH 19a-111-1.

Child: A person under the age of six (6).

Common Area: A room or area that is accessible to all occupants in a building (e.g. hallway, stairwell).

Competent Person: An individual with 32 hours of lead abatement training capable of identifying existing and predictable lead hazards, identifying corrective measures to eliminate them, and who has authorization to take prompt measures to eliminate them. The duties of the competent person include at least the following: controlling entry to and exit from the lead control area; ensuring that all employees working within the lead control area wear the appropriate personal protective equipment, are trained in the use of appropriate methods of exposure control, and use the hygiene facilities and decontamination procedures specified; and ensuring that engineering controls in use are in proper operating condition and are functioning properly.

Complete Abatement: Abatement of all lead-based paint, inadequately covered lead-contaminated soil and lead-contaminated dust inside or outside a dwelling or building. All of these strategies require preparation; cleanup; post abatement clearance testing; record keeping; and, if applicable, reevaluation and on-going monitoring.

Containment: A process for protecting workers, residents, and the environment by controlling exposures to lead dust and debris created during abatement.

CTDEEP: The Connecticut Department of Energy and Environmental Protection, 79 Elm Street, Hartford, CT 06106.

CTDPH: The Connecticut Department of Public Health, 410 Capitol Avenue, Hartford, CT 06106.

Department: The State of Connecticut Department of Public Health.

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Defective Surface: Peeling, flaking, chalking, scaling, or chipping paint; or paint over crumbling, cracking, or falling plaster; or paint over a defective or deteriorating substrate; or paint that is damaged in any manner such that a child can get paint from the damaged area. Defective may be termed as Deteriorated and may be classified as either fair or poor condition.

Differential Pressure: A difference in the static air pressure between the prepared work area and the occupied area developed by the use of HEPA filtered exhaust fans.

Dwelling: Every building or shelter used or intended for human habitation, including exterior surfaces and all common areas thereof, and the exterior of any other structure located within the same lot, even if not used for human habitation.

Dwelling Unit: A room or group of rooms within a dwelling arranged for use as a single household by one or more individuals living together who share living and sleeping facilities.

Elevated Blood Lead Level: A blood lead concentration equal to or greater than twenty (20) micrograms per deciliter ($\mu\text{g}/\text{dl}$) as defined in CTDPH Regulation 19a-111-1. A blood lead concentration equal to or greater than forty (40) micrograms per deciliter ($\mu\text{g}/\text{dl}$) as defined in OSHA Standard 29 CFR 1926.62.

Encapsulation: The resurfacing or covering of surfaces, and sealing or caulking with durable materials so as to prevent or control chalking, flaking, lead-containing substances from being part of building dust or accessible to children. Painting or wallpapering is not considered encapsulation.

Enclosure: The use of rigid, durable construction materials that are mechanically fastened to the substrate to act as a barrier between the lead-based paint and the environment.

Engineer: - The Connecticut Department of Transportation, 2800 Berlin Turnpike, Newington, Connecticut 06111, or their authorized representative, TRC Environmental Corporation, 5 Waterside Crossing, Windsor, Connecticut 06095.

Engineering Controls: Measures implemented at the work site to contain, control, and/or otherwise reduce worker exposure to, and environmental releases of, lead dust and debris.

EPA: The U.S. Environmental Protection Agency, 401 M Street SW, Washington, DC 20460.

Evaluation: Risk assessment, paint inspection, reevaluation, investigation, clearance examination or risk assessment screen.

Fixed Object: A unit of equipment or furniture in the work area which cannot, as determined by the Engineer, be removed from the work area.

Hazardous Waste: As defined in the Resource Conservation and Recovery Act (RCRA) the term "hazardous waste" means a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may:

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- A. cause or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness, or
- B. pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

As defined in the regulations, a solid waste is hazardous if it meets one of four conditions:

- 1. Exhibits a characteristic of a hazardous waste (40 CFR Sections 261.20 through 262.24),
- 2. Has been listed as hazardous (40 CFR Section 261.31 through 261.33),
- 3. Is a mixture containing a listed hazardous waste and a non-hazardous solid waste (unless the mixture is specifically excluded or no longer exhibits any of the characteristics of hazardous waste), or
- 4. Is not excluded from regulation as a hazardous waste.

HEPA Filter: A high-efficiency particulate accumulator (HEPA) filter is capable of trapping and retaining at least 99.97 percent of all monodispersed particles of 0.3 micrometers in diameter or larger.

High Phosphate Detergent: Detergent which contains at least five percent tri-sodium phosphate (TSP).

HUD: The U.S. Department of Housing and Urban Development.

ICP (Inductively Coupled Plasma): An analytical technique capable of identifying metal constituents including lead.

Inspection: A surface-by surface investigation to determine the presence of lead-based paint (in some cases including dust and soil sampling) and a report of the results.

Intact Surface: A defect-free surface with no loose, peeling, chipping, or flaking paint or paint substrate. A surface not damaged in any way such that a child can get paint from the damaged area.

Interim Controls: A set of measures designed to temporarily reduce human exposure or possible exposure to lead-based paint hazards. Such measures include specialized cleaning, repairs, maintenance painting, temporary containment and management and resident education programs. Interim controls also include dust removal; paint film stabilization; treatment of friction and impact surfaces; installation of soil coverings, such as grass or sod; and land-use controls.

Lead: Metallic lead, all inorganic lead compounds and organic lead soaps.

Lead Abatement Plan: A written plan that identifies the location of intact and defective lead-based paint, lead-contaminated soil and lead-contaminated dust and describes how defective lead-based surfaces, lead-contaminated soil and lead-contaminated dust will be abated and how the environment and human health and safety will be protected.

Lead Abatement: A comprehensive process of eliminating exposure to lead paint, lead soil and lead dust which includes removal, encapsulation, enclosure, testing, measures for worker protection, containment of dust and debris, cleanup, and disposal of waste.

Lead Based Paint: Paints or other surface coatings containing a toxic level of lead as defined in State of Connecticut DPH Regulation 19a-111-1.

Lead Based Paint Hazard (Lead Hazards): Any condition that causes exposure to lead from lead-contaminated dust, lead-contaminated soil or lead-based paint that would have an adverse effect on human health. Lead-based paint hazards include, for example, deteriorated lead-based paint, leaded dust levels above applicable standards and bare leaded soil above applicable standards.

Lead Based Paint Hazard Control (Lead Hazard Control): Activities to control and eliminate lead-based paint hazards, including interim controls, abatement and complete abatement.

Lead-Contaminated Dust: Dust containing lead at or above the levels of acceptance as defined in State of Connecticut DPH Regulation 19a-111.

Lead-Contaminated Soil: Soil containing lead at or above the levels of acceptance as defined in State of Connecticut DPH Regulation 19a-111.

Lead Control Area: An area where lead abatement operations are performed where airborne concentrations of lead dust exceed or can reasonably be expected to exceed the permissible exposure limit. The lead control area is isolated by physical boundaries from occupied areas to prevent the spread of lead dust, paint chips, debris, and unauthorized entry of personnel.

Lead-Free Dwelling: A lead-free dwelling contains no lead-based painted surfaces and has interior dust and exterior soil lead levels below the applicable CTDPH, HUD and EPA standards.

Lead Hazard Screen: A means of determining whether residences in good condition should have a full risk assessment. Also called a risk assessment screen.

Lead Management Plan: A written plan that describes how an intact surface with lead-based paint will be monitored to ensure that defective paint surfaces will be identified and abated.

Licensed Lead Abatement Contractor: Any entity that contracts to perform lead hazard abatement and obtains a license from the department to conduct such abatement work. The contractor uses certified lead abatement supervisors to oversee such lead abatement activities and certified lead abatement workers to perform such lead abatement activities.

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Licensed Lead Consultant Contractor: Any entity that contracts to perform lead hazard reduction consultation work utilizing an inspector, inspector risk assessor and/or planner-project designer and obtains a license from the department to conduct such consultation work.

Lead-Safe Dwelling: A lead-safe dwelling contains intact, encapsulated or enclosed lead-based paint, adequately covered lead-contaminated soil and has interior dust and inadequately covered exterior soil below the applicable CTDPH, HUD and EPA standards.

Manifest: The shipping document used to track hazardous waste, EPA Form 8700-22, originated and signed by the generator in accordance with the instructions included in the Appendix to 40 CFR Part 262 and Section 102 of CTDEP Regulations.

µ; Microgram: The prefix "micro-" means 1/1,000,000 of a gram or 1/1000 of a milligram.

Movable Object: A unit of equipment or furniture in the work area which can, as determined by the Engineer, be removed from the work area.

Paint Film Stabilization: the process of wet scraping, priming, and repainting surfaces coated with deteriorated lead-based paint; paint film stabilization includes cleanup and clearance.

Paint Removal: An abatement strategy that entails the removal of lead-based paint from surfaces. For lead hazard control work, this can mean using chemicals, heat guns below 700 degrees Fahrenheit, and certain contained abrasive methods. Open flame burning, open abrasive blasting, sand blasting, water blasting and extensive dry scraping are prohibited paint removal methods.

Permissible Exposure Limit (PEL): Fifty (50) micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) of air averaged over an 8 hour period as determined by 29 CFR 1926.62.

Personal Monitoring: Sampling of lead concentrations within the breathing zone of a worker to determine the 8-hour time weighted average concentration in accordance with 29 CFR 1926.62. Samples shall be representative of the employee's work tasks.

Pre-Clean: The process of cleaning an area before lead abatement activities begin to ensure all dust, paint chips, and debris in the work area are properly contained and disposed of.

Project Monitor: A professional capable of conducting air monitoring and wipe sampling. This individual is responsible for recognition of technical deficiencies in worker protection equipment and procedures during both planning and on-site phases of an abatement project. The Project Monitor shall meet the training requirements in lead abatement or inspection.

Reevaluation: In lead hazard control work the combination of a visual assessment and collection of environmental samples performed by a certified risk assessor to determine if a previously implemented lead-based paint hazard control measure is still effective and if the dwelling remains lead-safe.

Replacement: A strategy of abatement that entails removing components such as windows, doors, and trim that have lead painted surfaces and installing new or de-lead components free of lead paint.

Risk Assessment: An on-site investigation of a residential dwelling to discover any lead-based paint hazards. Risk assessments include an investigation of the age, history, management and maintenance of the dwelling and the number of children under the age of six (6) and women of childbearing age who are residents; a visual assessment; limited environmental sampling (i.e. collection of dust wipe samples, soil samples and deteriorated paint samples); and preparation of a report identifying acceptable abatement and interim control strategies based on specific conditions.

Risk Assessment Screen: A type of risk assessment performed only in buildings in good condition using fewer samples but more stringent evaluation criteria (standards) to determine lead hazards.

Substrate: The underlying surface beneath a paint or varnish.

Toxic Level of Lead: When present in a dried paint, plaster or other accessible surface in a residential dwelling contains more than 0.50 percent lead by dry weight as measured by atomic absorption spectrophotometry (AAS), graphite furnace atomic absorption spectrophotometry (GFAAS), or inductively coupled plasma atomic emission spectrophotometry (ICP-AES) by a laboratory approved by the department for lead analysis, or more than 1.0 milligrams per square centimeter of surface as measured on site by an X-ray fluorescence analyzer as defined in CTDPH 19a-111-1.

Toxicity Characteristic Leaching Procedure (TCLP): A laboratory analytical method (EPA Test Method SW-846, Method 1311) for analyzing the waste stream to determine toxicity; the results are provided in milligrams per liter of extract (mg/l). For the 8 RCRA metals, measurements above the following values indicate that the waste is hazardous:

<u>Parameter</u>	<u>mg/l</u>	<u>Parameter</u>	<u>mg/l</u>
Arsenic	5.0	Lead	5.0
Barium	100.00	Mercury	0.2
Cadmium	1.0	Selenium	1.0
Chromium	5.0	Silver	5.0

TriSodium Phosphate (TSP): A specific lead-specific detergent known to perform well in the clean-up of lead-dust when used in solution.

Visible Residue: Any debris, dust, or chips on surfaces in areas within the work area where lead abatement has taken place and which is visible to the unaided eye.

Wet Cleaning: The process of eliminating lead dust and chip contamination from surfaces by using cloths, mops, or other cleaning tools which have been dampened with water and afterwards disposing of the cleaning items as lead waste.

Wipe Test: A test used to determine the concentration of lead particles; used to determine whether clearance levels for lead abatement have been achieved. A wipe test assimilates the dust from a measured surface area of about one square foot and is laboratory analyzed to determine the quantity of lead contained in that area.

X-Ray Fluorescence (XRF) Analyzer: An analytical instrument which measures lead concentration of dried paint on surfaces or in a laboratory sample in milligrams per square centimeter (mg/cm²) using a radioactive source within the instrument.

1.4 SUBMITTALS AND NOTICES

- A. Prior to the start of **any** work that will generate hazardous lead waste above conditionally exempt small quantities (greater than 100 kg/month or greater than 1000 kg at any time), the Contractor shall obtain from the Engineer/CTDEEP a temporary EPA Hazardous Waste Generators ID, unless otherwise directed by the Engineer.
- B. Prior to the generation of any hazardous waste, provide a copy of the USEPA permit for disposal of hazardous lead bearing waste for each proposed hazardous waste treatment storage disposal facility. Also provide a copy of each proposed hazardous waste transporters current USDOT Certificate of Registration and current Hazardous Waste Transporter permits for the State of Connecticut, the hazardous waste destination state and any other applicable states.
- C. Fifteen (15) working days prior to beginning work that impacts lead paint, the Contractor shall submit the following to the Engineer:
 - 1. Work plan for work impacting lead paint including engineering controls, methods of containment of debris and work practices to be employed, as needed, to minimize employee exposure and prevent the spread of lead contamination outside the Regulated Area.
 - 2. For projects when the intent is to mitigate lead hazards and provide lead-safe conditions for building occupants, a valid CTDPH Lead Abatement Contractor License.
 - 3. Copies of all employee certificates, dated within the previous twelve (12) months, relating to OSHA lead awareness and hazard communication training and training in the use of lead-safe work practices. SSPC, HUD LSWP and USEPA RRP training programs may be deemed acceptable as meeting these requirements if it can be demonstrated that such training addressed all required OSHA topics.
 - 4. Name and qualifications of Contractor's OSHA Competent Person under 29 CFR 1926.62.
 - 5. Documentation from the Contractor, typed on company letterhead and signed by the Contractor, certifying that all employees listed therein have received the following:

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- a. medical monitoring within the previous twelve (12) months, as required in 29 CFR 1926.62;
 - b. biological monitoring within the previous six (6) months, as required in 29 CFR 1926.62;
 - c. respirator fit testing within the previous twelve (12) months, as required in 29 CFR 1910.134 (for those who don a tight-fitting face piece respirator)
6. Name of proposed waste recycling facility for lead-painted asphalt, brick, stone, and concrete that meets CT Remediation Standard Regulations (RSR) GA/Residential Criteria. If these materials do not meet GA/Residential Criteria, they will be disposed of as a non-hazardous construction and demolition (C&D) waste.
 7. Names of the proposed non-hazardous construction and demolition (C&D) lead debris bulky waste disposal facility (CTDEEP-permitted Solid Waste landfill)
 8. Names of the proposed scrap metal recycling facilities. The Contractor shall submit to the Engineer all documentation necessary to demonstrate the selected facility is able to accept lead-painted scrap metal.
 9. Negative exposure assessments conducted within the previous 12 months documenting that employee exposure to lead for each task is below the OSHA Action Level of 30 $\mu\text{g}/\text{m}^3$. If a negative exposure assessment has not been conducted, the Contractor shall submit its air monitoring program for the work tasks.
- D. No activity shall commence until all required submittals have been received and found acceptable to the Engineer/Owner. Those employees added to the Contractor's original list will be allowed to perform work only upon submittal of acceptable documentation to, and review by, the Engineer/Owner.
- E. Provide the Engineer/Owner, within thirty (30) days of completion of the project site work, a compliance package; which shall include, but not be limited to, the following:
1. Competent persons (supervisor) job log;
 2. OSHA-compliant personnel air sampling data and exposure assessments;
 3. Completed waste shipment papers for non-hazardous lead construction and demolition (C&D) bulky waste disposal and scrap metal recycling
 4. Completed certified hazardous waste manifests for hazardous lead debris.

1.5 MEASUREMENT AND PAYMENT

The Contractor's cost proposal shall be based on the following criteria:

Measurement for payment shall be based on a lump sum price for the lead hazard control construction activities. Measurement of payment shall be based on a per ton price for transport and disposal of hazardous and non-hazardous lead waste.

No extra payment shall be made for the construction and removal of containments, any required barrier installation and removal, decontamination, dust control, site preparation, site restoration or waste disposal areas. The cost for these items shall be included in the base bid.

PART 2 PRODUCTS

2.1 MATERIALS

- A. All materials shall be delivered to the job site in the original packages, containers, or bundles bearing the name of the manufacturer, the brand name and product technical description, with MSDS sheets as applicable.
- B. No damaged or deteriorating materials shall be used. If material becomes contaminated with lead, the material shall be decontaminated or disposed of as lead-containing waste material. The cost to decontaminate and dispose of this material shall be at the expense of the Contractor.
- C. Fire retardant polyethylene sheet shall be in roll size to minimize the frequency of joints, with factory label indicating six (6) mil thickness.
- D. Polyethylene disposable bags shall be six (6) mils thick.
- E. Tape (or equivalent) capable of sealing joints in adjacent polyethylene sheets and for the attachment of polyethylene sheets to finished or unfinished surfaces must be capable of adhering under both dry and wet conditions.
- F. Cleaning agents and detergent shall be lead specific, such as TriSodium Phosphate (TSP).
- G. Any chemical strippers and chemical neutralizers to be utilized shall be compatible with the substrate as well as with each other. Such chemical strippers shall contain less than 50% volatile organic compounds (VOCs) in accordance with RCSA 22a-174-40 Table 40-1.
- H. Labels and warning signs shall conform to OSHA 29 CFR 1926.62, USEPA 40 CFR 745, USEPA 40 CFR 260 through 274 and USDOT 49 CFR 172 as appropriate.
- I. Any planking, bracing, shoring, barricades and/or temporary sheet piling, necessary to appropriately perform work activities shall conform to all applicable federal, state and local regulations.
- J. Air filtration devices and vacuum units shall be equipped with HEPA filters.

2.2 TOOLS AND EQUIPMENT

- A. The Contractor shall provide tools and equipment that are suitable for lead paint related activity:

1. Air monitoring equipment of the type and quantity required to monitor operations and conduct personnel exposure surveillance in accordance with OSHA requirements.
2. Electrical equipment, protective devices and power cables shall conform to all applicable codes.
3. Where lead exposures are above the OSHA Action Level or PEL, the Contractor shall provide wash facilities/shower stalls and plumbing that include sufficient hose length and drain system or an acceptable alternate. One shower stall shall be provided for each eight workers.
4. Where lead exposures are above the OSHA PEL, the Contractor shall provide exhaust air filtration units that are equipped with HEPA filters to provide local exhaust ventilation at the work area to reduce airborne lead emissions.
5. The Contractor shall provide vacuum units of suitable size and capabilities for the project which have HEPA filters capable of trapping and retaining at least 99.97 percent of all monodispersed particles of three micrometers in diameter or larger. HEPA vacuums shall also be equipped with a beater bar.
6. The Contractor shall provide ladders and/or scaffolds of adequate length, strength and sufficient quantity to support the work schedule. Scaffolds shall be equipped with safety rails and kick boards in compliance with OSHA requirements.
7. Protective clothing, respirators, and HEPA P100 filter cartridges shall be provided in sufficient quantities for the project.
8. Equipment suitable for building renovation/demolition and proper waste/debris collection/packing/removal, (e.g. excavators, grapples, backhoes, roll-offs, etc.) shall be provided by the Contractor as required.

PART 3 EXECUTION

3.1 GENERAL REQUIREMENTS

- A. All employees of the Contractor who perform work impacting lead paint shall be properly trained to perform such duties. In addition, the Contractor shall instruct all workers in all aspects of personnel protection, work procedures, emergency evacuation procedures and use of equipment including procedures unique to this project.
- B. Contractor shall provide all labor, materials, tools, equipment, services, testing, insurance (with specific coverage for work on lead), and incidentals which are necessary or required to perform the work in accordance with applicable governmental regulations, industry standards and codes, and these Specifications.

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- C. Prior to beginning work, the Engineer and Contractor shall perform a visual survey of each work area and review conditions at the site.

- D. As necessary, the Contractor shall:
 - 1. Shutdown and isolate heating, cooling, and ventilating air systems to prevent contamination and particulate dispersal to the other areas of the building.
 - 2. Shut down and lock out electrical power, including all receptacles and light fixtures, when feasible. The use or isolation of electrical power will be coordinated with all other ongoing uses of electrical power at the site.
 - 3. Coordinate all power and fire alarm isolation with the appropriate representatives.
 - 4. When necessary, provide temporary power and adequate lighting and ensure safe installation of electrical equipment, including ground fault protection and power cables, in compliance with applicable electrical codes and OSHA requirements. The Contractor is responsible for proper connection and installation of electrical wiring.

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

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

- G. If adequate electrical supply is not available at the site, the Contractor shall supply temporary power. Such temporary power shall be sufficient to provide adequate lighting and power the Contractor's equipment. The Contractor is responsible for proper connection and installation of electrical wiring and shall ensure safe installation of electrical equipment in compliance with applicable electrical codes and OSHA requirements.

- H. If water service is not be available at the site for Contractor's use, the Contractor shall supply sufficient water for each shift to operate the wash facility/decontamination shower units in addition to the water needed at the work area.

- I. The Owner will provide a Project Monitor to monitor compliance of the Contractor. In such cases no activity impacting lead paint shall be performed until the Project Monitor is on-site. Environmental sampling, including ambient air sampling, TCLP waste stream sampling and/or dust wipe sampling, will be conducted by the Engineer/Project Monitor as deemed necessary throughout the project. Air monitoring to comply with the Contractor's obligations under OSHA remains solely the responsibility of the Contractor.

- J. If air samples collected outside of the Regulated Area during activities impacting lead paint indicate airborne lead concentrations greater than original background levels or 30 ug/m³, whichever is larger, or if at any time visible emissions of lead paint extend out from the Regulated Area, an examination of the Regulated Area shall be conducted and the cause of such emissions corrected. Cleanup of surfaces outside the Regulated Area using HEPA vacuum equipment or wet cleaning techniques shall be done prior to resuming work.
- K. Work outside the initial designated area(s) will not be paid for by the Engineer. The Contractor will be responsible for all costs incurred from these activities including repair of any damage.

3.2 ESTABLISHMENT OF REGULATED WORK AREAS

- A. The Contractor shall establish a Regulated Area, through the use of appropriate barrier tape, or other means to control unauthorized access into the area when activities impacting lead paint are occurring.
- B. Warning signs meeting the requirements of OSHA 29 CFR 1926.62 shall be posted at all approaches to Regulated Areas. These signs shall read:

WARNING
LEAD WORK AREA
POISON
NO SMOKING OR EATING

- C. The Contractor shall implement appropriate engineering controls such as critical barriers, poly drop cloths, negative pressure, local exhaust ventilation, wet dust suppression methods, etc. as necessary, and as approved by the Engineer, to prevent the spread of lead contamination beyond the Regulated Area in accordance with the Contractor's approved work plan. Should the previously submitted work plan prove to be insufficient to contain the contamination, the Contractor shall modify its plan and submit it for review by the Engineer.
- D. For exterior work areas, the Contractor shall use a High Efficiency Particulate Air (HEPA) filtered vacuum dust collection system to remove any visible existing paint chips from the ground to a distance of 20' out from the base of the exterior surface scheduled for lead paint activity prior to commencement of work and extend a 6 mil polyethylene sheet drop cloth on the ground adjacent to the exterior surface scheduled for lead paint activity to contain debris/contamination.

3.3 WASH FACILITIES

- A. The Contractor shall provide handwash facilities in compliance with 29 CFR 1926.51(f) and 29 CFR 1926.62 regardless of airborne lead exposure.

- B. If employee exposure to airborne lead exceeds the OSHA Permissible Exposure Limit (PEL) of 50 micrograms per cubic meter of air ($\mu\text{g}/\text{m}^3$), shower rooms must be provided. The Shower Room shall be of sufficient capacity to accommodate the number of workers. One shower stall shall be provided for each eight (8) workers. Showers shall be equipped with hot and cold or warm running water. Shower water shall be collected and filtered using best available technology and disposed of in accordance with all federal, state and local laws, regulations and ordinances.

3.4 PERSONNEL PROTECTION

- A. Exposure Assessments: The Contractor shall initially determine if any employee performing construction tasks impacting lead paint may be exposed to lead at or above the OSHA Action Level of 30 micrograms per cubic meter ($30 \mu\text{g}/\text{m}^3$). Assessments shall be based on initial air monitoring results as well as other relevant information. The Contractor may rely on historical air monitoring data obtained within the past 12 months under workplace conditions closely resembling the process, type of material, control methods, work practices and environmental conditions used and prevailing in the Contractors current operations to satisfy the exposure assessment requirements. Monitoring shall continue as specified in the OSHA standard until a negative exposure assessment is developed.
- B. Until a negative exposure assessment is developed for each task impacting lead paint, the Contractor shall ensure that all workers and authorized person entering the Regulated Area wear protective clothing and respirators in accordance with OSHA 29 CFR 1926.62. Protective clothing shall include impervious coveralls with elastic wrists and ankles, head covering, gloves and foot coverings. Sufficient quantities shall be provided to last throughout the duration of the project.
- C. Protective clothing provided by the Contractor and used during chemical removal operations shall be impervious to caustic materials. Gloves provided by the Contractor and used during chemical removal shall be of neoprene composition with glove extenders.
- D. Respiratory protective equipment shall be provided and selection shall conform to 42 CFR Part 84, 29 CFR Part 1910.134, and 29 CFR Part 1926.62. A formal respiratory protection program must be implemented in accordance with 29 CFR Part 1926.62 and 29 CFR Part 1910.134.

3.5 AIR MONITORING REQUIREMENTS

- A. The Contractor shall:
 - 1. Provide air monitoring equipment including sample filter cassettes of the type and quantity required to properly monitor operations and personnel exposure surveillance throughout the duration of the project.

2. Conduct initial exposure monitoring to determine if any employee performing construction tasks impacting lead paint may be exposed to lead at or above the OSHA Action Level of 30 micrograms per cubic meter. Monitoring shall continue as specified in the OSHA standard until a negative exposure assessment is developed.
3. Conduct personnel exposure assessment air sampling, as necessary, to assure that workers are using appropriate respiratory protection in accordance with OSHA Standard 1926.62. Documentation of air sampling results must be recorded at the work site within twenty-four (24) hours and shall be available for review until the job is complete.

3.6 LEAD PAINT ACTIVITY PROCEDURES

- A. The Contractor's Competent Person shall be at the job at all times during work impacting lead. The Competent Person shall also have prior experience with the removal of lead paint from historic wooden windows and structures in accordance with, and be knowledgeable of, the U.S. Department of the Interior, National Park Service, Cultural Resources, Historic Preservation Briefs 9, 10 & 37.
- B. Work impacting lead paint shall not begin until authorized by the Engineer, following a pre-abatement visual inspection by the Project Monitor.
- C. Any activity impacting lead painted surfaces shall be performed in a manner which minimizes the spread of lead dust contamination and generation of airborne lead.
- D. The Contractor shall ensure proper entry and exit procedures for workers and authorized persons who enter and leave the Regulated Area. All workers and authorized persons shall leave the Regulated Area and proceed directly to the wash or shower facilities where they will HEPA vacuum gross debris from work suit, remove and dispose of work suit, wash and dry face and hands, and vacuum clothes. Do not remove lead chips or dust by blowing or shaking of clothing. Wash water shall be collected, filtered, and disposed of in accordance with federal, state and local water discharge standards. Any permit required for such discharge shall be the responsibility of the Contractor.
- E. No one shall eat, drink, smoke, chew gum or tobacco, or apply cosmetics while in the Regulated Area.
- F. Utilize appropriate engineering controls and work practices (e.g. wet methods) as directed by 29 CFR 1926.62 (and 40 CFR 745.85 as applicable) to control lead emissions and contamination.
- G. Properly contain wastes containing lead paint for appropriate storage, transport and disposal.
- H. Stop all work in the regulated area and take steps to decontaminate non-work areas and eliminate causes of such contamination should lead contamination be discovered in areas outside of the regulated area.

- I. Special Requirements:
 1. Demolition/Renovation:
 - a. Demolish/renovate in a manner which minimizes the spread of lead contamination and generation of lead dust.
 - b. Implement dust suppression controls, such as misters, local exhausts ventilation, etc. to minimize the generation of airborne lead dust.
 - c. Segregate work areas from non-work areas through the use of barrier tape, poly criticals, etc.
 - d. Clean up immediately after renovation/demolition has been completed
 2. Chemical Removal:
 - a. Any chemical stripper must be approved by the Project Engineer prior to use.
 - b. Apply chemical stripper in quantities and for durations specified by manufacturer.
 - c. Where necessary scrape lead paint from surface down to required level of removal (i.e. stabilized surface, bare substrate with no trace of residual pigment, etc.). Use sanding, hand scraping, and dental picks to supplement chemical methods as necessary.
 - d. Apply neutralizer compatible with substrate and chemical agent to substrate following removal in accordance with manufacturer's instructions.
 - e. Protect adjacent surfaces from damage from chemical removal.
 - f. Maintain a portable eyewash station in the work area.
 - g. Wear respirators that will protect workers from chemical vapors.
 - h. Do not apply caustic agents to aluminum surfaces.
 3. Paint Stabilization/Liquid Encapsulation:
 - a. Remove surface dust, dirt, mildew, scale, rust or other debris by scrubbing with detergent (lead-specific detergent solution) and rinsing. Remove loose paint using wet scraping methods until a sound surface is achieved. Remove unsound substrate not firmly adhered and repair with an appropriate patching material in accordance with the U.S. Department of the Interior, National Park Service Cultural Resources, Historic Preservation Briefs 9, 10 & 37, and the contract technical specifications.

- b. Remove and reinstall or protect electrical receptacles, hardware, and wall mounted objects from being painted-over by encapsulant. Protect adjacent finishes from paint splatter or other damage.
- c. Apply encapsulant in a continuous coat. Number of coats is as specified in the manufacturer's instructions for application. Encapsulant shall be approved by the CTDPH for use. Use encapsulants only on substrates and locations approved for use in the manufacturers instructions.

4. Mechanical Paint Removal:

- a. Mechanical paint removal methods are only to be utilized if removal cannot be completed using hand tools, and if approved by the Owner/Architect.
- b. Provide sanders, grinders, rotary wire brushes, or needle gun removers equipped with a HEPA filtered vacuum dust collection system. Cowling on the dust collection system for orbital-type tools must be capable of maintaining a continuous tight seal with the surface being abated. Cowling on the dust collection system for reciprocating-type tools shall promote an effective vacuum flow of loosened dust and debris. Inflexible cowlings may be used on flat surfaces only. Flexible contoured cowlings are required for curved or irregular surfaces.
- c. Provide HEPA vacuums that are high performance designed to provide maximum static lift and maximum vacuum system flow at the actual operating vacuum condition with the shroud in use. The HEPA vacuum shall be equipped with a pivoting vacuum head.
- d. Remove lead paint from surface down to required level of removal (i.e. stabilized surface, bare substrate with no trace of residual pigment, etc.). Use chemical methods, hand scraping, and dental picks to supplement abrasive removal methods as necessary.
- e. Protect adjacent surfaces from damage from abrasive removal techniques.
- f. "Sandblasting" type removal techniques should only be performed within full containment negative pressure enclosures, and not without prior approval by the Project Engineer.

5. Component Removal/Replacement:

- a. Wet down components which are to be removed to reduce the amount of dust generated during the removal process.
- b. Remove components utilizing hand tools, and follow appropriate safety procedures during removal. Remove the building components by approved

methods which will provide the least disturbance to the substrate material. Do not damage adjacent surfaces.

- c. Clean up immediately after component removals have been completed. Remove any dust located behind the component removed.

3.7 PROHIBITED REMOVAL METHODS

- A. The use of heat guns in excess of 700 degrees Fahrenheit to remove lead paint is prohibited.
- B. The use of sand, steel grit, water, air, CO₂, baking soda, or any other blasting media to remove lead or lead paint without the use of a HEPA ventilated contained negative pressure enclosure is prohibited.
- C. Power tool assisted grinding, sanding, cutting, needle gun, power planing or wire brushing of lead paint without the use of cowled HEPA vacuum dust collection systems is prohibited.
- D. Lead paint burning, busting of rivets painted with lead paint, welding of materials painted with lead paint, and torch cutting of materials painted with lead paint is prohibited. Where cutting, welding, busting, or torch cutting of materials is required, pre-remove the lead paint in the area affected.
- E. Use of chemical strippers containing Methylene Chloride is prohibited.
- F. Compressed air shall not be utilized to remove lead paint.
- G. Power/Pressure washing shall not be used to remove paint.

3.8 CLEAN-UP AND VISUAL INSPECTION/VERIFICATION

- A. The Contractor shall remove and containerize all lead waste material and visible accumulations of debris, paint chips and associated items.
- B. During clean up the Contractor shall utilize rags and sponges wetted with lead-specific detergent and water as well as HEPA filtered vacuum equipment.
- C. The Engineer/Project Monitor will conduct a visual inspection of the work areas in order to document that all surfaces have been maintained as free as practicable of accumulations of lead in accordance with OSHA 29 CFR 1926.62(h). If visible accumulations of waste, debris, lead paint chips or dust are found in the work area, the Contractor shall repeat the cleaning, at the Contractor's expense, until the area is in compliance. The visual inspection will detect incomplete work, damage caused by the abatement activity, and inadequate clean up of the work site.

- D. Dust wipe clearance testing, in accordance with CTDPH/USEPA/HUD protocols, will also be performed by the Engineer if so detailed in Section 1.2 Description of Work. If lead dust wipe levels are above CTDPH/EPA/HUD clearance criteria, the Contractor shall re-clean the work area and retesting shall be conducted at the Contractors expense. The testing and cleaning sequence shall be repeated until the clearance criteria levels have been achieved.

3.9 POST ABATEMENT WORK AREA DEREGULATION

- A. Following the visual inspection, (and clearance/verification testing if appropriate/specified), any engineering controls and warning signs implemented may be removed.
- B. A final visual inspection of the work area shall be conducted by the Competent Person and the Project Monitor to ensure that all visible accumulations of suspect materials have been removed and that no equipment or materials associated with the abatement project remain. If this final visual is acceptable, the Contractor shall reopen the Regulated Area and remove all signage.
- C. The Contractor shall restore all work areas and auxiliary areas utilized during work to conditions equal to or better than original. Any damage caused during the performance of the work activity shall be repaired by the Contractor at no additional expense to the Engineer/Owner.

3.10 NON-HAZARDOUS WASTE DISPOSAL/RECYCLING

- A. Non-metallic building debris waste materials tested and found to be non-hazardous Construction and Demolition (C&D) bulky waste shall be disposed of properly at a CTDEEP approved Solid Waste landfill.
- B. Metallic debris shall be segregated and recycled as scrap metal at an approved metal recycling facility. The Contractor shall submit to the Engineer all documentation necessary to demonstrate the selected recycling facility is able to accept lead-painted scrap metal.
- C. Concrete, brick, stone, cured asphalt, etc. coated with any amount of lead paint cannot be crushed, recycled or buried on-site to minimize waste disposal unless representatively tested and found to meet the CTDEEP RSR GA/Residential Standards. Only CTDEEP defined “clean fill” can be recycled on-site or sent to a recycling facility.

3.11 HAZARDOUS LEAD WASTE DISPOSAL

- A. If required to dispose of any hazardous waste, the Contractor shall utilize a certified/permitted transporter for hazardous waste in compliance with DOT 49 CFR Part 172 and USEPA 40 CFR 260-274 and a permitted hazardous waste treatment storage disposal facility (TSDF) in compliance with USEPA 40 CFR 260-274.

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- B. Hazardous lead bearing material must be offered for transportation and transported in compliance with the Code of Federal Regulations, Title 49, Chapter 1, Part 173, Subparts A, B, C, and D and Paragraph 178.118. Transport vehicles (hopper or dump type) must be free from leaks and discharge openings must be securely closed during transportation. All storage containers (roll offs or drums) shall have a protective liner and removable lid. These containers shall not have any indentations or damage that would allow seepage of the contained material.
- C. The disposal of hazardous lead bearing material must be in compliance with the requirements of, and authorized by, the Office of Solid Waste Management, Department of Environmental Protection, State of Connecticut, and the USEPA.
- D. The disposal of hazardous lead bearing waste shall comply with the requirements of the Resource Conservation and Recovery Act (RCRA).
- E. Unless previous waste characterizations have been completed by the Engineer, all generated waste shall be containerized and stored on-site for hazardous waste determination via TCLP testing. TCLP testing and analysis shall be the responsibility of the Engineer.
- G. The dumpsters/containers containing hazardous waste are to be kept closed and covered and locked when not in active use for the loading of materials.
- H. All containers of hazardous lead bearing material shall be labeled in accordance with 29 CFR 1926.62 and EPA 40 CFR 260-270.
- I. All hazardous lead-bearing waste removed from the site by the Contractor shall be containerized in lined roll-offs or barrels. Store waste materials in U.S. Department of Transportation (49 CFR 178) approved containers. Properly label and placard each container to identify the type of waste (49 CFR 172) and the date the container was filled. The disposal containers shall be labeled with a six inch square, yellow, weatherproof, hazardous waste sticker in accordance with U.S. DOT regulations, by the Contractor.
- J. The Contractor may not store containerized hazardous lead waste on the job site for in excess of 90 calendar days from the accumulation start date.
- K. When required to dispose of hazardous waste, the Contractor shall utilize a certified/permitted transporter for hazardous waste in compliance with USDOT 49 CFR Part 172 and USEPA 40 CFR 260-274 and a permitted hazardous waste treatment storage disposal facility (TSDF) in compliance with USEPA 40 CFR 260-274.
- L. The Contractor shall complete a Uniform Hazardous Waste Manifest, EPA Form 8700-22, and submit to the Engineer for review and generator sign-off prior to each load of hazardous waste scheduled to leave the site. Completed copies of the manifest shall be delivered by the Contractor to the Engineer within 30 calendar days following the date the load leaves the site.

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- M. When all necessary procedures have been completed, then the hazardous waste shall be shipped to the hazardous waste disposal facility.
- N. Any spillage of debris during disposal operation, i.e., loading, transport and unloading, shall be cleaned up in accordance with the Code of Federal Regulations, Title 40, Chapter 1, Part 265, Subparts C and D, at the Contractor's expense.
- O. The Contractor is liable for any fines, costs or remediation costs incurred as a result of the failure to be in compliance with this special provision and all federal, state and local laws.
- P. Final payment requisitions for the contract will not be processed until a signed copy of the manifest from the treatment or disposal facility certifying the amount of lead-containing materials delivered is returned and a copy is furnished to the Engineer.

END OF SECTION 02 83 13

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Provide brick masonry where shown on the Drawings, as specified herein, and as needed for a complete and proper installation.
- B. Related work:
 - 1. The Work of this Section must comply with all other Sections of these Specifications.
 - 2. Section 04 01 20.52, Historic Masonry Cleaning of these Specifications.
 - 3. Section 04 01 20.19, Historic Masonry Testing of these Specifications.

1.2 QUALITY ASSURANCE

- A. The work of this project involves a significant historic site. Old Newgate Prison is a National Register historic site. All work activities must be undertaken with sufficient care to protect this historic resource and must be supervised by personnel who are familiar with the Secretary of Interior's Standards for Rehabilitation.
- B. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section. Brick masons and craftsmen who install brick and mortar, including repointing, will be required to provide evidence of qualifications. Comply with submittal requirements in 1.3, Submittals, of this Section.
- C. All activities which have the potential to disturb subsoils or otherwise disturb archaeological resources, shall be monitored by the Owner's archaeologist. Notify the Owner at least **three (3)** Calendar Days hours in advance of such activities.
- D. Provide testing services as specified in Section 04 01 20.19, Historic Masonry Testing of these Specifications.
- E. Design basis for mortar: Traditional mortar was made from lime putty, or slaked lime, combined with local sand, generally in a ratio of 1 part lime putty to 3 parts sand by volume. Often other ingredients, such as crushed marine shells (another source of lime), brick dust, clay, natural cements, pigments, and even animal hair were also added to mortar, but the basic formulation for lime putty and sand mortar remained unchanged for centuries until the advent of Portland cement or its forerunner, Roman cement, a natural, hydraulic cement. Portland cement was first manufactured in the United States in 1872, although it was imported before this date. But it was not in common use throughout the country until the early 20th century. Up until the turn of the century Portland cement was considered primarily an additive, or "minor ingredient" to help accelerate mortar set time. By the 1930's, however, most masons used a mix of equal parts Portland cement and lime putty. Thus, the mortar found in masonry structures built between 1873 and

1930 can range from pure lime and sand mixes to a wide variety of lime, Portland cement, and sand combinations. Mortar may vary throughout various structures on the Site and multiple tests will be required. The majority of brick masonry of the structures for this Project dates from 1755 to 1925. Multiple sources may be needed for sand to match historic mortars.

1.3 SUBMITTALS

- A. Comply with pertinent provisions of Division 1, General Conditions.
- B. Submit qualifications, resumes and experience on similar projects, along with project profiles. Documentation shall include, but not be limited to:
 - 1. Resumes, training and employment in the applicable field;
 - 2. Evidence of possession of required licenses and/or business permits; and
 - 3. Evidence of at least **three (3)** years in the aggregate of on the job experience in historic preservation projects of a similar nature.

In addition to the documentation required above, provide a minimum of **three (3)** references, one of which is an Owner of a completed project of the Subcontractor and one of which is an Architect or Engineer for a completed project. Provide any additional information, including photographs, as applicable, in order to show historic preservation experience to be approved by the Architect and Owner prior to the start of the work.

For individual craftsmen, **three (3)** references from past employers will be required. The Architect, and Owner under this provision, may waive other requirements of this Specification Section.

C. Product data:

- 1. Materials list of items proposed to be provided under this Section;
- 2. Manufacturer's specifications and other data and samples needed to prove compliance with the specified requirements.

D. Mock-ups:

- 1. At an area on the site where approved by the Architect, provide mock-up masonry panels.
 - a. Provide one mock-up panel for each combination of brick, bond pattern, mortar color, and joint type used in the Work.
 - b. The mock-up panels may be part of the Work, and may be incorporated into the finished Work when so approved in advance by the Architect.
 - c. Revise as necessary to secure the Architect's approval.

E. Schedule of Repairs

1.4 PRODUCT HANDLING

- A. Comply with pertinent provisions of Division 1 and General Conditions.
- B. Products and methods listed in these specifications are subject to use at specific locations. The intent is to ensure the use of compatible materials, i.e. exactly matching historic fabric with existing historic materials, or by fabricating new materials that match historic materials as closely as possible. Use historic materials first and move to compatible new materials as existing stock is depleted.

PART 2 - PRODUCTS

2.1 BRICK (if any is found to be damaged and in need of repair)

A. Acceptable manufacturers and products:

- 1. New brick of equal characteristics to existing when sufficient historic brick is not available. Provide compression tests of at least **three (3)** bricks to verify strength requirements. Provide samples of the proposed brick.

2.2 OTHER MATERIALS

A. Aggregate:

- 1. Sand for mortar: Fine, sharp, natural sand. Comply with ASTM C144. Samples of each type will be required for laboratory comparison to historic sand.

B. Natural Cement: Comply with ASTM C10/10M.

C. Lime:

- 1. Hydrated lime: Comply with ASTM C207, type "S."
- 2. Lime Putty: Comply with ASTM C5.

D. Water: Provide potable water free from injurious amounts of acids, alkalis, oil, and organic matter.

E. Coloring pigment: Provide pure, ground mineral oxides, non-fading and alkali proof. Coloring pigments will only be used if mortar mixes do not match historic mortars.

2.3 GRANITE AND STONE REPAIRS

A. NONE.

2.4 MORTAR AND GROUT MIXES

A. Mortar for repointing or setting historic masonry: (Mortar must comply with ASTM C270)

- 1. The mortar mix shall be based upon on Item (a.) below, and is subject to modification based on any test results of existing mortar.
 - a. High quality mortar color for tinting of mortar to match existing, when so directed and approved by the Architect and Owner.

Historic mortars obtain their color from the sand and colors will vary depending on the source. Mortar color will only be used if color compatible sand sources cannot be found, upon approval of the Architect and Owner.

2. Aggregates

Aggregates make up the largest component of mortar. While sand is now used almost exclusively, other products also served as aggregates in old buildings.

