ADDENDUM

Date August 30, 2024

To Prospective Bidders

Re Addendum No. 2 to the Construction Documents for:

State of Maine
Mackworth Island Renovations Phase 1
Falmouth, Maine
Project No. 23216

This Addendum forms a part of the Contract Documents and modifies the original Construction Documents dated July 30, 2024, and Addendum 1 dated August 23, 2024. Acknowledge receipt of this Addendum in the space provided in the Bid Form.

This Addendum consists of three pages, Specification sections Table of Contents, 004113, 012100, 028213, 028300 and drawings as listed on page three.

Harriman

Mark D. Lee, AIA, LEED AP
Principal, Architect, CEO

QUESTION AND ANSWERS

Q1 Detail B3 on Drawing A50-2 shows the piers for the wayfinding sign one dimensionally. We can't find a detail of this in plan view. Are these piers intended to be square with the above grade concrete portion measuring 16"x16"?

A1 See additional detail on reissued sheet A50-2 – GATE DETAILS.

Q2 A new concrete door pad is shown for Building K on the civil plans in plan view. The pads connection to the building is detailed on A4/A10-1, but this detail references the civil drawings for details. However, the details of the pad are not shown on C50-1. Please provide concrete pad size and any details required.

A2 See reissued Drawing S10-1 - FOUNDATION PLAN, SECTIONS AND TYPICAL DETAILS.

Q3 The causeway bridge to Mackworth Island is posted at 22 tons. Are any special permissions allowed for this project to deviate from this weight limit, such as if only one vehicle passes at a time?

A3 No. The causeway's 22 ton posted weight limit must be adhered to.

Q4 Specification 004113 Contractor Bid Form states No Allowances, but on the same page $55,000.00 is already entered. What allowance amount should be entered?

A4 See reissued Specifications Sections 004113 and 012100.

Q5 Specification 012100 Allowances lists two items. The first is $5,000 for misc. metals to support gate hinges. The second is $15,000 for signage. However, item 2 mentions Add alternate 2. Is the $15,000 for signage and allowance or an add alternate?

A5 See reissued Specifications Section 004113 and Drawing A50-2 – GATE DETAILS for clarification.

Q6 Specification 012200 Unit Prices Form is a list of sitework unit prices. Are we required to fill out this form as part of this bid?

A6 Yes.

Q7 Site Photograph-Photograph #16 details loose and damaged 9" ACM tile under carpet on the second floor

A7 Reference Summary of ACM Identified table on page 4 of the RPF report. Item HG6.

Q8 These materials are not included in the ACM Summary Report. Can quantities for the ACM floor tiles in Building B be provided?

A8 Reference Summary of ACM Identified table on page 5 of the RPF report. Item HG24.

Q9 These materials are not included in the ACM Summary Report. Can quantities for the ACM floor tiles in Building B be provided?

A9 The Contractor is responsible for verifying quantities.

Q10 General Note #4 on Sheets H10-1, H10-2, H10-3, and H10-4 appears incomplete.

A10 General Note #4 on the listed sheets has been deleted in this Addendum.

Q11 Who is the existing on-site fiber vendor?

A11 The vendor is Business Communications of Maine. The account representative is Dave Blue. All work related to the existing fiber line should include coordination with this vendor prior to start of work. Dave Blue's contact information:

Office 800-939-0439 X703
Cell 207-329-4382
Email: Dblue@bcmaine.com

INFORMATION AVAILABLE TO BIDDERS

1. Prebid Meeting Attendance Form. Reissued and supersedes Addendum 1

CHANGES TO SPECIFICATIONS

1. TABLE OF CONTENTS
   a. Revised and reissued with this addendum.

2. SECTION 004113 – CONTRACTOR BIDDER FORM
   a. Revised and reissued with this addendum.

3. SECTION 012100 - ALLOWANCES
   a. Revised and reissued with this addendum.

4. SECTION 028213 - ASBESTOS ABATEMENT AND RELATED WORK
   a. Revised and reissued with this addendum.

5. SECTION 028300 – LEAD REMEDIATION
   a. Revised and reissued with this addendum.

CHANGES TO DRAWINGS

1. DRAWING H10-1 – SAMPLE LOCATIONS – BUILDING B
   a. Delete General Note #4 in its entirety.

2. DRAWING H10-2 – SAMPLE LOCATIONS – BUILDING G
   a. Delete General Note #4 in its entirety.

3. DRAWING H10-3 – CAULKING SAMPLE LOCATIONS- BUILDING B
   a. Delete General Note #4 in its entirety.

4. DRAWING H10-4 – CAULKING SAMPLE LOCATIONS – BUILDING G
   a. Delete General Note #4 in its entirety.

DRAWINGS REVISED AND REISSUED WITH THIS ADDENDUM, DATED 08-30-2024:

1. DRAWING C10-2 EXISTING SITE CONDITIONS AND DEMOLITION PLAN
2. DRAWING C30-2 SITE GRADING AND EROSION CONTROL PLAN
3. DRAWING S10-1 FOUNDATION PLAN, SECTIONS AND TYPICAL DETAILS
4. DRAWING A10-1 BUILDING K DEMOLITION & INFILL PLANS
5. DRAWING A50-1 GATEWAY PLAN & FRONT ELEVATION
6. DRAWING A50-2 GATE DETAILS

Harriman

PRE-BID MEETING ATTENDANCE FORM

Please print legibly

Project Name: State of Maine, Mackworth Island, Renovations Phase 1 (BGS #3675)
Project No.: 23216

	NAME	COMPANY	BUSINESS PHONE	E-MAIL
1.	Joe Gammon	Joe Gammon and Sons	207-956-3720	joegammonandsons@gmail.com
2.	Josh White	Gendron & Gendron	207-782-7372	josh@gendroncorp.com
3.	Tyler Coffin	Doten's Construction	207-233-9005	tyler@dotens.com
4.	Matt Dalt	CCB	207-887-3230	mdalt@ccb-inc.com
5.	Brendan Whalen	RJ Grondin	207-854-1147	estimators@rjgrodin.com
6.	Kevin Freeman	Landry/French	207-650-8649	kfreeman@landryfrench.com
7.	Anthony Mancini	Mancini Electric	207-774-5829	gmancini@mancinielectric.com
8.	Annette Bourque	Neokraft Signs	207-705-4088	annette@neokraft.com
9.	Matt Ragué	Benchmark	207-671-3422	krice@benchmarkconstruction.com
10.	Nick Duncan	Optimum	207-469-5527	nduncan@optimumconstruction.com
11.	Deirdre Wadsworth	Hardypond Construction	207-450-2212	deidre@hardypond.com
12.	Alex Hatch	EJ Perry Construction	207-691-1846	ahatch@ejperry.com
13.	Trevor Lawrence	Lakeside CC & AP	207-712-5365	tlawrence@lakesideap.com
14.	John Weeks	Nelson Property Services	207-650-3483	jweeks@npsmaine.com
15.	Peter Jabbusch	Atlantic Environmental	207-740-6743	pjabbusch@gecne.net
16.				
17.				

STATE OF MAINE
MACKWORTH ISLAND RENOVATIONS
PHASE 1
FALMOUTH, MAINE
TABLE OF CONTENTS

LIST OF DRAWINGS

00 41 13
Contractor Bid Form

Mackworth Island Renovations Phase 1 - MOLI Pavilion BGS Project #3675

Bid Form submitted by: *email only to email address below*

Bid Administrator:
Attn: Deane Rykerson BGS.Architect@Maine.gov
Maine Bureau of General Services
77 State House Station
Augusta, ME 04332

Bidder:

Signature: _____

Printed name and title: _____

Company name: _____

Mailing address: _____

City, state, zip code: _____

Phone number: _____

Email address: _____

State of incorporation, if a corporation: _____

List of all partners, if a partnership: _____

The Bidder agrees, if the Owner offers to award the contract, to provide any and all bonds and certificates of insurance, as well as Schedule of Values, Project Schedule, and List of Subcontractors and Suppliers if required by the Owner, and to sign the designated Construction Contract within twelve calendar days after the date of notification of such acceptance, except if the twelfth day falls on a State of Maine government holiday or other closure day, or a Saturday, or a Sunday, in which case the aforementioned documents must be received before 12:00 noon on the first available business day following the holiday, other closure day, Saturday, or Sunday.

As a guarantee thereof, the Bidder submits, together with this bid, a bid bond or other acceptable instrument as and if required by the Bid Documents.

00 41 13
Contractor Bid Form

1. The Bidder, having carefully examined the *Mackworth Island Renovations Phase 1* Project Manual dated *July 30, 2024*, prepared by *Harriman*, as well as Specifications, Drawings, and any Addenda, the form of contract, and the premises and conditions relating to the work, proposes to furnish all labor, equipment and materials necessary for and reasonably incidental to the construction and completion of this project for the **Base Bid** amount of:

   $ _____ .00

2. Allowances *are included* on this project.
   Bid amount above includes the following Allowances
   Allowance No. 1: Gate support miscellanious metals. $ *5,000*.00

3. Alternate Bids *are included* on this project.
   Alternate Bids are as shown below
   Any dollar amount line below that is left blank by the Bidder shall be read as a bid of **$0.00**.

   1 Add Alternate No. 1: Mansion Chimney Repair $ _____ .00

   2 Add Alternate No. 2: Wayfinding Signage $ _____ .00

   3 Not Used $ _____ .00

   4 Not Used $ _____ .00

4. Bid security *is required* on this project.
   If noted above as required, or if the Base Bid amount exceeds $125,000.00, the Bidder shall include with this bid form a satisfactory Bid Bond (section 00 43 13) or a certified or cashier's check for 5% of the bid amount with this completed bid form submitted to the Owner.

5. Filed Sub-bids *are not required* on this project.
   If noted above as required, the Bidder shall include with this bid form a list of each Filed Sub-bidder selected by the Bidder on the form provided (section 00 41 13F).

SECTION 012100 - ALLOWANCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements governing allowances.

B. Types of allowances include the following:
   1. Lump-sum allowances.
   2. Unit-cost allowances.
   3. Quantity allowances.
   4. Contingency allowances.

C. Related Requirements:
   1. Section 012600 "Contract Modification Procedures" for procedures for submitting and handling Change Orders.
   2. Section 014000 "Quality Requirements" for procedures governing the use of allowances for field testing by an independent testing agency.

1.3 DEFINITIONS

A. Allowance: A quantity of work or dollar amount included in the Contract, established in lieu of additional requirements, used to defer selection of actual materials and equipment to a later date when direction will be provided to Contractor. If necessary, additional requirements will be issued by Change Order.

1.4 SELECTION AND PURCHASE

A. At the earliest practical date after award of the Contract, advise Architect of the date when final selection, or purchase and delivery, of each product or system described by an allowance must be completed by the Owner to avoid delaying the Work.

B. At Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.

C. Purchase products and systems selected by Architect from the designated supplier.

1.5 ACTION SUBMITTALS

A. Submit proposals for purchase of products or systems included in allowances in the form specified for Change Orders.

1.6 INFORMATIONAL SUBMITTALS

A. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.

B. Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance.

C. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.7 LUMP-SUM ALLOWANCES

A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance and shall include taxes, freight[**,**] and delivery to Project site.

B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner or selected by Architect under allowance shall be included as part of the Contract Sum and not part of the allowance.

C. Unused Materials: Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.
   1. If requested by Architect, retain and prepare unused material for storage by Owner. Deliver unused material to Owner's storage space as directed.

1.8 UNIT-COST ALLOWANCES

A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance and shall include taxes, freight**,** and delivery to Project site.

B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner or selected by Architect under allowance shall be included as part of the Contract Sum and not part of the allowance.

C. Unused Materials: Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.
   1. If requested by Architect, retain and prepare unused material for storage by Owner. Deliver unused material to Owner's storage space as directed.

1.9 QUANTITY ALLOWANCES

A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance and shall include taxes, freight**,** and delivery to Project site.

B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner or selected by Architect under allowance shall be included as part of the Contract Sum and not part of the allowance.

C. Unused Materials: Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.
   1. If requested by Architect, retain and prepare unused material for storage by Owner. Deliver unused material to Owner's storage space as directed.

1.10 CONTINGENCY ALLOWANCES

A. Contractor's overhead, profit, and related costs for products and equipment ordered by Owner under the contingency allowance are included in the allowance and are not part of the Contract Sum. These costs include delivery, installation, taxes, insurance, equipment rental, and similar costs.

B. Change Orders authorizing use of funds from the contingency allowance will include Contractor's related costs and reasonable overhead and profit.

C. At Project closeout, credit unused amounts remaining in the contingency allowance to Owner by Change Order.

1.11 ADJUSTMENT OF ALLOWANCES

A. Allowance Adjustment: To adjust allowance amounts, prepare a Change Order proposal based on the difference between purchase amount and the allowance, multiplied by final measurement of work-in-place where applicable. If applicable, include reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, required maintenance materials, and similar margins.
   1. Include installation costs in purchase amount only where indicated as part of the allowance.
   2. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other markups.
   3. Do not include Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of Work has changed from what could have been foreseen from information in the Contract Documents.
   4. No change to Contractor's indirect expense is permitted for selection of higher- or lower-priced materials or systems of the same scope and nature as originally indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES

A. Allowance No. 1: Lump-Sum Allowance: Include the sum of $5,000.00 for miscellaneous metals required to support gate hinge attachment to masonry gateway.
   1. This allowance includes material, receiving, handling, and installation costs, and Contractor overhead and profit.

END OF SECTION 012100

SECTION 02 82 13

ASBESTOS ABATEMENT & RELATED WORK

MACKWORTH ISLAND, GOVERNOR BAXTER SCHOOL FOR THE DEAF
BUILDING B, YOUNG HALL
BUILDING G, CARTER HALL
CONNECTOR G-K STRUCTURE
FALMOUTH, ME

Contents

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. General provisions of the Contract, including General and Supplementary Conditions and Other Abatement Specification Sections, apply to the work of each of the Specification Sections.

B. This section addresses abatement of asbestos-containing material (ACM) only.

C. Related Work: The following items are closely related to this work but not included in this Section and shall be performed under the designated Sections.

1. Building B (Young Hall): A05-1B
2. Building G (Carter Hall): A05-1G
3. Demolition Roof Plan: A05-2
4. Connector-to-Building K Demolition: A10-1

1.2 PROJECT SCOPE-OF-WORK

A. General: Furnish all labor, materials, equipment and perform all work required to safely remove, and otherwise abate as indicated herein, transport, and legally dispose of all asbestos-containing materials (ACM). The scope of work includes the removal, transport, and disposal of designated ACM at the Mackworth Island, Governor Baxter School for the Deaf located at Andrews Avenue in Falmouth, Maine. All work is to be completed in accordance with the schedules stated herein, in the Contract Documents, and as designated by the Owner. It is essential that all work be phased and scheduled as required to facilitate Owner's renovation and upgrade work. All work is to be completed in strict accordance with applicable local, Maine (State), and federal codes and regulations and the requirements stated in this specification and Contract Documents.

B. Table 1 of Appendix A includes the listing of ACM to be removed, packaged, transported, and disposed of in accordance with the Contract Documents.

C. Reference full inspection reports for discussions and additional information and limitations of Owner survey. Quantities listed in Table 1 are approximate only and Contractor shall remove all ACM in the work areas.

D. The work areas have or may have other regulated or hazardous materials present that are not covered in the Section including but not limited to polychlorinated biphenyl (PCB)-containing materials, mercury, lead paint, guano, mold contamination, other hazardous materials, and universal waste. Contractor's OSHA-competent person shall also inspect the workplace for other potential hazardous building material during the work. If encountered during the work immediately notify Owner's Representative. Use only qualified, trained workers to remove, package, transport, and dispose (or recycle) of such material in strict compliance with all local, State, and Federal requirements.

1.3 WORK SCHEDULES

A. All work shall be completed in accordance with the schedule requirements as indicated by the Owner and as stated in the Contract Documents.

B. All work shall be strictly coordinated and scheduled by the Contractor as indicated by and approved by the Owner, the Owner's industrial hygiene consultant (IH Consultant), and the General Contractor. Work is to be phased as required to facilitate Owner operations, general occupancy of the site, and general construction activity. Contractor must provide proposed daily schedules to Owner and IH Consultant for each phase of work and each Owner work request. Adequate advance notice shall be provided to the Owner and the IH Consultant prior to any schedule changes. Start and completion dates for the work and specific phasing requirements not otherwise specified herein shall be submitted to Owner and IH Consultant for approval. Contractor shall update all State and EPA notifications and permits as needed for schedule modifications.

1.4 CONTRACTOR ESTIMATES

A. Estimates: Contractor shall conduct necessary field measurements and site review as deemed necessary by Contractor to delineate the scope of work and site conditions prior to submittal of bid. Contractor shall note on bid any discrepancies between Contractor field measurements and listings of work stated herein. It is the responsibility of the Contractor to verify all project information and site conditions as necessary to satisfy the Contractor as to the requirements of the work for each specific phase of the project. The Contractor must notify the Owner and the IH Consultant of any conflicting information or clarifications required for the preparation of any bids, estimates, and submittal documentation. Unless otherwise stated by the Owner, the Contractor is responsible for the removal of all designated ACM at Owner facility, so designated by the Owner.

1.5 EXISTING CONDITIONS

A. Prior to commencement of work, inspect areas in which work shall be performed. Prepare a listing and photographs of damage to structure, surfaces, finishes, insulations, and equipment that could be misconstrued as damage resulting from the work. The contractor is responsible for all damage to equipment, furnishings, finishes and building surfaces in the work area and adjacent caused by the Contractor during the course of abatement and general housecleaning. Contractor is responsible for completing all repairs to damaged items/surfaces caused by the work. In addition, Contractor must fully repair all tape, adhesive, and other staining and damage to meet or exceed existing conditions.

1.6 POTENTIAL ASBESTOS HAZARD

A. The work site contains ACM. Review all site survey reports and conduct ongoing inspections of the work areas to identify potential hazardous material that may be encountered. Provide OSHA competent person to supervise and review work procedures and conduct ongoing work area inspections. Train all affected personnel at the job site based on the hazards and hazardous material to be encountered, impacted, or disturbed including but not limited to ACM.

B. The disturbance or dislocation of ACM may cause asbestos fibers to be released into the building's atmosphere, thereby creating potential health hazards to workers, and building occupants. Apprise all employers on site, workers, supervisory personnel, subcontractors, and consultants who shall be at the job site of the seriousness of the hazards, other possible site hazards, and of proper work procedures that must be followed.

C. Where in the performance of the work, workers, supervisory personnel, subcontractors, or consultants may encounter, disturb, or otherwise function in the immediate vicinity of any identified asbestos-containing materials, take appropriate continuous measures as necessary to protect all building occupants from the potential hazard of exposure to airborne asbestos fibers and dust. Such measures shall include the procedures and methods described herein, and compliance with regulations of applicable federal, state, and local agencies.

D. Complete, and coordinate with Owner's Representative as applicable, all communication of hazards in strict accordance with 29 CFR 1926.1101 (k) and other applicable OSHA and State regulations. The contractor shall coordinate with the Owner's Representative to review all existing inspection records and testing results as needed. Ensure that complete inspections of the space and affected materials have been completed of copies of inspection reports have been provided to the Owner, Contractor site supervisor and other affected contractors and subcontractors at the site as applicable. All site personnel working in areas containing ACM shall be apprised of the locations, types, and quantities of ACM present and all such personnel shall be provided a minimum of asbestos awareness level training (for non-asbestos contractors) or additional training as indicated herein. In the event that other suspect material is encountered (or previously inaccessible spaces are accessed) that are not identified in the inspection report as having been properly inventoried and testing, then immediately cease work that would impact such materials and notify Owner's Representative such that proper testing and inspection can be performed.

1.7 CONTRACTOR USE OF PREMISES

A. General: The Contractor shall limit his use of the site to the work indicated, so as to allow for Owner operations and general construction activity. Confine operations at the site to the specified work areas of the Specification. Take all precautions necessary to protect the site, buildings, any occupants, and surrounding areas from work-related hazards during the construction period. Maintain building in a safe and structurally sound condition throughout the work. Maintain access to the public and other trades in designated areas (for example, stairwells) as indicated herein and as otherwise noted by Owner. Provide additional barriers and site security as needed to accommodate such access. Use care to prevent damage to existing surfaces during installation of solid barriers, critical barriers, and primary isolation barriers.

B. Install solid barriers to prevent unauthorized access and visibility from adjacent, public, or Owner-occupied areas as designated by Owner and using materials and construction methods approved by Owner.

1.8 STOP WORK

A. The Contractor's Site Supervisor shall stop work and shall not proceed until corrective measures are implemented in the event that any of the below occur:

- Airborne fiber concentrations outside the work area exceed 0.010 f/cc.
- Airborne fiber concentrations inside the work area exceed 0.10 f/cc.
- Loss of integrity of any critical barrier
- Failure to work in accordance with state and federal regulations or this plan.
- Visible emissions created.
- Other potential safety and health emergencies and changes as warranted.

B. Complete all corrective work with no change in the Contract Price if high airborne fiber counts or other conditions resulting in stop work were caused by Contractor activities or compliance deficiencies.

1.9 PROJECT COORDINATION

A. Site Supervisor: Provide a full-time Site Supervisor who is experienced in administration and supervision of asbestos abatement projects including work practices, protective measures for building and personnel, disposal procedures, etc. This person is the Contractor's Representative responsible for compliance with the specification and all applicable federal, state, and local regulations, particularly those relating to asbestos-containing materials.

1. Experience and Training: The Site Supervisor must have completed a course at an EPA Training Center or equivalent certificate course in asbestos abatement procedures and have had a minimum of five (5) years on-the-job training in similar asbestos abatement procedures.

2. Accreditation/Qualifications: The Site Supervisor is to be (1) a Competent Person as required by OSHA in 29 CFR 1926, and (2) accredited and certified in accordance with the AHERA regulation 40 CFR Part 763, Subpart E, Appendix C; and (3) licensed in accordance with current State requirements.

B. Project Manager: Provide a qualified and experienced project manager to perform administrative and project management responsibilities and to serve as Contractor management point of contact in addition to the project supervisor.

C. Pre-Construction Conference: An initial progress meeting, recognized as "Pre-Construction Conference" shall be convened by Owner with Contractor prior to the start of work for each phase. This meeting shall be held to review the scope-of-work, scheduling, coordination, and contractor plan of action and submittals and other applicable items.

