Anchorage School District
Purchasing Warehouse
4919 Van Buren Street
Anchorage, Alaska 99517
Phone (907) 742-8621

December 20, 2023

ADDENDUM NO. 1
This Addendum and attachments consists of: 169-Page(s)

TO: All ASD Plan Holders

SUBJECT: ITB 2024-809 Whaley Multi-Sensory De-Escalation Room Renovation

DUE DATE: **Prior to 2:00 p.m., Local Time January 17, 2024**

The following additions, corrections and changes are hereby made to the subject Invitation to Bid.

1. **CHANGE** the DUE DATE from Prior to 2:00 p.m., Local time January 9, 2023 **to Prior to 2:00 p.m., Local time January 17, 2024.**

2. **REPLACE** Table of Contents in its entirety with attached Table of Contents consisting of three (3) pages.

3. **REPLACE** Section 00020 Invitation to Bid in its entirety with attached Section 00020 Invitation to Bid consisting of two (2) pages.

4. **REPLACE** Section 00200 Project Schedule Milestone Dates in its entirety with attached Section 00200 Project Milestone Dates consisting of one (1) page.

5. **REPLACE** Section 01 35 45 Airborne Contaminate Control in its entirety with attached Section 01 35 45 Airborne Contaminate Control consisting of six (6) pages.

6. **ADD** Section 02 26 00 Hazardous Materials Assessment consisting of 44 pages.

7. **REPLACE** Section 02 41 00 Demolition in its entirety with attached Section 02 41 00 Demolition consisting of five (5) pages.

8. **ADD** Section 02 82 33 Removal and Disposal of Asbestos Containing Materials consisting of 15 pages.

9. **ADD** Section 02 83 33 Removal and Disposal of Materials Containing Lead consisting of 13 pages.

10. **ADD** Section 02 84 18 Removal and Disposal of Chemical Hazards consisting of nine (9) pages.

11. **REPLACE** Section 08 11 00 Steel Doors and Frames in its entirety with attached Section 08 11 00 Steel Doors and Frames consisting of four (4) pages.

12. **REPLACE** Section 08 71 00 Finish Hardware in its entirety with attached Section 08 71 00 Finish Hardware consisting of 15 pages.

13. **REPLACE** Section 09 21 16 Gypsum Board Assemblies in its entirety with attached Section 09 21 16 Gypsum Board Assemblies consisting of three (3) pages.

14. **REPLACE** Section 09 22 16 Non-Structural Metal Framing in its entirety with attached Section 09 22 16 Non-Structural Metal Framing consisting of two (2) pages.

15. **REPLACE** Section 09 51 00 Acoustical Ceilings in its entirety with attached Section 09 51 00 Acoustical Ceilings consisting of four (4) pages.

16. **REPLACE** Section 09 65 00 Resilient Flooring in its entirety with attached Section 09 65 00 Resilient Flooring consisting of three (3) pages.

17. **REPLACE** Section 09 90 00 Painting and Coating in its entirety with attached Section 09 90 00 Painting and Coating consisting of five (5) pages.

18. **REPLACE** Drawing Set in its entirety with attached Drawing Set consisting of 33 pages.

19. **ADD** Drawing Sheet M1.00 Fire Protection Floor Plan consisting of one (1) page.

20. **ADD** Drawing Sheet M1.03 Rooms 46/48 Demo and Remodel Plan consisting of one (1) page.

21. **ADD** Drawing Sheet M1.04 Room 75 Demo and Remodel Plan consisting of one (1) page.

22. **DELETE** Drawing Sheet M2.01 Rooms 27 & 75 Remodel Plan consisting of one (1) page.

23. **DELETE** Drawing Sheet M2.02 Rooms 42, 31 & 46/48 Remodel Plan consisting of one (1) page.

24. **ADD** Attachment A, Existing Conditions 3D Photos consisting of four (4) Links.

    https://my.matterport.com/show/?m=9QzPJhXEdaY
    https://my.matterport.com/show/?m=QRjuZ5wXuSd
    https://my.matterport.com/show/?m=2eRmUunrzBD
    https://my.matterport.com/show/?m=Qf37KBZw3YK

The following clarifications, questions and answers are provided for your use in responding to the subject Invitation to Bid:

Q1: Sheet A2.3 New chill rooms note #7 indicates new walls to be built, Are those walls to be Assembly A Sheet A1.01?
A1: Please reference the information provided in this Addendum.

Q2: Sheet A1.01 does not list a GA thickness required. Please provide basis of design GA thickness.
A2: Please reference the information provided in this Addendum.

Q3: Ceiling Elevations are not provided. Can these be provided?
A3: Please reference the information provided in this Addendum.

Q4: What elevation is metal deck at?
A4: Please reference the information provided in this Addendum.

Q5: How height does basis of design have wall assemblies extending past ceiling?
A5: Please reference the information provided in this Addendum.

Q6: Please confirm if any new assemblies will be fire rated?
A6: Please reference the information provided in this Addendum.

Q7: Will acoustic sealant be required at top of walls?
A7: Please reference the information provided in this Addendum.

Q8: Can you please provide a demo reflective ceiling plan.
A8: Please reference the information provided in this Addendum.

Q9: Please provide wall to pan deck detail drawing.
A9: Please reference the information provided in this Addendum.

Q10: Is there a hazard analysis report? Is contractor required to do verification testing prior to demo?
A10: Please reference the information provided in this Addendum.

All other terms and conditions remain the same.

Note to Bidders: This Addendum must be signed and returned with your bid or acknowledged where indicated in Section 00300, Bid Form. Failure to do so may cause your bid to be non-responsive.

Contractor Name:_____

Authorized Representative Signature:_____

Name and Title (please print): _____

END OF ADDENDUM

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INVITATION TO BID (ITB) NUMBER: 2024-809
Whaley Multi-Sensory De-Escalation Room Renovations

Sealed bids will be received in accordance with the time schedule shown below by the Anchorage School District, Purchasing Department, located at 4919 Van Buren Street Anchorage, Alaska 99517 for Whaley Multi-Sensory De-Escalation Room Renovations per the attached Instructions to Bidders, General Conditions, Technical Specifications, Drawings and Bid Form.

ESTIMATED CONSTRUCTION COST: Between $500,000 - $1,000,000

On-Site Visit:	December 14, 2023 at 3:30 p.m. Local Time
Pre-Bid Conference:	December 15, 2023 at 11:00 a.m. Local Time
Bid Opening:	***January 17, 2024 at 2:00 p.m. Local Time***

At the above indicated time, the bids will be opened publicly and read. Bids received by the Purchasing Department after the time fixed for opening of the bids will not be considered. Time of receipt will be as determined by the time stamp at the Purchasing Department.

DOCUMENTS:

Prospective bidders may obtain copies of bidding documents at the Anchorage School District website http://www.asdk12.org/depts/purchasing/PurchasingBids.aspx Only electronic versions of this ITB are issued.

A copy of the current plan holder's list can be viewed at:
http://apps.asdk12.org/depts/purchasing/meeting/Plan_Holders/2024/809.xlsx

NOTICE TO BIDDERS:

A bid bond in the amount of five (5%) percent of the total amount of the base bid will be required **(cash, personal or business checks are unacceptable).** The successful Contractor shall be required to furnish 100 percent performance and payment bonds.

The District's Purchasing Department will be closed beginning December 23 and will reopen January 3. Any emails, correspondence, questions, and others received during the closure will be responded to, if required, as soon as possible after the Department reopens.

The Anchorage School District reserves the right to reject any and all bids, and to waive any informalities or irregularities in bidding procedures.

ON-SITE VISIT AND PRE-BID CONFERENCE:

An On-Site Visit will be held on December 14, 2023 at 3:30 p.m. Local Time at Whaley School, 2220 Nichols Street, Anchorage, Alaska 99508. Please meet at the Front Office.

A Pre-Bid Conference will be held December 15, 2023 at 11:00 a.m. Local Time at Anchorage School District, Purchasing Department, located at 4919 Van Buren Street Anchorage, Alaska 99517. Prospective Bidders who wish to participate by teleconference may participate by calling (907) 742-6750. The line will be available approximately 5 minutes prior the conference start time.

All Bidders are encouraged to attend the On-site Visit and Pre-Bid Conference. Major sub-bidders are also encouraged to attend.

The Anchorage School District is committed to providing reasonable accommodations, according to applicable state and federal laws, to all individuals with a qualifying disability. If you require a reasonable accommodation in order to participate in this or any other district process, please contact the Anchorage School District's Compliance/Equal Employment Opportunity Office at (907) 742-4132.

END OF SECTION

AIRBORNE CONTAMINANT CONTROL

PART 1 - GENERAL

1.01 SUMMARY:

A. Related sections:
1. Section 02 26 00 Hazardous Materials Assessment
2. Section 02 41 00 Demolition
3. Section 02 82 33 Removal and Disposal of Asbestos Containing Materials
4. Section 02 83 33 Removal and Disposal of Materials Containing Lead
5. Section 02 84 18 Removal and Disposal of Chemical Hazards

B. Notification of Potential Hazards: Asbestos, lead and other potentially hazardous materials are present in the building that may impact the work of all trades. Regulated air contaminants, including asbestos and lead, are also present in settled and concealed dust in and on architectural, structural, mechanical, and electrical components or systems throughout the building. All trades shall coordinate with other trades and conduct their work to prevent worker exposure or site contamination. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing, and disposing of these materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.

C. Notification of Child Occupied Facility: Portions of this building are classified as a Child Occupied Facility in accordance with 40 CFR 745 and lead-based paints may be present on components to be disturbed in those areas. Personnel performing work in these areas must comply with the requirements of 40 CFR 745, including training, work practices and cleaning of the work area. Refer to Specification Divisions 0, 1 and 2 for specific information corning disturbing, removing, and disposing of lead materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.

1.02 DEFINITIONS:

A. “Airborne Contaminants” are those contaminants listed in 29 CFR 1926.55 and 8 AAC 61.1100 that have the potential to become airborne due to various work activities being performed by the Contractor. Additionally, airborne contaminants include those fumes and odors that may be objectionable to personnel in Occupied Areas of the facility even though they are not listed in the reference regulations. Airborne contaminants may be broadly categorized as Pre-Existing or Activity Generated. Contaminant producing activities include, but are not limited to:
1. Demolition, removal, installation and disposal of walls, floors, ceilings, steel, and other architectural or structural materials.
2. Disturbance or removal of existing settled and concealed dusts.
3. Demolition, relocation, installation and disposal of plumbing, mechanical and electrical systems and equipment.
4. Finish operations such as sanding, preparation, painting, and application of special surface coatings.
5. Any construction activity, which can generate aerosols, dust, smoke, or fumes.
6. Temporary heat sources.
7. Other on-site work operations not described above.

B. “Pre-Existing Contaminants” are those contaminants that are present in the facility prior to the start of any work. These contaminants, including asbestos and lead, are also present

in settled and concealed dust throughout the building in areas not subject to routine cleaning, including the roof and inside and on top of architectural, mechanical, electrical and structural elements. The dust generally contains several common components including, but not limited to asbestos, cellulose, cotton, fiberglass, lead, silica and other Particulates Not Otherwise Regulated. Representative dusts throughout the facility have been examined and sampled by an EPA Certified Building Inspector and determined not to be "asbestos debris" from adjacent "Asbestos-Containing Building Materials" (ACBM). The inspector also determined that the dusts do not contain more than one percent (1%) asbestos by weight, and therefore are not an asbestos-containing material (ACM). Reference 40 CFR 763.83 for asbestos, and 29 CFR 1926.1153 for silica. Refer to Section 02 26 00, Hazardous Materials Assessment. Dust and debris related to adjacent damaged asbestos containing materials are addressed in Section 028233, Removal and Disposal of Asbestos Containing Materials.

C. "Activity Generated Contaminants" are those contaminants generated by the various demolition or construction related activities of the Contractor. Examples of typical Activity Generated Contaminants include wood dust (cellulose), cement dust (silica), gypsum dust (particulates not otherwise regulated), paint fumes, and welding fumes. A complete list of regulated air contaminants is available in 29 CFR 1926.55 and 8 AAC 61.1100.

D. "Work Areas": Areas of demolition, renovation, construction, adjacent staging and storage areas, and passage areas for workers, supplies, and waste. This may include but is not limited to attic spaces, spaces above ceilings, crawl spaces, mechanical and electrical spaces, confined spaces and other spaces not normally accessed or occupied.

E. "Occupied Areas": Areas as determined by Owner's Representative and as shown on contract drawings. Typically these include areas adjacent to Work Areas or containment areas, either occupied or used for passage, as well as areas connected to construction area by mechanical system air intake, exhaust, and ductwork. Contaminant control procedures may be relaxed during periods when school is not in session the building is not occupied as allowed by the Contractor's approved work plan.

F. "Critical Clean Areas": Areas inside or outside the Work Area with equipment or occupants that cannot tolerate airborne contamination, and are to be maintained under positive pressure by High-Efficiency, Particulate, Air (HEPA) filtered equipment relative to the surrounding air. These areas will be described or shown in contract documents or drawings.

G. "Contractor" is defined to include all trades and all subcontractors performing work on the work site.

H. "Negative Initial Determination" is a determination made either through air monitoring or other objective data that indicates worker exposure to regulated airborne contaminants are below or expected to be below the regulated limits.

1.03 AIRBORNE CONTAMINANT CONTROL

A. There is no requirement to remove Pre-Existing Contaminants from the facility. The Contractor may remove Pre-Existing Contaminants from their work areas if they determine that to be a more cost effective means of completing the work.

B. The Contractors shall establish and maintain control over the generation and containment of all potential airborne contaminants so that workers, facilities, students, staff, educational

programs, equipment, and operations are not adversely affected, including adverse effects on air monitoring. Construction activities that disturb existing materials or create airborne contaminants must be conducted in Work Areas specifically constructed, ventilated, and/or equipped to prevent the movement of contaminants into Occupied or Critical Clean Areas.

C. The Contractor shall establish and maintain control over Activity Generated Contaminants within the Work Area to prevent abnormally high levels of airborne contaminants from settling on architectural, mechanical, electrical or structural components within the work areas, or interference with monitoring conducted for other work. The Contractor shall be required to clean all surfaces within a work area where abnormally high levels of Activity Generated Contaminants are deposited.

D. The Contractor shall ensure that all workers are aware of the Occupied and Critical Clean Areas, the potential air contaminants present and the means and methods established in the work plan to control those contaminants.

E. The Contractor shall ensure workers have the proper protective equipment needed for the job being performed.

1.04 TRAINING

A. The Contractor shall ensure that all workers/trades performing work on the project site are trained in accordance with OSHA standards for hazard communication (29 CFR 1910.1200) and proper protective equipment (29 CFR 1926), as well as engineering controls and work methods required to prevent exposure to regulated air contaminants that might be generated or encountered as a results of their work, including 29 CFR 1926.1153.

1.05 RESPONSIBILITY:

A. Owner’s Responsibilities
1. The Owner shall identify in contract documents Occupied Areas and Critical Clean Areas prior to allowing the Contractor to begin work. The Contractor shall be notified of all changes to these areas as work progresses.

B. Contractor’s Responsibilities:
1. Preparing proposed work plans and procedures for control of airborne contaminants during demolition and construction.
2. Identifying and implementing specific means and methods of achieving and maintaining control of airborne contaminants.
3. Controlling the generation and spread of airborne contaminants from the Contractor’s Work Areas.
4. Cleaning and decontaminating all areas contaminated as the result of their operation. The Owner has the right to review and approve of any and all clean-up and decontamination procedures, chemicals, and processes.
5. Notifying Owner’s Representative, a minimum of 48 hours prior to starting construction activities that might be expected to produce excess levels of airborne contaminants in Work Area so that precautions may be taken.

1.06 SUBMITTALS:

A. Submittals Required: Submit the following documentation to the Owner for approval. The submittal shall be coordinated with all the Contractor’s subcontractors and trades and be submitted as one submittal for all work covered by this section. WORK SHALL NOT

PROCEED UNTIL THE SUBMITTAL PACKAGE IS APPROVED, AND THE PRE-CONSTRUCTION MEETING HAS BEEN HELD.

1. Shop Drawings: Make all shop drawings accurately and to a scale sufficiently large to show all pertinent features of the work. Shop Drawings shall show:
   a. Boundaries of each Work Area, Occupied Areas and Critical Clean Areas.
   b. Location of barriers, negative pressure areas, positive pressure areas, and exhaust fan units (if required).
   c. Locations of windows, louvers, ducts and other penetrations into Occupied Areas and/or Critical Clean Areas that need to be protected from airborne contamination.
   d. Disposal Routes.
   e. Locations of contaminant producing operations like painting or sanding which could be moved away from Occupied Areas.
2. Work Plan: The Work Plan shall be prepared for this specific job in the form of checklists and shall include:
   a. Work area set-up and protection procedures during occupied times.
   b. Work area set-up and protection procedures during periods of limited occupancy (vacation and holidays).
   c. Work procedures to minimize generation of airborne contaminants, including a written exposure control plan.
   d. Worker protection procedures.
   e. Daily cleanup procedures and activities.
   f. Procedures to follow if air contaminants enter Occupied or Critical Clean Areas.
   g. Exposure assessment procedures if a “negative initial determination” has not been completed (note that negative initial determinations are not allowed related to silica exposure). A record of “negative initial determinations” shall be maintained by the Contractor and be available on the job site for review by the Owner or regulatory agencies.
3. Safety Data Sheets (SDSs): The Contractor shall maintain on the job site, at a location approved by the owner, SDSs for each encapsulant, surfactant, solvent, detergent, and other material proposed to be used.

B. Monitoring Results: The Contractor shall submit copies of all air monitoring and testing results to the Owner within 24 hours of receipt of results.

1.07 WORKER PROTECTION:

A. The Contractor shall review the SDS’s for the substances that will be used, data provided by these specifications, proposed means and methods, manufacturers data and other available data to determine the potential for worker exposure.

B. Conduct air monitoring of worker exposures as necessary to show that workers are not being exposed above the permissible exposure limits established by 29 CFR 1926 and 8 AAC 61.1100 (negative initial determination). Not all contaminants or substances will require exposure monitoring. All sampling by the Contractor shall be at their own cost.

C. In lieu of worker exposure monitoring, the Contractor may rely on objective data from recognized trade groups, manufacturer or previous exposure monitoring data that establish that worker exposure above the permissible exposure limits is not probable under conditions “closely resembling” the processes, types of materials, control methods, work practices and environmental conditions in the current job.

PART 2 - PRODUCTS Not Used

PART 3 - EXECUTION

3.01 WORK PRACTICES:

A. General: All construction/demolition work shall be isolated, either by enclosures, and/or work practices and equipment to prevent worker exposures above the permissible exposure limit(s), and prevent the migration of contaminants (dust, fumes, smoke, etc.) into Occupied Areas and Critical Clean Areas of the facility. Exposures to occupants shall be maintained at least 10 times lower than the permissible exposure limit(s) for airborne contaminants. Conduct disturbance of concrete, brick, stone, mortar, etc. in accordance with 29 CFR 1926.1153 related to crystalline silica. If the Contractor's work practices are not effective in controlling airborne contaminants, as evidenced by dust, fumes, smoke, odors, etc. in Occupied or Critical Clean Areas, the Contractor shall provide a sealed barrier at the perimeter of the work area and exhaust the work area to maintain a negative pressure and/or provide a filtered positive pressure to Critical Clean and Occupied areas to keep airborne contaminants out. Maintain a positive pressure of 0.05 inches of water column relative to the air outside the Critical Clean Areas, with a minimum 100 feet per minute velocity through cracks, openings, etc.

B. Direct exhaust from fume or smoke producing equipment away from building air intakes, windows and other penetrations into Occupied and Critical Clean Areas.

C. The Contractor shall provide "walk-off" mats, at all connections between Work Areas and Occupied Areas, vacuumed or changed daily when there is traffic between the Work Area and the Occupied Areas.

D. Enclosures, where used, shall be dust tight and withstand air pressure.

E. Prohibited Materials: The use or application of the following materials is prohibited:
   1. All cleaners and aerosol products not submitted and approved by the Owner.
   2. All flammable or chlorinated hydrocarbon solvents, unless approved by the Owner.

F. Any dust or debris tracked outside of Work Areas into Occupied Areas shall be cleaned up immediately. Contractor shall have the necessary manpower and equipment (dust and wet mops, HEPA vacuums, buckets and clean wiping rags) to keep adjacent Occupied Areas clean at all times.

G. Dry Sweeping is prohibited. All vacuums used for cleaning shall be equipped with HEPA filters.

H. Traffic between Work Areas and Occupied Areas shall be kept to a minimum. Keep doors between such areas closed at all times. Transport refuse through Occupied Areas in covered containers.

I. Notify the Owner's Representative immediately of any release of airborne contaminants into Occupied Areas.

3.02 ENFORCEMENT:

A. The Contractor shall periodically inspect Occupied Areas at the perimeter of the work area and Critical Clean Areas to verify that airborne contaminants have not spread into those areas.

B. Failure to properly maintain airborne contaminant control in Work Areas, Occupied or Critical Clean Areas will result in issuance of a written warning. If the problem is not corrected immediately, the Owner will have cause to stop work.

C. Failure of the Contractor to correct deficiencies in controlling airborne contaminants will result in corrective action taken by the Owner and deduction of all costs from the Contract.

3.03 WORK STOPPAGE:

A. The Contractor shall stop work and notify the Owner whenever their work has caused visible dust, smoke, fumes or objectionable odors in Occupied or Critical Clean Areas.

B. When such work stoppage occurs, the area shall be restored to its original condition by the Contractor at no expense to the Owner. The Contractor is responsible for removing dust, fumes and debris that were generated as a result of their work.

3.04 WORK COMPLETION:

A. Provide thorough cleaning of finished surfaces that become exposed to dust or other airborne contaminants. Cleaning of Pre-Existing contaminants is not required.

B. Removal of construction barriers and airborne contaminant control equipment shall be performed in a manner to minimize disturbance of airborne contaminants into occupied spaces. HEPA vacuum and clean all finished surfaces free of dust after the removal of barriers and equipment.

END OF SECTION

HAZARDOUS MATERIALS ASSESSMENT

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. The Hazardous Materials Assessment for the proposed construction is included with these Contract Documents.

1.02 USE OF INFORMATION

A. The Hazardous Materials Assessment is provided for the Contractor's information and use in the planning and performance of work in areas containing hazardous or potentially hazardous materials as outlined in Paragraph 1.03.
   1. The information provided in the Hazardous Materials Assessment is based on samples collected in various locations of the building. Thus, the Owner and/or its Representative cannot guarantee or warrant that actual conditions encountered might not vary from the information presented in these reports.
   2. The data reported in the Hazardous Materials Assessment is accurate to the best of the Owner's and it's Representative's knowledge. The requirements contained in these specifications and in the relevant state and federal regulations pertaining to the performance of work in areas containing hazardous or potentially hazardous materials provide guidance for the contractor for performance of work in these areas. The Owner and its Representative disclaim all responsibility for the Contractor's erroneous conclusions regarding the information presented in these reports; the requirements contained in these specifications; and the requirements of applicable state and federal regulations pertaining to performance of work in these areas.
   3. The Contractor shall be responsible for obtaining additional information if Contractor deems it necessary to carry out the work.

B. It is highly recommended that the contractor visit the site to acquaint themselves with existing conditions.

C. Attached Hazardous Materials Assessment

1.03 HAZARDOUS MATERIALS NOTIFICATION:

A. Notification of Potential Hazards: Asbestos, lead and other potentially hazardous materials are present in the building that may impact the work of all trades. Regulated air contaminants, including asbestos and lead, are also present in settled and concealed dust in and on architectural, structural, mechanical, and electrical components or systems throughout the building. All trades shall coordinate with other trades and conduct their work to prevent worker exposure or site contamination. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing, and disposing of these materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.

B. Notification of Child Occupied Facility: Portions of this building are classified as a Child Occupied Facility in accordance with 40 CFR 745 and lead-based paints may be present on components to be disturbed in those areas. Personnel performing work in these areas must comply with the requirements of 40 CFR 745, including training, work practices and cleaning of the work area. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing, and disposing of lead materials and

the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

HAZARDOUS MATERIALS ASSESSMENT

WHALEY MULTI-SENSORY DE-ESCALATION ROOM RENOVATIONS

ANCHORAGE, ALASKA

Surveyed
Various Times

Report Date
December 18, 2023

EHS-ALASKA, INC.
ENGINEERING, HEALTH & SAFETY CONSULTANTS
11901 BUSINESS BLVD., SUITE 208
EAGLE RIVER, ALASKA 99577-7701

HAZARDOUS MATERIALS ASSESSMENT
WHALEY MULTI-SENSORY DE-ESCALATION ROOM RENOVATIONS

ANCHORAGE, ALASKA

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HAZARDOUS MATERIALS ASSESSMENT
WHALEY MULTI-SENSORY DE-ESCALATION ROOM RENOVATIONS

ANCHORAGE, ALASKA

OVERVIEW

The Whaley School, located in Anchorage, Alaska, was surveyed for the presence of asbestos-containing materials (ACM), and other potentially hazardous materials as a part of the design services for the Whaley Multi-Sensory De-Escalation Room Renovations Project at the school for the Anchorage School District. The survey also provided a "good faith" inspection for hazardous materials that may be disturbed during the construction. The proposed work includes the disturbance, demolition, removal and disposal of lead-containing paints and/or lead-containing materials that is incidental to the renovation and remodeling project. Mr. Robert A. French, P.E. of EHS-Alaska, Inc. (EHS-Alaska) conducted the inspection in December 2023 along with several of the previous inspections. This assessment includes data from previous inspections of the facility.

A. GENERALIZED REQUIREMENTS FOR HAZARDOUS MATERIALS

Potentially hazardous materials have been identified in the Whaley School that will be affected by the proposed renovations. Those materials include asbestos, lead, polychlorinated bi-phenyls (PCBs), mercury, and radioactive materials. Not all materials were tested for potentially hazardous components, other potentially hazardous materials, including those exterior to the building, such as contamination from underground fuel tanks may be present, but are not part of this report.

Buildings or portions of buildings that were constructed prior to 1978 which are residences, or contain day care facilities, kindergarten classes or other activities frequently visited by children under 6 years of age are classified as *child occupied facilities*. All work which is NOT classified as "minor repair and maintenance activities" (as defined by the regulations), that takes place in the *"child occupied"* portions of facilities must comply with the requirements of 40 CFR 745. Portions of this building are classified as a *child occupied facility* and it is the Contractor's responsibility to ensure the requirements of 40 CFR 745 are met. See lead testing results for locations of lead-based paints present in the project areas.

Only the materials that will be directly affected by this project are required to be removed. The quantities and types of materials are incorporated into the design documents for this renovation. It is the Contractor's responsibility to take this baseline data to coordinate and fully develop a hazardous materials removal design that will identify the presence, locations and quantities of asbestos and/or other hazardous materials that will be affected by this project. The removal and disposal of potentially hazardous materials are highly regulated, and it is anticipated that removal and disposal of asbestos, lead and chemical hazards will be conducted by a subcontractor to the general contractor who is qualified for such removal. It is anticipated that the general contractor and other trades will be able to conduct their work using engineering controls and work practices to control worker exposure and to keep airborne contaminants out of occupied areas of the building. Refer to Section 013545, Airborne Contaminant Control.

Settled and concealed dusts in areas not subject to routine cleaning are present throughout the building, including the roof, and inside and on top of architectural, mechanical, electrical, and structural elements, and those dusts have been identified to contain regulated air contaminants. This should not be read to imply that there is an existing hazard to building occupants (normal occupants of the building as opposed to construction workers working in the affected areas). However, depending on the specific work items involved and on the means and methods employed when working in the affected areas, construction workers could be exposed to regulated air contaminants from those dusts in excess of the OSHA Permissible Exposure Limits (PELs).

The settled and concealed dusts were examined and sampled by an EPA Certified Building Inspector and this report identifies the locations, sampling data and test results. The inspector determined that the dusts are not “asbestos debris” from an asbestos-containing building material (ACBM). The inspector also determined that the dusts do not contain more than one percent (1%) asbestos by weight, and therefore are not an asbestos-containing material (ACM). Reference 40 CFR 763.83.

“Awareness training” (typically 2 hours) and possibly respiratory protection will be required for all Contractor Personnel who will be disturbing the dusts. The extent of the training and protective measures will depend upon the airborne concentrations measured during air monitoring of the contractors work force, which depends on the means and methods employed to control the dusts. The air monitoring may be discontinued following a “negative exposure assessment” showing that worker exposures are below the OSHA permissible exposure limits for the type of work and means and methods employed. Previous air monitoring from similar jobs with similar conditions may be used as historical data to establish a “negative exposure assessment”.

B. BUILDING DESCRIPTION

The Whaley Center School was originally constructed in 1972 with one addition in 1991 along with various upgrades and repairs through the years. In 1997, selected cement asbestos board (CAB) panels were removed from portions of the school. In 1999 selected CAB panels and flooring materials were removed from 10 bathrooms in the south portion of the building. Limited CAB removal was also done at the toilets in the north central portion in 2011. There were various repairs done to the flooring and wall materials that was done in 2023.

Corridor and classroom ceilings in the original construction were typically of 2’ x 4’ lay-in ceiling tiles. One 2’ x 4’ ceiling tile was previously found to contain asbestos and all of ceiling tiles in that area were replaced. A 1998 EHS-Alaska survey found the remaining ceiling tiles in the building to be a non-asbestos containing material. Floor finishes were mainly of carpet with some areas of vinyl tile (VAT) and asbestos-containing sheet vinyl (SV). The cream mosaic sheet vinyl flooring was typically exposed in the wet portion of the classrooms, and concealed under carpet in some other areas of the 1972 building.

Throughout the 1972 era of the facility, the gypsum wallboard is non-asbestos; however, the joint compound was sampled and found to contain 1 – 2.4% Chrysotile. The gypsum wallboard and joint compound of the 1991 era did not contain asbestos. Throughout the 1972 era of the school, the CAB contains 20% Chrysotile and the mastics of some of those CAB panels have been shown to be asbestos-containing.

C. SAMPLING AND ANALYSIS

1. Asbestos-Containing Materials

The following tables include sampling from different previous projects, and may include data from different portions of the building. Material Codes, like FT-1 for Floor Tile style 1, will change between the various projects, and readers should refer to the material descriptions rather than the Material Codes.

The survey included sampling of suspect ACM materials that had not been sampled in prior asbestos surveys, or samples of materials where previous sampling had been inconsistent. The design has relied heavily on previous sampling conducted in other areas of the school, but which were constructed at the same time as the renovation area. Refer to the AHERA asbestos management plan available for review in the Anchorage School District offices for information on previous sampling which is not included in this report. Additional testing of materials pertinent to the projects was conducted and is included in this report.

The samples were analyzed for the presence of asbestos using polarized light microscopy (PLM), analysis, as recommended by EPA, to determine the composition of suspected ACMs (EPA method 600/M4-82-020). Only materials containing more than 1% total asbestos were classified as “asbestos-containing” based on EPA and OSHA criteria. Samples analyzed to have less than 10% asbestos were “point-counted” by the laboratory for more accuracy. Samples listed as having a “Trace by Point Count” had asbestos fibers found in the material, but the fibers were not present at the counting grids. Table 1 in Part D below contains a summary list of the asbestos bulk samples and the applicable results.

Limited sampling of dust was also conducted during a 2007 survey which included 4 "microvac" samples of dust taken in the building according to the American Society for Testing and Materials (ASTM) Standard D5756 protocol. ASTM Standard D5756 is used to determine the percentage of asbestos by weight. The “microvacuum” technique collected the dust samples, by pulling air through a 2 mm “tygon” tube into a 25 mm, 0.8µm mixed cellulose ester filter cassette by means of a battery operated vacuum pump operating at 2 liters of air per minute. Dust was collected from a surface that measured 100 square centimeters (cm^2). The dust in the filter cassette was then analyzed at the laboratory. The D5756 samples had the asbestos content reported as both a weight percentage and as the number of asbestos structures per unit area of sampled surface ($St./cm^2$). Table 2 in Part D below contains a summary of the mass concentration asbestos dust samples and the applicable results.

The Mass and Area Concentration dust samples were analyzed for asbestos content by International Asbestos Testing Laboratories (IATL), Mt. Laurel, New Jersey, a National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory.

The Bulk Asbestos samples were previously analyzed for asbestos content by International Asbestos Testing Laboratories (IATL), and by Alaska Asbestos Laboratory of Anchorage Alaska, which is also a NVLAP accredited laboratory.

EPA regulations under 40 CFR 763 require the use of PLM to determine whether or not a material contains asbestos. While PLM analysis does a good job for most materials, it does have some limitations. Fibers may be undetectable if their small size prevents visibility under a standard optical microscope, or if they are bound in an organic matrix to the point that the fibers are obscured. At the discretion of the building inspector and the client, some types of samples may be analyzed or re-analyzed by what is called Transmission Electron Microscopy for Non-Friable Organically Bound (TEM NOB) materials. TEM NOB is the definitive method for determining if asbestos is present, but TEM NOB use is not required by the EPA. TEM NOB analysis was not done for this project.

Field survey data sheets and laboratory reports of the bulk samples are included in Appendix A. Field survey data sheets and laboratory reports of the dust sampling for asbestos are included in Appendix B. Drawings showing sample locations are included as Appendix E.

2. Lead-Containing Materials

Nearly all surfaces in the building were coated with paint and most surfaces had been repainted. EHS-Alaska previously tested representative paints in the building using a Niton XLp300A X-Ray Fluorescence (XRF) lead paint analyzer (Serial # 81530 with software version 5.2F). The lead testing conducted was not a Lead-Based Paint Inspection or Screening as defined by Department of Housing and Urban Development (HUD) or EPA regulations, but was done to test surfaces that may be representative of those likely to be affected by this project. If surfaces and materials other than those tested are identified, the Contractor shall test and treat appropriately. Refer to the Lead Analyzer Test Results Table in Appendix D that identifies the surfaces tested, and the results. All surfaces affected by this project may not have been tested and therefore additional sampling may be required to refute the presence of lead-containing materials regulated by 29 CFR 1926.62 or lead-based paints in child occupied facilities regulated by 40 CFR 745. The Lead Test Locations are shown in Appendix E.

A previous survey included wipe samples of dust in the building taken in July 2002. Dust was collected using ASTM E1728-99 protocol from a surface that measured 100 square centimeters (cm^2), using a towelette, manufactured especially for lead dust sampling. The dust on the wipe was then analyzed at the laboratory using Flame Atomic Absorption Spectrometry, (FAAS), according to the EPA SW 846:6010:7420 method. The lead content was reported as a concentration of micrograms of lead per square foot of surface sampled ($\mu g/ft^2$). Table 3 in Part D below contains a summary list of the lead dust samples and the applicable results.

EPA and HUD have defined lead-based paint as any paint or other surface coating that contains lead equal to or in excess of 1.0 milligram per square centimeter (mg/cm^2) or 0.5 percent by weight. XRF results are classified as positive (lead is present at 1.0 mg/cm^2 or greater), negative (less than 1.0 mg/cm^2 of lead was present) or inconclusive (the XRF could not make a conclusive positive or negative determination). Tests that were invalid due to operator error are shown as void tests.

A Performance Characteristic Sheet (PCS) for the NITON XLp300A is available upon request. This PCS data provides supplemental information to be used in conjunction with Chapter 7 of the "HUD Guidelines". Performance parameters provided in the PCS are applicable when operating the instrument using the manufacturer's instructions and the procedures described in Chapter 7 of the "HUD Guidelines". The instrument was operated in accordance with manufacturer's instructions and Chapter 7 of the HUD Guidelines. No substrate correction is required for this instrument. There is no inconclusive classification for this instrument when using the 1.0 mg/cm^2 threshold.

3. Testing of Paints and Sealants for PCB's

No testing of paints or sealants for PCB's was authorized for this project, and no sampling occurred.

D. SURVEY RESULTS

1. Asbestos-Containing Materials

The following tables include sampling from different previous projects, and may include data from different portions of the building. Material Codes, like FT-1 for Floor Tile style 1, will change between the various projects, and readers should refer to the material descriptions rather than the Material Codes.

Table 1A includes samples taken in December 2023 of materials affected by this earthquake repairs project, and the results of the laboratory analysis. Asbestos field survey data sheets and laboratory reports are included in Appendix A. Refer to Appendix E for sample locations.

WHALEY CENTER - TABLE 1A

SAMPLE NUMBER	*MATERIAL*	*LOCATION*	*ASBESTOS CONTENT*
WH 1223-A01	Black rubber sealant / gasket at window	Room 75 side of Relite, Lower pane of glass inside of plexiglass cover. Photo 73	None Detected
WH 1223-A02	Black rubber sealant / gasket at window	Room 76D side of Relite, Lower pane of glass inside of plexiglass cover. Photo 81 & 82	None Detected
WH 1223-A03	White cloth, glued on duct seal	Room 75, at HP side of 7" diameter duct. Photo 87	None Detected, both layers
WH 1223-A04	White cloth, glued on duct seal	Outside of Room48, at HP side of 4" diameter duct. Photo 117	None Detected, both layers
WH 1223-A05	Gypsum board & joint compound	Alcove 42, at header where wall was removed. Photo 157	None Detected, both layers

SAMPLE NUMBER	*MATERIAL*	*LOCATION*	*ASBESTOS CONTENT*
WH 1223-A06	Yellow carpet mastic, possible sheet vinyl remnant, possible joint compound	Time-Out Room 26, at west side of doorway, where original door removed. Photo 203	None Detected, four layers
WH 1223-A07	Yellow carpet mastic, possible sheet vinyl remnant, possible joint compound	Time-Out Room 26, at east side of doorway, where original door removed. Photo 204	None Detected, four layers
The testing method used (polarized light microscopy [PLM]) is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Before this material can be considered or treated as non-asbestos containing, confirmation should be made by quantitative transmission electron microscopy (TEM).			

Table 1B includes samples taken in August 2022 of materials affected by this earthquake repairs project, and the results of the laboratory analysis. Asbestos field survey data sheets and laboratory reports are included in Appendix A. Refer to Appendix E for sample locations.