- a. Sand gives mortar most of its characteristic color and texture. Historic sand colors may range from white to gray to yellow within a single sample. Also, because sand often was not screened and graded as it is today, the size of grains may vary from fine to coarse. Therefore, in order to match the range of colors and grain sizes in the original sample, it may be necessary to obtain sand from several sources and then combine it. Even in a simple, small job, some coarse-grade sand may have to be added to standard packaged sand, unless joints are so fine that the look of the mortar does not play an important visual role.
 - b. Natural beach or river sand has rounded edges, as seen under a magnifying glass or low-power microscope. Natural sand provides a better visual match with old mortar and can produce good plasticity with less water, allowing the mortar to be forced into the joint more easily and forming a better contact with the old mortar and the masonry. The sand in repointing mortar must be clean and match the original as closely as possible to provide the proper color without other additives. Conform to ASTM C-144.
 - c. Other aggregates in mortar usually make up a very small proportion of the total. These aggregates, however, can be important in achieving a good color and texture match. For historic buildings, it is especially important to identify them in the original mortar and specify them in the new one, suggesting, if possible, where they may be obtained. Other materials that may be found in old mortars include animal hair, clay articles and partially burned lime. Measure the ingredients accurately and proportion by volume.
3. Mix in an approved, mechanically operated mortar mixer for at least three minutes after all ingredients are in the drum, and at least long enough to make a thorough, complete intimate mix of the materials.
 4. Discard mortar which is unused 1 hour following the initial mixing.
 5. Provide a test batch of mortar with one set of test cubes, prior to use of the subject mix in the project.
- B. Admixtures: No admixtures will be allowed.

- C. Testing: Provide the services of an independent testing laboratory on the mix, as well as an on-site test panel for mortar, as specified in Section 04211.

PART 3 - EXECUTION

3.1 SURFACE CONDITIONS

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected and specifically approved by the Architect/Engineer.

3.2 INSTALLATION

A. Wetting of bricks:

1. When being laid, provide brick suction sufficient to hold the mortar and to absorb water from the mortar and grout.
2. Provide brick sufficiently damp so that mortar will remain plastic enough to permit the brick to be leveled and plumbed immediately after being laid without destroying the bond.

B. Laying:

1. Unless otherwise indicated on the Drawings, lay the brick to follow the lines, slopes and contours of the existing work to be matched.
2. Use line blocks whenever possible. When it is absolutely necessary to use a line pin, fill the hole immediately after the pin is withdrawn.
3. Use only bricks that are clean and free from dust and other foreign matter.
4. Lay bond patterns to match the existing adjacent construction unless otherwise shown on the Drawings. Match existing bond for color and pattern at repairs.
5. Bed joints:
 - a. Bevel all bed joints, sloping toward the center of the wall in such a manner that the bed joints will be filled when the brick is finally brought to line.
 - b. Do not furrow the bed joints.
 - c. Match all existing bed joints.
6. Where bricks are moved or shifted, remove and lay again in fresh mortar.
7. Immediately remove mortar and grout from areas where they are not scheduled to be placed.

3.3 JOINERY

A. General:

1. Cut out and repoint defective joints where necessary to a minimum of one inch (1").
2. On all joints exposed to the weather, tool and make smooth, solid, and watertight. Match existing construction at areas of repair.
3. Use of grinders or other power tools for cutting out of historic mortar joints is strictly prohibited. Preparation of joints in historic masonry shall be accomplished using hand tools only.
 - a. The Repointing Process. The difference between a good and a poor repointing job is not always obvious to the unpracticed eye. Merely brushing away the loose mortar and filling the joint will produce a repointing job that may look good for several months, but within a few years the mortar will pop out of the joints. Good preparation of the joint takes a fair amount of work but is essential to getting a repointing job to last the 50 to 100 years that it should. It is during preparation for repointing that the masonry runs the greatest risk of permanent damage; cleaning out the joint should be done only by experienced workers using hand tools under the close supervision of an experienced mason.
 - b. Preparing the Joint: All loose, crumbling, powdery, excessively soft, badly stained or cracked mortar should be raked (cut out) to a uniform minimum depth and the full width of the joint, using hand rather than power tools.
 - c. Raking: To ensure an adequate bond, the joint should be raked to a depth equal to between 2 and 2½ times the width of the vertical joint (usually ½ to ¾ inch deep with brick and 1 to 2 inches with wider stone joints.) Proper depth ensures that there will be enough surface contact between the mortar and masonry so that surface adhesion and friction will create a good bond without the use of special bonding agents. Any loose and deteriorated mortar beyond this minimum depth should also be taken out. Mortar should be removed cleanly from the masonry, leaving square corners and a flat surface at the back of the cut.
 - d. Before filling joints, any bricks or stones that are loose should be reset. Any pieces of brick that chipped off while chiseling out the old mortar can be glued back with ceramic glue; stone can be reattached with epoxy. The joints should be finally cleaned out by gently flushing with water to remove all loose particles and dust. At the time of filling, the joints should be damp to prevent the too-rapid absorption of water from the new mortar, but no standing water should be present.
 - e. Raking: Hand versus Power Tools: The best way to remove old mortar is by hand using a small-headed chisel, no wider than half the width of the joint. Although handwork is more time consuming than using power tools, it presents far less risk of permanently damaging the brick or stone. If mortar can be

removed only with power tools, it probably should not be removed in the first place

- f. For the most part, power tools such as circular saws with carbide blades or pneumatic impact hammers almost always damage the edges of the masonry units and overcut the ends of joints (especially the vertical joints in a brick wall). Damage to the brick or stone not only affects its visual character, but can also lead to accelerated weather damage.

4. Provide samples of each type of joint.

B. Joint pattern:

- 1. All joints shall match the existing adjacent construction.

3.4 REPAIR OF HISTORIC MASONRY

A. Schedule of repairs:

- 1. Inspect all exterior surfaces to determine and verify the extent of historic masonry repair and replacement required.
- 2. Prepare a schedule, for each chimney describing the areas requiring repointing, repair, reattachment or replacement. Address each type of historic masonry material, including brick. Review the schedule with the Architect and modify as required, securing the approval of the Architect prior to commencing any work of this Section.

B. Repair methods:

- 1. Type A: Repointing only, matching historic mortar and joint profiles exactly.
- 2. Type B: Removal of brick with surface deterioration; cleaning and re-installing with the sound face exposed.
- 3. Type C: Installation of new or historic replacement brick where historic brick is missing, broken, or too severely deteriorated for re-use.

3.5 POINTING AND CLEANING

- A. At the completion of this portion of the Work, Architect will visually inspect the work of this Section and require pointing or cutting out, and repointing if necessary, all holes and defective joints at existing, as well as new mortar joints.
- B. Thoroughly clean all masonry surfaces to be left exposed in the finished Work, removing all traces of mortar, grout, and foreign matter.

END OF SECTION

PART 1 - GENERAL

1.1. DESCRIPTION

- A. Work Included: Provide testing and inspecting, complete, as described in this section and elsewhere in these Technical Special Provisions.
- B. Related work:
 - 1. The Work of this Section must comply with all other Sections of these Technical Special Provisions.

1.2. QUALITY ASSURANCE

- A. The Contractor shall provide the services of a testing laboratory approved by the Architect.
- B. Upon completion of each test and/or inspection, promptly distribute copies of test or inspection reports to the Architect, to governmental agencies requiring submission of such reports, and to such other persons as directed by the architect.

PART 2 - PRODUCTS

2.1 PAYMENT FOR TESTING

- A. Included within the Contractor's Lump Sum Bid an amount sufficient to cover all testing and inspection required under this Section of these Specifications, and to cover all testing and inspecting required by governmental agencies having jurisdiction.
- B. When initial tests requested by the Architect indicate non-compliance with these technical specifications, subsequent retesting occasioned by the non-compliance shall be performed by the same testing laboratory and the costs thereof shall be paid by the Contractor.

2.2 SPECIFIC TESTS AND INSPECTIONS

- A. Provide all tests and inspections required by governmental agencies having jurisdiction, required by provisions of these technical specifications, and such other tests and inspections as are directed by the Architect.
- B. Tests include, but are not limited to, those described in detail in Part 3 of this Section.

PART 3 - EXECUTION

3.1 TAKING SPECIMENS

- A. Except as may be specifically otherwise approved by the Architect, have the testing laboratory secure and handle all samples and specimens of existing materials for testing. Secure and handle all samples and specimens to be installed in the work as directed by the testing laboratory.

3.2 COOPERATION WITH TESTING LABORATORY

- A. Provide access to the Work at all times and at all locations where the Work is in progress. Provide facilities for such access to enable the laboratory to perform its functions properly.

3.3 REPLACEMENT BRICK AND MORTAR

- A. Replacement brick:
 - 1. In the event that new brick is required for the work, provide samples for comparison to existing brickwork to verify compatibility as to color, texture and size.
 - 2. Provide laboratory tests of the approved samples to show compatibility of materials and compressive strength.
- B. Replacement mortar:
 - 1. Provide an on-site test mock-up for mortar to show compatibility with existing mortar color, texture and joint types. The mock-up may be incorporated into the work when specifically approved by the Architect.
 - 2. Provide one (1) set of 2"x2"x2" mortar test cubes for each weeks work, to be laboratory cured and tested at 7 and 28 days, in accordance with ASTM C109.
 - 3. Test cubes shall be taken and transported by testing laboratory personnel or, when approved by the Architect, test cubes may be taken by the Contractor.

3.4 WAIVER OF INSPECTION AND/OR TESTS

- A. Specified inspections and/or tests may be waived only by the specific approval of the Architect, and such waivers will be expected to result in credit to the Owner equal to normal cost of such inspection and/or test.

END OF SECTION

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work included: Clean and restore the exterior surfaces, as specified herein, and as needed for a complete and proper installation.
- B. Related work:
 - 1. The Work of this Section must comply with all other Sections of these Specifications.
- C. Definitions:
 - 1. "Clean" and/or "restore" as used herein, means removal of paint materials including primers, emulsions, epoxy, enamels, and other applied materials on existing brick and removal of plant growth and efflorescence from brick surfaces.

1.2 QUALITY ASSURANCE

- A. The work of this project involves a significant historic site. Old Newgate Prison is a National Register historic site. All work activities must be undertaken with sufficient care to protect this historic resource and must be supervised by personnel who are familiar with the Secretary of Interior's Standards for Rehabilitation.
- B. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section. Brick masons and craftsmen who install brick, granite and mortar, including repointing, will be required to provide evidence of qualifications. Comply with submittal requirements in 1.3, Submittals, of this Section.
- C. All activities which have the potential to disturb subsoils or otherwise disturb archaeological resources, shall be monitored by the Owner's archaeologist. Notify the Owner at least 72 hours in advance of such activities.
- D. Chemical products coordination:
 - 1. Provide products which are compatible with the surface to be cleaned and subsequent chemicals.
 - 2. Review other Sections of these Specifications as required, assuring compatibility of the total coating system for the various substrata.
 - 3. Furnish information on the characteristics of the specific materials to assure that compatible products and systems are used.
 - 4. Notify the Architect in writing of anticipated problems in using the specified systems.

1.3 SUBMITTALS

- A. Comply with pertinent provisions of Division 1 and General Conditions.
- B. Product data:
 - 1. Materials list of items proposed to be provided under this Section;
 - 2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.
 - 3. Manufacturer's recommended application procedures.
- C. Documentation shall include, but not be limited to:
 - 1. Resumes of training and employment in the applicable field;
 - 2. Evidence of possession of required licenses and/or business permits; and
 - 3. Evidence of at least **three (3)** years in the aggregate of on the job experience in historic preservation projects of a similar nature.

In addition to the documentation required above, provide a minimum of **three (3)** references, one of which is an Owner of a completed project of the Subcontractor and one of which is an Architect or Engineer for a completed project. Provide any additional information, including photographs, as applicable, in order to show historic preservation experience to be approved by the Architect and Owner prior to the start of the work.

For individual craftsmen, **three (3)** references from past employers will be required. The Architect, and Owner under this provision, may waive other requirements of this Specification Section.

- D. Provide a schedule of repairs identifying all locations and products proposed to the Architect. Review the schedule on site with the Architect and modify as required.

1.4 PRODUCT HANDLING

- A. Comply with pertinent provisions of Division 1 and General Conditions.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Acceptable materials:
 - 1. Acidic Cleaner: Manufacturer's standard strength acidic masonry restoration cleaner composed of hydrofluoric acid blended with other acids including trace of phosphoric acid (but no hydrochloric acid) and combined with special wetting systems and inhibitors.
 - a. Products: Provide one of the following or equal approved by Architect:
 - "Sure Klean Restoration Cleaner",

- ProSoCo, Inc. "Diedrich 101 Masonry Restorer",
 - Diedrich Chemicals
2. Chemical Paint Remover: Manufacturer's standard thixotropic/alkaline formulation for removing paint coatings from masonry.
- a. Products: Provide one of the following:
- "Sure Klean Heavy-Duty Paint Stripper";
 - ProSoCo, Inc. "Diedrich 505/606/606X Paint Remover";
 - Diedrich Chemicals.
3. Liquid Strippable Masking Agent: Manufacturer's standard liquid, film forming, strippable masking material for protecting glass metal and polished stone surfaces from damaging effect of acidic and alkaline masonry cleaners.
- a. Products: Provide one of the following or equal approved by Architect:
- "Sure Klean Acid Stop";
 - ProSoCo, Inc "Diedrich Acid Guard";
 - Diedrich Chemicals.
4. Defoliant: _Manufacturer's standard strength vegetation killer containing prometon.
- a. Products: Provide one of the following or equal approved by Architect:
- "Triox" vegetation killer,
 - Chevron Chemical Company "Roundup" or
 - Approved Equal
5. Efflorescence Removal: Manufacturer's standard poultice cleaner containing soda ash, talc and Fullers earth.
- a. Products: Provide:
- "Standoff Marble Poultice",
 - ProSoCo, Inc. or
 - Approved Equal
6. Provide drop cloths, sheets, tape, etc. to protect the structure, people landscaping and surrounding areas.

2.2 APPLICATION EQUIPMENT

- A. For application of the approved products, use only such equipment as is recommended for application by the manufacturer of the particular product and as indicated.

- B. Prior to use of application equipment, verify that the proposed equipment is actually compatible with the material to be applied, and that integrity of the system will not be jeopardized by use of the proposed equipment.
- C. Spray Equipment: Provide equipment for controlled spray application of water and chemical cleaners, if any, at rates indicated for pressure, measured at spray tip, and for volume.
 - 1. For spray application of chemical cleaners provide low-pressure tank or chemical pump suitable for chemical cleaner indicated, equipped with cone-shaped spray-tip.
 - 2. For spray application of water provide fan-shaped spray-tip which disperses water at angle of not less than 15 degrees.
 - 3. For application by brush or roller, provide all equipment required by the manufacturers printed literature.

2.3 OTHER MATERIALS

- A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.

PART 3 - EXECUTION

3.1 SURFACE CONDITIONS

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.
- B. Test panels of all chemical systems are required. Minimum size shall be 4' x 8' and in a location as approved by the Architect.

3.2 MATERIALS PREPARATION

- A. General:
 - 1. Mix and prepare materials in strict accordance with the manufacturers' recommendations for their intended use and as approved by the Architect.
 - 2. When materials are not in use, store in tightly covered containers.
 - 3. Maintain containers used in storage, mixing, and application of paint in a clean condition, free from foreign materials and residue.

3.3 SURFACE PREPARATION

- A. General:
 - 1. Perform preparation and cleaning procedures in strict accordance with the manufacturer's recommendations and as approved by the Architect.

2. Remove removable items which are in place and are not scheduled to receive cleaning or provide surface applied protection prior to surface preparation and chemical restoration operations.
3. Following completion of restoration in each space or area, reinstall the removed items by using workmen who are skilled in the necessary trades.
4. Schedule the cleaning and protect surrounding areas so that contaminants from the cleaning process will not damage surrounding areas.

3.4 APPLICATION

- A. Safety precautions/personnel: All workmen must be protected by rubber or polyethylene suits, boots, gloves, face shield and protective head gear. Avoid contact with eyes and skin. Comply with OSHA regulations and all other applicable governmental regulations.
- B. Safety precautions/adjacent area: Employ all necessary precautions and coverings to prevent unnecessary damage to the building being restored as well as surrounding buildings, landscaping, electrical and adjacent items, etc. Avoid drift as it may injure passersby or damage vehicles.
- C. Efflorescence: Remove efflorescence using soft bristle brushes wherever possible.
- D. Poultice application: (When approved by the Architect)
 1. Apply the prepared poultice mix to the surface using a plaster trowel or airless spray equipment. Uniformly apply a 1/4" thick coating.
 2. Using a light polyethylene film or other moisture resistant material, cover the area treated with Stand Off Marble Poultice. Press poly film against poultice - it will cling to the surface. Tape or otherwise seal off edges of the poly film.
 3. Allow poultice (covered with film) to remain on the surface for **twelve (12) to twenty-four (24)** hours.
 4. Remove protective film. Scrape off poultice. Wash the surface thoroughly with fresh water, using a sponge or cloth.
 5. Repeat poultice procedures where necessary.
- E. Defoliant: Apply with a sprinkling can or pump spray to plant growth on brick and in mortar joints. Reapply after **three (3)** days if needed. Completely remove all dead vegetation from brick surfaces and mortar joints.
- F. Preparatory work:

1. Masonry Restorer - Typical areas of all surfaces that will be contacted during chemical treatment should be thoroughly tested before beginning.
2. Paint Remover - Provide a test patch to check the action and timing of the remover. (Additional applications may be required on heavy accumulations.)
3. Efflorescence - Provide a test patch to check the effectiveness of poultice and compatibility with historic brick and mortar. Hand brush all surfaces with a soft bristle brush prior to application of poultice. (Additional applications may be required on heavy accumulations.)
4. Methods/Application: Strictly adhere to the manufacturers printed instructions subject to the approval of the Architect/Engineer.

END OF SECTION

PART 1 - GENERAL

RELATED DOCUMENTS

Drawings and general provisions of Contract, including General and Supplementary General Conditions and Division-1 Specification sections, apply to work of this section.

1.01 WORK INCLUDED

- A. Miscellaneous wood framing.
- B. Furring and blocking.
- C. Wood siding replacement.
- D. Wood trim repair / replacement.

1.02 RELATED WORK

- A. Section 07 90 00 - Joint Protection

1.03 QUALITY ASSURANCE

- A. The work of this project involves a significant historic site. Old Newgate Prison is a National Register historic site. All work activities must be undertaken with sufficient care to protect this historic resource and must be supervised by personnel who are familiar with the Secretary of Interior's Standards for Rehabilitation.
- B. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section. Comply with submittal requirements in 1.3, Submittals, of this Section.
- C. All activities which have the potential to disturb subsoils or otherwise disturb archaeological resources, shall be monitored by the Owner's archaeologist. Notify the Owner at least 72 hours in advance of such activities.
- D. Lumber grading rules and wood species to be in conformance with PS 20.
- E. Grading rules of the following associations apply to materials furnished under this Section:
 - 1. Northeastern Lumber Manufacturer's Association, Inc. (NELMA).
 - 2. West Coast Lumber Inspection Bureau (WCLIB).
 - 3. Western Wood Products Association (WWPA).
 - 4. Northern Hardwood and Pine Manufacturer's Association (NHPMA).
- F. Grade Marks

1. Identify lumber and plywood by official grade mark.
2. Lumber
 - a. Grade stamp to contain symbol of grading agency certified by Board of Review, American Lumber Standards Committee, mill number or name, grade of lumber, species or species grouping or combination designation, rules under which graded where applicable, and condition of seasoning at time of manufacturer.
 - b. S-GRN: Unseasoned.
 - c. S-DRY: Maximum 19% moisture content.
 - d. MC-15: Maximum of 15% moisture content.

G. Testing:

1. ASTM E84, maximum 25 flame spread rating.

H. Requirements of Regulatory Agencies:

1. Fire hazard classification: Underwriters Laboratories, Inc. for treated lumber.

I. Reference Standards:

1. American Society of Testing and Materials (ASTM)
 - a. ASTM E84-77a, Surface Burning Characteristics of Building and Materials.
2. AWPA C1- All Timber Products-
AWPA C2- Lumber, Timber, Bridge Ties and Mine Ties
AWPC C4- Poles
AWPA C15- Wood for Commercial-Residential Construction
Preservative Treatment by Pressure Processes; American Wood-Preservers' Association.
3. AWPA P5- Waterborne Preservative; American Wood-Preservers Association.

1.04 SUBMITTALS

- A. Comply with pertinent provisions of Division 1 and General Conditions.
- B. Product data:
 1. Materials list of items proposed to be provided under this Section;

2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.
3. Manufacturer's recommended application procedures.

C. Documentation shall include, but not be limited to:

1. Resumes of training and employment in the applicable field;
2. Evidence of possession of required licenses and/or business permits; and
3. Evidence of at least **three (3)** years in the aggregate of on the job experience in historic preservation projects of a similar nature.

In addition to the documentation required above, provide a minimum of **three (3)** references, one of which is an Owner of a completed project of the Subcontractor and one of which is an Architect or Engineer for a completed project. Provide any additional information, including photographs, as applicable, in order to show historic preservation experience to be approved by the Architect and Owner prior to the start of the work.

For individual craftsmen, **three (3)** references from past employers will be required. The Architect, and Owner under this provision, may waive other requirements of this Specification Section.

D. Provide a schedule of repairs identifying all locations and products proposed to the Architect. Review the schedule on site with the Architect and modify as required.

E. Certification (if required)

1. Fire-retardant treatment: Submit certification by treating plant that the fire retardant treatment materials comply with governing ordinances and that treatment will not bleed through finished surfaces. For any lumber used in a structural application certification is required stating that the lumber will not degrade under normal conditions of heat and humidity.
2. Preservative treatment: Submit certification by treating plant of compliance with specified standards, process employed, and preservative retention values.

F. Product Data:

1. Submit product data, for each type of lumber use, in accordance with Contract Conditions identified with quality grade, type of finish and species of wood.

G. Sample:

1. Submit 2 samples, of each type of wood siding.

1.05 DELIVERY

- A. Deliver, store and handle wood in manner to prevent damage and deterioration.
- B. Defer delivery to the job until the installation and storage areas are complete and dry of all wet type construction.
- C. Maintain relative humidity in storage areas not to exceed 55%.
- D. Immediately upon delivery to job site, place materials in area protected from weather.
- E. Store materials a minimum of 6 inches above ground on framework or blocking and cover with protective waterproof covering providing for adequate air circulation or ventilation.
- F. Do not store seasoned materials in wet or damp portions of building.
- G. Protect fire retardant materials against high humidity and moisture during storage and erection.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Lumber - for rough carpentry
 - 1. Dimensions
 - a. Specified lumber dimensions are nominal.
 - b. Actual dimensions to conform to PS-20.
 - 2. Surfacing: Surface four sides (S&S) unless specified otherwise.
 - 3. Framing lumber, any commercial soft wood species.
 - a. Light framing.
 - 1. Plates, blockings, bracings, furring, and nailers: utility grade.
- B. Lumber for exterior siding and trim repairs: Western Red cedar, A grade, clear meeting WWPA grading rule paragraph 20.12. In profiles to match existing. Cove siding on Yellow Cottage, Beveled (clapboard) siding on the White Cottage and Viets Tavern. Trims to match existing profiles.
- C. Siding and Trim Nails: Mechanically galvanized, to securely and rigidly retain the work permanently in position. Nails shall be long enough to penetrate sheathing 1/2 inch.

D. Miscellaneous Material:

1. Construction Adhesive: Plasticon-400 by B.F. Goodrich, PL Premium or Liquid Nails extreme Heavy Duty.
2. Fasteners and Anchorage: provide size and type as indicated and as recommend by applicable standards. All fasteners and Anchorage for application to exterior systems to be galvanized or stainless steel. Comply with IBC Section 2304.9.5 for use in preservative-treated and fire-retardant-treated wood.

E. Fire Retardant Treatment Products- All blocking and furring build into the wall construction shall be fire-retardant treated.

1. Lumber: AWPA C20.
2. Comply with IBC Section 2303.2.

PART 3 - EXECUTION

3.01 INSPECTION

- A. Verify that surfaces to receive carpentry materials are prepared to required grades and dimension.

3.02 INSTALLATION

A. General:

1. Carefully select all members; select individual pieces so that knots and obvious defects will not interfere with placing bolts or proper nailing or making proper connections.
2. Cut out and discard all defects which will render a piece unable to serve its intended function; lumber may be rejected by the Architect, whether or not it has been installed, for excessive warp, twist, bow, crook, mildew, fungus, or mold, as well as for improper cutting fitting.
3. Furnish all rough lumber and all wood blocking, grounds, furring, and nailing strips to be built in by other trades and as required of installation material specified under other sections of the specifications.
4. Set work accurately to required levels and lines, with members plumb and true and accurately cut and fitted. Work not covered in this specification shall be governed by "Wood Frame Construction Manual latest addition" which is incorporated herein by reference.
5. Securely attach carpentry work to substrates by anchoring and fastening as shown and as required by recognized standards. Counter sink nail heads on exposed carpentry work and fill holes.

6. Bolting: Drill holes 1/16 inch larger in diameter than the bolts being used. Drill straight and true from one side only. Bolt threads shall not bear on wood. Use washer under head and nut where both bear on wood; use washers under all nuts.
 7. Screws: For lag screws and wood screws, pre-bore holes same diameter as root of thread; enlarge holes to shank diameter for length of shank. Screw, do not drive, all lag screws and wood screws.
 8. Wood grounds: Proper size for securing plywood, drywall, base, moldings, and all other miscellaneous trim.
 - a. Attach to substrates securely with anchor bolts and other attachment devices as shown and as required to support applied loading.
 - b. Counter sink bolts and nuts flush with surfaces, unless otherwise shown.
 - c. Provide grounds of dressed, preservative treated, key-beveled lumber not less than 1 1/2" wide and of the thickness required to bring face of ground to exact thickness of finish material involved. Remove temporary grounds when no longer required.
 9. Furring: 1" x 3" heartwood, spaced 16" on center blocked or shimmed to a true plane.
- D. Blocking:
1. Wedge, align, and anchor blocking with countersunk bolts, washers and nuts or nails.
 2. Locate blocking to facilitate installation of finishing materials, fixtures, and specialty items.
- E. Pressure Treated Wood Products
1. Treat completed units of woodwork, after cutting, machining, sanding, gluing and assembly has been completed to the greatest extent possible. Coat surfaces which have been cut after treatment with a heavy brush coat of same preservative.

END OF SECTION

PART 1 - GENERAL

RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary General Conditions and Division-1 Specification sections, apply to work of this section.

1.01 DESCRIPTION OF WORK:

- A. Provide labor, equipment, and materials to re-shingle structures on drawings. Work shall consist of the removal of old shingles and depositing of the material in an approved dumping site, inspect condition of and replace rotten or deteriorated wood sheathing (include replacement of 20% of all sheathing in base bid).
- B. Contractors are strongly encouraged to verify quantities prior to ordering materials.

1.02 QUALITY ASSURANCE

- A. The work of this project involves a significant historic site. Old Newgate Prison is a National Register historic site. All work activities must be undertaken with sufficient care to protect this historic resource and must be supervised by personnel who are familiar with the Secretary of Interior's Standards for Rehabilitation.
- B. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section. Comply with submittal requirements in 1.3, Submittals, of this Section.
- C. All activities which have the potential to disturb subsoils or otherwise disturb archaeological resources, shall be monitored by the Owner's archaeologist. Notify the Owner at least 72 hours in advance of such activities.

1.03 SUBMITTALS

- A. Comply with pertinent provisions of Division 1 and General Conditions.
- B. Product data:
 - 1. Materials list of items proposed to be provided under this Section;
 - 2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.
 - 3. Manufacturer's recommended application procedures.
- C. Documentation shall include, but not be limited to:
 - 1. Resumes of training and employment in the applicable field;
 - 2. Evidence of possession of required licenses and/or business permits; and

3. Evidence of at least **three (3)** years in the aggregate of on the job experience in historic preservation projects of a similar nature.

In addition to the documentation required above, provide a minimum of **three (3)** references, one of which is an Owner of a completed project of the Subcontractor and one of which is an Architect or Engineer for a completed project. Provide any additional information, including photographs, as applicable, in order to show historic preservation experience to be approved by the Architect and Owner prior to the start of the work.

For individual craftsmen, **three (3)** references from past employers will be required. The Architect, and Owner under this provision, may waive other requirements of this Specification Section.

- D. Provide a schedule of repairs identifying all locations and products proposed to the Architect. Review the schedule on site with the Architect and modify as required.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Store materials to avoid water damage and store rolled goods on end. Comply with manufacturer's recommendations for job-site storage and protection.

1.05 JOB CONDITIONS

- A. Proceed with installation work only after substrate construction and penetrating work have been completed.
- B. Proceed with installation work only when weather conditions are in compliance with manufacturer's recommendations and when substrate is completely dry.

1.06 WARRANTY

- A. Provide a twenty five (25) year warranty on materials and workmanship.

PART 2 - PRODUCTS

2.01 REPLACEMENT SHEATHING

- A. ½ Inch by 4 Inch rough sawn or dimensional lumber of a naturally durable wood species. Verify thickness of existing sheathing and adjust.

2.02 FLASHING

- A. Copper: 16 oz. cold rolled copper sheets.

2.03 WOOD SHINGLES

- A. No. 1 Blue Label sawn and kiln-dried western red cedar shingles, 16" length.

2.04 NAILS

- A. Type 304 stainless steel or hot-dipped galvanized with a coating weight of ASTM A 153 Class D (1.0oz/ ft²) or hot-dipped zinc-coated min. 4d box except for hips and ridges which shall be long enough to penetrate sheathing 3/4 inch.

2.05 UNDERLAYMENT

- A. Underlayment shall comply with ASTM D 226, Type I or ASTM D 4869, Type I or II.
- B. 30 lb per 100 square feet (type IV of glass mat.)

2.06 ICE BARRIER

- A. 3 ft width minimum, self-adhering polymer modified bitumen sheet.

PART 3 - EXECUTION

3.01 GENERAL

- A. Clean substrate of any projections and substances detrimental to shingling work.
- B. Cover knotholes or other minor voids in substrate with sheet metal flashing secured with roofing nails.
- C. Replace 1X4 or 1X6 sheathing that has experienced excessive rot/decay. Include 20% of all existing sheathing will need replacement.
- D. Coordinate installation of shingled with flashing and other adjoining work to ensure proper sequencing.
- E. Do not install shingle roofing until all vent stacks and other penetrations through roofing have been installed and are securely fastened against movement.
- F. Lay with butts as straight as practicable considering the texture of the shingles.
- G. Two nails per shingle at least 3/4 inch from edge and about 1 1/2 inch above the exposure- line of the following course.
- H. Place minimum 22-inch wide valley metal in center of valley with center crimp at least 1"high per CSBC Section 1507.8.8 .
- I. Lay shingles working away from valley with shingles trimmed parallel to valley to form a 6-inch wide gutter
- J. Make miter cuts at valley on wide shingles.
- K. Adjust exposure if necessary when about midway between eave and ridge so the coursing will appear uniform.
- L. Lay scant 10 inch wide strip of felt over the crown of hips and ridges.

- M. Build hips and ridges with shingles approximately 6 inches wide, double starters, and lap from alternate sides. Tack straight edges on roof, 5 inches from centerline of ridge, one on each side to ensure a neat installation.
- N. Install Flashing around projections though roof as required to make a watertight structure.

3.02 INSTALLATION – ROOF APPLICATION

- A. In addition to details indicated, comply with installation details and recommendations of the wood shingles roofing of “The NRCA Roofing and Waterproofing Manual”.
 - 1. Felt Underlayment
 - a. Apply one 36" wide layer of No. 15 roofing felt horizontally over entire surface to be shingled, lapping succeeding courses a minimum of 2 inches. Fasten felt with sufficient number of galvanized roofing nails to hold in place until shingle application.
 - 2. Shingle weather exposure: To match existing.
 - 3. Use 2-ply construction unless otherwise noted on drawings.
 - 4. Install shingles, beginning at lower end with a double layer starter course, projecting shingles 1-1/2" beyond sheathing. Space adjoining shingles ¼ to ½" apart, nailing each shingle with two nails spaced ¾" from edge of shingle and 1" above butt line of succeeding courses. Install shingles to provide weather exposure as indicated. Cut and fit shingles at ridges and edges to provide maximum weather protection.
- B. Flashing:
 - 1. Install metal flashing and vent flashing as needed and in accordance with details and recommendations of the Wood Shingle section of “The NRCA Roofing and Waterproofing Manual”.
- C. Extra Stock
 - 1. Excess shingles are to be left for future maintenance use.

END OF SECTION

PART 1 - GENERAL

RELATED DOCUMENTS

Drawings and general provisions of Contract, including General and Supplementary General Conditions and Division-1 Specification sections, apply to work of this section.

1.01 WORK INCLUDED

- A. Gutters.
- B. Downspouts.

1.02 RELATED WORK

- A. Section 06 10 00 – Carpentry
- B. Section 07 31 29 - Wood Shingles

1.03 QUALITY ASSURANCE

- A. The work of this project involves a significant historic site. Old Newgate Prison is a National Register historic site. All work activities must be undertaken with sufficient care to protect this historic resource and must be supervised by personnel who are familiar with the Secretary of Interior's Standards for Rehabilitation.
- B. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section. Comply with submittal requirements in 1.3, Submittals, of this Section.
- C. All activities which have the potential to disturb subsoils or otherwise disturb archaeological resources, shall be monitored by the Owner's archaeologist. Notify the Owner at least 72 hours in advance of such activities.

1.03 SUBMITTALS

- A. Submit under provisions of General Conditions and Section 01 30 00.
- B. Product data:
 - 1. Materials list of items proposed to be provided under this Section;
 - 2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.
 - 3. Manufacturer's recommended application procedures.

- C. Documentation shall include, but not be limited to:
1. Resumes of training and employment in the applicable field;
 2. Evidence of possession of required licenses and/or business permits; and
 3. Evidence of at least **three (3)** years in the aggregate of on the job experience in historic preservation projects of a similar nature.

In addition to the documentation required above, provide a minimum of **three (3)** references, one of which is an Owner of a completed project of the Subcontractor and one of which is an Architect or Engineer for a completed project. Provide any additional information, including photographs, as applicable, in order to show historic preservation experience to be approved by the Architect and Owner prior to the start of the work.

For individual craftsmen, **three (3)** references from past employers will be required. The Architect, and Owner under this provision, may waive other requirements of this Specification Section.

- D. Provide a schedule of repairs identifying all locations and products proposed to the Architect. Review the schedule on site with the Architect and modify as required.
- E. Indicate general construction, configurations, locations, fastening methods and installation details.

PART 2 -PRODUCTS

2.01 MATERIALS

- A. Gutters and Downspouts: ALCOA #320 Rain Removal Systems including 5" gutters Combination/Strap Hangers Type OG141 and downspouts. Alternate manufactures EDCO Products or Alside Rainware.
- B. Nails shall be standard galvanized roofing nails as recommended by the roofing manufacturer.
- C. Splash block: pre-cast concrete splash block at all downspouts.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting gutters.

1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 INSTALLATION

- A. General: Comply with manufacturer's written instructions installing components.
- B. Provide splashguards and gutter extensions to direct water away from buildings and towards site drains.
- C. Connect downspouts to existing pipe drains at available locations.

END OF SECTION

PART 1 - GENERAL

RELATED DOCUMENTS

Drawings and general provisions of Contract, including General and Supplementary General Conditions and Division-1 Specification sections, apply to work of this section.

1.01 WORK INCLUDED

- A. Preparing sealant substrate surfaces.
- B. Sealant and backing.

1.02 RELATED SECTIONS

- A. Section 06 10 00 – Carpentry

1.03 QUALITY ASSURANCE

- A. The work of this project involves a significant historic site. Old Newgate Prison is a National Register historic site. All work activities must be undertaken with sufficient care to protect this historic resource and must be supervised by personnel who are familiar with the Secretary of Interior's Standards for Rehabilitation.
- B. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section. Comply with submittal requirements in 1.3, Submittals, of this Section.
- C. All activities which have the potential to disturb subsoils or otherwise disturb archaeological resources, shall be monitored by the Owner's archaeologist. Notify the Owner at least 72 hours in advance of such activities.

1.04 SUBMITTALS

- A. Comply with pertinent provisions of Division 1 and General Conditions.
- B. Product data:
 - 1. Submit product data indicating sealant chemical characteristics, performance criteria, limitations, and color availability.
 - 2. Submit (2) two samples illustrating color selected.
 - 3. Submit manufacturer's installation instructions under provisions of General Conditions and Section 01 33 00.
 - 4. Submit manufacturer's certificate that products meet or exceed specified requirements.

- C. Documentation shall include, but not be limited to:
1. Resumes of training and employment in the applicable field;
 2. Evidence of possession of required licenses and/or business permits; and
 3. Evidence of at least **three (3)** years in the aggregate of on the job experience in historic preservation projects of a similar nature.

In addition to the documentation required above, provide a minimum of **three (3)** references, one of which is an Owner of a completed project of the Subcontractor and one of which is an Architect or Engineer for a completed project. Provide any additional information, including photographs, as applicable, in order to show historic preservation experience to be approved by the Architect and Owner prior to the start of the work.

For individual craftsmen, **three (3)** references from past employers will be required. The Architect, and Owner under this provision, may waive other requirements of this Specification Section.

- D. Provide a schedule of repairs identifying all locations and products proposed to the Architect. Review the schedule on site with the Architect and modify as required.

1.05 QUALITY ASSURANCE

- A. Manufacturer: Company specializing in manufacturing the products specified in this Section with minimum three years documented experience.
- B. Applicator: Company specializing in applying the work of this Section with minimum three years documented experience.
- C. Conform to Sealant Waterproofing and Restoration Institute requirements for materials and installation.

1.06 ENVIRONMENTAL REQUIREMENTS

- A. Do not install solvent curing sealants in enclosed building spaces.
- B. Maintain temperature and humidity recommended by the sealant manufacturer during and after installation.

1.07 SEQUENCING AND SCHEDULING

- A. Coordinate work under provisions of Section General Conditions and Section 01 33 00.
- B. Coordinate the work of this Section with all Sections referencing this Section.

1.08 WARRANTY

- A. Provide a five (5) year warranty on materials and workmanship.

PART 2 - PRODUCTS

2.01 SEALANT MANUFACTURERS

- A. Tremco
- B. Pecora
- C. Dap
- D. Dow

2.02 SEALANTS

- A. Sealant for interior use between joints and unlike materials: Silicone, conform to TT-S-002306, ASTM C920, FS TT-S-01543, Type II, Class A, low modular type.
- B. Sealant at fire rated walls, around pipe, conduit, and other wall penetrations: Dow Corning Fire Stop sealant, floor/wall penetration seal design System 129, UL classified.
- C. Sealant for exterior uses and penetrations in exterior walls. One part urethane type II conforming to the requirements of FS TT-S-2300, Tremco Dymonic, or Pecora Dynatrol 1.

2.03 ACCESSORIES

- A. Primer: Non-staining type, recommended by sealant manufacturer to suit application.
- B. Joint Cleaner: Non-corrosive and non-staining type, recommended by sealant manufacturer; compatible with joint forming materials.
- C. Joint Backing: Expanded or extruded closed-cell polyethylene for joint open in back and joints requiring filler to create proper depth and polyethylene bond breaker tape for joints closed in back.
- D. Bond Breaker: Pressure sensitive tape recommended by sealant manufacturer to suit application.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces and joint openings are ready to receive sealant.
- B. Beginning of installation means installer accepts existing surfaces.

3.02 PREPARATION

- A. Clean joints in accordance with manufacturer's instructions.
- B. Remove loose materials and foreign matter which might impair adhesion of sealant.
- C. Verify that joint backing and release tapes are compatible with sealant.
- D. Perform preparation.
- E. Protect elements surrounding the work of this Section from damage or disfiguration.

3.03 INSTALLATION

- A. Install sealant in accordance with manufacturer's instructions.
- B. Measure joint dimensions and size materials to achieve required width/depth ratios.
- C. Install joint backing to achieve a neck dimension no greater than 1/3 the joint width.
- D. Install bond breaker where joint backing is not used.
- E. Apply sealant within recommended application temperature ranges. Consult manufacturer when sealant cannot be applied within these temperature ranges.
- F. Install sealant free of air pockets, foreign embedded matter, ridges, and sags.
- G. Tool joints concave.

3.04 CLEANING AND REPAIRING

- A. Clean work under provisions of General Conditions and Supplemental General Conditions.
- B. Clean adjacent soiled surfaces.
- C. Repair or replace defaced or disfigured finishes caused by work of this Section.

3.05 PROTECTION OF FINISHED WORK

- A. Protect finished installation under provisions of General Conditions and Supplemental General conditions.
- B. Protect sealants until cured.

END OF SECTION

PART 1 GENERAL

1.1 SUMMARY

- A. Historic windows: Existing materials shall be reused whenever possible in the repair of historic wood windows. This includes all wood elements and original hardware. Replacement of window elements with new material shall be done only when historic elements are so deteriorated as to prohibit their useful function.
- B. Restoration of existing wood window units, including selective dismantling; stripping of existing paint; repair or replacement of deteriorated wood components; fabrication of new components (including complete window sash and frames) to replace missing or severely deteriorated window components; repainting wood surfaces; installing new glass; and reinstalling wood window sash, rebalancing and adjusting operation as needed. Salvage all existing counterweights, pulleys, hinges, and other hardware necessary to enable installation, and provide replica hardware as needed.
- C. Related Sections include the following:
 - 1. Section 07 92 00 - Joint Sealants
 - 2. Section 08 80 10 - Glass and Glazing

1.2 REFERENCES

- A. The Secretary of the Interior's Treatment for Historic Properties.
- B. U.S. Department of the Interior *Preservation Briefs 9: The Repair of Historic Wooden Windows*
- C. American Architectural Manufacturers Association (AAMA):
 - 1. 501.2 – Quality Assurance and Diagnostic Water Leakage Field Check of Installed Storefronts, Curtain Walls, and Sloped Glazing Systems.
- D. Code of Federal Regulations: 29 CFR 1910.1000-1500, Subpart Z, "Toxic and Hazardous Substances"
- E. Glazing Publications: Comply with published recommendation of glass manufacturers and GANA's *Glazing Manual* unless more stringent requirements are indicated.
- F. Architectural Woodwork Institute: Comply with applicable requirements in AWI's *Architectural Woodwork Standards* for construction, finishes, grades of wood windows, and other requirements.

1.3 EXISTING WINDOW SYSTEM DESCRIPTIONS

- A. Hazardous Materials: Previous studies have identified some locations of existing lead-based paint, asbestos-containing materials, and other potentially hazardous materials. The intent of the Project is to remove all hazardous materials from the site and to dispose of the materials properly.

- B. Window System Component Descriptions: Window component terminology shall be as identified in Preservation Briefs 9: The Repair of Historic Wooden Windows.
- C. Several wood window will require historic treatment work, refer to architectural drawings for locations and quantities.

1.4 SUBMITTALS

- A. The work of this project involves a significant historic site. Old Newgate Prison is a National Register historic site. All work activities must be undertaken with sufficient care to protect this historic resource and must be supervised by personnel who are familiar with the Secretary of Interior's Standards for Rehabilitation.
- B. Comply with pertinent provisions of Division 1 and General Conditions.
- C. Documentation shall include, but not be limited to:
 - 1. Resumes of training and employment in the applicable field;
 - 2. Evidence of possession of required licenses and/or business permits; and
 - 3. Evidence of at least **three (3)** years in the aggregate of on the job experience in historic preservation projects of a similar nature.

In addition to the documentation required above, provide a minimum of **three (3)** references, one of which is an Owner of a completed project of the Subcontractor and one of which is an Architect or Engineer for a completed project. Provide any additional information, including photographs, as applicable, in order to show historic preservation experience to be approved by the Architect and Owner prior to the start of the work.

For individual craftsmen, **three (3)** references from past employers will be required. The Architect, and Owner under this provision, may waive other requirements of this Specification Section.

- D. Product data: Manufacturer's product literature, technical data, and MSDS for each product indicated. Include product description, application procedures, precautions, limitations in use of products, and test reports and certifications substantiating that products comply with requirements.
- E. Work Plan: Submit a written plan describing the sequence, means, materials, and methods for wood window restoration. For each phase of repair treatment process, including protection of surrounding materials on the building and Project site during operations. Describe in detail the materials, methods, equipment, and sequence of operations to be used for each phase of repair treatment work.
- F. Shop Drawings:
 - 1. Blade Profiles: Show full-scale profiles for new custom-milled replacement members as required, including frame parts, sash parts, stops, metal weatherstripping, exterior trim parts, and interior trim parts.