D. Daily Log: Maintain at the work area a daily log documenting the dates and time of but not limited to, the following items:

1. Visitations; authorized and unauthorized
2. Daily sign-in sheet for all personnel entering and leaving the work area (name, certification, expirations).
3. Special or unusual events, i.e., barrier breaching, equipment failures, accidents
4. Documentation of the following:

a) Supervisor's daily inspections and exposure monitoring test results

b) Work progress each day for each work area.
c) Removal of waste material (number and type of containers) from each work area
d) Removal of waste from site including a copy of the accompanying waste shipment record
e) Decontamination of work area and equipment
f) Final inspection and air clearance results, and
g) Documentation of containment removal and final general housecleaning activity

5. Complete and maintain daily log in accordance with applicable State and federal record keeping requirements. Provide access to logs to Owner and IH Consultant at all times and provide copies of logs with the submittal package in accordance with the construction submittal requirements.

1.10 STANDARDS

A. Applicability of Standards: It is the Contractor's responsibility to complete all work in accordance with (or exceeding) all applicable industry standards and guidelines. Except where Contract Documents include more stringent requirements, all applicable construction industry standards have the same force and effect as if bound or copied directly into Contract Documents. Applicable construction standards are made a part of the Contract Documents by reference. Where compliance with an industry standard is required, comply with the most current standards in effect as of date of Contract Documents.

B. Conflicting Requirements: Where compliance with two or more standards is specified, and they establish different or conflicting requirements for minimum quantities or quality levels, the most stringent requirement shall be enforced, unless the Contract Documents indicate otherwise. Refer to Owner and IH Consultant any requirements that are different or conflicting; outline the more stringent requirement before proceeding.

C. Comply with applicable standards including, but not limited to, American National Standards Institute (ANSI) standards and American Society for Testing and Materials (ASTM) standards.

1.11 CODES, REGULATIONS, AND STANDARDS

A. Adhere to work practices and procedures set forth in applicable codes, regulations and standards related to work. Obtain permits, licenses, inspections, and similar documentation, as well as payments and similar requirements associated with codes, regulations, and standards. Update permits, as necessary.

B. The Contractor shall assume full responsibility and liability for compliance with all applicable Federal, State, and local regulations pertaining to work practices, hauling, disposal, and protection of workers, visitors to the site, and persons occupying areas adjacent to the site. The Contractor is responsible for providing medical examinations and maintaining medical records of personnel as required by the applicable Federal, State, and local regulations. The Contractor shall hold Owner, Owner’s Project Management Consultant, and IH Consultant harmless for failure to comply with any applicable work, hauling, disposal, safety, health, or other regulation on the part of himself, his employees, or his subcontractors.

C. All work performed under this contract shall comply with applicable provisions, including most current versions, and not limited to the listed and all other applicable local, state, and federal codes and regulations.

D. Federal Requirements: which govern asbestos abatement work or hauling, and disposal of asbestos waste materials include but are not limited to the following:

OSHA: U.S. Department of Labor, Occupational Safety and Health Administration, including but not limited to:

1. Occupational Exposure to Asbestos, Tremolite, Anthophyllite, and Actinolite; Final Rules
2. 29 CFR 1910.1001 and 29 CFR Part 1926.1101
3. Respiratory Protection: Title 29, Part 1910, Section 134 of the CFR
4. Construction Industry: Title 29, Part 1926, of the CFR and all related Subparts
5. Access to Employee Exposure and Medical Records: 29 CFR, Part 1910, Section 1020
6. Hazard Communication: Title 29, Part 1910, Section 1200 of the CFR
7. Specifications for Accident Prevention Signs and Tags: 29 CFR Part 1910, Sec. 145

DOT: U. S. Department of Transportation, including but not limited to:

1. Hazardous Material Regulations: Title 49, Part 171-180 CFR

EPA: U. S. Environmental Protection Agency (EPA), including but not limited to:

1. Asbestos Abatement Projects; Worker Protection Rule: Title 40 Part 763, Sub-part G
2. Asbestos School Hazard Abatement Reauthorization Act (ASHARA)
3. Asbestos Containing Materials in Schools Final Rule 40 CFR Part 763, Sub-part E.
4. National Emission Standard for Hazardous Air Pollutants (NESHAPS); National Emission Standard for Asbestos, 40 CFR Part 61, Sub-part A, and Sub-part M (Revised Sub-part B)

E. Local Requirements: Abide by all local requirements that govern asbestos abatement work or hauling and disposal of asbestos waste materials.

F. Maine Department of Environmental Protection: which govern asbestos abatement work or hauling, and disposal of asbestos waste materials include but are not limited to the following:

1. Chapter 425 Asbestos Management Regulations

1.12 DEFINITIONS

A. General Definitions: Definitions contained in this Section are not necessarily complete but are general to the extent that they are not defined more explicitly elsewhere in the Contract Documents.

1. Directed: Terms such as "directed", "requested", "authorized", "selected", "approved", "required", and "permitted" mean "directed by Owner's representative", "requested by the "IH Consultant", and similar phrases. However, no implied meaning shall be interpreted to extend

the IH Consultant's, or the Owner's Project Management Consultant's responsibility into the Contractor's area of construction supervision.

2. Approve: The term "approved," where used in conjunction with the Owner, Owner's Project Management Consultant, or the IH Consultant's action on the Contractor's submittals, applications, and requests, is limited to the responsibilities and duties of the IH Consultant as indicated in the Contract Documents. Such approval or acceptances do not express or claim any certification of completeness, compliance, or approval of programs and documentation, including but not limited to review of analytical results, historical information, and interpretations. Such approval shall not release the Contractor from responsibility to fulfill Contract Document requirements, unless otherwise provided in the Contract Documents.

3. Furnish: The term "furnish" is used to mean "supply and deliver to the project site, ready for unloading, unpacking, assembly, installation, and similar operations."

4. Install: The term "install" is used to describe operations at project site including the actual "unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning and similar operations."

5. Provide: The term "provide" means "to furnish and install, complete and ready for the intended use."

6. Installer: An "Installer" is an entity engaged by the Contractor, either as an employee, subcontractor, or sub- subcontractor for performance of a particular construction activity, including installation, erection, application, and similar operations. Installers are required to be experienced in the operations they are engaged in performing.

7. IH Consultant: This is the entity employed or engaged as industrial hygiene consultant as described in the Contract Documents. All references to Owner's Consultant, Air Monitoring Consultant, or Consultant with regard to asbestos abatement in the Contract Documents in all cases refer to the IH Consultant. The IH Consultant shall represent Owner during abatement and until final payment is due. The Owner representative may also constitute other people representing Owner, other than the IH Consultant or consultant, as indicated by Owner. Owner's instructions to the Contractor shall be made directly to the Contractor or forwarded through the IH Consultant.

8. Site Supervisor: This is the Contractor's Representative at the work site. This person shall be the Competent Person required by OSHA in 29 CFR 1926 and licensed Site Supervisor/Foreman as required by the State. Provide licensed supervisor at each individual work site during work.

B. Definitions - Asbestos Abatement:

1. Accredited or Accreditation (when referring to a person or laboratory): A person or laboratory accredited in accordance with section 206 of Title II of the Toxic Substances Control Act (TSCA).

2. Adequately Wet: Means sufficiently mix or penetrate with liquid to prevent the release of particulate. If visible emissions are observed coming from the asbestos-containing material,

then that material has not been adequately wetted. The absence of visible emissions is not sufficient evidence, or measure, of a material being adequately wet.

3. Air Monitoring: The process of measuring the fiber content of a specific volume of air.

4. Amended Water: Water to which a surfactant has been added to decrease the surface tension to 35 or less dynes.

5. Asbestos: The asbestiform varieties of serpentinite (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite, anthophyllite, and actinolite-tremolite. For purposes of determining respiratory and worker protection both the asbestiform and non-asbestiform varieties of the above minerals and any of these materials that have been chemically treated and/or altered shall be considered as asbestos.

6. Asbestos-Containing Material (ACM): Any material containing equal to or more than 1% of asbestos of any type or mixture of types.

7. Asbestos-Containing Building Material (ACM): Surfacing ACM, thermal system insulation ACM, or misc. ACM in or on interior structure or other parts of a building.

8. Asbestos-Containing Waste Material: Any material that is or is suspected of being or any material contaminated with an asbestos-containing material that is to be removed from a work area for disposal. May also be referred to as “asbestos waste.”

9. Asbestos debris: Pieces of ACM or ACM that can be identified by color, texture, or composition, or means dust, if an accredited inspector determines the dust to be ACM or reasonably likely to have asbestos fibers present under conditions present and based on work operations.

10. Authorized Visitor: Owner, the IH Consultant, testing lab personnel, emergency personnel or a representative of any federal, state, and local regulatory or other agency having authority over the project.

11. Barrier: Any surface that seals off the work area to inhibit the movement of fibers.

12. Breathing Zone: A hemisphere forward of the shoulders with a radius of approximately 6 to 9 inches.

13. Category I Non-Friable ACM: means ACM packings, gaskets, resilient floor covering, and asphalt roofing products containing equal to or more than 1% asbestos. Also see definition for Regulated ACM.

14. Category II Non-Friable ACM: means any non-friable ACM, except for Category I Non-Friable ACM.

15. Certified Industrial Hygienist (CIH): An industrial hygienist certified in Comprehensive Practice by the American Board of Industrial Hygiene.

16. Critical Barrier: Polyethylene sheeting, typically 6-mil polyethylene sheeting, over windows, doors, and air passageways separating the work area from non-work area portions of the building. Critical barriers remain in place until clearance testing or inspections are completed and results meet clearance test criteria.

17. Demolition: The wrecking or taking out of any building component, system, finish, or assembly of a facility together with any related handling operations.

18. Disposal Bag: A properly labeled 6 mil thick leak-tight plastic bag used for transporting asbestos waste from work and to disposal site.

19. Contractor: The contractor engaged by the Owner to perform asbestos related activities must be licensed by the State, as applicable, and in accordance with Maine Department of Environmental Protection Chapter 425 Asbestos Management Regulations. All workers and site supervisors engaging in asbestos activity must also be trained and licensed in accordance with current State regulations and 40 CFR Part 763 (AHERA).

20. Encapsulant: A material that surrounds or embeds asbestos fibers in an adhesive matrix, to prevent release of fibers.

    a. Bridging encapsulant: an encapsulant that forms a discrete layer on the surface of an in-situ asbestos matrix.
    b. Penetrating encapsulant: an encapsulant that is absorbed by the in-situ asbestos matrix without leaving a discrete surface layer.

21. Encapsulation: Treatment of asbestos-containing materials, with an encapsulant and application of appropriate post removal encapsulant on substrate and containment barriers.

22. Enclosure: The construction of an air-tight, impermeable, permanent barrier around asbestos-containing material to control the release of asbestos fibers into the air.

23. Excursion Limit: Ensure that no employee is exposed to airborne concentrations of asbestos in excess of 1.0 fibers per cubic centimeter of air (1.0 f/cc) as averaged over a sampling period of thirty (30) minutes, as determined by PCM analysis in accordance with NIOSH Method 7400 and as indicated in 29 CFR Part 1926. Also referred to as the short-term exposure limit, (STEL).

24. Friable Asbestos Material: Material that contains more than or equal to 1.0% asbestos and that can be crumbled, pulverized, or reduced to powder by hand pressure when dry. This also includes materials which, when subjected to removal methods and other disturbances, may release fibers and dust due to the abatement actions.

25. Glovebags: Glovebags for removal of insulation in accordance with 29 CFR Part 1926.

26. HEPA Filter: A High Efficiency Particulate Air (HEPA) filter capable of trapping and retaining 99.97% of asbestos fibers greater than 0.3 microns in diameter.

27. HEPA Filter Vacuum Collection Equipment (or vacuum cleaner): High efficiency particulate air filtered vacuum collection equipment with a filter system capable of collecting and retaining

asbestos fibers. Filters should be of 99.97% efficiency for retaining fibers of 0.3 microns or larger.

28. Negative Pressure Respirator: A respirator in which the air pressure inside the respiratory-inlet covering is positive during exhalation in relation to the air pressure of the outside atmosphere and negative during inhalation in relation to the air pressure of the outside atmosphere.

29. Permissible exposure limit (PEL): the Contractor shall ensure that no employee is exposed to an airborne fiber concentration of asbestos in excess of 0.1 f/cc of air as an eight (8) hour time-weighted average (TWA) in accordance with 29 CFR Part 1926.

30. Personal Monitoring: Sampling of the asbestos fiber concentrations within the breathing zone of an employee.

31. Pressure Differential and Ventilation System: A local exhaust system, utilizing HEPA filtration capable of maintaining a pressure differential with the inside of the Work Area at a lower pressure than any adjacent area, and which cleans re-circulated air or generates a constant air flow from adjacent areas into the Work Area.

32. Regulated ACM (RACM): RACM means friable ACM, Category I Non-friable ACM that has been rendered friable, Category I ACM that shall be or has been subjected to sanding, cutting, grinding, or abrading (abrasive action), or 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 renovation or demolition operations. Grinding means breaking into small pieces or fragments.

33. Repair: Returning damaged ACM or ACM to an undamaged condition or to an intact state so as to prevent fiber release.

34. Respirator: A device designed to protect the wearer from the inhalation of harmful atmospheres.

35. Time Weighted Average (TWA): The average concentration of a contaminant in air during a specific time period.

36. Visible Emissions: Any emissions coming from RACM, ACM, ACM, asbestos debris, or asbestos waste material, which is visually detectable without the aid of instruments. This does not include condensed uncombined water vapor.

37. Waste Shipment Record: Means the shipping document, required to be originated and signed by the waste generator, used to track, and substantiate the disposition of Asbestos waste.

38. Wet Cleaning: The process of eliminating asbestos contamination from building surfaces and objects by using clothes, mops, or other cleaning utensils which have been dampened with amended water and afterwards thoroughly decontaminated or disposed of as asbestos-contaminated waste.

39. Work Area: The area where asbestos-related work or removal operations are performed which is defined and/or isolated to prevent the spread of asbestos dust, fibers or debris, and entry by unauthorized personnel. Work area is a Regulated Area as defined by 29 CFR 1926.

1.13 NOTICES

A. U.S. Environmental Protection Agency: Send proper written notification as required by USEPA National Emission Standards for Hazardous Air Pollutants (NESHAPS) Asbestos Regulations (40 CFR 61, Subpart M) to the regional Asbestos NESHAPS Contact - Reno/Demo Clerk - at least 10 working days prior to beginning any work which shall directly or indirectly result in disturbance of asbestos-containing materials. Post notifications at job sites.

B. State and Local Agencies: Send written notification as required by state and local regulations prior to beginning any work on asbestos-containing materials. At least 10 working days prior to the start of work, submit appropriate notification to the Maine Department of Environmental Protection. Post notifications at job sites.

Obtain all necessary State and local permits and work method waivers/approvals for conducting controlled demolition activity to facilitate asbestos removal in unsafe building space.

C. Permits: Obtain all local, state, and federal permits necessary to conduct the work of this specification. Obtain water permits as necessary for the release of any water originating from the Work. Notify all local emergency agencies of the abatement work to be completed as required. All asbestos containing waste is to be transported by an entity maintaining a current "DOT Common Hauler Permit" specifically for asbestos-containing materials, as required for transporting of waste asbestos-containing materials to a disposal site.

D. Licenses: Maintain current licenses as required by applicable state and local districts for the removal, transporting, disposal or other regulated activity relative to the work of this contract. Post all company, supervisor, and worker licenses at work area entrance.

E. Posting and Filing of Regulations: Post all notices required by applicable federal, state, and local regulations. Maintain at least one (1) copy of applicable federal, state, and local regulations and standards at each job site. Post copies of the specification at the job site.

F. Coordinate with Owner and local fire department authorities the notification and handling of heat and smoke detectors in the work areas, including sealing of detectors during work and removal of seals at the completion of work or shifts.

1.14 SUBMITTAL REQUIREMENTS

A. Submittal Schedule: The Contractor shall provide submittals as specified herein including (1) Preconstruction Submittal Documentation prior to start of work and (2) Project Closeout Submittals within 25 days upon completion of on-site work. Submit ongoing submittals as required herein and as specified by the Owner and IH Consultant. Provide at the job site a copy of all current submittal packages and related documentation. Ongoing submittals shall also be submitted during the work as required to update the Pre-construction and Closeout submittals including, but not limited to:

1. Schedule or phasing changes, including description and explanations as applicable.

2. Proposed alternative work methods. Requests for revisions in work procedures must be approved by the Owner and IH Consultant.

3. Updated notifications and permitting.

4. Changes to licenses and training records for all personnel at the site

5. Other changes or revisions to the submittals.

B. Submittal Preparation

1. Package and furnish to Owner and IH Consultant each submittal appropriately. Submittal packages shall be in a neat and orderly fashion, shall include an index, and shall be compiled in the order requested herein. Clearly mark and label all sections of the submittal documents.

2. In the event that a submittal package does not meet the requirements herein the submittal may not be accepted, and the Contractor shall make necessary revisions and re-submit the submittal documents.

3. By "approval" or acceptance of submittals, Owner and IH Consultant do not express or claim any certification of completeness, compliance, or approval of programs and documentation, not limited to review of analytical results, historical information, regulatory compliance, and interpretations. Contractor is solely responsible for compliance with Specification and regulatory requirements associated with the work and submittal documentation.

C. Preconstruction Submittal Documentation

1. Provide the following Preconstruction Submittal Documentation prior to the start of each phase of work:

   a) Notifications: Copies of EPA, State, and local notifications.

   b) Waste Hauler and Landfill Permits and notifications. Submit names, address, and licenses/permits for the waste hauler(s) and disposal facilities.

   c) Names, addresses, experience, and references for any subcontractors the Contractor proposes to utilize for Work. Indicate if any asbestos workers or supervisors to be used for Work are subcontracted labor.

   d) Names and 24-hour phone numbers/pagers for Project Supervisor and other key personnel for the Contractor. Post emergency contact information at Decontamination Unit entrance.

   e) List of personnel to be on-site. Copies of all company, supervisor, and worker licenses, training and certifications required in accordance with this Specification.

f) Notarized Certifications: Submit notarized certification signed by an officer of the Contract stating that exposure measurements, respiratory protection programs, medical surveillance, worker training, and recordkeeping has and shall be completed and maintained during the Work for all involved personnel in accordance with 29 CFR Part 1926 and other applicable State and federal regulations.

g) Certify the dates for primary and secondary HEPA filter changes for all negative air units.

h) Level of respiratory protection anticipated for each operation required by the project. Include supporting documentation of previous exposure monitoring on a sufficient number similar project and operations in accordance with OSHA requirements.

i) Detailed schedule and phasing, containment layouts, and summary of approach; detail of any special work procedures or methods to be used if not included or addressed in the abatement specification.

j) Safety Data Sheets: for all materials to be used on-site not limited to encapsulants, spray adhesives, and other related work material. Note: It is Contractor's responsibility to notify all other contractors and parties in accordance with applicable OSHA hazard communication regulations.

k) Contingency Plan: Prepare a site-specific contingency plan for emergencies including fire, accident, power failure, pressure differential system failure, supplied air system failure, or any other event that may require modification or abridgement of decontamination or work area isolation procedures. Include in plan specific procedures for decontamination or work area isolation. Note that nothing in this specification should impede safe exiting or providing of adequate medical attention in the event of an emergency. The emergency contingency plan must be in accordance (meet or exceed the requirements of) with applicable OSHA requirements.

l) Other submittals required by the Contract Documents or as indicated by Owner.

D. Closeout Submittals

1. The following Closeout Submittals shall be provided upon substantial completion of Work.

a) Copies of all daily logs in accordance with Section 1.9 Project Coordination of this specification.

b) A copy of each waste shipment record, hazardous waste manifest, and chain-of-custody form, signed by the transporter and disposal facility operator, indicating that waste was packaged and disposed of properly. Include a description of any temporary storage facilities used including dates, times, and locations of temporary storage. Note: In accordance with NESHAPS, submit all waste shipment documentation within 35 days from transport of waste from the site (provide interim submittals during the work as needed to comply with federal regulations). Note: copies of waste shipment records in progress shall also be provided to IH Consultant and Owner immediately upon removal of waste from site.

c) Complete copy of all revisions and changes to the Pre-Construction Submittals.

d) Copy of other written construction documents such as Change Orders and work modifications issued in printed form during construction. Mark these documents and a site drawing to show the work completed and to show substantial variations in actual work performed in comparison with the text of the Specifications and modifications.

1.15 AIR MONITORING

A. Ambient Area Air Monitoring: IH Consultant shall/may monitor ambient area airborne fiber counts in and around the Work Area. The purpose of this air monitoring shall be to detect airborne asbestos concentrations that may challenge the ability of the Work Area isolation procedures to protect the balance of the building or outside of the building from contamination by airborne fibers and to monitor concentrations outside the containment or work area perimeter.

B. Clearance Air Monitoring: Refer to the Work Area Clearance section of this specification.

C. If any air sample taken outside of the Work Area exceeds 0.010 f/cc, immediately and automatically stop all work except corrective action necessary to address elevated concentrations if it is determined that the elevated concentration is or may likely be the result a deficiency of the Contractor's work; initiate the following actions:

a) Erect additional critical barriers to isolate the affected area.
b) Install HEPA filtration negative air units in affected area.
c) Decontaminate the affected area in accordance with appropriate cleaning procedures.
d) Require that respiratory protection and personal protective equipment be used in affected areas until the area is cleared for re-occupancy in accordance with the work area clearance requirements.

Complete corrective work with no change in the Contract Price or Sum if high airborne fiber counts were caused by Contractor activities.

D. Analytical Methods: Owner reserves the right to use either phase contrast microscopy (PCM) and/or transmission electron microscopy (TEM) to analyze air samples. PCM analysis shall be performed using the NIOSH 7400 method at the job site or at an off-site laboratory. TEM may also be used as Owner deems necessary for ambient area air samples using the analysis method as determined by IH Consultant. Also see the Work Area Clearance section.