WHALEY CENTER - TABLE 1B

SAMPLE NUMBER	*MATERIAL*	*LOCATION*	*ASBESTOS CONTENT*
WH 822-A01	FT-1, 12” x 12” Cream FT with light green and turquoise smears, Black Mastic & brown carpet mastic	At doorway to Room 39, Photo 63 to 65	None Detected, both layers
WH 822-A02	Brown Carpet mastic	At doorway to Room 39, Photo 63	None Detected
WH 822-A03	Brown Carpet mastic	At corner by Entry Hall, Photo 67	None Detected
WH 822-A04	FT-1, 12” x 12” Cream FT with light green and turquoise smears, Black Mastic	Corridor 400 by door to Corridor 450. Photo 68	None Detected, both layers
WH 822-A05	4” green cove base with Brown and cream cove base mastic on CMU	Corridor 400 by door to Corridor 450. Photo 69	None Detected, three layers
WH 822-A06	FT-1, 12” x 12” Cream FT with light green and turquoise smears, Black Mastic	Corridor 200 West side. Photo 99	None Detected, both layers
WH 822-A07	Brown carpet mastic	Doorway threshold to Room 31. Photo 105	None Detected
WH 822-A08	FT-1, 12” x 12” Cream FT with light green and turquoise smears, Black Mastic, maybe leveling compound	Doorway threshold to Room 31. Photo 106	None Detected, three layers
WH 822-A09	Black mastic and probably a bunch of old flooring wax	Adjacent to doorway to Room 26, Time-out room. Photo 115	None Detected
WH 822-A10	Yellow carpet mastic, white remnant, ignore carpet bits	Corridor 500 at wall to Room 7A. Photo 116 to 118	None Detected

SAMPLE NUMBER	*MATERIAL*	*LOCATION*	*ASBESTOS CONTENT*
WH 822-A11	FT-1, 12" x 12" Cream FT with light green and turquoise smears, Black Mastic	Corridor 600 at wall to Room 17. Photo 121	None Detected, both layers
WH 822-A12	4" green cove base with Brown and cream cove base mastic on Marlite	Corridor 600 at wall to Room 17. Photo 121	None Detected, both layers
WH 822-A13	FT-1, 12" x 12" Cream FT with light green and turquoise smears, Black Mastic	Corridor 600 at wall to Gym. Photo 123	None Detected, both layers
WH 822-A14	4" green cove base with Brown and cream cove base mastic on GWB	Corridor 600 at wall to Gym. Photo 123	None Detected, both layers
WH 822-A15	White Caulk, paint and paper	Vestibule 810, at window frame. Photo 126	None Detected
WH 822-A16	White Caulk	Classroom 15, Between countertop and wall. Photo 128 & 129	None Detected
WH 822-A17	Gypsum wall board and Joint Compound	Classroom 11. Photo 131 and 132	None Detected, both layers
WH 822-A18	Gypsum wall board, joint compound and caulk	Corridor 610, at corner. Photo 133	None Detected, lab did not find GWB
WH 822-A19	White caulking. Ignore wood	Room 46, at NW corner on ply. Photo 136	None Detected
WH 822-A20	White caulking. Ignore wood	Room 46, at SE corner on ply. Photo 137	None Detected
The testing method used (polarized light microscopy [PLM]) is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Before this material can be considered or treated as non-asbestos containing, confirmation should be made by quantitative transmission electron microscopy (TEM).			

Whaley Center School Table 1C includes samples taken in January 2007 for a Piping Upgrades project, and the results of the laboratory analysis. Note, some of these materials may have been removed by the previous project, but are included here to illustrate similar materials from the eras of construction. Asbestos field survey data sheets and laboratory reports are included in Appendix A. Refer to Appendix E for sample locations.

WHALEY CENTER - TABLE 1C

SAMPLE NUMBER	*MATERIAL*	*LOCATION*	*ASBESTOS CONTENT*
WH107-A1	Black sink undercoating	SS Sink in Room 81, 5-16:56	0.25% Chrysotile
WH107-A2	Yellow Marlite mastic with possible gyp board paper and joint compound included	Backsplash in Room 81, 5-16:56	None Detected
WH107-A3	Yellow Marlite mastic	Backsplash in Room 80, 5-16:57	None Detected

SAMPLE NUMBER	*MATERIAL*	*LOCATION*	*ASBESTOS CONTENT*
WH107-A4	2x4 LCT, wormy directional fissures, ~1" gray matrix	Ceiling of Faculty Bath, Rm 84, 5-17:18	None Detected
WH107-A5	Yellowish-brown mastic to Styrofoam	N end of corridor 400, at exterior wall above ceiling, 5-18:13	None Detected both layers
WH107-A6	Gray ceiling grid mastic and paper from gyp board	N end of corridor 400, at wall to store rm, 5-18:13	2.1% Chrysotile in mastic
WH107-A7	Pink sink undercoating	Break-Room 57, in cabinet, 5-18:40	4.3% Chrysotile
WH107-A8	Black sink undercoating	Teacher Lounge, 33, in cabinet, 5-18:47	0.5% Chrysotile
The testing method used (polarized light microscopy [PLM]) is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Before this material can be considered or treated as non-asbestos containing, confirmation should be made by quantitative transmission electron microscopy (TEM).			

Whaley Center School Table 1D includes samples taken in February 2007 for a Piping Upgrades project, and the results of the laboratory analysis. Note, some of these materials may have been removed by the previous project, but are included here to illustrate similar materials from the eras of construction. Asbestos field survey data sheets and laboratory reports are included in Appendix A. Refer to Appendix E for sample locations.

WHALEY CENTER - TABLE 1D

SAMPLE NUMBER	*MATERIAL*	*LOCATION*	*ASBESTOS CONTENT*
WH207-A1	2'x4' ceiling tile, gray matrix, wormy pattern w/1/16" holes	Storeroom 49 near door. Appears to be old, 6-16:35	None Detected
WH207-A2	White tape with clear mastic on ductwork	HP Duct in teacher's lounge 33, 6-16:51	None Detected both layers
WH207-A3	Red sealant with sliver paint on ductwork	HP Duct in teacher's lounge 33, partially concealed by white tape, 6-16:51	1.3% Chrysotile
WH207-A4	2'x4' ceiling tile, gray matrix, wormy pattern w/1/16" holes	Teacher's Lounge 33. Appears to be old, 6-17:03	None Detected
The testing method used (polarized light microscopy [PLM]) is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Before this material can be considered or treated as non-asbestos containing, confirmation should be made by quantitative transmission electron microscopy (TEM).			

Whaley Center School Table 1E includes samples taken in June 1, 2005 for a Door Survey project, and the results of the laboratory analysis. Note, some of these materials may have been removed by the previous project, but are included here to illustrate similar materials from the eras of construction. Asbestos field survey data sheets and laboratory reports are included in Appendix A. Refer to Appendix E for sample locations.

WHALEY CENTER – Table 1E

SAMPLE NUMBER	*MATERIAL*	*LOCATION*	*ASBESTOS CONTENT*
WH605-A1	Tan fiber door insulation	Metal exterior exit door to room #6 (door type 3)	None Detected
WH605-A2	White foam door insulation	Metal interior hall door #7006 within corridor 700 (door type 4)	None Detected
WH605-A3	Tan paper door insulation	Metal interior entry door to room #28 (door type 9)	None Detected
WH605-A4	White foam door insulation	Metal interior entry door to room #8 (door type 10)	None Detected
WH605-A5	Yellow/tan door insulation	Metal exterior exit door to room #8 (door type 3)	None Detected
WH605-06	Yellow/tan door insulation	Metal exterior door within room #59 (Exit) (door type 15)	None Detected
WH605-A7	White/grey powder door insulation	Main entry door to room #59 (Wood fire door) (door type 13)	15% Chrysotile
WH605-A1	Tan fiber door insulation	Metal exterior exit door to room #6 (door type 3)	None Detected
The testing method used (polarized light microscopy [PLM]) is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Before this material can be considered or treated as non-asbestos containing, confirmation should be made by quantitative transmission electron microscopy (TEM).			

Whaley Center School Table 1F includes samples taken in October, 2005 for a Boiler Replacement project, and the results of the laboratory analysis. Note, some of these materials may have been removed by the previous project, but are included here to illustrate similar materials from the eras of construction. Asbestos field survey data sheets and laboratory reports are included in Appendix A. Refer to Appendix E for sample locations.

WHALEY CENTER - TABLE 1F

SAMPLE NUMBER	*MATERIAL*	*LOCATION*	*ASBESTOS CONTENT*
WS102005-A01	Tan joint compound	West wall, 1970's era boiler rm.	None detected
WS102005-A02	Tan sheetrock	West wall, 1970's era boiler rm.	None detected
WS102005-A03	Tan joint compound	Above exterior doorway, 1970's boiler room.	2.4% Chrysotile
WS102005-A04	Tan sheetrock	Above exterior doorway, 1970's boiler room	None detected.
WS102005-A05	White GWB tape	West wall, 1970's era boiler rm.	None detected
WS102005-A06	Tan wall mastic	West wall, 1970's era boiler rm., between gwb and rigid insulation	None detected
WS102005-A07	Tan cementitious insulation	North boiler, 1970's construction	None detected
WS102005-A08	White rope gasket	North boiler, 1970's construction	50% Chrysotile
WS102005-A09	Green flange gasket	Gas line, South boiler, 1970's construction	None detected
WS102005-A10	Green/tan flange gasket	Heat exchanger flange, 1970's boiler room.	None detected
WS102005-A11	Green/tan flange gasket	6" line from north boiler, 1970's construction	None detected

SAMPLE NUMBER	*MATERIAL*	*LOCATION*	*ASBESTOS CONTENT*
WS102005-A12	Tan fabric vessel wrapping	South compression tank, 1970's construction	50% Chrysotile
WS102005-A13	Tan hard insulation	South compression tank, 1970's construction	None detected
WS102005-A14	Tan hard insulation	North compression tank, 1970's construction	None detected
WS102005-A15	Tan hard insulation	North boiler exhaust, 1970's construction	None detected
WS102005-A16	Tan hard insulation	South boiler exhaust, 1970's construction	None detected
WS102005-A17	Tan hard insulation	Heat exchanger, 1970's construction	50% Chrysotile
WS102005-A18	Tan cove base mastic	North wall of 1970's boiler entry room	None detected
WS102005-A19	Tan joint compound	North wall of 1970's boiler entry room	2.5% Chrysotile
WS102005-A20	Tan joint compound	North wall of 1995 boiler room	None detected
WS102005-A21	Tan joint compound	South wall of 1995 boiler room	None detected
WS102005-A22	Tan joint compound	North wall of 1995 boiler room	None detected
WS102005-A23	Brown/white fabric wrap	Combustion air duct, 1995 boiler room	None detected
WS102605-A01	Tan fabric vessel wrapping	South glycol tank, 1970's boiler room	None detected
WS102605-A02	Tan hard insulation	South glycol tank, 1970's boiler room	4% Chrysotile
WS102605-A03	Tan hard insulation	South glycol tank, 1970's boiler room	5% Chrysotile
WS102605-A04	Tan fabric vessel wrapping with tan hard insulation	North compression tank, 1970's boiler room	Wrap, none detected/ insulation, 5% Chrysotile
WS102605-A05	Tan hard insulation	Boiler exhaust stack, 1970's boiler room	None detected
WS102605-A06	Tan hard insulation	Boiler exhaust stack, 1970's boiler room.	None detected
The testing method used (polarized light microscopy [PLM]) is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Before this material can be considered or treated as non-asbestos containing, confirmation should be made by quantitative transmission electron microscopy (TEM).			

Other previous surveys in the Whaley Center are not included here, but are available upon request. The following materials in the Whaley Center have been found to contain asbestos previous surveys, or were assumed to contain asbestos.

1. Asbestos-containing joint compound in original gypsum board systems (confirmed 1973 era).

2. Asbestos-containing “hard and chalky” pipe fitting insulation (confirmed 1973 era).
3. Cement asbestos board on walls of the corridors, kitchen, restrooms, and janitor closets (confirmed 1973 era). This material is concealed under newer wall finishes in some areas.
4. Various colors and patterns of asbestos-containing sheet vinyl and associated mastics (confirmed 1973 era). This material is concealed under newer flooring finishes in some areas.
5. 9” x 9” and 12” x 12” and various patterns of asbestos-containing floor tile and associated mastics (confirmed 1973 era). This material is concealed under newer flooring finishes in some areas.
6. Asbestos-containing grey ceiling grid mastic at ‘L’ channel grid supports (confirmed 1973 era).
7. Asbestos-containing pink and black sink undercoatings (confirmed 1973 era, assumed 1990 era). Other colors are also assumed to be asbestos-containing.
8. Asbestos-containing high temperature wiring at older ovens, incandescent and fluorescent light fixtures, and HID light fixtures (assumed 1973 era).
9. Asbestos-containing heat shields in older incandescent light fixtures (assumed 1973 era).
10. Asbestos-containing red duct sealants used mainly on the high pressure ductwork upstream of the VAV boxes (confirmed 1973 era, other colors assumed in the 1990 era). This material is both sprayed with a silver paint and covered by a non-asbestos white cloth wrap in some areas.
11. Asbestos-containing lining of underfloor “Spunstrand” supply air ducts (assumed 1973 era).
12. Fire door insulation (previously confirmed but possibly removed 1973 era).
13. Various colors of asbestos-containing mastics used on cork boards, chalkboards, tack boards, white boards, cove bases, and wainscots (assumed 1973 era).
14. Asbestos-containing tarry lining of clock/speaker housings (assumed 1973 and 1990 eras).
15. Asbestos-containing exterior window glazing compounds (assumed 1973 era).
16. Asbestos-containing exterior “Stucco” soffit and fascia panels (assumed 1973 era).
17. Asbestos-containing gaskets and valve packings on piping and mechanical systems (assumed 1973 and 1990 eras).
18. Asbestos-containing gaskets and sealants on boilers and/or furnaces (assumed 1973 and 1990 eras).
19. Asbestos-containing roofing materials such as remnant roofing materials below newer roofing materials, patch tars, sealants at seams and parapet caps, mastics, or tars of mechanical equipment & VTR’s (assumed 1973 and 1990 eras).

The effects of the above asbestos-containing materials in the Whaley Center on the proposed renovation are discussed below.

Gypsum Board Joint Compound
Gypsum board joint compound in the 1973 portion of the building was asbestos-containing. Any incidental work that might disturb the joint compound in these areas of the building is required to be done by trained asbestos workers.

Pipe Fitting Insulation
Piping concealed above the ceilings and in mechanical spaces in the 1973 era is insulated at fittings with asbestos-containing insulation. The insulation is generally in good condition but is considered friable. The piping and the asbestos-containing insulation are unlikely to be disturbed by this project.

Cement Asbestos Wainscot
Wainscots in hallways throughout the 1973 era of the Whaley Center are often of cement asbestos board. Some cement asbestos board wainscot has been replaced with non-asbestos Marlite hardboard. Wainscot mastics are also asbestos containing. Cement asbestos wainscot in its present condition is not friable. The cement asbestos board and mastics were in good condition and may require minor disturbance by this project.

Sheet Vinyl Flooring

Some of the toilet rooms and janitor closets in the building were asbestos containing. Many areas of sheet vinyl have been previously abated and replaced with non-asbestos-containing materials. The sheet vinyls were in several colors, and are not presently friable, but are unlikely to be disturbed by this project.

Floor Tiles and Floor Tile Mastics, 1973 Era
Vinyl floor tiles and flooring mastics that are scheduled for replacement were originally on floors covered with carpets. The floor tile and mastic were tested and did not contain asbestos. Other original floor tiles and mastics that do contain asbestos will not be disturbed by this project.

Floor Tiles and Floor Tile Mastics, 1990 Era
The floor tiles in the 1990 portion of the Whaley Center were tested and did not contain asbestos.

Ceiling Grid Mastics
Mastics used to secure the “L” channels of the Ceiling Grids to walls in the 1973 Era contained asbestos. Mastics were in good condition and were not friable and will be partially disturbed by this project.

Sink Undercoating
Stainless steel sinks in the 1973 era were coated on the underside with a black, or pink spray-applied material containing asbestos. Similar materials in the 1990 era are assumed to contain asbestos. This material was in good condition and is not considered friable. The sinks are unlikely to be disturbed by this project.

High Temperature Wiring Insulation
High Temperature Wiring Insulation in the 1973 era is assumed have asbestos-containing insulation. The wiring was noted at older incandescent light fixtures, at high temperature heating equipment, and at ovens and ranges. Wiring insulation is typically not friable, and are unlikely to be disturbed by this project.

Light Fixture Heat Shields and Wiring Insulation
Several incandescent light fixtures were identified that are assumed to have an asbestos-containing heat shield. Although also not tested, it is assumed that wiring associated with these fixtures was insulated with asbestos-containing insulation. This shield material was in good condition and is considered friable. Wiring insulation is not friable and they are unlikely to be disturbed by this project.

Duct Sealants
Red Sealants at joints of the medium or high pressure ductwork in the 1973 era are confirmed to contain asbestos. The white cloth duct seals were tested, and did not contain asbestos. Other colors of duct sealants in the 1990 era are assumed to contain asbestos. The sealant are typically in good condition and was not friable and are unlikely to be disturbed by this project.

Underfloor “Spunstrand” Duct Lining
The lining of the buried, underfloor ductwork in the 1973 era is assumed to contain asbestos. Similar ductwork has been sampled in other buildings, and is typically in good condition but is friable. The underfloor ducts are unlikely to be disturbed by this project.

Door Insulation
A wood fire door from Corridor 400 to Room 59 was previously found to contain asbestos. That door may have been previously removed. The door is unlikely to be disturbed by this project.

Cork, Chalkboard, Tack Board, White Board, Cove Base and Wainscot Mastics
Mastics used to secure cork, cove base and wainscots to walls are assumed to asbestos. Typically most chalk boards, tack boards, mirrors and white boards were secured to walls primarily with screws; however, some mastic is often use in combination with screws and is assumed to be asbestos-containing. Mastics were in good condition and were not friable and are unlikely to be disturbed by this project.

Speaker/Clock Housing Coatings
Coatings on the interior of speaker and clock housings in classrooms and in speaker housings in hallways in both the 1973 and 1990 eras are assumed to contain asbestos. This material was in good condition and was not friable and are unlikely to be disturbed by this project.

Window Glazing Compound
The black, rubbery sealant at the interior windows in the 1973 era were sampled and found to not contain asbestos. The exterior windows in the 1973 era are assumed to have an asbestos-containing glazing compound. This material was visible around the glass of windows. The exterior sealants and glazing compounds are unlikely to be disturbed by this project.

"Stucco" Soffits and Fascia Panels
The "Stucco" finish of the Soffits and Fascia Panels of the 1973 era were assumed to contain asbestos. The Soffits and Fascia Panels were in good condition and are not considered friable unless damaged. The "Stucco" finish is not scheduled to be disturbed by this project.

Boiler Gaskets and Sealants
Due to their age, gaskets and sealants on the boilers in the 1973 and 1990 eras are assumed to be asbestos-containing. These materials are difficult to sample without disassembly of equipment and consequently no sampling was performed. These materials were in good condition but may become friable during removal for replacement. The gaskets and sealants are unlikely to be disturbed by this project.

Flange Gaskets and Valve Packing
Due to their age, gaskets and valve packing on mechanical equipment throughout the 1973 and 1990 era, but mostly in mechanical and fan rooms are assumed to be asbestos-containing. These materials were in good condition but may become friable during removal for replacement. The gaskets and packings are unlikely to be disturbed by this project.

Roofing Material
Previous roof removal work has shown that residual asbestos–containing roofing mastics and sealants still remain under newer replacement roofing, which was replaced in 2001. These materials can be either friable or not friable depending on their condition and are unlikely to be disturbed by this project.

2. Dust Sampling for Asbestos

The following TABLE 2A lists the asbestos dust samples taken in July 2002 in limited areas of the Whaley Center, and the results of the laboratory analysis by D5756-95. Asbestos dust field survey data sheets and laboratory reports are included as Appendix B. Refer to Appendix E for sample locations.

WHALEY CENTER - TABLE 2A

SAMPLE NUMBER	*DESCRIPTION*	*LOCATION*	Results Asbestos St./cm^2 *	Results percentage Asbestos
WH207-D1	10cm x 10cm dust on metal	On top of light fixture in N. Hall, outside Rm 64, 7-15:54	480,000 Chrysotile & Actinolite	0.07%
WH207-D2	10cm x 10cm dust on metal	On top of light fixture in entrance, outside Rm 82, 7-16:06	200,000 Chrysotile	0.0014%
WH207-D3	10cm x 10cm dust on metal	On top of light fixture in Rm 37, 7-16:30	430,000 Chrysotile	0.018%

* The St./cm^2 results by ASTM D5755 and D5756 are not directly comparable due to differences in sample preparation. The D5756 results are primarily meant to determine the weight percentage. Refer to discussion in Part E below.

3. Lead-Containing Materials

Lead-Testing
Previous lead testing in the building used a NITON XRF lead paint analyzer. Lead in paints tested varied from a trace amount to 0.06 mg/cm^2. Refer to the Lead Analyzer Test Results Table in Appendix D that identifies the surfaces tested, and the results. The Lead Test Locations are shown in the Drawings in Appendix E.

Paints
There were varying lead contents found in the paints, based on what surfaces they are on, with most surfaces containing little lead (but are still classified as lead-containing materials by OSHA).

Lead based paints (paint containing more than 1.0 mg/cm^2 of lead) were not identified in the project,. however, it is anticipated that other components which are hidden, concealed, or otherwise not tested may be painted with lead-based paint. Lead was detected at very low levels in most of the painted floor, wall and ceiling surfaces. XRF testing is not able to “prove” that “no” lead exists in the paint. Low levels of lead found by XRF testing does not mean that the paints are free of lead, the paints may contain lead. At least an initial exposure determination of potential worker exposures for all disturbance of lead-containing materials is required unless laboratory analysis shows that there is zero detectable lead in the materials being disturbed (which requires special analysis). However, these paints may not present a hazard to occupants or workers performing renovation or demolition if lead-safe work practices are followed.

Metallic Lead in Batteries, Pipe Solder and Flashing
Metallic lead items identified in the building included lead soldering at the sheet metal roof flashings, lead solder at copper piping, and poured lead sealants at bell and spigot joints of waste and vent piping and lead acid batteries in emergency lights and other battery backup equipment. If removed during renovation or demolition they should be recycled or disposed of as hazardous waste.

Lead Dusts
Portions of the dusts in the Whaley School were previously sampled for lead content. The following TABLE 3A lists the lead dust samples taken in February 2007 in the Building, and the results of the laboratory analysis. Lead Dust field survey data sheets and laboratory reports are included as Appendix C. Refer to Appendix E for sample locations.

TABLE 3A

SAMPLE NUMBER	*DESCRIPTION*	*LOCATION*	Results lead/SF µg/ft^2
WH207-LD1	10cm x 10cm dust on metal	On top of light fixture in N. Hall, outside Rm 64, 7-15:54	1,600.0 µg/ft^2
WH207-LD2	10cm x 10cm dust on metal	On top of light fixture in entrance, outside Rm 82, 7-16:06	1,500.0 µg/ft^2
WH207-LD3	10cm x 10cm dust on metal	On top of light fixture in Rm 37, 7-16:30	550.0 µg/ft^2
WH207-LD4	Field Blank	Wiped on hands and template, no other surfaces touched	<10.0 µg

4. PCB-Containing Materials

Light Ballasts
Older fluorescent lights typically have PCB-containing ballasts. PCB-containing ballasts in fluorescent lights were banned in 1978, but manufacturers were allowed to use up existing stocks, and lights may have been reused from other facilities. The survey included examination of what were considered to be representative light fixtures, but not all fixtures were able to be accessed. All lights shall be inspected during removal. Unless ballasts were marked “No PCBs,” they must be assumed to contain PCBs and must be disposed of as a hazardous waste when removed for disposal. Fluorescent light fixtures with PCB-containing ballasts are assumed to be present in the building, but are unlikely to be removed by this project. The fluorescent light fixtures will be replaced as shown on the drawings.

Older HID lights may have PCB-containing ballasts. Due to height restrictions and sealed ballast enclosures, the HID fixtures were not able to be accessed. All HID lights shall be inspected during removal or relocation. If ballasts are not marked “No PCBs,” we suggest contacting the manufacturer of the lights to determine if the ballasts contain PCB’s, or assume that they contain PCB’s and be disposed of as a hazardous waste. The HID light fixtures are unlikely to be disturbed by this project.

Bulk Products
Some older paints, sealants and other building materials may contain measurable amounts of PCB’s. PCB use in paints and sealants was supposed to have been discontinued in 1979. The EPA does not require the sampling of bulk products, and no sampling of “Bulk Products” were authorized for this project.

5. Mercury-Containing Materials

Fluorescent Lamps
Fluorescent lamps use mercury to excite the phosphor crystals that coat the inside of the lamp. These lamps contain from 15 to 48 milligrams of mercury depending on their age and manufacturer. Fluorescent light fixtures will be replaced as shown on the drawings.

High Intensity Discharge Lamps
High Intensity Discharge (HID) lamps use mercury and sodium vapors in the lamp, and also typically have lead-containing solders at the bases. These lamps contain varying amounts of mercury depending on their age and manufacturer. The HID light fixtures are unlikely to be disturbed by this project.

All mercury-containing items being removed by this project are required to be disposed of as hazardous waste or recycled.

6. Other Hazardous Materials

Self-Illuminating Exit Signs and Smoke Detectors
Several radioactive, self-illuminating exit signs and smoke detectors were found in the renovation area. No radioactive exit signs are scheduled to be replaced by this project.

Soil Contamination
The scope of work for EHS-Alaska, Inc. did not include investigation of soils for petroleum or other contaminations.

E. REGULATORY CONSTRAINTS

1. Asbestos-Containing Materials

The Federal Occupational Safety and Health Administration (29 CFR 1926.1101) and the State of Alaska Department of Labor (8 AAC 61) have promulgated regulations requiring testing for airborne asbestos fibers; setting allowable exposure limits for workers potentially exposed to airborne asbestos fibers; establishing contamination controls, work practices, and medical surveillance; and setting worker certification and protection requirements. These regulations apply to all workplace activities involving asbestos-containing materials.

The EPA regulations, issued as Title 40 of the Code of Federal Regulations, Part 61 (40 CFR 61), Subpart M under the National Emission Standards for Hazardous Air Pollutants (NESHAP), established procedures for handling ACM during asbestos removal and waste disposal. Whaley School will fall under the EPA's Asbestos Hazard Emergency Response Act (AHERA) law regulating asbestos in schools, and clearance sampling will be required where interior asbestos-containing materials are removed.

The EPA regulations require an owner (or the owner's contractor) to notify the EPA of asbestos removal operations and to establish responsibility for the removal, transportation, and disposal of asbestos-containing materials.

The disposal of asbestos waste is regulated by the EPA, the Alaska Department of Environmental Conservation, and the disposal site operator. Wastes being transported to the disposal site must be sealed in leak tight containers prior to disposal and must be accompanied by disposal permits and waste manifests.

2. Dusts with Asbestos

All of the dust samples taken at the Whaley School through the years have contained less than 1 percent asbestos. The concentrations of asbestos structures per unit area of dust analyzed by ASTM D5756 are not directly comparable to the majority of dust sampling literature which use ASTM D5755 analysis due to differences in sample preparation. Both types of analysis include ultrasonic treatment to separate asbestos from interfering particulates. However, the D5756 method includes a much longer ultrasonication step that tends to break down the larger asbestos structures, such as bundles or groups of asbestos fibers into more simple, individual asbestos fibers to allow more accurate estimations of the weight of the fibers. That has a tendency to "create" multiple asbestos structures out of what was originally a single asbestos structure. Area concentrations for samples analyzed by ASTM D5756 for weight percentage may have a higher concentration than if the same sample was analyzed by ASTM D5755. This should not have any effect on the weight percentage results, as no asbestos structures are actually "created", but are just more finely divided. The structures per unit area results from ASTM D5756 analysis are given as a courtesy by the laboratory, and should be used as a general comparison of relative concentrations, and not compared to the ASTM D5755 analysis results or the indications of "background", "medium" or "high" concentrations as discussed below and in the published literature on the implications of asbestos in dusts. The differences between the two types of analysis will depend on the relative sizes of the asbestos structures present in the dusts. If the dust has mostly single fibers, there would not be much effect. If the dust has bundles, clusters or matrixes of asbestos present, the concentration of structures per unit area may be reported as much higher by ASTM D5756 analysis than if it was analyzed by ASTM D5755.

Concentrations of asbestos in dust are considered to be at "background" levels when the concentrations are between 1,000 to 10,000 St./cm^2 when analyzed by ASTM D5755. Background levels for a particular location will depend on many factors, including whether or not asbestos occurs naturally in soils in the area. Concentrations greater than approximately 100,000 St./cm^2 are considered to have a higher likelihood of causing an exposure to asbestos fibers when the settled dusts are disturbed. Concentrations between 10,000 and 100,000 St./cm^2 lie in a median range. In all cases, the possible airborne concentrations of asbestos will depend on the type of disturbance, the quantity of dust that is disturbed, and the volume of the area into which the dust is made airborne.

D5756-Weight Percentage Samples

The D5756 asbestos in dust concentrations found throughout the Whaley School ranged from 200,000.0 St./cm^2 to 480,000 St./cm^2, and as discussed above, may not be comparable to the research that produced the above classifications of "background, medium and high" concentrations.

Likely sources of asbestos in dusts include natural occurrences of asbestos.

The types of asbestos found included chrysotile and actinolite forms of asbestos. Two samples contained only chrysotile. One sample contained chrysotile and actinolite. Because actinolite has not been identified in bulk samples taken of materials within the school, those forms of asbestos may have come from natural occurrences of asbestos in an outside source, such as rock or ore deposits, which appear to be common in the Anchorage area.

Because the type of disturbance, concentration of asbestos in the dusts, quantity of dust disturbed, cohesiveness of the dusts and room sizes will change, the airborne asbestos levels expected during the project will depend on the contractor's means and methods of conducting the work. The mere presence of asbestos in the dusts does not necessarily imply that a "hazard" exists which would require the use of specially trained workers to "abate" the "hazard". All dusts will likely be required to be removed from the areas where asbestos-containing materials are being removed (abatement areas) in order to achieve clearances. The dusts in the other areas are to be controlled so as to limit worker exposures and prevent contamination of occupied areas of the building.

There is no established correlation between settled or adhered dusts with measurable concentrations of asbestos and airborne concentrations. The definition in the OSHA regulations of asbestos-containing materials as those materials that contain 1 percent or more asbestos by weight, apply to cohesive materials and not to dusts. The OSHA regulations are essentially "performance based", if workers are exposed above the permissible exposure limits, then all of the requirements in the regulations become effective.

3. Lead-Containing Materials

The EPA Standard 40 CFR 745, Lead-Based Paint Poisoning Prevention in Certain Residential Structures, defines lead–based paint hazards and regulates lead based paint activities in target housing and child-occupied facilities. The requirements of this regulation include training certification, pre-work notifications, work practice standards and record keeping. Areas in facilities built before 1978 that are typically classified as child occupied facilities may include but are not limited to: residential homes, day care facilities, preschools, kindergarten classrooms, restrooms, multipurpose rooms, cafeterias, gyms, libraries and other areas routinely used by children under 6 years of age. New training requirements for Firms (Contractors) and Renovators (Workers) became effective on April 22, 2010.

It is anticipated that only small amounts of lead based paint (if present) will be required to be disturbed for this renovation work, and the work would be classified as minor repair and maintenance activities, therefore most requirements of 40 CFR 745 do not apply.

Federal OSHA (29 CFR 1926.62) and the State of Alaska (8 AAC Chapter 61) have promulgated regulations that apply to all construction work where employees may be exposed to lead. The disturbance of any surfaces painted with lead-containing paint requires lead-trained personnel, personnel protective procedures, and air monitoring until exposure levels can be determined. If initial monitoring verifies that the work practices being used are not exposing workers, monitoring and protection procedures may be relaxed. Experience has shown that some paints in most buildings will contain low concentrations of lead and disturbance of those paints are still regulated under the OSHA lead standard, 29 CFR 1926.62. Low levels, or "none detected" levels of lead found by XRF testing does not mean that the paints are free of lead, the paints may contain lead, and OSHA regulations apply during any disturbance of measurable amounts of lead present in paints.

Because the type of disturbance, quantity of lead dusts, cohesiveness of the dusts and room sizes will change, the airborne lead levels expected during the project will depend on the contractor's means and methods of conducting the work. The mere presence of lead in the dusts does not necessarily imply that a "hazard" exists which would require the use of specially trained workers to "abate" the "hazard". As a comparison, "clearance" lead dust concentrations established at the conclusion of a "lead abatement project" in child occupied facilities, are required to be <10.0 µg/ft^2 for floors, <100.0 µg/ft^2 for window sills, and <400.0 µg/ft^2 for window troughs. Soil lead clearance levels shall be below 400 parts per million (ppm) for play areas and 1,200 ppm for bare soil in non-play areas.

The dust sampled in the building contained from 550.0 µg/ft^2 to 1,600.0 µg/ft^2, however, none of the samples were taken at the floors, window sills, or window troughs, but were taken in areas that were typically inaccessible, and are unlikely to be disturbed during normal occupancy. Clearance sampling meeting the requirements of 40 CFR 745 will be required if the work goes beyond the minimum amounts of disturbance of lead-based paints established by those regulations.

There is no established correlation between settled or adhered lead dust concentrations and airborne concentrations. The OSHA regulations are essentially "performance based", if workers are exposed above the permissible exposure limits, then all of the requirements in the regulations become effective.

The EPA requires that actual construction or demolition debris that contains lead or lead-containing paint or other heavy metals be tested using the TCLP test to determine if the waste must be treated as hazardous waste. All federal, state and local standards regulating lead and lead-containing wastes are required to be followed during the renovation or demolition of portions of this building. Lead-acid batteries and other batteries are classified by the EPA as Universal Wastes. The EPA encourages that all Universal Wastes be recycled in accordance with 40 CFR 273, or in the case of lead-acid batteries, in accordance with 40 CFR 266, subpart G.

If the TCLP tests done on the waste stream(s) that are produced by the contractor are found to contain more than 5.0 mg/liter or 5.0 ppm of lead, they are classified as hazardous wastes, then those waste stream(s) will have to be packaged for shipping and disposal in accordance with hazardous waste and transportation regulations. Because there are no hazardous waste landfills in Alaska, this report assumes that any hazardous waste disposal would take place in Seattle or elsewhere in the Pacific Northwest.

4. PCB-Containing Materials

The EPA has promulgated regulations (40 CFR Part 761) that cover the proper handling and disposal of PCB-containing materials. If any PCB-containing equipment is discovered and if they will be removed, those materials are required to be disposed of at fully permitted hazardous waste facilities. The EPA regulates liquid PCBs differently from non-liquid materials. Workers who remove or handle PCB-containing or PCB-contaminated materials or who transport or dispose of PCB wastes must be trained and certified in hazardous waste operations and emergency response (HAZWOPER) as required by 29 CFR 1910.120 and the State of Alaska Department of Labor (8 AAC 61). The Department of Transportation under 49 CFR Parts 100-199 regulates the marking, packaging, handling and transportation of hazardous materials. All federal, state and local standards regulating PCBs and PCB waste must be followed during this project.

5. Mercury-Containing Materials

Thermostats and mercury-containing lamps are classified by the EPA as Universal Wastes. The EPA encourages that all Universal Wastes be recycled in accordance with 40 CFR 273. Mercury and mercury-containing products are considered hazardous waste if TCLP testing of the waste for mercury confirms the mercury content to be greater than the EPA criteria of 0.2 mg/l.

6. Other Hazardous Materials

Refrigerants
Refrigerators, freezers, ice machines, and water coolers were present in the kitchen area that are scheduled to remain. Air conditioning and “Air Dryer” systems were also present and are scheduled to remain. Typically, refrigeration and air conditioning systems with ODS shall be maintained in order to prevent discharge of ODS. Systems that are to be removed, or dismantled shall have refrigerants containing ODS recovered and disposed of or recycled in accordance with 40 CFR 82.

Chemical Hazards
The EPA has promulgated regulations (40 CFR Parts 260 to 299 amongst others) that cover the proper handling and disposal of waste chemicals, including listed wastes, which are ignitable, corrosive, reactive, toxic, or an acute hazardous waste or wastes that exhibit the characteristics of toxicity. All construction workers who are required to remove or handle chemical hazards or to transport or dispose of chemical wastes shall be trained and certified as required by the U.S. Department of Labor (29 CFR 1910.120) and the State of Alaska Department of Labor (8 AAC 61). Transportation of chemical hazards are regulated by Department of Transportation regulations under 49 CFR Parts 171 to 178 amongst others.

Waste heat transfer fluids (such as used heating/cooling system glycol or other circulating heating/cooling fluids) are a potentially hazardous waste and are required to be TCLP tested prior to disposal to

determine if the fluids are classified as hazardous or non-hazardous waste per the EPA's RCRA regulations governing hazardous wastes. According to a study performed by the University of Northern Iowa, standard TCLP analysis using ICP SW 6010 testing procedures commonly report levels of Arsenic and Selenium over regulatory thresholds due to interferences in the matrix. That report concluded that additional analysis should be performed to refute the presence of Arsenic or Selenium over the regulatory levels by either mass spectrometry using method SW 6020, or by graphite furnace using method SW 7060. Some heat transfer fluids may also contain potentially hazardous additives that modify the properties of the fluids for use in a particular system. It is recommended that the contractor consult with the persons responsible for maintaining the system to determine if any additives that may be potentially hazardous were used in the system to further determine disposal requirements.

Radioactive Materials
Self-luminous products that contain Tritium, Krypton-85, or Promethium-147 are considered radioactive. There are special disposal requirements for products that contain Tritium, Krypton-85, or Promethium-147 that are generally licensed. Data from the Nuclear Regulatory Commission (NRC) indicates that most all Tritium powered exit signs are generally licensed and therefore must be disposed of at a licensed disposal facility or returned to the manufacturer/distributor for disposal. Licensed radioactive products are regulated by Nuclear Regulatory Commission standard 10 CFR 20 and 10 CFR 32. Smoke detectors were present in the project area that may contain a radioactive material. If the detectors are of the ionization type they typically contain a small amount of Americium. If removed during renovation, the detectors should be returned to the owner for reuse or returned to the manufacturer for disposal or recycling. There are no licensed disposal facilities for radioactive wastes in Alaska.

F. RECOMMENDATIONS

1. Asbestos-Containing Materials

The asbestos-containing materials identified in the building are typically in intact condition and are classified as both friable and non-friable ACM. All asbestos-containing materials that will be disturbed by the planned renovation work are required to be removed by trained asbestos workers. Refer to Section 028233 Removal and Disposal of Asbestos Containing Materials.

2. Dusts with Asbestos

Dusts with measurable concentrations of asbestos were found, but are not classified as asbestos-containing materials, or as debris from asbestos-containing materials. Workers disturbing dusts are required to have hazard communication training in accordance with OSHA regulations, but are not required to receive 40 hours of training, which is required for asbestos workers. The contractor will need to choose means and methods to control worker exposures to airborne contaminants. At least an initial exposure assessment or data from previous air monitoring is needed to show that worker exposures are maintained below the OSHA permissible exposure limits (PELs). Refer to Section 01 35 45 Airborne Contaminant Control.

3. Lead-Containing Materials

Federal OSHA (29 CFR 1926.62) and the State of Alaska (8 AAC Chapter 61) have promulgated regulations that apply to all construction work where employees may be exposed to lead, including disturbance of paints with low concentrations of lead.

The EPA Standard 40 CFR 745, Lead-Based Paint Poisoning Prevention in Certain Residential Structures, defines lead–based paint hazards and regulates lead based paint activities in target housing and child-occupied facilities. Contractors disturbing lead-based paints in target housing and child occupied facilities must comply with 40 CFR 745.