2. Replacement Members: Show fabrication and installation of replacement wood window members. Indicate materials and profiles of each replacement member, joinery, finish, and method of splicing or attaching to existing wood window.
3. Replica Windows: For new windows to replace damaged window units, show assembly of window units. Indicate materials, profiles, and joinery, based on other similar windows in the building.
4. Glazing details.

G. Samples for Verification:

1. For each type of wood window replacement component required, prepared on Samples of size indicated below.
 - a. Custom-Milled Replacement Members: 300 mm (12 inches) long for each replacement member; including frame parts, sash parts, stops, exterior trim parts, and interior trim parts.
 - 1) Original existing elements shall serve as the models for new replacement members. Provide samples of replacement wood window member matching the original member profiles and dimensions.
 - b. Repaired and Refinished Wood Window Member: Prepare samples using existing wood window members removed from site, repaired and refinished as specified.
2. For each type of paint system and each color and gloss of topcoat indicated.
 - a. Submit samples on rigid backing, 200 mm (8 inches) square.
 - b. Step coats on samples to show each coat required for system.
 - c. Label each coat of each sample.
3. Label each sample for location and application area.
4. Metal weatherstripping.
5. Glazing points.
6. All fasteners and intended use.

1.5 QUALITY ASSURANCE

- A. A firm or individual experienced in historic treatment and repair of windows similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance. Contractor, foreman, and tradesman must each have a minimum of **three (3) years'** experience in construction and supervision of architectural wood repair work. Contractor foreman, and tradesman shall be required to demonstrate this experience with names, dates, and locations of similar projects. All repair and restoration work related to the window repair

scope must be performed on site or at locations approved by the Architect and Owner. The qualifying firm must submit resumes of foreman and tradesmen performing the work for the duration of the work and shall with commensurate only when resumes and experience are approved by Architect and Owner.

- B. Master Painters Institute (MPI) Standards:
 - 1. Products: Complying with MPI standards indicated and listed in "MPI Approved Products List".
 - 2. Preparation and Workmanship: Comply with requirements in "MPI Architectural Painting Specification Manual" for products and paint systems indicated.
- C. Mockups: Prepare existing windows to serve as mockups to demonstrate treatment methods and procedures for aesthetic effects and qualities of materials and execution. Use materials and methods proposed for completed Work and prepare mockups under same weather conditions to be expected during remainder of Work.
 - 1. Class B Wood Window Repair: Prepare one window unit to serve as a mockup to demonstrate sample repair of wood window members including frame, sash, glazing, hardware, and paint coatings.
 - 2. Class C Wood Window Repair: Prepare one window unit to serve as a mockup to demonstrate sample repair of wood window members including frame, sash, glazing, hardware, and paint coatings.
 - 3. Wood Window Fabrication (Class A Repair): If any windows are selected by the Owner for replacement, prepare one entire window unit to serve as a mockup demonstrating the construction and assembly of a new wood window unit replacing a missing original wood window unit in an existing masonry opening. Coordinate schedule for installation of new framing members into masonry substrate to allow for observation by the Architect and Owner.
 - 4. Sample windows to be repaired as mockups will be selected by the Architect and Owner and shall include representative existing distress conditions.
 - 5. Approved mockups shall become part of the completed Work if undisturbed at time of Substantial Completion.
 - 6. Mock-up testing: Field testing of the new window sash complete with all components and perimeter sealant shall be performed at the mock-up location. The testing is to be performed by a testing laboratory acceptable to the Architect and Owner. The cost of the mockups and the testing of the mockups shall be borne by the Contractor. Mockup testing may be witnessed by the Architect and Owner or designee and scheduled accordingly.
 - a. Verify water tightness of restored window unit by testing joinery, glazing, and sash and frame perimeters using handheld nozzle in

accordance with AAMA 501.2. Adjust installation as needed to prevent water leakage. Pressure shall be modified to be set at 20 psi.

1.6 JOB CONDITIONS

- A. Verify window openings by field measurements before fabrication of replacement windows, if required.
- B. Protection:
 - 1. Work during inclement weather may be performed only if "adequate protection" from the elements is provided such that the building interior and its contents are not exposed to the elements. "Adequate protection" is defined as protection which renders the building and the work watertight and secure against intrusion of the elements.
 - 2. Protect surrounding interior and exterior surfaces and finishes from damage during the execution of window repair.
 - 3. In areas where coating systems are to be applied, protect all building features, sidewalk paving, and landscaping from drippage or other effects of coatings.
 - 4. Protect unfinished work at the end of each day's work activities.
- C. All work shall be performed in accordance with NFPA 30 Flammable and Combustible Liquids Code and OSHA 39 CFR, Prt 1910. Adhere to the manufacturer's instructions for safe applications of all cleaning, sealing, resurfacing and stripping materials.
- D. Adequate ventilation must be provided in each area that solvents, cleaners, strippers and varnishes are used, so that accumulations of volatile vapors is below flammable and/or explosive range.
- E. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 degrees Fahrenheit. Do not apply paints in snow, rain, fog, or mist; when relative humidity exceeds 85 percent; at temperatures less than 5 degrees Fahrenheit above the dew point; or to damp or wet surfaces.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to the job site in manufacturer's original and unopened containers and packaging bearing labels as type of material, brand name and manufacturer. Employ specialized storage containers when directed by manufacturer. Delivered materials shall be identical to tested and approved materials.
- B. Unload all materials with care and handled to avoid any damage or contamination of the materials.
- C. Store all materials covered and protected from the weather in strict compliance with the manufacturer's recommendations. The location for storage shall be approved by the Architect and Owner.

- D. Store materials off the ground in clean, dry and restricted locations; protect from accidental opening and damage. Remove materials which are damaged or otherwise not suitable for use from the job site.
- E. Store coating materials, thinners, solvents, and elements in tightly closed containers in a covered, well ventilated area where they will be protected from exposure to direct sunlight, heat, sparks, flames, weather, or temperatures below 45 degrees F or above 100 degrees F, and in accordance with the manufacturer's directions and in an area approved by the Owner.
 - 1. Maintain containers in clean condition, free of foreign materials and residue.
 - 2. Remove rags and waste from storage areas daily.
- F. All coating products stored and used on the site shall be clearly labeled with proper warning to prevent any accidental use of the products by unauthorized persons.
- G. Protect adjacent and underlying surfaces from damage.
- H. Follow manufacturer's label precautions.

PART 2 PRODUCTS

2.1 REPLACEMENT WOOD MATERIALS

- A. Wood: Clear fine-grained lumber; kiln dried to a moisture content of 6 to 12 percent at time of fabrication; free of finger joints, blue stain, knots, pitch pockets, and surface checks larger than 0.5 mm (1/32 inch) deep by 50 mm (2 inches) wide.
- B. Selective Replacement of Individual Sash and Frame Components: To match the existing window species and acceptable to the Architect and Owner. Currently believed to be Southern yellow pine or mahogany.
- C. Fabrication of New Replica Wood Window Frames and/or Sash to Replace Missing or Heavily Deteriorated Window Units: Honduran mahogany (*Swietenia macrophylla*), certified as sustainably harvested by an organization accredited by the Forest Stewardship Council

2.2 WOOD PATCHING MATERIALS

- A. Wood Consolidant: Ready-to-use product designed for hardening and sealing soft fibers of wood materials that have deteriorated due to weathering and exposure and designed specifically to enhance the bond of wood patching compound to existing wood.
 - 1. Products:
 - a. Abatron, Inc.; Liquidwood.
 - b. Advanced Repair Technology; Primatrate.
 - c. Gougeon Brothers, Inc.; West System.

- B. Wood Epoxy Repair: 2-part epoxy-resin wood compound with a 10- to 15-minute cure at 70 deg F, in knife grade formulation and recommended by manufacturer for type of wood repair indicated. Compound shall be designed for filling damaged wood materials that have deteriorated due to weathering and exposure. Compound shall be capable of filling deep holes and capable of spreading to feather edge.
 - 1. Products:
 - a. Abatron, Inc.; Liquidwood with WoodEpoxy.
 - b. Advanced Repair Technology; Primatrate with Flex-Tec HV.
 - c. Gougeon Brothers, Inc.; West System.

2.3 GLAZING MATERIALS

- A. Glass: Glass for wood windows is specified in Section 08 80 10
- B. Glazing Putty: Oil-based, non-staining and non-bleeding:
 - 1. Wonder Putty, manufactured by Atlas Putty Products Tinley Park, Illinois.
 - 2. DAP 33 Glazing, manufactured by DAP Inc., Baltimore, Maryland.
 - 3. Equal approved by the Architect and Owner.
- C. Glazing Points: Type 304 stainless steel. Diamond point, to match existing dimensions.

2.4 WINDOW HARDWARE

- A. Weatherstripping (to replace damaged or missing existing weatherstripping):
 - 1. Meeting rail: Spring brass weather stripping, 28 mm by 0.2 mm (1-1/8 inch by 0.008 inch), with hemmed edges and matching brass nails.
 - 2. Jamb, sill, and head: Channel groove brass weather stripping, width to match thickness of sash by 0.2 mm (0.008 inch), with hemmed edges and matching brass nails.
 - 3. Available Manufacturers:
 - a. Dorbin Metal Strip Mfg. Co., Inc.
 - b. Pemko Manufacturing Co., Inc.
 - c. Reese Enterprises, Inc.
 - d. Zero International, Inc.
- B. Repair and Refinish Existing Hardware: Remove window hardware and repair and refinish to match original approved samples.

1. Salvage and reuse existing pulleys, counterweights, and hinges. Provide complete sets of window installation hardware for each window unit.
2. Salvage and reuse existing sash lifts, locks, latches, and handles.
- C. Replacement Window Hardware: Replace existing damaged or missing window hardware with new hardware to match existing:
 1. Material: Match existing and seek approval of the Architect and Owner.
 2. Design: Provide manufacturer's standard hardware to replicate existing hardware and compatible with existing wood window components and seek approval of the Architect and Owner.
 3. Weight and Pulley Type: Concealed weight and pulley balance system including rolled steel weights, cast-bronze pulleys, and brass sash chain; provide size and capacity to hold sash stationary at any open position.
 4. Window Hardware Finishes: Match existing and seek approval of the Architect and Owner.

2.5 SEALANTS

- A. Sealant and bond breaker: Complying with Section 07 92 00.

2.6 COATING FOR WOOD

- A. Material Compatibility:
 1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
 2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.
- B. Paint Coating: For coating of wood, one of the following systems, or equal approved by Owner.
 1. Primer Coat: Alkyd wood primer, 1 coat.
 - a. Sherwin-Williams Exterior Oil Based Wood Primer.
 - b. Benjamin Moore Fresh Start Moorwhite Penetrating Alkyd Primer 100.
 2. Intermediate Coat: Alkyd Fast Dry Primer, 1 coat.
 - a. Sherwin-Williams Preprite Quick Seal (Product # Y24 W980).
 - b. Benjamin Moore Fresh Start Fast Dry (Product 094).
 3. Finish Coat: Waterborne acrylic-latex enamel for exterior application, 2 coats.

- a. Sherwin-Williams SuperPaint Exterior Latex A80/A84/A89.
 - b. Benjamin Moore Aura Waterborne Exterior Paint 629/632/634.
4. Colors:
- a. Interior surfaces: Match color for existing adjacent wood window trim.
 - b. Exterior surfaces: Match existing.

2.7 PAINT REMOVER

- A. Paint stripper: chemical stripper intended to remove paint, free of methylene chloride.
 - 1. Peel-Away 7, manufactured by Dumond Chemicals, New York, New York, or equal approved by the Owner.
 - 2. Heat may not be used to remove paint from wood elements.
- B. Sandpaper of various grades to remove paint remnant following application of chemical stripper. Take appropriate protective measures to mitigate negative impacts of dust.
- C. Plastic scrubber for removing paint and stripper residue from metal items: 3M Scotch-Brite pads or approved equal.
- D. Trisodium Phosphate-type detergent solution.
- E. Carbide Blade Scraper.

2.8 MISCELLANEOUS MATERIALS

- A. Cleaning Materials: Solution prepared by mixing 2 cups of Tetrasodium Polyphosphate (TSP), 1/2 cup of laundry detergent, 5 quarts of 5 percent sodium hypochlorite bleach, and 15 quarts of warm water for each 5 gallons of solution required.
- B. Fasteners: Provide fasteners compatible with window members, trim, hardware, anchors and other components.
 - 1. Exposed Fasteners: If exposed fasteners are used, match head style of existing fasteners.
 - 2. Anchors, Clips, and Accessories: Fabricate anchors, clips, concealed window structural attachments, and all accessories in contact with masonry of Type 304 stainless steel complying with requirements in ASTM B 633 for SC 3 (Severe) service condition.
- C. Fluted Wood Dowels: Hardwood, 3/8 inch diameter.
- D. Adhesive: Polyurethane based wood adhesive with a 15- to 45-minute cure at 70 deg F (21 deg C), in gunnable formulation and recommended by adhesive manufacturer for exterior wood repair.

PART 3 EXECUTION

3.1 GENERAL

- A. Historic windows: Existing materials shall be reused whenever possible in the repair of historic wood windows. This includes all wood elements, hardware and glass that are determined to be of historic significance. Replacement of window elements with new material shall be done only when historic elements are so deteriorated as to prohibit their useful function.
- B. Do not perform any work when the ambient air temperature is less than or is expected to be less than 40 degrees Fahrenheit.
- C. Review and designate a Class A, B, or C repair for each of the window locations included in the project.

3.2 CLASS A REPAIR: REPLACE SASH - ***If sash cannot be repaired as indicated in Class B Repair follow Class A Sash Replacement***

- A. Remove existing sashes, interior stops, and parting stops from the frames. Salvage counterweights and pulleys where present; discard existing rope cords. Salvage existing latches, lifts, handles, and all other hardware. Existing frame to remain in place at all locations. Care should be exercised not to damage the frame, sash, or adjacent building elements. If required for protection of building interior during the work of other trades, install temporary window enclosures. After removal, sash shall be salvaged and provided to the Architect and Owner.
- B. Verify window openings by field measurements before fabrication of replacement window components.
- C. Remove and salvage all storm windows (at White Cottage), security screens, insect screens, etc.
- D. Fabricate new wood window sash matching the dimensions and configuration of original windows and in accordance with approved Shop Drawings. Apply paint coatings and install glazing in new wood window sash.
- E. Rout new wood sash as needed to accommodate new or existing weatherstripping.
- F. Remove and discard existing joint sealants at window perimeters and joinery, including at the joint between wood window framing and adjacent masonry. Existing sealant may contain hazardous components. See reports in Division 50 and comply with all requirements relating to containment and proper disposal of hazardous components.
- G. Remove all existing paints and coatings from all existing wood surfaces including frame, sill, and brick mold. Existing coatings may contain lead or other hazardous components. See Reports Division 50 and comply with all requirements relating to containment and proper disposal of hazardous components.
- H. Inspect wood surfaces of remaining frame and sill for rot, insect damage, warping, or other deficiencies. Perform epoxy repairs or replacement as required. Dismantle frame if required.

- I. Restore existing hardware. Hardware includes but not limited to: pulleys, locks, and handles. Remove existing paints or coatings. Clean corrosion from metal surfaces. Coat brass elements with lacquer. Coat iron or steel elements with paint. Lubricate moving parts.
- J. Apply specified primer to all wood surfaces and allow to cure fully.
- K. Apply specified intermediate paint coating to new window sash and allow to cure fully.
- L. Replace weatherstripping if cracked, split, or missing. Install newly fabricated window sash, using original hardware where available. Hang sash on new brass chain and reusing original counterweights where present. Adjust stops to ensure a tight fit and smooth operation.
- M. With window fully closed, apply specified finish paint coating to all wood surfaces and allow to cure fully.
- N. Reinstall other new or salvaged hardware.
- O. Install new sealant at all exterior joints between wood window framing and adjacent masonry.
- P. Coordinate reinstallation of exterior storm windows.

3.3 CLASS B REPAIR PREPARATION AND SEQUENCE: RESTORE SASH

- A. Prior to proceeding with removal of window sash, develop an identification system to mark each frame, sash, fastener, and hardware for exact location on the building to enable proper reinstallation.
 - 1. Corresponding identification shall be made on building elevation drawing and copies shall be provided to the Owner.
- B. Remove and salvage existing sashes, interior stops, and parting stops from the frames. Salvage counterweights and pulleys where present; discard existing rope cords. Existing frame to remain in place at all locations. Care should be exercised not to damage the frame, sash, or adjacent building elements. Install temporary window enclosures for protection of building interior during the work. After removal, the sash shall be stored in a dry location, above ground and with proper protection for weather and to prevent damage.
- C. Remove and salvage for reinstallation all storm windows (at White Cottage), security screens, insect screens, etc.
- D. Remove and discard existing joint sealants at window perimeters and joinery, including at the joint between wood window framing and adjacent masonry. Existing sealant may contain hazardous components. See reports in Division 50 and comply with all requirements relating to containment and proper disposal of hazardous components.
- E. Remove and discard existing putty, paints, and coatings from all glass and wood surfaces including glazing, sash, stops, frame, sill, brick mold, and interior stool and trim. Existing glazing putty and coatings may contain asbestos, lead or

other hazardous components. See report in Division 50 of glazing putty and existing coatings and comply with all requirements relating to containment and proper disposal of hazardous components.

- F. Inspect wood surfaces of sash, frame, and sill for rot, insect damage, warping, or other deficiencies. Perform epoxy repairs and or replacement as required. Dismantle sash or frame as required.
- H. Apply specified primer to all wood surfaces and allow to cure fully.
- I. Re-glaze window sash reusing original glass, or broken glazing with specified glass, glazing points, and putty.
- J. Apply specified intermediate paint coating and allow to cure fully.
- K. Replace weatherstripping if cracked, split, or missing. Reinstall window sash, using original hardware where available. Hang sash on new brass chain and reusing original counterweights where present. Adjust stops to ensure a tight fit and smooth operation.
- L. With window fully closed, apply specified finish paint coating to all wood surfaces and allow to cure fully.
- M. Reinstall other new or salvaged hardware.
- N. Install new sealant at all exterior joints between wood window framing and adjacent masonry.
- O. Coordinate reinstallation of exterior storm windows where removed.

3.4 CLASS C REPAIR PREPARATION AND SEQUENCE: MAINTENANCE REPAIRS

- A. All maintenance repairs will be performed solely on exterior surfaces.
- B. Remove and salvage for reinstallation all storm windows (at White Cottage), security screens, insect screens, etc.
- C. Remove and discard existing joint sealants at window perimeters and joinery, including at the joint between wood window framing and adjacent masonry. Existing sealant may contain hazardous components. See reports in Division 50 and comply with all requirements relating to containment and proper disposal of hazardous components.
- D. Remove all existing paints and coatings from all exterior wood surfaces including sash, stops, frame, sill, and brick mold. Paint stripper should only be used on sill and exterior frame elements. At sash, scrape exposed surfaces to remove loose or poorly bonded existing coatings. Existing coatings may contain lead or other hazardous components. See reports in Division 50 of existing coatings and comply with all requirements relating to containment and proper disposal of hazardous components.
- E. Inspect wood surfaces of sash, frame, and sill for rot, insect damage, warping, or other deficiencies. Perform epoxy repairs to sill as needed. If other wood components require repair, notify Owner.

- F. Where one or more sash cords for lower sash are broken, replace both lower sash cords with specified brass chain.
- G. Apply specified primer to all exterior wood surfaces and allow to cure fully.
- H. Where glass is observed to be cracked, re-glaze individual light with specified glass, glazing points, and putty.
- I. With window fully closed, apply specified finish paint coating to all exterior wood surfaces and allow to cure fully.
- J. Install new sealant at all exterior joints between wood window framing and adjacent masonry.
- K. Coordinate reinstallation of exterior storm windows.

3.5 WOOD REPAIRS

A. Examination and Evaluation

- 1. Verify actual extent of deteriorated wood at each location. Ensure that all decayed matter and rot-affected wood is removed to a sound wood surface prior to repair.
- 2. If depth of deterioration is greater than half the thickness of the member than replace the entire member.
- 3. If deterioration greater than 10 mm (3/8 inch) deep occupies more than 50 percent of the surface area, then replace the entire sash.
- 4. If deterioration is greater than 2 mm (1/8 inch) deep, and occupies less than 50 percent of the surface, then install an epoxy repair. Notify Owner if there is widespread deterioration greater than 10 mm (3/8 inch) deep that occupies less than 50 percent of the surface.
- 5. If deterioration is less than 2 mm (1/8 inch) deep, no repair is necessary.

B. Wood Replacement

- 1. Carefully remove fasteners at deteriorated member.
- 2. Remove deteriorated member, taking care not to damage adjacent members.
- 3. Remove adhesive residue and fasteners from adjacent members.
- 4. Fabricate new members to match existing size, thickness, shape, and length.
- 5. Replacement members shall be set square. Profiles and exterior surfaces shall be flush with adjacent surfaces.

C. Epoxy Repair

- 1. General: epoxy wood repair materials shall be applied in accordance with manufacturer's written instructions. Health and safety instructions shall be

followed in accordance with the manufacturer's instructions. The source or cause of wood decay shall be identified and corrected prior to application of patching materials. Wet wood shall be completely dried to a moisture content of 8 to 12 percent to its full depth before patching. Wood that is to be patched shall be clean of dust, grease, and loose paint. Clean mixing equipment shall be used to avoid contamination. Mix and proportions shall be as directed by the manufacturer. Batches shall be only large enough to complete the specific job intended. Patching materials shall be completely cured before painting or reinstallation of patched pieces.

2. Epoxy liquid consolidant shall be used to penetrate and impregnate deteriorated wood sections to reinforce wood fibers that have become softened or absorbent.
3. Epoxy paste shall be used to fill areas where portions of wood are missing such as holes, cracks, gaps, gouges, and other voids greater than 1/4 inch. Areas to receive epoxy material shall be primed with compatible epoxy liquid wood consolidant or a primer recommended by the manufacturer.

3.6 COATING PREPARATION

- A. Existing paints and clear coatings shall be removed to bare wood. Areas where paint was removed shall be prepared by approved method. All parts shall be cleaned by brush using detergent solution, and let dry.
- B. Clean substrates of substances that could impair bond of paints, including dirt, oil, grease, and incompatible paints and encapsulants.
- C. Examine substrates and conditions for compliance with requirements for maximum moisture content and other conditions affecting performance of work.
- D. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
 1. Wood: 15 percent.
- E. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- F. Sand surfaces that will be exposed to view, and dust off.
- G. Begin coating application only after unsatisfactory conditions have been corrected and surfaces are dry. Beginning coating application constitutes Contractor's acceptance of substrates and conditions.

3.7 COATING APPLICATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates and paint systems indicated.
 1. Use applicators and techniques suited for paint and substrate indicated.

2. Paint surfaces behind movable items same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed items with prime coat only.
- B. Prime edges, ends, faces, undersides, and backsides of wood.
 - C. After priming, fill minor holes and imperfections in the finish surfaces with putty or plastic wood filler. Sand smooth when dried.
 - D. Tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Tint undercoats to match color of topcoat, but provide sufficient difference in shade of undercoats to distinguish each separate coat.
 - E. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
 - F. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.
- 3.8 GLAZING
- A. Bed new or re-used glass lights in glazing putty in restored, primed wood window sash. Glass is specified in Section 08 80 00.
 - B. Install new stainless steel glazing points at locations and in sufficient quantity to ensure appropriate support. Care should be taken to ensure that the glass is adequately supported by the glazing points.
 - C. Install new glazing putty in profile and depth to match existing. Care should be taken to develop a proper profile (concave) to shed water. Maintain original sightlines of wood sash. Putty installation should create bond between putty and window frame. Allow putty to properly cure prior to coating.
- 3.9 HARDWARE
- A. Hardware restoration:
 1. Remove hardware from wood window elements. Record locations so that each hardware item is returned to its original location.
 2. Document individual units where window hardware typical to the building is missing.
 3. Soak hardware item in chemical paint stripper to remove existing paint build-up. Do not soak existing brass-finished hardware items that are free of paint.
 4. Scrub with plastic pads to remove paint and thoroughly rinse stripper residue.
 5. Coat brass or bronze hardware items with lacquer.
 6. Spray apply coating to iron or galvanized hardware items. Color: black or other color acceptable to Owner.

7. Reinstall hardware to original window. Use solid brass screws to install brass or bronze hardware items. Use stainless steel screws with coated heads to install iron or galvanized hardware items.

3.10 INSTALLATION

- A. Install restored window sash level, plumb, square, true to line, without distortion or impending thermal movement, and securely in place with stops. Provide new parting stops as required, finished to match adjacent original wood surfaces and milled to fit securely in existing frame rabbet.
- B. Provide salvaged or new hardware for all windows. Hardware includes but not limited to: pulleys, counterweights, locks and latches, handles, and lifts. Provide new brass chain for all counterweighted window sash.
- C. Coordinate with installation of new storm windows.

3.11 SEALANT

- A. Install new bond breaker/backer rod and sealant at perimeter of wood frame and sill at joint with masonry substrate.

3.12 STORM WINDOWS

- A. Remove all storm windows and frames at White Cottage
- B. Repair damaged storm windows. Replace missing and broken glass.
- C. Reinstall storm windows, including screen, using current blind stop mounting location.

3.13 ADJUSTMENT, CLEANING AND PROTECTION

- A. Clean glass promptly after installation, exercising care to avoid damage to finish of new and existing surfaces. Wash and polish glass on both faces not more than four (4) days prior to date scheduled for final inspection. Comply with glass manufacturer's recommendations for final cleaning and maintenance.
- B. Remove and replace glass which has been broken, chipped, cracked, abraded or otherwise damaged during construction period, including that damaged by natural causes, accidents and vandalism.
- C. Touch-up any painted areas of the Work that may have been affected during the Work.
- D. Remove all protective materials and clean up construction debris.

3.14 FIELD QUALITY CONTROL

- A. Permit the Owner to make random inspections of Work in process on and off site and completed repairs.

3.1 CLEAN-UP

- A. Remove waste materials, debris and rubbish from site at the end of each working day.

- B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect/Engineer, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.
- E. Upon completion of work, remove all debris and construction material from site. Leave site in clean condition.

END OF SECTION

PART 1 - GENERAL

RELATED DOCUMENTS

Drawings and general provisions of Contract, including General and Supplementary General Conditions and Division-1 Specification sections, apply to work of this section.

1.01 WORK INCLUDED

- A. Provide glass and glazing compound for broken panes in doors and windows as indicated on drawings.
- B. Remove asbestos contaminated glazing compound as indicated on drawings. Re-glaze windows.
- C. Remove glazing compound. Apply glazing compound to perimeter of all window panes.

1.02 RELATED WORK

- A. Section 06 10 00 – Carpentry
- B. Section 07 90 00 - Joint Protection
- C. Section 08 01 52.19 - Wood Window Restoration

1.03 REFERENCES

- A. International Building Code 2012 with 2016 Connecticut Supplements, Chapter 24.
- B. American National Standards Institute
 - 1. ANSI Z97.1-1994, Performance Specifications and Methods of Test for Safety Glazing Materials used in Buildings.
- C. Underwriter's Laboratory Incorporated
 - 1. U.L. Guide HOUR, Glazing for Fire Doors and Windows.
- D. ASTM C 1036 - Standard Specification for Flat Glass.
- E. ASTM C 1503 - Standard Specification for Silvered Flat Glass Mirror.
- F. Glass Association of North America (GANA) Glazing Manual.

1.04 PERFORMANCE REQUIREMENTS

- A. Size glass to withstand dead loads and positive and negative live loads acting normal to plane of glass as measured in accordance with ANSI/ASTM E330.
- B. Limit glass deflection to 1/200 flexure limit of glass with full recovery of glazing materials, whichever is less.

1.05 SUBMITTALS

- A. Submit under provisions of General Conditions and Section 01 30 00.
- B. Product Data on Glass Types Specified: Provide structural, physical and environmental characteristics, size limitations, special handling or installation requirements.
- C. Product Data on Glazing Compounds: Provide chemical, functional, and environmental characteristics, limitations, special application requirements. Identify available colors.
- D. Samples: Submit two samples 12" x 12" each type of glass.
- E. Samples: Submit sample of glazing compound, color as selected.
- F. Manufacturer's Installation Instructions: Indicate special precautions required.
- A. Documentation shall include, but not be limited to:
 - 1. Resumes of training and employment in the applicable field;
 - 2. Evidence of possession of required licenses and/or business permits; and
 - 3. Evidence of at least **three (3)** years in the aggregate of on the job experience in historic preservation projects of a similar nature.

In addition to the documentation required above, provide a minimum of **three (3)** references, one of which is an Owner of a completed project of the Subcontractor and one of which is an Architect or Engineer for a completed project. Provide any additional information, including photographs, as applicable, in order to show historic preservation experience to be approved by the Architect and Owner prior to the start of the work.

For individual craftsmen, **three (3)** references from past employers will be required. The Architect, and Owner under this provision, may waive other requirements of this Specification Section.

- B. Provide a schedule of repairs identifying all locations and products proposed to the Architect. Review the schedule on site with the Architect and modify as required.

1.06 QUALITY ASSURANCE

- A. Perform Work in accordance with FGMA Glazing Manual, FGMA Sealant Manual glazing installation methods.
- B. Maintain one copy of each document on site.
- C. The work of this project involves a significant historic site. Old Newgate Prison is a National Register historic site. All work activities must be undertaken with sufficient care to protect this historic resource and must be supervised by personnel who are familiar with the Secretary of Interior's Standards for Rehabilitation.
- D. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section. Comply with submittal requirements in 1.3, Submittals, of this Section.
- E. All activities which have the potential to disturb subsoils or otherwise disturb archaeological resources, shall be monitored by the Owner's archaeologist. Notify the Owner at least 72 hours in advance of such activities.

1.07 ENVIRONMENTAL REQUIREMENTS

- A. Do not install glazing when ambient temperature is less than 50 degrees F.
- B. Maintain minimum ambient temperature before, during and 24 hours after installation of glazing compounds.

1.08 FIELD MEASUREMENTS

- A. Verify that field measurements are as indicated on Drawings.

1.09 COORDINATION

- A. Coordinate Work under provisions of General Conditions.
- B. Coordinate the Work with glazing frames, wall openings, and perimeter air and vapor seal to adjacent Work.

1.10 WARRANTY

- A. Provide ten year manufacturer's warranty under provisions of General Conditions and Section 01 70 00.

PART 2 -PRODUCTS

2.01 ACCEPTABLE MANUFACTURER

- A. Glass
 - 1. Guardian Industries
 - 2. Libbey-Owens-Ford Inc.
 - 3. PPG, Inc.
 - 4. Oldcastle

2.02 MATERIALS

- A. Glass:
 - 1. 1/4' Clear float glass.

2.03 ACCESSORIES

- A. Glazing Compound: Dap 33 window glazing compound.
- B. Primer-Sealers and Cleaners: As recommended by glass and sealant manufacturer.
- C. Glazing points: Provide a minimum of one per side of individual pain.

2.04 COMPATIBILITY

- A. All components of glazing system must be compatible.

PART 3 - EXECUTION

3.01 INSPECTION

- A. Check that glazing channels are free of burrs, irregularities, and debris.
- B. Check that glass is free of edge damage or face imperfections.
- C. Do not proceed with installation until conditions are satisfactory.

3.02 PREPARATION

- A. Field Measurements
 - 1. Measure size of frame to receive glass.
 - 2. Compute actual glass size, allowing for edge clearances.
- B. Preparation of Surfaces
 - 1. Remove protective coatings from surfaces to be glazed.
 - 2. Clean glass and glazing surfaces, to remove dust, oil and contaminants, and wipe dry.

3.03 INSTALLATION

- A. Apply primer-sealer to joint surfaces as recommended by sealant and glass manufacturer.
- B. Glazing in wood doors and windows.
 - 1. Remove all existing glazing compound.
 - 2. Apply a light bead of glazing compound to wood surface.
 - 3. Install glazing points.
 - 2. Apply a smooth bead of glazing compound to match surrounding glazing.

3.04 QUALITY CONTROL

- A. Field inspection will be performed under provisions of General Conditions and Supplemental General Conditions.
- B. Inspection will monitor quality of glazing.

3.05 MANUFACTURER'S FIELD SERVICES

- A. Glass and glazing product manufacturers to provide field surveillance of the installation of their products under provisions of General Conditions and Supplemental General Conditions.
- B. Monitor and report installation procedures and unacceptable conditions.

3.06 CLEANING

- A. Clean work under provisions of General Conditions and Supplemental General Conditions.
- B. Remove glazing materials from finish surfaces.
- C. Remove labels after work is complete.
- D. Clean glass.

3.07 PROTECTION OF FINISHED WORK

- A. Protect finished Work under provisions of General Conditions and Supplemental General Conditions.

END OF SECTION

PART 1 - GENERAL

RELATED DOCUMENTS

Drawings and general provisions of Contract, including General and Supplementary General Conditions and Division-1 Specification sections, apply to work of this section.

1.01 WORK INCLUDED

- A. Work of this Section includes, but is not limited to, painting of windows, siding, wood trim and fascia boards including all prep work as needed for a complete and proper installation, as it relates to the façade restoration.
- B. Contactor is to assume existing painted surfaces (windows, doors, siding and trim) contain lead. Take necessary precautions to protect workers. Provide measures to separate paint removal work areas from occupied areas, and clean-up and disposal as specified in Division 1.
 - 1. The Contractor shall provide all labor, materials, tools, equipment, services, testing, insurance (with specific coverage for work on lead), supervision, and incidentals which are necessary or required to perform the work of lead paint abatement in accordance with applicable governmental regulations and these specifications and "Lead Safe Work Practices" as required by the State of Connecticut.
 - 2. The Contractor must be licensed and employ certified lead abatement workers as required by the State of Connecticut DPH Licensing and Certification Regulations.

1.02 RELATED WORK

- A. Section 06 10 00: Carpentry
- B. Section 08 01 52.19: Wood Window Restoration
- C. Section 02 82 13; Asbestos Abatement
- D. Section 02 03 13: Lead Paint Activity
- E. Work not included:
 - 1. Unless otherwise indicated, painting is not required on surfaces in concealed areas and inaccessible areas such as furred spaces, pipe spaces, and duct shafts.

2. Do not paint moving parts of operating units; mechanical or electrical parts such as valve operators; linkage; sensing devices; motor shafts; etc. unless otherwise indicated.
3. Do not paint over required labels or equipment identification, performance rating, name, or nomenclature plates.
4. Setting of nails will be under Division 6 – Wood and Plastic. Filling and preparation of the surface is part of the scope of work under this Section, and to be included as part of the Painting Contractor's scope of work.

1.03 REFERENCES

- A. Federal Specifications (FS)
- B. American Society of Testing and Materials (ASTM)
- C. Occupational Safety and Health Administration (OSHA)
- D. Steel Structures Painting Council (SSPC)

1.04 DEFINITIONS

- A. "Paint" as used herein, means coating systems materials including primers, emulsions, epoxy, enamels, sealers, fillers, and other applied materials whether used as prime, intermediate, or finish coats.
- B. Touching-up bare spots specified for previously primed or painted surfaces is in addition to the coats specified for the paint system.

1.05 QUALITY ASSURANCE

- A. The work of this project involves a significant historic site. Old Newgate Prison is a National Register historic site. All work activities must be undertaken with sufficient care to protect this historic resource and must be supervised by personnel who are familiar with the Secretary of Interior's Standards for Rehabilitation.
- B. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section. Comply with submittal requirements in 1.3, Submittals, of this Section.
- C. All activities which have the potential to disturb subsoils or otherwise disturb archaeological resources, shall be monitored by the Owner's archaeologist. Notify the Owner at least 72 hours in advance of such activities.

- D. Qualifications: Work of this Section shall be performed by personnel with a minimum of **three years** experience in performing this type of work. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for the proper performance of the work of this Section.
- E. All painting materials shall arrive at the job ready-mixed.
1. All thinning and tinting materials shall be as recommended by the manufacturer. Generally, all paint shall **not** require additional thinning.
 2. Materials selected for each system type shall be products of a single manufacturer.
- F. Paint Coordination:
1. Provide finish coats which are compatible with the prime coats actually used.
 2. Review other Sections of these Specifications as required, verifying the prime coats to be used and assuring compatibility of the total coating system for the various substrate.
 3. Upon request, furnish information on the characteristics of the specific finish materials to assure that the compatible prime coats are used.
 4. Provide barrier coats over noncompatible primers, or remove the primer and reprime as required.
 5. Notify the Architect in writing of anticipated problems in using the specified coating systems over prime-coatings supplied under other Sections.

1.06 SUBMITTALS

- A. Documentation shall include, but not be limited to:
1. Resumes of training and employment in the applicable field;
 2. Evidence of possession of required licenses and/or business permits; and
 3. Evidence of at least **three (3)** years in the aggregate of on the job experience in historic preservation projects of a similar nature.

In addition to the documentation required above, provide a minimum of **three (3)** references, one of which is an Owner of a completed project of the Subcontractor and one of which is an Architect or Engineer for a completed

project. Provide any additional information, including photographs, as applicable, in order to show historic preservation experience to be approved by the Architect and Owner prior to the start of the work.

For individual craftsmen, **three (3)** references from past employers will be required. The Architect, and Owner under this provision, may waive other requirements of this Specification Section.

- B. Provide a schedule of repairs identifying all locations and products proposed to the Architect. Review the schedule on site with the Architect and modify as required.
- C. Comply with provisions of Division 1.
- D. Product Data: Provide manufacturer's product literature for all materials specified and material manufacturer's printed directions and recommendations for environmental conditions, surface preparation, priming, mixing, reduction, spread rate, application, and storage, as applicable for each of the materials specified.
- E. Samples:
 - 1. Provide samples of each color and each gloss for each material on which the finish is specified to be applied.
 - a. Except as otherwise directed, make samples approximately 8-inch x 10-inch in size.
 - b. All samples shall be labeled; and include the following information:
 - a. Manufacturer's name
 - b. Type of paint/stain/hardener
 - c. Color name and number, and gloss name
 - c. If so directed by the Owner's Representative, submit samples during progress of the Work in the form of actual application of the approved materials on actual surfaces to be painted.
 - 2. Revise and resubmit each sample as requested until the final gloss, color, and texture is achieved. Such samples, when approved, will become standards of color and finish for accepting or rejecting the work of this Section.
 - 3. Do not commence finish painting until approved samples are on file at the job site.
- F. Mock-ups:

1. At an area on the site where approved by the Architect, provide mock-up paint panels.
 - a. Provide one mock-up panel for each combination for each building.
 - b. The mock-up panels may be part of the Work, and may be incorporated into the finished Work when so approved in advance by the Architect.
 - c. Revise as necessary to secure the Architect's approval.

1.07 PRODUCT HANDLING

- A. Comply with pertinent provisions of Division 1 and manufacturer's specifications.

1.08 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to the site in original, unopened containers bearing manufacturer's name and label containing the following information:
 1. Product name and title of material
 2. Manufacturer's name
 3. Thinning instructions
 4. Application instructions
 5. Color name and number
- B. The Owner will designate space on premises for storage of materials. Contractor shall restrict storage in this area to paint materials and related equipment, and provide the following:
 1. Provide one (1) approved chemical dry fire extinguisher equal to 20 lb. CO2 rating in all assigned rooms or locations where painting materials are stored. Fire extinguisher shall bear the label of the National Board of Fire Underwriters and tag of most recent inspection.
 2. Maintain storage area in clean condition, store materials not in use in tightly covered containers. Remove oily rags, waste and empty containers from site each night.

1.09 JOB CONDITIONS

- A. Do not apply solvent-thinned paints when the temperature of surfaces to be painted and the surrounding air temperatures are below 45° F, unless otherwise permitted by the manufacturer's printed instructions as approved by the Architect. Comply with manufacturer's recommendations as to environmental conditions under which coatings and coating systems can be applied.
- B. Do not apply finish in areas where dust is being generated or will be generated while the paint is drying.
- C. In all areas being painted, the Contractor shall ensure that there is adequate ventilation to ensure proper paint drying, along with minimizing paint odors.
- C. Weather conditions:
 - 1. Do not apply paint in snow, rain, fog, or mist; or when the relative humidity exceeds 85%; or to damp or wet surfaces, unless otherwise permitted by the manufacturer's printed instructions as approved by the Architect.

1.10 EXTRA STOCK

- A. Not applicable.

1.10 WARRANTY

- A. Provide **3 year** warranty for workmanship and materials. These requirements shall include the following:
 - 1. There shall be no evidence of blistering, peeling, crazing, alligating, streaking, staining, or chalking.
 - 2. Remove dirt without blemishing the finish by washing with mild soap and water.
 - 3. Colors of surface shall remain free from serious fading; the variation, if any, shall be uniform.
- B. Correct all defects, appearing within the guarantee period, by removal of the defective work and replacement as directed.
- C. All corrective measures shall be the Contractor's responsibility, and shall be made at no extra cost to the Owner.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS- PAINT

A. Subject to compliance with specified requirements, provide "First Line" or "Top Quality" products of one of the following manufacturers:

B. Manufacturer:

1. Benjamin Moore Paint Company (Basis of design)
2. Sherwin Williams
3. Pittsburg Paints

C. Product: Insofar as practicable, use primer, finish coat, and thinner material as parts of a unified system and paint finish.

1. Exterior cedar wood trim and fascia boards:

a. Primer: Benjamin Moore – Fresh Start fast dry exterior alkyd primer 094 (for cedar bleed).

Wet film thickness: 3.7 mils

Dry film thickness: 1.7 mils

Thinning or primer is **NOT** permitted.

Provide primer paint produced by the same manufacturer as the finish coat.

b. Finish coats: Benjamin Moore – Moorgard 100% acrylic low luster house paint N103.

Wet film thickness: 4.6 mils

Dry film thickness: 2.0 mils

Colors: To match existing. Samples shall be provided for review. Final selection by Architect.

2 coats minimum, or as many as may be necessary to obtain the proper finish and completely cover the substrate.

Use only thinners recommended by the paint manufacturer, and only to the recommended limits.

2.02 COLOR SCHEDULES

A. Exterior fascia and trim to be low luster.

1. Color to match existing.

2.03 APPLICATION EQUIPMENT

- A. For application of approved paint, use only such equipment as is recommended for application of the particular paint by the manufacturer of the particular paint.
- B. Prior to use of application equipment, verify that the proposed equipment is actually compatible with the material to be applied, and that integrity of the finish will not be jeopardized by its use.

2.04 OTHER MATERIALS

- A. For minor repair of gouges, scratches, and filling of set nail holes:
 1. Exterior latex wood putty.

PART 3 - EXECUTION

3.01 SURFACE CONDITIONS

- A. The application of painter's finish to any surface shall be taken to indicate that the Contractor considers such surfaces suitable for a first-class finish.
- B. Do not apply painter's finish in any locations until the Work of other Contractors, which might damage the new finish, are completed.
- C. Notify the Architect in writing regarding Work by others which does not provide a suitable surface for the new finish.
- D. In case of dispute regarding the suitability of any surface, the Architect's decision shall be final and conclusive upon all concerned.
- E. The Contractor shall check the compatibility of previous painted surfaces with the new coating by applying a test area. Allow to dry thoroughly; verify proper adhesion before proceeding with paint Work.
- F. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.
- G. Fill any set nail holes, gouges, scratches, and voids in wood schedule to be painted with specified wood filler using putty knife.
 1. Lightly sand surface after filler has had a chance to properly dry.

3.02 MATERIALS PREPARATION

A. General:

1. Mix and prepare paint materials in strict accordance with the manufacturer's recommendations.
2. When materials are not in use, store in tightly covered containers.
3. Maintain containers used in storage, mixing, and application of paint in a clean condition, free from foreign materials and residue.

B. Stirring:

1. Stir materials before application, producing a mixture of uniform density.
2. Do not stir into the material any film which may form on the surface. Remove the film and if necessary, strain the material before using.

3.03 SURFACE PREPARATION

A. General:

1. Perform preparation and cleaning procedures in strict accordance with the paint manufacturer's recommendations, Department of Environmental Protection, OSHA standards, as approved by the Owner and any other agency having jurisdiction over the handling, removal and disposal of hazardous materials such as lead-based paint, should any be found.
2. Remove items which are in place and are not scheduled to receive paint finish or provide surface-applied protection prior to surface preparation and painting operations.
 - a. Following completion of painting in each space or area, reinstall the removed items using workmen who are skilled in the necessary trades.
3. Clean each surface to be painted prior to applying paint or surface treatment. Remove oil and grease with clean cloths and cleaning solvent.
4. Treat caulking as recommended by the paint manufacturer.
5. Remove mildew as recommended by the paint manufacturer.