E. Schedule of Air Samples

1. Prior to the start of work: The IH Consultant may collect air samples to establish a base line before the start of work. Base line is an action level expressed in fibers per cubic centimeter that is twenty-five percent greater than the largest of the following:

a) Average of the PCM samples collected outside each Work Area
b) Average of the PCM samples collected outside the building.
c) And 0.010 f/cc

2. Daily: From start of work involving Temporary Enclosures through the work of Project Decontamination, IH Consultant may be collecting samples during the Work, including but not necessarily limited to:

    a) At HEPA Exhaust areas
    b) Non-work-area portions of the building
    c) At entrance to the Decontamination Unit
    d) Outside the building
    e) Clearance sampling: See the Air Clearance Requirements.

F. Laboratory Testing:

1. The owner shall employ the services of a testing laboratory to perform laboratory analyses of the air samples. Samples shall be sent overnight on a daily basis, so that verbal reports on air samples can be obtained within 24 hours. Results of all air monitoring tests shall be available at the job site on a daily basis.

G. OSHA Monitoring and Additional Testing:

1. Additional Testing: The Contractor may conduct his own air monitoring and laboratory testing. If he elects to do this the cost of such air monitoring and laboratory testing shall be at no additional cost to the Owner.

2. OSHA Compliance and Ambient Area Monitoring: Contractor must provide for collection and laboratory analysis services of Contractor's OSHA personal exposure samples, including daily TWA and STEL monitoring for asbestos and other contaminants resulting from the Work, including but not limited to carbon monoxide, volatile organic compounds, and chemical exposures.

1.16 TEMPORARY FACILITIES

A. General: Provide temporary connection to existing building utilities or provide temporary facilities as required to complete work. The owner must approve all connections to utilities and facility components. Provide temporary portable water and power sources for all exterior work as indicated and coordinated with Owner, as applicable.

B. Water Service:

1. Temporary Water Service Connection: Provide hot and cold water to the Work Area. Provide a qualified and experienced licensed plumber as necessary to complete all water service work in conformance with applicable building codes and regulations.

2. All connections to the Owner's water system shall include back-flow protection. Monitor for leaks and repair or replace as needed.

3. Water Hoses: Employ suitable heavy-duty abrasion-resistant hoses to provide water into each work area and to each Decontamination Unit.

C. Electrical Service:

1. General: Provide a qualified and experienced licensed electrician to complete all electrical service work. Comply with applicable OSHA, NEMA, NECA, UL and other industry standards and governing regulations for materials and layout of temporary electric service. Provide adequate temporary power to the Work Area sized and equipped to accommodate all electrical equipment required for completion of the work and related testing and inspections. Provide temporary electrical panels as needed sized and equipped to accommodate all electrical equipment and lighting required by the work. Connect temporary panel to existing building electrical system. Protect with circuit breaker or fused disconnect. Locate temporary panel outside of the work area and in a location acceptable to Owner. Equip all circuits for any purpose entering the Work Area with ground fault circuit interrupters (GFCI).

2. Lamps and Light Fixtures: Provide appropriate temporary work area lighting. Protect lamps with guard cages or tempered glass enclosures where fixtures are exposed to breakage by construction operations.

D. First Aid: Comply with governing regulations and recognized recommendations within the construction industry. Provide appropriate first aid supplies.

E. Fire Extinguishers: Provide appropriate fire extinguishers for temporary offices, storage, work areas and other portions of the site occupied or used by the Contractor for the work.

F. Execution: Use qualified tradesmen for installation of temporary services and facilities. Locate temporary services and facilities where they shall serve the entire project adequately and result in minimum interference with the performance of the Work. Coordinate all such work with Owner. Require that tradesmen be licensed as required by local authorities. Relocate, modify, and extend services and facilities as required during the course of work so as to accommodate the entire work of the project.

1.17 PRESSURE DIFFERENTIAL AND AIR CIRCULATION SYSTEM

A. Continuously monitor and record the pressure differential between the Work Area and the building outside of the Work Area. Maintain accurate records of time and locations of testing on-site and in daily logs.

2. HEPA Filtered Fan Units: Supply the required number of HEPA filtered fan units to the site in accordance with these specifications. Units must meet the requirements of all applicable regulations and standards.

1.18 WORKER PROTECTION

A. Comply with respiratory protection requirements as specified in this specification and applicable regulations. Provide worker protection as required by the most stringent OSHA and/or EPA

regulations and industry standards applicable to the work. The following procedures are minimum requirements to be adhered to regardless of fiber concentrations in the Work Area.

B. Worker Training

1. AHERA Accreditation: All workers are to be accredited as Abatement Workers as required by the AHERA regulation 40 CFR 763 Appendix C to Subpart E, April 30, 1987. All training must be current including current annual refresher training.

2. Train all supervisors and workers in accordance with EPA NESHAPs and 29 CFR Part 1926 (OSHA) for asbestos and other hazards anticipated during the work. All workers and supervisors must be licensed and certified as required by applicable State regulations.

C. Medical Examinations: Provide medical examinations for all workers who shall enter the Work Area for any reason in accordance with OSHA requirements as set forth in 29 CFR 1926 and 29 CFR 1910.20.

D. Protective Clothing

1. Coveralls: Provide cloth full-body coveralls and hats and require that they be worn by all workers in the Work Area. Require that workers change out of coverall in the Equipment Room of the Personnel Decontamination Unit. Dispose of used coverall as asbestos waste.

2. Other: Provide other personal protective equipment as required by OSHA regulations and industry standards, not limited to hard hats, eye protection (goggles), gloves, fall safety, and footwear.

E. Entering Work Area: Each time the Work Area is entered, remove all street clothes in the changing (clean) room of the personnel decontamination unit and put on new disposable coverall, new head cover, and a clean respirator. Proceed through shower room to equipment room and put on work boots. Only properly licensed/certified personnel shall enter the decontamination unit and work area. All personnel entering the work area must post their State license at the decontamination unit entrance.

F. Decontamination Procedures: Require all workers to adhere to the following personal decontamination procedures whenever they leave the Work Area:

1. HEPA vacuum all gross debris from the protective clothing prior to entering the equipment room of the decontamination unit. When exiting area, remove disposable coveralls, disposable head covers, and disposable footwear covers or boots in the equipment room.

2. Still wearing respirators, proceed to showers. Showering is mandatory. Care must be taken to follow reasonable procedures in removing the respirator to avoid asbestos fibers while showering. The following procedure is required as a minimum:

3. Carefully wash face piece of respirator inside and out. Each worker leaving the work area must shower completely with soap and water. Rinse thoroughly. Proceed from shower to clean room and change into street clothes or into new disposable work items.

G. Within Work Area: Require that workers NOT eat, drink, smoke, chew tobacco or gum, or apply cosmetics in the Work Area. Maintain proper use of personnel protective equipment.

H. Respiratory Protection: Provide sufficient respiratory protection in accordance with applicable OSHA requirements in addition to ANSI and NIOSH standards. Select proper level of protection based on personnel exposure monitoring and the applicable OSHA Permissible Exposure Limits. Require that respiratory protection be used at all times that there is any possibility of disturbance of asbestos-containing materials whether intentional or accidental.

1. Instruct and train each worker for proper respirator use in accordance with OSHA and other applicable industry standards. Require that a respirator be worn by anyone in a Work Area at all times, regardless of activity, until the area has been cleared for re-occupancy.

2. Provide and complete all necessary fit testing for respiratory protection in strict accordance with applicable OSHA regulations.

3. In the event that applicable OSHA PEL's (8-hour TWA and 30-minute STEL) are exceeded, stop work. Do not recommend work until work procedures, including use of engineering controls, are modified to maintain exposures within the acceptable PEL's.

I. Complete all lock-out and tag-out of power and air handling systems within the Work Area in accordance with OSHA regulations. Coordinate all lock-out and tag-out with Owner.

1.19 TEMPORARY ENCLOSURES

A. Work areas are to be considered contaminated during the work and shall be completely isolated from other locations such that asbestos fibers cannot pass through or beyond the perimeters of the work area and into non work areas. Should areas beyond the work area become contaminated with asbestos as a result of the Contractor's work, the Contractor shall be responsible for cleaning non-work areas as required. All costs including cleaning, decontaminating, monitoring, and testing shall be borne by the contractor.

B. Contractors shall construct temporary containment enclosures in each work area. Prior to proceeding with ACM abatement coordinate and complete inspections of the work area with the IH Consultant. Proceed with work sequentially as listed or indicated.

C. Disable ventilating systems or any other system bringing air into or out of the Work Area. Disable the system by disconnecting wires, removing circuit breakers, by lockable switch or other positive means that shall prevent accidental premature restarting of equipment as approved by Owner.

PART 2 - PRODUCTS

2.1 PRODUCTS

A. Provide new or used materials and equipment that are undamaged and in a serviceable condition. Provide only materials and equipment that are recognized as being suitable for the intended use and in strict compliance with appropriate standards. Do not bring products, materials, and

equipment to the Owner's site or Owner work areas that are damaged or contain construction or potential contaminated debris.

B. Warning Signs, Caution Signs and Demarcation: Provide all demarcation, warning signs, caution signs, and other postings required for the work and in accordance with State and federal codes and regulations.

C. Polyethylene Sheet: A single polyethylene film in the largest sheet size possible to minimize seams, in 6.0 mil thickness, clear or black as indicated.

D. Duct Tape: Provide duct tape in 3" widths with an adhesive, which is formulated to stick aggressively to sheet polyethylene.

E. Spray Cement: Provide spray adhesive in aerosol cans which is specifically formulated to stick tenaciously to sheet polyethylene.

F. Foam Pack: Provide foam pack for sealing small crevices and cracks at critical barriers as required. All foam pack must be approved by Owner and local authorities, not limited to the Fire Department.

G. Scaffolding: Provide all scaffolding, ladders and/or staging, etc. as necessary to accomplish the work of this contract. Scaffolding may be of suspension type or standing type such as metal tube and coupler, tubular welded frame, pole or outrigger type or cantilever type. The type, erection and use of all scaffolding shall comply with all applicable OSHA provisions. Equip rungs of all metal ladders, etc. with an abrasive non-slip surface. Provide a nonskid surface on all scaffold surfaces subject to foot traffic.

H. First Aid Supplies: Comply with governing regulations and recognized recommendations within the construction industry.

I. Fire Extinguishers: Provide Type "A" fire extinguishers for temporary offices and similar spaces where there is minimal danger of electrical or grease-oil-flammable liquid fires. In other locations provide type "ABC" dry chemical extinguishers, or a combination of several extinguishers of NFPA recommended types for the exposures in each case.

J. Wetting Materials: For wetting prior to disturbance of ACM use amended water: Provide water to which a surfactant has been added. Use a mixture of surfactant and water which results in wetting of the Asbestos-Containing Material and retardation of fiber release during disturbance of the material equal to or greater than that provided by the use of one ounce of a surfactant consisting of 50% polyoxyethylene ester and 50% polyoxyethylene ether mixed with five gallons of water.

K. Encapsulant: Provide suitable encapsulant material intended by manufacturer for the treatment of asbestos and ACM. Provide SDS and manufacture information for products to be used. Ensure that all encapsulant to be applied is suitable for the substrate and condition thereof and is compatible with replacement materials to be installed by the Contractor or Owner following the Work.

L. Disposal Bags: Provide 6 mil thick leak-tight polyethylene bags labeled as required by applicable sections of this Specification and federal and state regulations.

M. Fiberboard Drums of Equivalent: Provide sufficient quantity of fiberboard drums or equivalent (as determined by IH Consultant) for packaging of wire mesh and other contaminated materials with sharp or rough edges.

N. Disposal Bag/Container Labels and Signs: Provide leak-tight waste bags or containers for disposal of asbestos-containing materials with labels in accordance with OSHA, EPA, and the latest revisions to the US Department of Transportation requirements, not limited to material identification number (#NA2212), material packaging group (PGIII), and labels. Warning labels shall also include:

Legend: DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD

1. In accordance with NESHAPS, label each waste bag with the name of the waste generator and address where the material was generated. Include the Contractor name and address on each label also. Attach label in a sufficient manner such that they are properly sealed to or on the containers.

2. Label all waste bags, containers, and transport vehicles as required by applicable U.S. Department of Transportation Rules and Regulations.

O. Coveralls: Provide disposable full-body coveralls and head cover in accordance with State and federal regulations. Provide a sufficient number for all required changes, for all workers in the Work Area. Provide sufficient number for use by IH Consultant.

P. Other PPE: Provide other personal protective equipment as required by OSHA regulations and industry standards, not limited to hard hats, eye protectives, gloves, and footwear.

Q. Respiratory Protection: Provide respiratory protection in strict accordance with ANSI Z88.2 - 1992 "Practices for Respiratory Protection" and 29 CFR 1926 and 1910.134. The respirators shall be sanitized and maintained in accordance with manufacturer's specifications and recommendations. Provide sufficient respiratory protection based on applicable ANSI and NIOSH standards. Select proper level of protection based on personnel exposure monitoring and the applicable OSHA Permissible Exposure Limits. Use only respirators and filters that are NIOSH-approved for use with asbestos and other atmospheres anticipated during the work.

R. Solvents: Provide appropriate solvent materials to aid in the removal of flooring materials and mastics. Such solvent materials should be "low odor" rated and all SDS's shall be submitted to the Owner for review prior to storing or using such materials at the job site. The contractor is solely responsible for all environmental and worker protection precautions required for the safe use, clean-up, and disposal of such materials. Additional air testing (area and personal exposure monitoring) must be completed by the Contractor (at no additional cost to the Owner) depending on the solvents to be used and as necessary to ensure a safe environment for site workers and adjacent public. Coordinate with Owner as necessary to assure compatibility with replacement materials prior to installation of solvents and coordinate special cleaning efforts with Owner for replacement issues in accordance with manufacturer’s guidelines and flooring industry standards. The contractor shall sufficiently wash and clean all floor areas where solvent is used. Conduct

necessary wash, dry, and air change sequences to eliminate residual solvent odors and residual. Note: Charcoal pre-filters shall be required on all HEPA exhaust/filter equipment during use of solvents.

S. Construction Materials: Provide other construction materials such as plywood, strapping, studs, other related abatement materials, etc., as required to complete the work in accordance with this Specification.

T. All necessary testing and monitoring equipment as applicable to complete work, including but not limited to gas detection equipment, manometers, exposure sampling equipment.

2.2 WATER SERVICE

A. Provide water service as necessary to complete Work in accordance with applicable local, state, and federal building codes and regulations.

2.3 ELECTRICAL SERVICE

A. Provide electric service as necessary to complete Work in accordance with applicable local, state, and federal building codes and regulations.

2.4 PRESSURE DIFFERENTIAL AND FILTRATION

A. General: Supply the required number of HEPA filtered negative air fan units to the site in accordance with this Specification, industry standards, and applicable State and federal requirements. Use fan units that are intended for asbestos abatement as stated by the manufacturer. Provide HEPA filters that are individually tested and certified by the manufacturer to have an efficiency of not less than 99.97 percent when challenged with 0.3 um dioctylphthalate (DOP) particles or equivalent when tested in accordance with Military Standard Number 282 and Army Instruction Manual 136-300-175A. Provide filters that bear a UL586 label to indicate ability to perform under specified conditions.

B. Pre-filters: which protect the final filter by removing the larger particles, are required to prolong the operating life of the HEPA filter. Two stages of pre-filtration are required.

C. Provide appropriate charcoal pre-filters during all work involving use of solvents to minimize odors. Allow HEPA units to run for a sufficient period of time after use of solvents to allow for adequate number of air changes and filtration to adequately dilute odors.

D. Safety and Warning Devices: Provide units with the appropriate safety and warning devices including but not limited to missing or failure of HEPA filter, automatic shut down in the event of filter rupture or blockage, operating status indicator lights, and audible alarms.

2.6 AUXILIARY GENERATOR

A. Provide adequate, suitable alternative power with a capacity adequate to power a minimum of 50% of the HEPA filtered fan units in operation at any time during the work as needed for emergency use and backup.

PART 3 – EXECUTION

3.1 TEMPORARY ENCLOSURES

A. Control Access: Isolate the Work Area to prevent entry by building occupants and the public into the Work Area. Notify the Owner of all doors and other openings that must be secured to isolate Work Area. Maintain safety access to stairwells and building exits. Construct work area containments and isolation barriers as required allowing for Owner operations and as approved by Owner.

1. Secured Access: Arrange Work Area so that the only access into Work Area is through securable doors to personnel and equipment decontamination units.

2. Solid Construction Barriers: Provide solid construction barriers as indicated by Owner to prohibit unauthorized access and visibility by adjacent occupants and public. At a minimum provide solid barriers as necessary to isolate all work areas with abatement activity from portions of the building to maintain normal Owner operations.

3. Provide Warning Signs at each door and barrier leading to Work Area reading as follows:

Legend:
DANGER
KEEP OUT
BEYOND THIS POINT
CONSTRUCTION WORK
IN PROGRESS

4. Immediately inside door (leading to Work Area) and outside all accessible critical barriers post a manufactured asbestos danger sign, approximately 20 inches by 14 inches, displaying the following legend with letter sizes and styles of a visibility required by 29 CFR 1926:

LEGEND:
DANGER
ASBESTOS
CANCER AND LUNG DISEASE HAZARD
AUTHORIZED PERSONNEL ONLY
RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED
IN THIS AREA

B. Critical Barriers: Completely separate the Work Area from other portions of the building and the outside by closing and sealing all openings with sheet plastic barriers at least 6 mil in thickness, or by sealing cracks leading out of Work Area with duct tape or equivalent methods. Seal the perimeter of all sheet plastic barriers with duct tape, spray adhesive or other mechanical supports, as necessary. Individually seal all ventilation openings (supply and exhaust), lighting fixtures, clocks, doorways, windows, convectors and speakers, roof exhausts, and other openings into the Work Area with duct tape alone or with polyethylene sheeting at least 6 mil in thickness, taped securely in place with duct tape. Maintain seal until all work including Project Decontamination is completed. Take care in sealing of lighting and other fixtures, as applicable, to avoid melting or burning of sheeting, as applicable.

Coordinate with Owner to provide adequate ventilation to space and equipment that requires air ventilation.

C. Pressure and Circulation in the Work Area and Decontamination Units

1. Isolate the Work Area from all adjacent areas or systems of the building with a Pressure Differential that shall cause a movement of air from outside to inside at any breach in the physical isolation of the Work Area.

2. Relative Pressure in Work Area: Continuously maintain the work area at an air pressure that is lower than that in any surrounding space in the building, or at any location in the immediate proximity outside of the building envelope. This pressure differential when measured across any physical or critical barrier must equal or exceed a static pressure of 0.02 inches of water. Accomplish the pressure differential by exhausting a sufficient number of HEPA negative air filtered fan units from the work area. Provide sufficient ventilation for a minimum of 8 air changes per hour and sufficient air movement throughout entire containment area.

3. Vent HEPA negative air ventilation units to outside of building. Ensure adequate security and weather tight seals at each exhaust point.

4. Provide a differential pressure meter or manometer to demonstrate the required pressure differential at every barrier separating the Work Area from the balance of the building or outside. Provide continuous manometer measurements and printouts for all work performed adjacent to public occupied spaces if such spaces are occupied during the work.

5. Start fan units before beginning work involving disturbance of ACM or debris and run units continuously to maintain a constant pressure differential and air circulation until decontamination of the work area is complete and the air clearance criteria has been met.

6. At completion of abatement work, allow fan units to run as specified under Project Decontamination requirements, to remove airborne fibers that may have been generated during abatement work and cleanup and to purge the Work Area with clean makeup air.

D. Pre-Clean and Other Preparation Work Area:

1. Complete the following after installation of (1) critical barriers, (2) pressure differential/air filtration systems, and (3) decontamination facilities as indicated below and in other Specification Sections.

    a) Pre-clean all work area surfaces, fixtures, and equipment using HEPA vacuums and wet wiping.
    b) Seal non-removable fixtures and equipment with polyethylene sheeting. Provide a minimum of 12" of overlap, sealed with spray adhesive and duct tape on both flap ends, on all joints in the barriers. Do not damage materials and items to be covered.

2. Provide and install transparent inspection windows in the containment barriers as indicated by the IH Consultant. Maintain inspection window clean of debris to allow for inspection of work in progress.

3. Complete other preparation work as necessary to allow for complete precleaning and allow for installation of containment barriers.

E. Primary Barrier:

1. Do not install primary barriers until all work area surfaces have been pre-cleaned using wet cleaning and HEPA vacuuming.

2. Protect building and other surfaces in the Work Area from damage from water and high humidity or from contamination from asbestos-containing debris, slurry, or high airborne fiber levels by covering with a primary barrier as described below. Coordinate with Owner to provide adequate ventilation to space and equipment that requires air ventilation.

3. Primary Barrier Sheet Plastic: Protect floor surfaces with a minimum of 2 layers of 6-mil plastic sheeting on floors. Provide additional floor protection as required to prevent damage to carpets and other existing flooring surfaces to remain after construction. Protect all existing walls, ceiling, fixed equipment, and other building surfaces with a minimum of 1 layer of 6-mil plastic sheeting in addition to critical barrier systems.

4. Provide a minimum of 12" of overlap, sealed (poly-to-poly) with spray adhesive and duct tape on both flap ends, on all joints in the barriers. Extend floor sheeting up adjoining walls a minimum of 18 inches. Do not place seams at, or within 18" of any wall, ceiling, or floor joints. Stagger all joints by at least 18 inches. Wall and vertical surface poly shall extend over floor sheeting such that floor sheeting extends up the wall and is covered by the wall sheeting overlap.

5. Protect all existing building surfaces and fixed equipment/items, also including non-ACM insulations in the work areas, with a minimum of 2 layers of 6-mil plastic sheet as required to maintain existing conditions and to prevent contamination, water damage, or other damages due to the work. Provide a minimum of 12" of overlap, sealed with spray adhesive and duct tape on both flap ends, on all joints in the barriers.

F. Seal all ducts and equipment with primary barriers. Isolate and shut down air systems in work area during abatement. Isolate all exterior intakes sufficiently from HEPA exhaust points. Ventilation units and ductwork shall be fully sealed with polyethylene sheeting.

G. Stop Work: If the Critical or Primary Barrier fails or is breached in any manner stop work immediately and repair the breach as required. Do not start work until authorized by the IH Consultant. Any contamination and/or suspect contamination, as determined by Owner and the IH Consultant, resulting from a breach in the barriers or other neglect by the Contractor shall be thoroughly abated in accordance with this Specification at no additional cost to Owner.