Worker exposure to lead may be able to be controlled below the OSHA permissible exposure limit if proper engineering controls and procedures are used during renovation. Lead is a potentially hazardous waste and the EPA requires that all wastes that contains lead be tested to determine if they must be treated as hazardous waste. A TCLP test of the waste stream(s) produced by the Contractor's means and methods are required to be performed to determine if those wastes will be classified as hazardous or non-hazardous. Refer to Section 013545 Airborne Contaminant Control and Section 028333 Removal and Disposal of Materials Containing Lead.

4. PCB-Containing Materials

If any PCB-containing ballasts are discovered, and they are removed or replaced, they will need to be removed, handled, packaged and disposed of in accordance with all regulations. Refer to Section 02 84 18 Removal and Disposal of Chemical Hazards.

5. Mercury-Containing Materials

Mercury-containing materials scheduled for removal or replacement will need to be removed, handled, packaged and disposed of in accordance with all regulations. If mercury-containing lamps and thermostats are handled and disposed of in accordance with the Universal Waste Regulations, no TCLP test is required. If the Contractor chooses to perform a TCLP test of fluorescent lamps, the test shall be conducted in accordance with the requirements of ANSI/NEMA Standard Procedure for Fluorescent Lamp Sample Preparation and Toxicity Characteristic Leaching Procedure, C78.LL 1256-2003 or latest version. Refer to Section 028418 Removal and Disposal of Chemical Hazards.

6. Other Hazardous Materials

The radioactive exit signs are not scheduled for removal by this project. The radioactive smoke detectors scheduled for removal or replacement will need to be removed, handled, packaged and disposed of in accordance with all regulations. Refer to Section 028418 Removal and Disposal of Chemical Hazards.

G. LIMITATIONS

The conclusions and recommendations contained in this report are based upon professional opinions with regard to the subject matter. These opinions have been arrived at in accordance with currently accepted environmental consulting and engineering standards and practices and are subject to the following inherent limitations:

1. Accuracy of Information

The laboratory reports utilized in this assessment were provided by the accredited laboratories cited in this report. Although the conclusions, opinions, and recommendations are based in part, on such information, our services did not include the verification of accuracy or authenticity of such reports. Should such information provided be found to be inaccurate or unreliable, EHS-Alaska, Inc. reserves the right to amend or revise its conclusions, opinions, and/or recommendations.

2. Site Conditions

This limited survey did not include investigation of the entire site and may not be valid outside the survey area. The intent of this survey was to identify common hazardous materials that may be disturbed during the proposed renovations. This survey is not intended to be utilized as the sole design document for abatement. This survey was conducted while the site was occupied. All inspections were performed with furniture, equipment and/or stored items in place. The scope of work for this survey did not include identification of all potentially hazardous materials that may be present at this site, and was limited to the scope of work agreed upon with our client. Although a concerted effort was made to identify those common hazardous materials likely to be affected by this project, some hazardous materials may have been hidden by furniture, equipment or stored items and may not have been identified. The survey investigated representative materials and items, such as lights and mechanical components. Variations may occur between materials and items that appear to be the same, but are actually of different construction or materials. Other asbestos-containing or potentially hazardous materials may be present in the facilities that were concealed by structural members, walls, ceilings or floor coverings, or in materials where testing was not conducted.

3. Changing Regulatory Constraints

The regulations concerning hazardous materials are constantly changing, including the interpretations of the regulations by the local and national regulating agencies. Should the regulations or their interpretation be changed from our current understanding, EHS-Alaska, Inc. reserves the right to amend or revise its conclusions, opinions, and/or recommendations.

APPENDIX A

Asbestos Bulk Sample Field Survey Data Sheets and Laboratory Reports

Field Data Sheets and Laboratory Reports
Not Included to Save Paper,

Refer to Summarized Results in this Report

Reports Are Available for Review,
Or Electronically Through the ASD Offices

APPENDIX B

Dust Sampling for Asbestos
Field Survey Data Sheets
and
Laboratory Reports

Field Data Sheets and Laboratory Reports
Not Included to Save Paper,

Refer to Summarized Results in this Report

Reports Are Available for Review,
Or Electronically Through the ASD Offices

APPENDIX C

Lead Dust Sample
Field Survey Data Sheets
and
Laboratory Reports

Field Data Sheets and Laboratory Reports
Not Included to Save Paper,

Refer to Summarized Results in this Report

Reports Are Available for Review,
Or Electronically Through the ASD Offices

APPENDIX D

Lead Analyzer Test Results

Lead Paint Screening
Whaley School Boiler Rooms

No	Site	Inspect	Floor	Rm.	Structure	Substrate	Feature	Condition	Color	Ssec	Date/Time	Depth Index	Results		
													LBP	mg/cm2	"+/-"
1	Whaley Cen.	Adami		Shutter Cal 1						40.4	10/20/2005 12:17	0	...	NA	
2	Whaley Cen.	Adami		Calibrate						20.6	10/20/2005 12:19	1.1	POS	1.53	0.22
3	Whaley Cen.	Adami		Calibrate						25.4	10/20/2005 12:19	1	NEG	0.91	0.07
4	Whaley Cen.	Adami		Calibrate						19	10/20/2005 12:20	1.2	NEG	0.33	0.11
5	Whaley Cen.	Adami	1	Boiler rm. Old	Ext. Door	Metal			Blue	22.6	10/20/2005 12:22	2	NEG	0.04	0.13
6	Whaley Cen.	Adami	1	Boiler rm. Old	Ext. Door	Metal	Casing		Beige	23.3	10/20/2005 12:23	10	NEG	0.05	0.2
7	Whaley Cen.	Adami	1	Boiler rm. Old	Wall	Drywall	Wall		Beige	22.8	10/20/2005 12:25	1	NEG	0	0.06
8	Whaley Cen.	Adami	1	Boiler rm. Old	Floor	Metal	Furnace		Grey	20.4	10/20/2005 12:26	1.1	NEG	0.01	0.05
9	Whaley Cen.	Adami	1	Boiler rm. Old	Wall	Metal	Elec Panel		Grey	20.9	10/20/2005 12:29	1.3	NEG	0.06	0.06
10	Whaley Cen.	Adami	1	Boiler rm. New	Wall	Metal	Furnace		Blue	18.2	10/20/2005 12:37	1.5	NEG	0.03	0.07
11	Whaley Cen.	Adami	1	Boiler rm. New	Wall	Metal	Elec Panel		Grey	21.2	10/20/2005 12:45	1	NEG	0.01	0.02
12	Whaley Cen.	Adami		Calibrate						22.9	10/20/2005 12:50	1.3	POS	4.21	1.88
13	Whaley Cen.	Adami		Calibrate						31	10/20/2005 12:51	1	NEG	0.25	0.07
14	Whaley Cen.	Adami		Calibrate						38.7	10/20/2005 12:53	1.1	POS	1.04	0.13

Table Heading Descriptions:

Ssec: This is the nominal time in seconds that each sample was analyzed.

Depth Index: Indicates the relative depth of the lead. A Depth Index (DI) of less than 1.5 indicates lead very near the surface layer of paint. A DI between 1.5 and 4.0 indicates moderately covered lead. A DI greater than 4.0 indicates the lead paint is deeply buried beneath multiple layers of paint.

LBP: Results are shown as positive (POS $\geq$ 1.0 mg/cm^2), inconclusive (INC) or negative (NEG < 1.0 mg/cm^2). The results are based on the combined results of the K and L shell readings. L shell and K shell readings are not provided. Positive results are also in bold print.

mg/cm^2: This is the testing results produced by the NITON XL-309 instrument in milligrams of lead per square centimeter (mg/cm^2). The EPA defines lead based paint as paint containing lead at 1.0 mg/cm^2 or greater. A negative number is a result of an internal computation made by the instrument and should be interpreted as zero. Even though paint may be termed negative (less than 1.0 mg/cm) by EPA definition, disturbance of the paint may still be regulated by OSHA under 29 CFR 1926.62. Where lead is present at any level, appropriate engineering controls, work practices and personal protective equipment should be used until a negative exposure assessment can be determined.

VOID: This indicates that the test was intentionally terminated by the operator due to operator error (e.g. - operator moved analyzer while testing).

APPENDIX E

Drawings of Sample Locations

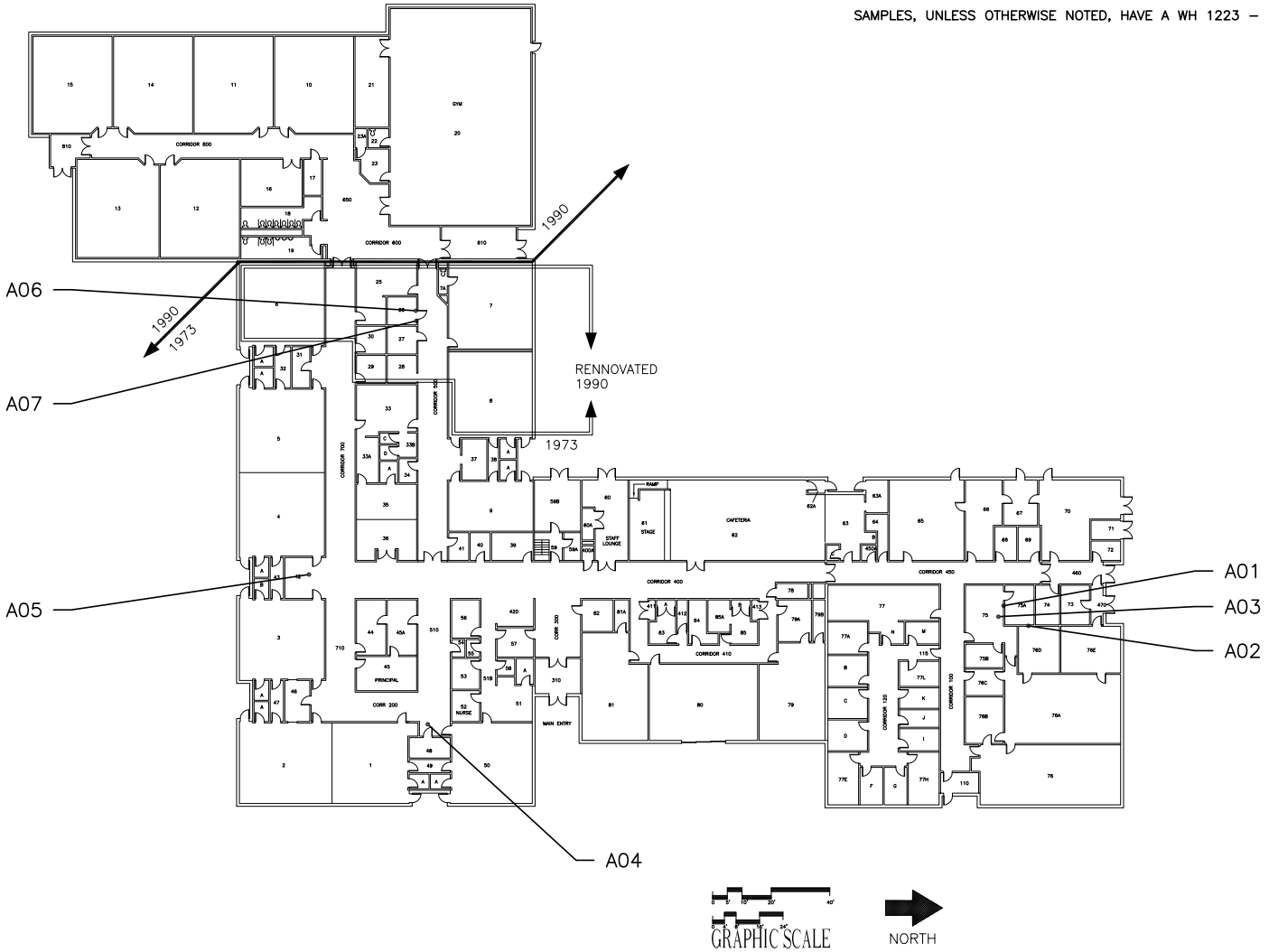
ANCHORAGE SCHOOL DISTRICT

EHS ALASKA INCORPORATED
ENGINEERING, HEALTH & SAFETY CONSULTANTS
11901 Dunkeson Blvd, Suite 100, Eagle River, AK 99577-7701

WHALEY CENTER
2220 NICHOLS STREET
ANCHORAGE, ALASKA

INSPECTED: 12/13/2023
CADD FILE: 8075-WHALEY-SAMPLELOC.DWG

SHEET NO. 1 OF 1



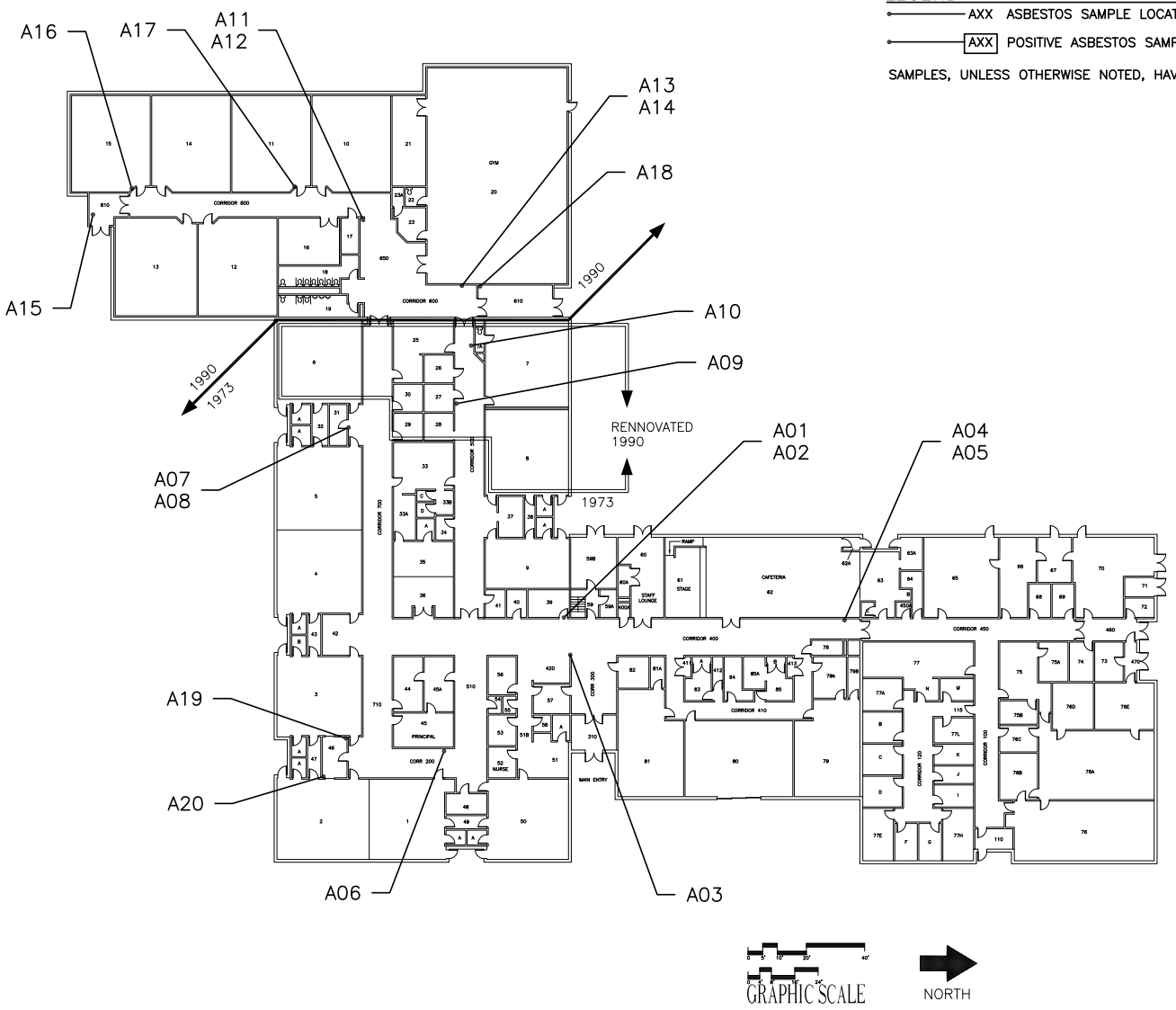
ANCHORAGE SCHOOL DISTRICT

EHS ALASKA INCORPORATED
ENGINEERING, HEALTH & SAFETY CONSULTANTS
11901 Dunkeen Blvd, Suite 600, Eagle River, AK 99577-7701

WHALEY CENTER
2220 NICHOLS STREET
ANCHORAGE, ALASKA

INSPECTED: 08/28/22
CADD FILE: 7909-WHALEY-SAMPLELOC.DWG

SHEET NO. 1 OF 1



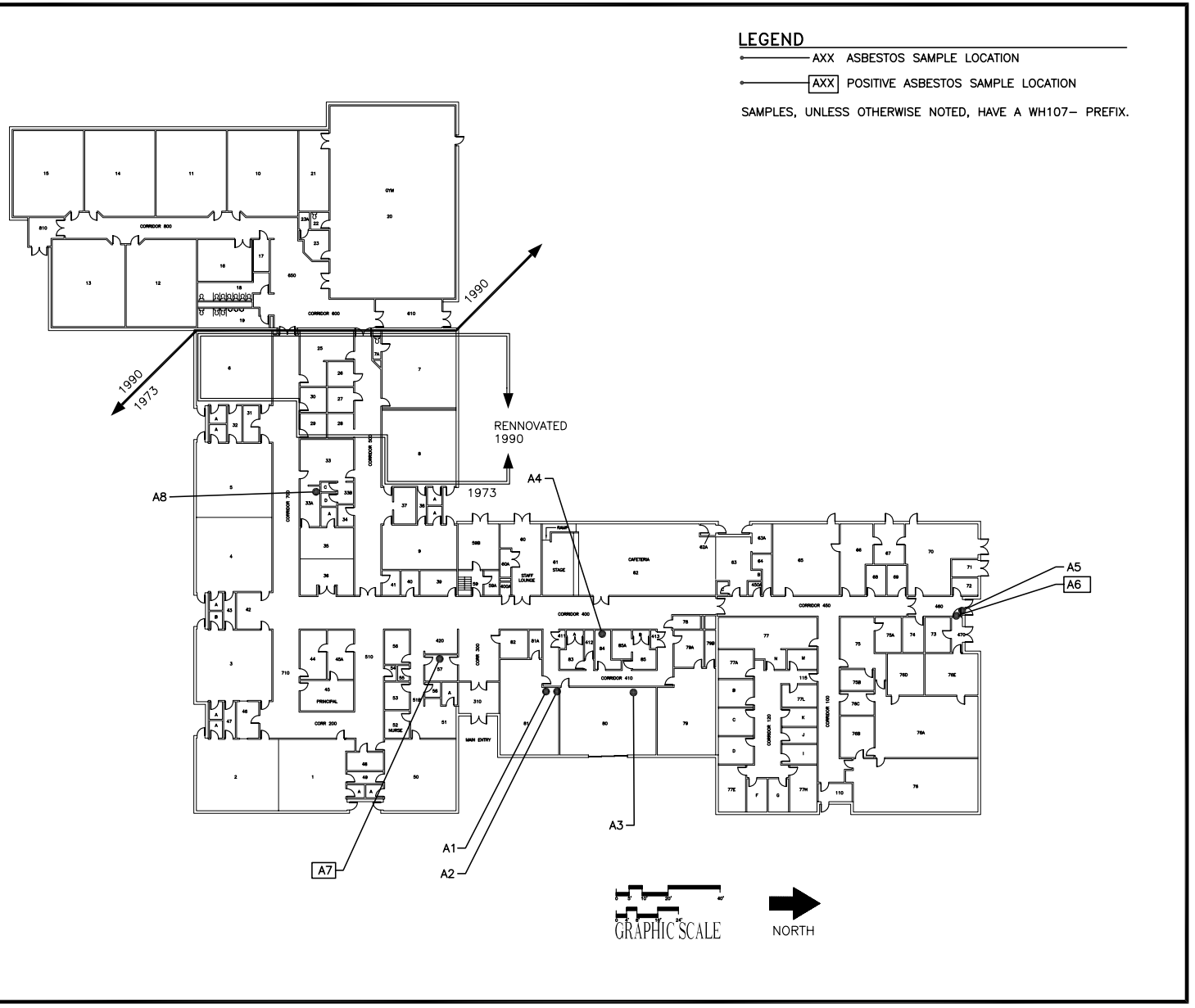
ANCHORAGE SCHOOL DISTRICT

EHS ALASKA INCORPORATED
ENVIRONMENTAL, HEALTH & SAFETY CONSULTANTS
11961 Business Blvd., Suite 200, Eagle River, AK 99577-7701

WHALEY CENTER
2220 NICHOLS STREET
ANCHORAGE, ALASKA

INSPECTED: 1/5/07
CADD FILE: 6478-SAMPLELOC.DWG

SHEET NO.
SA1
OF
2



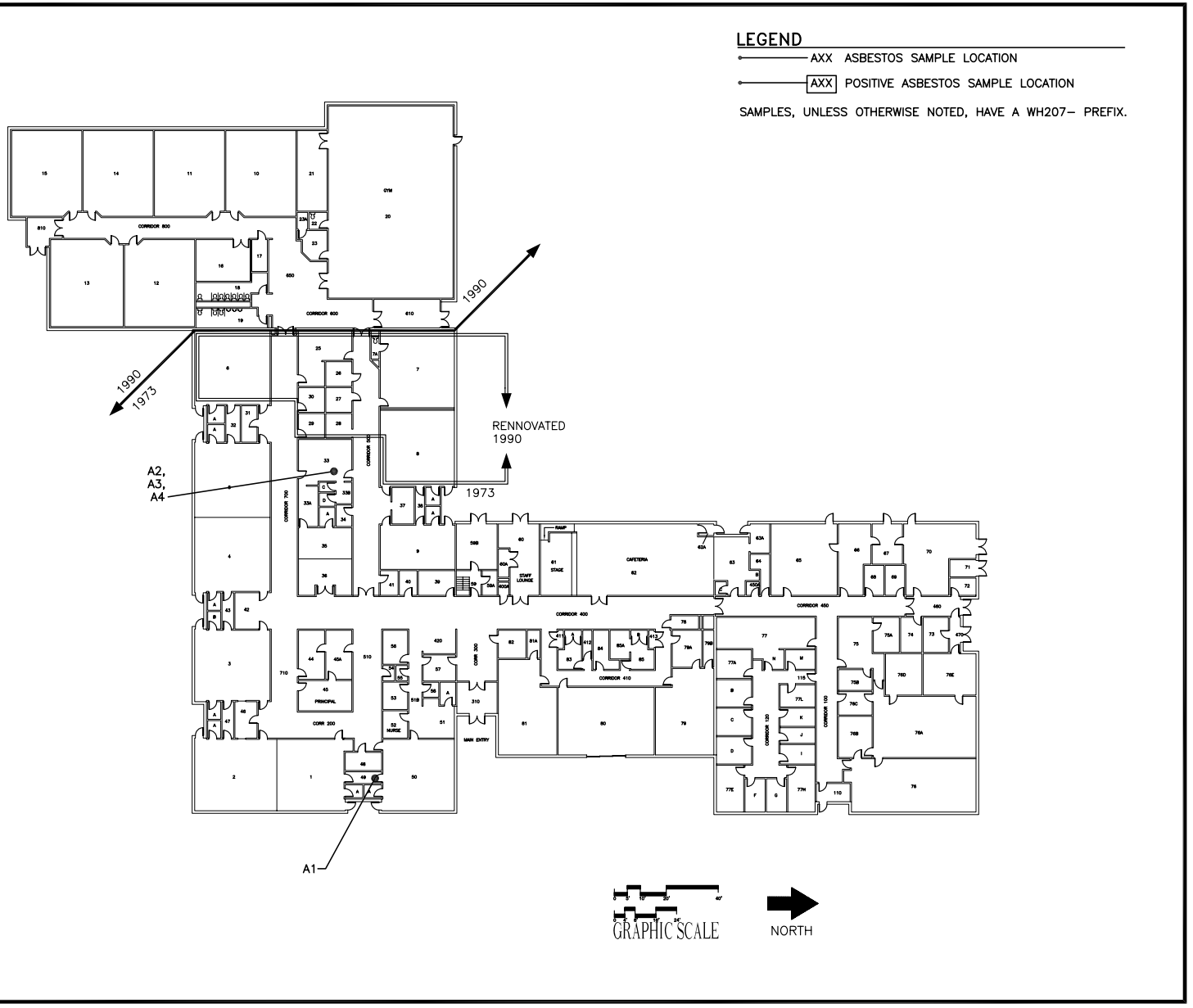
ANCHORAGE SCHOOL DISTRICT

EHS ALASKA INCORPORATED
ENGINEERING, HEALTH & SAFETY CONSULTANTS
11501 Business Blvd., Suite 200, Eagle River, AK 99577-7701

WHALEY CENTER
2220 NICHOLS STREET
ANCHORAGE, ALASKA

INSPECTED: 2/7/07
CADD FILE: 6478-SAMPLELOC.DWG

SHEET NO.
SA2
OF
2



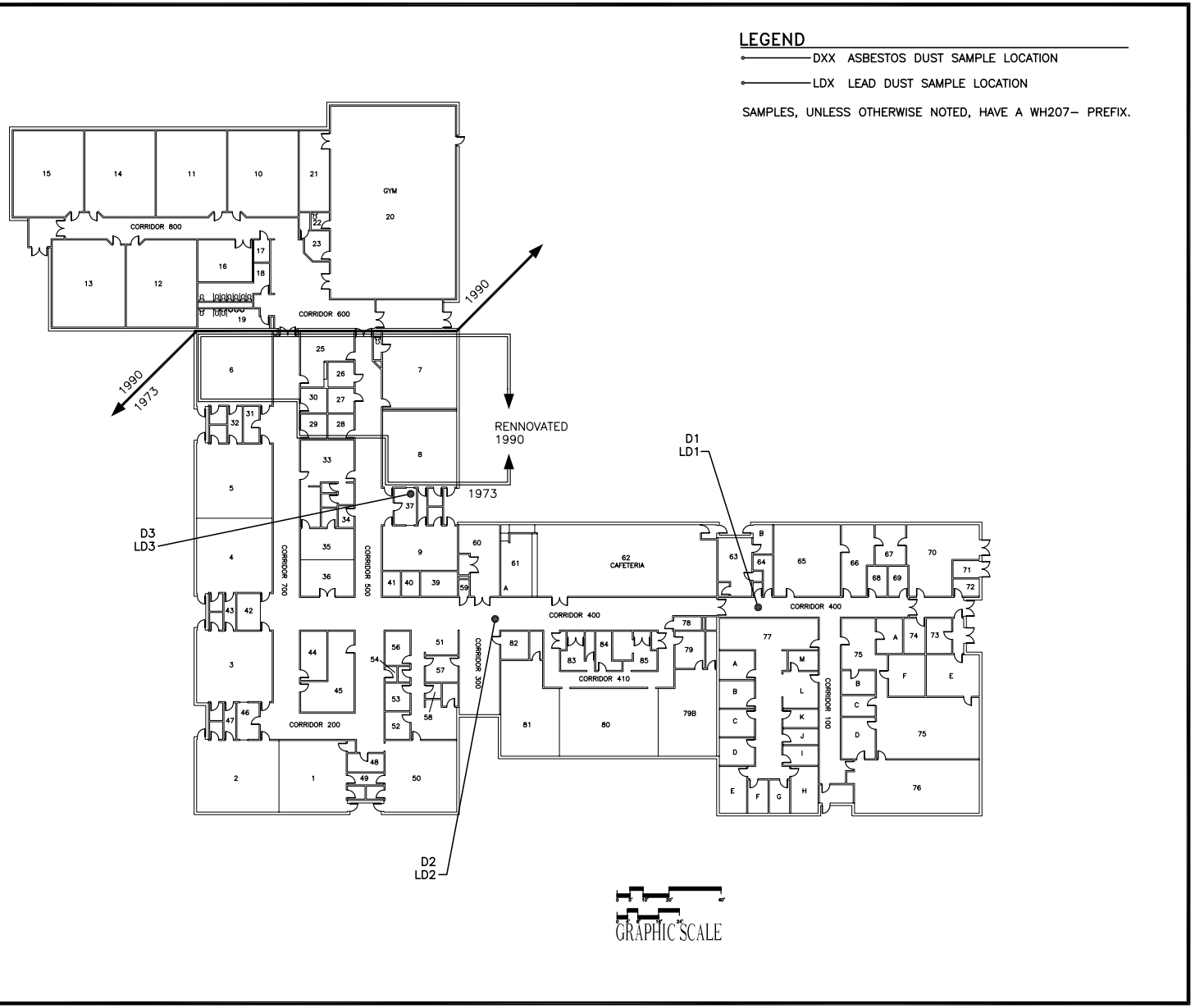
ANCHORAGE SCHOOL DISTRICT

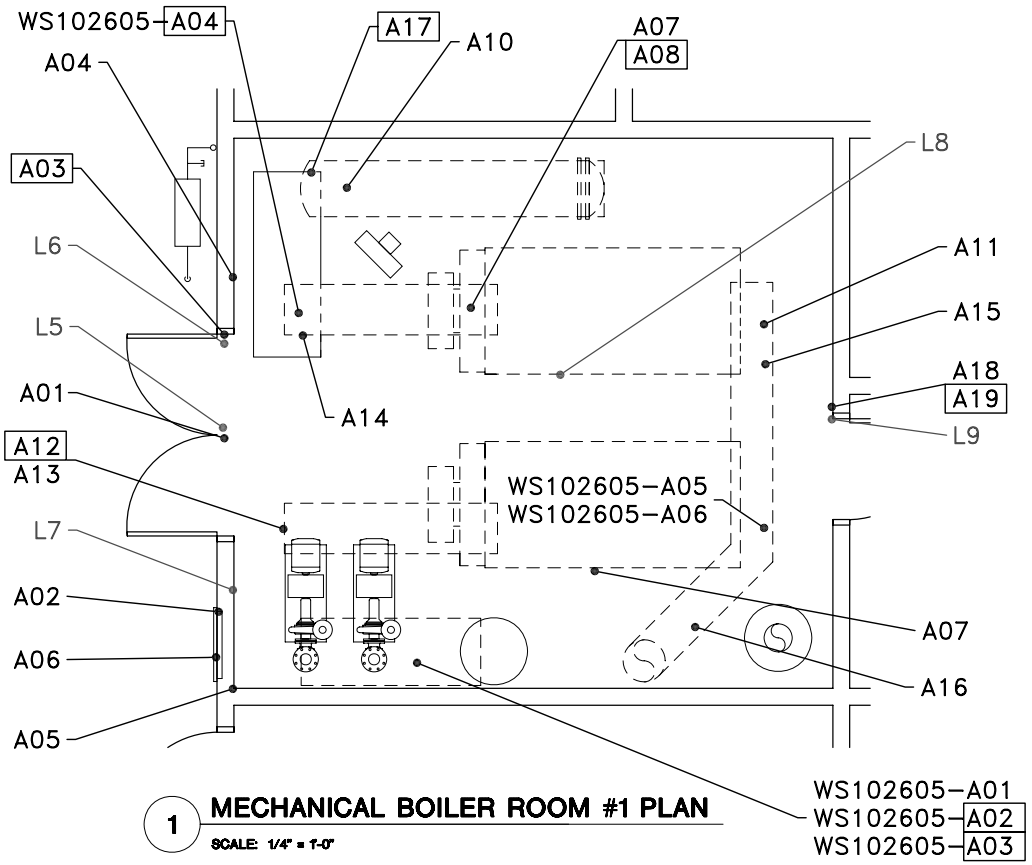
EHS ALASKA INCORPORATED
ENGINEERING, HEALTH & SAFETY CONSULTANTS
11901 Business Blvd., Suite 200, Eagle River, AK 99577-7701

WHALEY CENTER
2220 NICHOLS STREET
ANCHORAGE, ALASKA

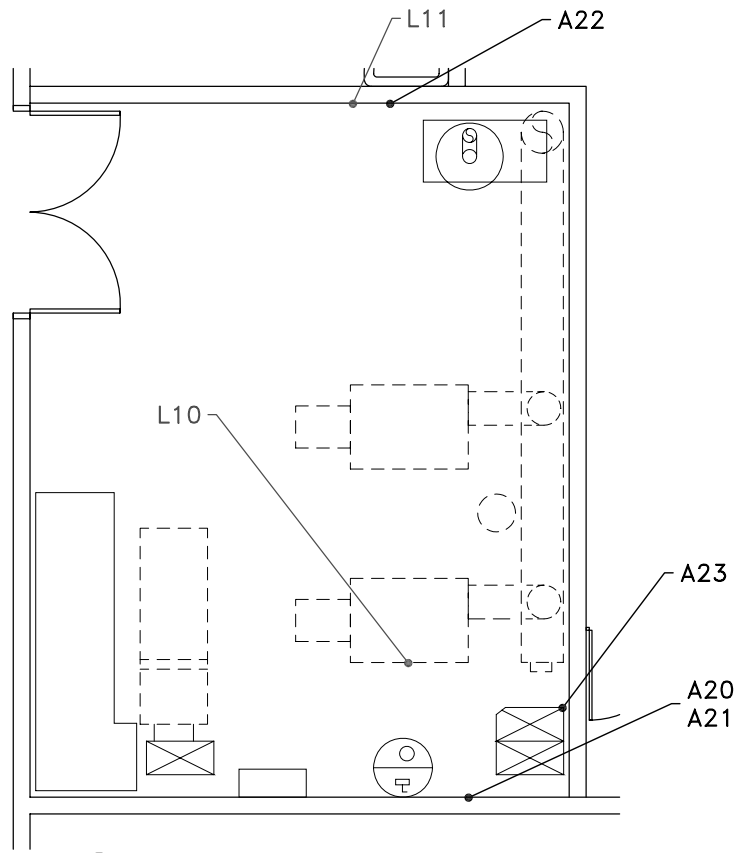
INSPECTED: 2/7/07
CADD FILE: 6478-SAMPLELOC.DWG

SHEET NO.
SD1
OF
1





1 **MECHANICAL BOILER ROOM #1 PLAN**
SCALE: 1/4" = 1'-0"



2 **MECHANICAL BOILER ROOM #2 PLAN**
SCALE: 1/4" = 1'-0"

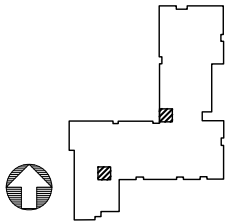
LEGEND

AXX ASBESTOS SAMPLE LOCATION
[AXX] SAMPLE LOCATION WHICH CONTAINED ASBESTOS

SAMPLES TAKEN ON 10/21/05 BY EHS-ALASKA, INC. HAVE A WS102105- PREFIX. SAMPLES TAKEN ON 10/26/05 HAVE A WS102605- PREFIX.

LXX LEAD TEST LOCATION
[LXX] LEAD TEST CLASSIFIED AS LEAD-BASED PAINT

MOST LEAD TESTS CONTAINED LEAD, REFER TO LEAD TESTING SUMMARY IN REPORT FOR FULL DETAILS.
LEAD TESTING CONDUCTED 10/21/05.