6. Schedule the cleaning and painting so that dust and other contaminants from the cleaning process will not fall onto wet newly painted surfaces.
7. Remove all loose paint with scraper and putty knife.
 - a. Sand existing surfaces to dull the sheen and gloss.
 - b. Remove dust by washing with water, using damp sponge or cloth.
 - c. After washing, spot prime grease and water stains; etc. with primer to prevent bleeding.
 - d. Fill all cracks and holes with appropriate filler material, sand flush with adjacent surfaces and spot prime.
 - e. Existing paint that was not removed with scraper and which appears to be sound shall receive spackling compound around perimeter high spots and feathered out so that surface is smooth.

Repair gouges created by the scraping process and other imperfections in the existing surface with spackling compound to provide a smooth, even finished surface.
 - f. Apply number of finish coats specified, or as many as may be necessary to obtain the proper finish and completely cover the substrate.

B. Preparation of wood surfaces:

1. Prepare surfaces per Subparagraphs above.
2. Puttying: Fill cracks, open joints, nail holes and similar defects in existing woodwork specified to be painted or varnished with putty or plastic filler. Putty stop nail holes in all new woodwork specified to be painted or stained and varnished. Prime or seal all surfaces in contact with new putty. Color interior putty to match the finish.
3. Touching-Up: Spot prime defects in existing Work and Work primed under other Paragraphs of Work as necessary to produce an even plane in the new finish.
4. Clean wood surfaces until free from dirt, oil, and other foreign substance. Fill all voids and holes with proper putty.
5. Smooth finished wood surfaces exposed to view, using the proper sandpaper. Where so required, use varying degrees of coarseness in sandpaper to produce a uniformly smooth and unmarred wood surface.

6. Do not proceed with painting of wood surfaces until the moisture content of the wood is 12% or less as measured by a moisture meter.

3.04 PAINT APPLICATION

A. General:

1. No work shall be performed in spaces which are not broom clean and free of dust and waste.
2. Apply paint materials to produce smooth finished surfaces, free from brush or roller marks, drops, runs, or sags.
3. Paint materials shall be kept at a proper and uniform consistency. Thin only when necessary to achieve best results.
 - a. Thinners shall be turpentine, mineral spirits or material recommended by manufacturer of paint, and in quantity as recommended.
 - b. Excessive use of thinner as indicated by variation in absorption, lack of "hide", thickness of dry film, mottled or streaky coat, shall be cause for rejection. Correct as directed.
 - c. Thinning of primer is **NOT** permitted.
4. Touch-up shop-applied prime coats which have been damaged, and touch-up bare areas prior to start of finish coats application.
5. Slightly vary the color of succeeding coats.
 - a. Do not apply additional coats until the completed coat has been inspected and approved.
 - b. Only the inspected and approved coats of paint will be considered in determining the number of coats applied.
6. Sand and dust between coats to remove defects visible to the unaided eye from a distance of five feet.
7. Apply each coat at the coverage rate recommended by the manufacturer. Perform sufficient wet-film thickness tests to assure proper coverage but in no case perform less than one (1) test per 200 sq. foot or four (4) tests for each day's work.
8. Contractor is to paint from corner-to-corner, or, break-to-break of surface where work occurs.

B. Drying:

1. Allow sufficient drying time between coats, modifying the period as recommended by the material manufacturer to suit adverse weather conditions.
2. Consider oil-base and oleo-resinous solvent-type paint as dry for recoating when the paint feels firm, does not deform or feel sticky under moderate pressure of the thumb, and when the application of another coat of paint does not cause lifting or loss of adhesion of the undercoat.

C. Brush applications:

1. Brush out and work the brush coats onto the surface in an even film.
2. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, and other surface imperfections will not be acceptable.

D. Spray applications:

1. Where spray application is used, apply each coat to provide the hiding equivalent of brush coats. Paint to be back brushed.
2. **Do not** double back with spray equipment to build up film thickness of two coats in one pass.

E. For completed work, match the approval Samples as to texture, color, and coverage. Remove, refinish, or repaint work not in compliance with the specified requirements.

E. Previously painted surfaces:

1. Inspect existing painted surfaces. Sound, totally intact, previously-applied coating will not require total removal.
 - a. Shave old coating with a knife to ascertain its present adhesion to the substrate, as well as the flexibility of the film. If the coating has a tendency to powder or shatter easily under the knife, or dis-bonds freely from the substrate or under films, it should be removed prior to the application of new paint.

75% intact: Remove failed coating by method specified and spot prime bare areas.

Less than 75% intact: Total removal by surface preparation method specified.

Brittle, eroded or Total removal by surface preparation method
under film rusting: specified.

3.05 PAINTING SCHEDULE

- A. Provide the following paint finishes:
1. Wood trim and fascia boards:

a. Fully prime all new surfaces (6 sides) before installation.

Prime all accessible surfaces of existing wood which is exposed during the work process, including all surfaces which will be concealed once the scope of work is complete.

b. Patch, spot prime other surfaces as needed.

c. Two coats on new and existing surfaces.

3.06 CLEANING

- A. The Contractor shall clean up behind each paint crew such that painting and clean-up will be a continuous uninterrupted operation. This clean-up will include, but not limited to, the following:

1. Remove spots or defacement resulting from Work of this Section.

2. Retouch all damaged surfaces to leave Work in perfect finished condition.

3. If spots or defacement cannot be satisfactorily removed and retouched, re-finish the surfaces as directed.

4. Free all operating units of painted materials and leave them clean and in proper working order.

5. Remove from premises all surplus paint materials, debris and any other rubbish resulting from the Work.

- B. As the work proceeds and on completion of the work, promptly remove all coatings where spilled, splashed, or splattered in a manner as not to damage the surface from which it is removed.

- C. During the progress of the work, keep the premises free from any unnecessary accumulation of tools, equipment, surplus materials and debris resulting from the Work under this Section.

- D. At the conclusion of the work, leave the premises neat and clean to the satisfaction of the Architect and Owner.
- 3.07 REMOVAL OF FLAMMABLE RUBBISH
- A. To avoid spontaneous combustion, place cotton waste cloths and material which may constitute a fire hazard in closed water filled metal containers and remove from the site daily.
- 3.08 PROTECTION
- A. Provide "Wet Paint" signs to protect newly-painted finishes. Remove temporary wrappings provided by others for protection of their Work after completion of painting operations.
 - B. At the completion of Work of other trades, touch-up and restore all damaged or defaced painted surfaces as directed by the Owner.

END OF SECTION

Section 50 30 00 Hazardous Building Materials Inspection and Inventory

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REPORT

**PRE-RENOVATION
INVESTIGATIVE SURVEY FOR ASBESTOS-
CONTAINING MATERIALS
AND LEAD BASED PAINT
NEWGATE PRISON & COPPER MUSEUM
VIETS TAVERN, YELLOW COTTAGE, WHITE
COTTAGE
EAST GRANBY, CONNECTICUT**

Project No. 2B-16-26

DPW No. 08402

Prepared for

**State of Connecticut
Department of Administration Services
Division of Construction Services**

Hartford, Connecticut

Prepared by

TRC

Windsor, Connecticut

December 1, 2016

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Donald LePage

Donald LePage
Project Manager

Edmund J. Burke

Edmund J. Burke, P.E.
Engineer in Charge

TRC Project No. 266325-0000-0000
December 1, 2016

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- C ASBESTOS BULK SAMPLE CHAIN OF CUSTODY FORMS
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- F MOLD IN AIR SAMPLING DATA

EXECUTIVE SUMMARY

On November 9, November 10 and November 14, 2016 TRC of Windsor, Connecticut conducted an inspection for suspect asbestos-containing materials (ACM), lead based paint (LBP) and mold at Newgate Prison and Copper Museum in East Granby, Connecticut. The inspection was initiated prior to planned renovation activities in accordance with USEPA Asbestos National Emissions Standard for Hazardous Air Pollutants (NESHAPS) requirements.

The scope of the inspection was limited to the Viets Tavern (106 Newgate Road), Yellow Cottage (114 Newgate Road) and White Cottage (105 Newgate Road) buildings at the subject site. A Connecticut licensed asbestos inspector from TRC conducted the inspection in accordance with USEPA AHERA protocols and ASTM Standard E2356-04. Bulk samples of suspect materials were collected and analyzed via polarized light microscopy (PLM) and/or PLM gravimetric analysis methods at a CTDPH/NVLAP accredited laboratory. ACM was identified as window caulk/glazing, various types of gaskets, floor tile, sink insulation and textured ceiling in the subject areas. ACM to be impacted by renovation activities must be removed prior to disturbance in accordance with OSHA, USEPA, CTDPH, and CTDEEP standards for asbestos abatement/disposal. Detailed results of the asbestos survey can be found in Tables 1-3 and Appendices A through D.

A Connecticut licensed lead inspector from TRC conducted a LBP survey throughout the interior and exterior of the three buildings and high levels ($>1.0 \text{ mg/cm}^2$) of lead paint were identified on various walls, beams/supports, window/door components, floors, shelves, railings, stairs, fireplace components, foundation and siding on the structures that are scheduled for impact. Lower levels ($<1.0 \text{ mg/cm}^2$) of lead paint were also identified throughout all three buildings. Exposure levels for lead in the construction industry are regulated by OSHA 29 CFR 1926.62. Construction activities disturbing surfaces containing lead paint which are likely to be employed, such as grinding, cutting, and demolishing, has been known to expose workers to airborne levels of lead in excess of the permissible exposure limit (PEL). The Contractor shall conduct demolition work in conformance with the OSHA regulations, utilizing engineering controls and personal protective equipment. In addition, disposal of construction waste containing lead paint is subject to regulation under both the CTDEEP Hazardous

and Special Waste Management (22a-209-1 through 16; 22a-449(c)-11; 22a-449(c)-13; 22a-449(c)-100 through 110; and 22a-454) and USEPA RCRA Hazardous Waste Management (40 CFR Parts 260 through 274) regulations. However, scrap metal is exempt from regulation under the CTDEEP/USEPA Hazardous Waste Regulations provided it is properly recycled. The Contractor shall recycle any lead painted scrap metal at an approved scrap metal recycling facility.

Building debris waste disposal determination with regards to potentially hazardous lead painted components is regulated by USEPA Resource Conservation Recovery Act (RCRA) Hazardous Waste Regulations (40 CFR Parts 260 through 274), and the CTDEEP Hazardous Waste Regulations (22a-209-1 and 22a-449(c)). Waste debris accumulated as part of renovation activities should be characterized by Lead Toxic Characterization Leachate Procedure (TCLP) analysis to determine if it is hazardous waste or can be disposed of as regular C&D waste. Detailed results of the lead survey can be found in Table 4 and Appendix E.

TRC conducted nonviable mold in air sampling utilizing air-o-cell cassettes in the three buildings. Mold in air levels at the Viets Tavern were found to be within acceptable levels. However, the interiors of the Yellow Cottage and White Cottage showed signs of elevated mold growth compared to the ambient samples. Further investigation should be performed to determine building components that may have been subjected to water intrusion. Results of this mold in air sampling can be found in Appendix F.

PROJECT OUTLINE

Project Address: Newgate Prison & Copper Museums
Viets Tavern – 106 Newgate Road
Yellow Cottage – 114 Newgate Road
White Cottage – 105 Newgate Road
East Granby, CT

DAS Contract No. 13PSX0017

DCS Project Manager: Michael Sanders

DCS Project No.: 2B-16-26

DCS Building No: 08402

TRC Project No.: 266325-0000-0000

TRC Project Manager: Don LePage

Asbestos Inspector: Hilton Hernandez (LIC #000424)
David Heelon (LIC #000635)

Lead Inspector(s): Hilton Hernandez (LIC #002231)
David Heelon (LIC #002188)

Environmental Technical Assistant: David Webster

Date of Inspection: 11/9/16-11/10/16, 11/14/16

Asbestos Identified: Yes

Lead Based Paint Identified: Yes

Mold in Air Identified: Yes – Yellow Cottage & White Cottage

Additional Notes:
The site investigation was limited to the collection and analysis of suspect asbestos-containing materials, lead based paint and mold from within the Viets Tavern, Yellow Cottage and White Cottage at Newgate Prison and Copper Museum.

1. Introduction
2. Literature Review
3. Methodology
4. Results
5. Discussion
6. Conclusion

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**TABLE 1
BULK SAMPLE SUMMARY OF SUSPECT ASBESTOS CONTAINING MATERIALS
NEWGATE PRISON & COPPER MUSEUM
EAST GRANBY, CONNECTICUT**

Sample No.	Sample Location	Homogeneous Material	% and Type Asbestos
Viets Tavern – 106 Newgate Road			
1	Ballroom 24	PL1 – light grey ceiling plaster	ND
		Light skimcoat	ND
2	Ballroom 24	PL1 – light grey ceiling plaster	ND
		Light skimcoat	ND
3	Ballroom 24	PL1 – light grey ceiling plaster	ND
		Light skimcoat	ND
4	Ballroom 24	PL2- Light yellow wall plaster w/ horsehair	ND
5	Room 27	PL2- Light yellow wall plaster w/ horsehair	ND
6	Room 28	PL2- Light yellow wall plaster w/ horsehair	ND
7	Room 21	PL3- Lt brown horsehair plaster	ND
8	Room 21	PL3- Lt brown horsehair plaster	ND
9	Room 21	PL3- Lt brown horsehair plaster	ND
10	Chamber 23 ceiling	PL4- Tan wall plaster w/ horsehair	ND
		White skim coat	ND
11	Hall 25	PL4- Tan wall plaster w/ horsehair	ND
		White skim coat	ND
12	Hall 25	PL4- Tan wall plaster w/ horsehair	ND
		White skim coat	ND
13	Pantry 16 Chimney	FL1- Black chimney flashing tar	ND
14	Ballroom 24 chimney	FL1- Black chimney flashing tar	ND*
15	Attic above chamber 23	WG1- Older green and green / white window pane glaze	ND
16	Attic above chamber 23	WG1- Older green and green / white window pane glaze	ND*
17	Attic above chamber 23	WG2- Newer white window pane glaze	ND
18	Ballroom 24	WG2- Newer white window pane glaze	Trace chrysotile*

- NA/PVA Not analyzed/positive via inseparable association with a confirmed positive ACM
- NA/PS Not analyzed/positive stop, homogeneous to sample proven to contain asbestos
- ND<1% Non-detected, less than 1%
- ND No asbestos detected
- SNA Sample Not Analyzed – see Chain of Custody for details
- + Although found to be negative by analysis, material is homogeneous to a determined ACM and therefore must be considered positive
- 1 NOB material; result confirmed by TEM analyses
- * Analyzed by EPA/600/R-93/116 with gravimetric reduction
- Analyzed by 400 Point Count Method

**TABLE 1 (continued)
BULK SAMPLE SUMMARY OF SUSPECT ASBESTOS CONTAINING MATERIALS
NEWGATE PRISON & COPPER MUSEUM
EAST GRANBY, CONNECTICUT**

Sample No.	Sample Location	Homogeneous Material	% and Type Asbestos
19	Room 26	WG3- Off-white window glaze	ND
20	Room 26	WG3- Off-white window glaze	Trace chrysotile*
21	Room 15	DWG1- Tan door window glaze	ND
22	Room 15	DWG1- Tan door window glaze	ND*
23	Attic above room 26	VB1- Black tar vapor barrier	ND
24	Attic above room 29	VB1- Black tar vapor barrier	ND*
25	Exterior	VB2- Tan exterior siding vapor barrier	ND
26	Exterior	VB2- Tan exterior siding vapor barrier	ND
27	Ballroom 24	SHR1- White sheetrock	ND
		White joint compound	ND
28	Hall 25	SHR1- White sheetrock	ND
		White joint compound	ND
29	Room 27	SHR2- Lt grey sheetrock	ND
		Yellow joint compound	0.5% chrysotile*
30	Room 27	SHR2- Lt grey sheetrock	ND
		Yellow joint compound	0.75% chrysotile*
31	Room 27	FT1- 12x12" tan speckled floor tile	ND
		Amber glue associated with FT1	ND
32	Room 27	FT1- 12x12" tan speckled floor tile	ND*
		Amber glue associated with FT1	ND*
33	Room 27	FT2- 9X9" black and white linoleum floor tile	ND
		Brown glue associated with FT2	ND
34	Room 27	FT2- 9X9" black and white linoleum floor tile	ND*
		Brown glue associated with FT2	ND*
35	Pantry 16	FT3- 12X12" red slate floor tile	ND
		Tan mastic associated with FT3	ND

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NA/PS Not analyzed/positive stop, homogeneous to sample proven to contain asbestos

ND<1% Non-detected, less than 1%

ND No asbestos detected

SNA Sample Not Analyzed - see Chain of Custody for details

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‡ NOB material; result confirmed by TEM analyses

* Analyzed by EPA/600/R-93/116 with gravimetric reduction

■ Analyzed by 400 Point Count Method

TABLE 1 (...continued)
BULK SAMPLE SUMMARY OF SUSPECT ASBESTOS CONTAINING MATERIALS
NEWGATE PRISON & COPPER MUSEUM
EAST GRANBY, CONNECTICUT

Sample No.	Sample Location	Homogeneous Material	% and Type Asbestos
36	Pantry 16	FT3- 12X12" red slate floor tile	ND
		Tan mastic associated with FT3	ND*
37	Room 26	TC1- White coarse textured ceiling	ND
38	Room 29	TC1- white coarse textured ceiling	ND
39	Room 29	TC1- white coarse textured ceiling	ND
40	East parlor	LIN1- Remnant black green linoleum	ND
41	East parlor	LIN1- Remnant black green linoleum	ND*
42	Cellar	BG1- Boiler gasket	ND
43	Cellar	BG1- Boiler gasket	ND
Yellow Cottage - 114 Newgate Road			
1	Living room	PL1- Grey plaster base w/ horsehair	ND
		Skimcoat	ND
2	Living room	PL1- Grey plaster base w/ horsehair	ND
		Skimcoat	ND
3	Living room	PL1- Grey plaster base w/ horsehair	ND
		Skimcoat	ND
4	Living room	PL1- Grey plaster base w/ horsehair	ND
		Skimcoat	ND
5	Living room	PL1- Grey plaster base w/ horsehair	ND
		Skimcoat	ND
6	Living room	WG1- Off white window glaze of 4 pane windows	ND
7	Living room	WG1- Off white window glaze of 4 pane windows	ND*
8	Front porch	WG2- Off white window glaze on 12 pane windows	ND
9	Front porch	WG2- Off white window glaze on 12 pane windows	Trace chrysotile*
10	Living room	WC1- Grey putty window caulk	10% chrysotile
11	Living room	WC1- Grey putty window caulk	NA/PS

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**TABLE 1 (...continued)
BULK SAMPLE SUMMARY OF SUSPECT ASBESTOS CONTAINING MATERIALS
NEWGATE PRISON & COPPER MUSEUM
EAST GRANBY, CONNECTICUT**

Sample No.	Sample Location	Homogeneous Material	% and Type Asbestos
12	Living room	DWG1- Off white door window glaze	ND
13	Living room	DWG1- Off white door window glaze	ND*
14	Furnace	FG1- Grey port furnace gasket	40% chrysotile
15	Furnace	FG1- Grey port furnace gasket	NA/PS
16	Furnace	FG2- Grey fire hole gasket	30% chrysotile
17	Furnace	FG2- Grey fire hole gasket	NA/PS
18	Living room	DS1- Black door jamb sealant	ND
19	Living room	DS1- Black door jamb sealant	ND*
20	Kitchen	LIN1- White square w/ grey diamond linoleum	ND
21	Kitchen	LIN1- White square w/ grey diamond linoleum	ND*
22	Kitchen	LIN2- Brown flower pattern linoleum	ND
23	Kitchen	LIN2- Brown flower pattern linoleum	ND*
24	Kitchen	LIN3- 12x12 pattern linoleum	ND
		Grey tile	3% chrysotile
25	Kitchen	LIN3- 12x12 pattern linoleum	ND*
		Grey tile	NA/PS
26	1 st floor bathroom	FT1- Blue square 12x12 self-stick floor tile	ND
27	1 st floor bathroom	FT1- Blue square 12x12 self-stick floor tile	ND*
28	1 st floor bathroom	WPG1- Tan wall panel glue	ND
29	1 st floor bathroom	WPG1- Tan wall panel glue	ND*
30	Upstairs hall	G1- Brown corkboard square glue	ND
31	Upstairs hall	G1- Brown corkboard square glue	ND*
32	Upstairs hall	G2- Red corkboard square glue	ND
33	Upstairs hall	G2- Red corkboard square glue	ND*
34	Exterior B-side	VB1- Black vapor barrier	ND

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ND No asbestos detected

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■ Analyzed by 400 Point Count Method

**TABLE 1 (continued)
BULK SAMPLE SUMMARY OF SUSPECT ASBESTOS CONTAINING MATERIALS
NEWGATE PRISON & COPPER MUSEUM
EAST GRANBY, CONNECTICUT**

Sample No.	Sample Location	Homogeneous Material	% and Type Asbestos
35	Exterior B-side	VB1- Black vapor barrier	ND*
White Cottage – 105 Newgate Road			
1	Kitchen	DWG1- Off-white door window glaze 12x9" panes	ND
2	Kitchen	DWG1- Off-white door window glaze 12x9" panes	ND*
3	Front entrance	DWG2- Tan door window glaze	ND
4	Dining room	DWG2- Tan door window glaze	ND*
5	Kitchen	WG1- White window glaze 12 pane windows (6x 10")	ND
6	Kitchen	WG1- White window glaze 12 pane windows (6x 10")	ND*
7	Kitchen	G1- Brown covebase glue	ND
8	Kitchen	G1- Brown covebase glue	ND*
9	Kitchen	LIN1- Red brick pattern linoleum	ND
		Brown glue associated with LIN1	ND
10	Kitchen	LIN1- Red brick pattern linoleum	ND*
		Brown glue associated with LIN1	ND*
11	Kitchen	SII- Black sink insulation	20% chrysotile
12	Kitchen	SII- Black sink insulation	NA/PS
13	Basement	GR1- Grey chimney grout patch	ND
14	Basement	GR1- Grey chimney grout patch	ND
15	Kitchen	G2- Orange wall panel glue	ND
16	Kitchen	G2- Orange wall panel glue	ND*
17	Basement stairs	SHR1- Grey sheetrock	ND
		Off-white joint compound	0.25% chrysotile*
18	Main stairs	SHR1- Grey sheetrock	ND
		Off-white joint compound	0.25% chrysotile*

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NA/PS Not analyzed/positive stop, homogeneous to sample proven to contain asbestos

ND<1% Non-detected, less than 1%

ND No asbestos detected

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I NOB material; result confirmed by TEM analyses

* Analyzed by EPA/600/R-93/116 with gravimetric reduction

■ Analyzed by 400 Point Count Method

TABLE 1 (continued)
BULK SAMPLE SUMMARY OF SUSPECT ASBESTOS CONTAINING MATERIALS
NEWGATE PRISON & COPPER MUSEUM
EAST GRANBY, CONNECTICUT

Sample No.	Sample Location	Homogeneous Material	% and Type Asbestos
19	Bathroom 1	G3- Tan ceramic tile glue	ND
20	Bathroom 1	G3- Tan ceramic tile glue	ND*
21	Front entry closet	TC1- Textured ceiling fine grain	3.0% chrysotile*
22	Living room	TC1- Textured ceiling fine grain	2.75% chrysotile*
23	Basement stairs	TC1- Textured ceiling fine grain	NA/PS
24	Bathroom 1	GR2- White ceramic tile seam grout	ND
25	Bathroom 1	GR2- White ceramic tile seam grout	ND
26	Upstairs crawl space	V1- Vermiculite	SNA
27	Upstairs crawl space	V1- Vermiculite	SNA
28	Exterior A-side	WG2- Basement window glaze	3% chrysotile
29	Exterior A-side	WG2- Basement window glaze	NA/PS
30	Exterior A-side	VB1- Exterior siding vapor barrier	ND
31	Exterior A-side	VB1- Exterior siding vapor barrier	ND*
32	Exterior A-side	C1- Lt grey bulk head door caulk	ND
33	Exterior A-side	C1- Lt grey bulk head door caulk	ND*

NA/PVA Not analyzed/positive via inseparable association with a confirmed positive ACM

NA/PS Not analyzed/positive stop, homogeneous to sample proven to contain asbestos

ND<1% Non-detected, less than 1%

ND No asbestos detected

SNA Sample Not Analyzed – see Chain of Custody for details

+ Although found to be negative by analysis, material is homogeneous to a determined ACM and therefore must be considered positive

1 NOB material; result confirmed by TEM analyses

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■ Analyzed by 400 Point Count Method

**TABLE 2
IDENTIFIED ASBESTOS CONTAINING MATERIALS (>1%)
NEWGATE PRISON & COPPER MUSEUM
EAST GRANBY, CONNECTICUT**

Material	Sampled- Assumed (mo/yr)	General Location	NESHAP Category	AHERA Category	Estimated Quantity
Viets Tavern – 106 Newgate Road					
NO ASBESTOS CONTAINING MATERIALS WERE IDENTIFIED IN THE SUBJECT AREA					
Yellow Cottage – 114 Newgate Road					
WC1- Grey putty window caulk	Sampled 11/16	Living Room, Dining Room, Kitchen, Bathroom	Category II Non-friable	Miscellaneous	7 EA
FG1- Grey port furnace gasket	Sampled 11/16	Furnace – Mechanical closet	Category I Non-friable	Miscellaneous	1 EA
FG2- Grey fire hole gasket	Sampled 11/16	Furnace – Mechanical closet	Category I Non-friable	Miscellaneous	1 EA
Grey tile associated with LN3 – 12x12 pattern linoleum (bottom layer)	Sampled 11/16	Kitchen	Category I Non-friable	Miscellaneous	140 SF
White Cottage – 105 Newgate Road					
S11- Black sink insulation	Sampled 11/16	Kitchen	Category II Non-friable	Miscellaneous	1 EA
TC1- Textured ceiling fine grain	Sampled 11/16	Front entry closet, Living Room, Basement stairs, Kitchen, Bathroom, Dining Room	Friable	Surfacing Material	700 SF
WG2- Basement window glaze	Sampled 11/16	Exterior A-side	Category II Non-friable	Miscellaneous	4 EA
V1 – vermiculite	Assumed 11/16	Crawlspace	Friable	Thermal System Insulation	30 gal bucket and 45 SF

AHERA Categories = thermal system insulation (TSI), surfacing material or miscellaneous
 NESHAP Categories = friable, category I non-friable or category II non-friable
 Friable = crumbled, pulverized or reduced to powder by hand pressure when dry
 Category I Non-friable = packings, gaskets, resilient floor covering and asphalt roofing
 Category II Non-friable = all non-friable that is not Category I

**TABLE 3
 CONFIRMED NON-ASBESTOS CONTAINING MATERIALS
 NEWGATE PRISON & COPPER MUSEUM
 EAST GRANBY, CONNECTICUT**

Material	General Location
Viets Tavern – 106 Newgate Road	
PL1 – light grey ceiling plaster/light skimcoat	Hall, Stair 22, Chamber 23, Ballroom 24
PL2- Light yellow wall plaster w/ horsehair	Ballroom 24, Room 27, Room 28
PL3- Lt brown horsehair plaster	East Parlor 12, West Parlor 11, Old Kitchen 13, Tavern Room 14, Room 21
PL4- Tan wall plaster w/horsehair & white skim coat	East Parlor 12, Old Kitchen 13, Tavern Room 14, Chamber 23, Hall 25, Stairs
FL1- Black chimney flashing tar	Attic chimneys
WG1- Older green and green / white window pane glaze	Attic above chamber 23, Porch, Barn 17
WG2- Newer white window pane glaze	West Parlor 11, East Parlor 12, Old Kitchen 13, Tavern Room 14, Pantry 16, Toilet 17, Room 21, Chamber 23, Attic above chamber 23, Ballroom 24, Room 27
WG3- Off-white window glaze	New Kitchen 15, Room 26, Room 29
DWG1- Tan door window glaze	New Kitchen 15, Barn 17
VB1- Black tar vapor barrier	Attic debris
VB2- Tan exterior siding vapor barrier	Exterior siding
SHR1- White sheetrock/white joint compound	New Kitchen 15, Pantry 16, Toilet 17, Ballroom 24, Hall 25, Room 26, Room 29, Stairs
SHR2- Lt grey sheetrock/yellow joint compound	Room 27
FT1- 12x12" tan speckled floor tile & associated amber glue	Toilet 17, Room 27
FT2- 9X9" black and white linoleum floor tile & associated brown glue	Pantry 16, Toilet 17, Room 27
FT3- 12X12" red slate floor tile & associated tan mastic	Pantry 16
TC1- white coarse textured ceiling	New Kitchen 15, Pantry 16, Room 26, Room 29
LIN1- Remnant black green linoleum	East Parlor 12
BG1- Boiler gasket	Cellar
Yellow Cottage – 114 Newgate Road	
PL1- Grey plaster base w/horsehair & associated skimcoat	Throughout
WG1- Off white window glaze of 4 pane windows	Bathroom, Dining Room, Kitchen, Living Room, 2 nd floor dormer, stairs
WG2- Off white window glaze on 12 pane windows	Front porch windows
DWG1- Off white door window glaze	Living Room
DS1- Black door jamb sealant	Living Room
LIN1- White square w/ grey diamond linoleum	Kitchen
LIN2- Brown flower pattern linoleum	Kitchen
LIN3- 12x12 pattern linoleum*	Kitchen*
FT1- Blue square 12x12 self-stick floor tile	1 st floor bathroom

**TABLE 3 (...continued)
 CONFIRMED NON-ASBESTOS CONTAINING MATERIALS
 NEWGATE PRISON & COPPER MUSEUM
 EAST GRANBY, CONNECTICUT**

Material	General Location
WPG1- Tan wall panel glue	1 st floor bathroom
G1- Brown corkboard square glue	Upstairs hall, Bedroom
G2- Red corkboard square glue	Upstairs hall, Bedroom
VB1- Black vapor barrier	Exterior siding
White Cottage - 105 Newgate Road	
DWG1- Off-white door window glaze 12x9" panes	Kitchen
DWG2- Tan door window glaze	Dining room, Front entrance
WG1- White window glaze 12 pane windows (6x 10")	Throughout 1 st and 2 nd floors
G1- Brown covebase glue	Kitchen, Bathroom 1
LIN1- Red brick pattern linoleum & associated brown glue	Kitchen
GR1- Grey chimney grout patch	Basement
G2- Orange wall panel glue	Kitchen, Bathroom 1
SHR1- Grey sheetrock & associated off-white joint compound	Throughout 1 st and 2 nd floors
G3- Tan ceramic tile glue	Bathroom 1
GR2- White ceramic tile seam grout	Bathroom 1
VB1- Exterior siding vapor barrier	Exterior siding
C1- Lt grey bulk head door caulk	Exterior B-side

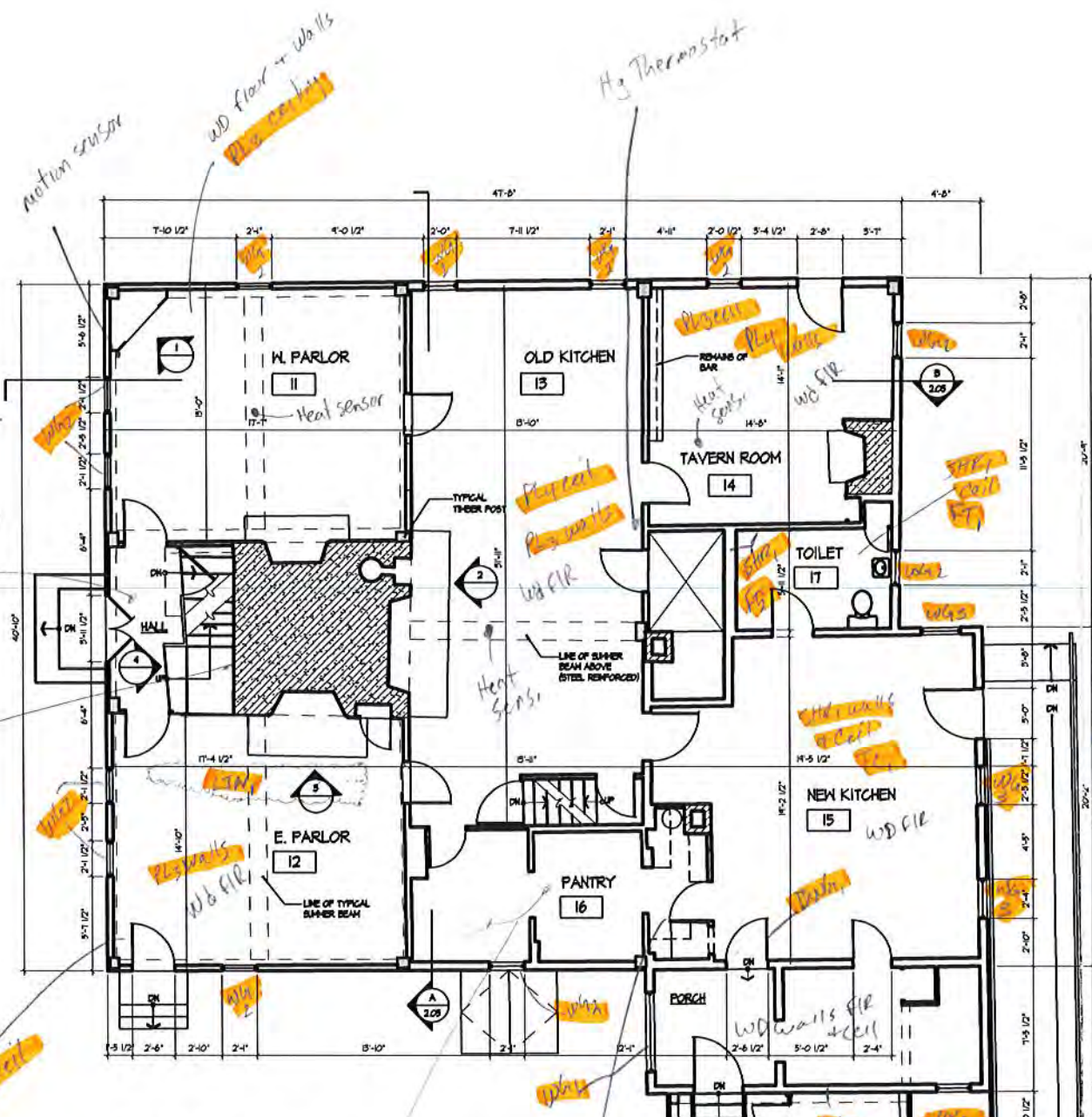
**However, associated layers are positive*

**TABLE 4
SUMMARY OF LEAD PAINT XRF MEASUREMENTS
NEWGATE PRISON & COPPER MUSEUM
EAST GRANBY, CONNECTICUT**

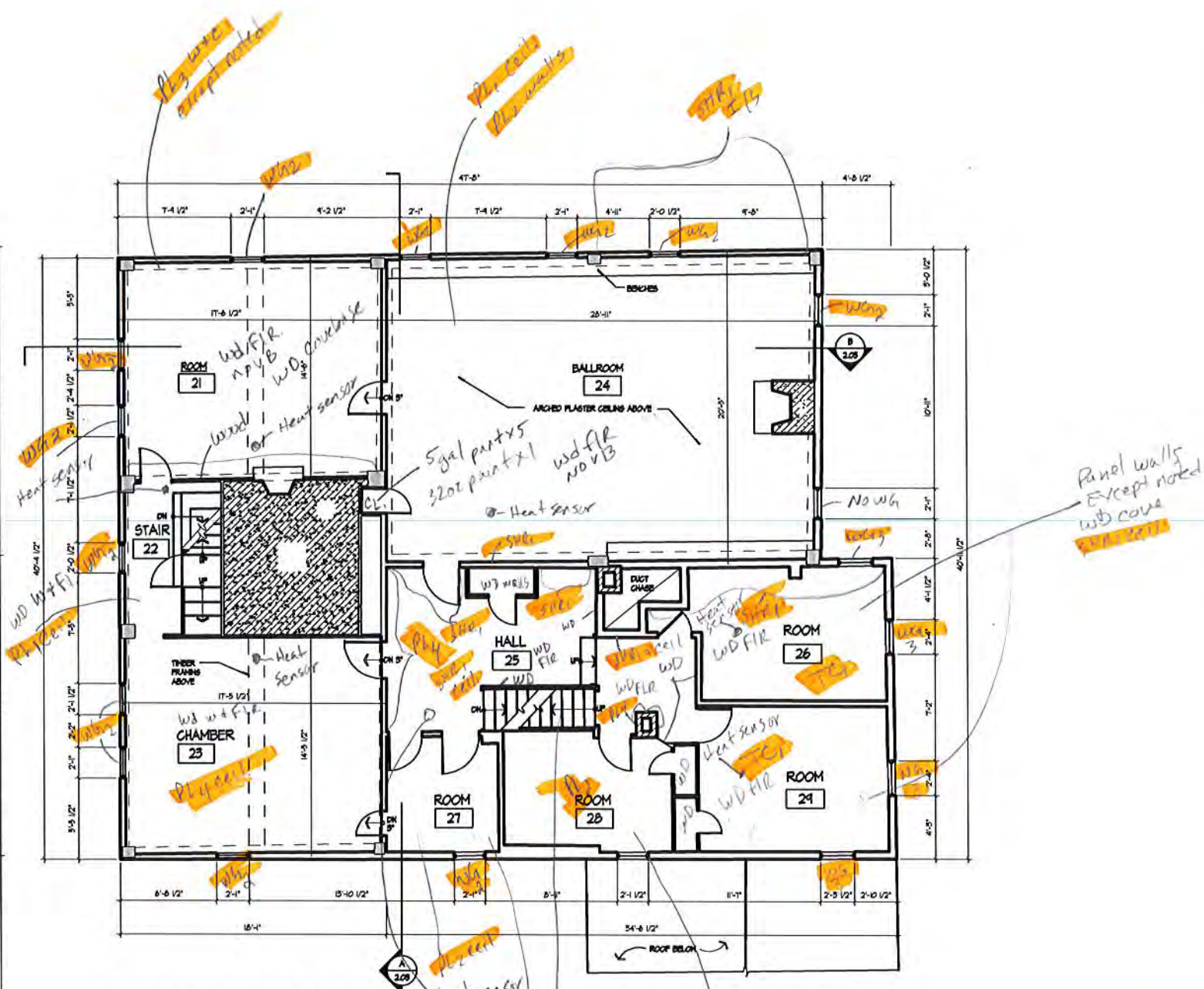
Structure	No. of Measurements	Calibrations	Void	Lead Detected	No Lead Detected via XRF*
Viets Tavern – 106 Newgate Road	271	14	0	151	106
Yellow Cottage – 114 Newgate Road	97	4	0	42	51
White Cottage – 105 Newgate Road	64	6	0	5	53

*A XRF cannot determine if paint is “lead free” since it can only detect lead down to 0.1 mg/cm². Paint can only be determined as “lead free” by a laboratory using Atomic Absorption Spectrometry (AAS). See Lead Paint XRF Measurement Table in Appendix E.