H. Decontamination Units

1. Provide personnel and equipment decontamination facilities in accordance with State and OSHA regulations and require that the personnel decontamination unit be the only means of ingress and egress for the Work Area (for personnel, waste, equipment, and other related items).

Provide portable shower units, with continuous dedicated water source, sufficient for personnel decontamination in accordance with State and OSHA regulations, and cascaded filter units on drain lines from showers or any other water source carrying asbestos-contaminated water from the Work Area. The clean room shall be a minimum of 24 square feet for work areas involving 3 or fewer workers entering the regulated area per work shift and a minimum of 32 square feet for all other projects.

2. Water from the shower shall either be filtered through a minimum of a 2-stage filtration assembly equipped with a 50-micron primary filter and a 5-micron final filter or containerized for disposal as asbestos waste. Do not discharge filtered water unless testing and permitting has been completed as applicable in accordance with State and local requirements.

3. Clean debris and residue from inside of Decontamination Units on an ongoing basis.

4. Post an asbestos warning sign at the entrance of the decontamination unit.

5. Secure door to entrance of decontamination unit at the completion or each shift.

I. Containment Locations

1. Construct and install containment barriers around each work area as coordinated and indicated by Owner and IH Consultant. Do not allow containment location and installation to inhibit access and adequate airflow to all other areas of the building and mechanical equipment. Coordinate with Owner the isolation of mechanical equipment in the work area.

3.2 REMOVAL OF ASBESTOS-CONTAINING MATERIALS

A. Inspections: Prior to commencing with ACM removal or other ACM disturbance, each individual work area must pass an inspection by the IH Consultant. If deficiencies are observed, immediate correct in a manner satisfactory to IH Consultant.

B. Maintain all work area isolation and controls during work of this section. The Contractor shall conduct ongoing inspections of the work area, adjacent areas, and surrounding areas beneath, as applicable, for containment breaches, leaks, or other containment failures. In the event breeches or potential breeches are identified, immediately repair the containment barriers as needed and complete all clean up and decontamination work.

C. Secondary Barrier: Over any floors and surfaces beneath ACM to be removed in the work areas, install as a drop cloth a clear 6-mil sheet plastic in all areas where asbestos removal work is to be conducted. Completely cover floor with sheet plastic. Install Secondary Barrier at the beginning of each work shift. Install only sufficient plastic for work of that shift. Remove Secondary Barrier at end of each work shift or as work in an area is completed. Carefully pack in disposal bags

D. Wet Removal and Waste Packaging - General:

1. Thoroughly wet ACM to be removed or otherwise disturbed prior to disturbance, stripping and/or tooling to reduce fiber dispersal into the air. Maintain materials as adequately wetted during Work and as required by NESHAPS. Accomplish wetting by a fine spray (mist) of amended

water. Saturate material sufficiently to wet to the substrate without causing excess dripping. Allow time for amended water to penetrate material and seams thoroughly. Spray material repeatedly during the work process to maintain a continuously wet condition.

2. Where necessary, carefully remove ACM while simultaneously spraying amended water to minimize dispersal of asbestos fibers into the air. Mist work area continuously with amended water whenever necessary to reduce airborne fiber levels. Do not allow ACM to dry out. As it is removed, simultaneously pack material into appropriate asbestos waste disposal bags/containers. For waste bags, twist neck of waste bags, bend over and seal with minimum three wraps of duct tape. Clean outside of packaging and move packaged waste to the equipment decontamination unit for further cleaning and waste re-packaging. Once in the equipment decontamination unit and cleaned, repackage waste in 2nd waste bag and seal as indicated above.

3. Continuously clean excess water using wet wiping and HEPA vacuuming such that excess water build up on the floor and other containment surfaces does not occur and so that water does not leak or migrate outside of the work area.

4. Use work procedures that result in 8-hour TWA and STEL airborne fiber counts less than the required limits established by OSHA and as described herein. If airborne fiber counts exceed this level immediately mist the area with amended water to lower fiber counts and revise work practices and engineering controls to maintain level within the required limits.

E. The contractor may encounter and shall investigate all areas of the building to identify concealed ACM insulation and miscellaneous ACM. Provide full access and selective controlled demolition, as necessary, to identify and fully remove all ACM. Remove as ACM all co-mingled debris or building materials where ACM is embedded or has come in contact with such material and decontamination is not feasible.

F. Other Safety: As applicable, comply with all appropriate safety procedures during Work in accordance with industry standards and all applicable OSHA regulations including but not limited to: confined space work safety procedures in accordance with 29CFR Part 1910.146; proper personal protective equipment; worker safety training and written programs per current OSHA requirements; fall protection; lockout tag out; and take precautions to avoid burns and heat stress when working in areas of hot equipment and excessive heat as applicable.

G. Removal of Tank, Breeching, Pipe and Fitting Insulation

1. Coordinate shut-off and lock-out/tag-out of systems with the Owner. Conduct removal work within full containment barriers. Cut bands holding preformed insulation, slit jackets at seams, remove, and hand place into a disposal bag. Remove job molded fitting insulation in chunks and hand-place to the bottom of the waste bag. Do not drop any material or allow material or water to fall onto the floor or other lower surfaces. Remove any residue on substrate with stiff-bristle-nylon hand brush. Place all waste directly into a waste bag by hand.

2. Remove fiberglass in contact with the ACM and damaged fiberglass insulation in the general vicinity of damaged ACM as asbestos contaminated waste. All other non-ACM insulation shall be precleaned, sealed in primary barriers and left in place unless otherwise designated by

Owner. Cut back (and remove as asbestos waste) all fiberglass insulation within 4" of ACM insulation removed.

3. In areas of soil/dirt floor, prior to removal and final preparation work, wet ground/floor areas with amended water. Hand-pick or HEPA vacuum gross debris from all surfaces. Fine cleaning or contaminated soil removal shall be completed following abatement of pipe insulation as indicated below. Once all gross debris has been removed, install negative pressure enclosures and polyethylene sheeting drop cloths.

4. After completion of gross removal and cleaning operations (and passing preliminary visual inspection by IH Consultant), remove the outer boiler casing within the containment area. Fully clean all exterior casing using wet wiping and HEPA vacuuming. Cover with polyethylene sheeting and store in the work area or place into temporary storage area(s) as approved by Owner. Once the exterior casing is removed, fully clean all insulation, gasket, and refractory brick as assumed ACM unless otherwise stated by Owner and IH Consultant based on proper testing to be performed as Owner deems in its best interest. In lieu of IH Consultant testing of suspect material, such materials shall be handled as, and removed as, ACM as stated herein. Coordinate all such testing of suspect material encountered with IH Consultant. Provide a minimum of 48 hours advance notice of requested testing by IH Consultant.

5. For boilers to be demolished as specifically indicated by Owner, fully disassemble, and demolish entire boiler as needed to remove ACM. Properly dispose of or recycle all boiler components and ash in accordance with local, state, and federal requirements in addition to Owner demolition specification sections. All assumed ACM and confirmed ACM insulation, gasket, packing, brick, and other ACM within and on the boiler shall be removed using the above stated methods by the abatement contractor. In the event that suspect ACM is encountered during disassembling and demolition of the boiler unit, work shall cease in the affected area, and the IH Consultant shall be notified. The IH Consultant shall then conduct testing or assume the materials to be ACM and the contractor shall then coordinate and conduct necessary abatement of all additional ACM identified in accordance with the work methods stated herein and applicable local, State and Federal requirements. Update all local, State and Federal permits and notifications as needed.

6. Properly dispose of or recycle all boiler components in accordance with local, state, and federal requirements in addition to Owner demolition specification sections.

7. After gross removal and final cleaning of the pipe insulation, remove drop cloths and ground/floor polyethylene sheeting in areas of soil contamination. Remove all visible debris to a minimum depth of 3" and lightly rake the surface while conducting misting operations. Start from the furthest point (away from decontamination unit) and do not track debris or walk from dirty areas to newly removed areas. Then inspect and rake through remaining soil areas and remove any debris. Continue process until no visible debris is present or can be brought easily to the surface. All soil generated by this process and debris shall be handled, packaged, and disposed of as Asbestos waste.

H. Glovebag Removal of Pipe and Pipe Fitting Insulation

1. Glovebags shall be used to remove pipe and pipe fitting insulation. Conduct glovebag removal within negative pressure enclosures or full containment barriers as indicated in Section 3.2. Glovebags shall be used in strict accordance with 29 CFR 1926.1101 (OSHA) and other applicable regulations. Conduct work in negative pressure enclosure or full containment barriers. Install polyethylene sheeting drop cloths beneath pipe areas to be worked and along all foot traffic areas in the work area. After the negative pressure enclosure is constructed, install glovebags in accordance with manufacturer's instructions and regulatory requirements.

2. Once completely sealed around the pipe to be worked, inspect glovebag for adequate seals and using proper smoke testing. Allow amended water to saturate material to substrate and ensure ACM remains adequately wetted. Cut bands holding preformed insulation, slit jackets at seams, remove, and hand place in a disposal bag or bottom of glovebag as applicable. Provide dedicated water supply to each glovebag during the entire removal and cleaning operation within the glovebag. Remove job molded fitting insulation in chunks and hand place to the bottom of the glovebag. Spray amended water continuously such that ACM is adequately wetted. Do not drop any material or allow material or water to fall out of the glovebag or to fall to the floor. Remove any residue on pipe or fitting with stiff-bristle-nylon hand brush. Once all cleaning is complete, twist the glovebag with the debris at the bottom of the glovebag and seal with duct tape. Remove the glovebag, bend the top over, and then reseal the neck with duct tape.

3. After gross removal and final cleaning of the pipe insulation, remove drop cloths and ground/floor polyethylene sheeting in areas of soil contamination. Remove all visible debris to a minimum depth of 3” and lightly rake the surface while conducting misting operations. Start from the furthest point (away from decontamination unit) and do not track debris or walk from dirty areas to newly removed areas. Then inspect and rake through remaining soil areas and remove any debris. Continue process until no visible debris is present or can be brought easily to the surface. All soil generated by this process and debris shall be handled, packaged, and disposed of as Asbestos waste.

I. Handling of suspect ACM Encountered in Mechanical Equipment and Previously Inaccessible Space

1. It is possible that the interiors of various mechanical equipment components at the site contain ACM. During the course of work, use care when accessing previous inaccessible spaces. Or mechanical equipment, in the event that gasket material, caulk, or other suspect insulation are encountered, notify Owner and IH Consultant immediately such that proper testing and inspection can be arranged for. In the event that ACM is identified requiring abatement, conduct abatement in accordance with this specification and the Contract Documents and as authorized by Owner. In the event that additional suspect ACM or known ACM is encountered within wall, floor, or ceiling space that was inaccessible previous to the work, stop work in the affected area and immediately notify the Owner and IH Consultant such that proper inspection and testing can be arranged for. Contractor shall conduct abatement of such additional ACM in accordance with this specification and the Contract Documents and as authorized by Owner.

J. Window Caulking and Glazing Material

1. Conduct work within exterior OSHA regulated Work area. Drop cloths of 6-mil polyethylene sheeting shall be placed on ground below each work area and extending out sufficiently to protect the ground from possible debris. The drop cloths and any debris generated shall be

disposed of as asbestos waste at the end of each work shift and following the work. Install critical barriers over windows, doors, and other openings in the building. Ensure ACM remains adequately wet. Remove entire window casing units intact without damaging caulk or glaze, packaging, and dispose of as ACM waste. Use hand tools and HEPA vacuums to scrape the caulking from the substrate. Use care to prevent the material from becoming friable. Clean all caulk material that may be encountered during window or door removal from the building substrate. Coordinate with the Owner for safety and building security for any areas that have entire window and/or door units removed.

2. The asbestos contractor shall conduct necessary inspections to ensure safe working conditions and install necessary supports, engineering controls and fall protection to allow for the safe removal of the ACM. Employee and/or General Contractor operations in the surrounding areas shall also be restricted as deemed necessary by the site supervisor/OSHA competent person.

3. The IH Consultant shall be providing representative perimeter area air monitoring during exterior ACM removal work. The acceptable perimeter air monitoring result is 0.010 f/cc.

K. ACM Sink Basin Undercoat

1. Conduct work within regulated area. Drop cloths of 6-mil polyethylene sheeting shall be placed on floors below each work area, and the drop cloths and any debris generated shall be disposed of as asbestos waste following the work. The sink basins containing ACM undercoating shall be removed in whole components. The panels shall be adequately wetted during the entire process. The panels shall be removed by removal of the trim, screws, and nails that secure the panels and using wet-wiping, HEPA vacuums, and continuous misting. Immediately wet-wipe and HEPA vacuum any debris or dust. All substrate and trim shall also be cleaned using wet wiping and HEPA vacuums. As the sinks are removed, wrap in two separate layers of 6-mil polyethylene sheeting, seal with duct tape and spray adhesives. Seal each layer separately. Properly label the outside of the sheeting as an asbestos waste container as indicated in this specification and in accordance with State and federal regulations. Clean all substrate, floor surfaces, and other items in the immediate work area using wet-wiping and HEPA vacuums. Do not render panels friable.

L. Textured Skim Coat Material

1. Conduct work within full containment barriers as indicated in Section 3.2. Drop cloths will be placed below each work area. Drop cloths and any debris generated will be disposed of as asbestos waste following each shift and at the completion of work. Allow amended water to saturate material to substrate and ensure ACM remains adequately wetted. Use care to maintain ACM intact and do not render the material friable. Remove gypsum panels and ACM in sections with care to minimize breaking and cutting to the extent needed to remove and package manageable sections of the ACM. As the material is removed, immediately package it as asbestos waste (gypsum board and joint compound). Remove all residual ACM and backing gypsum as asbestos waste. Remove and dispose fiberglass batting or other fibrous insulation in contact with the ACM, and insulation materials that are dislodged and exposed to the work area during removal, as asbestos waste.

2. Provide temporary support if needed and as applicable in order to remove the ACM and other ceiling material. Provide temporary mechanical supports to all fixtures, heat and smoke detectors, vents and other items attached to or above the gypsum board and ACM joint compound to be removed. Owner must approve all temporary support systems.

M. Sheet Flooring (Linoleum), Floor Tile and Mastics, and Carpet Adhesives/Mastics:

1. Ensure ACM, carpet and associated materials remains adequately wetted. Remove carpet covering ACM, as applicable, within negative pressure enclosure as indicated in Section 3.2. Carpet that has been in contact with ACM may be disposed of as general construction waste as long as no ACM or suspect debris is attached to carpet. Carpet that has ACM or suspect debris adhered to it shall be packaged and disposed of as asbestos waste. Remove cove base material in areas of flooring abatement and carpet removal (cove base mastic to remain). The ACM will be removed by hand scrapers and will not be allowed to dry out during removal and packaging. Do not render the materials friable and use care not to break ACM into small fragments during removal. Friable removal requires full containment barriers on all wall, floor, and ceiling surfaces. Mechanical or bead blasting methods are prohibited unless specifically approved in writing by Owner and Owner's IH Consultant. As removed, the ACM will be simultaneously packed while still wet into corrugated boxes or burlap bags and then sealed shut. The boxes/bags will then be sealed and placed into proper disposal bags. The necks of the disposal bags will be twisted, bent over and sealed with minimum three wraps of duct tape. Caution will be used to protect the bags and wrapping from tears and rips due to sharp edges.

2. Coordinate with Owner as necessary to assure compatibility with replacement materials prior to installation of solvents and coordinate special cleaning efforts with Owner for replacement issues in accordance with manufacturer's guidelines and flooring industry standards. Mastic on concrete shall be removed using a suitable solvent and manual scraping/brushing, wet wiping, and HEPA vacuums. Do not use solvents on any wood or other porous substrates. Do not allow solvent to leak out of the work area or seep into floor or wall cracks, and take precautions to prevent solvent from entering cracks and/or crevices in the concrete and wall/floor joints. All waste will be packaged into appropriate waste containers. Residue on the floor will be removed with stiff-bristle-nylon hand brush. This work will be repeated until all visible debris has been removed from substrate. In areas with solvent use, as requested by the Owner, leave adequate air filtration and pressure differential systems in continuous operation for at least 24 hours after the air clearance criteria has been met to allow for ventilation of odors.

3. For wood substrate with ACM mastic, remove wood substrate layer that has mastic applied to it. Fully remove the substrate layer in contact with mastic, mastic and associated debris using wet methods, brushes, and HEPA vacuums. Do not use solvents on wood substrate. Do not leave any sharp protrusions, not limited to nails and screws in the floor. Provide temporary floor work surface as needed to ensure safety.

4. For wood substrate with ACM mastic, scrape wood to remove all loose and protruding mastic and associated debris using wet methods, brushes, and HEPA vacuums. Do not use solvents on wood substrate. Do not leave any sharp protrusions, not limited to nails and screws in the floor. Provide temporary floor work surface as needed to ensure safety.

5. As applicable and possible, provide adequate inspection of the building spaces below areas of floor removal to detect, prevent and correct damage from liquids that escape the work area. Adequately wash all floor substrates and other building surfaces following abatement and clearance testing using an appropriate cleaner and water as needed to clean residual film and minimize residual odor. Do not damage remaining finishes and substrates and do not use excessive water. Package waste as asbestos waste.

N. Transite Panel Removal

1. Conduct work within regulated area. Drop cloths of 6-mil polyethylene sheeting will be placed on floors below each work area, and the drop cloths and any debris generated will be disposed of as asbestos waste following the work. The transite panels will be removed in whole sections as much as feasible. The panels will be adequately wetted during the entire process. The panels will be removed by removal of the trim, screws, and nails that secure the panels using wet-wiping, HEPA vacuums, and continuous misting. Immediately wet-wipe and HEPA vacuum any debris or dust. Do not break panels. All substrate and trim will also be cleaned using wet wiping and HEPA vacuums. As the panels are removed, wrap in three separate layers of 6-mil polyethylene sheeting, seal with duct tape and spray adhesives. Seal each layer separately. Properly label the outside of the sheeting as an asbestos waste container as indicated in this Work Plan and in accordance with State and federal regulations. Clean all substrate, floor surfaces, and other items in the immediate work area using wet-wiping and HEPA vacuums. Do not render panels friable.

O. Fixed Wall Tiles:

1. Allow amended water to saturate material to substrate and ensure ACM remains adequately wetted. Remove ACM fixed wall tiles from wall surface and properly package as ACM waste. Minimize dropping or falling material as much as feasible. Remove asbestos containing material in a gradual manner, with continuous application of the amended water in such a manner that no asbestos material is disturbed prior to being adequately wetted.

2. At no time shall asbestos material and debris be allowed to accumulate on work area surfaces or become dry. HEPA vacuum and wet clean all surfaces in the work area until surfaces are completely free of visible debris and dust.

3. Provide pre-packaging with corrugated boxes or suitable material as necessary to prevent tearing of waste bags.

3.3 INITIAL CLEAN-UP WORK

A. Once gross removal is completed, clean all visible debris on the substrate and containment barriers using HEPA vacuums, scrub brushes, and wet wiping. Do not allow materials to dry out. As material is removed and clean-up is completed, simultaneously pack wetted material into proper waste disposal bags or package as noted above. For waste bags, twist the neck of the bags, bend the neck over, and seal with a minimum of three wraps of duct tape. Clean the outside of the bags with wet wiping and HEPA vacuum and move to the wash down station in the Equipment Decontamination Unit. Once washed clean, place the clean disposal bags into a second asbestos disposal bag and seal the bag in the same manner as the first. Bags shall then be transported from the work area to the

asbestos waste dumpster. Note: Waste dumpster must remain labeled and locked at all times when loading is complete or idle.

B. Label waste dumpsters in accordance with 29 CFR 1910.145:

DANGER
ASBESTOS DUST HAZARD
CANCER & LUNG DISEASE HAZARD
AUTHORIZED PERSONNEL ONLY

C. Change all filters on the pressure differential systems and properly dispose of as asbestos waste. Maintain adequate filtration and pressure differential during all filter changes.

3.4 PROJECT DECONTAMINATION

A. Work of This Section includes the decontamination of air and surfaces in the Work Area which has been, or may have been, contaminated by the elevated airborne asbestos fiber levels generated during abatement activities, or which may previously have had elevated fiber levels due to ACM in the space. IH to be present to monitor decontamination and cleaning process.

1. First Cleaning

a) Carry out a first cleaning of all surfaces of the work area including items of remaining sheeting, tools, scaffolding and/or staging by use of damp- or wet-cleaning and mopping, and HEPA vacuuming. Do not perform dry dusting or dry sweeping. Use each surface of a cleaning cloth once only and then dispose of as contaminated waste. Continue this cleaning until there is no visible debris from the substrate and other work area surfaces.

b) At the completion of the above cleaning Contractor Supervisor shall visually inspect all work area surfaces. Re-clean if any dust, debris, etc. is found. Inspect the area and if any debris or dust is found, repeat the cleaning. Continue this process until no debris dust or other material is found while sweeping of all surfaces with forced air equipment (important: forced air sweeping to be used only in full containment work areas).

c) Remove and replace all negative air unit pre-filters, dispose of used filters as asbestos waste.

2. Second and Third Cleaning

a) At the completion of the first cleaning and Contractor inspection, carry out a second cleaning of all surfaces in the work area in the same manner as the first cleaning. For containments with multiple layers of polyethylene sheeting on floors, remove top layers of sheeting on the floor leaving one layer of the primary barrier remaining. Clean newly exposed areas as outlined above and dispose of removed sheeting as asbestos waste.

b) Carry out a third cleaning of all surfaces in the same manner as the first cleaning. Change filters on pressure differential systems and properly dispose of as asbestos waste. Allow for sufficient settling period prior to clearance testing. Complete additional cleaning as required and until no visible dust or debris is present.

B. Visual Inspection: After completion of above cleaning and Contractor's own visual inspection, The IH Consultant shall perform a visual inspection for debris from any sources, residue on surfaces, dust, or other matter in the Work Area to confirm the Contractor's inspection findings.

   1. For full containment work areas, during visual inspection sweep entire work area including walls, ceilings, ledges, floors, and other surfaces in the room with exhaust from forced air equipment (leaf blower with approximately 1 horsepower electric motor or equivalent).