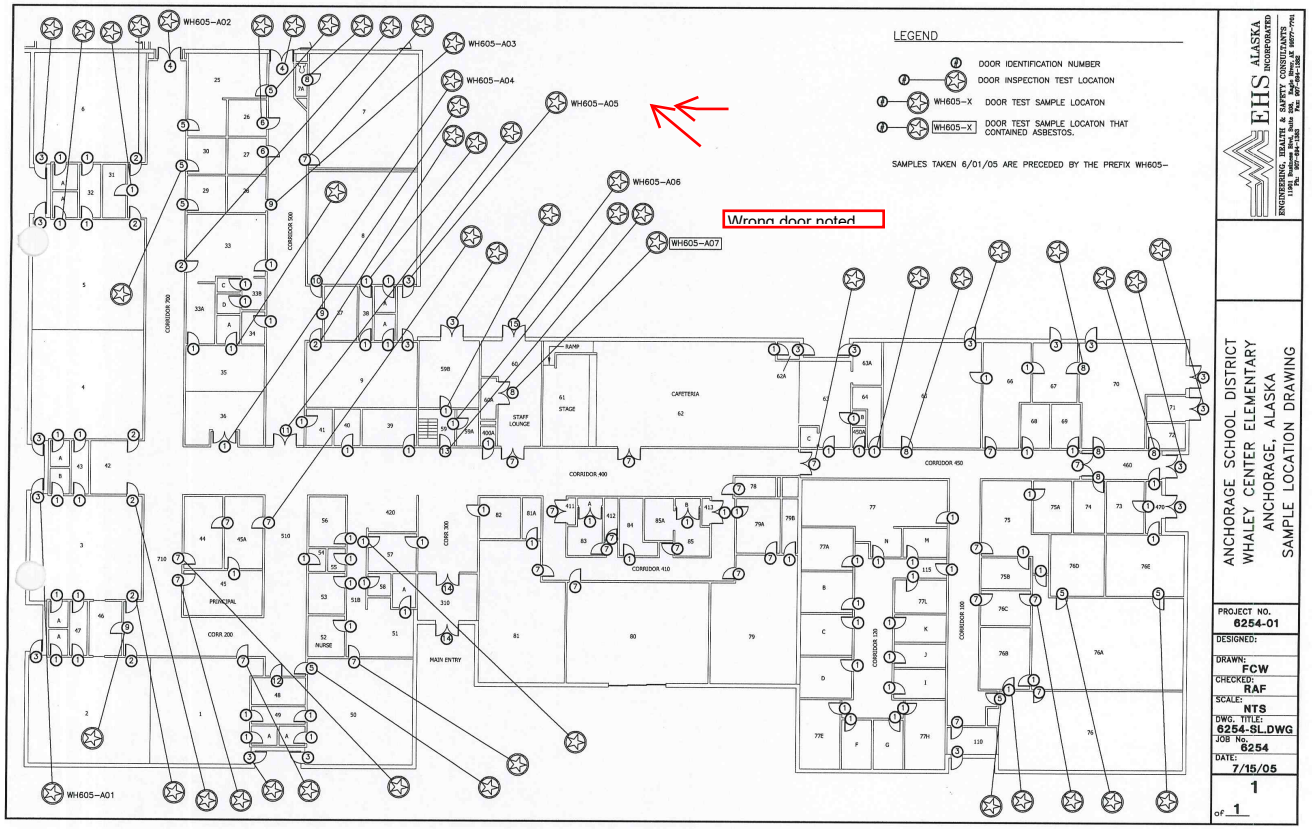
KEY PLAN

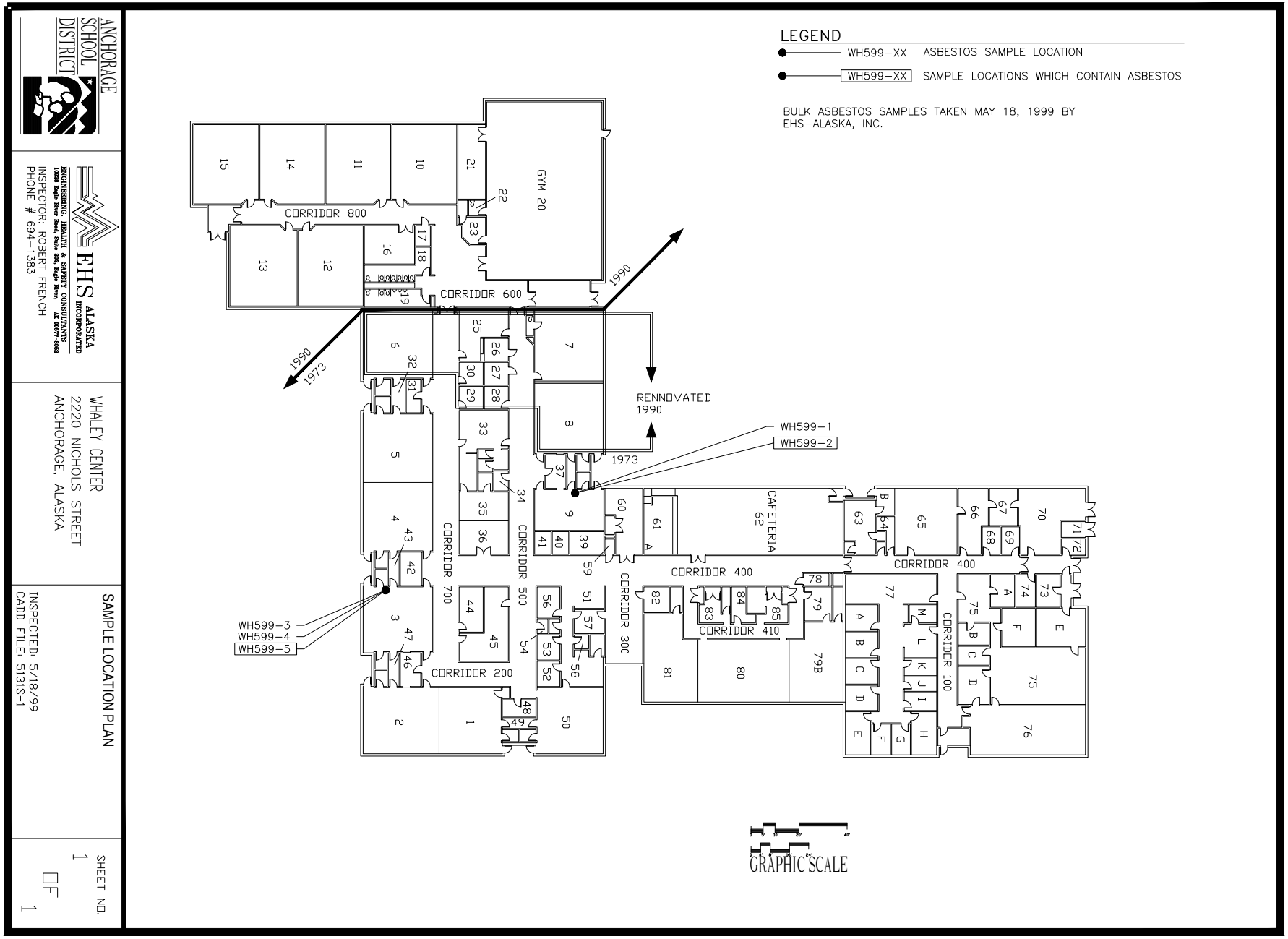
EHS ALASKA INCORPORATED
ENGINEERING, HEALTH & SAFETY CONSULTANTS
11901 Business Blvd. Suite 208 Eagle River, AK 99577-8052
PH: 907-694-1382 FX: 907-694-1383

ANCHORAGE SCHOOL DISTRICT
ANCHORAGE, ALASKA
WHALEY SCHOOL BOILER UPGRADES
SAMPLE LOCATION DRAWING

PROJECT NO.	6312
DESIGNED:	JAA
DRAWN:	FCW
CHECKED:	RAF
SCALE:	1/4" = 1'0"
DWG. TITLE:	6312-SL.DWG
JOB No.	6312-01
DATE:	10/21/05

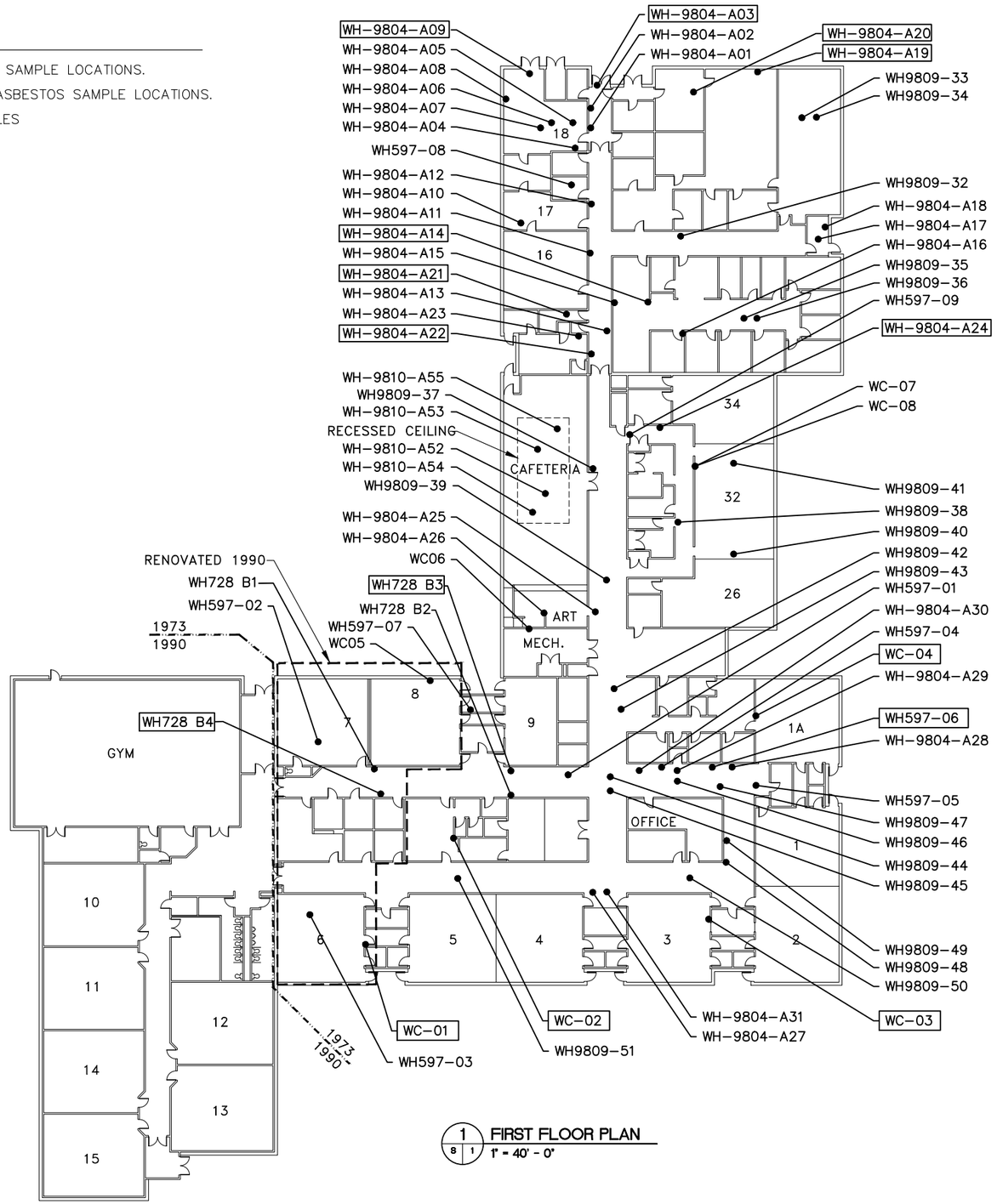
SL-1
of 1


LEGEND
DOOR IDENTIFICATION NUMBER
DOOR INSPECTION TEST LOCATION
WH605-X DOOR TEST SAMPLE LOCATON
WH605-X DOOR TEST SAMPLE LOCATON THAT CONTAINED ASBESTOS.
SAMPLES TAKEN 6/01/05 ARE PRECEDED BY THE PREFIX WH605-
Wrong door noted
WH605-A01
WH605-A02
WH605-A03
WH605-A04
WH605-A05
WH605-A06
WH605-A07
EHS ALASKA, INCORPORATED
ENGINEERING, HEALTH & SAFETY CONSULTANTS
ANCHORAGE SCHOOL DISTRICT
WHALEY CENTER ELEMENTARY
ANCHORAGE, ALASKA
SAMPLE LOCATION DRAWING
PROJECT NO. 6254-01
DESIGNED:
DRAWN: FCW
CHECKED: RAF
SCALE: NTS
DWG. TITLE: 6254-SL.DWG
JOB No. 6254
DATE: 7/15/05
1 OF 1


ANCHORAGE SCHOOL DISTRICT
EHS ALASKA INCORPORATED
ENGINEERING, HEALTH & SAFETY CONSULTANTS
INSPECTOR: ROBERT FRENCH
PHONE # 694-1383
WHALEY CENTER
2220 NICHOLS STREET
ANCHORAGE, ALASKA
SAMPLE LOCATION PLAN
INSPECTED: 5/18/99
CADD FILE: 5131S-1
SHEET NO. 1 OF 1
LEGEND
WH599-XX ASBESTOS SAMPLE LOCATION
WH599-XX SAMPLE LOCATIONS WHICH CONTAIN ASBESTOS
BULK ASBESTOS SAMPLES TAKEN MAY 18, 1999 BY EHS-ALASKA, INC.
GYM 20
CORRIDOR 800
CORRIDOR 600
CORRIDOR 700
CORRIDOR 500
CORRIDOR 200
CORRIDOR 300
CORRIDOR 400
CORRIDOR 410
CORRIDOR 100
CAFETERIA 62
RENNOVATED 1990
1990
1973
WH599-1
WH599-2
WH599-3
WH599-4
WH599-5
GRAPHIC SCALE

LEGEND

- WH-9804-AXX — ASBESTOS SAMPLE LOCATIONS.
- WH-9804-AXX — POSITIVE ASBESTOS SAMPLE LOCATIONS.
- WCXX — EMI SAMPLES



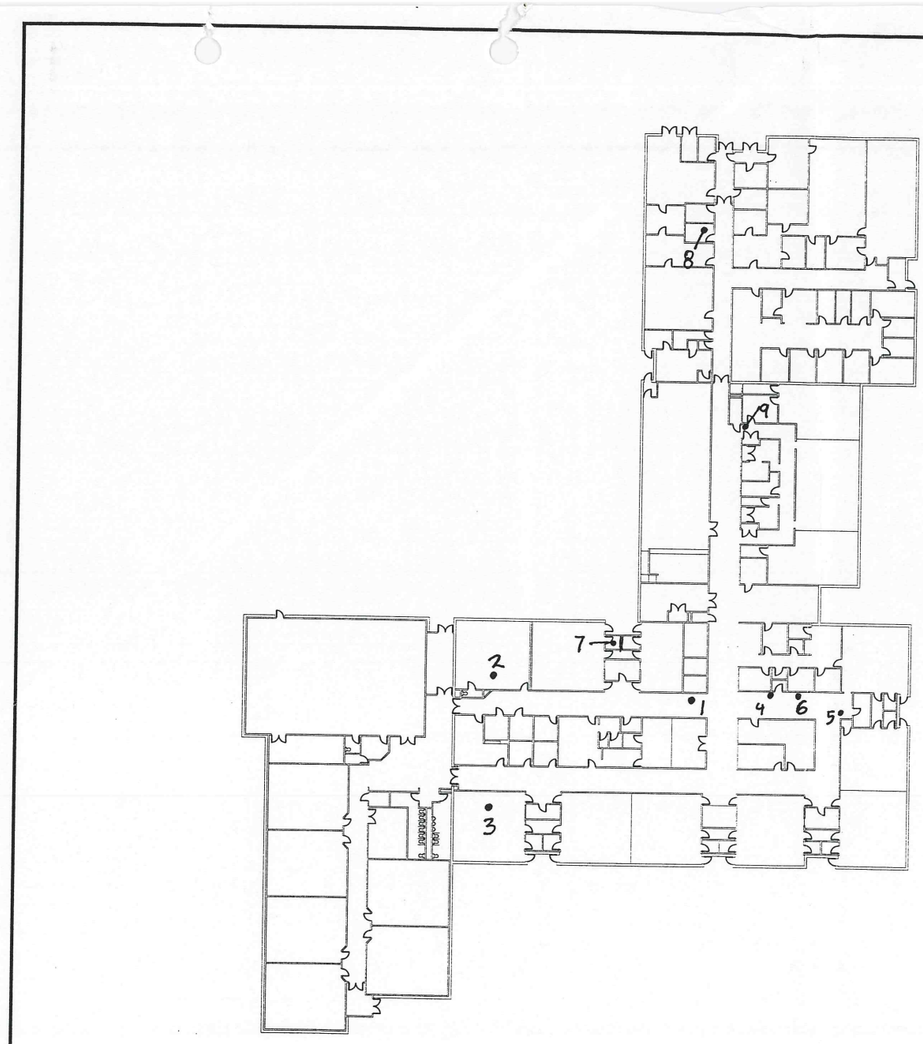
1 FIRST FLOOR PLAN
S 1 1" = 40' - 0"

EHS ALASKA INCORPORATED
ENGINEERING, HEALTH & SAFETY CONSULTANTS
10920 Eagle River Road, Suite 202, Eagle River, AK 99577-8052

ANCHORAGE SCHOOL DISTRICT
WHALEY CENTER
ANCHORAGE, ALASKA
ASBESTOS SAMPLE LOCATIONS

PROJECT NO. 4110-04-04
DESIGNED: MATT P.
DRAWN: WGB
CHECKED: TBS
SCALE: 1" = 40'-0"
DWG. TITLE: SURVEY
JOB No. 4110-04-04
DATE: 10/08/98

S-1
of 1



Samples taken 5/97
by Bob French @ EHS-Alaska
Samples have WH597 - x
prefix.
Refer to field data sheets for
material description.

GRAPHIC SCALE

ANCHORAGE SCHOOL DISTRICT

PROJECT TITLE:
WHALEY CENTER
2220 NICHOLS STREET
ANCHORAGE, ALASKA 99508

DESIGN CONSULTANT:
CHUGACH COMPUTER TECHNOLOGIES
4201 TUDOR CENTRE, SUITE #220
ANCHORAGE, AK 99508
PHONE: (907) 561-3143
FAX: (907) 562-0584
E-MAIL AKA0203@SSHARE.COM

DRAWN: S. CUTHBERT
CHECKED: S. WILSON
DATE: 05/02/97
REVISIONS: -

CADD FILE: 625-1

SHEET TITLE: FLOOR PLAN

SHEET NO.
1 OF 1

DEMOLITION

PART 1 GENERAL

1.01 NOTIFICATIONS OF POTENTIAL HAZARDS

A. Asbestos, lead, and other potentially hazardous materials are present in the building that may impact the work of all trades. Regulated air contaminants, including asbestos and lead, are also present in settled and concealed dust in and on architectural, structural, mechanical, and electrical components or systems throughout the building. All trades shall coordinate with other trades and conduct their work to prevent worker exposure or site contamination. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing, and disposing of these materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.

1.02 NOTIFICATIONS OF CHILD OCCUPIED FACILITY

A. Portions of this building are classified as a child occupied facility in accordance with 40 CFR 745 and lead-based paint has been identified on components to be disturbed in those areas. Personnel performing work in these areas must comply with the requirements of 40 CFR 745, including training, work practices and cleaning of the specific information concerning disturbing, removing, and disposing of lead materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.

1.03 SECTION INCLUDES

A. Selective demolition of built site elements.

B. Selective demolition of building elements for alteration purposes.

1.04 SUMMARY

A. Demolition includes all ancillary work, unforeseen conditions or items of a minor nature and are to be conducted at no additional contact cost.

B. All drawing disciplines shall be referenced and coordinated for all aspects of demolition and construction.

1.05 RELATED REQUIREMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, Division 0 and Division 1 Specification Sections, apply to this Section.

B. Municipality of Anchorage Standard Specifications (M.A.S.S.)

1.06 DEFINITIONS

A. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and salvaged or removed and reinstalled.

B. Remove and Salvage: Carefully detach from existing construction, in a manner to prevent damage, and deliver to Owner ready for reuse.

1. Deliver to ASD Maintenance warehouse on 1301 Labar St. in Anchorage.

C. Remove and Reinstall: Detach items from existing construction, prepare for reuse, and reinstall where indicated.

D. Existing to Remain: Existing items of construction that are not to be permanently removed and that are not otherwise indicated to be removed, removed, and salvaged, or removed and reinstalled.

E. Confirm any existing material with owner prior to demolition.

1.07 MATERIALS OWNERSHIP

A. Unless otherwise indicated, demolition waste becomes property of Contractor.

1.08 FIELD CONDITIONS

A. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.

B. Notify Contracting Officer's Representative of discrepancies between existing conditions and Drawings before proceeding with selective demolition.

C. Hazardous Materials: Hazardous materials are present in buildings and structures to be selectively demolished. A report on the presence of hazardous materials is on file for review and use. Examine report to become aware of locations where hazardous materials are present. Hazards Abatement drawings outline the anticipated scope of work.
   1. Hazards Abatement drawings and specifications outline the anticipated scope of work.
   2. Do not disturb hazardous materials or items suspected of containing hazardous materials that are outside of the scope of work as outlined by the contract documents.
   3. Owner will provide material safety data sheets for suspected hazardous materials that are known to be present in buildings and structures to be selectively demolished because of building operations or processes performed there.

D. Storage or sale of removed items or materials on-site is not permitted.

E. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
   1. Maintain fire-protection facilities in service during selective demolition operations.

1.09 REFERENCE STANDARDS

A. 29 CFR 1926 - Safety and Health Regulations for Construction Current Edition.

B. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations 2022, with Errata (2021).

1.10 PERFORMANCE REQUIREMENTS

A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

1.11 SUBMITTALS

A. See Section 01300 - Administrative Requirements, for submittal procedures.

B. Demolition Plan: Submit demolition plan as specified by OSHA and local authorities.
   1. Indicate extent of demolition, removal sequence, bracing and shoring, and location and construction of barricades and fences.
   2. Identify demolition firm and submit qualifications.
   3. Include a summary of safety procedures.

C. Project Record Documents: Accurately record actual locations of capped and active utilities.

1.12 QUALITY ASSURANCE

A. Demolition Firm Qualifications: Company specializing in the type of work required.
   1. Minimum of 5 years of documented experience.

PART 2 PRODUCTS -- NOT USED

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that utilities have been disconnected and capped before starting selective demolition operations.

B. Review record documents of existing construction provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in record documents.

C. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.

D. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate, and measure the nature and extent of conflict. Promptly submit a written report to Owner.

3.02 GENERAL PROCEDURES AND PROJECT CONDITIONS

A. Comply with other requirements specified in Section 01700.

B. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
   1. Obtain required permits.
   2. Comply with applicable requirements of NFPA 241.
   3. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
   4. Provide, erect, and maintain temporary barriers and security devices.
   5. Use physical barriers to prevent access to areas that could be hazardous to workers or the public.
   6. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
   7. Do not close or obstruct roadways or sidewalks without permit.
   8. Conduct operations to minimize obstruction of public and private entrances and exits; do not obstruct required exits at any time; protect persons using entrances and exits from removal operations.
      a. Coordinate with Contracting Officer on any reductions or interruptions to required fire life safety egress pathways.

C. Do not begin removal until receipt of notification to proceed from Owner.

D. Do not begin removal until built elements to be salvaged or relocated have been removed.

E. Cover and protect furniture, furnishings, and equipment that have not been removed.

F. Do not begin removal until vegetation to be relocated has been removed and specified measures have been taken to protect vegetation to remain.

G. Protect existing structures and other elements that are not to be removed.
   1. Provide bracing and shoring.
   2. Prevent movement or settlement of adjacent structures.
   3. Stop work immediately if adjacent structures appear to be in danger.

H. Minimize production of dust due to demolition operations.

I. If hazardous materials are discovered during removal operations, stop work and notify Owner; hazardous materials include regulated asbestos containing materials, lead, PCB's, and mercury.

J. Hazardous Materials: Comply with 29 CFR 1926 and state and local regulations.

K. Perform demolition in a manner that maximizes salvage and recycling of materials.
   1. Dismantle existing construction and separate materials.
   2. Set aside reusable, recyclable, and salvageable materials; store and deliver to collection point or point of reuse.

3.03 SELECTIVE DEMOLITION, GENERAL

A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:

1. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
2. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.
3. Maintain adequate ventilation when using cutting torches.
4. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
5. Dispose of demolished items and materials promptly.
6. Patch, paint, and repair adjacent surfaces and finishes to match finished condition of completed work. Patch and fill all holes and damage as a result of demolition.

B. Removed and Salvaged Items:
1. Clean salvaged items.
2. Pack or crate items after cleaning. Identify contents of containers.
3. Transport items to Owner's storage area.
4. Protect items from damage during transport and storage.

C. Removed and Reinstalled Items:
1. Clean and repair items to functional condition adequate for intended reuse.
2. Protect items from damage during transport and storage.
3. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports and miscellaneous materials necessary to make item functional for use indicated.

D. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Owner, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

3.04 EXISTING UTILITIES

A. Coordinate work with utility companies; notify before starting work and comply with their requirements; obtain required permits.

B. Protect existing utilities to remain from damage.

C. Do not disrupt public utilities without permit from authority having jurisdiction.

D. Do not close, shut off, or disrupt existing life safety systems that are in use without at least 7 days prior written notification to Owner.

E. Do not close, shut off, or disrupt existing utility branches or take-offs that are in use without at least 7 days prior written notification to Owner.

F. Locate and mark utilities to remain; mark using highly visible tags or flags, with identification of utility type; protect from damage due to subsequent construction, using substantial barricades if necessary.

G. Remove exposed piping, valves, meters, equipment, supports, and foundations of disconnected and abandoned utilities.

H. Prepare building demolition areas by disconnecting and capping utilities outside the demolition zone; identify and mark utilities to be subsequently reconnected, in same manner as other utilities to remain.

3.05 SELECTIVE DEMOLITION FOR ALTERATIONS

A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
1. Verify that construction and utility arrangements are as indicated.

2. Report discrepancies to Owner before disturbing existing installation.
3. Beginning of demolition work constitutes acceptance of existing conditions that would be apparent upon examination prior to starting demolition.

B. Separate areas in which demolition is being conducted from other areas that are still occupied.
1. Provide, erect, and maintain temporary dustproof partitions.

C. Maintain weatherproof exterior building enclosure except for interruptions required for replacement or modifications; take care to prevent water and humidity damage.

D. Remove existing work as indicated and as required to accomplish new work.
1. Remove rotted wood, corroded metals, and deteriorated concrete; replace with new construction specified.
2. Remove items indicated on drawings.

E. Services (Including but not limited to HVAC, Plumbing, Fire Protection, Electrical, and Telecommunications): Remove existing systems and equipment as indicated.
1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components.
2. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
3. See Division 1 for other limitations on outages and required notifications.
4. Verify that abandoned services serve only abandoned facilities before removal.
5. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings and the crawl space; remove back to source of supply where possible, otherwise cap stub and tag with identification.

F. Protect existing work to remain.
1. Prevent movement of structure; provide shoring and bracing if necessary.
2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
3. Repair adjacent construction and finishes damaged during removal work.
4. Patch as specified for patching new work.

3.06 DEBRIS AND WASTE REMOVAL

A. General: Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.
1. Do not allow demolished materials to accumulate on-site.
2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
3. Comply with requirements specified in Division 1 Section addressing Construction Waste Management and Disposal.

B. Burning: Do not burn demolished materials.

C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

3.07 CLEANING

A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION

REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIALS

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

A. The work requires the disturbance, demolition, removal, and disposal of the following asbestos-containing materials (ACM) from the Whaley Multi-Sensory De-Escalation Room Renovations Project as shown on the drawings and as specified herein. Bulk samples have been taken of suspect materials in this facility and the results are documented in Section 02 26 00, Hazardous Materials Assessment:
   1. Asbestos-containing joint compound in original gypsum board systems (confirmed 1973 era).
   2. Asbestos-containing “hard and chalky” pipe fitting insulation (confirmed 1973 era).
   3. Cement asbestos board on walls of the corridors, kitchen, restrooms, and janitor closets (confirmed 1973 era). This material is concealed under newer wall finishes in some areas.
   4. Various colors and patterns of asbestos-containing sheet vinyl and associated mastics (confirmed 1973 era). This material is concealed under newer flooring finishes in some areas.
   5. Asbestos-containing grey ceiling grid mastic at ‘L’ channel grid supports (confirmed 1973 era).

B. In addition to the above materials, the following materials are located in other areas of the building, and may require disturbance for auxiliary support, such as electrical and mechanical equipment and installation of equipment. Not all ACM is to be removed from these areas, only that required to complete the project work need be removed:
   1. 9” x 9” and 12” x 12” and various patterns of asbestos-containing floor tile and associated mastics (confirmed 1973 era). This material is concealed under newer flooring finishes in some areas.
   2. Asbestos-containing pink and black sink undercoatings (confirmed 1973 era, assumed 1990 era). Other colors are also assumed to be asbestos-containing.
   3. Asbestos-containing high temperature wiring at older ovens, incandescent and fluorescent light fixtures, and HID light fixtures (assumed 1973 era).
   4. Asbestos-containing heat shields in older incandescent light fixtures (assumed 1973 era).
   5. Asbestos-containing red duct sealants used mainly on the high pressure ductwork upstream of the VAV boxes (confirmed 1973 era, other colors assumed in the 1990 era). This material is both sprayed with a silver paint and covered by a non-asbestos white cloth wrap in some areas.
   6. Asbestos-containing lining of underfloor “Spunstrand” supply air ducts (assumed 1973 era).
   7. Fire door insulation (previously confirmed but possibly removed 1973 era).
   8. Various colors of asbestos-containing mastics used on cork boards, chalkboards, tack boards, white boards, cove bases, and wainscots (assumed 1973 era).
   9. Asbestos-containing tarry lining of clock/speaker housings (assumed 1973 and 1990 eras).
   10. Asbestos-containing exterior window glazing compounds (assumed 1973 era).
   11. Asbestos-containing exterior “Stucco” soffit and fascia panels (assumed 1973 era).
   12. Asbestos-containing gaskets and valve packings on piping and mechanical systems (assumed 1973 and 1990 eras).

13. Asbestos-containing gaskets and sealants on boilers and/or furnaces (assumed 1973 and 1990 eras).
14. Asbestos-containing roofing materials such as remnant roofing materials below newer roofing materials, patch tars, sealants at seams and parapet caps, mastics, or tars of mechanical equipment & VTR's (assumed 1973 and 1990 eras).

C. Quantities of ACM and hazardous materials shown on drawings are based on a comprehensive survey of the building and take-offs from scale drawings. The Hazardous Material Assessment and quantities provided are considered a baseline for bid purposes. It is the contractor's responsibility to remove and dispose of all ACMs affected by the project from the site in accordance with applicable regulations. The contractor shall immediately notify the owner if other ACM or additional quantities are discovered. Quantities of materials removed shall be documented on a daily basis and shall include all materials removed and locations in the units used on the drawings. Unit pricing shall be provided in the bid for all identified hazardous material in case additional quantities are discovered.

D. Notification of Potential Hazards: Asbestos, lead and other potentially hazardous materials are present in the building that may impact the work of all trades. Regulated air contaminants, including asbestos and lead, are also present in settled and concealed dust in and on architectural, structural, mechanical, and electrical components or systems throughout the building. All trades shall coordinate with other trades and conduct their work to prevent worker exposure or site contamination. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing, and disposing of these materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.

E. Notification of Child Occupied Facility: Portions of this building are classified as a Child Occupied Facility in accordance with 40 CFR 745 and lead-based paints may be present on components to be disturbed in those areas. Personnel performing work in these areas must comply with the requirements of 40 CFR 745, including training, work practices and cleaning of the work area. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing, and disposing of lead materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.

F. Asbestos-containing materials may have come loose and fallen onto or into floors, ceilings, walls, chases, wall cavities or mechanical, electrical and structural system components. The Contractor shall immediately notify the Owner if and when they encounter worn, damaged, or deteriorated ACM as evidenced by dust or debris adjacent to ACM materials.

G. Work may be required while faculty and students are occupying the building. Work during occupied periods involving disturbance of asbestos-containing materials inside the building shall be performed using critical barriers and negative air pressure enclosures. Access to work area from within the building shall be blocked to prevent unauthorized or inadvertent entry by students or faculty. Access to work area shall be secured by lock when work is not ongoing.

H. All work shall comply with Environmental Protection Agency (EPA) AHERA standard, 40 CFR 763. Clearance sampling is required if the necessary disturbance of asbestos-containing material is not classified as "Small-Scale, Short-Duration" work as defined in 40 CFR 763, and is not required for work that only involves the disturbance of dusts with

asbestos. Visual inspections are required for all work disturbing or removing asbestos. Due to the limited scope of interior work, it is assumed that Phase Contrast Microscopy (PCM) Clearance samples will be sufficient, unless a larger quantity of materials are disturbed. Therefore, clearance air samples shall include a minimum of five (5) PCM samples from each affected space, taken using aggressive methods as outlined in Appendix A to 40 CFR 763 and analyzed in accordance with 40 CFR 763.90.

1.02 RELATED WORK SPECIFIED ELSEWHERE

A. Section 02 26 00 Hazardous Materials Assessment

B. Section 01 35 45 Airborne Contaminant Control

C. Section 02 83 33 Removal and Disposal of Materials Containing Lead

D. Section 02 84 18 Removal and Disposal of Chemical Hazards

1.03 DEFINITIONS AND ABBREVIATIONS: Definitions and abbreviations are provided in the applicable publications listed in Paragraph 1.04 of this section.

1.04 APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced.

A. General Requirements: All work shall be performed in compliance with the International Building, Fire, Fuel Gas, Mechanical, Residential, Energy Conservation and Administrative Code; Uniform Plumbing Code; the National Electrical Code; and the publications listed in this section that are in effect at the time of the bidding of this contract.

B. Title 29 Codes of Federal Regulations (CFR), Department of Labor (USDOL)
Part 1910 General Occupational Safety and Health Standards
Part 1926 Safety and Health Regulations for Construction

C. Title 40 CFR, Environmental Protection Agency (EPA)
Part 61 National Emission Standards for Hazardous Air Pollutants
Part 311 Worker Protection
Part 763 Asbestos

D. Title 49 CFR, Department of Transportation (DOT)
Part 171 General Information, Regulations and Definitions
Part 172 Hazardous Materials Communication and Regulations
Part 173 General Requirements for Shipments and Packaging
Part 177 Carriage by Public Highway
Part 178 Specifications for Packaging
Part 382 Requirements for Drug Testing
Part 383 Commercial Driver’s License Standards

E. State of Alaska Administrative Codes (AAC)
8 AAC 61 Occupational Safety and Health Standards
18 AAC 60 Solid Waste Management

F. State of Alaska Statutes
AS 18.31 Health and Safety - Asbestos
AS 45.50.477 Titles Relating to Industrial Hygiene

G. Public Law 101-637
Asbestos School Hazard Abatement Reauthorization Act

H. Federal Standards
313E Safety Data Sheets

I. American National Standard Institute (ANSI)
Z9.2 Local Exhaust Systems
Z87.1 Eye and Face Protection
Z88.2 Practices for Respiratory Protection

J. American Society for Testing and Materials (ASTM)
D-4397 Polyethylene Sheeting

K. International Code Council
International Building (IBC), Fire, Fuel Gas, Mechanical, Residential, Energy Conservation and Administrative Codes Current Standards

L. National Fire Protection Association (NFPA)
NFPA 701 Fire Tests for Flame Resistant Textiles and Films

M. National Institute of Occupational Safety and Health (NIOSH)
Manual of Analytical Methods, Current Edition

N. Underwriters Laboratories (UL)
UL 586 High-Efficiency, Particulate, Air (HEPA) Filter Units

1.05 QUALITY ASSURANCE

A. On-site Observation:
1. The safety and protection of the Contractor's employees, sub-contractor's employees, Owner's employees, the facility, and the public is the sole responsibility of the Contractor.
2. The Owner, the Owner's Representative, or representatives of State or Federal agencies may make unannounced visits to the site during the work. The contractor shall make available two complete sets of clean, protective clothing for such visitor use. If the work requires the use of PAPR or Supplied Air Respirators, the contractor shall provide respirators to the visitor to ensure compatibility with fresh batteries or supplied air system. It is the visitor's responsibility to ensure medical qualification, training, and current "fit test" prior to using any respirator provided by the Contractor.
3. If the Owner or agency visitor determines that practices are in violation of applicable regulations, they will immediately notify the Contractor that operations must cease until corrective action is taken. Such notification will be followed by formal confirmation.
4. The Contractor shall stop work after receiving such notification. The work may not be restarted until the Contractor receives written authorization from the Owner.
5. All costs resulting from such a stop work order shall be borne by the Contractor and shall not be a basis for an increase in the contract amount or an extension of time.

B. Air Monitoring: Air monitoring during the work shall be performed as follows:

1. The Contractor shall hire Independent Testing Laboratories to collect and evaluate all air samples that are the responsibility of the Contractor. The Contractor shall direct its laboratories, in writing, to release air monitoring data, and all other pertinent data and records, to the Owner. A copy of this written direction shall be submitted to the Owner along with the information required by Paragraph 1.13 of this Specification.
2. The Contractor shall be responsible for monitoring its employees for potential exposure to airborne asbestos fibers as required by this specification and all applicable regulations.
3. The Contractor shall be responsible for work area monitoring and environmental monitoring outside the work area as required by this specification.
4. The Owner may perform air monitoring inside the building, inside the work areas, and on the Contractor's employees while asbestos work is underway and at any time during the work.
5. Final inspection and clearance air monitoring shall be conducted by the Contractor's Independent Testing Laboratory. The Independent Testing Laboratory may not be hired by the Abatement Subcontractor to perform final visual inspections and clearance air monitoring.
6. The Contractor shall have its Independent Testing Laboratories archive all air samples until the successful completion of the project.

C. Additional Sampling of Suspect Materials:
1. The Contractor and all Subcontractors shall be vigilant during demolition and construction in the event additional suspected asbestos or hazardous materials are encountered. If suspect asbestos or hazardous materials not previously identified are encountered, the contractor shall stop work that may be affected by this material and immediately notify the Owner. The Owner or the Owner's Representative will provide recommendations and additional testing if necessary. All sampling by the Contractor shall be at their own cost.
2. The Contractor and all Subcontractors shall notify the Owner prior to any bulk sampling of suspect asbestos-containing material or other hazardous materials to allow the Owner or Owner's Representative to be present during such sampling. All results of bulk sampling conducted by the Contractor or Subcontractors shall be submitted to the Owner.

1.06 PROTECTION OF EXISTING WORK TO REMAIN: Perform asbestos removal in the project work areas without contamination of adjacent work or the facility.

1.07 MEDICAL REQUIREMENTS

A. Institute and maintain a medical surveillance program for employees in accordance with 29 CFR 1926.1101 and 29 CFR 1910.134.

B. Institute and maintain a random drug testing program, as required by 49 CFR 382, for all drivers of vehicles transporting asbestos or hazardous materials.

1.08 TRAINING: Employ only workers who are trained and certified as required by 8 AAC 61.600, 29 CFR 1910, 29 CFR 1926, 40 CFR 763, and 49 CFR 383 to remove, encapsulate, barricade, transport, or dispose of asbestos.

1.09 PERMITS AND NOTIFICATIONS: Secure necessary permits for asbestos removal, hauling, and disposal and provide timely notification as required by federal, state, and local authorities.

1.10 SAFETY AND ENVIRONMENTAL COMPLIANCE: Comply with laws, ordinances, rules, and regulations of federal, state, and local authorities regarding handling, storing, transporting, and disposing of hazardous materials and all other construction activities.

1.11 RESPIRATOR PROGRAM: Establish a respirator program as required by ANSI Z88.2 and 29 CFR 1910.134.

1.12 HAZARD COMMUNICATION PROGRAM: Implement a hazard communication program in accordance with 29 CFR 1910.1200.

1.13 SUBMITTALS

A. The Contractor shall submit the following documentation to the Owner for review, approval, or rejection. Work shall not begin until submittals are approved.
1. Shop drawings.
2. Work plan.
3. Liability insurance policy and performance bond.
4. Schedule.
5. Testing laboratory and laboratory personnel.
6. Disposal site designations and disposal authorizations.
7. Waste transporter designation.
8. Notifications and certifications.
9. “Competent Person” designation and experience.
10. Request for substitutions.

B. Shop drawings shall show:
1. Boundaries of each regulated work area.
2. Location and construction of decontamination areas.
3. Location of temporary site storage facilities.
4. Location of air monitoring stations, both in and outside of the work area.
5. Emergency egress route(s).
6. Location of negative pressure exhaust systems, if required.

C. The work plan shall include procedures for:
1. Work area setup and protection.
2. Worker protection and decontamination.
3. Initial exposure assessment procedures.
4. Asbestos removal procedures.
5. Waste load-out, transport, and disposal procedures.
6. Air monitoring procedures.
a. Air monitoring procedures shall include the number of daily samples and the target volumes of each type of sample.
b. Clearance air monitoring procedures and protocols for each work area.
7. Determination by the Certified Project Designer of the estimated quantities of ACM and PACM to be removed, and determination of clearance requirements for each different type or phase of work.
8. Emergency procedures.
9. The Work Plan shall be prepared, signed, and dated by an Environmental Protection Agency (EPA) Certified Project Designer.

D. Insurance Policy and Bond: Submit copies of the Contractor’s or Subcontractor’s insurance policy and performance bond. Submittal requirement is only to ensure that the insurance certificate(s) show specific coverage for the potentially hazardous materials being handled by this project. The insurance and bond amounts and certificate holder

requirements are addressed in other portions of the contract documents and are not covered as part of this submittal requirement.

E. Schedule: Submit construction schedule by work area.

F. Independent Testing Laboratories and Laboratory Personnel: Submit the name, location, and phone number of proposed independent testing laboratories, and the names and certifications of the industrial hygiene technicians. Include the laboratory's accreditation. Not all laboratories will require all accreditations.
   1. The Independent Testing Laboratories shall be acceptable to Owner.
   2. The laboratories shall be proficient in the National Institute of Occupational Safety and Health (NIOSH) Proficiency in Analytical Testing (PAT) program and shall be accredited by the National Institute of Science and Technology (NIST) under their National Voluntary Laboratory Accreditation Program (NVLAP) for bulk asbestos analysis and airborne asbestos fibers as appropriate. NVLAP accreditation for bulk asbestos analysis may be waived if the microscopists are listed in the American Industrial Hygiene Association (AIHA) Asbestos Analyst Registry (AAR).
   3. Provide a current list of their microscopists who have participated in the latest PAT and NVLAP programs and provide the names of microscopists and evidence that they have completed the NIOSH 582 course or equivalent. Provide latest AAR report of performance for microscopists.
   4. Provide name(s) and resume(s) of proposed on-site industrial hygiene technician(s) showing academic degrees and Alaska Abatement Certificate(s). If On-Site analysis will be done, the microscopists shall be listed in the American Industrial Hygiene Association (AIHA) Asbestos Analyst Registry (AAR), or equivalent.