APPENDIX A
SITE SKETCHES



1 FIRST FLOOR PLAN
VIETS TAVERN, EAST GRANBY, CONNECTICUT



2 SECOND FLOOR PLAN
VIETS TAVERN, EAST GRANBY, CONNECTICUT

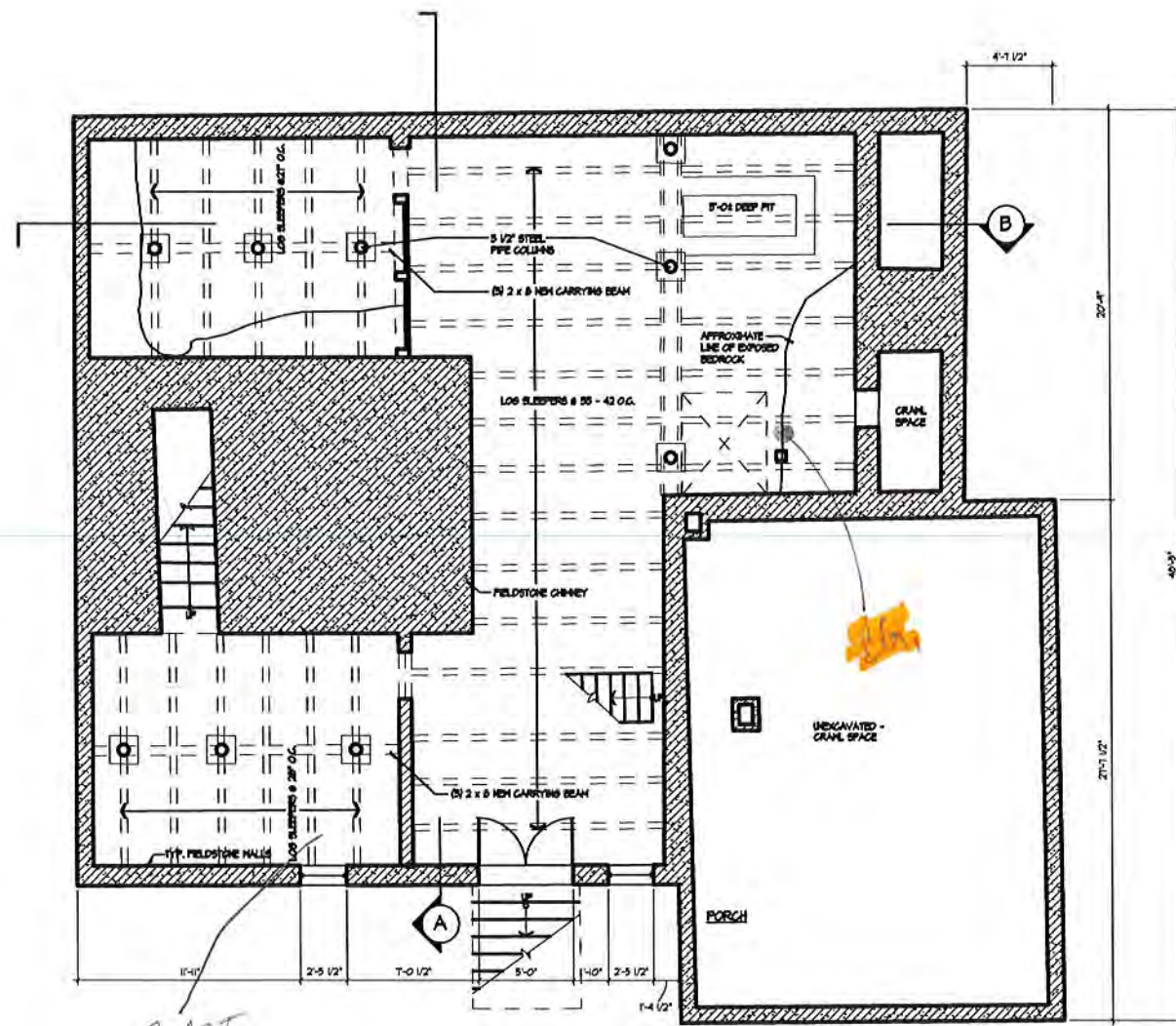
WALL KEY		
	WOOD PARTITION	
	BRICK	
	FIELDSTONE MASONRY	

STATE OF CONNECTICUT DEPARTMENT OF PUBLIC WORKS			
REVISIONS			
mark	date	description	

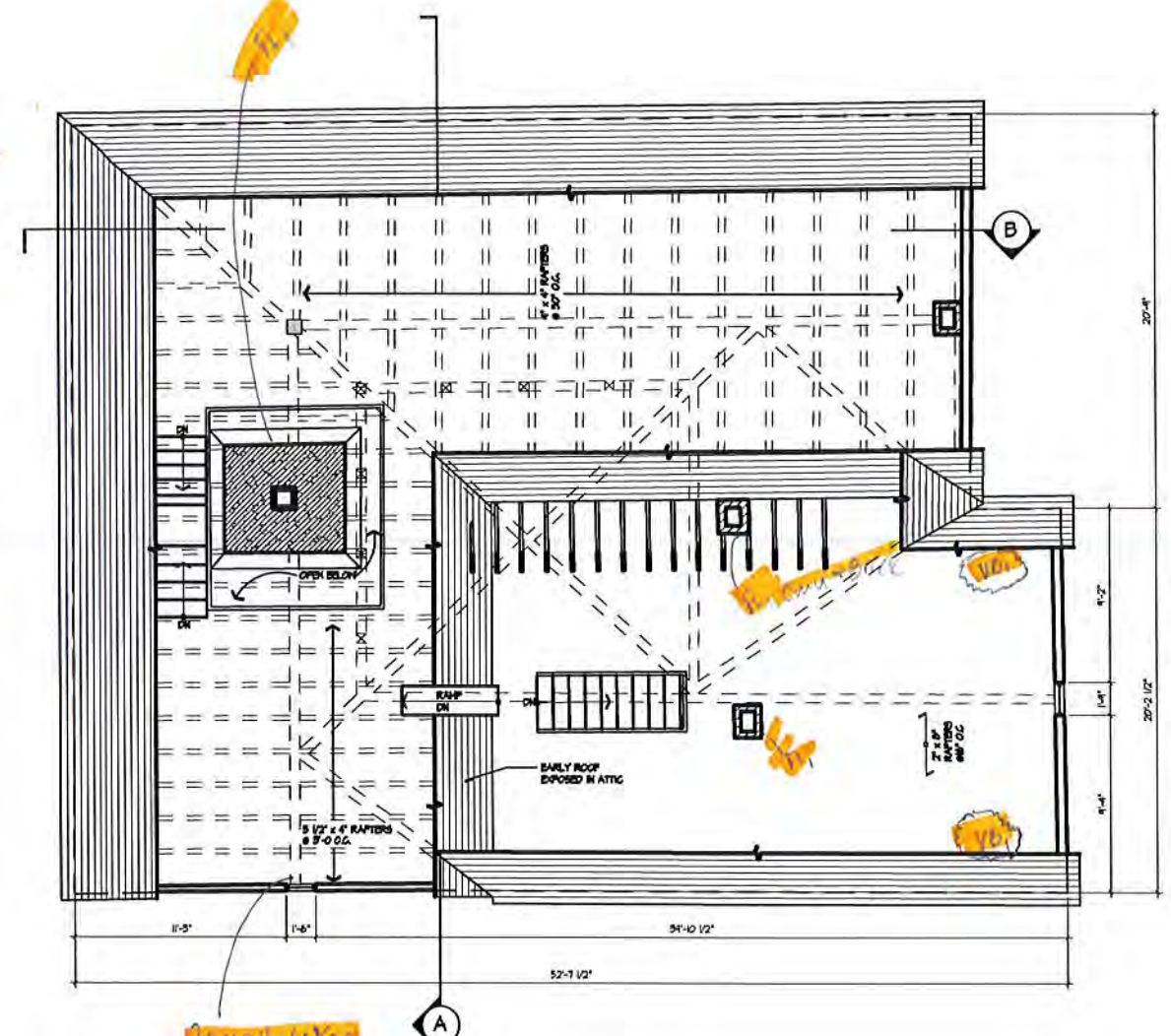
Drawing title VIETS TAVERN, EAST GRANBY, CT. EXISTING FLOOR PLANS 1 & 2	DRAWING PREPARED BY PAUL B. BAILEY ARCHITECT <small>40 ALBION STREET NEW BRITAIN, CONNECTICUT 06105 860.776.8888</small>	DATE 1/21/2002 SCALE 1/4"=1'-0"
PROJECT FOUR HISTORIC LOCATIONS: THE CONNECTICUT STATE MUSEUMS <small>THE CONNECTICUT HISTORICAL COMMISSION</small>	DRAWN BY MB APPROVED BY CRH DRAWING NO. EX2.01	PROJECT NO. 21-11-025

Halls + Ballroom + FL @ Bulke

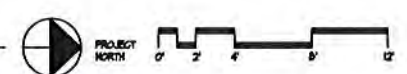
11/09/16
 HA + DW



3 CELLAR PLAN
 VIETS TAVERN, OLD-NEM GATE PRISON, EAST GRANBY, CONNECTICUT



4 ATTIC PLAN
 VIETS TAVERN, OLD-NEM GATE PRISON, EAST GRANBY, CONNECTICUT



Basement taking
 Nelson ledge

- All ATTIC unpainted wood. (Flors, joists, shingles, plywood)
- ~~all, only where noted as cobble on floor~~
- Chimney are stone, brick, some all unpainted

HALL KEY	
	WOOD PARTITION
	BRICK
	FIELDSTONE MASONRY

drawing title VIETS TAVERN, EAST GRANBY, CT. EXISTING CELLAR & ATTIC PLANS		STATE OF CONNECTICUT DEPARTMENT OF PUBLIC WORKS	
REVISIONS		DRAWING PREPARED BY PAUL B. BAILEY ARCHITECT 40 AUBURN STREET NEW HAVEN, CONNECTICUT 06510 302.778.8888	
mark	date	description	scale 1/4" = 1'-0"
			project FOUR HISTORIC LOCATIONS: THE CONNECTICUT STATE MUSEUMS THE CONNECTICUT HISTORICAL COMMISSION
			drawn by PDB approved by CMB drawing no. EX2.02
			project no. BI-41-025



SUBJECT Newgate Prison & Copper Museum

SHEET NO. _____ OF _____

PROJECT NO. _____

DATE 11/09/16, 11/10/16

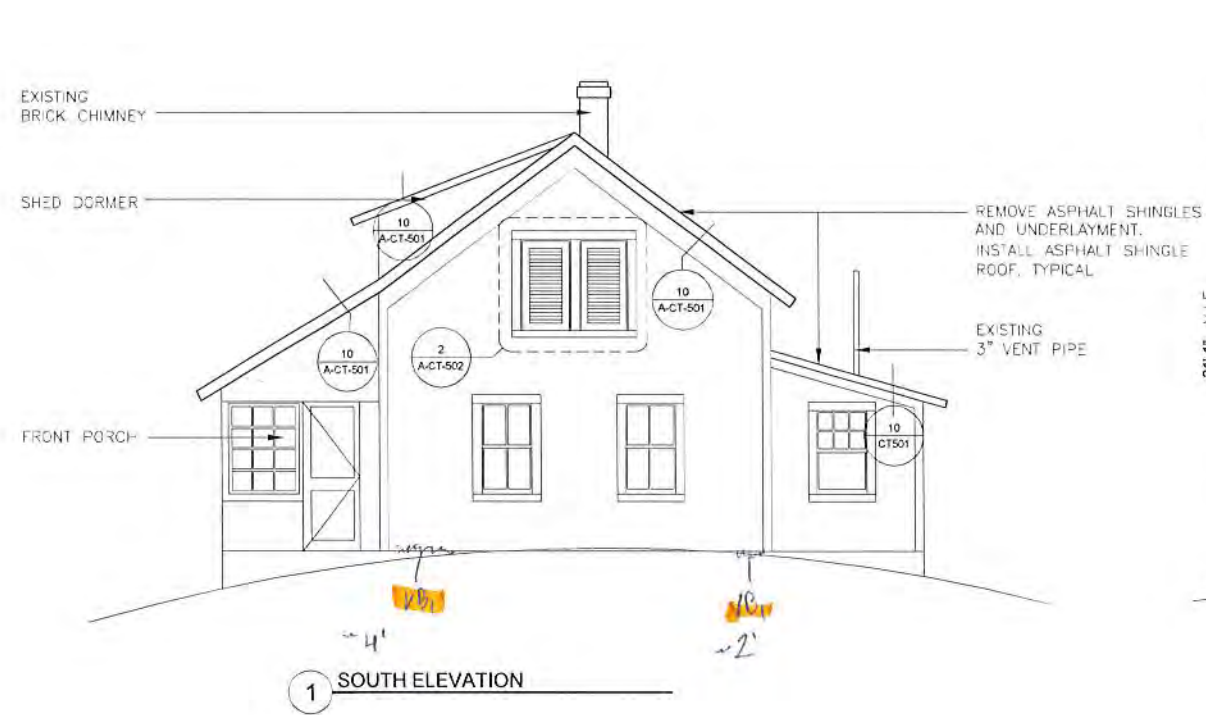
BY Hil + DW + DH

CHK'D _____

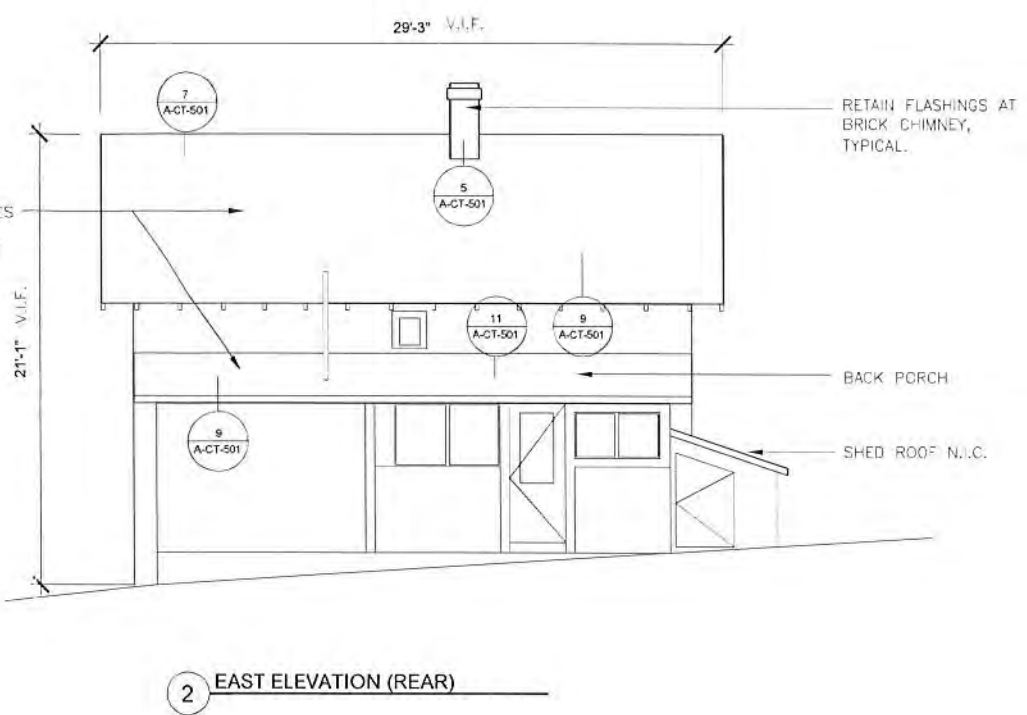
Viets Tavern 106 Newgate Rd

- ✓(✓) FL₁ - Black chimney Flashing tar
- ✓(✓) WG₁ - older grn + gra/wht. window pane glaze (yellow) EXT.
- ✓(✓) WG₂ - Newer wht window pane glaze (wht) EXT. (15 pane windows)
- ✓(✓) VB₁ - Black tar vapor barrier
- ✓(✓) PL₁ - Lt grey ceiling plaster w/white skimcoat
- ✓(✓) PL₂ - Lt yellow wall plaster coat w/ horse hair
- ✓(✓) PL₃ - Lt brown horse hair plaster
- ✓(✓) SHR₁ - white SHR + white joint compound
- ✓(✓) PL₄ - Tan wall plaster w/ horse hair + white skim coat
- ✓(✓) SHR₂ - Lt gray SHR + yellow joint compound
- ✓(✓) FT₁ - 12x12 tan speckled floor tile w/ Amber glue
- ✓(✓) FT₂ - 9x9 blk + wht floor tile w/ brown glue
- ✓(✓) WG₃ - off white window glaze 4 pane windows
- ✓(✓) TC₁ - white coarse lump textured ceiling
- ✓(✓) LIN₁ - Fenwant blk/grn linoleum
- ✓(✓) FT₃ - 12x12 red slate floor tile + Tan mastic
- ✓(✓) Door window glaze tan "panes 9x18"
- ✓(✓) BG₁ - boiler gasket yellow
- ✓(✓) VB₂ - tan exterior siding vapor barrier

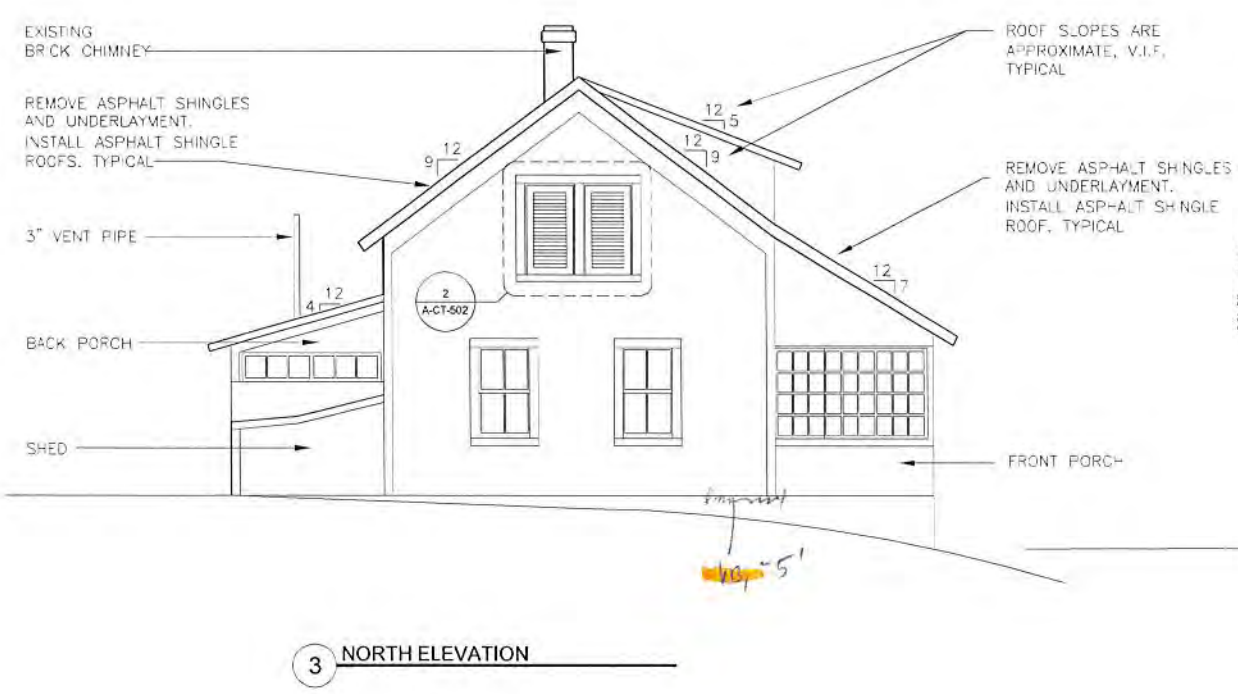
- ST05 - Outside new Kitchen door of Tavern
- ST06 - First floor old Kitchen/ Room 13 of Tavern
- ST07 - Second floor Hill 25 of Tavern
- ST08 - Outside new Kitchen door of Tavern



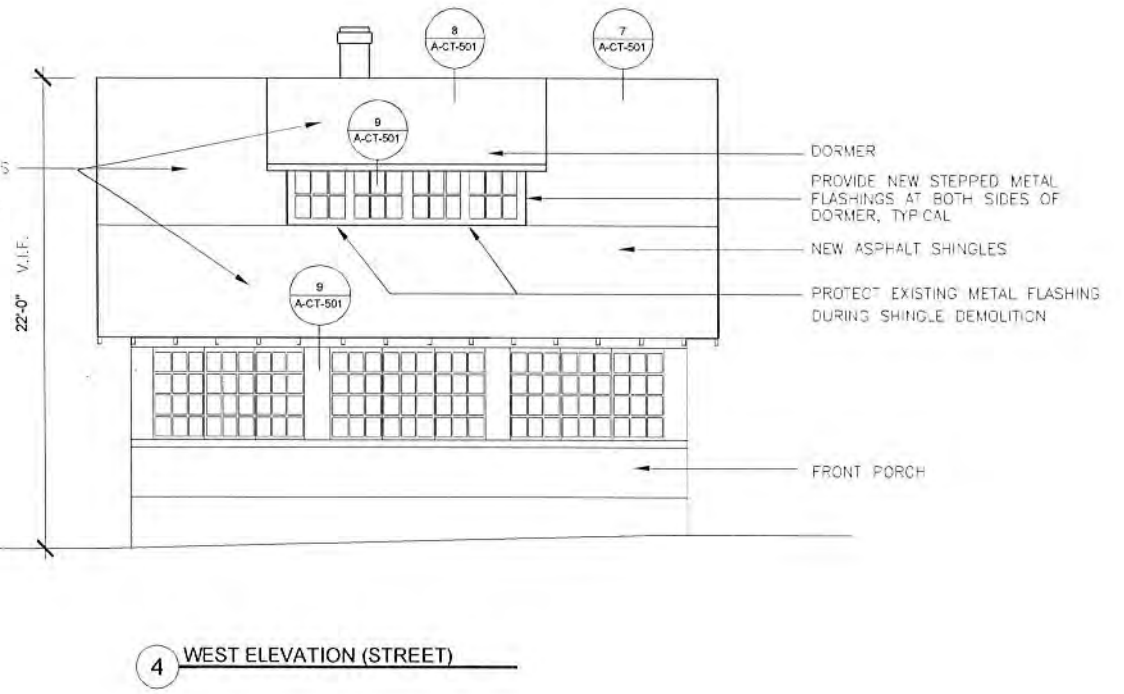
1 SOUTH ELEVATION



2 EAST ELEVATION (REAR)



3 NORTH ELEVATION



4 WEST ELEVATION (STREET)

REVISIONS

1	
2	
3	
4	
5	DATE

DRAWING TITLE
**Elevations
 114 Newgate
 Road**

DRAWING INFORMATION

November 8, 2005
 DATE OF ISSUE

Construction Documents
 DESCRIPTION

1/4" = 1'-0" JKM
 SCALE DRAWN BY

2560.DD A CT 201.dwg
 PROJECT# FILE NAME

DRAWING NUMBER
A-CT-201



SUBJECT Newgate Prison & Copper Museum

SHEET NO. _____ OF _____




PROJECT NO. _____

DATE 11/10/16

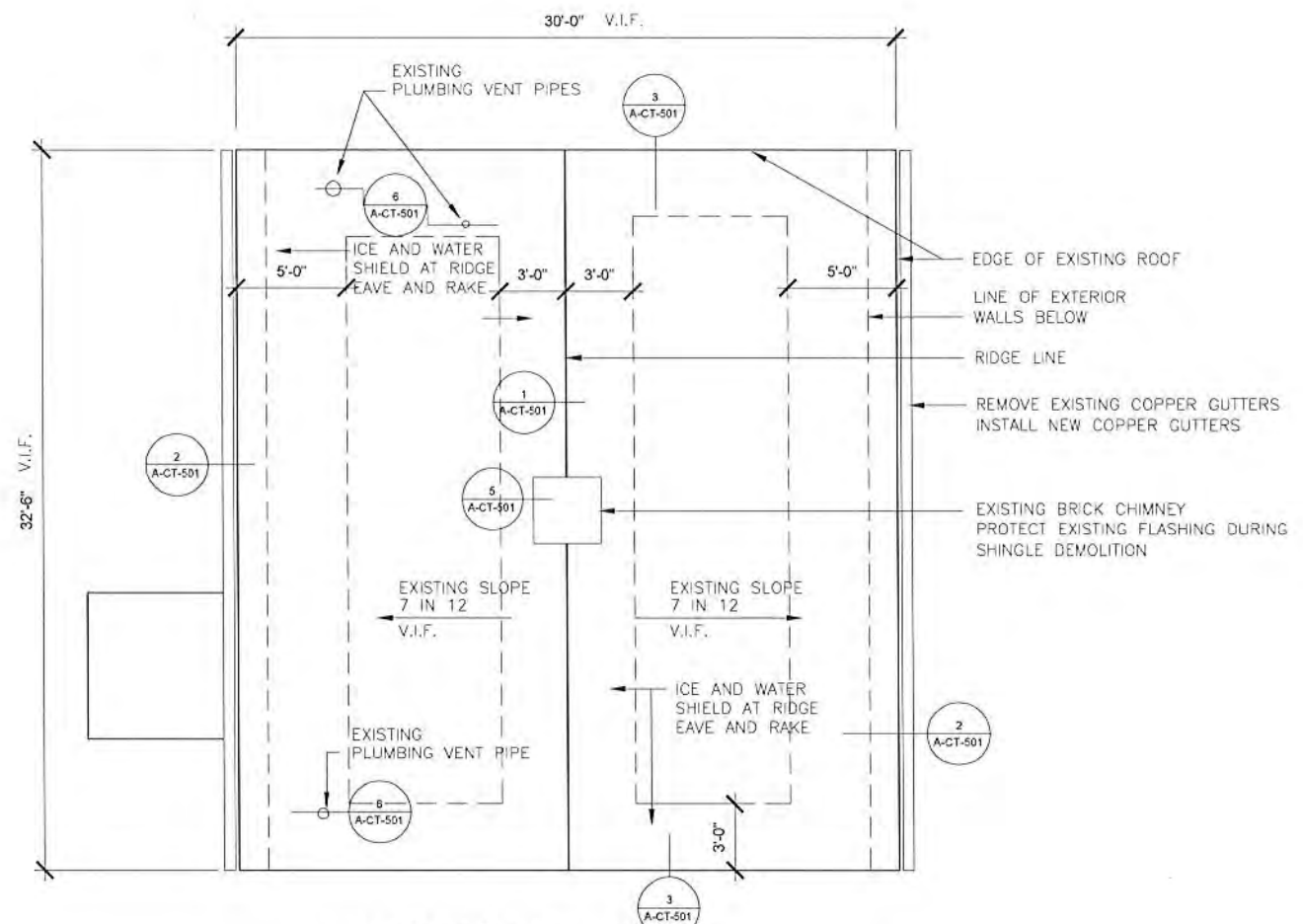
BY HH + DH

CHK'D _____

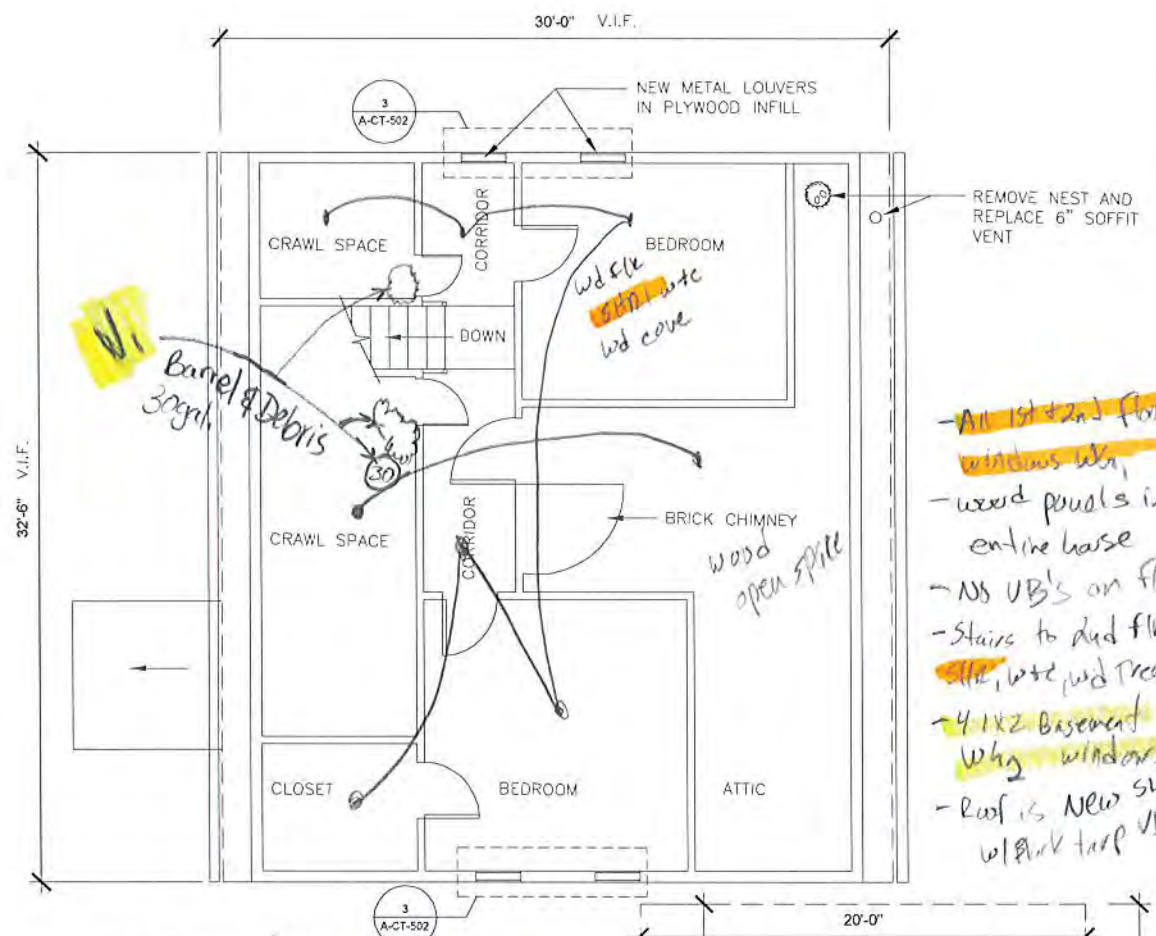
114 Newgate Rd

- (VVV) PL₁ - grey plaster base w/ horse hair + skin coat
- (VV) WG₁ - off white window glaze 4 pane windows 
- (VV) WG₂ - off white window glaze on 12 pane windows 
- (VV) WC - grey putty window caulk
- (VV) DWG₁ - off white door window glaze 
- (VV) FG₁ - grey putty gasket
- (VV) FG₂ - grey fire hole gasket
- (VV) DS₁ - black door jamb sealant
- (VV) LN₁ - wht sq w/ gra diamond Linoleum Top
- (VV) LN₂ - brown flower pattern lin. middle } Kitchen
- (VV) LN₃ - 12x12 pattern linoleum bottom }
- (VV) FT₁ - Blue sq 12x12 self-stick Floor tile
- (VV) WP₁ - tan wall panel glue
- (VV) G₁ - brown cork board square glue
- (VV) G₂ - red cork board square glue
- (VV) VB₁ - black vapor/moisture barrier

- ST 09 outside rear of Bldg
- ST 10 Kitchen
- ST 11 Rear Bed room
- ST 12 outside rear of Bldg



1 ROOF FLOOR PLAN

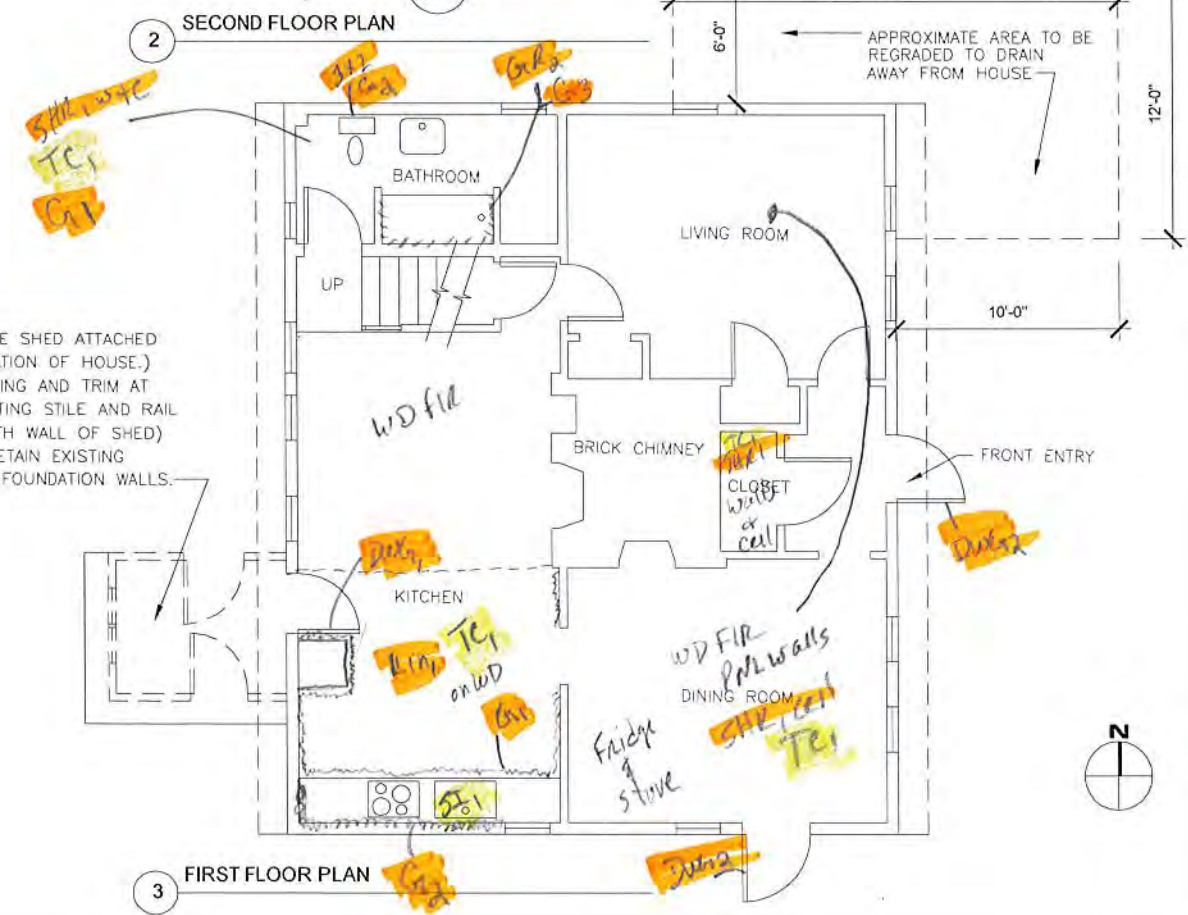


2 SECOND FLOOR PLAN

ROOFING NOTES FOR 105 NEWGATE ROAD:

- REMOVE EXISTING WOOD SHINGLES AND UNDERLAYMENT DOWN TO SHEATHING, TYPICAL.
- PROVIDE NEW COPPER COUNTER FLASHING AND COPPER STEP FLASHING AT EXISTING BRICK CHIMNEY. SAW-CUT NEW REGLETS IN HORIZONTAL MORTAR JOINTS AND SECURE NEW FLASHING WITH MORTAR TO MATCH EXISTING.
- RE-ATTACH LOOSE WOOD PLANKS, BATTENS AND PLYWOOD, TYPICAL.
- COVER ROOF WITH ICE AND WATER SHIELD AT RIDGE EAVES AND RAKES AS SHOWN, IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
- COVER ROOF WITH 30LB FELT WERE THERE IS NO ICE AND WATER SHIELD.
- PROVIDE METAL EDGE DRIP AT ALL EDGES.
- COVER ENTIRE ROOF WITH "CEDAR BREATHER" NYLON NON WOVEN MESH IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
- INSTALL NEW CEDAR SHINGLE ROOF, TYPICAL.
- ALL FLASHING AND DRIP EDGES AT 105 NEWGATE SHALL BE 16oz. COPPER.
- PROVIDE PREFABRICATED VENT PIPE FLASHING DESIGNED FOR AND COMPATIBLE WITH EXISTING COPPER VENTS.
- TEMPORARY POWER IS AVAILABLE AT 105 NEWGATE ROAD, PROVIDED THAT THE CONTRACTOR RESTORES CONDITIONS TO THOSE FOUND, AFTER THE WORK IS COMPLETE.

DEMOLISH AND REMOVE SHED ATTACHED TO REAR (WEST ELEVATION OF HOUSE.) PROTECT EXISTING SIDING AND TRIM AT HOUSE. SALVAGE EXISTING STILE AND RAIL WOOD DOOR (AT NORTH WALL OF SHED) FOR OWNER'S USE. RETAIN EXISTING CONCRETE PADS AND FOUNDATION WALLS.



3 FIRST FLOOR PLAN

REVISIONS

1	
2	
3	
4	
5	DATE

DRAWING TITLE
**Plans
 105 Newgate
 Road**

DRAWING INFORMATION

November 8, 2005	DATE OF ISSUE
Existing Conditions	DESCRIPTION
1/4" = 1'-0"	SCALE
JKM	DRAWN BY
2550.00	PROJECT #
CT 100.dwg	FILE NAME

DRAWING NUMBER

A-CT-100

REVISIONS

1	
2	
3	
4	
5	DATE

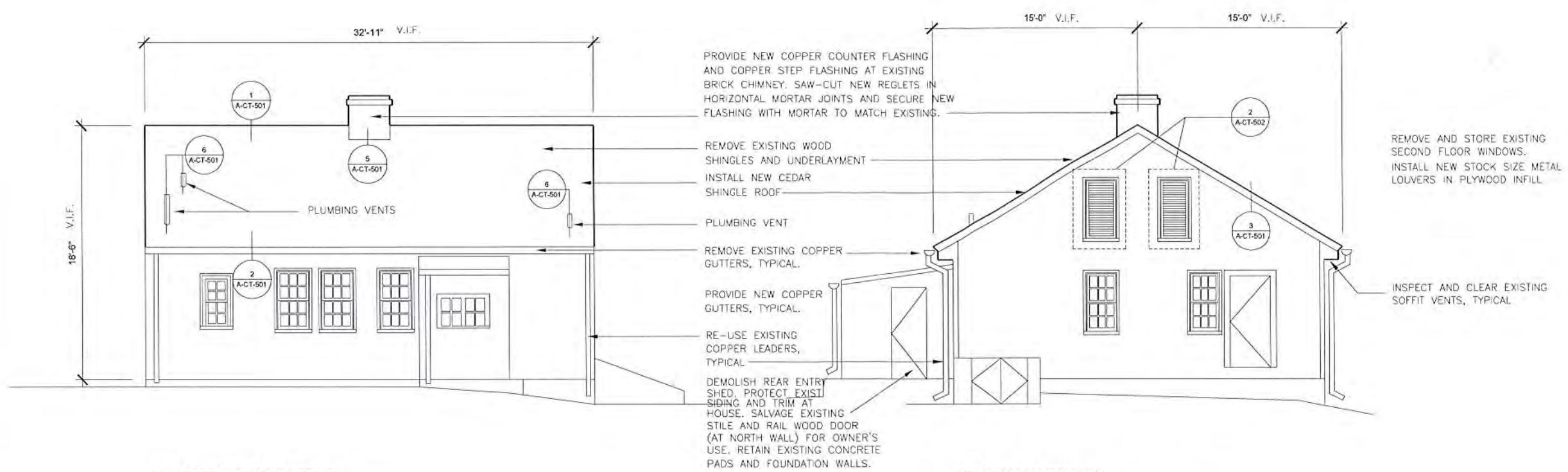
DRAWING TITLE
**Elevations
 105 Newgate
 Road**

DRAWING INFORMATION

November 8, 2005	DATE OF ISSUE
Construction Documents	DESCRIPTION
1/4" = 1'-0"	SCALE
JRM	DRAWN BY
2550.00	A-CT-200 PROJECT #
	REVISION #

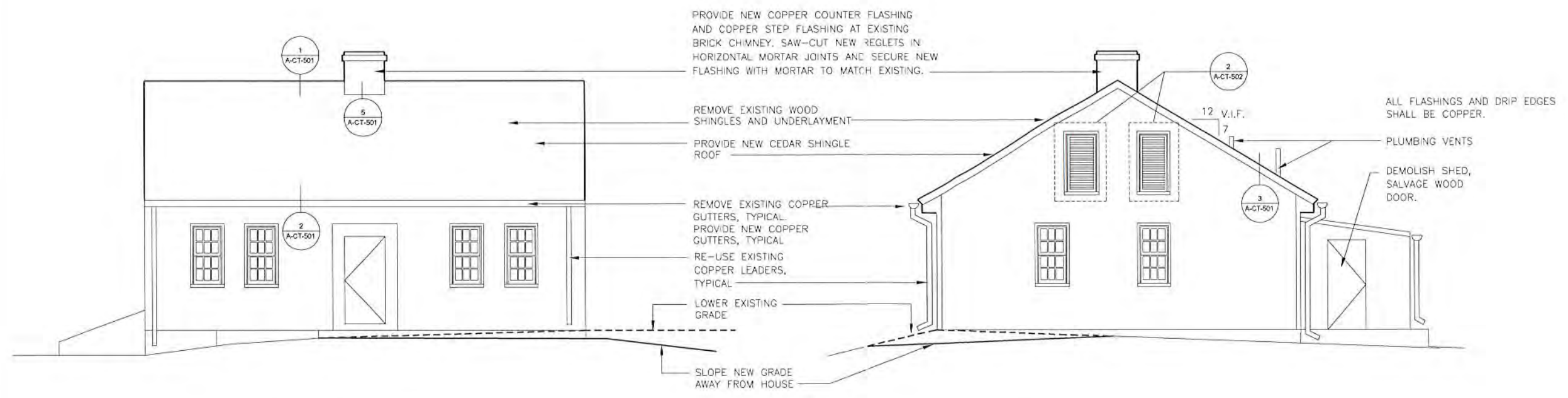
DRAWING NUMBER

A-CT-200



1 WEST ELEVATION (REAR)

2 SOUTH ELEVATION



3 EAST ELEVATION (STREET)

4 NORTH ELEVATION



SUBJECT Old Newgate Prison & Copper Mine

SHEET NO. _____ OF _____

PROJECT NO. _____

DATE 11/14/16

BY HA + DW

CHK'D _____

105 Newgate Rd.

- ✓ DW_{G1} - off-white door window glaze 9 panes (12"x9")
- ✓ DW_{G2} - tan door window glaze " "
- ✓ WG₁ - white window glaze 12 pane windows (6"x10")
- ✓ G₁ - Brown cordbase glue
- ✓ Lin₁ - Red brick pattern Linoleum w/ brown glue
- ✓ ST₁ - Black sink insulation
- ✓ GR₁ - ~~Elimney~~ grout patch (~~in basement~~) grey
- ✓ G₂ - org. wall panel glue
- ✓ STK₁ - grey sheet rock + offwhite joint compound
- ✓ G₃ - tan ceramic tile glue
- ✓ TC₁ - Textured ceiling fine grain
- ✓ GR₂ - white ceramic tile seam grout
- ✓ V₁ - Vermiculite (30 gal. Rubbermaid + debris)
- ✓ WH₂ - basement windows window glaze (2x1') 3 windows total 2 in front 1 by Bulkhead
- ✓ VB₁ - Exterior siding vapor barrier
- ✓ C₁ - Bulk head door caulk Lt grey ~12 LF

Spare Trap sampling

- ST-01 - outside rear 105
- ST-02 - Kitchen 105
- ST-03 - Top of stairs 2nd 105
- ST-04 - outside rear 105

- Heavy mold in bathroom ceiling, BSMT stairs + All upstairs ceilings
- some in kitchen

APPENDIX B

LABORATORY AND INSPECTOR ACCREDITATIONS



State of Connecticut

Lookup Detail View

Name

Name
DAVID M HEELON

License Information

lookup

License Type	License Number	Expiration Date	Granted Date	License Name	License Status	Licensure Actions or Pending Charges
Asbestos Consultant-Inspector	635	10/31/2017	10/27/2005	David M. Heelon	ACTIVE	None

Generated on: 11/22/2016 10:44:38 AM

CERTIFICATE OF ACHIEVEMENT

This certifies that

Dave Heelon

has successfully completed the
Asbestos Site Inspector Refresher Training
Asbestos Accreditation Under TSCA Title II
40 CFR Part 763

conducted by

ATC Group Services, LLC
73 William Pranks Drive
West Springfield, MA 01089
(413) 781-0070

Marc Sautra

Principal Instructor: **Marc Sautra**

December 17, 2015

Date of Course

December 17, 2016

Expiration Date

Gregory Morsch

Regional Training Manager: **Gregory Morsch**

STAR-5304

Certificate Number

December 17, 2015

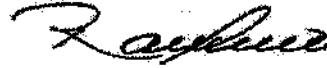
Examination Date

HILTON HERNANDEZ
 144 LAUREL COURT
 Plainville, CT 06062

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.ct.gov/dph/license>
 Hartford, CT 06134-0308

Sincerely,



RAUL PINO, MD, MPH, ACTING 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.

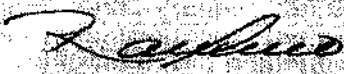
STATE OF CONNECTICUT
 DEPARTMENT OF PUBLIC HEALTH

PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT

THE INDIVIDUAL NAMED BELOW IS CERTIFIED
 BY THIS DEPARTMENT AS A
Asbestos Consultant-Inspector

Hilton Hernandez

CERTIFICATE NO.
 424
 CURRENT THROUGH
 01/31/2017
 VALIDATION NO.
 10763225



SIGNATURE COMMISSIONER

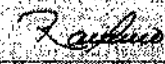
EMPLOYER'S COPY

STATE OF CONNECTICUT
 DEPARTMENT OF PUBLIC HEALTH

NAME
 Hilton Hernandez

VALIDATION NO. 10763225 CERTIFICATE NO. 424 CURRENT THROUGH 01/31/2017

PROFESSION



SIGNATURE COMMISSIONER

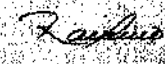
WALLET CARD

STATE OF CONNECTICUT
 DEPARTMENT OF PUBLIC HEALTH

NAME
 Hilton Hernandez

VALIDATION NO. 10763225 CERTIFICATE NO. 424 CURRENT THROUGH 01/31/2017

PROFESSION



SIGNATURE COMMISSIONER

CERTIFICATE OF ACHIEVEMENT

This certifies that

Hilton Hernandez

has successfully completed the
Asbestos Site Inspector Refresher Training
Asbestos Accreditation Under TSCA Title II
40 CFR Part 763

conducted by

ATC Group Services, LLC
73 William Franks Drive
West Springfield, MA 01089
(413) 781-0070



Principal Instructor: Marcus Sautra

December 17, 2015

Date of Course

December 17, 2016

Expiration Date



Regional Training Manager: Gregory Marsch

SIAR-5314

Certificate Number

December 17, 2015

Examination Date

1001660 01 AV 0.388 **AUTO HB 0 0764 06062-293844 C01-P01663-1



HILTON HERNANDEZ
144 LAUREL COURT
PLAINVILLE CT 06062-2938



Dear HILTON HERNANDEZ,

Attached you will find your validated certificate for the coming year. Should you have any questions about your certificate renewal, please do not hesitate to write or call:

Department of Public Health
P.O. Box 340308
M.S.#12MQA
Hartford, CT 06134-0308

(860) 509-7603
oplc.dph@ct.gov
www.ct.gov/dph/license

Sincerely,

RAUL PINO, MD, MPH, COMMISSIONER
DEPARTMENT OF PUBLIC HEALTH

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

NAME
HILTON HERNANDEZ

VALIDATION NO. 03-420042 CERTIFICATE NO. 002231 CURRENT THROUGH 01/31/17

PROFESSION
LEAD INSPECTOR RISK ASSESSOR

SIGNATURE
COMMISSIONER

PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT

THE INDIVIDUAL NAMED BELOW IS CERTIFIED
BY THIS DEPARTMENT AS A
LEAD INSPECTOR RISK ASSESSOR

HILTON HERNANDEZ

CERTIFICATE NO.
002231

CURRENT THROUGH
01/31/17

VALIDATION NO.
03-420042

SIGNATURE
COMMISSIONER

1001660-0001667-0000001 of 0000001-C01-at060101-0764-01683

CERTIFICATE OF ACHIEVEMENT

This certifies that

Hilton Hernandez
144 Laurel Court, Plainville, CT 06062
000-00-8984

has successfully completed the

INSPECTOR RISK ASSESSOR REFRESHER

Training Course
conducted by
ATC Group Services, LLC
73 William Franks Drive
West Springfield, MA 01089
(413) 781-0070

Principal Instructor:

December 3, 2015

Date of Course

CITLAR-410

Certificate Number

December 3, 2015

Exam Date

December 3, 2016

Expiration Date

Gregory Mosach
Regional Training Director

*Training received complies with the requirements of the
Connecticut Department of Public Health pursuant to Section 20
477 of the Connecticut General Statutes.*

CERTIFICATE OF ACHIEVEMENT

This certifies that

David Heelon

18 Hale Street, West Springfield, MA 01089
000-00-9220

has successfully completed the

INSPECTOR RISK ASSESSOR REFRESHER

Training Course

conducted by

ATC Group Services, LLC
73 William Franks Drive
West Springfield, MA 01089
(413) 781-0070

Edward Kobayashi

Principal Instructor:

December 3, 2015

Date of Course

December 3, 2015

Exam Date

CTLRAR-405

Certificate Number

December 3, 2016

Expiration Date

Gregory March

Regional Training Director

Training received complies with the requirements of the
Connecticut Department of Public Health pursuant to Section 20
477 of the Connecticut General Statutes.

State of Connecticut Department of Public Health Howard Environmental Laboratory

1000 Park Street, New Haven, Connecticut 06510
Telephone: (203) 785-1000
Fax: (203) 785-1001

TRC ENVIRONMENTAL CORPORATION

1000 Park Street, New Haven, Connecticut 06510
Telephone: (203) 785-1000

TRC Environmental Corporation is a leading provider of environmental testing and consulting services. We are currently seeking qualified individuals for the following positions:

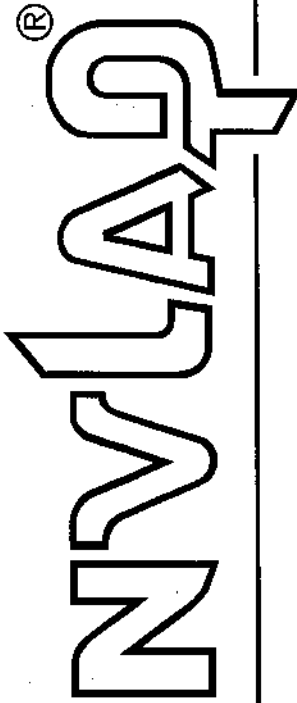
- Environmental Engineer
- Environmental Scientist
- Environmental Analyst
- Environmental Technician

For more information on these positions, please visit our website at www.trcenv.com or contact us directly at (203) 785-1000. We are an equal opportunity employer and encourage applications from all qualified individuals.