   2. IH Consultant Visual inspection is complete when the area is visually clean, and no debris, residue, dust, or other material is found. If any debris, residue, dust, or other matter is found repeat Contractor cleaning and the IH Consultant Visual Inspection.

   3. Encapsulation of substrate: After successful final visual inspection, perform encapsulation of substrate as approved by Owner using suitable encapsulant material. Coordinate with Owner to ensure compatibility with replacement materials and fire-retardant ratings for the surfaces to be encapsulated. Do not allow overspray to damage other surfaces, materials and equipment in the work area and do not allow overspray and build up or pooling of encapsulant.

C. Clearance Testing: Air clearance sampling shall be conducted by the IH Consultant. See Work Area Clearance section. Air clearance testing shall not be completed until the work area passes visual inspection, has had adequate air changes, and sufficient time for surfaces to adequately dry.

D. Removal of Work Area Isolation: Complete only after the work area clearance sections have been met and verified by the IH Consultant. Remove all Primary Barrier sheeting and equipment decontamination unit(s), leaving only: critical barriers, personnel decontamination unit, and operational pressure differential/air filtration systems. Properly dispose of sheeting as asbestos-waste. Use care to prevent damage to building surfaces and materials during teardown. All damage to surfaces and materials shall be repaired by Contractor unless otherwise noted and agreed to in writing by Owner.

   1. Re-inspect all work area surfaces and adjacent areas for any dust and debris that may have originated from the work. Clean all surfaces using HEPA-vacuums and wet-wiping as required and until all surfaces are clean of visible debris. Shut down and remove the Pressure Differential System. Seal HEPA filtered fan units, HEPA vacuums and similar equipment with 6 mil polyethylene sheet and duct tape to form a tight seal at intake end before being moved from Work Area.

   2. Remove personnel decontamination unit. Remove the critical barriers and properly dispose of as asbestos-waste. Clean all surfaces using HEPA-vacuums and wet-wiping as required and until all surfaces are clean of visible debris.

E. Final Cleaning: This cleaning is now being applied to existing room conditions. Take care to avoid watermarks or other damage. Wet-wipe and HEPA vacuum surfaces in the work area until clean and free from dust and debris. Complete final cleaning in accordance with the project close-out requirements. Accompanied by the Owner, the Contractor Site Supervisor shall complete a final post-abatement inspection of all surfaces and re-clean and conduct repairs, as necessary.

3.5 WORK AREA CLEARANCE

A. Contractor Release Criteria: The Work Area shall be considered cleared when the Work Area meets the final visual inspection criteria described in the project decontamination section and airborne fiber structure concentrations have been reduced to the level specified below and pursuant to applicable State and federal asbestos regulations. The contractor must provide at least 48 hours advance notice to the IH Consultant for any clearance testing or other inspections required.

B. Clearance Air Monitoring: Air clearance samples shall be collected by the IH Consultant. In full containment areas air clearance sampling shall be conducted using aggressive sampling techniques in accordance with state and federal regulations.

C. Analytical Method: The number and volume of air samples taken and analytical methods used by the IH Consultant based on conditions of work and the various State and federal requirements. Phase Contrast Microscopy (PCM) and Transmission Electron Microscopy (TEM) may be used for analysis of clearance samples collected to confirm completion of abatement of ACM in accordance with applicable State and federal regulations. Other analytical methods may also be used as determined by IH Consultant based on conditions of the work and other factors.

D. PCM Air Clearance Testing: Decontamination of Work Areas requiring PCM air clearance testing only is complete when every Work Area clearance sample collected has total fiber concentrations below the 0.010 f/cc. If any sample does not meet the clearance criteria, the decontamination is incomplete and Contractor shall repeat final cleaning. The Contractor shall be responsible for all costs for each subsequent and additional round of testing and analysis required until the clearance criteria are met.

3.6 DISPOSAL OF ASBESTOS-CONTAINING WASTE MATERIAL

A. General: Asbestos-containing waste materials and debris which is packaged in accordance with the provisions of this Specification may be disposed of at designated sanitary landfills when certain precautions are taken not limited to: notice to appropriate EPA Regional Offices and notice and permit from appropriate State and local agencies are completed. Waste disposal site(s) must be properly licensed, permitted, and qualified to accept and handle Asbestos waste in accordance with all applicable local, State, and federal codes and regulations.

B. Disposal: Comply with the following sections during all phases of this work: worker protection requirements and respiratory protection requirements. All waste is to be hauled by a waste hauler with all required licenses and permits from all state and local authority with jurisdiction.

    1. Carefully load all containerized asbestos-containing waste material on sealed and lined trucks or other appropriate vehicles for transport. Exercise care before and during transport, to ensure that no unauthorized persons have access to the materials.

    2. All ACM and asbestos materials removed are to be properly containerized in one of the following: (1) Two 6 mil disposal bags, or (2) Two 6 mil disposal bags and a fiberboard drum, or (3) equivalent method as approved by Owner and State. Do not store disposal bagged material outside of the work area. Take bags or drums from the work area directly to a sealed truck or dumpster. Glove bags shall not be used as waste disposal bags.

3. The owner shall provide a designated location for placement of proper waste dumpster. Line waste dumpster with a minimum of 2 layers of 6 mil polyethylene sheeting and such that a minimum total of 20 mils of lining exists (including waste bags). Waste dumpster(s) shall not be allowed to remain at the job site for longer than 72 hours upon completion of each phase (work area) of work by the Contractor. Do not transport disposal bagged materials on open trucks. During loading and unloading, properly demarcate and label dumpster on all 4 sides. Dumpster shall be sealed, labeled, and locked during all non-loading periods.

4. In accordance with NESHAPs and State regulations, advise the landfill operator or processor in advance of transport of the quantity of material to be delivered. At a disposal site, sealed plastic bags may be carefully unloaded from the truck. If bags are broken or damaged, leave in truck and clean entire truck and contents using procedures set forth herein. Retain receipts from landfill or processor for materials disposed of. At completion of hauling and disposal of each load submit copy of waste manifest, chain of custody form, and landfill receipt to Owner and IH Consultant.

5. Provide copy of waste shipment record (complete to date) to Owner and IH Consultant prior to removing waste from the site. Provide final copy of completed waste shipment record to Owner and IH Consultant within 25 days of removing waste from the site.

3.7 ASBESTOS PROJECT CLOSEOUT

A. The contractor shall achieve Substantial Completion and then Final Completion as indicated below prior to requesting final payment.

B. General cleaning during and after construction is required as needed to maintain general housekeeping and as otherwise required herein. Complete all final, general housekeeping and cleaning in the work areas in accordance with 29 CFR Part 1910 and 29 CFR Part 1926, as applicable. Remove temporary protection and facilities installed for protection or security of the work during construction. 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 Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from the site and dispose of them in a lawful manner. Where extra materials of value remaining after completion of associated Work have become the Owner's property, arrange for disposition of these materials as directed.

C. Conduct all other related work, non-asbestos work, and general construction activity in accordance with the Contract Documents and Owner’s written request.

D. Substantial Completion consists of the following: (1) all work area abatement, decontamination and related site work is complete; (2) interim submittal requirements are submitted; (3) final visual inspection and air clearance requirements have been met in each work area; (4) removal of containment barriers and Contractor equipment is complete; (5) all general cleaning has been performed and approved as indicated herein; (6) other work tasks and administrative requirements have been completed in accordance with the contract documents and specification; and (7) post-abatement site inspection and review with Owner has been performed.

E. Final Completion consists of the following: (1) Substantial Completion met; (2) completion of all Closeout Submittal requirements; and (3) complete, to Owner's satisfaction, any remaining punch-list items identified during the post-abatement site inspection with Owner.

END

TABLE A1

SUMMARY OF ACM TO BE REMOVED

MATERIAL DESCRIPTION	LOCATION	QUANTITY	EPA CATEGORY	ASBESTOS CONTENT
Carpet Adhesive/Mastic	Building G – Hallway interior space only	13,400 SF	Category I Nonfriable	3.16%-6.58% Chrysotile
9" Grey Vinyl Floor Tile with Mastic	Building G, Interior, Classroom Bathrooms, Closet and Kitchen Spaces		Category I Nonfriable	4.34%-7.59% Chrysotile
12" Floor Tile with Mixed Mastic	Building G – Throughout interior classroom spaces A-D, 1-6, Teacher Lounge and "Office"		Category I Nonfriable	0.12%-6.2% Chrysotile
Window Glaze, Grey	Building G & B - Aluminum Frame Windows Throughout all Spaces, Interior	2600 LF	Non-ACM	0.09%-0.33% Chrysotile
1' x 1' Fixed Wall Tile – Fissure & Dot	Building G, interior - Acoustic Room	200 SF	Friable	3% Amosite
Black Sink Basin Undercoat	Building G, Acoustic Room	8 SF	Category II Nonfriable	1.91% Chrysotile
Window Caulk, Grey	Building B & Building G, interior, at wire mesh windows in steel frames	158 LF	Category I Nonfriable	2.62%-2.72% Chrysotile
Window Glaze, White and Grey	Corridor from Building G to K, Upper and Lower, Windows	800 LF	Category II Nonfriable	0.17%-2.45% Chrysotile
Black Flooring Adhesive, "Mastic"	Building B interior, Throughout 2nd floor, residual locations 1st floor	6920 SF	Category I Nonfriable	3.68%-5.52% Chrysotile
Mudded Fitting Insulation	Building B, 1st Floor and 2nd Floor hidden in wall cavities at plumbing walls. 1st floor – loose Pipe Insulation and fittings from Corridor, in storage	90 EA	Friable	20% Chrysotile
Mudded Fitting Insulation	Building G, including Auditorium, South Half of Building – HVAC/Mech rooms, plumbing walls, horizontal chase above hallway and at classroom heat radiators - throughout	155 EA	Friable	3% Chrysotile
Decorative Surfacing	Building B, at entry overhang and throughout the 2nd floor	5300 SF	Friable	3% Chrysotile, 2% Amosite
Transite Electric Panel Board - Black	Building G, interior, Electrical Closet	8 SF	Category I Nonfriable	Previously Identified
Transite Paneling - Grey	North Exterior of Building B Transoms, Building G Southwest Exterior, Door Transoms	464 SF	Category I Nonfriable	Previously Identified

C1 EXISTING SECOND FLOOR - BUILDING B
SCALE: 1/8" = 1'-0"

B1 EXISTING FIRST FLOOR - BUILDING B
SCALE: 1/8" = 1'-0"

A1 EXISTING BASEMENT - BUILDING B
SCALE: 1/8" = 1'-0"

Harriman

MACKWORTH ISLAND
IMPROVEMENTS
PHASE 1

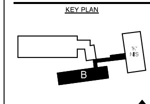
FALMOUTH, ME

Harriman Project No.	23216

GENERAL NOTES

1. ALL WORK TO BE DONE IN COMPLIANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS, CODES AND STANDARDS; AND MEET THE REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION.
2. BUILDINGS AND CONNECTORS NOTED TO BE DEMOLISHED IN THEIR ENTIRETY. REMOVALS TO INCLUDE ALL FOUNDATIONS, FOOTINGS AND ASSOCIATED CONSTRUCTED SUB GRADE ELEMENTS.
3. SEE SPECIFICATIONS BACKFILLING SCOPE REQUIREMENTS.
4. DRAWINGS ARE ILLUSTRATIVE OF EXISTING CONDITIONS FOR SCOPE AND ESTIMATING PURPOSES. CONDITIONS HAVE NOT BEEN FIELD VERIFIED. IT IS THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY ALL CONDITIONS.
5. REMEDIATION OF HAZARDOUS MATERIALS TO BE COMPLETED PRIOR TO DEMOLITION WITH NOTED EXCEPTIONS
   - ROOFING: SEE HAZARDOUS MATERIALS REPORT
   - ANY HAZARDOUS MATERIALS DISCOVERED DURING DEMOLITION PROCESS SHOULD FOLLOW APPROVED ABATEMENT PROCEDURES AND APPLICABLE LAWS.
6. ALL BUILDING PLUMBING UTILITIES TO BE DISCONNECTED AND CAPPED AT THE SHUT OFF VALVES PRIOR TO START OF DEMOLITION.
7. TEMPORARY SINGLE POINT POWER AND WATER CONNECTIONS PROVIDED BY OWNER. SEE LOCATION NOTED. CONTRACTOR RESPONSIBLE FOR CODE COMPLIANT DISTRIBUTION BEYOND SINGLE POINT PROVIDED.
8. BUILDING UTILITIES LOCATED WITHIN THE PROJECT SCOPE AREA THAT SERVE OTHER BUILDINGS TO BE MAINTAINED. ANY DISRUPTION CAUSED BY THE SCOPE OF WORK IS TO BE COORDINATED WITH OWNER AND UTILITY PROVIDER PRIOR TO ASSOCIATED WORK.
9. ANY ASSOCIATED UTILITIES SERVING BUILDINGS 'B' AND 'G' FROM DISTRIBUTION THAT ALSO CONNECTS TO OTHER BUILDING IS TO BE DISCONNECTED WITH NO DISRUPTION OF SERVICE TO OTHER BUILDINGS. DISCONNECT WORK TO BE COORDINATED WITH OWNER AND UTILITY PROVIDER PRIOR TO ASSOCIATED WORK.

KEY PLAN



PRELIMINARY
NOT FOR
CONSTRUCTION

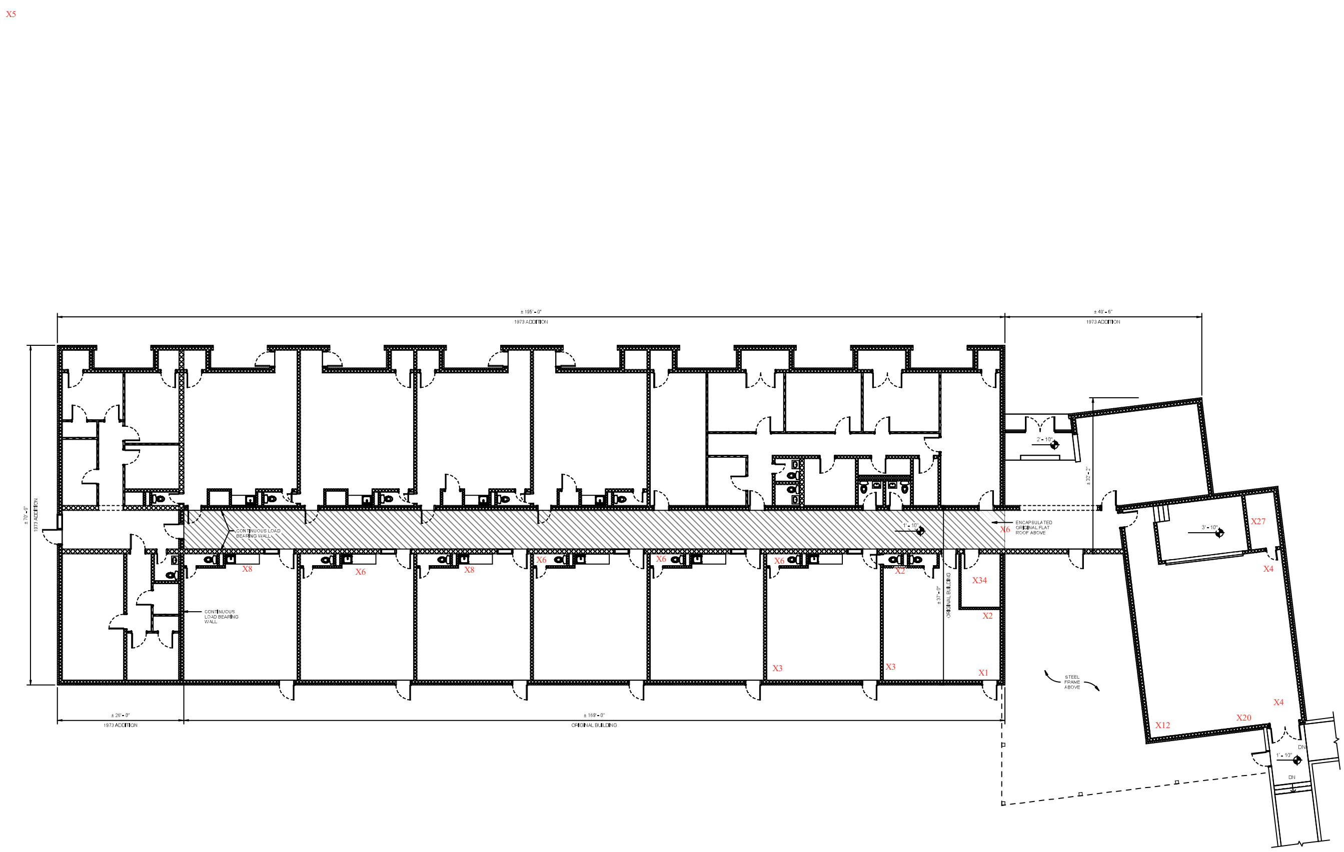
EXISTING CONDITIONS

MARCH, 2024

Revision Date	Revision Description

EXISTING FLOOR PLANS - BUILDING B

A05-1B



A1 EXISTING FIRST FLOOR PLAN - BUILDING G

SCALE: 1/8" = 1'-0"

Harriman

MACKWORTH ISLAND IMPROVEMENTS PHASE 1

FALMOUTH, ME

Harriman Project No.	23216

GENERAL NOTES

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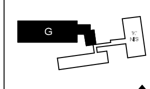


Graphic Scale 0" 1" (scale measures 1" when plotted at full size) | Plan North | True North

PRELIMINARY NOT FOR CONSTRUCTION

EXISTING CONDITIONS

MARCH, 2024

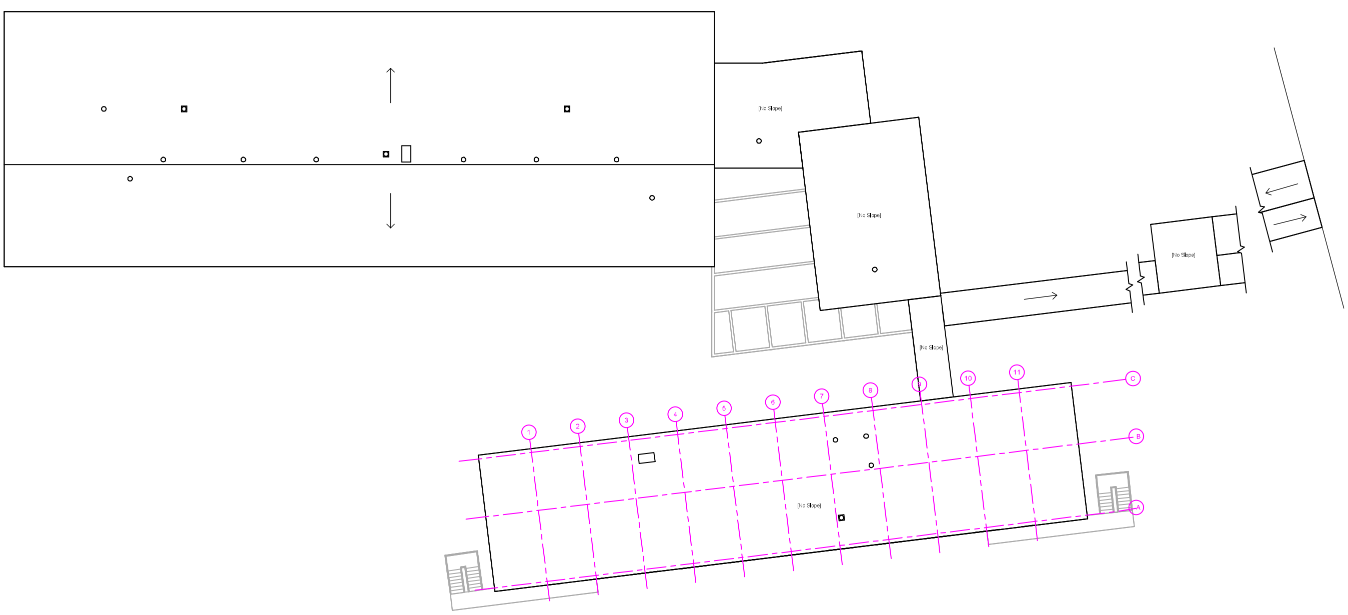
Revision Date	Revision Description

Drawn by: Author

EXISTING FIRST FLOOR - BUILDING G

A05-1G

X5



A1 EXISTING ROOF PLAN
SCALE: 3/32" = 1'-0"

Harriman

MACKWORTH ISLAND
IMPROVEMENTS
PHASE 1

FALMOUTH, ME

Harriman Project No.	23216

GENERAL NOTES

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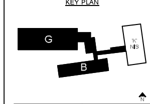


Graphic Scale
0" 1"
(scale measures 1" when plotted at full size)

Plan North True North

PRELIMINARY
NOT FOR
CONSTRUCTION

PROGRESS

MARCH, 2024

Revision Date	Revision Description

Drawn by: Author

ROOF PLAN

A05- 2

SECTION 028300

LEAD REMEDIATION WORK

Mackworth Island Governor Baxter School for the Deaf
Falmouth, ME
Project No. 240042

Contents

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. General provisions of the Contract, including General and Supplementary Conditions and Other Abatement Specification Sections, apply to the work of each of the Specification Sections.

B. This section addresses abatement of lead paint related activities only.

1.2 PROJECT SCOPE-OF-WORK

A. Provide labor, materials, and equipment to complete the work specified of this Section including, removal and lawful transport and disposal of lead containing material (LCM).

B. All lead removal work is to be completed in accordance with the requirements set forth herein. The scope-of-work includes the removal, transport, and disposal of designated LCM in the Mackworth Island Governor Baxter School for the Deaf Andrews Avenue in Falmouth, Maine. All work is to be completed in accordance with the schedules stated herein, in the Contract Documents, and as designated by the Owner. All work is to be completed in strict accordance with applicable local, state, and federal codes and regulations and the requirements stated in this specification and Contract Documents.

C. It is essential that all work be phased and scheduled as required to facilitate Owner's renovation and upgrade work.

D. Reference full inspection reports for discussions and additional information and limitations of Owner survey.

E. The work areas have or may have other regulated or hazardous materials present that are not covered in the Section including but not limited to polychlorinated biphenyl (PCB)-containing materials, mercury, guano, mold contamination, other hazardous materials, and universal waste. Contractor's OSHA-competent person shall also inspect the workplace for other potential hazardous building material during the work. If encountered during the work immediately notify Owner's Representative. Use only qualified, trained workers to remove, package, transport, and dispose (or recycle) of such material in strict compliance with all local, State, and Federal requirements.