G. Disposal Site: Submit the name and location of the proposed Alaska Department of Environmental Conservation/ U.S. Environmental Protection Agency (DEC/EPA) permitted disposal site. Submit authorization to dispose of asbestos waste by the proposed disposal site operator.

H. Waste Transporter: Submit the name and address of the proposed waste transporter.

I. Representations: Submit a signed statement by the Contractor that records of employees' work assignments, certifications, respirator fit tests, and medical records are accurate, up-to-date, and available for inspection.

J. Notifications and Certificates:
   1. Submit a copy of the written "Notification of Demolition and Renovation" to the Environmental Protection Agency. (If required by NESHAP).
   2. Submit a State of Alaska Department of Labor (ADOL) approved copy of the written ADOL notification of proposed workers.
   3. Submit a copy of Project Designer's current certification.

K. Competent Person: Submit the name and certifications of the Contractor's proposed Competent Person and a list of their previous projects. Certify by signed statement that the Competent Person has the knowledge and training to supervise the work in compliance with the publications listed in Paragraph 1.04 above.

L. Substitutions: Submit requests for substitutions of materials, equipment and methods.

M. Updated Project Information: Submit changes to the submitted project information at least 24 hours prior to the effective time of change for the following:
1. Updated schedules.
2. Change in Competent Person.
3. ADOL approval for additional workers.
4. Changes to work plan.
5. Revisions to the EPA notification.

1.14 TEST REPORTS: Contractor shall submit periodic test reports, daily logs, monitoring results as specified herein. Submit two (2) copies of the following information within twenty-four (24) hours after the end of a shift:

A. Initial Exposure Assessment(s): Submit the results of the Contractor's initial exposure assessment(s).

B. Daily Air Monitoring: Submit daily, all results of Contractor's air monitoring (submit no later than 24 hours after the end of the shift). Submittal shall consist of negative air pressure recordings, daily monitoring report, field data sheets, the analytical laboratory's results, and sketch of sample locations. Submit all results of any sampling of bulk materials to Owner within 24 hours of receipt of results. Bulk sample submittal shall consist of daily monitoring report, field data sheets, and the analytical laboratory's results, and sketch of sample locations, as well as the current certification of the asbestos Building Inspector who conducted the sampling.

C. Project Daily Logs: Submit the previous day's Daily Logs. Logs shall include regulated area sign-in sheets and list of asbestos-containing materials removed including quantities and locations of those materials, in the units used on the drawings. Claims for additional quantities will not be addressed unless daily quantities are submitted.

D. Clearance Air Monitoring: Submit draft results of Contractor's clearance air monitoring for each work area for Owner's review and approval prior to releasing the work area to unprotected workers. FAX or electronic submittals are acceptable. Submittal shall include the following:
1. A signed and dated copy of the final visual inspection report (completed prior to clearance air monitoring) certifying that all dust and debris have been removed from the work area and that all ACM to be removed as required by the contract, were removed. Visual inspection reports are required for all removal, even if clearance air monitoring is not required.
2. Documentation that clearance air sample collection complied with 40 CFR 763, contract specifications and the approved work plan.
3. Drawings of the work area with sampling locations clearly marked. Work area drawings shall be clearly identified as to their location within the facility.
4. Field data sheets for sampling including: sample locations, calibration device serial number, initial and final pump calibration readings, pump time on and off, initial and final sampling flow rate, pump type and serial number, and sample cassette identification.
5. Laboratory results, signed and dated by the analyst.
6. Data sheets and visual inspection sheets shall be signed and dated by the Industrial Hygiene Technician performing the work.

1.15 PROJECT COMPLIANCE DOCUMENTS: Prepare and submit the following records of compliance with hazardous materials regulations following each work area clearance. Submittals may contain segregated submittals for more than one (1) work area. Submittal shall be received

by Owner within four (4) weeks following work area clearance. Compliance documents shall be signed and dated and shall include as a minimum:

A. Waste transport records (40 CFR 61, Figure 4).

B. Disposal site receipts.

C. Contractor's "Start" and Finish" dates for the work area(s).

D. Daily logs, including regulated area sign in sheets, materials summary, etc. (if not previously submitted).

E. Final work area inspection report(s) and inspector certifications (if not previously submitted).

F. Final, signed, clean copies of all bulk and air sampling field data sheets, location drawings, negative air tapes and air monitoring log, including all clearance data.

G. Final, signed, clear, legible copies of all analytical laboratory bulk and air monitoring test results, including all clearance data, and current laboratory certifications (if changed from previously submitted).

H. Copies of Asbestos Worker Training certificates for workers performing work on this project and all approved Alaska DOL notifications for those workers, and any revisions to the EPA notification(s).

1.16 SANITARY FACILITIES: Provide adequate toilet and hygiene facilities.

1.17 MATERIAL STORAGE: Store all materials subject to damage off the ground and secure from damage, weather, or vandalism.

1.18 ON-SITE DOCUMENTATION: The Contractor shall maintain on the job site, at a location approved by the owner, copies of the following data for safety procedures, equipment, and supplies used for the work

A. Equipment: Show the model, style, capacity and the operation and maintenance procedures for the following, as applicable:
   1. High-Efficiency, Particulate, Air (HEPA) Filtration units.
   2. HEPA Vacuum cleaners.
   3. Pressure differential recording equipment.
   4. Heat stress monitoring equipment.

B. Safety Data Sheets (SDS): Maintain SSD's for each encapsulant, surfactant, solvent, detergent, and other material proposed to be used.

C. Respiratory Protection Plan: The Contractor's and/or Subcontractor's written respirator program.

PART 2 - PRODUCTS

2.01 PERSONAL PROTECTIVE EQUIPMENT: Provide personal protective clothing as approved and selected by the IH.

A. Respirators: Provide personally issued and marked respirators approved by the National Institute of Occupational Safety and Health (NIOSH). Provide sufficient replacements for respirators with disposable canisters. Use respirators equipped with dual cartridges whenever both asbestos hazards and other respiratory hazards exist in the work area.

B. Provide filter cartridges approved for each airborne contaminant which may be present. NIOSH approved filter cartridges shall be used. At no time shall the permissible exposure limit (PEL) for the contaminant exceed the PEL listed in 8 AAC 61.1100.

C. Whole Body Protection: Provide approved disposable fire retardant, full body coveralls and hoods fabricated from nonwoven fabric, gloves, eye protection, and hard-hats, and other protective clothing as required to meet applicable safety regulations to personnel potentially exposed to asbestos above the permissible exposure limits (PELs). Wear this protection properly. Full facepiece respirators shall meet the requirements of ANSI Z87.1.

D. Provide protective personal equipment and clothing at no cost to the workers.

2.02 DECONTAMINATION UNIT

A. Provide a temporary three-stage decontamination unit, attached in a leak-tight manner to each negative pressure work area. Decontamination units shall consist of a clean room equipped with separate lockers for each worker, a shower room, and an equipment locker room equipped with separate lockers for each worker.

B. Shower specifications: Locate flow and temperature controls within the shower where adjustable by the user. Hot water service may be secured from the building hot water system if available, but only with back-flow protection installed by the Contractor at the point of connection, and with prior notification and approval by the Owner. Should sufficient hot water be unavailable, the Contractor shall provide a minimum 40-gallon electric hot water heater with a minimum recovery rate of 20 gallons per minute. Water from the shower room shall not be allowed to wet the floor in the clean room.

2.03 WASTE WATER FILTERS: Provide Water Filtration Units with filters of adequate capacity to treat decontamination water and shower flows. Water filtration unit effluent shall contain less than 7,000,000 asbestos fibers per liter prior to discharge to sanitary sewer or storm drains.

2.04 DANGER SIGNS AND TAPE: Post danger signs and tape signs to demarcate areas where asbestos waste is temporarily stored, and, in areas not accessible to the public, where asbestos-containing materials are left in place. Signs and labels shall be in accordance with applicable regulations and codes. The signs posted at work area entrances, exits, decontamination areas, emergency egress, and waste disposal areas shall comply with 29 CFR 1926.1101 and the International Fire Code.

2.05 WARNING LABELS: Affix warning labels to all components or containers containing asbestos wastes. Conform labeling to 29 CFR 1926.1101 and 49 CFR 172.

2.06 HEPA FILTRATION UNITS: (if required) shall conform to ANSI Z9.2, and HEPA filters shall be UL-586 labeled.

2.07 PRESSURE DIFFERENTIAL MONITORING EQUIPMENT: Provide continuous monitoring of the pressure differential with an automatic recording instrument for each negative pressure enclosure. Locate the instrument in a clean area where personnel have access to it without

respiratory protection. The instrument shall be fitted with an alarm should the negative pressure drop below -0.02 inches of water column relative to the air outside containment.

2.08 CHEMICALS

A. Adhesives: Adhesives shall be capable of sealing joints of adjacent sheets of polyethylene to finished or unfinished surfaces and of adhering under both dry and wet conditions.

B. Mastic Removal Solvents: Mastic removal solvents shall not contain halogenated compounds or compounds with flashpoints less than 60° C (140° F). Solvents shall be compatible with replacement materials.

C. Sealants and Encapsulants: Penetrating and bridging encapsulants for asbestos applications. Tint “Lock-Down” encapsulants used in non-finished areas for identification in a color that will not obscure residual asbestos. Encapsulants shall be compatible with replacement materials.

D. Surfactant: Use a surfactant specifically designed to effectively wet asbestos. Mix and apply the surfactant as recommended by the manufacturer.

2.09 SAFETY DATA SHEETS (SSD’s): Provide SSD’s for all chemical materials brought onto the work-site.

2.10 MATERIALS

A. Disposal Containers: Use disposal containers to receive, retain, and dispose of asbestos-containing or contaminated materials. Label leak tight containers in accordance with the applicable regulations. Non-leak tight containers are not acceptable. Plastic bags shall be a minimum 6-mil polyethylene, pre-printed with approved warning labels. Plastic wrap shall be 6-mil polyethylene sheets, securely wrapped and taped. Disposal containers shall be labeled with “ASBESTOS NA 2212,” Contractor’s name and location, and a Class 9 label.

B. Glove Bags: The glove bags shall be a minimum of 6-mil polyethylene or polyvinylchloride plastic, and specially designed for removal of asbestos-containing materials, with two inward projecting long sleeves and rubber gloves, one inward projecting water wand sleeve, an internal tool pouch, and an attached, labeled receptacle for asbestos waste.

C. Plastic Sheet: A minimum 6-mil thick flame resistant polyethylene (in accordance with NFPA 701) shall be used unless otherwise specified.

D. Tape: Tape shall be capable of sealing joints of adjacent sheets of polyethylene, for attachment of polyethylene sheets to finished or unfinished surfaces and of adhering under both dry and wet conditions.

2.11 OTHER MATERIALS: The Contractor shall provide standard commercial quality of all other materials as required to prepare and complete the work.

2.12 TOOLS AND EQUIPMENT

A. The Contractor shall provide tools and equipment as required to prepare and complete the work. Tools and equipment shall meet all applicable safety regulations.

B. Transportation equipment shall be suitable for loading, temporary storage, transit, and unloading of contaminated waste without exposure to persons or property. All trucks or vans used to transport asbestos shall be enclosed and all containers sealed leaktight. Truck drivers shall have a commercial driver's license with hazardous material endorsement.

PART 3 - EXECUTION

3.01 WORK AREAS

A. Regulated Work Areas: Establish regulated work areas in compliance with 29 CFR 1926.1101.

B. Decontamination Area: Install decontamination areas in compliance with 29 CFR 1926.1101. Decontamination area shall meet fire-exiting requirements of the International Fire Code. Showers shall be provided with hot water and water filtration units.

C. Negative Pressure Enclosure System: Construct Negative Pressure Enclosure Systems as required by 29 CFR 1926.1101, these specifications, and approved work plan. Signage shall conform to the International Fire Code and 29 CFR 1926.1101. Exhausts from HEPA Filtration Units shall terminate outside of the building.

D. Notify applicable Fire Marshal as required by the International Fire Code.

3.02 PERSONNEL PROTECTION PROCEDURES

A. Contractor's Competent Person shall strictly enforce personal protection procedures as required by the approved work plan and all applicable regulations.

B. Post the decontamination, safety, and work procedures to be followed by workers.

C. Provide continuous on-site supervision by the approved Competent Person.

D. Maintain a daily log of all workers and visitors entering regulated work areas. Log shall contain the name of each individual, their organization, accurate time of entering and leaving, and purpose of visit.

3.03 ASBESTOS REMOVAL PROCEDURES: Remove asbestos in accordance with the Contractor's Approved Work Plan, applicable regulations and this specification. The Owner shall be notified 24-hours in advance of any asbestos disturbance taking place outside of a Negative Pressure Enclosure System.

3.04 AIR MONITORING

A. Perform personal, work area, and environmental monitoring for airborne asbestos fibers by industrial hygiene technicians who are employees of (one of) the Contractor's Independent Testing Laboratories.

B. Conduct air monitoring in accordance with 29 CFR 1926.1101, current EPA guidance, and as specified herein. Calibrate all sampling pumps on-site with a calibrated transfer standard before and after each sample. Built-in rotameters on pumps are not acceptable for calibration. Additional samples beyond the minimum numbers shown below may be necessary if samples are overloaded or require shorter sampling periods to achieve

readable samples, due to size of the work force, or due to more than one 8-hour work shifts.

C. Conduct daily work area and environmental air monitoring per shift as follows:
   1. Three (3) air samples within the work area.
   2. One (1) air sample located outside the entrance to the work area.
   3. One (1) air sample located at the exhaust(s) of the HEPA filtration unit(s) (if more than one unit is used, the sampling may be rotated between units, however, each unit must be sampled at least once every three days).
   4. Three (3) air samples located in adjacent occupied areas.
   5. Two (2) waste load-out samples for the full duration of the operation, one taken inside the wash-down station and one taken on the clean side of the wash-down station, in addition to the daily work area and environmental samples, (no samples are necessary if no load-out operation is performed).

   Clearance air monitoring shall be conducted by the Contractor's Independent Testing Laboratory subcontractor. The Independent Testing Laboratory may not be hired by the Abatement Subcontractor to perform visual inspections and clearance air monitoring. Owner approval is required before a work area is released to unprotected workers. The Contractor is responsible for all costs associated with clearance and scheduling of visual inspection and clearance air monitoring. The maximum acceptable level of airborne asbestos fibers for work area clearance is as published in 40 CFR 763 for PCM analysis. A minimum of five aggressive clearance samples are required for each work area, regardless of the type of analysis. PCM analysis shall be used unless Transmission Electron Microscopy (TEM) analysis is required by 40 CFR 763 due to quantities of materials removed. The Contractor has the option, at its expense and at no cost to the Owner, of re-cleaning the work area and repeating the clearance air monitoring procedures or of having failed phase contrast microscopy (PCM) sample media sent to an approved NVLAP accredited laboratory for TEM analysis by NIOSH Method 7402.

D. For small-scale, short-duration work, such as minor penetrations of gypsum wall board with asbestos-containing joint compound, gasket removal, or similar work, that work may be requested to be "cleared" on the basis of a minimum of 5 air samples taken inside the work area during the work, immediately adjacent to where removal is taking place, and where each of those air samples have fiber counts of less than 0.01 f/cc. If the samples taken during the work exceed 0.01 f/cc, the Contractor has the option, at its expense and at no cost to the Owner, of having failed PCM samples sent to an approved NVLAP accredited laboratory for TEM analysis by NIOSH Method 7402, or of re-cleaning the work area and conducting aggressive clearance PCM air monitoring procedures. These alternative "clearance" sampling protocols will only be allowed if fully outlined in the contractor's work plan, with specific pre-approval by the Owner. Visual inspections are required for all removal work, including small-scale, short-duration work.

E. Conduct personal air monitoring in accordance with 29 CFR 1926.1101 and as specified herein.
   1. Take personnel samples (excluding excursion samples) at least twice per eight-hour work shift at the rate of one sample for every six people performing that task in the same work area. Persons performing separate tasks or in separate work areas shall be sampled separately.
   2. Collect and analyze excursion samples as required by 29 CFR 1926.1101.
   3. Continuously monitor all workers disturbing asbestos outside of a Negative-Pressure Enclosure System if that work is conducted indoors.

F. Daily personnel monitoring may be discontinued only after the Contractor's Independent Testing Laboratory certifies in writing that a Negative Exposure Assessment has been obtained and the Owner has reviewed and approved the negative exposure assessment data. Daily work area and environmental air sampling may not be discontinued following a Negative Exposure Assessment.

G. Submit air monitoring results to the Owner as specified in Paragraphs 1.14 and 1.15.

3.05 DISPOSAL

A. Dispose of asbestos wastes in an EPA/DEC permitted asbestos landfill.

B. Comply with current waste disposal, handling, labeling, storage, and transportation requirements of the waste disposal facility, U.S. Department of Transportation, and EPA regulations.

C. Workers handling waste shall wear protective clothing and canister type respirators.

D. Drivers of the waste transport vehicles need not wear respirators while enroute.

E. Workers shall wear respirators when handling asbestos material at the disposal site.

3.06 CLEANING OF WORK AREA

A. Remove all asbestos material and debris upon completion of asbestos repair or removal within a work area. Wet clean or HEPA vacuum all surfaces within the work area.

B. Notify the Owner and the Independent Testing Laboratory that asbestos work has been completed and the work area is ready for visual inspection. Visual inspections are required even if clearance air monitoring is not required. Include in the visual inspection report a statement that all asbestos in the work area has been removed, repaired and/or encapsulated as required by the contract, and that all debris has been removed.

C. All required demolition (ACM and non-ACM) shall be completed in each work area prior to clearance air monitoring. Exceptions may be made with prior approval of the Owner.

D. A lockdown encapsulant shall be applied to all surfaces within the abatement areas prior to performing clearance air monitoring.

3.07 CLEARANCE AIR MONITORING

A. The Contractor and its Independent Testing Laboratory shall conduct and document a visual inspection to verify that all asbestos in the work area has been removed, repaired and/or encapsulated as required by the contract, and that all debris has been removed.

B. Final clearance air monitoring tests shall not be performed until all areas and materials within the work area are fully clean and dry.

C. Final clearance air monitoring shall be conducted by the Contractor's Independent Testing Laboratory in accordance with all applicable regulations and the Contractor's approved work plan after passing the visual inspection. The clearance criteria shall include a minimum of five clearance samples using "aggressive methods" collected and analyzed in accordance with 40 CFR 763. PCM analysis is allowed, unless TEM analysis is specifically required due to the quantities of asbestos removed.

D. If the final clearance air monitoring results show that the work area has failed to meet the clearance criteria, the Independent Testing Laboratory shall notify the Owner and the Contractor. The Contractor shall reclean the work area and request the Independent Testing Laboratory to conduct a follow-up inspection to be followed by another set of clearance air monitoring samples. All work specified in this paragraph shall be done at no additional expense to the Owner.

E. If the clearance air monitoring results meet the clearance criteria of 40 CFR 763 and the specifications for the work and the Owner has reviewed and accepted the clearance results as required by 1.14 D, then the HEPA filtration units may be deactivated (if applicable) and all seals, barriers, barricades, and decontamination areas shall be dismantled and removed and the work area released to unprotected workers.

F. Submit the final work area inspection report, clearance air monitoring field data sheets and the laboratory air monitoring report to the Owner as specified in Paragraph 1.15.

3.08 SUBSTANTIAL COMPLETION

A. After the work area barriers and temporary construction and equipment have been removed, the Contractor shall inspect the work area to verify that no asbestos debris, contaminated water, or other residue remains. Any remaining residue shall be cleaned up using HEPA vacuum cleaners and wet wiping methods.

B. The Contractor shall certify that the work area has been cleaned of all asbestos in compliance with the contract, and that there is no unrepaired damage to walls, ceilings, doors, surfaces, equipment or finishes other than that called for by the scope of work.

C. Costs of restoration of damaged finishes shall be borne by the Contractor.

END OF SECTION

REMOVAL AND DISPOSAL OF MATERIALS CONTAINING LEAD

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

A. The work may require the disturbance (including cleanup of existing loose paint), demolition, or removal, and disposal of lead painted and/or lead-containing materials related to the Whaley Multi-Sensory De-Escalation Room Renovations Project as shown on the drawings and as specified herein. Items to be disturbed may include, but are not limited to:
   1. Painted interior and exterior surfaces, including, but not limited to painted windows, doors and frames, painted mechanical and electrical equipment, painted structural and miscellaneous steel, etc.
   2. Lead-containing dust in and on architectural, structural, mechanical, and electrical components.

B. In addition to the above materials, the following materials are located in other areas of the building, and may require disturbance for auxiliary support, such as electrical and mechanical equipment and installation of equipment. Not all lead-containing materials are to be removed from these areas, only that required to complete the project work need be removed:
   1. Painted interior and exterior surfaces, including, but not limited to painted windows, doors and frames, painted mechanical and electrical equipment, painted structural and miscellaneous steel, etc.
   2. Metallic lead flashings at VTR's, roof drain bowl clamping rings, and other roof penetrations, etc.
   3. Metallic lead caulking in bell and spigot pipe joints.
   4. Metallic lead in pipe solder at copper pipe fittings.
   5. Lead-containing dust in and on architectural, structural, mechanical, and electrical components.
   6. Lead-acid batteries for exit and emergency lights, and other equipment.

C. Notification of Potential Hazards: Asbestos, lead and other potentially hazardous materials are present in the building that may impact the work of all trades. Regulated air contaminants, including asbestos and lead, are also present in settled and concealed dust in and on architectural, structural, mechanical, and electrical components or systems throughout the building. All trades shall coordinate with other trades and conduct their work to prevent worker exposure or site contamination. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing, and disposing of these materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.

D. Notification of Child Occupied Facility: Portions of this building are classified as a Child Occupied Facility in accordance with 40 CFR 745 and lead-based paints may be present on components to be disturbed in those areas. Personnel performing work in these areas must comply with the requirements of 40 CFR 745, including training, work practices and cleaning of the work area. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing, and disposing of lead materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.

E. Part of this building was constructed prior to 1978 and representative components affected by this project have been tested for lead-based paint. Portions of the building is

classified as a child occupied facility and the requirements of 40 CFR 745 apply in those areas.

F. The work includes all air monitoring, dust sampling, waste testing and disposal as specified herein. Materials listed are not necessarily hazardous waste or hazardous to handle. Lead-containing paints or materials identified for demolition and disposal shall be tested by the Toxicity Characteristics Leaching Procedure (TCLP) to determine if they are hazardous waste prior to disposal. Metal waste shall be recycled where practical.

G. All work disturbing lead–containing materials shall comply with 29 CFR 1926.62, 40 CFR 745 and other applicable regulations. OSHA regulations apply equally to lead-containing materials, lead-containing paints, and lead-based paints, and are referred herein as lead-containing materials. IMPORTANT: All renovation work (other than *minor repair and maintenance activities*) performed on or after April 22, 2010 in C*hild Occupied Facilities* (see definitions in 40 CFR 745) where lead-based paint will be disturbed must be performed by an EPA certified *Firm* (Contractor) and directed by an EPA certified *Renovator* using certified and/or properly trained individuals (Workers). In addition to the training certifications, the *Firm* must provide the Owner with the EPA pamphlet "*Renovate Right: Important Lead Hazard Information for Families, Child Care Providers and Schools,"* obtain a written acknowledgement of the pamphlet receipt, comply with EPA work practice standards and maintain records in accordance with 40 CFR 745.

1.02 RELATED WORK SPECIFIED ELSEWHERE

A. Section 01 35 45 Airborne Contaminant Control

B. Section 02 26 00 Hazardous Materials Assessment

C. Section 02 82 33 Removal and Disposal of Asbestos Containing Materials

D. Section 02 84 18 Removal and Disposal of Chemical Hazards

1.03 DEFINITIONS AND ABBREVIATIONS: Definitions and abbreviations are provided in the applicable publications listed in Paragraph 1.04 of this section.

1.04 APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced.

A. General Requirements: All work shall be performed in compliance with the International Building (IBC), Fire, Fuel Gas, Mechanical, Residential, Energy Conservation and Administrative Code; Uniform Plumbing Code; the National Electrical Code; and the publications listed in this section that are in effect at the time of the bidding of this contract.

B. Title 29 Code of Federal Regulations (CFR), Department of Labor (USDOL)
Part 1910 General Occupational Safety and Health Standards
Part 1926 Safety and Health Regulations for Construction

C. Title 40 CFR, Environmental Protection Agency (EPA)
Part 260 Hazardous Waste Management System: General
Part 261 Identification and Listing of Hazardous Wastes
Part 262 Standards Applicable to Generators of Hazardous Waste
Part 263 Standards Applicable to Transporters of Hazardous Waste
Part 270 Hazardous Waste Permit Program

Part 273	Standards for Universal Waste Management
Part 311	Worker Protection
Part 745	Lead Based Paint Poisoning Prevention in Certain Residential Structures

D. Title 49 CFR, Department of Transportation (DOT)

Part 171	General Information, Regulations and Definitions
Part 172	Hazardous Materials Communication and Regulations
Part 173	General Requirements for Shipments and Packaging
Part 176	Carriage by Vessel
Part 177	Carriage by Public Highway
Part 178	Specifications for Packaging
Part 382	Requirements for Drug Testing
Part 383	Commercial Driver's License Standards

E. Alaska Administrative Codes (AAC)

8 AAC 61	Occupational Safety and Health Standards
18 AAC 60	Solid Waste Management
18 AAC 62	Hazardous Waste Management
18 AAC 70	Water Quality Standards
18 AAC 75	Oil and Hazardous Substances Pollution Control

F. Alaska Statues (AS)

AS 45.50.477	Titles Relating to Industrial Hygiene

G. Municipality of Anchorage

AMC 26.50.060	Specific Discharge Limitations

H. Federal Standards

313E	Safety Data Sheets

I. American National Standards Institute (ANSI)

Z9.2	Local Exhaust Systems
Z87.1	Eye and Face Protection
Z88.2	Practices for Respiratory Protection

J. American Society For Testing and Materials (ASTM)

D 4397	Polyethylene Sheeting
E 1728	Standard Practice for Collection of Settled Dust Samples Using Wipe Sampling Methods for Subsequent Lead Determination
E 1792	Specification for Wipe Sampling Materials for Lead in Surface Dust

K. International Code Council
International Building (IBC), Fire, Fuel Gas, Mechanical, Residential, Energy Conservation and Administrative Code Current Standards

L. National Fire Protection Association (NFPA)

NFPA 701	Fire Tests for Flame Resistant Textiles and Films

M. National Institute of Occupational Safety and Health (NIOSH)
Manual of Analytical Methods, Current Edition

N. Underwriters Laboratories (UL)

UL 586 High-Efficiency, Particulate, Air (HEPA) Filter Units

1.05 QUALITY ASSURANCE

A. On-site Observation:
1. The safety and protection of the Contractor's employees, Subcontractor's employees, Owner's employees, the facility, and the public is the sole responsibility of the Contractor.
2. The Owner, the Owner's Representative, or representatives of State or Federal agencies may make unannounced visits to the site during the work. The Contractor shall make available two complete sets of clean, protective clothing for such visitor use. If the work requires the use of PAPR or Supplied Air Respirators, the contractor shall provide respirators to the visitor to ensure compatibility with fresh batteries or supplied air system. It is the visitor's responsibility to ensure medical qualification, training, and current "fit test" prior to using any respirator provided by the Contractor.
3. If the Owner or agency visitor determines that practices are in violation of applicable regulations, they will immediately notify the Contractor that operations must cease until corrective action is taken. Such notification will be followed by formal confirmation.
4. The Contractor shall stop work after receiving such notification. The work may not be restarted until the Contractor receives written authorization from the Owner.
5. All costs resulting from such a stop work order shall be borne by the Contractor and shall not be a basis for an increase in the contract amount or an extension of time.

B. Monitoring and Testing: Monitoring and testing during the work shall be performed as follows:
1. The Contractor shall hire Independent Testing Laboratories to collect and evaluate all air, dust, bulk, and toxicity characteristic leaching procedure (TCLP) samples that are the responsibility of the Contractor. The Contractor shall direct its laboratories, in writing, to release monitoring and testing data, and all other pertinent data and records, to the Owner.
2. The Contractor shall be responsible for monitoring its employees for potential exposure to airborne contaminants as required by this specification and all applicable regulations.
3. The Contractor shall be responsible for work area monitoring and environmental monitoring outside the work area as required by this specification.
4. The Owner may perform monitoring and testing inside the building, inside the work areas, and on the Contractor's employees while work is underway and at any time during the work.
5. Final inspection and clearance testing shall be conducted by the Contractor.
6. The Contractor shall have its Independent Testing Laboratories archive all samples until the successful completion of the project.

C. Additional Sampling of Suspect Materials:
1. The Contractor and all Subcontractors shall be vigilant during demolition and construction in the event additional suspect lead or hazardous materials are encountered. If suspect lead or hazardous materials not previously identified are encountered, the contractor shall stop work that may be affected by this material and immediately notify the Owner. The Owner or the Owner's Representative will provide recommendations and additional testing if necessary. All sampling by the Contractor shall be at their own cost.

2. The Contractor and all Subcontractors shall notify the Owner prior to any bulk sampling of suspect lead-containing material or other hazardous materials to allow the Owner or Owner's Representative to be present during such sampling.

1.06 PROTECTION OF EXISTING WORK TO REMAIN: Perform lead removal in the project work areas without damage or contamination of adjacent work or the facility.

1.07 MEDICAL REQUIREMENTS

A. Institute and maintain a surveillance program in accordance with 29 CFR 1926.62 and 29 CFR 1910.134.

B. Institute and maintain a random drug testing program, as required by 49 CFR 382, for all drivers of vehicles transporting hazardous materials.

1.08 TRAINING: Employ only workers who are trained and certified as required by 29 CFR 1910, 29 CFR 1926, 40 CFR 311, 40 CFR 745 and 49 CFR 383 to remove, encapsulate, barricade, transport, or dispose of lead-containing materials.

1.09 PERMITS, IDENTIFICATION NUMBERS AND NOTIFICATIONS: Secure necessary permits for hazardous material removal, storage, transport and disposal and provide timely notification as required by federal, state, and local authorities.

1.10 SAFETY AND ENVIRONMENTAL COMPLIANCE: Comply with laws, ordinances, rules, and regulations of federal, state, and local authorities regarding handling, storing, transporting, and disposing of hazardous materials and all other construction activities.

1.11 RESPIRATOR PROGRAM: Establish a respirator program as required by ANSI Z88.2 and 29 CFR 1910.134.

1.12 HAZARD COMMUNICATION PROGRAM: Implement a hazard communication program in accordance with 29 CFR 1910.1200.

1.13 SUBMITTALS

A. Submit the following documentation to the Owner for review, approval or rejection. Work shall not begin until submittals are approved.
1. Shop drawings.
2. Work plan.
3. Liability insurance policy and performance bond.
4. Schedule.
5. Independent testing laboratory and laboratory personnel.
6. Disposal site designations.
7. Waste transporter designations.
8. Representations.
9. "Competent Person" designation and experience.
10. EPA Training certifications and notification plan, if required.
11. Request for substitutions.

B. Shop drawings shall show:
1. Boundaries of each lead work area, if required.
2. Location and construction of decontamination stations, if required.
3. Location of temporary site storage facilities.
4. Location of air monitoring stations, both in and outside of the work area.

5. Emergency egress route(s).
6. Location of negative pressure exhaust systems, if required.

C. The work plan shall include procedures for:
1. Work area set-up and protection.
2. Worker protection and decontamination.
3. Initial exposure determination(s).
4. Lead removal procedures.
5. Waste testing, transport, and disposal procedures.
6. Monitoring and testing procedures (Sampling and Analysis Plan).
7. Spill clean-up emergency procedures.
8. Method of owner/occupant notification as per 40 CFR 745, if required.

D. Insurance Policy and Bond: Submit copies of the Contractor's or Subcontractor's insurance policy and performance bond. Submittal requirement is only to ensure that the insurance certificate(s) show specific coverage for the potentially hazardous materials being handled by this project. The insurance and bond amounts and certificate holder requirements are addressed in other portions of the contract documents and are not covered as part of this submittal requirement.

E. Schedule: Submit construction schedule by work area.

F. Independent Testing Laboratories and Laboratory Personnel: Submit the name, location, and phone number of proposed independent testing laboratories, and the names and certifications of the industrial hygiene technicians. Include the laboratory's accreditation. Not all laboratories will require all accreditations.
1. The Independent Testing Laboratories shall be acceptable to Owner.
2. Submit evidence that the laboratory is currently judged proficient in lead analysis, as determined by the Environmental Lead Proficiency Analytical Testing (ELPAT) Program, of the American Industrial Hygiene Association (AIHA) Environmental Lead Laboratory Accreditation Program (ELLAP) for lead in paint chip, soil, and dust wipe samples.
3. Submit evidence that the laboratory is currently certified by OSHA to perform blood lead analysis.
4. Submit evidence that the laboratory has demonstrated proficiency as determined by ELPAT or ELLAP performance for NIOSH Method 7082 and/or NIOSH Method 7105 analytical method for the determination of lead in air.
5. Submit evidence that the laboratory has demonstrated proficiency in performing analyses according to Method 1311 TCLP, corresponding to the current version of Test Methods for Evaluating Solid Wastes (Chemical Physical Methods), SW-846. Evidence may include successful participation in a recognized inter-laboratory quality control program such as a laboratory certified by the California Health and Welfare Agency, Department of Health Services, or a more informal inter-laboratory quality control program.
6. Submit evidence that the laboratory is currently accredited by the American Industrial Hygiene Association (AIHA).
7. Submit the name, address, telephone number, and résumé of the Contractor's Industrial Hygienist (IH) who prepared the Sampling and Analysis Plan and will oversee the on-site monitoring, visual inspections and clearance testing. Submit the names, addresses, and résumés of industrial hygiene technicians who may assist the IH for on-site tasks. Submit documentation that the IH has all the qualifications for the assigned duties as required by the Contractor's liability insurance policy.

8. Submit copies of the Contractor's letter to each of the independent testing laboratories, directing each to release all the results for this project to the Owner, as these results become available and as specified herein.

G. Disposal Site: Submit the name and location of the proposed Environmental Protection Agency (EPA) permitted disposal site.

H. Waste Transporter: Submit the name and address of the proposed waste transporter.

I. Representations: Submit statement by the Contractor that records of employees' work assignments, certifications, respirator fit tests, and medical records are accurate, up-to-date, and available for inspection.

J. Competent Person: Submit the name and certifications of the Contractor's proposed Competent Person and a list of their previous projects. Certify that the Competent Person has the knowledge and training to supervise the work in compliance with the publications listed in Paragraph 1.04 above.

K. EPA Lead Training Certifications, and Notification Plan: On projects where lead-based paint is to be disturbed for other than minor repair and maintenance activities in child–occupied facilities, submit Firm and Renovator certificates of training, and describe the contractor’s plan to notify the owner and parents and guardians of the planned activities in accordance with 40 CFR 745.

L. Substitutions: Submit requests for substitutions of materials, equipment and methods.

M. Updated Project Information: Submit changes to the submitted project information at least 24 hours prior to the effective time of change for the following:
1. Updated schedules for lead removal.
2. Change in Competent Person.
3. Changes to work plan.

1.14 TEST REPORTS: Submit the following documentation produced during the work as soon as received:

A. Project Daily Logs: Submit the previous day's Daily Logs. Logs shall include regulated area sign-in sheets and list of lead-containing materials removed, including quantities and locations of those materials, in the units used on the drawings. Claims for additional quantities will not be addressed unless daily quantities are submitted.

B. Daily Monitoring: Submit daily, all results of Contractor’s air, and dust monitoring (submit no later than 24 hours after the end of the shift). Submittal shall consist of daily monitoring report, field data sheets, the analytical laboratory’s results, and sketch of sample locations. Submit all results of any TCLP sampling or testing of bulk materials to Owner within 24 hours of receipt of results. Bulk or TCLP sample submittal shall consist of daily monitoring report, field data sheets, the analytical laboratory’s results, and sketch of sample locations (sketch not required for TCLP samples, but descriptions of materials included is required).

1.15 PROJECT COMPLIANCE DOCUMENTS: Submit the following documents to the Owner with application for final payment:

A. Contractor's actual project "Start and Finish" dates.

B. Daily logs, including sign in sheets, etc. (if not previously submitted).

C. Final Laboratory Results and Field Data Sheets, sample locations, etc. including all air, dust, soil, and waste testing results as required in Part 3 below.

D. Waste Shipment Records (Manifest EPA form 8700-22) if required.

E. Clearance sampling and soil sampling data sheets (if required) and laboratory reports.

F. Disposal site receipts, or certification of acceptance for recycling.

G. Final clearance submittals as outlined in 3.07 (if required).

H. Evidence that each employee who was engaged in lead disturbance/removal work or who was exposed to lead completed training on lead covering the requirements of 29 CFR 1926.62 and evidence that the certified renovator, cleaning verification and recordkeeping and reporting requirements of 40 CFR 745 have been met, if required.

I. Evidence of owner acknowledgement of receipt of EPA pamphlet “Renovate Right: Important Lead Hazard Information for Families, Child Care Providers and Schools”, if required.

1.16 SANITARY FACILITIES: Provide adequate toilet and hygiene facilities.

1.17 MATERIAL STORAGE: Store all materials subject to damage off the ground and secure from damage, weather, or vandalism.

1.18 ON-SITE DOCUMENTATION: The Contractor shall maintain on the job site, at a location approved by the owner, copies of the following data for safety procedures, equipment, and supplies used for the work.

A. Equipment: Show the model, style, capacity and the operation and maintenance procedures for the following, as applicable:
1. High-Efficiency, Particulate, Air (HEPA) Filtration units.
2. HEPA Vacuum cleaners.
3. Pressure differential recording equipment.
4. Heat stress monitoring equipment.

B. Safety Data Sheets (SDSs): Maintain SDSs for each encapsulant, surfactant, solvent, detergent, and other material proposed to be used.

C. Respiratory Protection Plan: The Contractor's written respirator program.

PART 2 - PRODUCTS

2.01 PERSONAL PROTECTIVE EQUIPMENT: Provide personal protective clothing as approved and selected by the IH.

A. Respirators: Provide personally issued and marked respirators approved by the National Institute of Occupational Safety and Health (NIOSH). Provide sufficient replacements for respirators with disposable canisters. Use respirators equipped with dual cartridges whenever both lead hazards and other respiratory hazards exist in the work area.