TRC Environmental Corporation
1000 Park Street, New Haven, CT 06510
www.trcenv.com

TRC Environmental Corporation is an Equal Opportunity Employer. Minorities and women are encouraged to apply. TRC Environmental Corporation is an Equal Opportunity Employer. Minorities and women are encouraged to apply.

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 101424-0

TRC Environmental Corporation
Windsor, CT

is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:

Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communiqué dated January 2009).

2016-07-01 through 2017-06-30

Effective Dates



A handwritten signature in black ink, which appears to read "John S. Luman".

For the National Voluntary Laboratory Accreditation Program



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

TRC Environmental Corporation

21 Griffin Road North

Windsor, CT 06095

Ms. Kathleen Williamson

Phone: 860-298-6392 Fax: 860-298-6214

Email: kwilliamson@trcsolutions.com

<http://www.trcsolutions.com>

ASBESTOS FIBER ANALYSIS

NVLAP LAB CODE 101424-0

Bulk Asbestos Analysis

<u>Code</u>	<u>Description</u>
18/A01	EPA 600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

A handwritten signature in black ink, appearing to read "Kathleen Williamson".

For the National Voluntary Laboratory Accreditation Program



STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH
ENVIRONMENTAL HEALTH SECTION

ENVIRONMENTAL LABORATORY CERTIFICATION PROGRAM
CERTIFIED ANALYTES REPORT FOR ALL MATRICES

EMSL Analytical, Inc. - CT

29 NORTH PLAINS HIGHWAY
UNIT #4
WALLINGFORD, CT 06492

CT REGISTRATION NUMBER :

REGISTERED OWNER / AUTHORIZED AGENT : Gloria Oriol

DIRECTOR : Gloria Oriol

CO DIRECTOR(S) :

PHONE : (203) 284-5948

LABORATORY REGISTRATION EFFECTIVE DATE :

LABORATORY REGISTRATION EXPIRATION DATE :

LABORATORY STATUS :

APPROVED BY

SUZANNE BLANCAFLOR, MS, MPH
CHIEF, ENVIRONMENTAL HEALTH SECTION

REVIEWED BY

8/18/2016 9:44:49 AM

DERMOT JONES

ANY QUESTIONS CONCERNING THIS DOCUMENT SHOULD BE ADDRESSED TO THE
ENVIRONMENTAL LABORATORY CERTIFICATION PROGRAM AT (860) 509-7389

CONSTRUCTION, RENOVATION & DEMO BLDG MATERIALS

STATUS REPORTED ON 8/18/2016

ANALYTE NAME

ASBESTOS

ASBESTOS FIBERS (PCM & TEM)

ASBESTOS IN BULK MATERIALS (PLM & TEM)

DRINKING WATER (SDWA)

STATUS REPORTED ON 8/18/2016

ANALYTE NAME

MICROBIOLOGY/BACTERIA

E. COLI - COLILERT (SM9223 P/A)

FECAL COLIFORM- EC Medium(SM9221E)

HPC - POUR PLATE (SM9215B)

TOT COLIFORM - COLILERT (SM9223 P/A)

HPC - MF (SM9215D)

LEGIONELLA

TOT. COLIFORM - MF mENDO (SM9222B)

ASBESTOS

ASBESTOS IN WATER (TEM)

NON-POTABLE WATER/ WASTEWATER (CWA)

STATUS REPORTED ON 8/18/2016

ANALYTE NAME

MICROBIOLOGY/BACTERIA

FECAL COLIFORM - MF m-FC (SM9222D)

FECAL STREPT - MF mEnterococcus Agar
(SM9230C)

LEGIONELLA

TOT. COLIFORM - MF mENDO (SM9222B)

Report Profile: Lab Name : EMSL Analytical, Inc. - CT
Test Name : *
Matrix Name : *
Matrix Selection = ALL OR SOME MATRICES SELECTED
Certifications approved or provisional on 8/18/2016

THIS IS THE LAST PAGE OF THE REPORT

APPENDIX C-F
ACM, LEAD, MOLD

TABLE OF CONTENTS:

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Halina,

Attached are the asbestos bulk sample results and the mold air sample results of the Viets Tavern.

Everything we sampled for asbestos came back OK except for some of the joint compound on the sheetrock. This material has low levels of asbestos <1% so technically it is not considered asbestos according to the State of Connecticut Health Department but OSHA would still require some precautions be taken if this material was to be disturbed. I need to check the notes for this building survey to make sure there weren't some materials that were assumed to be positive.

Regarding lead paint on the exterior of the building – this building does not have a whole lot of paint left on it and it does contain lead. So we would need to have a contractor with some lead training scrape/stabilize the paint and contain and dispose of the paint chips properly so that a regular painting contractor can then come in and repaint the structure.

The mold air samples that were taken in this structure did not indicate the presence of mold growth within, as the interior samples match up nicely with the samples that were taken on the exterior of the building.

Sincerely,

Donald LePage
Project Manager
Building Science Division



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BULK ASBESTOS ANALYSIS REPORT

CLIENT: CT Department of Construction Services

Lab Log #: 0049458
 Project #: 266325.0001.0000
 Date Received: 11/14/2016
 Date Analyzed: 11/17/2016

Site: Newgate Prison & Copper Museum (Viets Tavern, 106 Newgate Road)

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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
1	White (skim coat)	No	Yes	1	---	ND	None
1	Light Grey (base coat)	No	Yes	2	---	ND	None
2	White (skim coat)	No	Yes	1	---	ND	None
2	Light Grey (base coat)	No	Yes	2	---	ND	None
3	White (skim coat)	No	Yes	1	---	ND	None
3	Light Grey (base coat)	No	Yes	2	---	ND	None
4	Light Yellow (plaster)	Yes	No	--	2% horse hair	ND	None
5	Light Yellow (plaster)	Yes	No	--	2% horse hair	ND	None
6	Light Yellow (plaster)	Yes	No	--	2% horse hair	ND	None
7	Light Brown (plaster)	Yes	No	--	2% horse hair	ND	None
8	Light Brown (plaster)	Yes	No	--	2% horse hair	ND	None
9	Light Brown (plaster)	Yes	No	--	2% horse hair	ND	None
10	White (skim coat)	No	Yes	1	---	ND	None
10	Tan (plaster)	No	Yes	2	2% horse hair	ND	None
11	White (skim coat)	No	Yes	1	---	ND	None
11	Tan (plaster)	No	Yes	2	2% horse hair	ND	None
12	White (skim coat)	No	Yes	1	---	ND	None
12	Tan (plaster)	No	Yes	2	2% horse hair	ND	None

TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

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

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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
13	Black (flashing)	Yes	No	--	30% cellulose	ND	None
14♣	Black (flashing)	Yes	No	--	---	ND	None
15	Green/White (glaze)	Yes	No	--	---	ND	None
16♣	Green/White (glaze)	Yes	No	--	---	ND	None
17	White (glaze)	Yes	No	--	---	ND	None
18♣	White (glaze)	Yes	No	--	---	Trace	Chrysotile
19	Off White (glaze)	Yes	No	--	---	ND	None
20♣	Off White (glaze)	Yes	No	--	---	Trace	Chrysotile
21	Tan (glaze)	Yes	No	--	---	ND	None
22♣	Tan (glaze)	Yes	No	--	---	ND	None
23	Black (vapor barrier)	Yes	No	--	60% cellulose	ND	None
24♣	Black (vapor barrier)	Yes	No	--	---	ND	None
25	Tan (vapor barrier)	Yes	No	--	80% cellulose	ND	None
26	Tan (vapor barrier)	Yes	No	--	80% cellulose	ND	None
27	White (joint compound)	No	Yes	1	---	ND	None
27	White (sheetrock)	No	Yes	2	2% cellulose	ND	None
28	White (joint compound)	No	Yes	1	---	ND	None
28	White (sheetrock)	No	Yes	2	2% cellulose	ND	None
29	■ Yellow (joint compound)	No	Yes	1	---	0.5%	Chrysotile
29	Light Grey (sheetrock)	No	Yes	2	2% cellulose	ND	None
30	■ Yellow (joint compound)	No	Yes	1	---	0.75%	Chrysotile
30	Light Grey (sheetrock)	No	Yes	2	2% cellulose	ND	None

TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

NVLAP Lab Code I01424-0 AIHA-LAP,LLC #100122 CT #PH-0426 ME LA-0075, LB-0071 MA #AA000052 NY #10980 WV# LT000411
 RI #AAL-007 TX #300354 VT #AL014538 LA#05011 VA #3333 000283 AZ #A20944 HI #L-09-004 NJ #CT004 CA #2907
 CO# AL-15020 PHIL# 461 PA#68-03387

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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
31	Amber (glue)	No	Yes	1	---	ND	None
31	Tan (tile)	No	Yes	2	---	ND	None
32♣	Amber (glue)	No	Yes	1	---	ND	None
32♣	Tan (tile)	No	Yes	2	---	ND	None
33	Brown (glue)	No	Yes	1	---	ND	None
33	Tan/Green (linoleum)	No	Yes	2	60% cellulose	ND	None
34♣	Brown (glue)	No	Yes	1	---	ND	None
34♣	Black/White (linoleum)	No	Yes	2	---	ND	None
35	Tan (mastic)	No	Yes	1	---	ND	None
35	Red (slate floor)	No	Yes	2	---	ND	None
36♣	Tan (mastic)	No	Yes	1	---	ND	None
36	Red (slate floor)	No	Yes	2	---	ND	None
37	White (textured ceiling)	Yes	No	--	---	ND	None
38	White (textured ceiling)	Yes	No	--	---	ND	None
39	White (textured ceiling)	Yes	No	--	---	ND	None
40	Green/Black (linoleum)	Yes	No	--	60% cellulose	ND	None
41♣	Green/Black (linoleum)	Yes	No	--	---	ND	None
42	Tan (gasket)	Yes	No	--	90% cellulose	ND	None
43	Tan (gasket)	Yes	No	--	90% cellulose	ND	None

TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

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

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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
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■ Analyzed by 400 Point Count Method

Reporting limit- asbestos present at 0.25% for 400 Point Count Method

ND- No asbestos was detected by 400 Point Count Method

<0.25%- Trace concentrations of asbestos are concentrations that are less than or equal 1% including samples that contain zero asbestos points out of 400 nonempty points, but did contain asbestos positively identified by PLM.

♣ Samples analyzed by EPA/600/R-93/116 with gravimetric reduction

Reporting limit- asbestos present at 1%

ND - asbestos was not detected

Trace - asbestos was observed at level of less than 1%

NA/PS - Not Analyzed / Positive Stop

SNA- Sample Not Analyzed- See Chain of Custody for details

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

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation 1982 (EPA 600/M4-82-020) Bulk Analysis Code 18/A01 and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials July 1993, R.L. Perkins and B.W. Harvey, (EPA/600/R-93/116) Bulk Analysis Code 18/A03, which utilize polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 18/A01, effective through June 30, 2017. TRC is accredited by the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC in the Industrial Hygiene Program (IHLAP) for PLM effective through October 1, 2018. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and QC data related to the samples is available upon written request from client.

This report shall not be reproduced, except in full, without the written approval of TRC. This report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report relates only to the items tested.

Analyzed by: K. Williamson Reviewed by: Cathryn Lemire Date Issued: 11/17/2016
 Kathleen Williamson, Laboratory Manager Cathryn Lemire, Approved Signatory

TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

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



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ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

Edition: October 2009
 Supersede Previous Edition

LAB ID #: 49458

PROJECT NUMBER	PROJECT NAME		INSPECTOR		PARAMETERS					TURNAROUND TIME					
	266325.0000.0001	Newgate Prison & Copper Museum (Viets Tavern 106 Newgate Rd)		Hilton Hernandez		PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF > 1% & < 10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	PLM:	8hr	24hr	48hr	3day
FIELD SAMPLE NUMBER	DATE	TIME	TYPE	GRAB	SAMPLE LOCATION	MATERIAL					24hr	48hr	3day	5day	
1	11/09/16	1145	X	X	Ballroom 24	X		X							
2	11/09/16	1145	X	X	Ballroom 24	X		X							
3	11/09/16	1146	X	X	Ballroom 24	X		X							
4	11/09/16	1148	X	X	Ballroom 24	X									
5	11/09/16	1340	X	X	Room 27	X									
6	11/09/16	1429	X	X	Room 28	X									
7	11/09/16	1156	X	X	Room 21	X									
8	11/09/16	1156	X	X	Room 21	X									
9	11/09/16	1156	X	X	Room 21	X									
10	11/09/16	1320	X	X	Chamber 23 ceiling	X		X							

Relinquished by: (Signature) 	Date: 11/14/16	Received by: (Signature) 	Date: 11/14/16
(Printed) Hilton Hernandez	Time: 1630	(Printed) 	Time: 1630
Remarks:		Condition of Samples: Acceptable: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
		Comments: Page 1 of 5	



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	266325.0000.0001	Newgate Prison & Copper Museum (Viets Tavern 106 Newgate Rd)		Hilton Hernandez		PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	PLM:	8hr	24hr	48hr	3day	
FIELD SAMPLE NUMBER	DATE	TIME	TYPE	GRAB	SAMPLE LOCATION	MATERIAL										
11	11/09/16	1328	X	X	Hall 25	X		X								PL4- Tan wall plaster w/ horsehair and white skim coat
12	11/09/16	1328	X	X	Hall 25	X		X								PL4- Tan wall plaster w/ horsehair and white skim coat
13	11/09/16	1027	X	X	Pantry 16 Chimney	X										FL1 - Black chimney flashing tar
14	11/09/16	1028	X	X	Ballroom 24 chimney	X	X									FL1 - Black chimney flashing tar
15	11/09/16	1058	X	X	Attic above chamber 23	X										WG1 - Older green and green / white window pane glaze
16	11/09/16	1058	X	X	Attic above chamber 23	X	X									WG1 - Older green and green / white window pane glaze
17	11/09/16	1058	X	X	Attic above chamber 23	X										WG2 - Newer white window pane glaze
18	11/09/16	1106	X	X	Ballroom 24	X	X									WG2 - Newer white window pane glaze
19	11/09/16	1415	X	X	Room 26	X										WG3 - Off-white window glaze
20	11/09/16	1415	X	X	Room 26	X	X									WG3 - Off-white window glaze

Relinquished by: (Signature) 	Date: 11/14/16	Received by: (Signature) 	Date: 11/14/16	Relinquished by: (Signature)	Received by: (Signature)
(Printed) Hilton Hernandez	Time: 16:30	(Printed) Hilton Hernandez	Time: 16:30	(Printed)	(Printed)
Remarks:				Condition of Samples: Acceptable: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
				Page 2 of 5	



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ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

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LAB ID #. 49458

PROJECT NUMBER 266325.0000.0001		PROJECT NAME Newgate Prison & Copper Museum (Viets Tavern 106 Newgate Rd)		PARAMETERS				TURNAROUND TIME							
				PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	PLM: 8hr	24hr	48hr	3day	TEM: 24hr	48hr	3day
SIGNATURE 		INSPECTOR Hilton Hernandez		SAMPLE LOCATION		MATERIAL									
				TYPE	GRAB										
FIELD SAMPLE NUMBER	DATE	TIME	COMP	GRAB											
21	11/10/16	1104	X	X	Room 15	X									
22	11/10/16	1105	X	X	Room 15	X									
23	11/09/16	1033	X	X	Attic above room 26	X									
24	11/09/16	1034	X	X	Attic above room 29	X									
25	11/10/16	1450	X	X	Exterior	X									
26	11/10/16	1452	X	X	Exterior	X									
27	11/09/16	1204	X	X	Ballroom 24	X									
28	11/09/16	1335	X	X	Hall 25	X									
29	11/09/16	1346	X	X	Room 27	X									
30	11/09/16	1346	X	X	Room 27	X									
31	11/09/16	1401	X	X	Room 27	X									

Relinquished by: (Signature) 	Date: 11/14/16	Received by: (Signature) 	Date: 11/14/16
(Printed) Hilton Hernandez	Time: 1630	(Printed) 	Time: 1630
Remarks:		Condition of Samples: Acceptable: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
		Comments:	



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LAB ID #. 49458

PROJECT NUMBER 266325.0000.0001		PROJECT NAME Newgate Prison & Copper Museum (Viets Tavern 106 Newgate Rd)		PARAMETERS		TURNAROUND TIME									
		INSPECTOR Hilton Hernandez		PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 1984 (IF PLM SERIES NEG)	PLM:	TEM:	8hr	24hr	48hr	3day	5day
FIELD SAMPLE NUMBER	DATE	TIME	SAMPLE LOCATION		X	X	X	X	X	X	X	X	X	X	MATERIAL
			TYPE	GRAB											
32	11/09/16	1402	X	Room 27	X	X	X	X	X	X	X	X	X	X	FT1- 12X12" tan speckled floor tile w/ amber glue
33	11/09/16	1405	X	Room 27	X	X	X	X	X	X	X	X	X	X	FT2- 9X9" black and white linoleum floor tile w/ brown glue
34	11/09/16	1406	X	Room 27	X	X	X	X	X	X	X	X	X	X	FT2- 9X9" black and white linoleum floor tile w/ brown glue
35	11/10/16	1112	X	Pantry 16	X	X	X	X	X	X	X	X	X	X	FT3- 12X12" red slate floor tile w/ tan mastic
36	11/10/16	1113	X	Pantry 16	X	X	X	X	X	X	X	X	X	X	FT3- 12X12" red slate floor tile w/ tan mastic
37	11/09/16	1417	X	Room 26	X	X	X	X	X	X	X	X	X	X	TC1- White coarse textured ceiling
38	11/09/16	1423	X	Room 29	X	X	X	X	X	X	X	X	X	X	TC1- white coarse textured ceiling
39	11/09/16	1423	X	Room 29	X	X	X	X	X	X	X	X	X	X	TC1- white coarse textured ceiling
40	11/10/16	1037	X	East parlor	X	X	X	X	X	X	X	X	X	X	LIN1- Remnant black green linoleum
41	11/10/16	1038	X	East parlor	X	X	X	X	X	X	X	X	X	X	LIN1- Remnant black green linoleum

Relinquished by: (Signature) 	Date: <u>11/14/16</u>	Received by: (Signature) 	Date: <u>11/14/16</u>
(Printed) Hilton Hernandez	Time: <u>1630</u>	(Printed) <u>Hilton Hernandez</u>	Time: <u>1630</u>
Remarks:		Condition of Samples: Acceptable: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
		Comments:	



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ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

Edition: October 2009
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LAB ID #. *49-458*

PROJECT NUMBER 266325.0000.0001		PROJECT NAME Newgate Prison & Copper Museum (Viets Tavern 106 Newgate Rd)		PARAMETERS PLM EPA 600/R93/116 (POSITIVE STOP) PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP) ANALYZE BY LAYER POINT COUNT (IF >1% & <10%) TEM NY NOB 198.4 (IF PLM SERIES NEG)				MATERIAL			
SIGNATURE 		INSPECTOR Hilton Hernandez		SAMPLE LOCATION							
FIELD SAMPLE NUMBER	DATE	TIME	TYPE	COMP	GRAB						
42	11/10/16	1314	X		X	Cellar					
43	11/10/16	1315	X		X	Cellar					

Relinquished by: (Signature) (Printed) Hilton Hernandez	Date: 11/14/16 Time: 1630	Received by: (Signature) (Printed) 1630 	Date: Time: 	Relinquished by: (Signature) (Printed)	Received by: (Signature) (Printed)
Remarks:					
Condition of Samples: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Comments:					
					Page 5 of 5

PLM Gravimetric Analysis

Date	Analyst	Lab Log #	Sample ID	Crucible ID	g crucible	g crucible plus sample	g after 480°	decimal Residue	% Asb in residue	% Asb total Sample
4/16/2016	KW	49458	14	34	23.9753	24.1293	24.096	0.784	0.00	0.00
			16	35	17.2884	17.4876	17.4652	0.888	0.00	0.00
			18	36	17.8657	17.979	17.9699	0.920	Trace	#VALUE!
			20	37	20.0379	20.3809	20.3507	0.912	Trace	#VALUE!
			22	38	27.2583	27.3841	27.3666	0.861	0.00	0.00
			24	39	20.7494	20.8123	20.7853	0.571	0.00	0.00
			32G	40	19.8136	19.8188	19.8159	0.442	0.00	0.00
			32T	41	20.5564	20.5882	20.5833	0.846	0.00	0.00
			34G	42	19.7459	19.8627	19.8223	0.654	0.00	0.00
			34T	43	24.9091	25.0193	24.9624	0.484	0.00	0.00
			36	44	18.6324	18.6819	18.6716	0.792	0.00	0.00
			41	45	20.1005	20.2186	20.1835	0.703	0.00	0.00



Lead Based Paint Measurement Summary Table

Device(s):	Niton XLP301-A (Serial #25555) X Ray Fluorescence (XRF) Spectrum Analyzer														
Site:	Newgate Prison & Copper Museum - Viets Tavern, Yellow Cottage & White Cottage, Newgate Road, East Granby, Connecticut														
Project # :	266325-0000-0000 <i>(UPDATED 07-14-07 for Specifications)</i>														
Date(s):	11/9/16-11/10/16														
Inspector:	Hilton Hernandez (Lead Inspector #002231), David Heelon (Lead Inspector #002188)														
Number	Room	Side	Structure	Feature	Material	Color	Condition	Reading (mg/cm2)	Precision (mg/cm2)	Depth Index	Duration (sec)	Date/Time			
Viets Tavern															
1	Shutter calibration										120.28	11/9/2016 9:45			
2	0.0 calibration										0.0	0.0	1	2.53	11/9/2016 9:51
3	0.7 calibration										0.7	0.1	1.09	3.46	11/9/2016 9:51
4	1.6 calibration										1.5	0.2	1.09	3.7	11/9/2016 9:51
5	Room 21	A	Wall	--	Wood	White	Intact	0.0	0.0	1.41	4.85	11/9/2016 9:59			
6	Room 21	C	Wall	--	Wood	White	Intact	1.6	0.2	1.27	4.81	11/9/2016 10:00			
7	Room 21	B	Wall	--	Wood	White	Intact	0.0	0.1	2.88	2.77	11/9/2016 10:01			
8	Room 21	B	Wall	--	Wood	White	Intact	0.0	0.0	1.54	2.3	11/9/2016 10:01			
9	Room 21	A	Window	Sill	Wood	White	Intact	0.3	0.1	1.04	4.4	11/9/2016 10:02			
10	Room 21	A	Window	Sill	Wood	White	Intact	0.1	0.1	1.66	2.3	11/9/2016 10:03			
11	Room 21	D	Beam	--	Wood	White	Intact	3.4	0.3	1.4	3.92	11/9/2016 10:05			
12	Room 21	B	Beam	--	Wood	White	Intact	2.0	0.9	1.22	0.93	11/9/2016 10:05			
13	Room 21	B	Beam	--	Wood	White	Intact	1.9	0.3	1.21	3.22	11/9/2016 10:05			
14	Room 21	--	Ceiling	--	Wood	White	Intact	0.0	0.0	1.16	2.08	11/9/2016 10:06			
15	Room 21	--	Ceiling	--	Wood	White	Intact	0.0	0.0	1	2.54	11/9/2016 10:06			
16	Room 21	C	Wall	--	Wood	Blue	Intact	3.3	0.6	1.21	2.53	11/9/2016 10:07			
17	Room 21	C	Wall	--	Brick	Black	Intact	0.0	0.0	1.03	2.07	11/9/2016 10:08			
18	Room 21	--	Floor	--	Wood	Red	Intact	0.2	0.1	1.53	2.52	11/9/2016 10:08			
19	Room 21	--	Floor	--	Wood	Red	Intact	0.4	0.2	1.66	2.3	11/9/2016 10:09			
20	Room 24	D	Wall	--	Wood	Tan/Beige	Intact	0.0	0.0	1.59	2.3	11/9/2016 10:11			
21	Room 24	A	Wall	--	Wood	Tan/Beige	Intact	0.1	0.1	2.73	2.77	11/9/2016 10:11			
22	Room 24	A	support	--	Wood	White	Intact	1.6	0.2	1.2	3.47	11/9/2016 10:12			
23	Room 24	C	support	--	Wood	White	Intact	1.0	0.1	1.18	3.45	11/9/2016 10:12			
24	Room 24	C	Wall	Lower	Wood	White	Intact	7.8	1.6	1.84	3.23	11/9/2016 10:14			
25	Room 24	D	Wall	Lower	Wood	White	Intact	7.6	1.7	3.02	3.22	11/9/2016 10:15			
26	Room 24	D	Wall	Lower	Wood	White	Intact	7.8	2.8	2.67	2.76	11/9/2016 10:15			
27	Room 24	A	Shelf	--	Wood	White	Intact	0.1	0.1	1.15	2.31	11/9/2016 10:15			
28	Room 24	C	Shelf	--	Wood	White	Intact	0.1	0.1	1.53	1.61	11/9/2016 10:16			
29	Room 24	B	Fireplace	--	Brick	Tan/Beige	Intact	0.2	0.1	1.23	3	11/9/2016 10:16			
30	Room 24	B	Window	Sill	Wood	White	Intact	3.6	0.6	1.28	2.54	11/9/2016 10:17			

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Lead Based Paint Measurement Summary Table

Device(s):	Niton XLP301-A (Serial #25555) X Ray Fluorescence (XRF) Spectrum Analyzer											
Site:	Newgate Prison & Copper Museum - Viets Tavern, Yellow Cottage & White Cottage, Newgate Road, East Granby, Connecticut											
Project # :	266325-0000-0000 <i>(UPDATED 07-14-07 for Specifications)</i>											
Date(s):	11/9/16-11/10/16											
Inspector:	Hilton Hernandez (Lead Inspector #002231), David Heelon (Lead Inspector #002188)											
Number	Room	Side	Structure	Feature	Material	Color	Condition	Reading (mg/cm2)	Precision (mg/cm2)	Depth Index	Duration (sec)	Date/Time
31	Room 24	A	Window	--	Wood	White	Intact	4.6	0.9	1.89	2.54	11/9/2016 10:18
32	Room 24	--	Ceiling	--	Wood	White	Intact	0.0	0.0	1	2.52	11/9/2016 10:18
33	Room 24	--	Ceiling	--	Wood	White	Intact	0.0	0.0	1	1.62	11/9/2016 10:18
34	Room 24	C	Wall	Trimwork	Wood	White	Intact	0.0	0.0	1.06	2.3	11/9/2016 10:19
35	Room 24	B	Floor	--	Wood	Brown	Intact	1.0	0.2	1.7	4.15	11/9/2016 10:20
36	Room 24	D	Door	--	Wood	White	Intact	3.8	0.4	1.41	3.68	11/9/2016 10:23
37	Room 24	D	Wall	--	Wood	Tan/Beige	Defective	0.0	0.0	2.21	2.76	11/9/2016 10:26
38	Room 24	A	Door	--	Wood	White	Intact	0.0	0.0	1.37	3	11/9/2016 10:27
39	Room 24	A	Wall	--	Wood	White	Intact	0.0	0.1	1.56	2.54	11/9/2016 10:29
40	Room 24	C	Wall	--	Wood	Brown	Intact	0.1	0.1	1.75	1.61	11/9/2016 10:30
41	Room 24	A	Wall	--	Sheetrock	White	Intact	0.0	0.0	1	2.53	11/9/2016 10:31
42	Hallway 25	--	Ceiling	--	Wood	White	Intact	0.0	0.0	1	2.08	11/9/2016 10:32
43	Hallway 25	D	Door	--	Wood	Grey	Intact	4.1	1.5	2.52	1.15	11/9/2016 10:33
44	Hallway 25	D	Door	--	Wood	Grey	Intact	3.5	0.8	2.24	2.53	11/9/2016 10:33
45	Hallway 25	C	Door	--	Wood	Grey	Intact	25.1	3.1	10	3.23	11/9/2016 10:34
46	Hallway 25	--	Floor	--	Wood	Brown	Intact	0.0	0.0	1	2.54	11/9/2016 10:36
47	Hallway 25	D	Wall	Lower	Wood	Brown	Intact	0.1	0.1	2.83	3.92	11/9/2016 10:37
48	Hallway 25	D	Wall	Lower	Wood	Brown	Intact	0.1	0.1	2.12	1.61	11/9/2016 10:37
49	Hallway 25	C	Wall	--	Sheetrock	White	Intact	0.0	0.0	1.73	1.84	11/9/2016 10:39
50	Room 26	A	Wall	--	Sheetrock	White	Intact	0.0	0.0	1	1.61	11/9/2016 10:40
51	Room 26	B	Wall	--	Sheetrock	White	Intact	0.0	0.1	1.99	1.61	11/9/2016 10:40
52	Room 26	A	Window	--	Wood	Tan/Beige	Intact	0.1	0.1	2.73	3	11/9/2016 10:41
53	Room 26	C	Wall	Baseboard	Wood	Tan/Beige	Intact	0.1	0.1	2.67	2.53	11/9/2016 10:42
54	Room 26	--	Ceiling	--	Sheetrock	White	Defective	0.0	0.0	1	1.38	11/9/2016 10:43
55	Room 26	D	Door	--	Wood	Tan/Beige	Intact	0.1	0.1	4.91	3.66	11/9/2016 10:44
56	Room 29	--	Floor	--	Wood	Brown	Intact	0.1	0.1	1	2.77	11/9/2016 10:48
57	Room 29	D	Door	--	Wood	Tan/Beige	Intact	0.4	0.1	1.66	3.46	11/9/2016 10:49
58	Room 29	D	Wall	Baseboard	Wood	Tan/Beige	Intact	0.4	0.2	1.99	2.07	11/9/2016 10:49
59	Room 29	A	Wall	--	Wood	White	Defective	0.0	0.1	2.18	1.15	11/9/2016 10:50
60	Room 29	B	Wall	--	Wood	White	Defective	0.0	0.0	1.28	2.07	11/9/2016 10:50
61	Room 29	B	Window	--	Wood	Tan/Beige	Intact	0.4	0.2	2.19	2.98	11/9/2016 10:50
62	Room 29	C	Window	--	Wood	Tan/Beige	Intact	0.0	0.0	1	2.07	11/9/2016 10:51

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Date(s):	11/9/16-11/10/16											
Inspector:	Hilton Hernandez (Lead Inspector #002231), David Heelon (Lead Inspector #002188)											
Number	Room	Side	Structure	Feature	Material	Color	Condition	Reading (mg/cm ²)	Precision (mg/cm ²)	Depth Index	Duration (sec)	Date/Time
63	Room 29	--	Ceiling	--	Sheetrock	White	Intact	0.0	0.0	1	1.61	11/9/2016 10:51
64	Room 23	A	Wall	--	Wood	White	Intact	4.5	1.5	5.05	2.76	11/9/2016 10:53
65	Room 23	C	Wall	--	Wood	White	Intact	0.0	0.1	1.87	2.07	11/9/2016 10:53
66	Room 23	C	Wall	--	Wood	White	Intact	0.0	0.1	1.32	1.38	11/9/2016 10:53
67	Room 23	C	Wall	--	Wood	White	Intact	0.0	0.1	1.64	2.07	11/9/2016 10:54
68	Room 23	D	Wall	--	Wood	White	Intact	0.0	0.1	1.6	1.85	11/9/2016 10:54
69	Room 23	B	Wall	--	Wood	White	Intact	0.0	0.0	1	1.16	11/9/2016 10:55
70	Room 23	A	Ceiling	--	Sheetrock	White	Defective	0.0	0.1	1.91	1.84	11/9/2016 10:56
71	Room 23	--	beam	--	Wood	White	Defective	0.5	0.1	1.16	4.14	11/9/2016 10:56
72	Room 23	D	Window	--	Wood	White	Defective	0.7	0.9	1.22	0.23	11/9/2016 10:57
73	Room 23	D	Window	--	Wood	White	Defective	0.6	0.1	1.36	3.68	11/9/2016 10:57
74	Room 23	C	Window	--	Wood	White	Defective	1.2	0.4	1.72	2.09	11/9/2016 10:57
75	Room 23	C	Window	--	Wood	White	Defective	0.7	0.1	1.25	3.91	11/9/2016 10:58
76	Room 23	--	Floor	--	Wood	Red	Defective	0.2	0.1	1.17	2.99	11/9/2016 10:59
77	Room 22	B	Wall	--	Wood	White	Intact	7.8	3.3	1.65	2.07	11/9/2016 11:00
78	Room 22	D	Wall	--	Wood	White	Intact	2.3	0.6	1.47	2.07	11/9/2016 11:01
79	Room 22	D	Window	--	Wood	White	Intact	3.0	0.6	1.3	2.3	11/9/2016 11:01
80	Room 22	--	Ceiling	--	Wood	White	Intact	0.0	0.0	1	1.61	11/9/2016 11:02
81	Room 22	A	Shelf	--	Wood	White	Intact	1.1	0.2	1.22	3.23	11/9/2016 11:02
82	Room 22	--	Floor	--	Wood	Red	Intact	0.2	0.1	1.11	2.3	11/9/2016 11:03
83	Room 28	C	Wall	--	Wood	White	Intact	< LOD	0.0	2.81	1.84	11/9/2016 11:05
84	Room 28	C	Wall	Lower	Wood	Tan/Beige	Intact	0.2	0.2	2.99	2.07	11/9/2016 11:05
85	Room 28	D	Door	--	Wood	Tan/Beige	Intact	0.8	0.2	2.71	4.13	11/9/2016 11:06
86	Room 28	D	Door	--	Wood	Tan/Beige	Intact	12.0	3.8	10	2.31	11/9/2016 11:06
87	Room 28	A	Door	--	Wood	Tan/Beige	Intact	0.2	0.1	2.13	3.22	11/9/2016 11:06
88	Room 28	--	Ceiling	--	Wood	White	Intact	0.0	0.0	1	1.84	11/9/2016 11:07
89	Room 28	--	Floor	--	Vinyl	White	Intact	0.0	0.0	1	1.61	11/9/2016 11:08
90	Attic	--	Railing	--	Wood	Yellow	Intact	1.0	0.2	1.2	2.77	11/9/2016 11:11
91	Attic	--	Railing	--	Wood	Yellow	Intact	3.5	1.0	1.25	4.13	11/9/2016 11:13
92	Hallway 25	--	--	--	Wood	White	Intact	2.1	0.7	3.08	2.54	11/9/2016 11:16
93	Hallway 25	--	--	--	Wood	White	Intact	1.8	0.3	3.09	3.92	11/9/2016 11:16
94	Kitchen 15	A	Wall	--	Sheetrock	Tan/Beige	Intact	0.0	0.0	1	1.38	11/9/2016 11:21

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Site:	Newgate Prison & Copper Museum - Viets Tavern, Yellow Cottage & White Cottage, Newgate Road, East Granby, Connecticut											
Project # :	266325-0000-0000 <i>(UPDATED 07-14-07 for Specifications)</i>											
Date(s):	11/9/16-11/10/16											
Inspector:	Hilton Hernandez (Lead Inspector #002231), David Heelon (Lead Inspector #002188)											
Number	Room	Side	Structure	Feature	Material	Color	Condition	Reading (mg/cm ²)	Precision (mg/cm ²)	Depth Index	Duration (sec)	Date/Time
95	Kitchen 15	B	Wall	--	Sheetrock	Tan/Beige	Intact	0.0	0.0	1	1.39	11/9/2016 11:21
96	Kitchen 15	B	Wall	Lower	Wood	Green	Intact	0.1	0.1	1.93	1.61	11/9/2016 11:22
97	Kitchen 15	D	Wall	Lower	Wood	Green	Intact	0.1	0.1	1.64	1.38	11/9/2016 11:22
98	Kitchen 15	D	Door	--	Wood	Green	Intact	0.1	0.1	1.57	1.84	11/9/2016 11:22
99	Kitchen 15	A	Window	--	Wood	Green	Intact	0.1	0.1	2.03	2.54	11/9/2016 11:23
100	Kitchen 15	--	Ceiling	--	Sheetrock	White	Intact	0.0	0.0	1	3.01	11/9/2016 11:24
101	Kitchen 15	--	Floor	--	Wood	Brown	Intact	0.0	0.0	1	1.61	11/9/2016 11:25
102	Room 17	C	Wall	--	Wood	Tan/Beige	Intact	2.3	0.8	3.55	5.06	11/9/2016 11:40
103	Room 17	C	Door	--	Wood	Tan/Beige	Intact	0.5	0.3	4.04	2.97	11/9/2016 11:40
104	Room 17	B	Wall	--	Wood	Tan/Beige	Intact	2.4	0.8	5.06	5.31	11/9/2016 11:41
105	Room 17	B	Window	--	Wood	White	Intact	0.0	0.0	1	1.62	11/9/2016 11:41
106	Room 17	--	Ceiling	--	Wood	White	Intact	0.0	0.0	1	2.54	11/9/2016 11:43
107	Room 17	A	Wall	--	Wood	White	Intact	0.0	0.0	1	1.61	11/9/2016 11:43
108	Room 17	--	Floor	--	Vinyl	White	Intact	0.0	0.0	1	1.62	11/9/2016 11:44
109	Porch	C	Wall	--	Wood	Blue	Intact	0.1	0.1	2.16	2.32	11/9/2016 11:47
110	Porch	A	Shelf	--	Wood	White	Intact	0.0	0.1	1.2	1.61	11/9/2016 11:48
111	Porch	A	Shelf	--	Wood	White	Intact	0.1	0.1	2.67	2.09	11/9/2016 11:48
112	Porch	--	Ceiling	--	Wood	Grey	Intact	0.0	0.1	1.32	2.3	11/9/2016 11:48
113	Porch	C	Window	--	Wood	Grey	Intact	13.8	3.8	3.18	2.52	11/9/2016 11:49
114	Porch	C	Window	--	Wood	Grey	Intact	0.1	0.2	2.04	0.92	11/9/2016 11:49
115	Porch	C	Window	--	Wood	Grey	Intact	0.1	0.1	2.21	1.83	11/9/2016 11:50
116	Porch	A	Door	--	Wood	Brown	Intact	0.0	0.1	1.42	1.84	11/9/2016 11:51
117	Porch	A	Door	--	Wood	White	Intact	1.3	0.2	2.7	4.83	11/9/2016 11:52
118	Porch	B	Wall	--	Wood	Grey	Intact	1.9	1.7	2.38	0.46	11/9/2016 11:53
119	Porch	B	Wall	--	Wood	Grey	Intact	2.6	2.4	3	0.46	11/9/2016 11:53
120	Porch	B	Wall	--	Wood	Grey	Intact	2.0	0.6	2.59	2.54	11/9/2016 11:53
121	Porch	C	Wall	--	Clapboard	Grey	Intact	2.0	0.5	1.45	2.08	11/9/2016 11:53
122	Porch	--	Ceiling	--	Wood	Grey	Intact	1.8	0.5	2.43	2.99	11/9/2016 11:54
123	Porch	D	Window	--	Wood	Grey	Intact	0.1	0.1	1.64	2.07	11/9/2016 12:00
124	Porch	--	Floor	--	Wood	Grey	Intact	0.2	0.1	1.01	1.85	11/9/2016 12:03
125	Barn	A	Door	--	Wood	White	Intact	0.6	0.3	6.08	3.24	11/9/2016 12:05
126	Barn	A	Door	--	Wood	Brown	Intact	0.0	0.0	1	2.77	11/9/2016 12:06

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Device(s):	Niton XLP301-A (Serial #25555) X Ray Fluorescence (XRF) Spectrum Analyzer											
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Date(s):	11/9/16-11/10/16											
Inspector:	Hilton Hernandez (Lead Inspector #002231), David Heelon (Lead Inspector #002188)											
Number	Room	Side	Structure	Feature	Material	Color	Condition	Reading (mg/cm ²)	Precision (mg/cm ²)	Depth Index	Duration (sec)	Date/Time
127	Barn	D	Window	--	Wood	White	Intact	2.0	0.5	2.02	2.54	11/9/2016 12:07
128	Barn	B	Door	--	Wood	Green	Intact	2.8	0.6	1.28	2.08	11/9/2016 12:07
129	0.0 calibration	--	--	--	--			0.0	0.0	1	1.61	11/9/2016 12:10
130	0.7 calibration	--	--	--	--			0.6	0.2	1.05	2.32	11/9/2016 12:10
131	1.6 calibration	--	--	--	--			1.5	0.3	1.12	2.31	11/9/2016 12:10
132	Shutter calibration							2.7	0.0		122.1	11/9/2016 13:06
133	0.0 calibration							0.0	0.0	1	2.77	11/9/2016 13:09
134	0.7 calibration							0.7	0.2	1.15	3.21	11/9/2016 13:09
135	1.6 calibration							1.5	0.3	1.13	3	11/9/2016 13:10
136	Room 13	C	Stair		Wood	Black	Intact	12.0	3.6	2.18	2.76	11/9/2016 13:17
137	Room 13	C	Wall		Wood	Tan/Beige	Intact	0.0	0.0	1	2.07	11/9/2016 13:18
138	Room 13	--	Ceiling		Wood	Tan/Beige	Intact	0.0	0.0	1	1.39	11/9/2016 13:19
139	Room 13	--	Ceiling		Wood	Tan/Beige	Intact	0.0	0.0	1	2.07	11/9/2016 13:19
140	Room 13	D	Wall		Sheetrock	Tan/Beige	Intact	0.0	0.0	1.26	3.23	11/9/2016 13:19
141	Room 13	D	mantle		Wood	White	Intact	1.4	0.5	3.06	2.77	11/9/2016 13:20
142	Room 13	D	Fireplace		Brick	Black	Intact	1.7	0.5	2.09	2.31	11/9/2016 13:21
143	Room 13	D	Fireplace		Brick	Black	Intact	3.8	0.5	2.23	3.44	11/9/2016 13:21
144	Room 13	D	Beam	--	Wood	White	Intact	0.0	0.0	1	1.38	11/9/2016 13:23
145	Room 13	D	Wall	Lower	Wood	White	Intact	0.7	0.1	1.81	3.46	11/9/2016 13:24
146	Room 13	A	Wall	Lower	Wood	White	Intact	0.0	0.0	1	2.52	11/9/2016 13:24
147	Room 13	A	Window	--	Wood	White	Intact	0.0	0.0	1.43	1.61	11/9/2016 13:24
148	Room 13	--	Floor	--	Wood	Black	Defective	5.8	3.1	1.63	1.84	11/9/2016 13:26
149	Room 13	--	Floor	--	Wood	Black	Defective	0.1	0.1	1.01	2.32	11/9/2016 13:26
150	Room 13	--	Floor	--	Wood	Black	Defective	1.3	0.3	1.28	3.22	11/9/2016 13:27
151	Room 13	B	Door	--	Wood	White	Intact	2.1	0.5	1.62	2.29	11/9/2016 13:28
152	Room 13	B	Door	--	Wood	White	Intact	3.4	0.8	1.61	1.84	11/9/2016 13:28
153	Room 13	B	Door	--	Wood	White	Intact	2.5	0.6	1.52	2.08	11/9/2016 13:28
154	Room 13	C	Door	--	Wood	White	Intact	0.8	0.1	1.51	4.14	11/9/2016 13:29
155	Room 13	C	Door	--	Wood	White	Intact	2.8	0.6	1.71	2.3	11/9/2016 13:29
156	Room 13	C	Door	--	Wood	White	Intact	1.6	0.4	1.43	2.3	11/9/2016 13:30
157	Room 13	D	Door	--	Wood	White	Intact	0.6	0.2	1.24	1.84	11/9/2016 13:30
158	Room 13	D	Door	--	Wood	White	Intact	0.5	0.5	1.39	0.69	11/9/2016 13:30