1.3 WORK SCHEDULES

A. All work shall be completed in accordance with the schedule requirements as indicated by the Owner and as stated in the Contract Documents.

B. All work shall be strictly coordinated and scheduled by the Contractor as indicated by and approved by the Owner, the Owner's industrial hygiene consultant (IH Consultant), and the General Contractor. Work is to be phased as required to facilitate Owner operations, general occupancy of the site, and general construction activity. Contractor must provide proposed daily schedules to Owner and IH Consultant for each phase of work and each Owner work request. Adequate advance notice shall be provided to the Owner and the IH Consultant prior to any schedule changes. Start and completion dates for the work and specific phasing requirements not otherwise specified herein shall be submitted to Owner and IH Consultant for approval. Contractor shall update all State and EPA notifications and permits as needed for schedule modifications.

1.4 CONTRACTOR ESTIMATES

A. Estimates: Contractor shall conduct necessary field measurements and site review as deemed necessary by Contractor to delineate the scope of work and site conditions prior to submittal of

bid. Contractor shall note on bid any discrepancies between Contractor field measurements and listings of work stated herein. It is the responsibility of the Contractor to verify all project information and site conditions as necessary to satisfy the Contractor as to the requirements of the work for each specific phase of the project. The Contractor must notify the Owner and the IH Consultant of any conflicting information or clarifications required for the preparation of any bids, estimates, and submittal documentation.

1.5 EXISTING CONDITIONS

A. Prior to commencement of work, inspect areas in which work shall be performed. Prepare a listing and photographs of damage to structure, surfaces, finishes, insulations, and equipment that could be misconstrued as damage resulting from the work. The contractor is responsible for all damage to equipment, furnishings, finishes and building surfaces in the work area and adjacent caused by the Contractor during the course of abatement and general housecleaning. Contractor is responsible for completing all repairs to damaged items/surfaces caused by the work. In addition, Contractor must fully repair all tape, adhesive, and other staining and damage to meet or exceed existing conditions.

1.6 POTENTIAL LEAD HAZARD

A. Work involving lead-containing components, as indicated in the lead removal specification, may generate lead dust and debris, and could therefore pose a potential health hazard to both workers and other building occupants. Because lead is a cumulative and persistent toxic substance and because lead-caused health effects may result from low levels of exposure over prolonged periods of time, engineering controls and good work practices must be used to minimize employee exposure to lead. Therefore, workers must be made to realize the seriousness of non-approved procedures and their consequences.

B. During the course of the LCM removal or other related work, if workers or other tradespeople encounter and/or disturb existing lead-containing components, then appropriate safety and worker protection measures will be taken to ensure protection from potential lead exposure. These safety measures shall include those procedures contained herein, as applicable, and any additional controls not originally necessary. Safety measures shall be in accordance with all federal, state, and local regulations. Complete, and coordinate with Owner as applicable, all communication of hazards in strict accordance with 29 CFR 1926 and other applicable State and federal regulations for lead, asbestos, PCB, mercury, fluorescent light bulbs, and other anticipated hazards. The Contractor shall coordinate with the Owner and the IH Consultant to review all existing inspection records and testing results as needed.

1.7 CONTRACTOR USE OF PREMISES

A. General: The Contractor shall limit his use of the site to the work indicated, so as to allow for Owner operations and general construction activity. Confine operations at the site to the specified work areas of the Specification. Take all precautions necessary to protect the site, buildings, any occupants, and surrounding areas from work-related hazards during the construction period. Maintain building in a safe and structurally sound condition throughout the work. Maintain access to the public and other trades in designated areas (for example, stairwells) as indicated herein and

as otherwise noted by Owner. Provide additional barriers and site security as needed to accommodate such access. Use care to prevent damage to existing surfaces during installation of solid barriers, critical barriers, and primary isolation barriers.

B. Install solid barriers to prevent unauthorized access and visibility from adjacent, public, or Owner-occupied areas as designated by Owner and using materials and construction methods approved by Owner.

1.8 STOP WORK

A. The Contractor's Site Supervisor shall stop work and shall not proceed until corrective measures are implemented in the event that any of the below occur:

   a. Failure to work in accordance with state and federal regulations or this plan.
   b. Area monitoring results that exceed the contaminant specific OSHA Action Level for Lead of 30 µg/m^3.
   c. Personnel exposure monitoring results that exceed the OSHA eight (8) hour time-weighted average (TWA) of 50.0 ug/m^3 of air for Lead.
   d. Other potential safety, health and environmental emergencies, and changes in conditions of the work as required.

B. Complete all corrective work with no change in the Contract Price if elevated airborne lead concentrations or other conditions resulting in stop work were caused by Contractor activities or compliance deficiencies.

1.9 PROJECT COORDINATION

A. Site Supervisor: Provide a full-time Site Supervisor who is experienced in administration and supervision of lead paint removal projects including work practices, protective measures for building and personnel, disposal procedures, etc. This person is the Contractor's Representative responsible for compliance with the specification and all applicable federal, state, and local regulations.

   1. Experience and Training: The Site Supervisor must have completed a course at an EPA Training Center or equivalent certificate course in lead abatement procedures and have had a minimum of five (5) years on-the-job training in similar lead paint abatement procedures.

   2. Accreditation/Qualifications: The Site Supervisor is to be (1) a Competent Person as required by OSHA in 29 CFR 1926.62

B. Project Manager: Provide a qualified and experienced project manager to perform administrative and project management responsibilities and to serve as Contractor management point of contact in addition to the project supervisor.

C. Pre-Construction Conference: An initial progress meeting, recognized as "Pre-Construction Conference" shall be convened by Owner with Contractor prior to the start of work for each phase.

This meeting shall be held to review the scope of work, scheduling, coordination, and contractor plan of action and submittals and other applicable items.

D. Daily Log: Maintain at the work area a daily log documenting the dates and time of but not limited to, the following items:

1. Visitations; authorized and unauthorized
2. Daily sign-in sheet for all personnel entering and leaving the work area (name, certification, expirations).
3. Special or unusual events, i.e., barrier breaching, equipment failures, accidents
4. Documentation of the following:

    a) Supervisor's daily inspections and exposure monitoring test results.
    b) Work progress each day for each work area.
    c) Removal of waste material (number and type of containers) from each work area.
    d) Removal of waste from site including a copy of the accompanying waste shipment record.
    e) Decontamination of work area and equipment.
    f) Final inspection and air clearance results; and
    g) Documentation of containment removal and final general housecleaning activity.

5. Complete and maintain a daily log in accordance with applicable State and federal record keeping requirements. Provide access to logs to the Owner and IH Consultant at all times and provide copies of logs with the submittal package in accordance with the construction submittal requirements.

1.10 STANDARDS

A. Applicability of Standards: It is the Contractor's responsibility to complete all work in accordance with (or exceeding) all applicable industry standards and guidelines. Except where Contract Documents include more stringent requirements, all applicable construction industry standards have the same force and effect as if bound or copied directly into Contract Documents. Applicable construction standards are made a part of the Contract Documents by reference. Where compliance with an industry standard is required, comply with the most current standards in effect as of date of Contract Documents.

B. Conflicting Requirements: Where compliance with two or more standards is specified, and they establish different or conflicting requirements for minimum quantities or quality levels, the most stringent requirement shall be enforced, unless the Contract Documents indicate otherwise. Refer to the Owner and IH Consultant any requirements that are different or conflicting; outline the more stringent requirement before proceeding.

C. Comply with applicable standards including, but not limited to, American National Standards Institute (ANSI) standards and American Society for Testing and Materials (ASTM) standards.

1.11 CODES, REGULATIONS, AND STANDARDS

A. Adhere to work practices and procedures set forth in applicable codes, regulations and standards related to work. Obtain permits, licenses, inspections, and similar documentation, as well as payments and similar requirements associated with codes, regulations, and standards. Update permits, as necessary.

B. The Contractor shall assume full responsibility and liability for compliance with all applicable Federal, State, and local regulations pertaining to work practices, hauling, disposal, and protection of workers, visitors to the site, and persons occupying areas adjacent to the site. The Contractor is responsible for providing medical examinations and maintaining medical records of personnel as required by the applicable Federal, State, and local regulations. The Contractor shall hold Owner, Owner's Project Management Consultant, and IH Consultant harmless for failure to comply with any applicable work, hauling, disposal, safety, health, or other regulation on the part of himself, his employees, or his subcontractors.

C. All work performed under this contract shall comply with applicable provisions, including most current versions, and not limited to the listed and all other applicable local, state, and federal codes and regulations.

D. Federal Requirements: which govern lead paint related work or hauling, and disposal of lead waste materials include but are not limited to the following:

1. Code of Federal Regulations

    i. 29 CFR 1910, "Occupational Safety and Health Standards" (General Industry Standards)

    ii. 29 CFR 1910.20, "Access to Employee Exposure and Medical Records"

    iii. 29 CFR 1910.134, "Respiratory Protection"

    iv. 29 CFR 1926.59, "Hazard Communication"

    v. 29 CFR 1926, "Safety and Health Regulations for Construction" (Construction Industry Standards)

    vi. 29 CFR 1926.62 "Lead-Construction"

    vii. 40 CFR 117, "Determination of Reportable Quantities for Hazardous Substances"

    viii. 40 CFR 122, "EPA Administered Permit Program: The National Pollutant Discharge Elimination System"

    ix. 40 CFR 172, "Hazardous Waste Transportation"

    x. 40 CFR 261, "Identification and Listing of Hazardous Waste"

    xi. 40 CFR 262, "Standards Applicable to Generators of Hazardous Waste"

xii. 40 CFR 263, "Standards Applicable to Transporters of Hazardous Waste"

xiii. 40 CFR 268, "Land Disposal Restrictions"

xiv. 40 CFR Part 745, EPA Lead Renovation, Repair and Painting (RRP) Rule

2. Occupational Safety and Health Administration OSHA Booklet 3126 "Working with Lead in the Construction Industry."

3. National Institute for Occupational Health and Safety

i. NIOSH Method 7082, "Lead"

F. Maine Department of Environmental Protection: which govern lead paint related work or hauling, and disposal of lead waste materials include but are not limited to the following:

1. Chapter 424 Lead Management Regulations

1.12 DEFINITIONS

A. General Definitions: Definitions contained in this Section are not necessarily complete but are general to the extent that they are not defined more explicitly elsewhere in the Contract Documents.

1. Directed: Terms such as "directed", "requested", "authorized", "selected", "approved", "required", and "permitted" mean "directed by Owner's representative", "requested by the "IH Consultant", and similar phrases. However, no implied meaning shall be interpreted to extend the IH Consultant's responsibility into the Contractor's area of construction supervision.

2. Approve: The term "approved," where used in conjunction with the Owner, Owner's Project Management Consultant, or the IH Consultant's action on the Contractor's submittals, applications, and requests, is limited to the responsibilities and duties of the IH Consultant as indicated in the Contract Documents. Such approval or acceptances do not express or claim any certification of completeness, compliance, or approval of programs and documentation, including but not limited to review of analytical results, historical information, and interpretations. Such approval shall not release the Contractor from responsibility to fulfill Contract Document requirements, unless otherwise provided in the Contract Documents.

3. Furnish: The term "furnish" is used to mean "supply and deliver to the project site, ready for unloading, unpacking, assembly, installation, and similar operations."

4. Install: The term "install" is used to describe operations at project site including the actual "unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning and similar operations."

5. Provide: The term "provide" means "to furnish and install, complete and ready for the intended use."

6. Installer: An "Installer" is an entity engaged by the Contractor, either as an employee, subcontractor, or sub- subcontractor for performance of a particular construction activity, including installation, erection, application, and similar operations. Installers are required to be experienced in the operations they are engaged in performing.

7. IH Consultant: This is the entity employed or engaged as industrial hygiene consultant as described in the Contract Documents. All references to Owner's Consultant, Air Monitoring Consultant, or Consultant with regard to lead paint related work in the Contract Documents in all cases refer to the IH Consultant. The IH Consultant shall represent Owner during work and until final payment is due. The Owner representative may also constitute other people representing Owner, other than the IH Consultant or consultant, as indicated by Owner. Owner's instructions to the Contractor shall be made directly to the Contractor or forwarded through the IH Consultant.

8. Site Supervisor: This is the Contractor's Representative at the work site. This person shall be the Competent Person required by OSHA in 29 CFR 1926.62 and licensed Site Supervisor/Foreman as required by the State. Provide licensed supervisor at each individual work site during work.

B. Definitions – Lead related:

1. The term “Lead-Based Paint” (LBP) is identified as paint or other surface coating such as varnish, sealer or stain containing lead in any detectable amount.

2. The term "Incidental Removal or Disturbance of Lead-Based Paint" indicates one or more of the following operations:

3. Scraping, hand sanding, or otherwise removing loose LBP from existing surfaces scheduled to remain in place.

4. The term “Demolition of LCM” refers to cutting, drilling, abrading, demolishing, or otherwise disturbing building elements coated with LBP or containing lead.

5. The term “Lead-Containing Materials” (LCM) is identified as construction debris coated with lead-based paint or other materials containing lead, such as x-ray shielding.

6. The term "Critical Barrier" indicates the perimeter of the enclosure within which lead disruption/removal work takes place. Critical Barriers may include existing floor, wall, and ceiling structures, as well as constructed partitions, closures, and seals.

7. The term "Project Site" indicates the limits of the Project Site as indicated on drawings or by provisions of this specification.

8. The term "Work Area" indicates the area within the Critical Barrier.

9. The term “Action Level” means exposure to an airborne concentration of lead of 30 micrograms per cubic meter of air calculated as an 8-hour time-weighted average (TWA).

10. The term “Exposure Assessment” means a determination of employee exposures for a given task measured by air monitoring. The Assessment must meet the criteria for objective data as outlined in the OSHA Lead in Construction Standard (29 CFR 1926.62).

11. The term “OSHA PEL” stands for the Permissible Exposure Limit established by the Occupational Safety and Health Administration for lead exposure. The OSHA PEL refers to an airborne concentration of lead of 50 micrograms per cubic meter of air calculated as an 8-hour time-weighted average (TWA).

12. The abbreviation “TCLP” stands for Toxicity Characteristic Leaching Procedure and refers to one of the tests to determine if waste is considered a Hazardous Waste or non-hazardous solid waste.

13. The term “Hazardous Waste” refers to a listed waste or any solid or liquid waste with one or more of the following characteristics: toxic, corrosive, flammable, explosive, combustible, oxidizer, pyrophoric, unstable (reactive) or water - reactive.

14. The term “Non-Hazardous Waste” refers to any solid or liquid waste not exhibiting characteristics of Hazardous Waste.

1.13 SUBMITTAL REQUIREMENTS

A. Submittal Schedule: The Contractor shall provide submittals as specified herein including (1) Preconstruction Submittal Documentation prior to start of work and (2) Project Closeout Submittals within 25 days upon completion of on-site work. Submit ongoing submittals as required herein and as specified by the Owner and IH Consultant. Provide at the job site a copy of all current submittal packages and related documentation. Ongoing submittals shall also be submitted during the work as required to update the Pre-construction and Closeout submittals including, but not limited to:

B. Exposure Assessment Documentation

C. All information used to document previous employee exposure assessments, if available. If not available, conduct an initial exposure assessment at the start of the project.

D. Written Compliance Plan: Submit a Written Compliance Plan incorporating all requirements in the OSHA Lead in Construction Standard. Also indicate type of containment and method of liquid waste capture to be established if water is utilized for removal.

E. Health and Safety Requirements: Submit to OWNER the following information for each employee that will conduct lead disturbance on the job site:

    a. Respiratory Protection Program.

    b. Proof of current fit test for respirator that will be worn on Project Site.

c. Proof of medical surveillance for respirator usage and lead work.

F. Proof of lead awareness training

G. Prepare a written schedule for each operation expected to disturb/remove LCM, indicating the following:

a. Type of work to be performed, such as cutting, demolition, paint removal, or other action.

b. Location of work to be performed.

c. Proposed starting date and time.

d. Proposed working hours.

e. Proposed duration.

1.14 TEMPORARY FACILITIES

A. General: Provide temporary connection to existing building utilities or provide temporary facilities as required to complete work. The owner must approve all connections to utilities and facility components. Provide temporary portable water and power sources for all exterior work as indicated and coordinated with Owner, as applicable.

B. Water Service:

1. Temporary Water Service Connection: Provide hot and cold water to the Work Area. Provide a qualified and experienced licensed plumber as necessary to complete all water service work in conformance with applicable building codes and regulations.

2. All connections to the Owner's water system shall include back-flow protection. Monitor for leaks and repair or replace as needed.

3. Water Hoses: Employ suitable heavy-duty abrasion-resistant hoses to provide water into each work area and to each Decontamination Unit.

C. Electrical Service:

1. General: Provide a qualified and experienced licensed electrician to complete all electrical service work. Comply with applicable OSHA, NEMA, NECA, UL and other industry standards and governing regulations for materials and layout of temporary electric service. Provide adequate temporary power to the Work Area sized and equipped to accommodate all electrical equipment required for completion of the work and related testing and inspections. Provide temporary electrical panels as needed sized and equipped to accommodate all electrical equipment and lighting required by the work. Connect temporary panel to existing building electrical system. Protect with circuit breaker or fused disconnect. Locate temporary panel outside of the work area and in a location acceptable to Owner. Equip all circuits for any purpose entering the Work Area with ground fault circuit interrupters (GFCI).

2. Lamps and Light Fixtures: Provide appropriate temporary work area lighting. Protect lamps with guard cages or tempered glass enclosures where fixtures are exposed to breakage by construction operations.

D. First Aid: Comply with governing regulations and recognized recommendations within the construction industry. Provide appropriate first aid supplies.

E. Fire Extinguishers: Provide appropriate fire extinguishers for temporary offices, storage, work areas and other portions of the site occupied or used by the Contractor for the work.

F. Execution: Use qualified tradesmen for installation of temporary services and facilities. Locate temporary services and facilities where they shall serve the entire project adequately and result in minimum interference with the performance of the Work. Coordinate all such work with Owner. Require that tradesmen be licensed as required by local authorities. Relocate, modify, and extend services and facilities as required during the course of work so as to accommodate the entire work of the project.

PART 2 – PRODUCTS (NO APPLICABLE)

PART 3 – EXECUTION

3.1 HEALTH AND SAFETY REQUIREMENTS

A. General: Determine employee exposure to lead in air as required in OSHA Lead in Construction Standard.

B. Exposure Assessment: If the Contractor has made a previous Exposure Assessment that is representative of the task to be performed on-site, the Contractor may rely on this data and determine the need for personal protective equipment and work practice controls based upon this data, if approved by OWNER.

C. Job requirements: When the Contractor does not have an Exposure Assessment or the Assessment is determined to be insufficient, the Contractor must conduct personal air monitoring in accordance with the OSHA Lead in Construction Standard and follow the requirements below which are outlined by job task until monitoring determines otherwise:

   a. Manual demolition, scraping, sanding, heat gun application, power tool cleaning with HEPA dust collection system, spray painting with LCM:

      i. Use of 1/2 mask respirator with HEPA filters.

      ii. PPE.

      iii. Medical surveillance.

      iv. Use of changing room.

v. Use of handwashing facilities.

vi. Provision of lead awareness training.

b. Using lead mortar, lead burning, rivet busting, power tool cleaning without HEPA collection, cleaning up with dry expendable abrasives, removing or relocating enclosure:

i. Loose fitting PAPR with HEPA or supplied air respirator.

ii. PPE.

iii. Medical surveillance.

iv. Use of changing room.

v. Use of handwashing facilities.

vi. Provision of lead awareness training.

3.2 Preparation

A. General: Prepare Work Areas in a manner that will protect Owner's personnel and property, and the visiting public, from contact with LCM. Prior to beginning work, confirm starting date and time with Owner. Do not begin work that will disturb LCM without Owner's approval.

B. Preparing Building Exteriors: Ensure adequate measures are in place to limit airborne lead content below the Action Level of 30 ug/m3 (micrograms per cubic meter) adjacent to the Work Area.

a. Erect barricades and install warning tape or signs as necessary to prevent inadvertent exposure of passersby to LCM in all forms, including, but not necessarily limited to dust, particles, and fumes.

b. Completely cover grounds and vegetation with minimum 6-mil thick polyethylene sheets with joints between sheets lapped and taped; with one edge taped to adjacent building surfaces below area of work; and with free ends secured in position with stakes, tie-down lines, or weights. Cover sufficient ground area to capture wind-blown chips, dust, and particles.

3.3 WORK PRACTICES

A. General: Perform any removal, demolition, or disturbance of LCM in compliance with the following requirements:

a. Restrict access to Work Area to essential personnel.

b. Use moist-removal methods and/or HEPA vacuuming where applicable. Do not oversaturate the Work Area.

c. Any debris generated must be cleaned up immediately before it can be tracked into other areas.

d. Remove contaminated clothing and personal protective equipment before leaving the Work Area, or Work Area enclosure, as applicable.

e. If the Action Level is exceeded outside the Work Area, discontinue work, and modify Critical Barrier, or perform other modifications of methods or materials as required to reduce the lead contamination below the Action Level.

f. Prohibit eating, drinking, and smoking in the Work Area.

3.4 DISPOSAL

A. Lead Painted Demolition Debris and Lead Paint Chips: Prior to removal of waste from the site, coordinate Toxicity Characteristic Leaching Procedure (TCLP) testing of LCM waste with IH Consultant. Allow two weeks for testing results. If TCLP testing shows the waste to be nonhazardous, the waste can be disposed of as normal construction demolition debris. If waste is classified as Hazardous or has not been TCLP tested, comply with the following requirements:

a. Collect and place solid and liquid waste in DOT approved containers.

b. Store waste containers in a secure area (preferably a locked room at the project site). Set containers securely on a hard surface. Do not stage containers on lawns, dirt piles, gravel drives, areas with mud or basement areas with no elevator access.

c. Ensure that soil, ground water, and drains or sewers within the storage area are protected from possible contamination. Keep containers secure and tightly closed at all times, except when adding waste.

d. Keep lead waste segregated from other waste. Do not co-mingle waste. DO NOT MIX LIQUID AND SOLID WASTE.

e. Use an authorized hazardous waste transporter to haul waste to a hazardous waste facility.

f. Follow all record-keeping, chain-of-custody and reporting requirements including a copy of the hazardous waste manifest.