B. Provide filter cartridges approved for each airborne contaminant which may be present. NIOSH approved filter cartridges shall be used. At no time shall the permissible exposure limit (PEL) for the contaminant exceed the PEL listed in 8 AAC 61.1100.

C. Whole Body Protection: Provide approved aprons, gloves, eye protection, and hard-hats, and other protective clothing as required to meet applicable safety regulations to personnel potentially exposed to lead dust or fumes above the permissible exposure limit (PEL). Wear this protection properly. Full facepiece respirators shall meet the requirements of ANSI Z87.1.

D. Provide protective personal equipment and clothing at no cost to the workers.

2.02 DECONTAMINATION UNIT

A. Provide a temporary three-stage decontamination unit, attached in a leak-tight manner to each Contained Work Area. Decontamination units shall consist of a clean room equipped with separate lockers for each worker, a shower room, and an equipment locker room equipped with separate lockers for each worker.

B. Shower specifications: Locate flow and temperature controls within the shower and be adjustable by the user. Hot water service may be secured from the building hot water system if available, but only with back-flow protection installed by the Contractor at the point of connection, and with prior notification and approval by the Owner. Should sufficient hot water be unavailable, the Contractor shall provide a minimum 40 gallon electric hot water heater with a minimum recovery rate of 20 gallons per hour. Water from the shower room shall not be allowed to wet the floor in the clean room.

2.03 WASTE WATER FILTERS: Install the waste water filters in a series of stages with the final filtration stage sufficient to meet discharge standard of 18 AAC 70 and/or any local sewage system discharge limit for lead. Size the waste water pump for 1.25 times the shower head flow-rate. Dispose all filters as lead contaminated waste.

2.04 WARNING SIGNS AND TAPE: Post warning signs and tape at the boundaries and entrances to lead disturbance and removal work areas. Signs required by other statutes, regulations, or ordinances may be posted in addition to, or in combination with, this warning sign. Conform warning signs and tape to the requirements of 29 CFR 1926.62.

2.05 WARNING LABELS: Affix warning labels to all hazardous waste disposal containers as described in the Contractor's approved Solid Waste Disposal Plan. Conform labeling to 29 CFR 1926.62 and 49 CFR 100-199.

2.06 NEGATIVE PRESSURE EXHAUST SYSTEM: Use the negative pressure exhaust systems to exhaust each contained work area where the PEL will or is expected to be exceeded. Operate the negative pressure exhaust system continuously (24 hours a day) during lead work. Select the negative pressure exhaust system equipment to provide a minimum of 4 air changes per hour under load within the work area. The negative pressure exhaust system shall have a minimum of two stages of pre-filtration ahead of the HEPA filter: The HEPA filter shall bear the UL-586 label. In no case shall the building ventilation system be used as the local exhaust for the contained work area. Terminate the exhaust outside of the building. The exhaust ventilation system equipment shall be equipped with lock-out protection to prevent operation without a HEPA filter properly installed. The exhaust system equipment shall be equipped with the following instrumentation: a static pressure gauge with low flow alarm, an elapsed time indicator, automatic shutdown capability in the event of a major rupture in the HEPA filter or blocked air discharge and an automatic re-start when power is restored after a power failure.

2.07 PRESSURE DIFFERENTIAL MONITORING EQUIPMENT: Provide continuous monitoring of the pressure differential with an automatic recording instrument for each contained work area. Locate the instrument in a clean area where personnel have access to it without respiratory protection. The instrument shall be fitted with an alarm should the negative pressure drop below -0.02 inches of water column relative to the air outside containment.

2.08 TOOLS: Vacuum cleaners shall be equipped with HEPA filters. Use only approved power tools to remove lead-containing material. Do not use open-flame and electric element heat-gun type tools with temperatures in excess of 700° F to remove lead-containing material. Remove all residual lead contamination from reusable tools being removed from lead disturbance or removal work areas. Electrical tools and equipment shall be UL listed.

2.09 AIR MONITORING EQUIPMENT: The Contractor's IH shall select the air monitoring equipment to be used for the evaluation of airborne lead.

2.10 EXPENDABLE SUPPLIES: Provide flame resistant 6-mil thick polyethylene sheet plastic in widths necessary to minimize seams.

2.11 SAFETY DATA SHEETS (SDSs): Provide SDSs for all chemical materials brought onto the work-site.

2.12 OTHER ITEMS: Provide other items, such as consumable materials, disposable and/or reusable cleaning equipment and hand tools, or miscellaneous construction equipment and materials, in sufficient quantity as necessary to fulfill and complete the requirements of the contract. Electrical equipment and supplies shall be UL listed.

2.13 ENCAPSULANTS: Encapsulants shall contain no toxic or hazardous substances. Encapsulants shall be compatible with the products to which they are applied and be compatible with replacement products.

PART 3 - EXECUTION

3.01 WORK AREAS

A. Lead Control Areas: A control area, structure or containment where lead-containing or contaminated materials are being disturbed. Critical barriers and/or physical boundaries shall be employed to isolate the lead control area and to prevent migration of lead contamination and unauthorized entry of personnel. Refer to 40 CFR 745 for additional requirements if lead based paint is disturbed in child-occupied facilities.

B. Contained Lead Work Area Requirements: Construct contained lead work areas as described in the Contractor's approved work plan. A contained lead work area is required whenever airborne lead levels cannot be maintained below the OSHA action level at the boundary of a lead work area.

C. Building Ventilation System: Shut down and isolate by air-tight seals all building ventilation systems supplying air into or returning air from a lead control area or contained lead work area.

D. Building Electrical Systems: Verify that the electrical service is deactivated, disconnected and locked out where necessary for wet washing and/or removal. Provide temporary electrical service, equipped with ground fault protection, where needed.

3.02 PERSONNEL PROTECTION PROCEDURES

A. Initial Determination: An initial determination is required in the absence of acceptable prior exposure data in accordance with 29 CFR 1926.62. Establish an initial lead work area for each material to be disturbed and each disturbance procedure if required. Isolate these lead work areas from the rest of the building. Personnel working in these areas shall wear respiratory protection and personal protective equipment as directed by the IH. Perform personal and work area air monitoring as directed by the IH. Operational decontamination facilities shall be available. Work performed shall be representative of the work to be done during the remainder of the project.

B. Respirator Evaluation: Upgrading, downgrading, or not requiring respirators shall be recommended by the Contractor's IH based on the measured airborne lead-containing dust or fume concentrations. Immediately implement recommendations to upgrade the respiratory protection, followed by notification to the Owner. NOTE: Submit recommendations in writing to downgrade respirator type or not require respirators to the Owner for review and written approval prior to implementation.

C. Decontamination Procedures: Worker and material decontamination procedures shall be as described in the Contractor’s approved work plan. Worker decontamination shall be as directed by the Contractor’s competent person.

D. Work Stoppage: Stop work if the IH, the Owner, or a representative of a regulatory agency determines that the work is not in compliance with the Contractor's approved work plan, these specifications, or applicable laws and regulations. The Contractor shall stop work and notify the Owner whenever the measured concentrations of lead outside the lead control area equal or exceed 30 $\mu g/m^3$ for airborne lead or 200 $\mu g/ft^2$ for lead dust on surfaces that would normally be accessible by building occupants. When such work stoppage occurs, the cause of the contamination shall be corrected and the damaged or contaminated area shall be restored to its original decontaminated condition by the Contractor at no expense to the Owner. The Contractor is responsible for removing dusts and debris that were generated as a result of their work.

E. The Contractor shall adhere to all applicable regulations regarding entry into confined spaces.

3.03 LEAD DISTURBANCE AND REMOVAL PROCEDURES:

A. General: Perform lead disturbance or removal work in accordance with the Contractors approved work plan, applicable regulations and this specification.

B. Pre-Cleaning: Removal of existing loose paint chips is included in the scope of work. Pre-clean surfaces by HEPA vacuum and wet washing/wiping prior to the establishment of a work area.

C. For renovation work that is regulated by 40 CFR 745, comply with the work practice standards of that regulation.

3.04 MONITORING AND TESTING: Conduct daily sampling in accordance with the Contractor's accepted Sampling and Analysis Plan and this specification. The Owner may conduct air monitoring in the Contractor’s work areas and on the Contractor’s employees.

A. Perform environmental air monitoring outside the lead work area for each lead work area without a negative initial determination. Take a minimum of two lead-in-air samples inside the work area, and two lead-in-air samples in adjacent areas.

B. Perform dust wipe sampling for each lead work area without a negative initial determination. Include at least one sample immediately outside the entrance to the work area daily.

C. Take personnel samples in accordance with 29 CFR 1926.62. Personal samples for an employee will include a minimum of two samples per 8 hour shift. Employees will be monitored at the rate of at least one employee for every eight people performing each task in each work area. Persons performing separate tasks or in separate lead work areas shall be sampled separately.

D. Reduction of monitoring: For each operation for which the Negative Initial Determination established workers' exposure will be below the action level, the Contractor's IH may petition the Owner's Representative to recommend that the monitoring as required above be reduced for the specific task or operation. Daily environmental and dust sampling may not be discontinued following a Negative Initial Determination.

E. For renovation work that is regulated by 40 CFR 745, comply with any additional cleaning, inspection and testing standards of that regulation.

3.05 DISPOSAL

A. Sampling of Waste Materials: The Contractor shall test waste materials according to 40 CFR 261 and the disposal site's permit to determine if they are hazardous waste and to dispose of them accordingly. Collect, package and transport to an EPA approved Hazardous Waste Disposal Site all bulk debris, loose paint chips, fines, dust from HEPA filters and vacuum bags, unfiltered waste water, water filter cartridges, disposable personal protective equipment (including respirator filters, poly, and tape) which do not have TCLP test results that classify the material as non-hazardous for lead (containing less than 5.0 mg/liter or 5.0 ppm of lead). Lead-acid batteries and other batteries are classified by the EPA as Universal Wastes. The EPA encourages that all Universal Wastes be recycled in accordance with 40 CFR 273, or in the case of lead-acid batteries, in accordance with 40 CFR 266, subpart G.

B. Hazardous Waste Disposal: Dispose of hazardous project wastes as required by 40 CFR 260 and the Contractor's approved work plan.

C. Construction (Non-Hazardous) Waste Disposal: Dispose of solid (non-hazardous) waste in a permitted waste facility, in accordance with applicable federal, state, and local laws and regulations. Burning of waste is prohibited.

D. Salvageable Materials: The Contractor may salvage metallic lead, lead-acid batteries and other materials to keep such materials from entering the project waste stream. Sell or transfer salvage with a document of exempt status as provided by 40 CFR 261.

E. Waste Storage: Temporarily store solid wastes as described in the approved work plan.

3.06 FINAL CLEANING AND VISUAL INSPECTION: Perform a final cleaning and visual inspection of each lead control area prior to release to unprotected workers in accordance with the Contractor's approved work plan. Clean the lead control area by vacuuming with a HEPA filtered vacuum cleaner, wet mopping or wet wiping. Do not dry sweep or use pressurized air to clean up the

area. A final visual inspection report shall be provided by the Owner's Representative verifying that all lead disturbance required by the contract has been completed and that all visible dust and debris subject to disturbance by the planned work under this contract have been removed and the area HEPA vacuumed, wet mopped or wet wiped.

3.07 WORK AREA CLEARANCE TESTING: Work area clearance testing by the Contractor is required for each lead control area where the lead action level has been exceeded, or for work in child occupied facilities covered by 40 CFR 745. Clearance testing shall be performed only after a visual inspection report by the Contractor's IH Technician has documented that the work area is clean and that all lead disturbance required by the contract has been completed. Clearance testing shall include the following:

A. A visual inspection report by the Contractor's IH Technician verifying that all lead disturbance required by the contract has been completed and that all visible dust and debris subject to disturbance by the planned work under this contract have been removed and the area HEPA vacuumed, wet mopped or wet wiped.

B. Three (3) lead wipe and/or lead soil sample results from within the lead control area per the Contractor's approved work plan and in accordance with NIOSH method 9100. Clearance levels shall be 200 $\mu g/ft^2$ for wipes or 500 ppm in soil.

C. For child-occupied facilities where lead-based paints have been disturbed, clearances shall be performed by an EPA certified lead inspector, risk assessor or certified dust sampling technician in accordance with 40 CFR 745. Dust clearance levels shall be below 10 $\mu g/ft^2$ for floors, 100 $\mu g/ft^2$ for interior window sills, and 400 $\mu g/ft^2$ for window troughs, and below 40 $\mu g/ft^2$ for porch floors. Soil clearance levels shall be below 400 parts per million (ppm) for play areas and 1,200 ppm for bare soil in non-play areas.

D. The Owner may conduct concurrent clearance testing.

E. Work area barriers or containments shall not be removed until clearance testing results are reviewed and approved by the Owner.

3.08 SUBSTANTIAL COMPLETION

A. After the work area barriers and temporary construction and equipment have been removed, the Contractor shall inspect the work area to verify that no lead debris, contaminated water, or other residue remains. Any remaining residue shall be cleaned up using HEPA vacuum cleaners and wet wiping methods.

B. The Contractor shall certify that the work area has been cleaned of all lead in compliance with the contract, and that there is no unrepaired damage to walls, ceilings, doors or surfaces or finishes other than that called for by the scope of work.

C. Costs of restoration of damaged finishes shall be borne by the Contractor.

END OF SECTION

REMOVAL AND DISPOSAL OF CHEMICAL HAZARDS

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK: The work includes proper removal and disposal of electrical equipment and chemical hazards related to the Whaley Multi-Sensory De-Escalation Room Renovations Project as shown on the drawings and as specified herein. Items to be removed or disturbed may include, but are not limited to:

A. Mercury and mercury compounds in electrical equipment and light fixtures, switches, etc.

B. Radioactive components in smoke detectors.

C. Notification of Potential Hazards: Asbestos, lead and other potentially hazardous materials are present in the building that may impact the work of all trades. Regulated air contaminants, including asbestos and lead, are also present in settled and concealed dust in and on architectural, structural, mechanical and electrical components or systems throughout the building. All trades shall coordinate with other trades and conduct their work to prevent worker exposure or site contamination. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing and disposing of these materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.

D. Notification of Child Occupied Facility: Portions of this building are classified as a Child Occupied Facility in accordance with 40 CFR 745 and lead-based paints may be present on components to be disturbed in those areas. Personnel performing work in these areas must comply with the requirements of 40 CFR 745, including training, work practices and cleaning of the work area. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing and disposing of lead materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.

1.02 RELATED WORK SPECIFIED ELSEWHERE

A.	Section 01 35 45	Airborne Contaminant Control
B.	Section 02 26 00	Hazardous Materials Assessment
C.	Section 02 82 33	Removal and Disposal of Asbestos Containing Materials
D.	Section 02 83 33	Removal and Disposal of Materials Containing Lead

1.03 DEFINITIONS AND ABBREVIATIONS: Definitions and abbreviations are provided in the applicable publications listed in Paragraph 1.04 of this Section.

1.04 APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced.

A. General Requirements: All work shall be performed in compliance with the International Building (IBC), Fire, Fuel Gas, Mechanical, Residential, Energy Conservation and Administrative Code; Uniform Plumbing Code; the National Electrical Code; and the publications listed in this section that are in effect at the time of the bidding of this contract.

B. Title 10 Code of Federal Regulations (CFR), Nuclear Regulatory Commission

Part 20	Standard for Protection Against Radiation

C. Title 29 CFR, Department of Labor (USDOL)

Part 1910	General Occupational Safety and Health Standards
Part 1926	Safety and Health Regulations for Construction

D. Title 40 CFR, Environmental Protection Agency (EPA)

Part 61	National Emission Standards for Hazardous Air Pollutants
Part 260	Hazardous Waste Management System: General
Part 261	Identification and Listing of Hazardous Waste
Part 262	Standards Applicable to Generators of Hazardous Waste
Part 263	Standards Applicable to Transporters of Hazardous Waste
Part 270	The Hazardous Waste Permit Program
Part 273	Standards for Universal Waste Management
Part 311	Worker Protection
Part 761	Polychlorinated Biphenyls (PCBs)

E. Title 49 CFR, Department of Transportation (DOT)

Part 171	General Information, Regulations and Definitions
Part 172	Hazardous Materials Communication and Regulations
Part 173	General Requirements for Shipments and Packaging
Part 177	Carriage by Public Highway
Part 178	Specifications for Packagings
Part 382	Requirements for Drug Testing
Part 383	Commercial Driver's License Standards

F. State of Alaska Administrative Codes (AAC)

8 AAC 61	Occupational Safety and Health Standards
18 AAC 60	Solid Waste Management
18 AAC 62	Hazardous Wastes
18 AAC 75	Oil and Hazardous Substances Pollution Control

G. State of Alaska Statutes (AS)

AS 45.50.477	Titles Relating to Industrial Hygiene

H. Federal Standards

313E	Safety Data Sheets

I. American National Standard Institute (ANSI)

Z9.2	Local Exhaust Systems
Z87.1	Eye and Face Protection
Z88.2	Practices for Respiratory Protection
C78.LL 1256	Procedures for Fluorescent Lamp Sample Preparation and Toxicity Characteristic Leaching Procedure.

J. American Society for Testing and Materials (ASTM)

D-4397	Polyethylene Sheeting

K. International Code Council
International Building (IBC), Fire, Fuel Gas, Mechanical, Residential, Energy Conservation and Administrative Code Current IC Standards

L. National Fire Protection Association (NFPA)

NFPA 701 Fire Tests for Flame Resistant Textiles and Films

M. National Institute of Occupational Safety and Health (NIOSH)
Manual of Analytical Methods, Current Edition

1.05 QUALITY ASSURANCE

A. On-site Observation:
1. The safety and protection of the Contractor's employees, sub-contractor's employees, Owner's employees, the facility, and the public is the sole responsibility of the Contractor.
2. The Owner, the Owner's Representative, or representatives of State or Federal agencies may make unannounced visits to the site during the work. The contractor shall make available two complete sets of clean protective clothing for such visitor use. If the work requires the use of PAPR or Supplied Air Respirators, the contractor shall provide respirators to the visitor to ensure compatibility with fresh batteries or supplied air system. It is the visitor's responsibility to ensure medical qualification, training, and current "fit test" prior to using any respirator provided by the Contractor.
3. If the Owner or agency visitor determines that practices are in violation of applicable regulations, they will immediately notify the Contractor that operations must cease until corrective action is taken. Such notification will be followed by formal confirmation.
4. The Contractor shall stop work after receiving such notification. The work may not be restarted until the Contractor receives written authorization from the Owner.
5. All costs resulting from such a stop work order shall be borne by the Contractor and shall not be a basis for an increase in the contract amount or an extension of time.

B. Monitoring and Testing: Monitoring and testing during the work shall be performed as follows:
1. The Contractor shall hire Independent Testing Laboratories to collect and evaluate all air, bulk, and toxicity characteristic leaching procedure (TCLP) samples, which are the responsibility of the Contractor. The Contractor shall direct its laboratories, in writing, to release monitoring and testing data, and all other pertinent data and records, to the Owner.
2. The Contractor shall be responsible for monitoring its employees for potential exposure to airborne contaminants as required by specification 01 35 45 and all applicable regulations.
3. The Contractor shall be responsible for work area monitoring and environmental monitoring outside the work area as required by this specification. All sampling by the Contractor shall be at their own cost.
4. The Owner may perform monitoring and testing inside the building, inside the work areas, and on the Contractor's employees while work is underway and at any time during the work.
5. The Contractor shall have its Independent Testing Laboratories archive all samples until the successful completion of the project.
6. Final inspection and clearance testing shall be conducted by the Contractor.

1.06 PROTECTION OF EXISTING WORK TO REMAIN: Perform hazardous material removal work without damage or contamination of adjacent work or the site.

1.07 MEDICAL REQUIREMENTS

A. Institute and maintain a medical surveillance program in accordance with 29 CFR 1910.134.

B. Institute and maintain a random drug testing program, as required by 49 CFR 382, for all drivers of vehicles transporting hazardous materials.

1.08 TRAINING: Employ only workers who are trained and certified as required by 29 CFR 1910, 29 CFR 1926, 40 CFR 311, and 49 CFR 383 to remove, encapsulate, barricade, transport, or dispose of hazardous materials.

1.09 PERMITS AND NOTIFICATIONS: Secure necessary permits for hazardous material removal, storage, transport and disposal and provide timely notification as required by federal, state, and local authorities.

1.10 SAFETY AND ENVIRONMENTAL COMPLIANCE: Comply with laws, ordinances, rules, and regulations of federal, state, and local authorities regarding handling, storing, transporting, and disposing of hazardous materials and all other construction activities.

1.11 RESPIRATOR PROGRAM: Establish a respirator program as required by ANSI Z88.2 and 29 CFR 1910.134.

1.12 HAZARD COMMUNICATION PROGRAM: Implement a hazard communication program in accordance with 29 CFR 1910.1200.

1.13 SUBMITTALS

A. Approval: Submit the following documentation to the Owner for review, approval, or rejection. Work shall not begin until submittals are approved.
1. Shop drawings.
2. Hazardous material removal work plan.
3. Liability insurance policy and performance bond.
4. Schedule.
5. Independent testing laboratories.
6. Disposal site designations.
7. Waste Transporter Designations.
8. Notifications and certifications.
9. Competent Person Designation Notifications and Certifications.
10. Request for Substitutions.

B. Shop drawings shall show:
1. Boundaries of all hazardous material removal areas.
2. Location and construction of decontamination stations, if required.
3. Location of temporary site storage facilities.
4. Location of air monitoring stations, if required.
5. Emergency egress route(s).

C. The work plan shall include procedures for:
1. Work area set-up and protection.
2. Worker protection and decontamination.
3. PCB removal procedures.
4. Mercury-containing lamp removal and packaging procedures.
5. Mercury-containing material removal procedures.
6. Monitoring and testing procedures (Sampling and Analysis Plan).
7. Radioactive materials removal and tracking procedures.

8. Waste handling, packaging, labeling, manifesting and disposal procedures.

D. Insurance Policy and Performance Bond: Submit copies of the Contractor's or Subcontractor's insurance policy and performance bond. Submittal requirement is only to ensure that the insurance certificate(s) show specific coverage for the potentially hazardous materials being handled by this project. The insurance and bond amounts and certificate holder requirements are addressed in other portions of the contract documents and are not covered as part of this submittal requirement.

E. Schedule: Submit construction schedule by work area.

F. Independent Testing Laboratories and Laboratory Personnel: Submit the name, location, and phone number of proposed independent testing laboratories, and the names and certifications of industrial hygiene technicians. Include the laboratory's accreditation. Not all laboratories will require all accreditations.
1. The Independent Testing Laboratories shall be acceptable to the Owner.
2. Evidence that a laboratory has demonstrated proficiency in performing analyses according to Method 1311 TCLP, corresponding to the current version of Test Methods for Evaluating Solid Wastes (Chemical Physical Methods), SW-846. Evidence may include successful participation in a recognized inter-laboratory quality control program such as a laboratory certified by the California Health and Welfare Agency, Department of Health Services, or a more informal inter-laboratory quality control program.
3. Submit the name, address, telephone number, and résumé of the Industrial Hygienist (IH) who prepared the Sampling and Analysis Plan and will oversee the on-site monitoring. Submit the names, addresses, and résumés of industrial hygiene technicians who may assist the IH for on-site tasks. The Contractor shall submit documentation that the IH has all the qualifications for the assigned duties as required by the Contractor's liability insurance policy.
4. Submit copies of the Contractor's letters to the independent testing laboratories, directing each to release all the results for this project to the Owner, as these results become available and as specified herein.

G. Disposal Site: Submit the name and location of the proposed Alaska Department of Environmental Conservation (DEC) or U.S. Environmental Protection Agency (EPA) permitted disposal sites.

H. Waste Transporter: Submit the name, address and EPA Hazardous Waste Transporter identification number for the proposed waste transporters.

I. Certifications, Permits, and Notifications: Obtain and submit copies of EPA Hazardous Waste Generator identification number for the purpose of accumulating hazardous waste in accordance with 40 CFR 262. Submit copies of refrigerant recovery technician's EPA certification and company name when refrigeration systems are being demolished or deactivated. If the site does not have an EPA ID number for hazardous wastes, the contractor will need to assist the Owner in obtaining the EPA ID number, but the Owner will be available to sign the application documents and shipment records prepared by the contractor.

J. Representations: Submit statement by the Contractor that records of employees' work assignments, certifications, respirator fit tests, and medical records are accurate, up-to-date, and available for inspection.

K. Competent Person: Submit the name and certifications of the Contractor's proposed Competent Person and a list of their previous projects. Certify that the Competent Person has the knowledge and training to supervise the work in compliance with the publications listed in Paragraph 1.04 above.

L. Substitutions: Submit requests for substitutions of materials, equipment and methods.

M. Updated Project Information: Submit changes to the submitted project information at least 24 hours prior to the effective time of change for the following:
1. Updated schedules for hazardous material removal.
2. Change in competent person.
3. Changes to work plan.

1.14 TEST REPORTS: Submit the following documentation produced during the work as received:

A. Project Daily Logs: Submit the previous day's Daily Logs. Logs shall include regulated area sign-in sheets and list of chemical hazards removed including quantities and locations of those materials, in the units used on the drawings. Claims for additional quantities will not be addressed unless daily quantities are submitted.

B. Monitoring and testing data sheets and laboratory reports.

1.15 PROJECT COMPLIANCE DOCUMENTS: Submit the following documents with the application for final payment.

A. Daily sign-in sheets.

B. Contractor's actual "start and finish" project dates.

C. All hazardous waste shipping manifests.

D. Disposal site receipts, including manufacturer name and serial numbers from each radioactive exit sign (if removed).

E. All final laboratory results, and field data sheets, sample locations, etc..

F. Submit legible copies of each Worker’s Hazardous Waste Operations and Emergency Response (HAZWOPR) cards and/or a copy of the refresher training certificate to show that all workers have received their initial training or an eight-hour refresher course within the past year.

1.16 SANITARY FACILITIES: Provide adequate toilet and hygiene facilities.

1.17 MATERIAL STORAGE: Store all materials subject to damage off the ground and secure from damage, weather, or vandalism.

1.18 ON-SITE DOCUMENTATION: The Contractor shall maintain on the job site, at a location approved by the owner, copies of the following data for safety procedures, equipment, and supplies used for the work.

A. Equipment: Show the model, style, operations, and maintenance for the following, as applicable:
1. Respirators, PAPR and canister types.
2. Decontamination facilities.

3. Specialized hazards handling equipment.

B. Expendable supplies: Maintain the manufacturer's safety data, and use the data for the following supplies:
1. Coveralls and headgear.
2. Boots, aprons, and gloves.
3. Disposal containers.
4. Solvents and degreasers.

C. Safety Data Sheets (SDS): Maintain SDSs for each encapsulant, surfactant, solvent, detergent, and other material proposed to be used.

D. Respirator Program: The Contractor's written respirator program.

PART 2 - PRODUCTS

2.01 PERSONAL PROTECTIVE EQUIPMENT: Provide personal protective clothing as approved and selected by the IH.

A. Respirators: Provide personally issued and marked respirators approved by the National Institute of Occupational Safety and Health (NIOSH). Provide sufficient replacements for respirators with disposable canisters.

B. Provide filter cartridges approved for each airborne contaminant which may be present. NIOSH approved filter cartridges shall be used. At no time shall the permissible exposure limit (PEL) for the contaminant exceed the PEL listed in 8 AAC 61.1100.

C. Whole Body Protection: Provide approved aprons, gloves, goggles, face shields, and hard-hats, and other protective clothing as required to meet applicable safety regulations to all workers engaged in hazardous materials removal. Full facepiece respirators shall meet the requirements of ANSI Z87.1.

D. Provide protective personal equipment and clothing at no cost to the workers.

2.02 DECONTAMINATION UNIT: Provide a decontamination station in accordance with the Contractor's accepted work plan and applicable regulations.

2.03 WARNING SIGNS AND TAPE: Post warning signs and tape at the boundaries and entrances to chemical hazards removal areas. Signs required by other statutes, regulations, or ordinances may be posted in addition to, or in combination with, this warning sign.

2.04 WARNING LABELS: Affix warning labels to all hazardous waste disposal containers as described in the Contractor's approved Solid Waste Disposal Plan. Conform labeling to 49 CFR 100-199.

2.05 SPECIALIZED EQUIPMENT: Lamp crushers and other specialized equipment to consolidate, reduce or treat hazardous materials are classified as RCRA treatment and the EPA specifically prohibits the use of Drum Top Crushers for management of fluorescent lamps as universal waste unless an equivalency determination is made by the state.

2.06 EXPENDABLE SUPPLIES: Provide flame resistant 6-mil thick polyethylene sheet plastic in widths necessary to minimize seams.

2.07 SAFETY DATA SHEETS (SDSs): Provide SDSs for all chemical materials brought onto the work-site.

2.08 OTHER ITEMS: Provide other items, such as consumable materials, disposable and/or reusable cleaning equipment and hand tools, or miscellaneous construction equipment and materials, in sufficient quantity as necessary to fulfill and complete the requirements of the contract. Electrical equipment and supplies shall be UL listed.

2.09 ENCAPSULANTS: Encapsulants shall contain no toxic or hazardous substances. Encapsulants shall be compatible with the products to which they are applied and be compatible with any replacement products.

PART 3 - EXECUTION

3.01 WORK AREAS

A. Electrical Power: Verify that the electrical power to the equipment being removed is deactivated, disconnected, and locked-out.

B. Loaded Disposal Drums: The Contractor shall provide handling equipment to move disposal drums loaded with hazardous wastes.

3.02 PERSONNEL PROTECTION PROCEDURES

A. All personnel entering the work area shall sign the daily log and put on clean protective clothing.

B. Basic protective clothing shall consist of aprons, gloves, goggles, face shields, and hard hats--with the addition of approved full body coveralls, bib-type aprons, and respirators as conditions warrant.

C. Make available a contaminated material disposal drum, 6-mil. plastic wrapping and tape, or appropriate bagging materials for leaking ballasts and/or oil-contaminated components.

D. Decontamination Procedures: All personnel handling or removing hazardous materials will comply with the decontamination procedures as described in the approved work plan.

3.03 HAZARDOUS MATERIAL REMOVAL PROCEDURES: Conduct hazardous materials removal, handling, packaging, storage, transport and disposal in accordance with the Contractor's approved work plan, applicable regulations, and this specification.

A. Perform mercury-containing lamps work in accordance with 40 CFR 261, 40 CFR 264, 40 CFR 265, 40 CFR 273 and 8 AAC.

B. Perform radioactive smoke detector work in accordance with 10 CFR 20, 8 AAC 61, 18 AAC 60 and 18 AAC 62.

3.04 MONITORING AND TESTING: Conduct daily sampling in accordance with the Contractor's accepted Sampling and Analysis Plan and this Specification. The Owner may conduct air monitoring in the Contractor’s work areas and on the Contractor’s employees.

A. Personal, work area, and environmental monitoring for airborne contaminants shall be performed by industrial hygiene technicians who are employees of (one of) the Contractor's Independent Testing Laboratories.

B. Perform air monitoring in accordance with 29 CFR 1926, current EPA guidance, and as specified herein. Calibrate all sampling pumps on-site with a calibrated transfer standard before and after each sample. Built-in rotameters on pumps are not acceptable for calibration.

C. Monitor for all airborne contaminants listed in 29 CFR 1926.55 and 8 AAC 61.1100, which are produced by the Contractor's operations.

D. Contractor shall test waste materials as required by 40 CFR 261, the disposal site's permit, and it's approved work plan. If performed, TCLP testing of fluorescent lamps shall comply with ANSI/NEMA Standard Procedure for Fluorescent Lamp Sample Preparation and Toxicity Characteristic Leaching Procedure, C78.LL 1256-2003 or latest version.

3.05 DISPOSAL

A. Dispose of hazardous wastes in an EPA permitted hazardous waste disposal site as required by 40 CFR 260 and 40 CFR 761, the Contractor's approved plan, and the disposal site operator.

B. Comply with current waste disposal, handling, labeling, storage, and transportation requirements of the waste disposal facility, U.S. Department of Transportation, and EPA regulations.

C. Fluorescent, mercury vapor, metal halide and high pressure sodium lamps are classified by the EPA as hazardous mercury waste under the Universal Waste Rule under 40 CFR 273. Mercury and mercury-containing products are considered hazardous waste unless TCLP testing of the waste for mercury confirms the mercury content to be less than the EPA criteria of 0.2 mg/l. If mercury-containing lamps and thermostats are handled and disposed of in accordance with the Universal Waste Regulations, no TCLP test is required. If the Contractor chooses to perform a TCLP test of fluorescent lamps, the test shall be conducted in accordance with the requirements of ANSI/NEMA Standard Procedure for Fluorescent Lamp Sample Preparation and Toxicity Characteristic Leaching Procedure, C78.LL 1256-2003 or latest version.

D. Dispose of radioactive materials and equipment in accordance with the manufacturer's recommendations, the disposal site's requirements and 10 CFR 20, Subpart K. Provide list of manufacturer name and serial numbers for all removed radioactive exit signs to owner.

3.06 CLEANING OF WORK AREA

A. Remove all hazardous materials and debris within a work area. Wet clean all work area surfaces.

B. Notify the Owner that hazardous materials removal has been completed and the work area is ready for visual inspection. Include a statement that all hazardous materials and debris in the work area have been removed as required by the contract.

END OF SECTION

STEEL DOORS AND FRAMES

PART 1 GENERAL

1.01 NOTIFICATION OF POTENTIAL HAZARDS

A. Asbestos, lead, and other potentially hazardous materials are present in the building that may impact the work of all trades. Regulated air contaminants, including asbestos and lead, are also present in settled and concealed dust in and on architectural, structural, mechanical, and electrical components or systems throughout the building. All trades shall coordinate with other trades and conduct their work to prevent worker exposure or site contamination. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing, and disposing of these materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements

1.02 NOTIFICATION OF CHILD OCCUPIED FACILITY

A. Portions of this building are classified as a child occupied facility in accordance with 40 CFR 745 and lead-based paint has been identified on components to be disturbed in those areas. Personnel performing work in these areas must comply with the requirements of 40 CFR 745, including training, work practices and cleaning of the specific information concerning disturbing, removing and disposing of lead materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.

1.03 DESCRIPTION OF WORK

A. Section includes the replacement of existing doors with new steel doors and new steel frames; non-rated and fire rated. Contractor to coordinate frame width with existing walls by field verification.

1.04 REFERENCES

A. ANSI/ICC A117.1 – American National Standard for Accessible and Usable Buildings and Facilities: International Code Council; 1998

B. ANSI A250.8 – SDI-100 Recommended Specification for Standard Steel Doors and Frames; 1998

C. ANSI A250.10 – Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames: 1998

D. ASTM A 653/A 653M – Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2000.

E. ASTM C 236 – Standard Test Method for Steady-State Thermal Performance of Building Assemblies by Means of a Guarded Hot Box; 1989 (Reapproved 1993).

F. DHI A115 Series – Specifications for Steel Doors and Frame Preparation for Hardware; Door and Hardware Institute; current edition (ANSI/DHI A115 Series).

G. NAAMM HMMA 840 – Installation and Storage of Hollow Metal Doors and Frames; The National Association of Architectural Metal Manufacturers; 1999.

H. NFPA-80 Standard for Fire Doors and Fire Windows; National Fire Protection Association; 1999.

I. NFPA 252 – Standard for Fire Doors and Fire Window; National Fire Protection Association; 1999.

J. SDI 122-99 – Installation and Troubleshooting Guide for Standard Steel Doors and Frames; Steel Door Institute.

K. UL (BMD) – Building Materials Directory; Underwriters Laboratories Inc.; current edition.

1.05 SUBMITTALS

A. Product Data: For each type of door and frame indicated, include door designation, type, level and model, material description, core description, construction details, hardware locations, reinforcement type and locations, anchorage and fastening methods, label compliance, sound and fire-resistance ratings, and finishes.

B. Shop Drawings: Show the following

1. Contractor shall verify door elevations of each door design and submit shop drawing showing elevations.
2. Details of doors including vertical and horizontal edge details.
3. Details and locations of internal reinforcement and preparations for hardware.
4. Coordination of glazing frames and stops with glass and glazing requirements.

C. Installation Instructions: Manufacturer's published instructions, including any special installation instructions relating to this project.

D. Manufacturer's Certificate: Certification that products meet or exceed specified requirements

E. Door Schedule: Use same reference designations indicated.

1.06 QUALITY ASSURANCE

A. Manufacturer: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.

B. Maintain at the project a copy of all reference standards dealing with installation.

1.07 PRODUCT DELIVERY, HANDLING AND STORAGE

A. Store in accordance with NAAMM HMMA 840.

B. Protect with resilient packaging; avoid humidity build-up under covering; prevent corrosion.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Steel Doors and Frames:

1. Ceco Door Products.
2. Curries Company.

3. Republic Builders Products.
4. Steelcraft.
5. Mesker

2.02 DOORS

A. Requirements for All Doors:

1. Accessibility: Comply with ANSI/ICC A117.1.
2. Grade: ANSI A250.8 – Level 3 and Physical Performance Level B, Model 2 (seamless/ fully welded).
3. Thickness: 1-3/4 inches.
4. Door Design: In accordance with SDI 106, Design N, Narrow Lite.
5. Door Top and Bottom: Close with inverted 14 gage minimum end channels or closures.
6. Door Edge Profile: Beveled on both edges.
7. Door Reinforcement: Comply with ANSI A250.8. Reinforce for surface applied hardware.
8. Glazed Lights: Non-removable stops on non-secure side; sizes and configurations as indicated.
9. Hardware Preparation: In accordance with DHI A115 Series, with reinforcement welded in place, in addition to other requirements specified in door grade standard.
10. Galvanizing: All components A40 hot-dipped zinc-iron alloy-coated (galvannealed) in accordance with ASTM A 653/A 653M, with manufacturer's standard coating thickness.
11. Finish: Factory primed, for field finishing.
12. Texture: Smooth faces.

B. Interior Doors, Fire-Rated:

1. Fire Rating:
   a. Provide units listed and labeled by UL.
   b. Attach fire-rating label to each fire rated unit.
2. 14 Gage minimum: Polyurethane core

C. Door frames: Comply with the requirements of grade for door. 14 gauge, Welded, mitered or coped corners, seamless with joints filled. Frames shall be insulated.

2.03 ACCESSORY MATERIALS

A. Include clear ¼" Safety Glazing as shown with all accessories for install.

B. Reuse removable Stops: Formed sheet steel, butted corners; prepared for countersink style Philips head screws. Locate on the secured side of door.

C. Use of tamper-proof spanner screw is typical for all instances interior side glass stops are not possible.

2.04 FINISH MATERIALS

A. Primer: Rust-inhibiting compatible with the zinc surface complying with ANSI A250.10, door manufacturer's standard.

B. Prep and paint door with first topcoat compatible rust inhibiting alkyd resin primer and two (2) coats of 100% acrylic water reducible corrosion resistant enamel, semi-gloss: Sherwin Williams "DTM B66." Color selection to be determined after bid award.