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Inspector:	Hilton Hernandez (Lead Inspector #002231), David Heelon (Lead Inspector #002188)											
Number	Room	Side	Structure	Feature	Material	Color	Condition	Reading (mg/cm ²)	Precision (mg/cm ²)	Depth Index	Duration (sec)	Date/Time
159	Room 13	D	Door	--	Wood	White	Intact	0.5	0.3	1.83	1.15	11/9/2016 13:30
160	Room 13	D	Door	--	Wood	White	Intact	1.1	0.3	1.3	2.08	11/9/2016 13:30
161	Room 13	D	Door	--	Wood	White	Intact	1.9	2.5	2.47	0.23	11/9/2016 13:31
162	Room 13	D	Door	--	Wood	White	Intact	1.3	0.4	1.86	1.84	11/9/2016 13:31
163	Room 16	A	Wall	--	Wood	Tan/Beige	Intact	0.0	0.1	1.26	1.84	11/9/2016 13:33
164	Room 16	A	Door	--	Wood	Tan/Beige	Intact	13.4	1.5	8.22	6.45	11/9/2016 13:33
165	Room 16	A	Door	--	Wood	Tan/Beige	Intact	14.3	4.5	4.55	2.08	11/9/2016 13:33
166	Room 16	A	Wall	--	Wood	Tan/Beige	Intact	0.0	0.0	1.13	1.61	11/9/2016 13:34
167	Room 16	A	Wall	--	Sheetrock	White	Intact	0.0	0.0	1	2.08	11/9/2016 13:34
168	Room 16	B	Wall	--	Sheetrock	Tan/Beige	Intact	1.2	0.4	2.03	2.54	11/9/2016 13:35
169	Room 16	B	Shelf	--	Wood	Tan/Beige	Intact	2.9	0.8	3.04	2.77	11/9/2016 13:36
170	Room 16	--	Ceiling	--	Wood	White	Intact	0.1	0.0	1.38	4.14	11/9/2016 13:38
171	Room 16	B	Door	--	Wood	Tan/Beige	Intact	1.1	0.2	2.04	3.44	11/9/2016 13:38
172	Room 16	--	Floor	--	Vinyl	Red	Intact	0.0	0.0	1	2.99	11/9/2016 13:39
173	Room 16	--	Ceiling	--	Sheetrock	White	Intact	0.0	0.0	2.18	1.39	11/9/2016 13:39
174	Room 16	A	Door	--	Wood	White	Intact	0.6	0.2	1.32	2.99	11/9/2016 13:41
175	Room 16	A	mantle	--	Wood	White	Intact	0.1	0.1	1.32	2.53	11/9/2016 13:41
176	Room 12	A	mantle	--	Wood	White	Intact	0.1	0.2	1	0.46	11/9/2016 13:42
177	Room 12	A	mantle	--	Wood	White	Intact	0.1	0.1	1.42	1.38	11/9/2016 13:42
178	Room 12	A	mantle	--	Wood	White	Intact	0.2	0.1	1.47	2.07	11/9/2016 13:42
179	Room 12	A	Fireplace	--	Brick	Black	Intact	0.2	0.1	1.56	2.3	11/9/2016 13:43
180	Room 12	B	Wall	--	Wood	Blue	Intact	0.0	0.0	1.19	1.15	11/9/2016 13:44
181	Room 12	B	Wall	--	Wood	White	Intact	0.0	0.0	1	1.15	11/9/2016 13:44
182	Room 12	B	Wall	--	Wood	White	Intact	0.0	0.0	1.04	1.61	11/9/2016 13:44
183	Room 12	B	Wall	Lower	Wood	White	Intact	2.1	0.5	1.6	2.08	11/9/2016 13:45
184	Room 12	C	Wall	Lower	Wood	White	Intact	2.1	0.5	1.58	2.08	11/9/2016 13:45
185	Room 12	C	Door	Lower	Wood	White	Intact	0.0	0.1	3.08	1.84	11/9/2016 13:45
186	Room 12	D	Window	--	Wood	White	Intact	0.4	0.2	1.89	1.84	11/9/2016 13:46
187	Room 12	C	Window	--	Wood	White	Intact	3.1	1.0	2.04	3.44	11/9/2016 13:46
188	Room 12	D	Window	--	Wood	White	Intact	1.2	0.2	1.64	3.68	11/9/2016 13:47
189	Room 12	A	Wall	--	Wood	White	Intact	0.5	0.3	2.83	2.31	11/9/2016 13:48
190	Room 12	--	Ceiling	--	Wood	White	Intact	0.4	1.4	7.61	0.46	11/9/2016 13:48

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

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



Lead Based Paint Measurement Summary Table

Device(s):	Niton XLP301-A (Serial #25555) X Ray Fluorescence (XRF) Spectrum Analyzer											
Site:	Newgate Prison & Copper Museum - Viets Tavern, Yellow Cottage & White Cottage, Newgate Road, East Granby, Connecticut											
Project # :	266325-0000-0000 <i>(UPDATED 07-14-07 for Specifications)</i>											
Date(s):	11/9/16-11/10/16											
Inspector:	Hilton Hernandez (Lead Inspector #002231), David Heelon (Lead Inspector #002188)											
Number	Room	Side	Structure	Feature	Material	Color	Condition	Reading (mg/cm ²)	Precision (mg/cm ²)	Depth Index	Duration (sec)	Date/Time
191	Room 12	--	Ceiling	--	Wood	White	Intact	0.2	0.2	3.8	1.38	11/9/2016 13:48
192	Room 12	B	Door	--	Wood	White	Intact	3.8	0.8	1.87	2.31	11/9/2016 13:49
193	Room 12	--	beam	--	Wood	White	Intact	0.4	0.2	1.41	1.39	11/9/2016 13:49
194	Room 12	--	Floor	--	Wood	Red	Intact	0.5	0.2	1.31	1.63	11/9/2016 13:50
195	D-side hall	--	Floor	--	Wood	Red	Intact	0.2	0.1	1.03	1.62	11/9/2016 13:52
196	D-side hall	B	Stair	--	Wood	Red	Intact	13.4	4.1	1.98	2.31	11/9/2016 13:53
197	D-side hall	B	Wall	--	Wood	White	Intact	0.9	0.1	1.38	3.95	11/9/2016 13:53
198	D-side hall	D	Wall	--	Wood	White	Intact	1.7	0.4	1.2	1.85	11/9/2016 13:54
199	D-side hall	D	Door	--	Wood	Tan/Beige	Intact	12.4	3.5	1.59	2.77	11/9/2016 13:54
200	D-side hall	D	Ceiling	--	Wood	White	Intact	0.0	0.5	10	0.23	11/9/2016 13:55
201	D-side hall	D	Ceiling	--	Wood	White	Intact	0.0	0.0	1	1.38	11/9/2016 13:55
202	D-side hall	C	Wall	--	Wood	White	Intact	0.5	0.2	1.29	2.54	11/9/2016 13:55
203	D-side hall	C	Door	--	Wood	White	Intact	1.2	0.3	1.36	2.3	11/9/2016 13:56
204	D-side hall	B	Door	--	Wood	White	Intact	0.7	0.2	1.13	2.54	11/9/2016 13:56
205	D-side hall	--	Ceiling	--	Wood	White	Intact	0.0	0.1	1.59	0.69	11/9/2016 13:57
206	D-side hall	C	Wall	--	Wood	Blue	Intact	2.6	0.5	1.15	2.32	11/9/2016 13:58
207	D-side hall	C	mantle	--	Wood	White	Intact	2.5	0.5	1.43	2.08	11/9/2016 13:59
208	Room 11	C	mantle	--	Wood	White	Intact	0.1	0.1	1.29	1.83	11/9/2016 14:00
209	Room 11	C	mantle	--	Wood	White	Intact	2.1	0.6	1.92	2.08	11/9/2016 14:00
210	Room 11	C	Fireplace	--	Brick	Black	Intact	0.4	0.2	1.29	2.08	11/9/2016 14:01
211	Room 11	C	Wall	--	Wood	Blue	Intact	3.0	0.6	1.16	2.08	11/9/2016 14:02
212	Room 11	D	Wall	--	Wood	White	Intact	0.1	0.1	1.28	2.07	11/9/2016 14:02
213	Room 11	A	Wall	--	Wood	White	Intact	0.1	0.1	2.2	1.61	11/9/2016 14:03
214	Room 11	A	Window	--	Wood	White	Intact	2.5	0.7	1.59	1.61	11/9/2016 14:03
215	Room 11	D	Window	--	Wood	White	Intact	2.2	0.6	1.6	1.61	11/9/2016 14:03
216	Room 11	D	Shelf	--	Wood	White	Intact	0.2	0.1	1.36	2.08	11/9/2016 14:04
217	Room 11	--	Ceiling	--	Sheetrock	White	Intact	0.1	0.1	2.56	2.07	11/9/2016 14:04
218	Room 11	--	beam	--	Wood	White	Intact	5.4	2.2	1.68	3	11/9/2016 14:05
219	Room 11	B	Door	--	Wood	White	Intact	2.8	0.5	1.35	2.31	11/9/2016 14:06
220	Room 14	D	Door	--	Wood	White	Intact	0.5	0.2	1.29	2.54	11/9/2016 14:08
221	Room 14	A	Door	--	Wood	White	Intact	0.0	0.0	1.16	2.53	11/9/2016 14:08
222	Room 14	A	Window	--	Wood	White	Intact	0.8	0.3	1.38	1.85	11/9/2016 14:09

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Lead Based Paint Measurement Summary Table

Device(s):	Niton XLP301-A (Serial #25555) X Ray Fluorescence (XRF) Spectrum Analyzer											
Site:	Newgate Prison & Copper Museum - Viets Tavern, Yellow Cottage & White Cottage, Newgate Road, East Granby, Connecticut											
Project # :	266325-0000-0000 <i>(UPDATED 07-14-07 for Specifications)</i>											
Date(s):	11/9/16-11/10/16											
Inspector:	Hilton Hernandez (Lead Inspector #002231), David Heelon (Lead Inspector #002188)											
Number	Room	Side	Structure	Feature	Material	Color	Condition	Reading (mg/cm ²)	Precision (mg/cm ²)	Depth Index	Duration (sec)	Date/Time
223	Room 14	A	Window	--	Wood	White	Intact	0.2	0.1	1.47	2.55	11/9/2016 14:09
224	Room 14	B	Wall	--	Wood	White	Intact	0.0	0.1	1	0.23	11/9/2016 14:09
225	Room 14	B	Wall	--	Wood	White	Intact	0.0	0.0	1	2.07	11/9/2016 14:09
226	Room 14	D	Wall	Baseboard	Wood	Red	Intact	0.6	0.2	1	2.31	11/9/2016 14:10
227	Room 14	A	mantle	--	Wood	White	Intact	1.2	0.3	1.7	2.99	11/9/2016 14:11
228	Room 14	B	mantle	--	Wood	White	Intact	1.8	0.5	1.89	1.85	11/9/2016 14:11
229	Room 14	B	Fireplace	--	Brick	Black	Intact	0.7	0.2	1.24	3.01	11/9/2016 14:12
230	Room 14	--	Floor	--	Brick	Brown	Intact	1.6	0.4	1.45	1.85	11/9/2016 14:12
231	Room 14	--	Floor	--	Wood	Brown	Intact	2.2	0.6	1.6	2.08	11/9/2016 14:13
232	Room 14	--	Ceiling	--	Wood	White	Intact	0.0	0.0	1	0.93	11/9/2016 14:13
233	Room 14	--	Ceiling	--	Wood	White	Intact	0.0	0.0	1	1.84	11/9/2016 14:13
234	Basement B-side	--	Door	--	Wood	White	Intact	1.2	0.3	1.42	3.22	11/9/2016 14:14
235	Basement B-side	--	Ceiling	--	Wood	White	Intact	0.1	0.2	9.34	2.3	11/9/2016 14:16
236	Basement B-side	--	Ceiling	--	Wood	White	Intact	0.1	0.2	9.3	2.29	11/9/2016 14:16
237	Basement B-side	--	Wall	--	Wood	White	Intact	0.0	0.0	1	1.84	11/9/2016 14:16
238	Basement B-side	B	Wall	--	stone	White	Intact	0.0	0.1	2.39	1.38	11/9/2016 14:17
239	Basement B-side	B	Wall	--	Wood	Black	Intact	0.1	0.2	5.5	2.07	11/9/2016 14:19
240	Basement B-side	B	Pipe	--	Metal	Black	Intact	0.0	0.0	1	1.84	11/9/2016 14:19
241	Basement B-side	--	Door	--	Wood	White	Intact	0.0	0.0	1	2.08	11/9/2016 14:20
242	Basement exterior	C	Door	--	Wood	White	Intact	0.0	0.0	1	1.61	11/9/2016 14:24
243	Basement exterior	C	Window	--	Wood	White	Intact	0.2	0.2	2.59	1.84	11/9/2016 14:24
244	Basement exterior	C	Wall	--	Wood	White	Defective	0.3	0.4	4.49	1.15	11/9/2016 14:24
245	Basement exterior	C	Wall	--	Wood	White	Defective	0.2	0.2	3.31	1.85	11/9/2016 14:24
246	Basement exterior	C	Wall	--	Wood	White	Defective	0.4	0.4	3.16	1.15	11/9/2016 14:25
247	Basement exterior	C	Wall	--	Wood	White	Defective	0.2	0.2	2.08	1.85	11/9/2016 14:25
248	Basement exterior	B	Wall	--	Wood	White	Defective	0.0	0.0	1	1.61	11/9/2016 14:25
249	Basement exterior	B	Window	--	Wood	White	Defective	0.5	0.2	1.13	1.85	11/9/2016 14:26
250	Basement exterior	B	Window	--	Wood	White	Defective	7.2	2.8	10	2.3	11/9/2016 14:26
251	Basement exterior	B	Window	--	Wood	White	Defective	0.3	0.1	1	2.31	11/9/2016 14:26
252	Basement exterior	B	Wall	--	Wood	White	Defective	0.5	0.9	3.33	0.46	11/9/2016 14:26
253	Basement exterior	B	Wall	--	Wood	White	Defective	3.1	0.9	4.69	5.07	11/9/2016 14:27
254	Basement exterior	B	Door	--	Wood	Brown	Intact	0.0	0.0	1	1.84	11/9/2016 14:27

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



Lead Based Paint Measurement Summary Table

Device(s):	Niton XLP301-A (Serial #25555) X Ray Fluorescence (XRF) Spectrum Analyzer											
Site:	Newgate Prison & Copper Museum - Viets Tavern, Yellow Cottage & White Cottage, Newgate Road, East Granby, Connecticut											
Project # :	266325-0000-0000 <i>(UPDATED 07-14-07 for Specifications)</i>											
Date(s):	11/9/16-11/10/16											
Inspector:	Hilton Hernandez (Lead Inspector #002231), David Heelon (Lead Inspector #002188)											
Number	Room	Side	Structure	Feature	Material	Color	Condition	Reading (mg/cm2)	Precision (mg/cm2)	Depth Index	Duration (sec)	Date/Time
255	Exterior	B	Door	--	Wood	White	Intact	3.2	0.8	6.5	4.84	11/9/2016 14:28
256	Exterior	B	Wall	--	Wood	White	Intact	0.7	0.6	5.66	1.85	11/9/2016 14:29
257	Exterior	B	Wall	--	Wood	White	Intact	8.2	1.5	7.08	4.37	11/9/2016 14:29
258	Exterior	A	Wall	--	Wood	White	Intact	0.6	0.2	3.43	3.22	11/9/2016 14:29
259	Exterior	A	Door	--	Wood	White	Intact	0.0	0.0	1	2.07	11/9/2016 14:30
260	Exterior	A	Window	--	Wood	White	Intact	0.0	0.0	1	2.07	11/9/2016 14:30
261	Exterior	A	Wall	--	Wood	White	Intact	0.0	0.0	1	1.15	11/9/2016 14:31
262	Exterior	A	Wall	--	Wood	White	Intact	0.0	0.0	1.38	2.77	11/9/2016 14:31
263	Exterior	D	Wall	--	Wood	White	Intact	1.6	0.4	4.54	4.37	11/9/2016 14:32
264	Exterior	D	Window	--	Wood	White	Intact	0.1	0.3	7.78	2.07	11/9/2016 14:32
265	Exterior	D	Door	--	Wood	White	Intact	5.3	6.3	6.81	0.92	11/9/2016 14:32
266	Exterior	D	Door	--	Wood	White	Intact	5.1	2.4	6.63	2.77	11/9/2016 14:33
267	Exterior	D	Foundation	--	Block	Brown	Intact	2.6	1.3	1.64	4.15	11/9/2016 14:34
268	Exterior	C	Foundation	--	Block	Brown	Intact	0.5	0.2	1.71	2.08	11/9/2016 14:34
269	0.0 calibration	--	--	--	--			0.0	0.0	1	1.15	11/9/2016 14:36
270	0.7 calibration	--	--	--	--			0.7	0.2	1.11	2.08	11/9/2016 14:36
271	1.6 calibration	--	--	--	--			1.4	0.2	1.1	3.92	11/9/2016 14:37

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EMSL Analytical, Inc.

29 North Plains Highway, Unit # 4 Wallingford, CT 06492
Tel/Fax: (203) 284-5948 / (203) 284-5978
http://www.EMSL.com / wallingfordlab@emsl.com

EMSL Order: 241604749
Customer ID: TRC51
Customer PO: 266325C
Project ID:

Attn: Hilton Hernandez
TRC Environmental Consultants
21 Griffin Road North
Windsor, CT 06095

Phone: (860) 298-9692
Fax: (860) 298-6399
Collected: 11/14/2016
Received: 11/15/2016
Analyzed: 11/17/2016 - 11/18/2016

Project: 266325.0001

Test Report: Air-O-Cell™ Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods EMSL 05-TP-003, ASTM D7391)

Lab Sample Number: Client Sample ID: Volume (L): Sample Location	241604749-0001 ST-01 75 Viets, 106 Newgate Rd. outside new			241604749-0002 ST-02 75 Viets, 106 Newgate Rd. old kitchen rm.			241604749-0003 ST-03 75 Viets, 106 Newgate Rd. hall 25 2nd floor			
	Spore Types	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total
Alternaria	1	40	1.5	-	-	-	-	-	-	-
Ascospores	13	530	20.2	1	40	6.7	1	40	4.2	
Aspergillus/Penicillium	16	660	25.2	2	80	13.3	9	400	41.7	
Basidiospores	9	400	15.3	6	200	33.3	5	200	20.8	
Bipolaris++	-	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-	-
Cladosporium	12	490	18.7	6	200	33.3	4	200	20.8	
Curvularia	1	40	1.5	-	-	-	1	40	4.2	
Epicoccum	2	80	3.1	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-	-
Myxomycetes++	8	300	11.5	1	40	6.7	1	40	4.2	
Pithomyces	-	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-	-
Scopulariopsis	-	-	-	-	-	-	-	-	-	-
Stachybotrys	-	-	-	-	-	-	-	-	-	-
Torula	-	-	-	-	-	-	-	-	-	-
Ulocladium	-	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-	-
Nigrospora	-	-	-	-	-	-	-	-	-	-
Oidium	1	40	1.5	-	-	-	-	-	-	-
Spegazzinia	1	40	1.5	1	40	6.7	1	40	4.2	
Total Fungi	64	2620	100	17	600	100	22	960	100	
Hyphal Fragment	3	100	-	1	40	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	41	-	-	41	-	-	41	-	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-	-
Skin Fragments (1-4)	-	-	-	-	1	-	-	1	-	-
Fibrous Particulate (1-4)	-	-	-	-	1	-	-	1	-	-
Background (1-5)	-	2	-	-	1	-	-	2	-	-

Bipolaris++ = Bipolaris/Drechslera/Exserohilum
Myxomycetes++ = Myxomycetes/Periconia/Smut

Gloria V. Oriol, Laboratory Manager
or other approved signatory

No discernable field blank was submitted with this group of samples.

High levels of background particulate can obscure spores and other particulates leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. Results are not blank corrected unless otherwise noted. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. "" Denotes particles found at 300X. "-" Denotes not detected. Due to method stopping rules, raw counts in excess of 100 are extrapolated based on the percentage analyzed. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted.

Samples analyzed by EMSL Analytical, Inc. Wallingford, CT AIHA-LAP, LLC--EMLAP Lab 165118

Initial report from: 11/18/2016 09:16:26

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com



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Attn: Hilton Hernandez
TRC Environmental Consultants
21 Griffin Road North
Windsor, CT 06095
Project: 266325.0001

Phone: (860) 298-9692
Fax: (860) 298-6399
Collected: 11/14/2016
Received: 11/15/2016
Analyzed: 11/17/2016 - 11/18/2016

Test Report: Air-O-Cell™ Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods EMSL 05-TP-003, ASTM D7391)

Lab Sample Number:	241604749-0004		
Client Sample ID:	ST-04		
Volume (L):	75		
Sample Location	Viets, 106 Newgate Rd. outside new		
Spore Types	Raw Count	Count/m ³	% of Total
Alternaria	-	-	-
Ascospores	-	-	-
Aspergillus/Penicillium	4	200	30.3
Basidiospores	6	200	30.3
Bipolaris++	-	-	-
Chaetomium	-	-	-
Cladosporium	3	100	15.2
Curvularia	-	-	-
Epicoccum	-	-	-
Fusarium	-	-	-
Ganoderma	1	40	6.1
Myxomycetes++	2	80	12.1
Pithomyces	-	-	-
Rust	-	-	-
Scopulariopsis	-	-	-
Stachybotrys	-	-	-
Torula	-	-	-
Ulocladium	-	-	-
Unidentifiable Spores	-	-	-
Zygomycetes	-	-	-
Nigrospora	1	40	6.1
Oidium	-	-	-
Spegazzinia	-	-	-
Total Fungi	17	660	100
Hyphal Fragment	3	100	-
Insect Fragment	-	-	-
Pollen	-	-	-
Analyt. Sensitivity 600x	-	41	-
Analyt. Sensitivity 300x	-	13*	-
Skin Fragments (1-4)	-	-	-
Fibrous Particulate (1-4)	-	1	-
Background (1-5)	-	2	-

Bipolaris++ = Bipolaris/Drechslera/Exserohilum
Myxomycetes++ = Myxomycetes/Periconia/Smut


Gloria V. Oriol, Laboratory Manager
or other approved signatory

No discernable field blank was submitted with this group of samples.

High levels of background particulate can obscure spores and other particulates leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. Results are not blank corrected unless otherwise noted. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. "" Denotes particles found at 300X. "-" Denotes not detected. Due to method stopping rules, raw counts in excess of 100 are extrapolated based on the percentage analyzed. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted.

Samples analyzed by EMSL Analytical, Inc. Wallingford, CT AIHA-LAP, LLC--EMLAP Lab 165118

Initial report from: 11/18/2016 09:16:26

Halina,

Results of the asbestos and mold samples for the White Cottage are attached.

Asbestos results indicated the presence of asbestos in some of the window glazes, basement stairs and living room textured ceiling and kitchen sink black undercoating. Joint compound on some of the sheetrock indicated the presence of <1% asbestos which would require OSHA regulations be followed if this material is to be disturbed. This is also the building where vermiculite attic insulation has been found which has to be assumed positive per order from the Connecticut Health Department. Further investigation of the inspector's notes are needed to determine if additional building components may have been assumed to be positive.

The lead issue is the same for all three buildings – the exterior paint is lead containing and we would need to have a contractor with some lead training perform the scraping/stabilization of the paint. The contractor would contain the paint chips and properly dispose of the chips as warranted. A regular painting contractor would then be allowed to re-paint the structure.

Mold results for this structure did indicate the presence of mold growth within as there were certain species that were identified as being present in the building that were not identified in the exterior samples. The overall mold spore count was also higher on the inside as compared to the outside samples. Further investigation of this building to determine the extent of building materials that may be saturated from a water intrusion event should be performed so that we can direct what building materials may need to be abated so that the mold spores are eliminated from the building.

Sincerely,

Donald LePage
Project Manager
Building Science Division



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BULK ASBESTOS ANALYSIS REPORT

CLIENT: CT Department of Construction Services

Lab Log #: 0049460
 Project #: 266325.0001.0000
 Date Received: 11/14/2016
 Date Analyzed: 11/17/2016

Site: *White Cottage*
 Newgate Prison & Copper Museum (105 Newgate Road, East Granby, CT)

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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
1	Off White (glaze)	Yes	No	--	---	ND	None
2♣	Off White (glaze)	Yes	No	--	---	ND	None
3	Tan (glaze)	Yes	No	--	---	ND	None
4♣	Tan (glaze)	Yes	No	--	---	ND	None
5	White (glaze)	Yes	No	--	---	ND	None
6♣	White (glaze)	Yes	No	--	---	ND	None
7	Brown (glue)	Yes	No	--	---	ND	None
8♣	Brown (glue)	Yes	No	--	---	ND	None
9	Brown (glue)	No	Yes	1	10% synthetic fiber	ND	None
9	Red/Grey (linoleum)	No	Yes	2	60% cellulose	ND	None
10♣	Brown (glue)	No	Yes	1	---	ND	None
10♣	Red/Grey (linoleum)	No	Yes	2	---	ND	None
11	Black (sink insulation)	Yes	No	--	---	20%	Chrysotile
12	--	--	--	--	--	NA/PS	--
13	Grey (chimney grout)	Yes	No	--	---	ND	None
14	Grey (chimney grout)	Yes	No	--	---	ND	None
15	Orange (panel glue)	Yes	No	--	---	ND	None
16♣	Orange (panel glue)	Yes	No	--	---	ND	None

TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

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

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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
17	■ Off White (joint compound)	No	Yes	1	---	0.25%	Chrysotile
17	Grey (sheetrock)	No	Yes	2	2% cellulose	ND	None
18	■ Off White (joint compound)	No	Yes	1	---	0.25%	Chrysotile
18	Grey (sheetrock)	No	Yes	2	2% cellulose	ND	None
19	Tan (glue)	Yes	No	--	---	ND	None
20♣	Tan (glue)	Yes	No	--	---	ND	None
21	■ Off White (textured ceiling)	Yes	No	--	---	3.0%	Chrysotile
22	■ Off White (textured ceiling)	Yes	No	--	---	2.75%	Chrysotile
23	--	--	--	--	--	NA/PS	--
24	White (grout)	Yes	No	--	---	ND	None
25	White (grout)	Yes	No	--	---	ND	None
26	--	--	--	--	--	SNA	--
27	--	--	--	--	--	SNA	--
28	White (glaze)	Yes	No	--	---	3%	Chrysotile
29	--	--	--	--	--	NA/PS	--
30	Black (vapor barrier)	Yes	No	--	60% cellulose	ND	None
31♣	Black (vapor barrier)	Yes	No	--	---	ND	None
32	Light Grey (caulk)	Yes	No	--	---	ND	None
33♣	Light Grey (caulk)	Yes	No	--	---	ND	None

TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

NVLAP Lab Code 101424-0
 RI #AAL-007 TX #300354
 CO# AL-15020

AIHA-LAP, LLC #100122 CT #PH-0426
 VT #AL014538 LA#05011 VA #3333 000283
 PHIL# 461 PA#68-03387

ME LA-0075, LB-0071 MA #AA000052 NY #10980 WV#LT000411
 AZ #A20944 HI #L-09-004 NJ #CT004 CA #2907

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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
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■ Analyzed by 400 Point Count Method

Reporting limit- asbestos present at 0.25% for 400 Point Count Method

ND- No asbestos was detected by 400 Point Count Method

<0.25%- Trace concentrations of asbestos are concentrations that are less than or equal 1% including samples that contain zero asbestos points out of 400 nonempty points, but did contain asbestos positively identified by PLM.

♣ Samples analyzed by EPA/600/R-93/116 with gravimetric reduction

Reporting limit- asbestos present at 1%

ND - asbestos was not detected

Trace - asbestos was observed at level of less than 1%

NA/PS - Not Analyzed / Positive Stop

SNA- Sample Not Analyzed- See Chain of Custody for details

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

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation 1982 (EPA 600/M4-82-020) Bulk Analysis Code 18/A01 and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials July 1993, R.L. Perkins and B.W. Harvey, (EPA/600/R-93/116) Bulk Analysis Code 18/A03, which utilize polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 18/A01, effective through June 30, 2017. TRC is accredited by the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC in the Industrial Hygiene Program (IHLAP) for PLM effective through October 1, 2018. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and QC data related to the samples is available upon written request from client.

This report shall not be reproduced, except in full, without the written approval of TRC. This report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report relates only to the items tested.

Analyzed by: *K. Williamson* Reviewed by: *Cathryn Lemire* Date Issued
 Kathleen Williamson, Laboratory Manager Cathryn Lemire, Approved Signatory 11/17/2016

TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

NVLAP Lab Code 101424-0 AIHA-LAP,LLC #100122 CT #PH-0426 ME LA-0075, LB-0071 MA #AA000052 NY #10980 WV# LT000411
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 CO# AL-15020 PHIL# 461 PA#68-03387



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ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

Edition: October 2009
 Supersede Previous Edition

LAB ID #. 419460

PROJECT NUMBER	PROJECT NAME		PARAMETERS				TURNAROUND TIME													
	DATE	TIME	TYPE	COMP	GRAB	SAMPLE LOCATION	PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF > 1% & < 10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	PLM:	TEM:	8hr	24hr	48hr	3day	5day		
266325.0000.0001	Newgate Prison & Copper Mine (105 Newgate Rd)		INSPECTOR Hilton Hernandez				X	X												
SIGNATURE																				
1	11/14/16	0953	X		X	Kitchen	X													
2	11/14/16	0954	X		X	Kitchen	X	X												
3	11/14/16	1001	X		X	Front entrance	X													
4	11/14/16	1003	X		X	Dinning room	X	X												
5	11/14/16	0958	X		X	Kitchen	X													
6	11/14/16	0959	X		X	Kitchen	X	X												
7	11/14/16	1010	X		X	Kitchen	X													
8	11/14/16	1012	X		X	Kitchen	X	X												
9	11/14/16	1018	X		X	Kitchen	X		X											
10	11/14/16	1020	X		X	Kitchen	X	X	X											

Relinquished by: (Signature) 	Date: <u>11/14/16</u>	Received by: (Signature) 	Date: <u>11/14/16</u>
(Printed) Hilton Hernandez	Time: <u>1630</u>	(Printed) Dan Ceforge	Time: <u>1630</u>
Remarks: <u>Results to Dan Ceforge & Hilton A.</u>	Condition of Samples: Acceptable: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
		Relinquished by: (Signature)	Received by: (Signature)
		(Printed)	(Printed)
			Page 1 of 4



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ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

Edition: October 2009
 Supersede Previous Edition

LAB ID #. 49460

PROJECT NUMBER 266325.0000.0001		PROJECT NAME Newgate Prison & Copper Mine (105 Newgate Rd)		INSPECTOR Hilton Hernandez		PARAMETERS				TURNAROUND TIME									
						PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	PLM:	TEM:	8hr	24hr	48hr	3day	5day		
FIELD SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION		MATERIAL													
				COMP	GRAB														
22	11/14/16	1052	X	Living room		TC1 - Textured ceiling fine grain													
23	11/14/16	1056	X	Basement stairs		TC1 - Textured ceiling fine grain													
24	11/14/16	1106	X	Bathroom 1		GR2- White ceramic tile seam grout													
25	11/14/16	1107	X	Bathroom 1		GR2- White ceramic tile seam grout													
26 *	11/14/16	1112	X	Upstairs crawl space		V1- Vermiculite * Assume Positive													
27 *	11/14/16	1112	X	Upstairs crawl space		V1- Vermiculite * VOID - Assume Pos.													
28	11/14/16	1120	X	Exterior A side		WG2- Basement window glaze													
29	11/14/16	1121	X	Exterior A side		WG2- Basement window glaze													
30	11/14/16	1123	X	Exterior A side		VB1- Exterior siding vapor barrier													
31	11/14/16	1125	X	Exterior A side		VB1- Exterior siding vapor barrier													
32	11/14/16	1126	X	Exterior A side		C1- Lt grey bulk head door caulk													

Relinquished by: (Signature) 	Date: 11/14/16	Received by: (Signature) 	Date: 11/14/16
(Printed) Hilton Hernandez	Time: 1630	(Printed) Hilton Hernandez	Time: 1630
Remarks:		Condition of Samples: Acceptable: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
		Comments:	



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ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

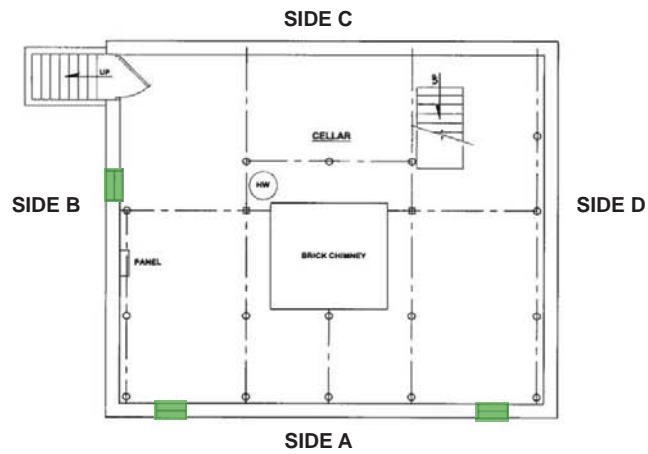
Edition: October 2009
 Supersede Previous Edition

LAB ID #. 494160

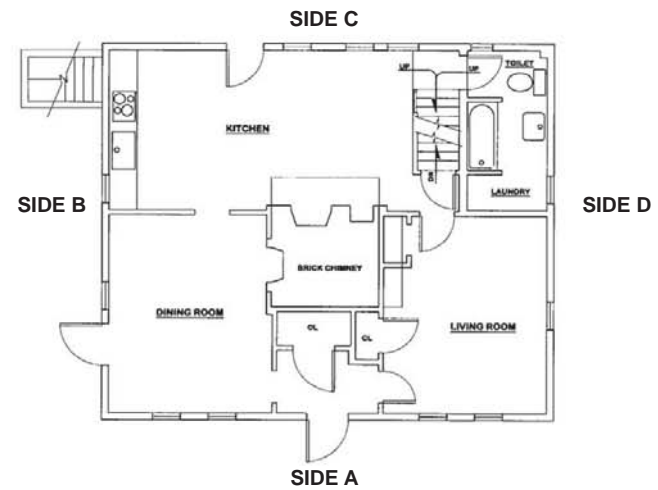
PROJECT NUMBER 266325.0000.0001		PROJECT NAME Newgate Prison & Copper Mine (105 Newgate Rd)		PARAMETERS		TURNAROUND TIME	
SIGNATURE 		INSPECTOR Hilton Hernandez		PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	PLM NY NOB 198.4 (IF PLM SERIES NEG)	PLM NY NOB 198.4 (IF PLM SERIES NEG)
FIELD SAMPLE NUMBER 33	DATE 11/14/16	TIME 1127	TYPE GRAB	SAMPLE LOCATION Exterior A side		MATERIAL	
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				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

PLM Gravimetric Analysis

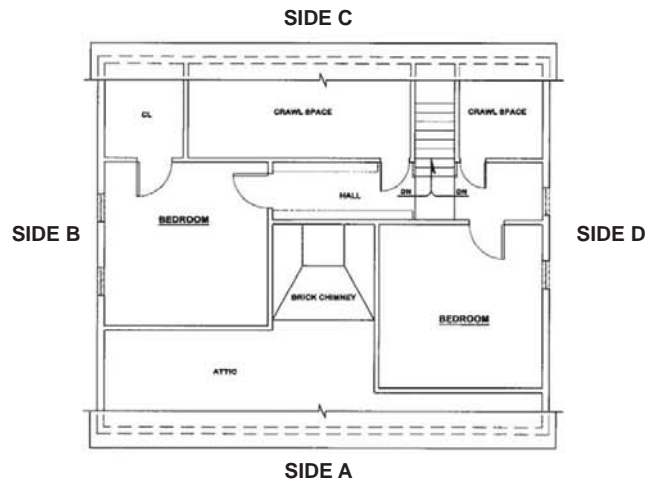
Date	Analyst	Lab Log #	Sample ID	Crucible ID	g crucible	g crucible plus sample	g after 480°	decimal Residue	% Asb	
									in residue	total Sample
4/16/2016	KW	49460	2	61	19.4818	19.5152	19.5067	0.746	0.00	0.00
			4	62	23.5018	23.535	23.5268	0.753	0.00	0.00
			6	63	19.601	19.7844	19.7723	0.934	0.00	0.00
			8	64	19.7757	19.8057	19.7936	0.597	0.00	0.00
			10G	65	26.4506	26.4798	26.4575	0.236	0.00	0.00
			10Lin	66	18.2266	18.317	18.2478	0.235	0.00	0.00
			16	68	17.4644	17.471	17.4666	0.333	0.00	0.00
			20	69	23.993	24.108	24.0825	0.778	0.00	0.00
			31	71	25.2304	25.25	25.2373	0.352	0.00	0.00
			33	72	26.7262	26.978	26.8993	0.687	0.00	0.00




1 **BASEMENT FLOOR PLAN**
A-1.31 1/4" = 1'-0"

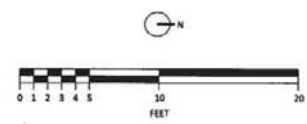



2 **FIRST FLOOR PLAN**
A-1.31 1/4" = 1'-0"



3 **SECOND FLOOR PLAN**
A-1.32 1/4" = 1'-0"

KEY
 Window with ACM Glazing (WG2)



Drawing No. WHITE COTTAGE FLOOR PLANS		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
Submittal No. 	REVISIONS		Drawing prepared by 
	Date 	Date 	Date 03/01/18
Project OLD NEWGATE PRISON AND COPPER MINE MUSEUM ROOF(S) REPLACEMENT AND EXTERIOR RENOVATIONS EAST GRANBY, CT		Drawn by JG	Checked by DL
Date 		Date 	Drawing No. ASB-2



Lead Based Paint Measurement Summary Table

Device(s):	Niton XLP301-A (Serial #25555) X Ray Fluorescence (XRF) Spectrum Analyzer											
Site:	Newgate Prison & Copper Museum - Viets Tavern, Yellow Cottage & White Cottage, Newgate Road, East Granby, Connecticut											
Project # :	266325-0000-0000 <i>(UPDATED 07-14-07 for Specifications)</i>											
Date(s):	11/9/16-11/10/16											
Inspector:	Hilton Hernandez (Lead Inspector #002231), David Heelon (Lead Inspector #002188)											
Number	Room	Side	Structure	Feature	Material	Color	Condition	Reading (mg/cm ²)	Precision (mg/cm ²)	Depth Index	Duration (sec)	Date/Time
379	Living Room	B	Window	Casing	Wood	Brown Stai	Intact	0.0	0.0	1	1.61	11/10/2016 14:16
380	Living Room	B	Window	Sill	Wood	Brown Stai	Intact	0.0	0.0	1.08	3.01	11/10/2016 14:17
381	Living Room	B	Window	Sash int	Wood	Brown Stai	Intact	0.0	0.0	1	3	11/10/2016 14:17
382	Kitchen	--	Ceiling	--	Sheetrock	White	Intact	0.0	0.0	1.02	2.98	11/10/2016 14:20
383	Kitchen	B	Door	Cupboard	Wood	Yellow	Intact	0.0	0.0	1	2.98	11/10/2016 14:21
384	Kitchen	C	Door	Cupboard	Wood	Yellow	Intact	0.0	0.1	5.16	2.99	11/10/2016 14:22
385	Kitchen	C	Door	--	Wood	Grey	Intact	0.0	0.0	1	2.98	11/10/2016 14:23
386	Kitchen	C	Door	Casing	Wood	Grey	Intact	0.0	0.1	2.97	2.98	11/10/2016 14:23
387	Kitchen	C	Window	Casing	Wood	Grey	Intact	0.0	0.0	1.46	3	11/10/2016 14:24
388	Kitchen	C	Window	Sill	Wood	Grey	Intact	0.0	0.0	1	2.99	11/10/2016 14:24
389	Kitchen	C	Window	Sash int	Wood	Grey	Intact	0.0	0.0	1	3	11/10/2016 14:25
390	Bath 1	D	Wall	--	Sheetrock	Tan/Beige	Intact	0.0	0.1	2.79	2.99	11/10/2016 14:26
391	Bath 1	A	Wall	--	Sheetrock	Tan/Beige	Intact	0.0	0.0	1.32	3	11/10/2016 14:27
392	Bath 1	D	Window	Casing	Sheetrock	Tan/Beige	Intact	0.0	0.0	1	3	11/10/2016 14:28
393	Bath 1	D	Window	Sill	Sheetrock	Tan/Beige	Intact	0.0	0.1	2.99	2.98	11/10/2016 14:28
394	Bath 1	D	Window	Sash int	Sheetrock	Tan/Beige	Intact	0.0	0.0	1	2.98	11/10/2016 14:29
395	Bath 1	--	Ceiling	--	Sheetrock	White	Defective	0.0	0.0	1.04	3.22	11/10/2016 14:29
396	Bath 1	B	Door	Casing	Wood	Tan/Beige	Intact	0.0	0.0	1	4.62	11/10/2016 14:31
397	Bath 1	--	Stair	Tread	Wood	White	Intact	0.0	0.0	1.74	2.99	11/10/2016 14:33
398	Bath 1	--	Stair	Riser	Wood	Blue	Intact	0.0	0.0	1.22	3.01	11/10/2016 14:34
399	--	--	Stair	Railing	Wood	Blue	Intact	0.0	0.0	1.04	2.99	11/10/2016 14:35
400	Top of Stairs	C	Wall	--	Sheetrock	Tan/Beige	Intact	0.0	0.0	1	4.36	11/10/2016 14:38
401	Top of Stairs	--	Ceiling	--	Sheetrock	White	Intact	0.0	0.0	1.69	5.06	11/10/2016 14:38
402	Bedroom 1	B	Wall	--	Sheetrock	Tan/Beige	Intact	0.0	0.0	1.67	3	11/10/2016 14:40
403	Bedroom 1	D	Wall	--	Sheetrock	Tan/Beige	Intact	0.0	0.0	2.95	5.31	11/10/2016 14:41
404	Bedroom 1	B	Window	Casing	Wood	Tan/Beige	Intact	0.0	0.0	1	2.99	11/10/2016 14:41
405	Bedroom 1	B	Window	Sill	Wood	Tan/Beige	Intact	0.0	0.0	1	2.99	11/10/2016 14:42
406	Bedroom 1	--	Ceiling	--	Sheetrock	White	Intact	0.0	0.0	1.2	3.91	11/10/2016 14:42
407	Bedroom 2	C	Wall	--	Sheetrock	Blue	Intact	0.0	0.1	2.63	1.84	11/10/2016 14:47
408	Bedroom 2	D	Wall	--	Sheetrock	Blue	Intact	0.0	0.0	1.86	5.3	11/10/2016 14:48
409	Bedroom 2	D	Window	Casing	Wood	Blue	Intact	0.0	0.0	1	2.97	11/10/2016 14:49
410	Bedroom 2	D	Window	Sill	Wood	Blue	Intact	0.0	0.0	1	2.98	11/10/2016 14:50

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

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



Lead Based Paint Measurement Summary Table

Device(s):	Niton XLP301-A (Serial #25555) X Ray Fluorescence (XRF) Spectrum Analyzer											
Site:	Newgate Prison & Copper Museum - Viets Tavern, Yellow Cottage & White Cottage, Newgate Road, East Granby, Connecticut											
Project # :	266325-0000-0000 <i>(UPDATED 07-14-07 for Specifications)</i>											
Date(s):	11/9/16-11/10/16											
Inspector:	Hilton Hernandez (Lead Inspector #002231), David Heelon (Lead Inspector #002188)											
Number	Room	Side	Structure	Feature	Material	Color	Condition	Reading (mg/cm ²)	Precision (mg/cm ²)	Depth Index	Duration (sec)	Date/Time
411	Bedroom 2	D	Window	Sash int	Wood	Blue	Intact	0.0	0.0	1	2.99	11/10/2016 14:51
412	Bedroom 2	--	Ceiling	--	Sheetrock	White	Defective	0.0	0.1	5.23	2.77	11/10/2016 14:51
413	Bedroom 2	A	Closet	Wall	Sheetrock	Blue	Intact	0.0	0.0	1.43	2.99	11/10/2016 14:53
414	Bedroom 2	B	Door	Casing	Wood	Blue	Intact	0.0	0.0	1	2.99	11/10/2016 14:54
415	Exterior	C	Siding	--	Wood	White	Defective	17.7	4.5	3.9	2.54	11/10/2016 14:58
416	Exterior	D	Siding	--	Wood	White	Defective	1.6	0.6	6.32	8.97	11/10/2016 14:59
417	Exterior	A	Siding	--	Wood	White	Defective	0.4	0.1	1.17	3.22	11/10/2016 15:00
418	Exterior	B	Siding	--	Wood	White	Defective	1.6	0.5	2.99	3.23	11/10/2016 15:00
419	Exterior	B	Window	Casing	Wood	White	Defective	0.1	0.1	4.23	3	11/10/2016 15:01
420	Exterior	C	Window	Casing	Wood	White	Defective	0.0	0.0	2.11	4.63	11/10/2016 15:02
421	Exterior	D	Window	Casing	Wood	White	Defective	0.0	0.0	1.35	3	11/10/2016 15:02
422	Exterior	A	Window	Casing	Wood	White	Defective	0.1	0.1	4.22	3.24	11/10/2016 15:03
423	Exterior	A	Door	--	Wood	White	Defective	0.0	0.0	1	3	11/10/2016 15:04
424	Exterior	A	Door	Casing	Wood	White	Defective	1.1	0.1	1.48	12.43	11/10/2016 15:05
425	Exterior	B	Door	--	Wood	White	Defective	0.0	0.0	1.14	3.22	11/10/2016 15:05
426	Exterior	B	Door	Casing	Wood	White	Defective	0.0	0.1	2	3	11/10/2016 15:06
427	Exterior	C	Door	--	Wood	Red	Defective	0.1	0.1	2.46	3	11/10/2016 15:07
428	Exterior	C	Door	Casing	Wood	White	Defective	0.0	0.0	1.48	3	11/10/2016 15:07
429	Exterior	B	Door	Hatchway	Metal	Brown	Defective	0.0	0.0	1	2.98	11/10/2016 15:09
430	0.3 calibration	--	--	--	--			0.3	0.1	1.1	3.21	11/10/2016 15:16
431	0.7 calibration	--	--	--	--			0.6	0.2	1.06	2.99	11/10/2016 15:17
432	1.6 calibration	--	--	--	--			1.5	0.3	1.13	3.01	11/10/2016 15:17

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

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



EMSL Analytical, Inc.