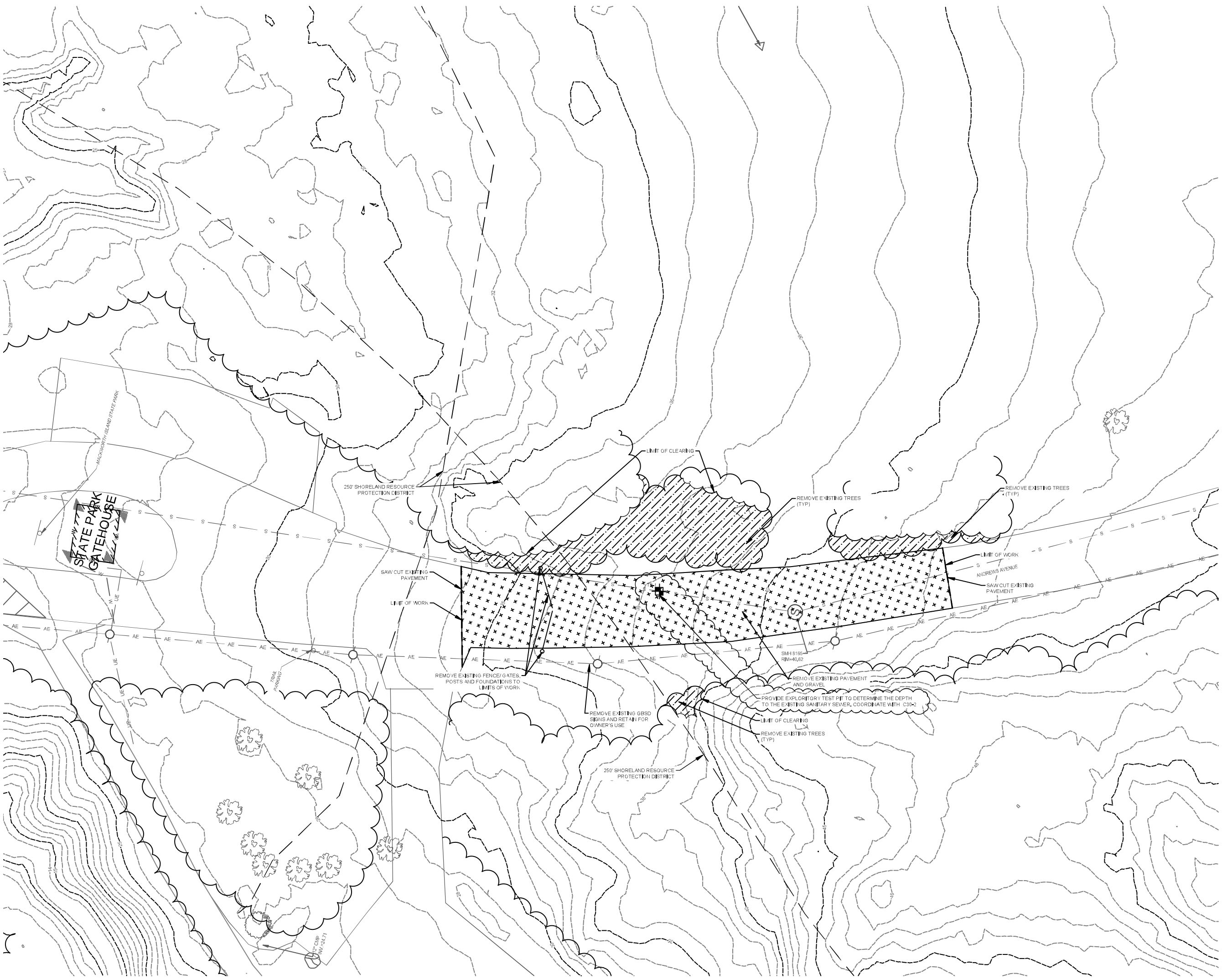
g. Accurately measure and weigh the volume of each container or load of waste removed from the site. Submit records of waste volumes to OWNER and IH CONSULTANT.

h. Special attention shall be given to the time of storage, amount of material stored at any one time, use of proper containers and personnel training.

i. Provide appropriate notifications to regulatory agencies if there is a release to the environment exceeding the CERCLA reporting requirements (e.g., lead -–1 pound).

j. Any evidence of improper storage shall be cause for immediate shutdown of the project until corrective action is taken.

k. Provide legal transportation of the waste to the disposal landfill, and complete or obtain all required licenses, manifests, landfill slips, or other forms. Copies of all forms or licenses, and the signed original of the Waste Manifest for each waste load, shall be given to the IH CONSULTANT or OWNER.



Harriman

STATE OF MAINE
MACKWORTH ISLAND
RENOVATIONS PHASE 1

FALMOUTH, MAINE

Harriman Project No.	23216

Graphic Scale 0' 10' (line measures 1" when plotted at full size)

Plan North True North

STATE OF MAINE
FRANK L. CRABTREE
No. 3993
LICENSED PROFESSIONAL ENGINEER

CONSTRUCTION DOCUMENTS

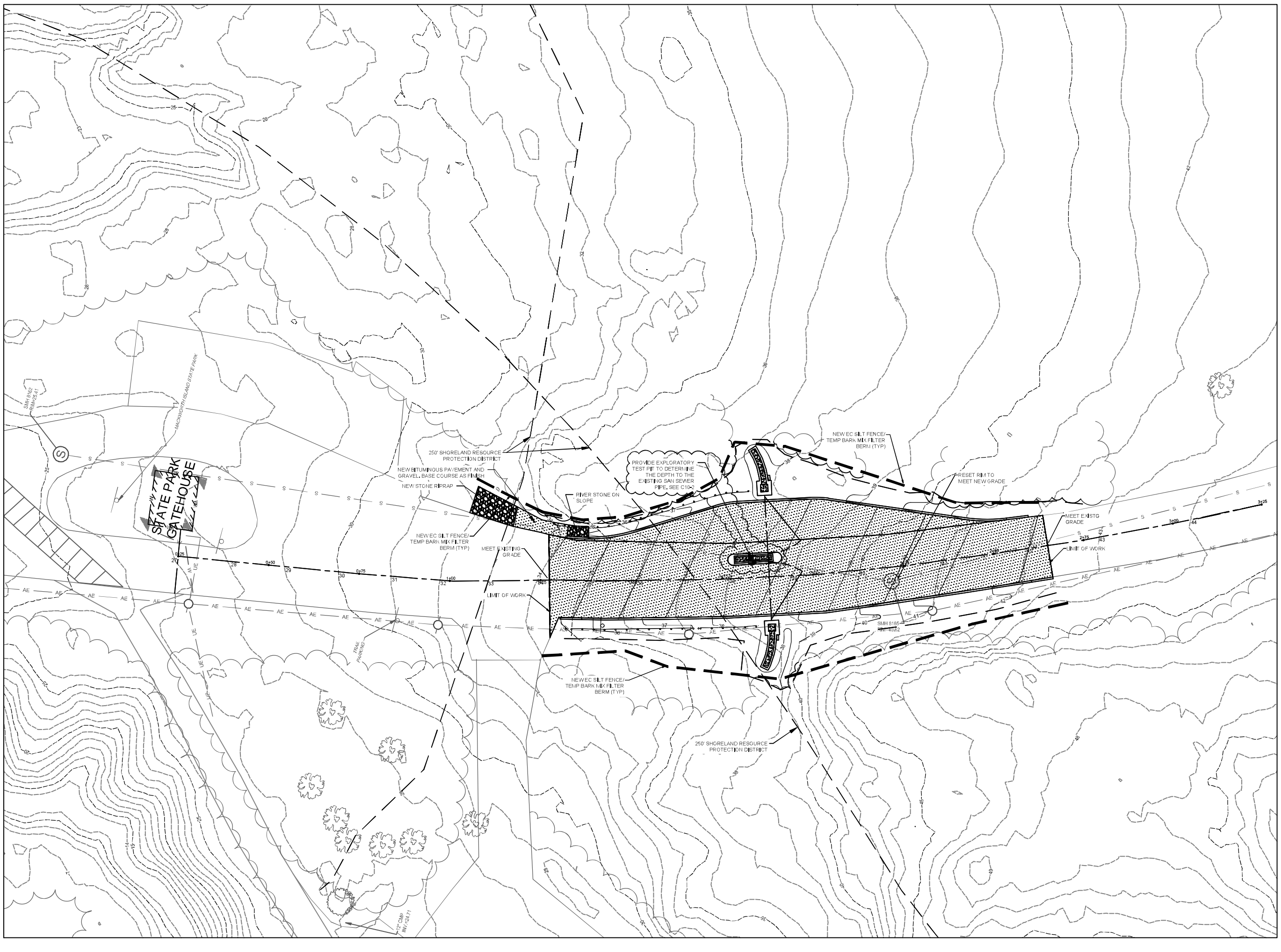
JULY 30, 2024

Revision Date	Revision Description
08-23-2024	ADDENDUM 1
08-30-2024	ADDENDUM 2

Drawn by: FLC / TNE

EXISTING SITE CONDITIONS AND DEMOLITION PLAN

C10-2



A1 GATEHOUSE AREA PLAN

SCALE: N.T.S

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STATE OF MAINE
MACKWORTH ISLAND
RENOVATIONS PHASE 1

FALMOUTH, MAINE

Harriman Project No.	23216

Graphic Scale 0' 10' (line measures 1" when plotted at full size)

Plan North True North

STATE OF MAINE FRANK L. CRABTREE No. 3993 LICENSED PROFESSIONAL ENGINEER

CONSTRUCTION DOCUMENTS

JULY 30, 2024

Revision Date	Revision Description
08-23-2024	ADDENDUM 1
08-30-2024	ADDENDUM 2

Drawn by: FLC / TNE

SITE GRADING AND EROSION CONTROL PLAN

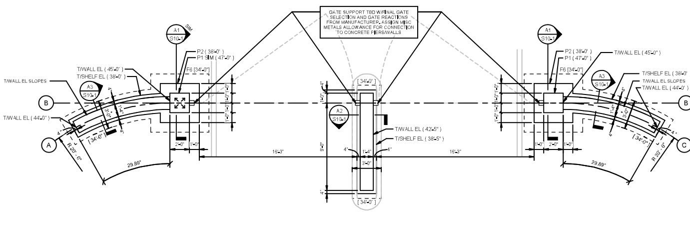
C30-2

FOUNDATION PLAN NOTES:

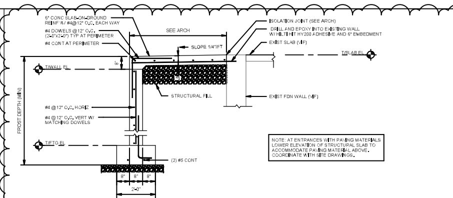
1. (X'-X") INDICATES TOP OF CONCRETE ELEVATION (SEE PLAN)
2. [X'-X"] INDICATES TOP OF FOOTING ELEVATION (SEE PLAN)
3. FX INDICATES REINFORCED CONCRETE SPREAD FOOTING (SEE SCHEDULE)
4. PX INDICATES REINFORCED CONCRETE PIER. (SEE TYP DETAILS)
5. SECTIONS AND DETAILS SHOWN ON STRUCTURAL DRAWINGS SHALL BE CONSIDERED TYPICAL FOR SIMILAR CONDITIONS NOT SPECIFICALLY REFERENCED.
6. +/- DIMENSIONS SHALL BE CONSIDERED APPROXIMATE AND SHALL BE VERIFIED BY G.C. BEFORE PROCEEDING WITH WORK.

FOOTING SCHEDULE

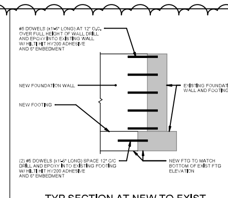
FOOTING MARK	LENGTH	WIDTH	THICKNESS	REINFORCING (BOTTOM)
F6	6'-0"	6'-0"	1'-0"	(8) #4 (EACH WAY)



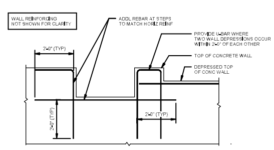
D1 FOUNDATION PLAN
SCALE: 1/4" = 1'-0"



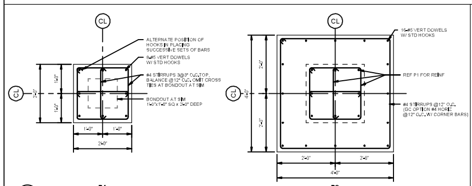
E4 TYP ENTRANCE SLAB & FOUNDATIONS DETAIL
NO SCALE



E6 TYP SECTION AT NEW TO EXIST FOUNDATION
NO SCALE



D4 TYP REINFORCING AT STEPS IN CONCRETE WALLS
SCALE: 1/2" = 1'-0"



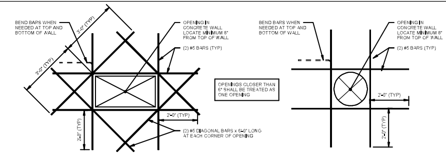
P1

P2

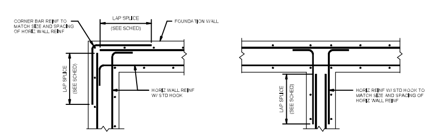
C1 TYP PIER REINFORCING DETAILS
SCALE: 3/4" = 1'-0"

REBAR SPLICE SCHEDULE		
REBAR SIZE	f'c (PSI)	
	3000/3500	5000
#3	28"	22"
#4	37"	29"
#5	47"	36"
#6	56"	43"
#7	81"	63"
#8	93"	72"

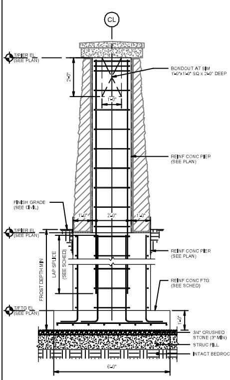
C3 TYP REBAR SPLICE SCHEDULE
NO SCALE



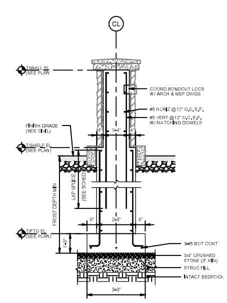
C4 TYP REINFORCING AT OPENINGS IN CONCRETE WALLS OR SLABS
SCALE: 1/2" = 1'-0"



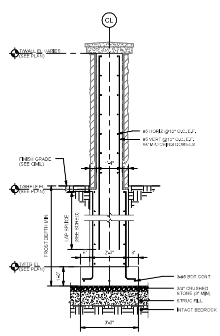
B4 TYP WALL REINF DETAILS AT CORNERS & INTERSECTIONS
SCALE: 3/4" = 1'-0"



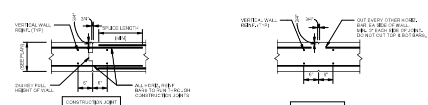
A1 SECTION
SCALE: 1/2" = 1'-0"



A2 SECTION
SCALE: 1/2" = 1'-0"



A3 SECTION
SCALE: 1/2" = 1'-0"



NOTES:

1. REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. SPACING OF CONSTRUCTION OR CONTRACTION JOINTS, UNLESS NOTED OTHERWISE SHALL BE AS FOLLOWS:
   A. FOOTINGS AND WALLS: MAX LENGTH 40'-0" OR 15'-0" FROM ANY CORNER. A MINIMUN OF 72 HOURS SHALL ELAPSE BETWEEN ADJACENT CONCRETE PLACEMENTS.

A4 TYP WALL CONTRACTION/CONSTRUCTION JOINT DETAIL
SCALE: 3/4" = 1'-0"

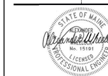
Harriman

STATE OF MAINE
MACKWORTH ISLAND
RENOVATIONS PHASE 1

FALMOUTH, MAINE

Harriman Project No.	23216

Graphic Scale



CONSTRUCTION DOCUMENTS

JULY 30, 2024

Revision Date	Revision Description
08-30-2024	ADDENDUM 2

Drawn by: ARW

FOUNDATION PLAN, SECTIONS & TYPICAL DETAILS

S10-1

BUILDING K - DEMOLITION SCOPE NOTES

1. REMOVE CONNECTOR AND ALL ASSOCIATED STRUCTURE COMPLETE. THIS INCLUDES BUT IS NOT LIMITED TO: FOOTINGS, FOUNDATION, SLAB, ROOF/FLOOR LEDGERS, WALLS, RAISE FLOOR STRUCTURE AND ROOFS.
2. REMOVE 'K' BUILDING LOWER LEVEL DOOR BETWEEN THE EXISTING 'K' BUILDING STAIRWELL AND THE CONNECTOR TO BE DEMOLISHED. PREP EXISTING MASONRY OPENING TO RECEIVE NEW DOOR AND FRAME.
3. REMOVE 'K' BUILDING SECOND FLOOR WOOD FRAMED WALL INFILL BETWEEN THE 'K' BUILDING STAIRWELL AND THE CONNECTOR TO BE DEMOLISHED. PREP MASONRY OPENING TO RECEIVE NEW INFILL AS DETAILED.
4. REMOVE ALL THRU WALL UTILITY PENETRATIONS ASSOCIATED WITH THE CONNECTOR TO BE DEMOLISHED. TERMINATE PER CODE INTERNAL TO 'K' BUILDING.
5. DISCONNECT SECOND FLOOR 'K' BUILDING STAIRWELL FIRE ALARM PULL STATION FROM EXISTING 'K' BUILDING FIRE ALARM PANEL PER 2019 NFPA 72. REMOVE PULL STATION. REMOVE AND CAP ASSOCIATED CONDUIT.
6. REMOVE SECOND FLOOR 'K' BUILDING LIT EXIT SIGN INTERNAL TO THE STAIRWELL, ASSOCIATED WITH THE CONNECTOR ACCESS DOOR TO BE DEMOLISHED. REMOVE AND CAP ASSOCIATED CONDUIT.
7. REMOVE EXISTING FINISH FLOORING ONLY AS REQUIRED FOR NEW SCOPE. REMOVE ANY CRACKED OR DAMAGED VCT. PREP CONCRETE TO RECEIVE NEW VCT FLOORING.

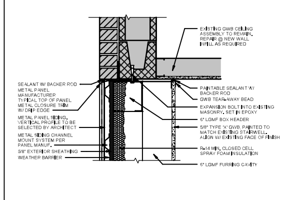
BUILDING K - INFILL SCOPE NOTES

1. REPAIR EXISTING MASONRY VENEER. THIS INCLUDES BUT IS NOT LIMITED TO: PREVIOUS UTILITY PENETRATION HOLES, LEDGER BOLT HOLES, CONNECTOR ROOF FLASHING REMOVAL AND ANY DAMAGE CAUSED BY DEMOLITION SCOPE.
   - A. REPAIR MATERIALS (BRICKS AND GROUT) TO MATCH EXISTING
   - B. REMOVE DAMAGED/PARTIAL BRICKS. TOOTH IN NEW BRICKS AS REQUIRED
   - C. REGROUT ALL LOOSE BRICKS
   - D. REPOINT ALL DEGREDATED GROUT IN SCOPE AREA
   - E. MORTAR MATCH INFILL IN STABLE BRICK FACE HOLES
   - F. DAMAGED BRICK DEFINED AS FULLY CRACKED, MISSING ANY PORTION FULL WIDTH, HAVING A CRACK TO EDGE EMANATING FROM FULL WIDTH HOLE
2. PROVIDE NEW EXTERIOR DOOR IN EXISTING BUILDING 'K'. SEE PLAN AND DOOR SCHEDULE FOR DETAILS
3. PROVIDE BUILDING 'K' SECOND FLOOR EXTERIOR WALL INFILL. SEE DETAILS.
4. INFILL SCOPE IS CONSIDERED BY IBC TO BE AN ALTERNATION. BUILDING 'K' INFILL SCOPE OF WORK REQUIRES A PERMIT AND ADHERENCE TO ALL CURRENT APPLICABLE STATE OF MAINE BUILDING CODES.
5. INSTALL NEW VCT TO COVER ANY GAPS IN EXISTING FLOOR FINISH EXPOSED BY NEW SCOPE OF INFILL WORK. REPLACE ANY VCT DAMAGED BY SCOPE OF WORK. COLOR TO MATCH EXISTING.