PART 2 EXECUTION

3.01 EXAMINATION

A. Verify existing conditions before starting work. Contractor should verify proper door swings. Door swings for handings are shown from outside the room looking in.

B. Verify that opening size and tolerances of the existing doorframe. Notify project managers when opening does not fall within tolerance and make frame adjustments per SDI 122-99.

3.02 INSTALLATION

A. Install in accordance with the requirements of the specified door grade standard and NAAMM HMMA 840.

B. Install fire rated doors in accordance with NFPA 80.

C. Coordinate installation with existing frame and opening conditions. Fit doors accurately in their respective existing frames, within clearances specified in ANSI A250.8 – SDI-100. Contractor will field verify proper door sizes and hinge locations with supplier before ordering.

D. Coordinate installation of hardware. Contractor should verify proper door swings. Door swings are shown from outside the room looking in. Modify strike plate has required for proper installation of new door hardware.

E. Coordinate installation of glazing.

3.03 FINAL CLEANING AND ADJUSTMENTS

A. Check hollow metal work prior to final inspection. Leave work in complete and proper operating condition. Adjust for smooth and balanced door movement. Remove and replace defective work, including doors that are warped, bowed, or otherwise damaged.

B. Immediately after erection, sand smooth any rusted or damaged areas of prime coat and apply touch-up of compatible air-drying primer.

B. All doors shall be left free of dirt, grease or other deleterious materials.

END OF SECTION

DOOR HARDWARE

PART 1. GENERAL

1.01 NOTIFICATIONS OF POTENTIAL HAZARDS

A. Notification of Potential Hazards: Asbestos, lead and other potentially hazardous materials are present in the building that may impact the work of all trades. Regulated air contaminates, including asbestos and lead are also present in the settled and concealed dust in and on architectural, structural, mechanical, and electrical components or systems throughout the building. All trades shall coordinate with other trades and conduct their work to prevent worker exposure or site contamination. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing, and disposing of these materials and the installation of new materials or components. This notification is provided in accordance with the EPA and OSHA requirements.

1.02 NOTIFICATIONS OF CHILD OCCUPIED FACILITY

A. Portions of this building are classified as a child occupied facility in accordance with 40 CFR 745 and lead-based paint has been identified on components to be disturbed in those areas. Personnel performing work in these areas must comply with the requirements of 40 CFR 745, including training, work practices and cleaning of the specific information concerning disturbing, removing and disposing of lead materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.

1.03 SUMMARY

A. Work under this section includes the door hardware requirements for the project. Hardware schedule is based on wood doors, hollow metal doors, and metal frames. Quantities listed are for the contractor's convenience and are not guaranteed. Items not specifically mentioned, but necessary to complete the work, shall be furnished, matching the items specified in quality and finish.

1.04 RELATED REQUIREMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specifications, apply to this Section

B. Related Sections

1. Section 08 11 00 - Steel Doors and Frames

1.05 REFERENCES

A. Reference Standards: Current edition at date of bid

B. ANSI/BHMA A156.18 – Materials and Finishes

C. ICC/ANSI A117.1 – Accessible and Usable Building and Facilities

D. NFPA-80 Standard for Fire Doors and Window

E. Underwriters Laboratories – Building Materials Directory

F. Underwriters Laboratories Test Standard UL 10C-98 – Positive Pressure Fire Test of Door Assemblies.

G. UL10C – Positive Pressure Fire Tests for Door Assemblies

H. Architectural Door Hardware for Standard Steel Doors and Frames

1.06 SUBMITTALS

A. General Requirements: All Submittals shall be in accordance with Section 01300, Submittals.

B. Product Data: Submit and upload one (1) electronic copy of manufacturer's data for each item of door hardware to the Procore\Submittals.

C. Hardware Schedule: Submit and upload one (1) electronic copy of a detailed Door Hardware Schedule to the Procore\Submittals.

1. Indicate complete designation of every item required for each door or opening.

2. Furnish cover sheet listing title of project as shown on Contract Documents, name, address, phone and fax numbers of Owner, Architect, Contractor, and Supplier, name of Certified Hardware Consultant, and date of submittal.

3. List each opening individually under separate headings in same order as door schedule. Do not group like or similar doors under a single heading. Do not continue headings on separate pages.

4. At each heading, indicate hardware group numbers, opening location, handing, active door, degree of opening, door name, size, type, fire rating, and Door and Frame material.

5. Indicate product manufacturer and incorporate cross-reference to symbols used in Hardware Schedule attached to this Section.

6. Include locations for miscellaneous items.

7. Cross reference abbreviations or symbols used.

8. Index door number, heading, page number, and locking function of each opening.

9. Schedules in coded or horizontal format are not accepted.

10. Submittals not conforming to these requirements will be returned without review, for re- submittal. Following is an example of required format for each opening:

Double Exterior Door #100 - Exterior Main Entry Vestibule 100 to Interior Vestibule 100 - RH 120º				
3-0 x 7-0 x 1-3/4" x Non-Rated x Type A - SC WD x HMF				
Number	**Type**	**Model**	**Finish**	**Manufacture List**
1	Exit Device	EL 98 x 990 DT	626/US26D	VO
1	Exit Device	EL 98 x 990 NL	626	VO
1	Cylinder	12 E 72S2RP, rim type	626	BE
1	Cylinder	1E74-C4, mortise type (keyed mullion)	626	BE
1	Cylinder	1E74 – C4, mortise type (key switch)	626	BE
1	Door Closer/Hold Open Arm	4040XP-3049SCNS	AL	LCN
1	Door Operator	4642 Long	AL	LCN
2	Door Actuator	4642		LCN
2	Continuous Hinge	A5500 PT	SS	ABH
1 Pair	Jamb Gaskets	2891 APK (including mullion)		PE
1	Head Gasket	2891 APK		PE
2	Door Sweep	315CN		PE
2	Kickplate	K1050 B4ELTDW 630	630	RW
1	Threshold	WS437-150	626/US26D	GR
1	Mullion	KR 4954 7' SP28		VO
1	Mullion Stabilizer	154		KR
1	Mullion Gasket	5100N86		NGP
1	Mullion Storage Kit	MT54	SP28	VO
2	Power Transfer	EPT-10		VO
1	Switch Retrofit Kit	LX or LS/LC (per electrical requirements)		

11. Processing: Hardware schedules will not be reviewed by Architect until they have been reviewed and approved by the Contractor. Resubmit only corrected copies of those sheets requiring correction and update distributed copies with corrected sheets.

12. Modifications: Update Hardware Schedule and keep current throughout the project duration.

a. Incorporate revisions conforming to specified requirements.

b. Submit only cover sheet and revised pages.

c. Clearly identify changes from previous submittal content.

13. Owner's Representative will review and approve final submittal. Before approved, send one copy to:

Anchorage School District, Maintenance Department / Lock Shop
1301 Labar Street
Anchorage, AK 99515

14. Review of hardware schedule does not relieve Contractor of responsibility to fulfill project requirements in accordance with the Contract Documents.

15. Affidavit of Coordination: Letter signed by an approved hardware consultant stating they have reviewed the drawings and specifications and have coordinated the hardware for completeness, substrates, conditions of the project. Submittals without affidavit will be returned unreviewed.

16. Submit Certified Architectural Hardware Consultant qualifications and certificate.

D. Wiring Diagrams:

1. Submit one (1) electronic copy of electronic hardware system riser and terminal-to-terminal wiring diagrams for each Electronic Hardware application, cross-referenced to Door Hardware Submittal, Door Schedule.

2. Include voltage requirements along with product data and installation instructions.

3. Indicate connection points to equipment provided under Division 26.

E. Operations and Maintenance Data:

1. Submit Maintenance and Operations Manuals under provisions of Division 1, Operation and Maintenance Data.

2. Content: Manuals shall contain a copy of final installed Door Hardware Submittal, product data, templates, parts lists and diagrams, installation and maintenance instructions, wiring diagrams, and Product Warranties.

3. Keying Floor Plan with door numbers, full building plan, electronic copy.

1.07 QUALITY CONTROL

A. Quantities listed are for Contractor's convenience only and require verification. Provide Items not specifically mentioned, but necessary to complete work, matching items specified.

B. Supplier:

1. Recognized builders' hardware supplier who has been furnishing hardware in same area as project for a period of not less than five (5) years.

2. Factory direct, authorized distributor of Exit Devices, Locksets, and Door Closers.

3. Employing a hardware consultant, certified by Door and Hardware Institute (DHI), available during course of work to meet and consult with Owner, Architect, or Contractor.

C. Source: Furnish each kind of hardware from single source manufacturer, except as otherwise specified.

D. Templates: Furnish hardware templates for each fabricator of doors, frames and other work to be factory prepared for installation of hardware. Upon request, check shop drawings of such other work to confirm that provisions will be made for proper installation of hardware.

E. Installer:

1. Trained by hardware manufacturer or local trade union jurisdiction in procedures required for a successful installation, conforming to manufacturer’s instructions.

2. Able to document 3 years or more years’ experience upon request by Owner’s representative.

F. Codes and Standards:

1. All door hardware shall comply with current applicable local and/or state building codes.

2. Hardware for fire-rated openings shall also be in compliance with all fire related building codes applicable to the district in which the building is located. Provide only hardware which has been tested and listed by UL for the types and sizes of doors required, and which complies with the requirements of the door and door frame label.

1.08 PRODUCT HANDLING

A. Packaging:

1. Each item or package is to be separately tagged with identification related to final hardware schedule.

2. Detailed installation instructions shall be included.

B. Storage:

1. Provide locked room at the job site for storage of hardware.

1.09 WARRANTY

A. Door hardware shall be warranted against defects in workmanship and operation for a period of one (1) year, backed by a factory warranted of the hardware manufacture. The following products shall be warranted for period beyond one (1) year:

1. Locks – 2 years

2. Exit Devices – 5 years

3. Door Closers – 10 years

4. Electronics – 3 years

PART 2. PRODUCTS

2.01 ABBREVIATIONS

ABH	Architectural Builders Hardware
ACSI	Architectural Control Systems, Inc
BE	Best Access Systems (dormakaba Group)
GR	Garadry
LCN	LCN Door Closers (Allegion)
LN	Locknetics
MA	Marks
MC	McKinney
MK	Markar
PE	Pemko Mfg
RI	Rixson
RW	Rockwood
SC	Schlage
ST	Stanley
VO	Von Duprin

2.02 MANUFACTURES AND ACCEPTED SUBSTITUTIONS

A. Manufacturers: Furnish products as specified or accepted substitutions as specified in table below:

Product	**As Specified**	**Acceptable Substitutions**
Butt Hinges	McKinney	Stanley, Hager, Ives
Continuous Hinges	ABH 12 Gauge	MK - Markar 12 Gauge
Cylinders & Cores	BEST	None
Thumbturn Cylinder	BEST	General Lock

Locksets	Schlage L9000	None
Exit Devices	Von Duprin 98/99	None
Door Closers	LCN 4040XP Series	None
Flush Bolts/Surface Bolts	Rockwood	Ives/Glynn Johnson
Coordinators	Rockwood	Ives, Trimco
Kick Plates, Push/Pulls	Rockwood	Tice, Trimco, Ives
Wall and Floor Stops	Rockwood/ABH	Ives/ABH, Trimco/ABH
Holders	ABH	Rixson, Glynn Johnson
Weatherstrip	Pemko	National Guard, Zero
Electrical Switches	ACSI	BEST, Schlage, Von Duprin
Threshold	Garadry	None

B. Substitution Requests for Unlisted Products: Submit under provisions of Division 1

2.03 FINISH

A. Finish in general to be US26D, except:

1. Where specifically noted differently.

2. Closers: SRI Prime/Al or powder coat

3. Exit Devices: US626 or US32D, satin stainless steel

4. Locksets: US626 or US32D, satin stainless steel

5. Thresholds: As listed in schedule

2.04 HARDWARE MATERIALS

A. Fasteners: Provide fasteners for installation with each hardware item. Provide Phillips head fasteners, countersunk oval, flat head, or undercut head as appropriate for material to be installed.

B. Compatibility: Provide fasteners that are compatible with both units fastened and substrate and that will not cause corrosion or deterioration of hardware, base material, or fastener.

C. Door stops applied to masonry walls or floors (avoid fixed floor mount stop); provide double expansion shield type anchors. Sleeve anchors may be substituted when approved by the owner for each location.

D. TEK/Self-Tapping screws are allowed for kickplates, push/pull, and weather stripping. All other uses are not permitted.

2.05 BUTT HINGES

A. Types: Types required are indicated under Hardware Groups and as described below.

1. Sizes:

a. Interior doors up to and including 36": Ball Bearing, Standard Weight 3 ball bearing hinges.

B. Quantity: 1-1/2 pair up to and including 90" in height and/or 36" in width unless noted otherwise:

1. 2 pair over 90" in height and/or 36" in width.

2. For unusual size or weight doors, furnish type, size quantity recommended by the butt manufacturer, and as listed.

C. All hinges shall have non-removable pins (NRP) set-screw in barrel.

2.06 CONTINUOUS HINGES

A. Design: 12-gauge stainless steel, Pin and Barrel.

B. Provide Heavy Duty Stainless Steel continuous hinges prepped as needed by project requirements.

C. Doors over 36": shall be continuous hinges.

2.07 LOCKSETS (MORTISE)

A. Types: Schlage L9000 Series are indicated under Hardware Groups and as described below.

B. Lever Design: Furnish Lever Handle Locksets and Latches in 06L Design.

C. Ratings: Locksets and Latchsets shall be listed with Underwriters Laboratories for A label and lesser class doors.

D. Provide extended spindles for doors over 1-3/4” thick.

E. Strikes: Provide Curved Lip Strikes with adequate projection to protect door trim. Provide flat, flush lip strikes for pairs of doors with overlapping Astragals.

F. Strike Boxes: Provide manufacturers standard wrought strike boxes

2.08 LOCKSETS (CYLINDRICAL)

A. Manufacturer listed: Marks 195 Series

1. Acceptable Substitutions: BEST 9K Series

B. Backset: 2-3/4" (Refer to each door schedule)

C. Doors over 1-3/4” thick require special locksets for thicker doors.

2.09 ELECTRICAL SWITCH LOCKS

A. Manufacture Listed: ACSI

B. Acceptable substitution switches: Best Access Systems, Schlage and Von Duprin

C. Type that will accept “SFIC”.

2.10 CYLINDERS RIM AND MORTISE

A. Manufacturer: All lock cylinders shall be manufactured by BEST “Premium” Grandmaster key system, no substitutions.

B. Type that will accept 7 pin “SFIC”.

2.11 CORES

A. Manufacturer listed: Best Access Systems, 7 pin, interchangeable core, “Premium”. Provide typically with all locksets and as listed.

B. Acceptable substitutions: None.

2.12 EXIT DEVICES

A. Types: Von Duprin 98 Series are indicated under Hardware Groups and as described below. NOTE: VO 99 (grooved) is acceptable if VO99 hardware is on site to remain.

1. All exterior cylinder dogging shall accept BEST 7 pin SFIC cylinders/cores.

B. Pair Openings: Furnish two Exit Devices for pair openings.

C. Rated Openings: Provide UL listed Fire Exit Hardware at rated openings.

D. Sizes: Provide Exit Devices sized in accordance with manufacturer’s recommendations.

E. Lever Trim: Exit Device Lever Trim shall be similar to design specified.

F. Provide sex nuts and bolts for all exit devices.

2.13 MULLIONS

A. Keyed Removable Mullions: Furnish Spacers for installation in narrow stop frames.

B. Provide a pair of mullion stabilizers KR154 for ALL mullions for exterior doors only.

C. Mullion Storage Kit MT54 where keyed mullions are used.

2.14 DOOR CLOSERS, FURNISHING

A. Types: LCN 4040XP Series are indicated under Hardware Groups, and as described below.

B. Pair Openings: Furnish two Door Closers for pair openings, except as noted in Hardware Groups.

C. Drop Plates: Furnish drop plates where doors have insufficient height top rails, or where Regular Arm Door Closers are used in conjunction with Concealed Overhead Stops.

D. Spacer Blocks: Furnish Spacer Blocks where frame stop does not provide for adequate support for parallel arm soffit shoe.

E. Special Mounting: Provide special closer mounting as required where interference with weatherstrip or sound seals occurs. Do not cut sound seal or weatherstrip to accommodate door closer shoe.

F. Provide and/or mount all closers in parallel arm (EDA) configuration unless otherwise noted (UON).

G. Plastic covers are acceptable.

2.15 KICKPLATES, PUSH AND PULLS

A. Fasteners: Provide stainless steel Phillips oval/undercut head, full tread type sheet metal screws for fastening not more than 5 inches on center.

B. Material: Plates shall be .050 Stainless Steel and beveled 4 edges

C. Provide kickplates 10” in height, typical height.

D. Size: All kick plates shall be 2" less than door width \for single leaf door, except pairs of doors shall be 1-1/2" less than door width. All kick plates shall be not 1-1/2" less than door width on pull side of door. Kick plates shall be 10" in height, standard.

E. Mounting Height: Mount ½ inch from bottom of the door

2.16 STOPS AND HOLDERS

A. Only install door holders as indicated in the project documents.

B. Types: Types required are indicated under Hardware Groups and as described below.

C. Pair Openings: Furnish two stops for pair openings.

D. Size: Furnish Holders sized as recommended by manufacturer.

E. Closer Arms: 4040XP cush stop closer arm is acceptable.

F. Special Applications: Furnish Overhead Stop and Holders with special shims, brackets, or special template mounting where required

2.17 THRESHOLDS

A. Types: As indicated under Hardware Groups and as described below.

B. Fasteners: Furnish concrete anchor fastening system.

2.18 WEATHERSTRIP

A. Types: As indicated under Hardware Groups and as described below.

2.19 SOUND SEALS

A. Types: As indicated under Hardware Groups and as described below.

2.20 TYPES: AS INDICATED UNDER HARDWARE GROUPS AND AS DESCRIBED BELOW. MAGNETIC HOLDERS

A. Types: As indicated under Hardware Groups and as described below.

B. Vandalism resistant, metal units only. Plastic magnet covers are not acceptable.

2.21 MISCELLANEOUS

A. Types: As indicated under Hardware Groups and as described below. Provide quantities of miscellaneous items as required for a complete and operational opening.

B. Provide door silencers for all openings without gasketing/weatherstrip. Provide three (3) for single doors and four (4) for pairs of doors and doors 7’-6” and taller. knox box

C. Provide One (1) Knox Box Model 3200, or 4400 keyed to Anchorage Fire Dept and Anchorage School District System.

D. Locate as approved by local fire department

2.22 KEYING

A. Types: A key conference will be conducted with the owner and hardware supplier to determine permanent keying requirements.

B. Construction Keying: Provide Brass Construction Cores and Keys for all locks during the construction period. Plastic Construction Cores are not acceptable. Construction cores shall remain the property of the hardware supplier and are to be returned after installation of permanent cores.

C. All cylinders and locks are to be provided with brass BEST IC cores.

D. All keys and cores shall be provided to ASD Maintenance Lock Shop.

E. Provide one (1) core per lock cylinder.

F. Key Quantities: Provide three (3) uncut keys for each keyed lock cylinder.

G. Ship all cores, keys, and label per project with quantity of each via registered mail, return receipt requested to:

Anchorage School District, Maintenance Department / Lock Shop
1301 Labar Street, Anchorage, Alaska 99515

PART 3. EXECUTION

3.01 PREPARATION

A. Examination: Examine Doors, Frames, and related items for conditions that would prevent proper application of Door Hardware. Do not proceed until defects are corrected

B. Blocking: Provide solid blocking for Wall Stops and Holders, Automatic Operators, Wall Plate Actuators, and Magnetic Holders.

C. Fasteners: Check conditions and use fastening devices such as Riv Nuts needed to securely anchor hardware as per manufacturer's published templates.

3.02 INSTALLATION

A. Mounting Heights: Mount units at heights as recommended in Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames by Doors and Hardware Institute, except as indicated below. Products not specifically covered shall be installed in accordance with manufacturer templates and instructions.

1. Hinges:

a. Top Hinge: 7-1/4”, Top of frame rabbet to centerline of hinge.

b. Bottom Hinge: 12-1/4”, Bottom of Frame to centerline of hinge.

c. Intermediate Hinges: Centered, equal spacing between top and bottom hinges.

B. Continuous hinges: per manufacturers installation instructions.

1. Mortise Lock Strikes: 40”, bottom of frame to centerline of Strike.

2. Exit Devices: Per Manufacturers recommendation.

C. Installation: Install each hardware item in conformance to manufacturer's instructions.

1. Cutting and Fitting: Wherever cutting and fitting are required to install hardware on surfaces that will be painted or finished at a later time, install each item completely and then remove and store in a secure place. After completion of finishes, re-install each item.

2. Door and Frame Finishes: Do not install surface-mounted items until finishes have been completed on substrate.

3. Fire Rated Openings: Install in accordance with NFPA 80

4. Degree of Opening: Door shall swing to maximum degree that project conditions will allow. The swings indicated on floor plan are intended to depict direction and do not indicate full degree of opening.

5. Exit Devices: Trim Exit Devices to provide 1-1/2-inch clearance between End Cap and hinge jamb stop face and stop applied weatherstrip.

6. Door Closers: Door Closer shall be located to allow maximum degree of opening that project conditions will allow. Door Closer shall not be used to stop door, except for models equipped with an integral stop-on-arm feature.

7. Overhead Stops: Furnish Overhead Stop and Holders with maximum degree of opening that project conditions will allow. The use of overhead stops require approval from Owner.

8. Floor Stops: Locate Floors Stops at maximum degree of opening that project conditions will allow. Do not locate Floor Stops where they create a hazardous condition. Stops should be located 6 inches away of the strike edge of the door.

9. Thresholds: Set Exterior Thresholds in a bed of butyl rubber sealant. Completely fill all voids to exclude moisture. Remove excess sealant. Caulk edges and joints. Anchor Thresholds at Wood Gym Floors to Concrete side of opening only.

Set threshold so the door sweep butts up against beveled or tapered edge of threshold.

10. Weatherstrip: Mount and adjust rigid jamb weatherstrip prior to mounting parallel arm door closers. Weatherstrip shall be installed to provide a continuous seal at head and jambs. Do not notch weatherstrip for door closer shoe. Lower door closer body 1/4 inch to allow for mounting of soffit shoe on top of weatherstrip. Provide parallel arm 5th hole spacer of increased thickness to allow for revised location.

11. Door sweeps to be installed on the exterior side of the door. Install additional screw(s) within 1 inch of the edges of door.

12. Smoke Gasket: Completely clean frame and apply gasket in accordance with manufacturer's instructions. Mount Gasket to stop face of Strike Jambs and Headers, Door Rabbet of Hinge Jamb. If Gasket is required to be mounted on door rabbet of Strike Jambs due to Fire labeling requirements, provide Silencers.

D. Adjustment: Adjust and check each operating item of hardware and each door to insure proper operation or function of every unit. Replace units that cannot be adjusted to operate freely and smoothly.

3.03 FINAL ADJUSTMENT

A. Final Adjustment: Wherever hardware installation is made more than one (1) month prior to Substantial Completion, make a final check and adjustment of hardware items during week prior to Substantial Completion. Clean and lubricate operating items as necessary to restore proper function and finish of hardware and doors.

1. Adjust door control devices to compensate for final operation of heating and ventilating equipment.

B. Door Closer Adjustment: After mechanical systems have been balanced, adjust Door Closers to conform to following the most current approved version of ICC/ANSI A117.1 requirements.

1. Closing Speed: With door open 70 degrees, door closer shall be adjusted so that door will take at least three (3) seconds to move to a point where leading edge of door is three inches from latching.

2. Opening Force: The maximum force for pushing or pulling a door open shall be as follows: (these forces do not apply to force required to retract latch bolts or disengage other devices securing door).

a. Fire Doors: The minimum opening force allowable by appropriate authority having jurisdiction.

b. Exterior Doors: 8.5 lbf.

c. Interior Doors: 5.0 lbf.

C. Backcheck: Adjust to prevent damage to closer, hardware, door and frame, and wall.

D. Instruction: Provide instruction to Owner's Maintenance Personnel in proper adjustment and maintenance of hardware.

3.04 HARDWARE GROUPS

A. Interior, single leaf, 180 degree opening.
1. HW-18
1 Marks 195 RAB
1 Door Closer 4040XP-3077EDA AL LCN
1 Continuous Hinge A5500 SS ABH
1 Pair Jamb Gaskets S88D PE
2 Head Gasket S88D PE
1 reused magnetic wall holder, wall mount, extend electrical from Corridor 500
1 new magnetic holder, door mount
2 Kickplates RW K1050 B4ELTDW 630

2. Interior storage room, 110 degree opening.

HW-23
1 Marks 195 RF STOREROOM
1 Door Closer/Hold Open Arm 4040XP-3049SCNS AL LCN
3 Butt Hinges T4A4386/T4A4786 SS MK
3 Silencers 608 RW
1 Kickplate K1050 B4ELTDW 630 RW

END OF SECTION

GYPSUM BOARD ASSEMBLIES

PART 1 GENERAL

1.01 NOTIFICATION OF POTENTIAL HAZARDS

A. Asbestos, lead, and other potentially hazardous materials are present in the building that may impact the work of all trades. Regulated air contaminants, including asbestos and lead, are also present in settled and concealed dust in and on architectural, structural, mechanical, and electrical components or systems throughout the building. All trades shall coordinate with other trades and conduct their work to prevent worker exposure or site contamination. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing, and disposing of these materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.

1.02 NOTIFICATIONS OF CHILD OCCUPIED FACILITY

A. Portions of this building are classified as a child occupied facility in accordance with 40 CFR 745 and lead-based paint has been identified on components to be disturbed in those areas. Personnel performing work in these areas must comply with the requirements of 40 CFR 745, including training, work practices and cleaning of the specific information concerning disturbing, removing, and disposing of lead materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.

1.03 SECTION INCLUDES

A. Acoustic insulation.

B. Gypsum wallboard.

C. Joint treatment and accessories.

D. Reglet reveals, J-molding, end closures and other gypsum board finish accessories.

1.04 REFERENCE STANDARDS

A. ASTM C475/C475M - Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board 2017 (Reapproved 2022).

B. ASTM C557 - Standard Specification for Adhesives for Fastening Gypsum Wallboard to Wood Framing 2003 (Reapproved 2017).

C. ASTM C665 - Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing 2023.

D. ASTM C840 - Standard Specification for Application and Finishing of Gypsum Board 2020.

E. ASTM C1002 - Standard Specification for Steel Self-Piercing Tapping Screws for Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs 2022.

F. ASTM C1047 - Standard Specification for Accessories for Gypsum Wallboard and Gypsum Veneer Base 2019.

G. ASTM C1396/C1396M - Standard Specification for Gypsum Board 2017.

H. ASTM D3273 - Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber 2021.

I. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials 2023c.

J. ASTM E90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements 2009 (Reapproved 2016).

K. GA-216 - Application and Finishing of Gypsum Panel Products 2021.

L. ICC (IBC) - International Building Code Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

M. UL 723 - Standard for Test for Surface Burning Characteristics of Building Materials Current Edition, Including All Revisions.

1.05 SUBMITTALS

A. See Section 01300 - Administrative Requirements for submittal procedures.

B. Product Data: Provide data on gypsum board, accessories, joint finishing system, and acoustic batt..

C. Installer's Qualification Statement.

1.06 QUALITY ASSURANCE

A. Installer Qualifications: Company specializing in performing gypsum board installation and finishing, with minimum 3 years of experience.

B. Copies of Documents at Site: Maintain at the project site a copy of each referenced document that prescribes execution requirements.

PART 2 PRODUCTS

2.01 GYPSUM BOARD ASSEMBLIES

A. Provide completed assemblies complying with ASTM C840 and GA-216.

2.02 BOARD MATERIALS

A. Manufacturers - Gypsum-Based Board:
1. American Gypsum Company: www.americangypsum.com/#sle.
2. CertainTeed Corporation: www.certainteed.com/#sle.
3. Continental Building Products: www.continental-bp.com/#sle.
4. Georgia-Pacific Gypsum: www.gpgypsum.com/#sle.
5. National Gypsum Company: www.nationalgypsum.com/#sle.
6. PABCO Gypsum: www.pabcogypsum.com/#sle.
7. USG Corporation: www.usg.com/#sle.

B. Gypsum Wallboard: Paper-faced gypsum panels as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut. Type X typical all locations.
1. Application: Use for vertical surfaces and ceilings, unless otherwise indicated.
2. Thickness:
a. Vertical Surfaces: 5/8 inch (16 mm).
b. Ceilings: 5/8 inch (16 mm).

2.03 ACCESSORIES

A. Acoustic Insulation: ASTM C665; preformed glass fiber, friction fit type, unfaced. Thickness: 1 inch (25 mm) at air gap or match stud thickness at location installed.

B. Acoustic Sealant: Acrylic emulsion latex or water-based elastomeric sealant; do not use solvent-based non-curing butyl sealant.
1. Products:
a. Franklin International, Inc; Titebond GREENchoice Professional Acoustical Smoke and Sound Sealant: www.titebond.com/#sle.
b. Liquid Nails, a brand of PPG Architectural Coatings: www.liquidnails.com/#sle.
c. Specified Technologies Inc; Smoke N Sound Acoustical Sealant: www.stifirestop.com/#sle.

C. Finishing Accessories: ASTM C1047, galvanized steel or rolled zinc, unless noted otherwise.
1. Types: As detailed or required for finished appearance.

D. Beads, Joint Accessories, and Other Trim: ASTM C1047, galvanized steel or rolled zinc, unless noted otherwise.

E. Joint Materials: ASTM C475/C475M and as recommended by gypsum board manufacturer for project conditions.
   1. Paper Tape: 2 inch (50 mm) wide, creased paper tape for joints and corners, except as otherwise indicated.

F. Screws for Fastening of Gypsum Panel Products to Cold-Formed Steel Studs Less than 0.033 inches (0.84 mm) in Thickness and Wood Members: ASTM C1002; self-piercing tapping screws, corrosion-resistant.

G. Anchorage to Substrate: Tie wire, nails, screws, and other metal supports, of type and size to suit application; to rigidly secure materials in place.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that project conditions are appropriate for work of this section to commence.

3.02 ACOUSTIC ACCESSORIES INSTALLATION

A. Acoustic Insulation: Place tightly within spaces, around cut openings, behind and around electrical and mechanical items within partitions, and tight to items passing through partitions.

B. Acoustic Sealant: Install in accordance with manufacturer's instructions.

3.03 INSTALLATION OF TRIM AND ACCESSORIES

A. Control Joints: Place control joints consistent with lines of building spaces and as indicated.
   1. Not more than 30 feet (10 meters) apart on walls and ceilings over 50 feet (16 meters) long.

B. Corner Beads: Install at external corners, using longest practical lengths.

C. Edge Trim: Install at locations where gypsum board abuts dissimilar materials.

3.04 JOINT TREATMENT

A. Paper Faced Gypsum Board: Use paper joint tape, embed with drying type joint compound and finish with drying type joint compound.

B. Finish gypsum board in accordance with levels defined in ASTM C840, as follows:
   1. Level 2: In utility areas, behind cabinetry, and on backing board to receive MDO finish.
   2. Level 1: Wall areas above finished ceilings, whether or not accessible in the completed construction.

C. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
   1. Feather coats of joint compound so that camber is maximum 1/32 inch (0.8 mm).

3.05 TOLERANCES

A. Maximum Variation of Finished Gypsum Board Surface from True Flatness: 1/8 inch in 10 feet (3 mm in 3 m) in any direction.

END OF SECTION

NON-STRUCTURAL METAL FRAMING

PART 1 GENERAL

1.01 NOTIFICATIONS OF POTENTIAL HAZARDS

A. Asbestos, lead, and other potentially hazardous materials are present in the building that may impact the work of all trades. Regulated air contaminants, including asbestos and lead, are also present in settled and concealed dust in and on architectural, structural, mechanical, and electrical components or systems throughout the building. All trades shall coordinate with other trades and conduct their work to prevent worker exposure or site contamination. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing, and disposing of these materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.

1.02 NOTIFICATIONS OF CHILD OCCUPIED FACILITY

A. Portions of this building are classified as a child occupied facility in accordance with 40 CFR 745 and lead-based paint has been identified on components to be disturbed in those areas. Personnel performing work in these areas must comply with the requirements of 40 CFR 745, including training, work practices and cleaning of the specific information concerning disturbing, removing and disposing of lead materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.

1.03 SECTION INCLUDES

A. Metal partition and ceiling framing.

B. Framing accessories.

1.04 REFERENCE STANDARDS

A. AISI S220 - North American Standard for Cold-Formed Steel Nonstructural Framing 2020.

B. ASTM A1003/A1003M - Standard Specification for Steel Sheet, Carbon, Metallic- and Nonmetallic-Coated for Cold-Formed Framing Members 2015.

1.05 SUBMITTALS

A. See Section 01300 - Administrative Requirements for submittal procedures.

B. Product Data: Provide data describing framing member materials and finish, product criteria, load charts, and limitations.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Metal Framing, Connectors, and Accessories:
   1. CEMCO: www.cemcosteel.com/#sle.
   2. ClarkDietrich: www.clarkdietrich.com/#sle.
   3. Jaimes Industries: www.jaimesind.com/#sle.
   4. SCAFCO Corporation: www.scafco.com/#sle.
   5. Simpson Strong Tie: www.strongtie.com/#sle.
   6. Super Stud Building Products, Inc: www.buysuperstud.com/#sle.

2.02 FRAMING MATERIALS

A. Steel Sheet: ASTM A1003/A1003M, subject to the ductility limitations indicated in AISI S220.
   1. Structural Grade: As required to meet design criteria.
   2. Corrosion Protection Coating Designation: G40, or equivalent in accordance with AISI S220.

B. Non-Loadbearing Framing System Components: AISI S220; sheet steel, of size and properties necessary for the spacing indicated, with maximum deflection of wall framing of L/240 at 5 psf (L/240 at 240 Pa).
   1. Studs: C-shaped with flat faces.
   2. Runners: U-shaped, sized to match studs.

C. Partition Head to Structure Connections: Provide track fastened to structure with legs of sufficient length to accommodate deflection, for friction fit of studs cut short and braced with continuous bridging on both sides.

PART 3 EXECUTION

3.01 INSTALLATION OF STUD FRAMING

A. Extend partition framing to structure in all locations.

B. Align and secure top and bottom runners at 16 inches (406.4 mm) on center.

C. Fit runners under and above openings; secure intermediate studs to same spacing as wall studs.

D. Align stud web openings horizontally.

E. Secure studs to tracks using crimping method. Do not weld.

F. Fabricate corners using a minimum of three studs.

G. Install double studs at wall openings, door and window jambs, not more than 2 inches (50 mm) from each side of openings.

H. Coordinate installation of bucks, anchors, and blocking with electrical, mechanical, and other work to be placed within or behind stud framing.

3.02 CEILING AND SOFFIT FRAMING

A. Install furring after work above ceiling or soffit is complete. Coordinate the location of hangers with other work.

B. Space main carrying channels at maximum 72 inches (1 800 mm) on center, and not more than 6 inches (150 mm) from wall surfaces. Lap splice securely.

C. Securely fix carrying channels to hangers to prevent turning or twisting and to transmit full load to hangers.

3.03 TOLERANCES

A. Maximum Variation From True Position: 1/8 inch in 10 feet (3 mm in 3 m).

B. Maximum Variation From Plumb: 1/8 inch in 10 feet (3 mm in 3 m).

END OF SECTION

ACOUSTICAL CEILINGS

PART 1 GENERAL

1.01 NOTIFICATIONS OF POTENTIAL HAZARDS

A. Asbestos, lead, and other potentially hazardous materials are present in the building that may impact the work of all trades. Regulated air contaminants, including asbestos and lead, are also present in settled and concealed dust in and on architectural, structural, mechanical, and electrical components or systems throughout the building. All trades shall coordinate with other trades and conduct their work to prevent worker exposure or site contamination. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing, and disposing of these materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.

1.02 NOTIFICATIONS OF CHILD OCCUPIED FACILITY

A. Portions of this building are classified as a child occupied facility in accordance with 40 CFR 745 and lead-based paint has been identified on components to be disturbed in those areas. Personnel performing work in these areas must comply with the requirements of 40 CFR 745, including training, work practices and cleaning of the specific information concerning disturbing, removing and disposing of lead materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.

1.03 SECTION INCLUDES

A. Suspended metal grid ceiling system.

B. Acoustical units.

1.04 REFERENCE STANDARDS

A. ASCE 7 - Minimum Design Loads and Associated Criteria for Buildings and Other Structures Most Recent Edition Cited by Referring Code or Reference Standard.

B. ASTM C423 - Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method 2023.

C. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials 2023c.

D. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials 2022.

E. ASTM E580/E580M - Standard Practice for Installation of Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels in Areas Subject to Earthquake Ground Motions 2022.

F. ASTM E1264 - Standard Classification for Acoustical Ceiling Products 2023.

G. CHPS (HPPD) - High Performance Products Database Current Edition.

H. ISO 14644-1 - Cleanrooms and Associated Controlled Environments - Part 1: Classification of Air Cleanliness by Particle Concentration 2015.

I. NFPA 286 - Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth 2019.

J. UL (FRD) - Fire Resistance Directory Current Edition.

K. UL (GGG) - GREENGUARD Gold Certified Products Current Edition.

1.05 ADMINISTRATIVE REQUIREMENTS

A. Sequence work to ensure acoustical ceilings are not installed until building is enclosed, sufficient heat is provided, dust generating activities have terminated, and overhead work is completed, tested, and approved.

B. Do not install acoustical units until after interior wet work is dry.

1.06 SUBMITTALS

A. See Section 01300 - Administrative Requirements, for submittal procedures.

B. Shop Drawings: Indicate grid layout and related dimensioning and mechanical and electrical items installed in the ceiling.

C. Product Data: Provide data on acoustical units.

D. Samples: Submit two full size samples illustrating material and finish of acoustical units.

E. Manufacturer's Installation Instructions: Indicate special procedures and perimeter conditions requiring special attention.

F. Designer's Qualification Statement.

G. Manufacturer's Qualification Statement.

1.07 QUALITY ASSURANCE

A. Designer Qualifications for Seismic Design: Perform under direct supervision of a Professional Structural Engineer experienced in design of this work and licensed at the State in which the Project is located.

B. Acoustical Unit Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.

1.08 FIELD CONDITIONS

A. Maintain uniform temperature of minimum 60 degrees F (16 degrees C), and maximum humidity of 40 percent prior to, during, and after acoustical unit installation.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Acoustic Tiles/Panels:
   1. Armstrong World Industries, Inc: www.armstrongceilings.com/#sle.
   2. Acoustic Ceiling Products, Inc: www.acpideas.com/#sle.
   3. CertainTeed Corporation: www.certainteed.com/#sle.
   4. USG Corporation: www.usg.com/ceilings/#sle.
   5. Substitutions: See Division 01.