29 North Plains Highway, Unit # 4 Wallingford, CT 06492

Tel/Fax: (203) 284-5948 / (203) 284-5978

http://www.EMSL.com / wallingfordlab@emsl.com

EMSL Order: 241604751

Customer ID: TRC51

Customer PO: 266325C

Project ID:

Attn: Hilton Hernandez
TRC Environmental Consultants
21 Griffin Road North
Windsor, CT 06095

Phone: (860) 298-9692
Fax: (860) 298-6399
Collected: 11/14/2016
Received: 11/15/2016
Analyzed: 11/18/2016

Project: 266325.0001

Test Report: Air-O-Cell™ Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods EMSL 05-TP-003, ASTM D7391)

Lab Sample Number:	241604751-0001			241604751-0002			241604751-0003		
Client Sample ID:	ST-01			ST-02			ST-03		
Volume (L):	75			75			75		
Sample Location	105 Newgate Rd. outside rear			105 Newgate Rd. kitchen 1st floor			105 Newgate Rd. top of stairs 2nd floor		
Spore Types	Raw Count	Count/m ³	% of Total	Raw Count	Count/m ³	% of Total	Raw Count	Count/m ³	% of Total
Alternaria	7	300	3	3	100	0.8	3	100	0.8
Ascospores	71	2900	28.7	51	2100	17.8	39	1600	12.7
Aspergillus/Penicillium	1	40	0.4	60	2500	21.1	33	1400	11.1
Basidiospores	77	3200	31.7	72	3000	25.4	98	4000	31.7
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	49	2000	19.8	49	2000	16.9	71	2900	23
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	3	100	1	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	16	660	6.5	3	100	0.8	21	860	6.8
Myxomycetes++	12	490	4.9	27	1100	9.3	28	1100	8.7
Pithomyces	-	-	-	2	80	0.7	2	80	0.6
Rust	5	200	2	10	410	3.5	14	570	4.5
Scopulariopsis	-	-	-	5	200	1.7	-	-	-
Stachybotrys	-	-	-	1	40	0.3	-	-	-
Torula	-	-	-	-	-	-	-	-	-
Ulocladium	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Arthrinium	-	-	-	-	-	-	-	-	-
Bispora	-	-	-	5	200	1.7	-	-	-
Cheiromyces	5	200	2	-	-	-	-	-	-
Total Fungi	246	10090	100	288	11830	100	309	12610	100
Hyphal Fragment	25	1000	-	12	490	-	16	660	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	10	410	-	24	990	-	2	80	-
Analyt. Sensitivity 600x	-	41	-	-	41	-	-	41	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	-	-	-	3	-	-	3	-
Fibrous Particulate (1-4)	-	-	-	-	3	-	-	3	-
Background (1-5)	-	1	-	-	4	-	-	4	-

Bipolaris++ = Bipolaris/Drechslera/Exserohilum
Myxomycetes++ = Myxomycetes/Periconia/Smut

Gloria V. Oriol, Laboratory Manager
or other approved signatory

No discernable field blank was submitted with this group of samples.

High levels of background particulate can obscure spores and other particulates leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. Results are not blank corrected unless otherwise noted. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. "" Denotes particles found at 300X. "-" Denotes not detected. Due to method stopping rules, raw counts in excess of 100 are extrapolated based on the percentage analyzed. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted.

Samples analyzed by EMSL Analytical, Inc. Wallingford, CT AIHA-LAP, LLC--EMLAP Lab 165118

Initial report from: 11/18/2016 10:38:50

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com



EMSL Analytical, Inc.

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EMSL Order: 241604751
Customer ID: TRC51
Customer PO: 266325C
Project ID:

Attn: Hilton Hernandez
TRC Environmental Consultants
21 Griffin Road North
Windsor, CT 06095

Phone: (860) 298-9692
Fax: (860) 298-6399
Collected: 11/14/2016
Received: 11/15/2016
Analyzed: 11/18/2016

Project: 266325.0001

Test Report: Air-O-Cell(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods EMSL 05-TP-003, ASTM D7391)

Lab Sample Number:	241604751-0004		
Client Sample ID:	ST-04		
Volume (L):	75		
Sample Location	105 Newgate Rd. outside rear		
Spore Types	Raw Count	Count/m³	% of Total
Alternaria	8	300	4.4
Ascospores	27	1100	16.1
Aspergillus/Penicillium	-	-	-
Basidiospores	85	3500	51.1
Bipolaris++	-	-	-
Chaetomium	-	-	-
Cladosporium	11	450	6.6
Curvularia	-	-	-
Epicoccum	6	200	2.9
Fusarium	-	-	-
Ganoderma	7	300	4.4
Myxomycetes++	15	620	9.1
Pithomyces	-	-	-
Rust	2	80	1.2
Scopulariopsis	-	-	-
Stachybotrys	-	-	-
Torula	-	-	-
Ulocladium	-	-	-
Unidentifiable Spores	6	200	2.9
Zygomycetes	-	-	-
Arthrinium	3	100	1.5
Bispora	-	-	-
Cheimomycella	-	-	-
Total Fungi	170	6850	100
Hyphal Fragment	12	490	-
Insect Fragment	-	-	-
Pollen	2	80	-
Analyt. Sensitivity 600x	-	41	-
Analyt. Sensitivity 300x	-	13*	-
Skin Fragments (1-4)	-	2	-
Fibrous Particulate (1-4)	-	2	-
Background (1-5)	-	3	-

Bipolaris++ = Bipolaris/Drechslera/Exserohilum
Myxomycetes++ = Myxomycetes/Periconia/Smut

Gloria V. Oriol, Laboratory Manager
or other approved signatory

No discernable field blank was submitted with this group of samples.

High levels of background particulate can obscure spores and other particulates leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. Results are not blank corrected unless otherwise noted. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. "" Denotes particles found at 300X. "-" Denotes not detected. Due to method stopping rules, raw counts in excess of 100 are extrapolated based on the percentage analyzed. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted.

Samples analyzed by EMSL Analytical, Inc. Wallingford, CT AIHA-LAP, LLC--EMLAP Lab 165118

Initial report from: 11/18/2016 10:38:50

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com

Halina,

Results of the asbestos and mold samples for the Yellow Cottage are attached.

Asbestos results indicated the presence of asbestos in some of the window caulks, basement furnace gaskets and kitchen linoleum. Further investigation of the inspector's notes are needed to determine if additional building components may have been assumed to be positive.

The lead issue is the same for all three buildings – the exterior paint is lead containing and we would need to have a contractor with some lead training perform the scraping/stabilization of the paint. The contractor would contain the paint chips and properly dispose of the chips as warranted. A regular painting contractor would then be allowed to re-paint the structure.

Mold results for this structure did indicate the presence of mold growth within as there were certain species that were identified as being present in the building that were not identified in the exterior samples. The overall mold spore count was also higher on the inside as compared to the outside samples. Further investigation of this building to determine the extent of building materials that may be saturated from a water intrusion event should be performed so that we can direct what building materials may need to be abated so that the mold spores are eliminated from the building.

Sincerely,

Donald LePage
Project Manager
Building Science Division



21 Griffin Road North
Windsor, CT, 06095

860-298-6222 phone
860-298-6380 fax
413-626-4842 cell

dlepage@trcsolutions.com

BULK ASBESTOS ANALYSIS REPORT

CLIENT: CT Department of Construction Services

Lab Log #: 0049459
 Project #: 266325.0001.0000
 Date Received: 11/14/2016
 Date Analyzed: 11/17/2016

Site: Newgate Prison & Copper Museum (Yellow Cottage, 114 Newgate Road)

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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
1	White (skim coat)	No	Yes	1	---	ND	None
1	Grey (base coat)	No	Yes	2	2% horse hair	ND	None
2	White (skim coat)	No	Yes	1	---	ND	None
2	Grey (base coat)	No	Yes	2	2% horse hair	ND	None
3	White (skim coat)	No	Yes	1	---	ND	None
3	Grey (base coat)	No	Yes	2	2% horse hair	ND	None
4	White (skim coat)	No	Yes	1	---	ND	None
4	Grey (base coat)	No	Yes	2	2% horse hair	ND	None
5	White (skim coat)	No	Yes	1	---	ND	None
5	Grey (base coat)	No	Yes	2	2% horse hair	ND	None
6	Off White (glaze)	Yes	No	--	---	ND	None
7♣	Off White (glaze)	Yes	No	--	---	ND	None
8	Off White (glaze)	Yes	No	--	---	ND	None
9♣	Off White (glaze)	Yes	No	--	---	Trace	Chrysotile
10	Grey (caulk)	Yes	No	--	---	10%	Chrysotile
11	--	--	--	--	--	NA/PS	--
12	Off White (glaze)	Yes	No	--	---	ND	None
13♣	Off White (glaze)	Yes	No	--	---	ND	None

TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

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

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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
14	Grey (gasket)	Yes	No	--	---	40%	Chrysotile
15	--	--	--	--	--	NA/PS	--
16	Grey (gasket)	Yes	No	--	---	30%	Chrysotile
17	--	--	--	--	--	NA/PS	--
18	Black (sealant)	Yes	No	--	---	ND	None
19♣	Black (sealant)	Yes	No	--	---	ND	None
20	White/Grey (linoleum)	Yes	No	--	60% cellulose	ND	None
21♣	White/Grey (linoleum)	Yes	No	--	---	ND	None
22	Brown (linoleum)	Yes	No	--	60% cellulose	ND	None
23♣	Brown (linoleum)	Yes	No	--	---	ND	None
24	Beige/Black (linoleum)	No	Yes	1	30% cellulose	ND	None
24	Grey (tile)	No	Yes	2	---	3%	Chrysotile
25♣	Beige/Black (linoleum)	No	Yes	1	30% cellulose	ND	None
25	--	--	--	--	--	NA/PS	--
26	Blue/White (tile)	Yes	No	--	---	ND	None
27♣	Blue/White (tile)	Yes	No	--	---	ND	None
28	Tan (glue)	Yes	No	--	---	ND	None
29♣	Tan (glue)	Yes	No	--	---	ND	None
30	Brown (glue)	Yes	No	--	---	ND	None
31♣	Brown (glue)	Yes	No	--	---	ND	None
32	Red (glue)	Yes	No	--	---	ND	None
33♣	Red (glue)	Yes	No	--	---	ND	None
34	Black (vapor barrier)	Yes	No	--	60% cellulose	ND	None

TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

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



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

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
35♣	Black (vapor barrier)	Yes	No	--	---	ND	None

♣Samples analyzed by EPA/600/R-93/116 with gravimetric reduction

Reporting limit- asbestos present at 1%

ND - asbestos was not detected

Trace - asbestos was observed at level of less than 1%

NA/PS - Not Analyzed / Positive Stop

SNA- Sample Not Analyzed- See Chain of Custody for details

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

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation 1982 (EPA 600/M4-82-020) Bulk Analysis Code 18/A01 and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials July 1993, R.L. Perkins and B.W. Harvey, (EPA/600/R-93/116) Bulk Analysis Code 18/A03, which utilize polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 18/A01, effective through June 30, 2017. TRC is accredited by the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC in the Industrial Hygiene Program (IHLAP) for PLM effective through October 1, 2018. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and QC data related to the samples is available upon written request from client.

This report shall not be reproduced, except in full, without the written approval of TRC. This report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report relates only to the items tested.

Analyzed by: K. Williamson Reviewed by: Cathryn Lemire Date Issued: 11/17/2016
 Kathleen Williamson, Laboratory Manager Cathryn Lemire, Approved Signatory

TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

NVLAP Lab Code 101424-0 AIHA-LAP,LLC #100122 CT #PH-0426 ME LA-0075, LB-0071 MA #AA000052 NY #10980 WV#LT000411
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 CO# AL-15020 PHIL# 461 PA#68-03387



Edition: October 2009
Supersede Previous Edition

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

ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

PROJECT NUMBER
266325.0000.0001

PROJECT NAME
Newgate Prison & Copper Museum
(yellow cottage 114 Newgate Rd)



LAB ID #. 49459

TURNAROUND TIME

PLM:	8hr	24hr	48hr	x	3day
TEM:	24hr	48hr	3day		5day

FIELD SAMPLE NUMBER	DATE	TIME	TYPE		SAMPLE LOCATION	PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	MATERIAL
			COMP	GRAB							
1	11/10/16	1338	X	X	Living room	X		X			PL1 - Grey plaster base w/ horsehair + skimcoat
2	11/10/16	1339	X	X	Living room	X		X			PL1 - Grey plaster base w/ horsehair + skimcoat
3	11/10/16	1340	X	X	Living room	X		X			PL1 - Grey plaster base w/ horsehair + skimcoat
4	11/10/16	1341	X	X	Living room	X		X			PL1 - Grey plaster base w/ horsehair + skimcoat
5	11/10/16	1343	X	X	Living room	X		X			PL1 - Grey plaster base w/ horsehair + skimcoat
6	11/10/16	1345	X	X	Living room	X					WG1 - Off white window glaze of 4 pane windows
7	11/10/16	1347	X	X	Living room	X	X				WG1 - Off white window glaze of 4 pane windows
8	11/10/16	1350	X	X	Front porch	X					WG2 - Off white window glaze on 12 pane windows
9	11/10/16	1350	X	X	Front porch	X	X				WG2 - Off white window glaze on 12 pane windows
10	11/10/16	1353	X	X	Living room	X					WC1 - Grey putty window caulk
11	11/10/16	1355	X	X	Living room	X	X				WC1 - Grey putty window caulk

SIGNATURE  INSPECTOR
Hilton Hernandez

Relinquished by: (Signature) 	Date: 11/14/16	Received by: (Signature) 	Date: 11/14/16	Relinquished by: (Signature)	Date:	Received by: (Signature)
(Printed) Hilton Hernandez	Time: 1630	(Printed) 1630	(Printed) 1630	(Printed)	Time:	(Printed)
Remarks: Results TO Don LePage & Hilton H.	Condition of Samples: Acceptable: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Comments:		Page 1 of 4	



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ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

Edition: October 2009
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PROJECT NUMBER

266325.0000.0001

PROJECT NAME

Newgate Prison & Copper Museum
 (yellow cottage 114 Newgate Rd)

INSPECTOR

Hilton Hernandez

SIGNATURE

LAB ID #.

49459

TURNAROUND TIME

PLM:	8hr	24hr	48hr	x	3day
TEM:	24hr	48hr	3day		5day

PARAMETERS

PLM EPA 600/R93/116 (POSITIVE STOP)	X
PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	X
ANALYZE BY LAYER	
POINT COUNT (IF > 1% & < 10%)	
TEM NY NOR 198.4 (IF PLM SERIES NEG)	

MATERIAL

FIELD SAMPLE NUMBER	DATE	TIME	TYPE		SAMPLE LOCATION	MATERIAL
			COMP	GRAB		
12	11/10/16	1405	X	X	Living room	DWG1- Off white door window glaze
13	11/10/16	1406	X	X	Living room	DWG1- Off white door window glaze
14	11/10/16	1335	X	X	Furness	FG1- Grey port furnace gasket
15	11/10/16	1335	X	X	Furness	FG1- Grey port furnace gasket
16	11/10/16	1337	X	X	Furness	FG2- Grey fire hole gasket
17	11/10/16	1338	X	X	Furness	FG2- Grey fire hole gasket
18	11/10/16	1412	X	X	Living room	DS1- Black door jamb sealant
19	11/10/16	1413	X	X	Living room	DS1- Black door jamb sealant
20	11/10/16	1358	X	X	Kitchen	LJN1- White square w/ grey diamond linoleum
21	11/10/16	1358	X	X	Kitchen	LJN1- White square w/ grey diamond linoleum
22	11/10/16	1400	X	X	Kitchen	LJN2- Brown flower pattern linoleum

Relinquished by: (Signature)

[Signature]

Date:

11/14/16

Received by: (Signature)

[Signature]

Date:

11/14/16

Relinquished by: (Signature)

[Signature]

Date:

Received by: (Signature)

[Signature]

(Printed)

Hilton Hernandez

Time:

1630

(Printed)

[Signature]

Time:

1630

(Printed)

[Signature]

Time:

(Printed)

[Signature]

Remarks:

Condition of Samples:
 Acceptable: Yes No
 Comments:



21 GRIFFIN ROAD NORTH
 WINDSOR, CONNECTICUT 06095
 TELEPHONE (860) 298-9692
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ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

Edition: October 2009
 Supersede Previous Edition

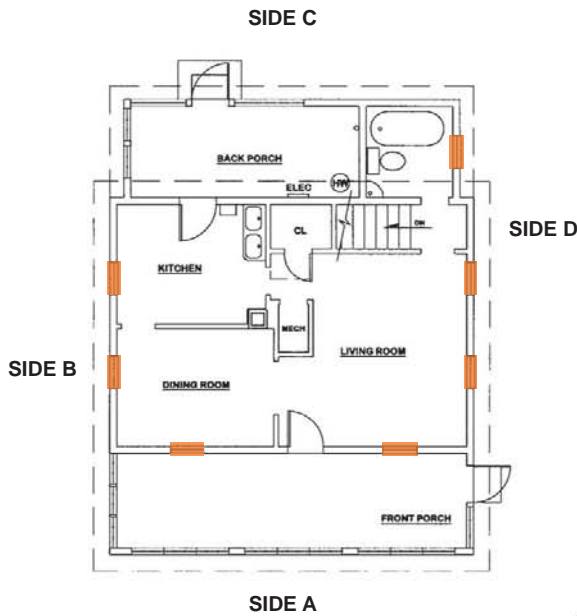
LAB ID #. 49459

PROJECT NUMBER 266325.0000.0001		PROJECT NAME Newgate Prison & Copper Museum (yellow cottage 114 Newgate Rd)		PARAMETERS		TURNAROUND TIME	
SIGNATURE 		INSPECTOR Hilton Hernandez		PLM EPA 600/R93/116 (POSITIVE STOP)		8hr	
				PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)		24hr	
				ANALYZE BY LAYER		48hr	
				POINT COUNT (IF >1% & <10%)		48hr	
				TEM NY NOR 198.4 (IF PLM SERIES NEG)		3day	
						3day	
						5day	
				MATERIAL			
FIELD SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION			
34	11/10/16	1445	X	Exterior B side		VB1 - Black vapor barrier	
35	11/10/16	1445	X	Exterior B side		VB1 - Black vapor barrier	

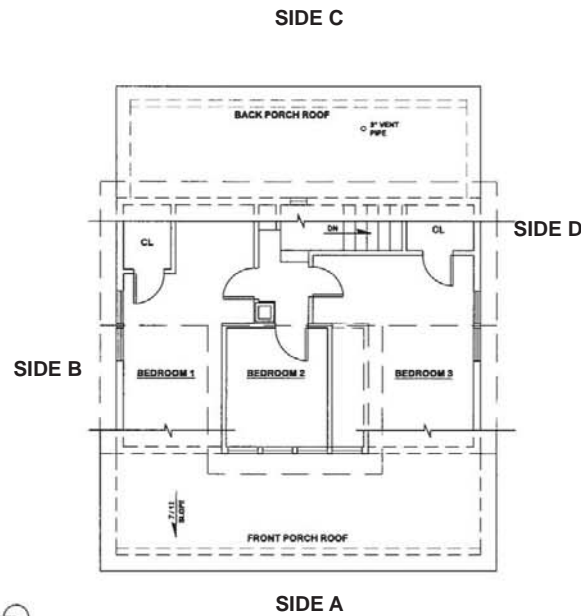
Relinquished by: (Signature) 	Date: 11/14/16	Received by: (Signature) 	Date: 11/14/16
(Printed) Hilton Hernandez	Time: 1630	(Printed) 	Time: 1630
Remarks:		Condition of Samples: Acceptable: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
		Comments:	
		Page 4 of 4	

PLM Gravimetric Analysis

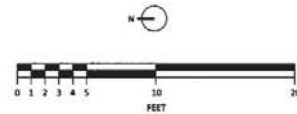
Date	Analyst	Lab Log #	Sample ID	Crucible ID	g crucible	g crucible plus sample	g after 480°	decimal Residue	% Asb in residue	% Asb total Sample
4/16/2016	KW	49459	7	48	20.62	20.7556	20.7376	0.867	0.00	0.00
			9	49	20.3764	20.7457	20.6916	0.854	Trace	#VALUE!
			13	51	19.017	19.0796	19.0742	0.914	0.00	0.00
			19	52	18.8232	19.133	19.0346	0.682	0.00	0.00
			21	53	17.5063	17.5665	17.5345	0.468	0.00	0.00
			23	54	18.5935	18.6518	18.6256	0.551	0.00	0.00
			25Lin	55	20.5342	20.625	20.5843	0.552	0.00	0.00
			27	56	23.5035	23.5843	23.5709	0.834	0.00	0.00
			29	57	20.386	20.4226	20.4141	0.768	0.00	0.00
			31	58	21.3691	21.4396	21.4062	0.526	0.00	0.00
			33	59	22.2328	22.3264	22.3025	0.745	0.00	0.00
			35	60	23.6794	23.7453	23.7173	0.575	0.00	0.00



1 FIRST FLOOR PLAN
A-1.11 1/4" = 1'-0"



2 SECOND FLOOR PLAN
A-1.11 1/4" = 1'-0"



KEY

Window with ACM Caulk (WC1)

PROJECT: YELLOW COTTAGE FLOOR PLANS		STATE OF CONNECTICUT DEPARTMENT OF ADMINISTRATIVE SERVICES	
DRAWING PREPARED BY: TRC	DATE: 03/01/18	CHECKED BY: JG	
PROJECT: OLD NEWGATE PRISON AND COPPER MINE MUSEUM ROOF(S) REPLACEMENT AND EXTERIOR RENOVATIONS EAST GRANBY, CT		DESIGNED BY: DL	DRAWING NO.: ASB-1
REVISIONS		SCALE:	
NO.	DATE	DESCRIPTION	SCALE



Lead Based Paint Measurement Summary Table

Device(s):	Niton XLP301-A (Serial #25555) X Ray Fluorescence (XRF) Spectrum Analyzer
Site:	Newgate Prison & Copper Museum - Viets Tavern, Yellow Cottage & White Cottage, Newgate Road, East Granby, Connecticut
Project # :	266325-0000-0000 <i>(UPDATED 07-14-07 for Specifications)</i>
Date(s):	11/9/16-11/10/16
Inspector:	Hilton Hernandez (Lead Inspector #002231), David Heelon (Lead Inspector #002188)

Number	Room	Side	Structure	Feature	Material	Color	Condition	Reading (mg/cm2)	Precision (mg/cm2)	Depth Index	Duration (sec)	Date/Time
--------	------	------	-----------	---------	----------	-------	-----------	---------------------	-----------------------	----------------	-------------------	-----------

--	--	--	--	--	--	--	--	--	--	--	--	--

Yellow Cottage																
272	Shutter calibration											2.4	0.0		122.17	11/10/2016 10:04
273	0.7 calibration											0.6	0.2	1.1	2.99	11/10/2016 10:13
274	1.6 calibration											1.6	0.3	1.19	3	11/10/2016 10:13
275	3.5 calibration											3.2	0.6	1.25	2.31	11/10/2016 10:13
276	Front porch	A	Siding		Wood	Tan/Beige	Defective	12.0	1.9	3.38	3.91	11/10/2016 10:21				
277	Front porch	C	Siding		Wood	Tan/Beige	Defective	9.0	3.2	4.09	2.53	11/10/2016 10:22				
278	Front porch	A	Window	Casing	Wood	Tan/Beige	Defective	0.1	0.1	1.68	3	11/10/2016 10:23				
279	Front porch	C	Window	Casing	Wood	Tan/Beige	Defective	12.7	3.7	4.36	2.53	11/10/2016 10:24				
280	Front porch	C	Window	Sill	Wood	Tan/Beige	Defective	9.9	3.2	6.51	2.53	11/10/2016 10:25				
281	Front porch	B	Window	Casing	Wood	Tan/Beige	Defective	0.1	0.1	2.09	3	11/10/2016 10:26				
282	Front porch	B	Window	Sill	Wood	Tan/Beige	Defective	17.4	7.4	4.31	1.15	11/10/2016 10:26				
283	Front porch	--	Floor	--	Wood	Grey	Defective	4.0	1.0	2.57	2.53	11/10/2016 10:28				
284	Front porch	--	Ceiling	--	Wood	Brown Stai	Intact	0.1	0.1	1.06	1.16	11/10/2016 10:29				

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

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



Lead Based Paint Measurement Summary Table

Device(s):	Niton XLP301-A (Serial #25555) X Ray Fluorescence (XRF) Spectrum Analyzer											
Site:	Newgate Prison & Copper Museum - Viets Tavern, Yellow Cottage & White Cottage, Newgate Road, East Granby, Connecticut											
Project # :	266325-0000-0000 <i>(UPDATED 07-14-07 for Specifications)</i>											
Date(s):	11/9/16-11/10/16											
Inspector:	Hilton Hernandez (Lead Inspector #002231), David Heelon (Lead Inspector #002188)											
Number	Room	Side	Structure	Feature	Material	Color	Condition	Reading (mg/cm ²)	Precision (mg/cm ²)	Depth Index	Duration (sec)	Date/Time
285	Front porch	--	Ceiling	--	Wood	Brown Stai	Intact	0.0	0.1	1	0.69	11/10/2016 10:29
286	Front porch	--	Ceiling	--	Wood	Brown Stai	Intact	0.1	0.1	1.49	1.83	11/10/2016 10:29
287	Front porch	C	Door	--	Wood	Pink	Defective	0.1	0.1	2.04	2.99	11/10/2016 10:31
288	Front porch	C	Door	Jamb	Wood	Tan/Beige	Defective	9.8	3.0	4.02	2.99	11/10/2016 10:32
289	Front porch	--	Door	Threshold	Wood	Grey	Defective	0.3	0.1	3.39	3.88	11/10/2016 10:33
290	Living Room	A	Wall	--	Plaster	Tan/Beige	Intact	0.1	0.1	1.8	3.45	11/10/2016 10:35
291	Living Room	D	Wall	--	Plaster	Tan/Beige	Intact	0.1	0.1	2.06	3.44	11/10/2016 10:36
292	Living Room	A	Door	--	Wood	Green	Intact	0.2	0.2	4.11	2.98	11/10/2016 10:37
293	Living Room	D	Wall	Baseboard	Wood	Tan/Beige	Intact	0.1	0.7	8.02	4.12	11/10/2016 10:39
294	Living Room	D	Window	Sill	Wood	Tan/Beige	Defective	0.2	0.2	2.71	3	11/10/2016 10:40
295	Living Room	D	Window	Sash int	Wood	Tan/Beige	Defective	3.5	0.9	5.79	5.29	11/10/2016 10:41
296	Living Room	D	Window	Casing	Wood	Tan/Beige	Intact	0.2	0.2	3.76	3	11/10/2016 10:42
297	Living Room	--	Ceiling	--	Panel	Tan/Beige	Intact	0.9	1.2	10	1.61	11/10/2016 10:44
298	Living Room	--	Ceiling	--	Panel	Tan/Beige	Intact	3.1	1.2	10	3.2	11/10/2016 10:44
299	Living Room	C	Door	--	Wood	Green	Intact	0.2	0.2	3.82	2.99	11/10/2016 10:46
300	Dining Room	A	Wall	--	Sheetrock	Green	Intact	0.0	0.1	2.15	2.99	11/10/2016 10:50
301	Dining Room	B	Wall	--	Sheetrock	Green	Intact	0.0	0.1	3.05	3	11/10/2016 10:51
302	Dining Room	B	Window	Casing	Wood	Green	Intact	0.1	0.2	3.4	3	11/10/2016 10:52
303	Dining Room	B	Window	Sill	Wood	Green	Defective	0.2	0.2	4.31	2.98	11/10/2016 10:52
304	Dining Room	B	Window	Sash int	Wood	Green	Defective	0.1	0.1	2.79	3	11/10/2016 10:53
305	Dining Room	--	Ceiling	--	Sheetrock	White	Intact	1.3	0.4	10	24.29	11/10/2016 10:55
306	Dining Room	--	Ceiling	--	Sheetrock	White	Intact	1.1	0.5	10	14.07	11/10/2016 10:56
307	Kitchen	B	Wall	--	Sheetrock	Green	Intact	2.0	0.8	6.68	5.55	11/10/2016 10:58
308	Kitchen	A	Wall	--	Sheetrock	Green	Intact	0.3	0.1	4.05	4.37	11/10/2016 10:58
309	Kitchen	C	Door	--	Wood	Green	Intact	3.7	2.0	10	2.99	11/10/2016 10:59
310	Kitchen	C	Door	Casing	Wood	Green	Intact	3.9	2.4	10	2.29	11/10/2016 11:00
311	Kitchen	C	Door	Cupboard	Wood	Green	Intact	0.0	0.0	2.1	3.01	11/10/2016 11:01
312	Kitchen	D	Door	Cupboard	Wood	Green	Intact	0.0	0.0	1	3	11/10/2016 11:01
313	Kitchen	A	Wall	Baseboard	Wood	Green	Intact	3.3	0.9	9.84	5.5	11/10/2016 11:03
314	Kitchen	--	Ceiling	--	Sheetrock	White	Intact	0.2	0.6	10	5.75	11/10/2016 11:04
315	Kitchen	B	Window	Casing	Wood	Green	Intact	0.7	0.2	7.81	14.28	11/10/2016 11:06
316	Kitchen	B	Window	Sill	Wood	Green	Intact	2.8	1.1	10	3.91	11/10/2016 11:06

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

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



Lead Based Paint Measurement Summary Table

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Project # :	266325-0000-0000 <i>(UPDATED 07-14-07 for Specifications)</i>											
Date(s):	11/9/16-11/10/16											
Inspector:	Hilton Hernandez (Lead Inspector #002231), David Heelon (Lead Inspector #002188)											
Number	Room	Side	Structure	Feature	Material	Color	Condition	Reading (mg/cm2)	Precision (mg/cm2)	Depth Index	Duration (sec)	Date/Time
317	Kitchen	B	Window	Sash int	Wood	Green	Intact	5.1	3.2	10	1.62	11/10/2016 11:07
318	Bottom of stairs	D	--	--	Sheetrock	Grey	Intact	0.1	0.7	2.07	6.21	11/10/2016 11:11
319	Bottom of stairs	D	Wall	Baseboard	Wood	Grey	Intact	0.0	0.0	1.42	3	11/10/2016 11:12
320	Bath 1	D	Door	--	Wood	Pink	Defective	0.1	0.4	3.85	0.46	11/10/2016 11:13
321	Bath 1	D	Door	--	Wood	Pink	Defective	0.5	0.4	9.77	10.56	11/10/2016 11:14
322	Bath 1	D	Door	Casing	Wood	Pink	Intact	0.1	0.1	2.59	3	11/10/2016 11:15
323	Bath 1	D	Door	Jamb	Wood	Pink	Intact	0.1	0.1	2.93	3	11/10/2016 11:15
324	Bath 1	B	Door	--	Wood	Blue	Intact	2.4	0.8	10	5.06	11/10/2016 11:16
325	Bath 1	C	Wall	--	Sheetrock	Blue	Intact	1.5	0.4	3.73	18.18	11/10/2016 11:18
326	Bath 1	D	Wall	--	Sheetrock	Blue	Intact	0.5	0.1	4.48	30	11/10/2016 11:20
327	Bath 1	D	Wall	--	Sheetrock	Blue	Intact	1.4	0.4	5.28	25.58	11/10/2016 11:22
328	Bath 1	D	Window	Casing	Wood	Blue	Intact	2.1	0.8	10	5.53	11/10/2016 11:23
329	Bath 1	D	Window	Sill	Wood	Blue	Intact	2.2	1.0	10	3.67	11/10/2016 11:23
330	Bath 1	--	Ceiling	--	Wood	White	Intact	1.6	0.5	10	13.32	11/10/2016 11:26
331	Bedroom 1	B	Wall	--	Wood	Grey	Intact	0.2	0.1	2.81	3.23	11/10/2016 11:38
332	Bedroom 1	D	Wall	--	Wood	Grey	Intact	0.3	0.1	3.43	5.07	11/10/2016 11:38
333	Bedroom 1	D	Door	--	Wood	Green	Intact	0.2	0.1	2.11	2.99	11/10/2016 11:39
334	Bedroom 1	B	Door	--	Wood	Black	Intact	0.0	0.0	1	2.99	11/10/2016 11:40
335	Bedroom 1	A	Door	Jamb	Wood	White	Defective	0.1	0.1	2.58	2.99	11/10/2016 11:41
336	Bedroom 1	B	Window	Casing	Wood	Green	Defective	0.1	0.2	7.25	2.99	11/10/2016 11:42
337	Bedroom 1	B	Window	Sill	Wood	Green	Defective	0.1	0.2	4.85	3	11/10/2016 11:43
338	Bedroom 1	D	Closet	Wall	Wood	Tan/Beige	Intact	0.1	0.0	1.26	5.09	11/10/2016 11:47
339	Bedroom 1	--	Ceiling	--	Wood	Green	Defective	0.1	0.1	3.2	2.99	11/10/2016 11:48
340	Bedroom 2	B	Wall	--	Wood	Red	Intact	0.1	0.1	1.77	3	11/10/2016 11:51
341	Bedroom 2	C	Wall	--	Wood	Red	Intact	0.2	0.2	3.09	2.99	11/10/2016 11:51
342	Bedroom 2	C	Door	--	Wood	Red	Intact	0.1	0.1	3.84	3.46	11/10/2016 11:53
343	Bedroom 2	A	Window	Casing	Wood	Black	Intact	0.1	0.1	2.12	2.99	11/10/2016 11:54
344	Bedroom 2	A	Window	Sill	Wood	Black	Intact	0.1	0.1	1.73	2.99	11/10/2016 11:54
345	Bedroom 2	A	Window	Sash int	Wood	Black	Intact	0.1	0.1	2.11	3	11/10/2016 11:55
346	Bedroom 2	--	Ceiling	--	Wood	Black	Intact	0.1	0.1	2.21	2.98	11/10/2016 11:56
347	Bedroom 2	--	Floor	--	Wood	Grey	Intact	0.0	0.1	1.76	2.99	11/10/2016 11:56
348	Bedroom 3	B	Wall	--	Wood	Blue	Intact	0.1	0.1	2.48	3	11/10/2016 12:00

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

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



Lead Based Paint Measurement Summary Table

Device(s):	Niton XLP301-A (Serial #25555) X Ray Fluorescence (XRF) Spectrum Analyzer											
Site:	Newgate Prison & Copper Museum - Viets Tavern, Yellow Cottage & White Cottage, Newgate Road, East Granby, Connecticut											
Project # :	266325-0000-0000 <i>(UPDATED 07-14-07 for Specifications)</i>											
Date(s):	11/9/16-11/10/16											
Inspector:	Hilton Hernandez (Lead Inspector #002231), David Heelon (Lead Inspector #002188)											
Number	Room	Side	Structure	Feature	Material	Color	Condition	Reading (mg/cm2)	Precision (mg/cm2)	Depth Index	Duration (sec)	Date/Time
349	Bedroom 3	C	Wall	--	Wood	Blue	Intact	0.1	0.1	2.83	2.99	11/10/2016 12:01
350	Bedroom 3	D	Window	Casing	Wood	Blue	Intact	0.2	0.2	4.78	2.99	11/10/2016 12:02
351	Bedroom 3	D	Window	Sill	Wood	Blue	Defective	0.2	0.2	2.78	2.98	11/10/2016 12:02
352	Bedroom 3	--	Floor	--	Wood	Grey	Defective	0.0	0.1	4.16	2.99	11/10/2016 12:03
353	Bedroom 3	--	Ceiling	--	Wood	White	Intact	0.0	0.1	1.64	3.22	11/10/2016 12:04
354	Bedroom 3	C	Closet	Wall	Wood	Pink	Intact	0.0	0.0	1.17	4.6	11/10/2016 12:06
355	Back Porch	A	Wall	--	Wood	Red	Intact	8.4	2.9	8.71	2.76	11/10/2016 13:22
356	Back Porch	C	Window	Sill	Wood	Brown	Intact	0.0	0.0	1	2.99	11/10/2016 13:24
357	Back Porch	--	Floor	--	Wood	Grey	Intact	0.1	0.1	1	2.98	11/10/2016 13:25
358	Back Porch	A	Door	--	Wood	Grey	Intact	4.1	2.2	9.64	2.29	11/10/2016 13:26
359	Back Porch	A	Door	Casing	Wood	White	Intact	10.8	4.0	10	2.07	11/10/2016 13:26
360	Back Porch	A	Door	Threshold	Wood	Grey	Intact	0.1	0.1	1.26	2.98	11/10/2016 13:27
361	Exterior	A	Siding	--	Wood	Tan/Beige	Defective	0.4	0.2	3.09	3	11/10/2016 13:34
362	Exterior	B	Siding	--	Wood	Tan/Beige	Defective	8.3	2.8	6.29	2.98	11/10/2016 13:34
363	Exterior	C	Siding	--	Wood	Tan/Beige	Defective	4.2	1.1	7.55	3.21	11/10/2016 13:35
364	Exterior	C	Door	--	Wood	Tan/Beige	Defective	0.0	0.0	1	2.99	11/10/2016 13:35
365	Exterior	D	Siding	--	Wood	Tan/Beige	Defective	0.4	0.1	3.51	4.37	11/10/2016 13:36
366	Exterior	D	Window	Sash	Wood	Tan/Beige	Defective	2.1	0.5	4.87	3.68	11/10/2016 13:38
367	Exterior	A	Window	Sash	Wood	Tan/Beige	Defective	3.3	1.5	4.6	1.61	11/10/2016 13:38
368	Exterior	A	Window	Sill	Wood	Tan/Beige	Defective	3.0	1.7	7.6	2.54	11/10/2016 13:39

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

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



EMSL Analytical, Inc.

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Tel/Fax: (203) 284-5948 / (203) 284-5978
http://www.EMSL.com / wallingfordlab@emsl.com

EMSL Order: 241604750
Customer ID: TRC51
Customer PO: 266325C
Project ID:

Attn: Hilton Hernandez
TRC Environmental Consultants
21 Griffin Road North
Windsor, CT 06095
Phone: (860) 298-9692
Fax: (860) 298-6399
Collected: 11/14/2016
Received: 11/15/2016
Analyzed: 11/18/2016
Project: 266325.0001

Test Report: Air-O-Cell™ Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods EMSL 05-TP-003, ASTM D7391)

Lab Sample Number:	241604750-0001			241604750-0002			241604750-0003		
Client Sample ID:	ST-01			ST-02			ST-03		
Volume (L):	75			75			75		
Sample Location	114 Newgate Rd. outside rear			114 Newgate Rd. kitchen 1st floor			114 Newgate Rd. rear bedroom 2nd		
Spore Types	Raw Count	Count/m ³	% of Total	Raw Count	Count/m ³	% of Total	Raw Count	Count/m ³	% of Total
Alternaria	2	80	3.8	4	200	2.8	9	400	6.9
Ascospores	1	40	1.9	2	80	1.1	9	400	6.9
Aspergillus/Penicillium	2	80	3.8	27	1100	15.4	17	700	12.1
Basidiospores	7	300	14.4	10	410	5.7	27	1100	19
Bipolaris++	1	40	1.9	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	40	0.7
Cladosporium	15	620	29.8	81	3300	46.1	49	2000	34.6
Curvularia	-	-	-	1	40	0.6	-	-	-
Epicoccum	5	200	9.6	5	200	2.8	2	80	1.4
Ganoderma	-	-	-	-	-	-	6	200	3.5
Myxomycetes++	9	400	19.2	14	570	8	3	100	1.7
Pithomyces	4	200	9.6	1	40	0.6	7	300	5.2
Rust	-	-	-	5	200	2.8	2	80	1.4
Stachybotrys	-	-	-	-	-	-	-	-	-
Torula	-	-	-	2	80	1.1	2	80	1.4
Unidentifiable Spores	-	-	-	3	100	1.4	2	80	1.4
Arthrinium	-	-	-	1	40	0.6	3	100	1.7
Bispora	-	-	-	-	-	-	1	40	0.7
Nigrospora	1	40	1.9	-	-	-	-	-	-
Paecilomyces	-	-	-	16	660	9.2	-	-	-
Pestalotia	-	-	-	1	40	0.6	-	-	-
Polyschema	-	-	-	-	-	-	1	40	0.7
Spegazzinia	2	80	3.8	3	100	1.4	1	40	0.7
Total Fungi	49	2080	100	176	7160	100	142	5780	100
Hyphal Fragment	6	200	-	5	200	-	13	530	-
Insect Fragment	-	-	-	1	40	-	1	40	-
Pollen	-	-	-	4	200	-	2	80	-
Analyt. Sensitivity 600x	-	41	-	-	41	-	-	41	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	2	-	-	3	-	-	3	-

Bipolaris++ = Bipolaris/Drechslera/Exserohilum
Myxomycetes++ = Myxomycetes/Periconia/Smut

Gloria V. Oriol, Laboratory Manager
or other approved signatory

No discernable field blank was submitted with this group of samples.

High levels of background particulate can obscure spores and other particulates leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. Results are not blank corrected unless otherwise noted. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. "" Denotes particles found at 300X. "-" Denotes not detected. Due to method stopping rules, raw counts in excess of 100 are extrapolated based on the percentage analyzed. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted.

Samples analyzed by EMSL Analytical, Inc. Wallingford, CT AIHA-LAP, LLC--EMLAP Lab 165118

Initial report from: 11/18/2016 09:56:28

For information on the fungi listed in this report, please visit the Resources section at www.emsl.com



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Phone: (860) 298-9692
Fax: (860) 298-6399
Collected: 11/14/2016
Received: 11/15/2016
Analyzed: 11/18/2016
Project: 266325.0001

Test Report: Air-O-Cell™ Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods EMSL 05-TP-003, ASTM D7391)

Lab Sample Number:	241604750-0004		
Client Sample ID:	ST-04		
Volume (L):	75		
Sample Location	114 Newgate Rd. outside rear		
Spore Types	Raw Count	Count/m ³	% of Total
Alternaria	3	100	5.9
Ascospores	1	40	2.4
Aspergillus/Penicillium	3	100	5.9
Basidiospores	11	450	26.6
Bipolaris++	-	-	-
Chaetomium	-	-	-
Cladosporium	7	300	17.8
Curvularia	-	-	-
Epicoccum	4	200	11.8
Ganoderma	-	-	-
Myxomycetes++	3	100	5.9
Pithomyces	3	100	5.9
Rust	1	40	2.4
Stachybotrys	-	-	-
Torula	3	100	5.9
Unidentifiable Spores	1	40	2.4
Arthrinium	-	-	-
Bispora	-	-	-
Nigrospora	1	40	2.4
Paecilomyces	-	-	-
Pestalotia	2	80	4.7
Polyschema	-	-	-
Spegazzinia	-	-	-
Total Fungi	43	1690	100
Hyphal Fragment	2	80	-
Insect Fragment	-	-	-
Pollen	-	-	-
Analyt. Sensitivity 600x	-	41	-
Analyt. Sensitivity 300x	-	13*	-
Skin Fragments (1-4)	-	-	-
Fibrous Particulate (1-4)	-	-	-
Background (1-5)	-	2	-

Bipolaris++ = Bipolaris/Drechslera/Exserohilum
Myxomycetes++ = Myxomycetes/Periconia/Smut

Gloria V. Oriol, Laboratory Manager
or other approved signatory

No discernable field blank was submitted with this group of samples.

High levels of background particulate can obscure spores and other particulates leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. Results are not blank corrected unless otherwise noted. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. """" Denotes particles found at 300X. "-" Denotes not detected. Due to method stopping rules, raw counts in excess of 100 are extrapolated based on the percentage analyzed. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted.
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