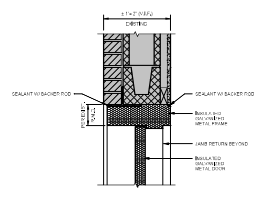
APPLICABLE BUILDING CODES

2015 INTERNATIONAL BUILDING CODE (IBC)
2015 INTERNATIONAL EXISTING BUILDING CODE (IEBC)
2015 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
2015 INTERNATIONAL MECHANICAL CODE (IMC)

SEE STATE OF MAINE FIRE MARSHALL WEBSITE FOR CURRENT NFPA LIST. EDITION YEARS VARY PER SECTION.
HTTPS://WWW.MAINE.GOV/DPS/FMO/FIRE-SERVICE-LAWS/NFPA



C3 WALL INFILL HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



C4 DOOR HEAD DETAIL
SCALE: 1 1/2" = 1'-0"

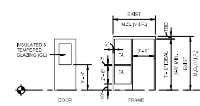
DOOR SCHEDULE

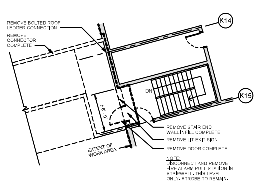
1. PROVIDE NEW DOOR, FRAME AND HARDWARE IN EXISTING MASONRY ROUGH OPENING
2. CONTRACTOR RESPONSIBLE FOR VERIFYING OPENING CONDITIONS PRIOR TO ORDERING OF NEW DOOR AND FRAME
3. GENERAL DOOR SIZE REQUIREMENTS AS NOTED IN GRAPHIC SCHEDULE
4. GLAZING AS NOTED IN GRAPHIC SCHEDULE
5. CONTRACTOR TO COORDINATE HARDWARE, CORE AND KEYING PREFERENCES WITH OWNER PRIOR TO SUBMISSION OF DOOR HARDWARE SUBMITTAL

DOOR & FRAME:
MATERIAL: INSULATED AND GALVANIZED METAL (G40 MINIMUM)
FINISH: FACTORY PRIMED, 2-COAT FIELD FINISHED. PAINT TO MATCH EXISTING
U-FACTOR: 0.60 MAX (IBC 2015, TABLE C303.1.3(2))

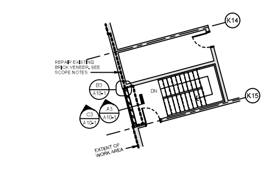
HARDWARE:
1 MORTISE ENTRY LOCKSET
1 RIM FIRE EXIT BAR
3 HINGES
1 CLOSER
1 SET WEATHER STRIPPING
1 DOOR BOTTOM
1 ADA THERMALLY BROKEN ALUMINUM THRESHOLD

DOOR & FRAME GRAPHIC SCHEDULE

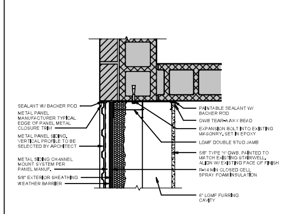




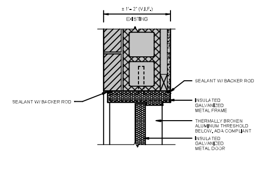
B1 BUILDING K - SECOND FLOOR DEMO PLAN
SCALE: 1/8" = 1'-0"



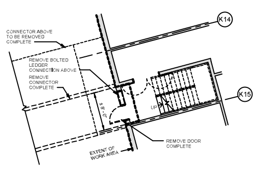
B2 BUILDING K - SECOND FLOOR PLAN
SCALE: 1/8" = 1'-0"



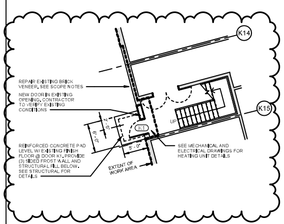
B3 WALL INFILL JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



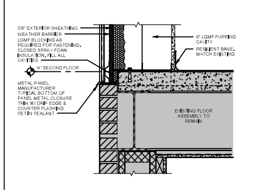
B4 DOOR JAMB DETAIL
SCALE: 1 1/2" = 1'-0"



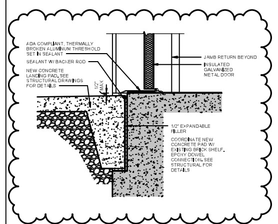
A1 BUILDING K - FIRST FLOOR DEMO PLAN
SCALE: 1/8" = 1'-0"



A2 BUILDING K - FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"

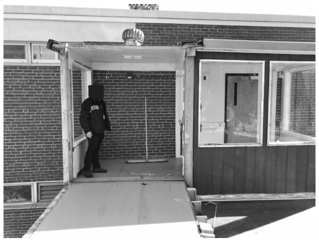


A3 WALL INFILL SILL DETAIL
SCALE: 1 1/2" = 1'-0"



A4 DOOR SILL DETAIL
SCALE: 1 1/2" = 1'-0"

FIRST FLOOR CONNECTOR LANDING



SECOND FLOOR CONNECTOR LANDING

CONNECTOR - LOOKING AWAY FROM SECOND FLOOR LANDING

FIRST FLOOR STAIRWELL INTERIOR - CONNECTOR DOOR

SECOND FLOOR STAIRWELL INTERIOR - CONNECTOR DOOR

Harriman

STATE OF MAINE
MACKWORTH ISLAND
RENOVATIONS
PHASE 1

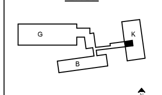
FALMOUTH, MAINE

Harriman Project No.	23216

GENERAL DEMOLITION NOTES

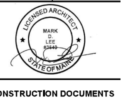
1. ALL WORK TO BE DONE IN COMPLIANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS, CODES AND STANDARDS; AND MEET THE REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION.
2. BUILDINGS 'B', 'G', AND THE CONNECTORS TO BE DEMOLISHED IN THEIR ENTIRETY. REMOVALS TO INCLUDE ALL FOUNDATIONS, FOOTINGS AND ASSOCIATED CONSTRUCTED SUB GRADE ELEMENTS.
3. SEE SPECIFICATIONS BACKFILLING SCOPE REQUIREMENTS.
4. DRAWINGS ARE ILLUSTRATIVE OF APPROXIMATE EXISTING CONDITIONS. CONDITIONS HAVE NOT BEEN FIELD VERIFIED. IT IS THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY ALL CONDITIONS.
5. REMEDIATION OF HAZARDOUS MATERIALS TO BE COMPLETED PRIOR TO DEMOLITION EXCEPT AS NOTED BELOW:
   - ROOFING: SEE HAZARDOUS MATERIALS REPORT
   - ANY HAZARDOUS MATERIALS DISCOVERED DURING DEMOLITION PROCESS SHOULD FOLLOW APPROVED ABATEMENT PROCEDURES AND APPLICABLE LAWS.
6. ALL BUILDING PLUMBING UTILITIES TO BE DISCONNECTED AND CAPPED AT THE SHUT OFF VALVES PRIOR TO START OF DEMOLITION.
7. TEMPORARY SINGLE POINT POWER AND WATER CONNECTIONS PROVIDED BY OWNER. SEE LOCATION NOTED ON INDEX PLAN. CONTRACTOR RESPONSIBLE FOR CODE COMPLIANT DISTRIBUTION BEYOND SINGLE POINT PROVIDED.
8. BUILDING UTILITIES LOCATED WITHIN THE PROJECT SCOPE AREA THAT SERVE OTHER BUILDINGS TO BE MAINTAINED. ANY DISRUPTION CAUSED BY THE SCOPE OF WORK IS TO BE COORDINATED WITH OWNER AND UTILITY PROVIDER PRIOR TO ASSOCIATED WORK.
9. ANY ASSOCIATED UTILITIES SERVING BUILDINGS 'B' AND 'G' FROM DISTRIBUTION THAT ALSO CONNECTS TO OTHER BUILDING IS TO BE DISCONNECTED WITH NO DISRUPTION OF SERVICE TO OTHER BUILDINGS. DISCONNECT WORK TO BE COORDINATED WITH OWNER AND UTILITY PROVIDER PRIOR TO ASSOCIATED WORK.

KEY PLAN



Graphic Scale
0" 1"
(scale measures 1" when plotted at full size)

Plan North True North



CONSTRUCTION DOCUMENTS

JULY 30, 2024

Revision Date	Revision Description
08-30-2024	ADDENDUM 2

Drawn by: KLS

BUILDING K DEMOLITION & INFILL PLANS

A10-1

KEYNOTES

NOTE:
KEYNOTE LETTER VARIANT CORRESPONDS TO SIGNAGE TYPE AND CONTENT. SEE SIGNAGE SCHEDULE DETAILS.

1. RUBBLE STONE MASONRY VENEER. ASSORTED LIGHT-MID, GRAY-BROWN COLOR PALETTE. MATCH EXISTING CAMPUS WATER TOWER
2. GRANITE PIER CAP W/ DRIP EDGE. EPOXY EMBEDDED ANCHORS. THERMAL FINISH
3. GRANITE WALL CAP W/ DRIP EDGE. SEGMENTED TO MATCH CURVED & SLOPED WALL BELOW AS REQUIRED. THERMAL FINISH
4. CULTURED STONE SIGN BACKER. MATCH CURVE OR SLOPED CONDITION OF WALL. COLOR AND GRAIN TO MATCH GRANITE CAPS. THERMAL FINISH. CENTER ON SURFACE UNLESS NOTED OTHERWISE.
5. NOT USED
6. SALVAGED BRONZE DEDICATION PLAQUE. PROVIDE BRONZE CLIPS AND POST SUPPORTS. TO BE INSTALLED BY SIGNAGE SUB-CONTRACTOR
7. ARCHITECTURAL ALUMINUM SWING GATE. SEE GATE SCOPE FOR DETAILS
8. LASER CUT LETTER SIGNAGE. SURFACE MOUNT.
9. LASER CUT ASL FINGERSPELL LETTER SIGNAGE. SURFACE MOUNT.
10. LASER ETCHED METAL SIGN.
11. KNOX BOX. COORD. W/ LOCAL OFFICIALS
12. OFF-HOURS GATE ACCESS CONTROLS & COMMUNICATION
13. CONTROL BOX. ABOVE GRADE, SURFACE MOUNT. SEE ELECTRICAL DRAWINGS AND COORDINATE WITH GATE OPERATOR MANUFACTURER SPECIFICATIONS.

GATE SCOPE

GENERAL NOTES:
1. THE GATE, SWING OPERATOR, AND ACCESS CONTROL ACCESSORIES IS A DELEGATED DESIGN PACKAGE PER GATE MANUFACTURER.
2. CONTRACTOR TO PROVIDE ARCHITECT AND OWNER WITH SHOP DRAWINGS AND SUBMITTALS OF ALL GATE COMPONENTS FOR REVIEW, SELECTION AND APPROVAL.
3. CONTRACTOR TO COORDINATE FINAL SELECTED GATE WEIGHT AND HINGE MOUNTING REQUIREMENTS WITH STRUCTURAL ENGINEER.
4. CONTRACTOR TO COORDINATE FINAL SELECTED GATE OPERATOR AND ACCESS CONTROL ACCESSORY REQUIREMENTS WITH ELECTRICAL ENGINEER.

GATE BASIS OF DESIGN:

MANUFACTURER:	PALM SHIELD
STYLE:	'UNDER SCALLOPED' PROFILE WITH EQUAL OPEN/CLOSED SEMI-PRIVACY VERTICAL INFILL
SIZE:	DIMENSIONS AS NOTED
MATERIAL:	ALUMINUM
FINISH:	2-COAT MINIMUM PVDF FACTORY FINISH
COLOR:	MATTE BLACK

OPENER BASIS OF DESIGN:

MANUFACTURER:	FAAC
MODEL:	S800H ENC. IN-GROUND HYDRAULIC SWING OPERATOR

ACCESS CONTROL REQUIREMENTS:
- REMOTE CONTROL OPEN ON TIMER (BOTH GATES, BUSINESS HOURS)
- (1) IN-GROUND INDUCTANCE LOOP. LOCATE IN EXIT LANE & ACTIVATES EXIT GATE
- (2) MAG LOCKS
- (1) KNOX BOX TO BE COORDINATED WITH LOCAL FIRE AND SAFETY OFFICIALS. LOCATION AS NOTED AND ACTIVATES ALL GATES
- (1) KEY FOB OR KEYPAD. LOCATION AS NOTED AND ACTIVATES ENTRY GATE
- REMOTE OPEN VIA STAFF MONITORED SUBSCRIPTION APPLICATION. ACTIVATES ENTRY GATE
- (1) VISUAL SCREEN COMMUNICATION DEVICE. CONNECTS TO REMOTE STAFF MONITORED SUBSCRIPTION APPLICATION. LOCATION AS NOTED

SIGNAGE SCOPE

GENERAL SIGN NOTES:
1. SIGNAGE SCOPE IS A DELEGATED DESIGN. SIGNAGE SCOPE NOTES AND SCHEDULE TO BE USED AS BASIS OF DESIGN. BASIS OF DESIGN PROVIDED BY NEOKRAFT SIGNS, LEWISTON, MAINE.
2. ALL SURFACE MOUNT LETTERS TO BE 1/2" MIN. THICK LASER CUT ALUMINUM.
3. ALL BASE MOUNT LETTERS TO BE 5/8" MIN. THICK LASER CUT ALUMINUM.
4. ALL LETTERS TO BE RECEIVED 2-COAT MIN. PVDF SHOP FINISH. COLOR: MATTE BLACK
5. SIGNAGE MANUFACTURER TO PROVIDE SCALED SHOP DRAWINGS FOR OWNER & ARCHITECT REVIEW OF ALL FIELDS PRIOR TO FABRICATION.
6. SIGNAGE MANUFACTURER TO PROVIDE GRAPHICS, SPECIFICATIONS AND REVIEW SUPPORT AS REQUIRED BY THE TOWN OF FALMOUTH, MAINE SIGN REVIEW BOARD, STANDARDS AND REGULATIONS.
7. SIGNAGE MANUFACTURER TO PROVIDE SIGNAGE MOUNTING RECOMMENDATIONS AND DETAILS PER EACH SIGNAGE TYPE FOR ARCHITECT REVIEW AND APPROVAL.
8. SIGNAGE MANUFACTURER RESPONSIBLE FOR MOUNTING OWNER'S BRONZE SIGN ONTO THE GATEWAY. REVIEW MOUNTING DETAILS WITH ARCHITECT FOR FINAL APPROVAL.

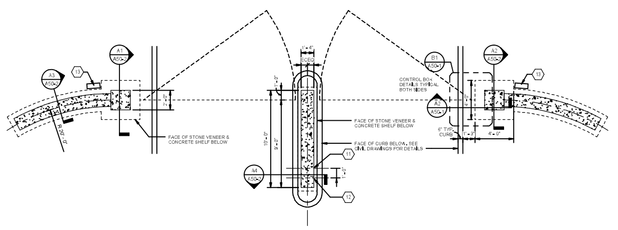
SIGNAGE SCHEDULE

A
TYPE:	SURFACE MOUNT, CENTERED
CONTENT:	GOVERNOR BAXTER SCHOOL FOR THE DEAF
HEIGHT:	8"
FONT:	SERIF

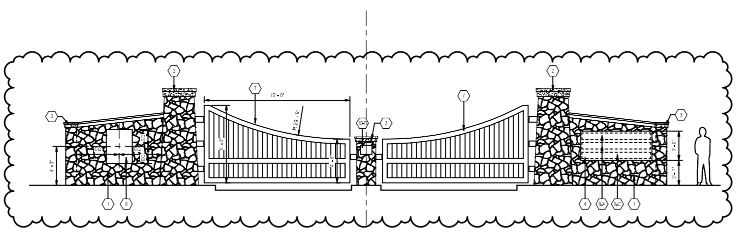
B
TYPE:	SURFACE MOUNT, CENTERED
CONTENT:	[PRIVATE CAMPUS TBD BY OWNER]
HEIGHT:	12"X14" SIGN W/ 2" MIN. FONT
FONT:	SANS SERIF

C
TYPE:	SURFACE MOUNT, CENTERED
CONTENT:	[TBD BY OWNER]
HEIGHT:	8"
FONT:	ASL LETTER SPELL

D
TYPE:	ENGRAVED BRONZE PLACARD, SURFACE MOUNT, CENTERED
LOCATION:	REAR OF PIER CAP 1. SEE DETAIL A1/A50-2
CONTENT:	DEDICATED [DATE TBD] TIME CAPSULE TO BE OPEN [DATE TBD]
HEIGHT:	4" PLACARD, 1" FONT
FONT:	SANS SERIF

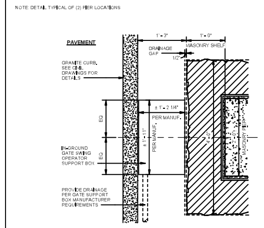


C1 GATEWAY LAYOUT PLAN
SCALE: 1/4" = 1'-0"



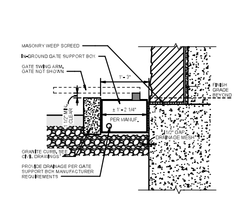
A1 GATEWAY FRONT ELEVATION
SCALE: 1/4" = 1'-0"

NOTE: DETAIL TYPICAL OF (2) PER LOCATIONS



B1 GATE SUPPORT BOX PLAN DETAIL
SCALE: 1" = 1'-0"

NOTE: DETAIL TYPICAL OF (2) PER LOCATIONS



A2 EXTERIOR DETAIL
SCALE: 1" = 1'-0"

Harriman

STATE OF MAINE
MACKWORTH ISLAND
RENOVATIONS
PHASE 1

FALMOUTH, MAINE

Harriman Project No.	23216

Graphic Scale
(scale measures 1" when plotted at full size)

LICENSED ARCHITECT
MARK D. LEE #3640
STATE OF MAINE

CONSTRUCTION DOCUMENTS

JULY 30, 2024

Revision Date	Revision Description
08-30-2024	ADDENDUM 2

Drawn by: KLS

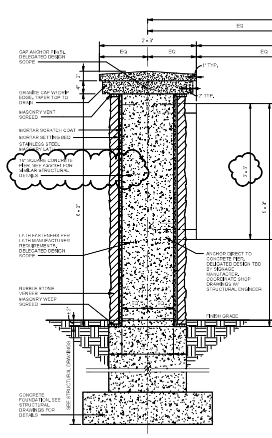
GATEWAY PLAN & FRONT ELEVATION

A50-1

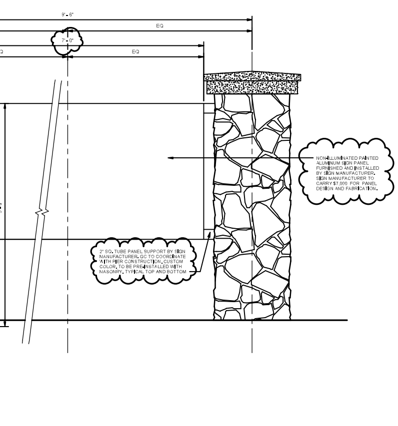
WAYFINDING SIGNAGE SCOPE

GENERAL SIGN NOTES:

1. SIGNAGE SCOPE IS A DELEGATED DESIGN. SIGNAGE SCOPE NOTES AND SCHEDULE TO BE USED AS BASIS OF DESIGN. BASIS OF DESIGN PROVIDED BY NEOKRAFT SIGNS, LEWISTON, MAINE.
2. SIGNAGE MANUFACTURER TO PROVIDE SCALED SHOP DRAWINGS FOR OWNER & ARCHITECT REVIEW OF ALL FIELDS PRIOR TO FABRICATION.
3. SIGNAGE MANUFACTURER TO PROVIDE GRAPHICS, SPECIFICATIONS AND REVIEW SUPPORT AS REQUIRED BY THE TOWN OF FALMOUTH, MAINE SIGN REVIEW BOARD, STANDARDS AND REGULATIONS.
4. SIGNAGE MANUFACTURER TO PROVIDE SIGNAGE MOUNTING RECOMMENDATIONS AND DETAILS PER EACH SIGNAGE TYPE FOR ARCHITECT REVIEW AND APPROVAL.



SECTION THROUGH PIER



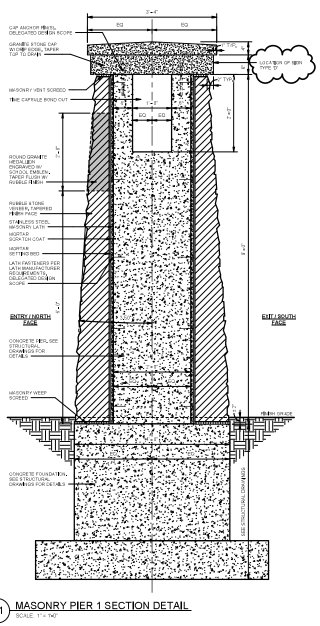
PIER & SIGN ELEVATION

B3 WAY FINDING SIGN DETAIL (ADD ALT. 2)

SCALE: 1" = 1'-0"

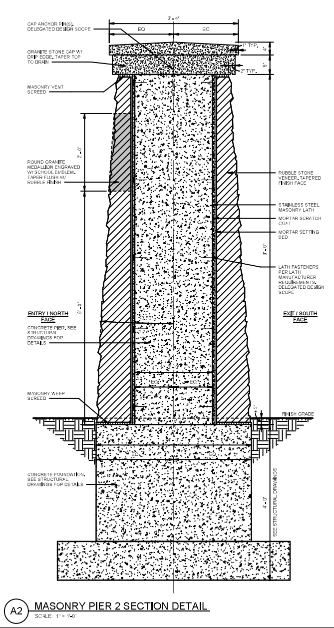
TIME CAPSULE:

1. OWNER IS RESPONSIBLE FOR THE TIME CAPSULE CONTENTS.
2. OWNER IS RESPONSIBLE FOR COORDINATING THE SIZE OF THE CAPSULE DESIRED AND DEDICATION/INSTALL DATE WITH THE CONTRACTOR.
3. MAX CAPSULE SIZE: MUST BE ABLE TO FIT WITHOUT FORCE INTO A 12"W x 12"L x 24"D CAVITY.
4. RECOMMENDED CAPSULE CONSTRUCTION:
   A. 10" DIAMETER, SCHEDULE 40 PVC PIPE.
   B. (2) 10" PCV FLEX CLAMP CAPS, FULLY SEALED



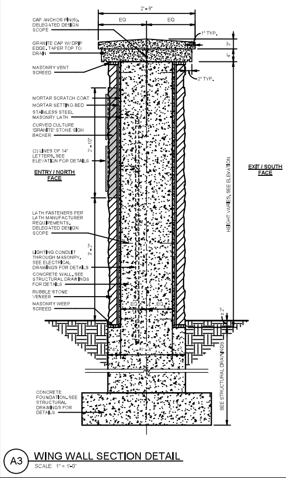
A1 MASONRY PIER 1 SECTION DETAIL

SCALE: 1" = 1'-0"



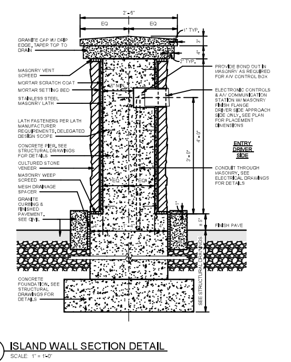
A2 MASONRY PIER 2 SECTION DETAIL

SCALE: 1" = 1'-0"



A3 WING WALL SECTION DETAIL

SCALE: 1" = 1'-0"



A4 ISLAND WALL SECTION DETAIL

SCALE: 1" = 1'-0"

Harriman

STATE OF MAINE
MACKWORTH ISLAND
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PHASE 1

FALMOUTH, MAINE

Harriman Project No.: 23216

Graphic Scale 0" 1" (scale measures 1" when plotted at full size)

LICENSED ARCHITECT MARK D. LEE #3640 STATE OF MAINE

CONSTRUCTION DOCUMENTS

JULY 30, 2024

Revision Date	Revision Description
08-30-2024	ADDENDUM 2

Drawn by: KLS

GATEWAY DETAILS

A50-2