2.02 ACOUSTICAL UNITS

A. Acoustical Units - General: ASTM E1264, Class A.
   1. VOC Content: Certified as Low Emission by one of the following:
      a. Product listing in UL (GGG).
      b. Product listing in CHPS (HPPD).

B. Acoustical Tile ACT1: Painted mineral fiber, with the following characteristics:
   1. Classification: ASTM E1264 Type III.
   2. Size: 24 by 48 inch (610 by 1219 mm).
   3. Thickness: 5/8 inches (16 mm).
   4. Light Reflectance: 0.82 percent, determined in accordance with ASTM E1264.
   5. NRC Range: 0.55 to ____, determined in accordance with ASTM E1264.
   6. Ceiling Attenuation Class (CAC): 35, determined in accordance with ASTM E1264.
   7. Color: White. Sample to be verified with existing adjacent conditions.
   8. Suspension System: Concealed.
   9. Products:
      a. Armstrong World Industries, Inc; Dune: www.armstrongceilings.com/#sle.
      b. Armstrong World Industries, Inc; Fine Fissured: Medium Texture: www.armstrongceilings.com/#sle.

c. Substitutions: See Division 1.

2.03 SUSPENSION SYSTEM(S)

A. Exposed Suspension System: Hot-dipped galvanized steel grid with aluminum cap.
   1. Application(s): Seismic.
   2. Structural Classification: Heavy-duty, when tested in accordance with ASTM C635/C635M.
   3. Profile: Tee; 15/16 inch (24 mm) face width.
   4. Finish: Baked enamel.
   5. Color: White.
   6. Products:
      a. USG Corporation; Donn Brand ZXLA 15/16 inch Acoustical Suspension System: www.usg.com/ceilings/#sle.
      b. Substitutions: See Section 01600 - Product Requirements.

B. Concealed Suspension System: Hot-dipped galvanized steel grid and cap.
   1. Structural Classification: Heavy-duty, when tested in accordance with ASTM C635/C635M.

2.04 ACCESSORIES

A. Support Channels and Hangers: Galvanized steel; size and type to suit application, seismic requirements, and ceiling system flatness requirement specified.

B. Hanger Wire: 12 gauge, 0.08 inch (2 mm) galvanized steel wire.

C. Seismic Clips: Manufacturer's standard clips for seismic conditions and to suit application.

D. Perimeter Moldings: Same metal and finish as grid.
   1. Size: As required for installation conditions and specified Seismic Design Category.

E. Adhesive: Per manufactures recommendations.

F. Touch-up Paint: Type and color to match acoustical and grid units.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify existing conditions before starting work.

B. Verify that layout of wood furring will not interfere with other work.

3.02 PREPARATION

A. Install after major above-ceiling work is complete.

B. Coordinate the location of concealed support grid (metal furring) and exposed grid and supports with other work.

3.03 INSTALLATION - SUSPENSION SYSTEM

A. Rigidly secure system, including integral mechanical and electrical components, for maximum deflection of 1:360.

B. Perimeter Molding: Install at intersection of ceiling and vertical surfaces and at junctions with other interruptions.
   1. Use longest practical lengths.

C. Suspension System, Non-Seismic: Hang suspension system independent of walls, columns, ducts, pipes and conduit. Where carrying members are spliced, avoid visible displacement of face plane of adjacent members.

D. Seismic Suspension System, Seismic Design Categories D, E, F: Hang suspension system with grid ends attached to the perimeter molding on two adjacent walls; on opposite walls, maintain a 3/4 inch (19 mm) clearance between grid ends and wall.

E. Where ducts or other equipment prevent the regular spacing of hangers, reinforce the nearest affected hangers and related carrying channels to span the extra distance.

F. Do not support components on main runners or cross runners if weight causes total dead load to exceed deflection capability.

G. Support fixture loads using supplementary hangers located within 6 inches (152 mm) of each corner, or support components independently.

H. Do not eccentrically load system or induce rotation of runners.

3.04 INSTALLATION - ACOUSTICAL UNITS

A. Install acoustical units in accordance with manufacturer's instructions.

B. Fit acoustical units in place, free from damaged edges or other defects detrimental to appearance and function.

C. Lay directional patterned units based on alignment with existing adjacent tiles.

D. Fit border trim neatly against abutting surfaces.

E. Install acoustical units level, in uniform plane, and free from twist, warp, and dents.

F. Cutting Acoustical Units:
   1. Make field cut edges of same profile as factory edges.

3.05 TOLERANCES

A. Maximum Variation from Flat and Level Surface: 1/8 inch in 10 feet (3 mm in 3 m).

B. Maximum Variation from Plumb of Grid Members Caused by Eccentric Loads: 2 degrees.

END OF SECTION

RESILIENT FLOORING

PART 1 GENERAL

1.01 NOTIFICATIONS OF POTENTIAL HAZARDS

A. Asbestos, lead, and other potentially hazardous materials are present in the building that may impact the work of all trades. Regulated air contaminants, including asbestos and lead, are also present in settled and concealed dust in and on architectural, structural, mechanical, and electrical components or systems throughout the building. All trades shall coordinate with other trades and conduct their work to prevent worker exposure or site contamination. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing, and disposing of these materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.

1.02 NOTIFICATIONS OF CHILD OCCUPIED FACILITY

A. Portions of this building are classified as a child occupied facility in accordance with 40 CFR 745 and lead-based paint has been identified on components to be disturbed in those areas. Personnel performing work in these areas must comply with the requirements of 40 CFR 745, including training, work practices and cleaning of the specific information concerning disturbing, removing and disposing of lead materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.

1.03 SECTION INCLUDES

A. Resilient tile flooring.

B. Installation accessories.

1.04 REFERENCE STANDARDS

A. ASTM D6329 - Standard Guide for Developing Methodology for Evaluating the Ability of Indoor Materials to Support Microbial Growth Using Static Environmental Chambers 1998 (Reapproved 2023).

B. ASTM F1066 - Standard Specification for Vinyl Composition Floor Tile 2004 (Reapproved 2018).

C. ASTM F1700 - Standard Specification for Solid Vinyl Floor Tile 2020.

D. ASTM F1861 - Standard Specification for Resilient Wall Base 2021.

E. RFCI (RWP) - Recommended Work Practices for Removal of Resilient Floor Coverings 2018.

1.05 SUBMITTALS

A. See Division 1, for submittal procedures.

B. Product Data: Provide data on specified products, describing physical and performance characteristics; including sizes, patterns and colors available; and installation instructions.

C. Selection Samples: Submit manufacturer's complete set of color samples for Owner's initial selection.

D. Verification Samples: Submit two (2) samples, 2 by 2 inch (50 by 50 mm) in size illustrating color and pattern for each resilient flooring product specified.

E. Certification: Prior to installation of flooring, submit written certification by flooring manufacturer and adhesive manufacturer that condition of subfloor is acceptable.

F. Manufacturer's Qualification Statement.

G. Installer's Qualification Statement.

H. Maintenance Data: Include maintenance procedures, recommended maintenance materials, and suggested schedule for cleaning, stripping, and re-waxing.

1.06 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing specified flooring with minimum three years documented experience.

B. Installer Qualifications: Company specializing in installing specified flooring with minimum three years documented experience.

1.07 DELIVERY, STORAGE, AND HANDLING

A. Upon receipt, immediately remove any shrink-wrap and check materials for damage and the correct style, color, quantity and run numbers.

B. Store all materials off of the floor in an acclimatized, weather-tight space.

C. Maintain temperature in storage area between 55 degrees F (13 degrees C) and 90 degrees F (72 degrees C).

D. Protect roll materials from damage by storing on end.

E. Do not double stack pallets.

1.08 FIELD CONDITIONS

A. Store materials for not less than 48 hours prior to installation in area of installation at a temperature of 70 degrees F (21 degrees C) to achieve temperature stability. Thereafter, maintain conditions above 55 degrees F (13 degrees C).

PART 2 PRODUCTS

2.01 TILE FLOORING

A. Heavy Commercial Luxury Vinyl Tile: Homogeneous, with color extending throughout thickness.
   1. Manufacturers:
      a. Shaw Contract Flooring, Terrain II 20 Mil.
      b. Substitutions: See Section 01600 - Product Requirements.
   2. Minimum Requirements: Comply with ASTM F1066, of Class corresponding to type specified.
   3. Size: 6" X 48" (15cm X 122cm).
   4. Thickness: 0.098 inch (2.5 mm).
   5. Style Pattern: 0454V.
   6. Color: Thatch 00173.

2.02 ACCESSORIES

A. Subfloor Filler: White premix latex; type recommended by adhesive material manufacturer.

B. Primers, Adhesives, and Seam Sealer: Waterproof; types recommended by flooring manufacturer.

C. Transition Strips: T-Molding.
   1. Color: To be selected by Architect from manufacturer's full range.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that surfaces are flat to tolerances acceptable to flooring manufacturer, free of cracks that might telegraph through flooring, clean, dry, and free of curing compounds, surface hardeners, and other chemicals that might interfere with bonding of flooring to substrate.

B. Verify that wall surfaces are smooth and flat within the tolerances specified for that type of work, are dust-free, and are ready to receive flooring.

C. Cementitious Subfloor Surfaces: Verify that substrates are ready for resilient flooring installation by testing for moisture and alkalinity (pH).
   1. Obtain instructions if test results are not within limits recommended by resilient flooring manufacturer and adhesive materials manufacturer.

3.02 PREPARATION

A. Remove existing carpet and resilient flooring and flooring adhesives; follow the recommendations of RFCI (RWP).

B. Prepare floor substrates as recommended by flooring and adhesive manufacturers.

C. Remove subfloor ridges and bumps. Fill minor low spots, cracks, joints, holes, and other defects with subfloor filler to achieve smooth, flat, hard surface.

D. Prohibit traffic until filler is fully cured.

E. Clean substrate.

F. Apply primer as required to prevent "bleed-through" or interference with adhesion by substances that cannot be removed.

3.03 INSTALLATION - GENERAL

A. Starting installation constitutes acceptance of subfloor conditions.

B. Install in accordance with manufacturer's written instructions.

C. Install edge strips at unprotected or exposed edges, where flooring terminates, and where indicated.
   1. Resilient Strips: Attach to substrate using adhesive.

D. Scribe flooring to walls, columns, cabinets, floor outlets, and other appurtenances to produce tight joints.

3.04 INSTALLATION - TILE FLOORING

A. Mix tile from container to ensure shade variations are consistent when tile is placed, unless otherwise indicated in manufacturer's installation instructions.

3.05 CLEANING

A. Remove excess adhesive from floor, base, and wall surfaces without damage.

B. Clean in accordance with manufacturer's written instructions.

3.06 PROTECTION

A. Prohibit traffic on resilient flooring for 48 hours after installation.

END OF SECTION

PAINTING AND COATING

PART 1 GENERAL

1.01 NOTIFICATIONS OF POTENTIAL HAZARDS

A. Asbestos, lead, and other potentially hazardous materials are present in the building that may impact the work of all trades. Regulated air contaminants, including asbestos and lead, are also present in settled and concealed dust in and on architectural, structural, mechanical, and electrical components or systems throughout the building. All trades shall coordinate with other trades and conduct their work to prevent worker exposure or site contamination. Refer to Specification Divisions 0, 1 and 2 for specific information concerning disturbing, removing, and disposing of these materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.

1.02 NOTIFICATIONS OF CHILD OCCUPIED FACILITY

A. Portions of this building are classified as a child occupied facility in accordance with 40 CFR 745 and lead-based paint has been identified on components to be disturbed in those areas. Personnel performing work in these areas must comply with the requirements of 40 CFR 745, including training, work practices and cleaning of the specific information concerning disturbing, removing and disposing of lead materials and the installation of new materials or components. This notification is provided in accordance with EPA and OSHA requirements.

1.03 SECTION INCLUDES

A. Surface preparation.

B. Field application of paints, stains, varnishes, and other coatings.

C. Scope: Finish all interior and exterior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated, including the following:
   1. Mechanical and Electrical:
      a. In finished areas, paint all insulated and exposed pipes, conduit, boxes, insulated and exposed ducts, hangers, brackets, collars and supports, mechanical equipment, and electrical equipment, unless otherwise indicated.
      b. In finished areas, paint shop-primed items.

D. Do Not Paint or Finish the Following Items:
   1. Items fully factory-finished unless specifically so indicated; materials and products having factory-applied primers are not considered factory finished.
   2. Items indicated to receive other finishes.
   3. Items indicated to remain unfinished.
   4. Fire rating labels, equipment serial number and capacity labels, and operating parts of equipment.
   5. Stainless steel, anodized aluminum, bronze, terne, and lead items.
   6. Floors, unless specifically so indicated.
   7. Glass.
   8. Acoustical materials, unless specifically so indicated.
   9. Concealed pipes, ducts, and conduits.

1.04 DEFINITIONS

A. Conform to ASTM D16 for interpretation of terms used in this section.

1.05 REFERENCE STANDARDS

A. 40 CFR 59, Subpart D - National Volatile Organic Compound Emission Standards for Architectural Coatings; U.S. Environmental Protection Agency current edition.

B. ASTM D16 - Standard Terminology for Paint, Related Coatings, Materials, and Applications 2023.

C. ASTM D4442 - Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-Based Materials 2020.

D. GreenSeal GS-11 - Standard for Paints, Coatings, Stains, and Sealers 2021.

E. SSPC (PM1) - Good Painting Practice: SSPC Painting Manual, Vol. 1; Society for Protective Coatings; Fourth Edition.

1.06 SUBMITTALS

A. See Section 01300 - Administrative Requirements, for submittal procedures.

B. Product Data: Provide complete list of all products to be used, with the following information for each:
   1. Manufacturer's name, product name and/or catalog number, and general product category (e.g. "alkyd enamel").
   2. MPI product number (e.g. MPI #47).
   3. Cross-reference to specified paint system(s) product is to be used in; include description of each system.
   4. Manufacturer's installation instructions.

C. Samples: Submit two paper "drop" sample, 8-1/2 by 11 inches (216 by 279 mm) in size, illustrating range of colors available for each finishing product specified.
   1. Where sheen is specified, submit samples in only that sheen.
   2. Where sheen is not specified, submit each color in each sheen available.
   3. Allow 30 days for approval process, after receipt of complete samples by Architect.
   4. Paint color submittals will not be considered until color submittals for major materials not to be painted, such as siding, factory finished metals, wood cabinets, and wood doors, have been approved.

D. Certification: By manufacturer that all paints and coatings comply with VOC limits specified.

E. Certification: By manufacturer that all paints and coatings do not contain any of the prohibited chemicals specified; GreenSeal GS-11 certification is not required but if provided shall constitute acceptable certification.

F. Manufacturer's Instructions: Indicate special surface preparation procedures and substrate conditions requiring special attention.

G. Maintenance Data: Submit data on cleaning, touch-up, and repair of painted and coated surfaces.

1.07 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the products specified, with minimum ten years documented experience.

B. Applicator Qualifications: Company specializing in performing the type of work specified with minimum 10 years experience.

1.08 DELIVERY, STORAGE, AND HANDLING

A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.

B. Container Label: Include manufacturer's name, type of paint, brand name, color name, sheen, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.

C. Paint Materials: Store at minimum ambient temperature of 45 degrees F (7 degrees C) and a maximum of 90 degrees F (32 degrees C), in ventilated area, and as required by manufacturer's instructions.

1.09 FIELD CONDITIONS

A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.

B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.

C. Do not apply exterior coatings during rain or snow, or when relative humidity is outside the humidity ranges required by the paint product manufacturer.

D. Provide lighting level of 80 ft candles (860 lx) measured mid-height at substrate surface.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Provide all paint and coating products used in any individual system from the same manufacturer; no exceptions.

B. Provide all paint and coating products from the same manufacturer to the greatest extent possible.
   1. In the event that a single manufacturer cannot provide all specified products, minor exceptions will be permitted provided approval by Architect is obtained using the specified procedures for substitutions.
   2. Substitution of MPI-approved products by a different manufacturer is preferred over substitution of unapproved products by the same manufacturer.

C. Substitutions: See Section 01600 - Product Requirements.

2.02 PAINTS AND COATINGS - GENERAL

A. Paints and Coatings: Ready mixed, unless intended to be a field-catalyzed coating.
   1. Where MPI paint numbers are specified, provide products listed in Master Painters Institute Approved Product List, current edition available at www.paintinfo.com, for specified MPI categories, except as otherwise indicated.
   2. Provide paints and coatings of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
   3. For opaque finishes, tint each coat including primer coat and intermediate coats, one-half shade lighter than succeeding coat, with final finish coat as base color.
   4. Supply each coating material in quantity required to complete entire project's work from a single production run.
   5. Do not reduce, thin, or dilute coatings or add materials to coatings unless such procedure is specifically described in manufacturer's product instructions.
   6. Perforated gypsum wall board shall NOT have the paint finish spray applied. but the Painter shall use rollers only on perforated gypsum wall board. Reference section 09 21 16 Gypsum Board Assemblies, Perforated Gypsum Wall Board.

B. Primers: Where the manufacturer offers options on primers for a particular substrate, use primer categorized as "best" by the manufacturer.

C. Chemical Content: The following compounds are prohibited:
   1. Aromatic Compounds: In excess of 1.0 percent by weight of total aromatic compounds (hydrocarbon compounds containing one or more benzene rings).
   2. Acrolein, acrylonitrile, antimony, benzene, butyl benzyl phthalate, cadmium, di (2-ethylhexyl) phthalate, di-n-butyl phthalate, di-n-octyl phthalate, 1,2-dichlorobenzene, diethyl phthalate, dimethyl phthalate, ethylbenzene, formaldehyde, hexavalent chromium, isophorone, lead, mercury, methyl ethyl ketone, methyl isobutyl ketone, methylene chloride, naphthalene, toluene (methylbenzene), 1,1,1-trichloroethane, vinyl chloride.

D. Flammability: Comply with applicable code for surface burning characteristics.

E. Sheens: Provide the sheens specified; where sheen is not specified, sheen will be selected later by Architect from the manufacturer's full line.

F. Colors: As indicated in Finish Legend with the following exceptions;
   1. Allow for minimum of two colors for each system, unless otherwise indicated, without additional cost to Owner.
   2. Extend colors to surface edges; colors may change at any edge as directed by Architect.
   3. In finished areas, finish pipes, ducts, conduit, and equipment the same color as the wall/ceiling they are mounted on/under.

2.03 PAINT SYSTEMS - INTERIOR

A. INT 9.2M - G3 INSTITUTIONAL LOW ODOR/LOW VOC - Gloss Level 3 (Eggshell-Like) General Areas
   1. Coat 1: Primer Sealer, Interior, Low Odor/Low VOC (MPI 149)
   2. Coat 2: Institutional Low Odor/Low VOC (MPI 145)
   3. Coat 3: Institutional Low Odor/Low VOC (MPI 145)
   4. Locations: All rooms within scope of work.

B. INT 5.1RR - G5 HIGH PERFORMANCE ARCHITECTURAL LATEX - Gloss Level 5 (Semi-Gloss) over anti-corrosive metal primer
   1. Coat 1: Anti-Corrosive Metal Primer (MPI 79)
   2. Coat 2: HIPAC Latex (MPI 141)
   3. Coat 3: HIPAC Latex (MPI 141)
   4. Locations: Metal door frames

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that surfaces are ready to receive work as instructed by the product manufacturer.

B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.

C. Test shop-applied primer for compatibility with subsequent cover materials.

D. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
   1. Gypsum Wallboard and MDO: 12 percent.

3.02 PREPARATION

A. Clean surfaces thoroughly and correct defects prior to coating application.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

C. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces or finishing.

D. Seal surfaces that might cause bleed through or staining of topcoat.

E. Remove mildew from impervious surfaces by scrubbing with solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.

F. Gypsum Board Surfaces to be Painted: Fill minor defects with filler compound. Spot prime defects after repair.

G. Shop-Primed Steel Surfaces to be Finish Painted: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces. Re-prime entire shop-primed item.

H. Metal Doors to be Painted: Prime metal door top and bottom edge surfaces.

3.03 APPLICATION

A. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.

B. Apply products in accordance with manufacturer's instructions.

C. Where adjacent sealant is to be painted, do not apply finish coats until sealant is applied.

D. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.

E. Apply each coat to uniform appearance.

F. Sand wood and metal surfaces lightly between coats to achieve required finish.

G. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.

H. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

3.04 CLEANING

A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove weekly from site.

3.05 PROTECTION

A. Protect finished coatings until completion of project.

B. Touch-up damaged coatings after Substantial Completion.

END OF SECTION

ADDENDUM NO. 1

NOTIFICATION OF CHILD OCCUPIED FACILITY

PORTIONS OF THIS BUILDING ARE CLASSIFIED AS A CHILD OCCUPIED FACILITY IN ACCORDANCE WITH 40 CFR 745 AND LEAD-BASED PAINTS MAY BE PRESENT ON COMPONENTS TO BE DISTURBED IN THOSE AREAS. PERSONNEL PERFORMING WORK IN THESE AREAS MUST COMPLY WITH THE REQUIREMENTS OF 40 CFR 745, INCLUDING TRAINING, WORK PRACTICES AND CLEANING OF THE WORK AREA. REFER TO SPECIFICATION DIVISIONS 0, 1 AND 2 FOR SPECIFIC INFORMATION CONCERNING DISTURBING, REMOVING AND DISPOSING OF LEAD MATERIALS AND THE INSTALLATION OF NEW MATERIALS OR COMPONENTS. THIS NOTIFICATION IS PROVIDED IN ACCORDANCE WITH EPA AND OSHA REQUIREMENTS.

NOTIFICATION OF POTENTIAL HAZARDS

ASBESTOS, LEAD, AND OTHER HAZARDOUS MATERIALS ARE PRESENT IN THE BUILDING AND MAY IMPACT THE WORK OF ALL TRADES. REGULATED AIR CONTAMINATES, INCLUDING ASBESTOS AND LEAD, ARE ALSO PRESENT IN SETTLED AND CONCEALED DUST IN AND ON ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS OR SYSTEMS THROUGHOUT THE BUILDING. ALL TRADES SHALL COORDINATE WITH OTHER TRADES AND CONDUCT THEIR WORK TO PREVENT WORKER EXPOSURE OR SITE CONTAMINATION. REFER TO SPECIFICATION DIVISIONS 0, 1, AND 2 FOR SPECIFIC INFORMATION CONCERNING DISTURBING, REMOVING, AND DISPOSING OF THESE MATERIALS AND THE INSTALLATION OF NEW MATERIALS OR COMPONENTS. THIS NOTIFICATION IS PROVIDED IN ACCORDANCE WITH EPA AND OSHA REQUIREMENTS.

Anchorage School District

WHALEY MULTI-SENSORY DE-ESCALATION ROOM RENOVATIONS

ASD Project # 625011

BID DOCUMENTS

12/18/23

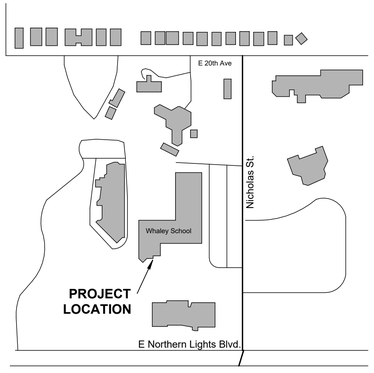
DRAWING INDEX

PROJECT NARRATIVE

BASE BID
THE PROJECT CONSISTS OF RENOVATIONS TO THE EXISTING WHALEY SCHOOL BUILDING LOCATED AT 2220 NICHOLS ST., ANCHORAGE, ALASKA 99508. THIS PROJECT UPDATES FLOOR, WALL AND CEILINGS IN 7 CHILL ROOMS AND INCLUDES THE DEMOLITION OF WALLS BETWEEN 4 ROOMS TO CREATE ONE NEW MULTISENSORY DE-ESCALATION ROOM. THE SCOPE OF WORK INCLUDES DEMOLITION OF WALLS, CEILINGS, FINISHES AND RELATED ACCESSORIES. NEW WORK INCLUDES BUILDING OF NEW WALLS, NEW OPENINGS, NEW CEILINGS, NEW LIGHTING, IN CEILING SPEAKERS AND NEW FINISHES.

LOCATION MAP

VICINITY MAP



Owner

Anchorage School District
5530 E. Northern Lights Boulevard
Anchorage, AK 99504

Phone: 907-742-4000
www.asdk12.org

Architecture + Interiors

ECI
821 N Street, Suite 201
Anchorage, AK 99501

Phone: 907-561-5543
www.ecialaska.com

HAZMAT

EHS-Alaska Inc.
11901 Business Blvd # 208
Eagle River, AK 99577

Phone: 907-694-1383
www.ehs-alaska.com

Structural Engineering

Reid Middleton, Inc
4300 B St, Ste 302
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Phone: 907-562-3439
www.reidmiddleton.com

Mechanical Engineering

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Anchorage, AK 99503

Phone: 907-276-0521
www.rsa-ak.com

Electrical Engineering

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Anchorage, AK 99518

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www.eicengineers.com

Estimator

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821 N Street, Suite 201
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Phone: 907-561-5543
www.ecialaska.com

ABBREVIATIONS

ABV	ABOVE
AFF	ABOVE FINISH FLOOR
AL	ALUMINUM
ALT	ALTERNATE
ARCH	ARCHITECTURAL
BD	BOARD
BLDG	BUILDING
BLK	BLOCK
BLW	BELOW
BO	BOTTOM OF
BOF	BOTTOM OF FINISH
CF	CUBIC FOOT
CFOI	CONTRACTOR FURNISHED OWNER INSTALLED
CL	CENTERLINE
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
CONT	CONTINUOUS
CTR	CENTER
DIA	DIAMETER
DIM	DIMENSION
DWG	DRAWING
EA	EACH
EL	ELEVATION
ELEC	ELECTRICAL
EQ	EQUAL, EQUIPMENT
ETR	EXISTING TO REMAIN
EX	EXISTING
FAC	FACTORY
FAF	FLUID APPLIED FLOORING
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINISHED FLOOR
FO	FACE OF
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOS	FACE OF STUD
FT	FOOT, FEET
FURR	FURRING
GA	GAUGE
GALV	GALVANIZED
GWB	GYPSUM WALL BOARD
GYP	GYPSUM WALL BOARD
HM	HOLLOW METAL
HR	HOUR
HT	HEIGHT
ID	INSIDE DIAMETER
INCL	INCLUDE, INCLUDED
INSUL	INSULATION
INT	INTERIOR
LH	LEFT HAND
LVP	LUXURY VINYL PLANK
MAX	MAXIMUM
MDO	MEDIUM DENSITY OVERLAY
MFR	MANUFACTURER
MKBD	MARKERBOARD
MIN	MINIMUM
MIR	MIRROR
MSDR	MULTI SENSORY DE-ESCALATION ROOM
MTL	METAL
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OWNER INSTALLED
OH	OVERHEAD
PLAM	PRESSURE TREATED LAMINATE
PLY	PLYWOOD
PT	PAINT
RCP	REFLECTED CEILING PLAN
REBAR	REINFORCING BARS
REF	REFERENCE
REQD	REQUIRED
R.O.	ROUGH OPENING
SECT	SECTION
SCHED	SCHEDULE
SIM	SIMILAR
SPEC	SPECIFICATION
SG	LAMINATED SAFETY GLAZING
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURAL
TBD	TO BE DETERMINED
TOB	TOP OF BEAM
TOC	TOP OF CONCRETE
TOS	TOP OF STEEL
TYP	TYPICAL
UL	UNDERWRITERS LABORATORY
UNFIN	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
VIF	VERIFY IN FIELD
WD	WOOD

GENERAL NOTES

1. CONSTRUCTION SHALL BE IN COMPLIANCE WITH ALL APPLICABLE CODES AND REGULATIONS.
2. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF WORK AND NOTIFY ARCHITECT OF ANY DISCREPANCIES WITH AS-BUILT CONDITIONS AS SHOWN IN THE DOCUMENTS.
3. ALL DIMENSIONS ARE APPROXIMATE AND TO BE FIELD VERIFIED.
4. WORK AREAS WILL BE LEFT CLEAN AND FREE OF ANY DEBRIS OR DUST AT THE END OF EACH SHIFT.
5. ALL TOOLS, CONSTRUCTION MATERIALS, AND EQUIPMENT ARE TO BE PROPERLY STORED AND SECURED FROM STUDENT ACCESS AT THE END OF EACH SHIFT. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE SECURITY OF ALL SUCH ITEMS.
6. THE CONTRACTOR SHALL CREATE A CLEAN, DRY SPACE TO STORE MATERIALS ON SITE TO ALLOW ACCLIMATION AS RECOMMENDED BY EACH MANUFACTURER.
7. THE CONTRACTOR SHALL PROVIDE REFUSE SERVICES. A LOCATION NEAR THE BUILDING WILL BE DESIGNATED FOR THE DUMPSTER. DELIVERIES AND STORAGE REQUIREMENTS ARE TO BE COODINATED WITH OWNER'S FACILITIES PERSONNEL.
8. PROTECT EXISTING-TO-REMAIN CONSTRUCTION FROM DAMAGE AT ALL TIMES DURING WORK.
9. ALL ITEMS NOT IDENTIFIED FOR SALVAGE THAT ARE REMOVED AND IN GOOD CONDITION ARE TO BE PROTECTED AND DONATED - SEE SPEC. OWNER MAINTAINS FIRST RIGHT OF REFUSAL FOR ALL SUCH ITEMS.
10. REPAIR ALL EXISTING HM FRAMES TO REMAIN. WELD PATCHES OVER EXISTING HINGE AND LATCHES, FILL OTHER HOLES FROM HARDWARE , FILL PREP AND PAINT FOR NEW FINISH.
11. REMOVE MISC. WOOD TRIM AND PLYWOOD PATCHES TO ALLOW SMOOTH INSTALLATION OF NEW FOAM AND MDO AT CHILL ROOMS.

CODE ANALYSIS

APPLICABLE CODES:
BUILDING LATEST UPGRADED TO 1993 UBC, AS AMENDED; ASSUMED CONFORMING
AMC TITLE 21
2018 INTERNATIONAL BUILDING CODE, AS AMENDED
2018 INTERNATIONAL MECHANICAL CODE, AS AMENDED
2018 UNIFORM PLUMBING CODE, AS AMENDED
2020 NATIONAL ELECTRIC CODE, AS AMENDED
2018 INTERNATIONAL FIRE CODE, AS AMENDED
2019 NFPA STANDARD FOR INSTALLATION OF SPRINKLER SYSTEMS (NFPA 13)
2018 INTERNATIONAL ENERGY CONSERVATION CODE, AS AMENDED
2018 INTERNATIONAL EXISTING BUILDING CODE, AS AMENDED
2018 ABATEMENT OF DANGEROUS BUILDINGS CODE, AS AMENDED
2010 ADA STANDARDS FOR ACCESSIBLE DESIGN

ZONING SUMMARY:
ALL PROJECT WORK IS INTERIOR TO THE BUILDING PERIMETER. WORK IS NOT CONSIDERED "DEVELOPMENT" PER 21.15.040 AND PLAN REVIEW NOT REQUIRED.

BUILDING CODE SUMMARY:
OCCUPANCY: E, EDUCAIONAL
COUNTRUCTION TYPE: ASSUMED TYPE 2A AND 2B (SPRINKLERED)
IEBC CLASSIFICATION: LEVEL 2 ALTERATION-"RECONFIGURATION OF SPACE"
802.4- INTERIOR FINISH AT WALL AND CEILINGS TO BE PER IBC803.13- CLASS C REQUIRED AND PROVIDED
803- FIRE PROTECTION, EXISTING SPRINKLER SYSTEM TO REMAIN
805.5- CORRIDOR DOOR EXPECTION #5, EXISTING DOORS TO REMAIN ARE 20 MIN RATED
NEW ROOM 30 WORK AREA OCCUPANT LOAD: GROSS SF IS 348, 150 SF/OCC= 3 OCC
OTHER ROOMS WITHIN SCOPE OCCUPANT LOADS TO BE THE SAME OR LESS.

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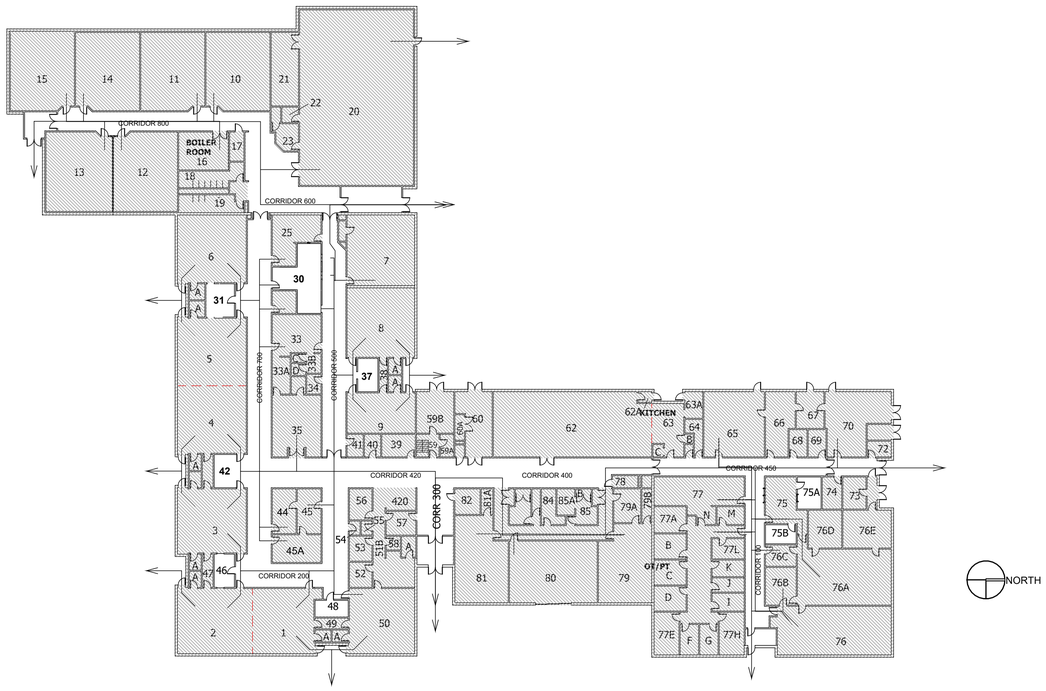

1 LEVEL 1 - OVERALL FLOOR PLAN
1/32" = 1'-0"

WORK SUMMARY

ROOM 30	MSDR-NEW MULTI SENSORY DE-ESCALATION ROOM. DEMO OF WALLS TO CONVERT 4 ROOMS TO ONE. NEW FLOOR, NEW WALLS, WALL AND CEILING FINISHES. NEW 20 MIN HM HALL DOOR.
ROOM 31	CHILL ROOM CONVERSION-PREP FRAME TO REMAIN WITH NEW FLOOR, WALL AND CEILING FINISHES.
ROOM 37	CHILL ROOM CONVERSION- PREP FRAME TO REMAIN WITH NEW FLOOR, WALL AND CEILING FINISHES.
ROOM 42	CHILL ROOM CONVERSION- REBUILD FORMER INTERIOR WALL, ADD HM FRAME ONLY (NO DOOR) WITH NEW FLOOR WALL AND CEILINGS.
ROOM 46	CHILL ROOM CONVERSION- PREP FRAME TO REMAIN WITH NEW FLOOR, WALL AND CEILING FINISHES.
ROOM 48	CONVERT TO STORAGE- NEW FRAME AND DOOR, FLOOR WALL AND CEILING FINISHES, NEW WALL PAINT.
ROOM 75A	CHILL ROOM CONVERSION- EXTEND THREE EXISTING PARTITION WALL HEIGHTS TO BOTTOM OF EXISTING DECK. REPAIR EXISTING HM FRAME AND RELITE. NEW FLOOR, WALL AND CEILING FINISHES.
ROOM 75B	CHILL ROOM CONVERSION- EXTEND THREE EXISTING PARTITION WALL HEIGHTS TO BOTTOM OF EXISTING DECK. INSTALL NEW HM METAL DOOR. NEW FLOOR, WALL AND CEILING FINISHES.

KEYNOTE LEGEND	
Key Value	Keynote Text

MATERIALS

- CONCRETE (SECTION)
- GYPSUM SHEATHING (PLAN & SECTION)
- GYPSUM WALL BOARD (PLAN & SECTION)
- INSULATION, BATT (PLAN & SECTION)
- INSULATION, SEMI RIGID (PLAN & SECTION)
- INSULATION, RIGID, ROOF (PLAN & SECTION)
- INSULATION, SPRAY FOAM (PLAN & SECTION)
- METAL (SECTION)
- PLYWOOD, SHEATHING (SECTION)
- PLYWOOD (SECTION)
- WOOD, CONTINUOUS (SECTION)
- WOOD, BLOCKING (SECTION)

SYMBOLS

GRID LINE INDICATION

1

A

ROOM IDENTIFICATION
Room name
101
150 SF
ROOM NAME
ROOM NUMBER
AREA

2
XX
1
ELEVATION
ELEVATION NUMBER
SHEET NUMBER

XX
XX
DETAIL
DETAIL NUMBER
SHEET NUMBER

101
DOOR NUMBER
REFER TO DOOR SCHEDULE

J
WINDOW TYPE
REFER TO WINDOW SCHEDULE

.011
KEYNOTE
REFER TO NOTES LISTED ON SHEET

A1
PARTITION TYPE INDICATOR
REFER TO PARTITION ASSEMBLIES

1i
1' - 0"
CEILING TYPE INDICATOR
REFER TO RCP

XX-#
GENERAL FINISH TYPE TAG
REFER TO FINISH LEGEND

CODE LEGEND			
⬅	EXIT	*	F.E.
— — —	COMMON PATH OF EGRESS		
----------	EXIT ACCESS TRAVEL DISTANCE BEYOND COMMON PATH		
	NOT IN SCOPE		GROUP E

ADDENDUM NO. 1

ECI ARCHITECTURE DESIGN STRATEGY
821 N St. Ste 201
ANCHORAGE, ALASKA 99501 907.561.5543
PROJECT NO.19-0028.03

ANCHORAGE SCHOOL DISTRICT
WHALEY MULTI-SENSORY DE-ESCALATION ROOM RENOVATIONS
BID DOCUMENTS

STATE OF ALASKA 49TH
JASON W. SWIFT
REGISTERED PROFESSIONAL ENGINEER
12.19.2023

CODE PLANS AND GENERAL INFO

AUTHOR: DR/DS CHECKED: JWS
REVISION: ADDENDA #1
ISSUE DATE: 12/18/23
OWNER PROJECT # 625011

G1.01

FULL SIZE PRINTED ON 22 x 34

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GENERAL NOTES

1. THE HAZARDS ABATEMENT PORTION OF THIS PROJECT INCLUDES THE DISTURBANCE AND/OR REMOVAL AND DISPOSAL OF SELECTED ASBESTOS-CONTAINING MATERIALS, POLYCHLORINATED BIPHENYL (PCB) CONTAINING LIGHT BALLASTS, MERCURY-CONTAINING MATERIALS, LEAD-CONTAINING MATERIALS AND ITEMS CONTAINING RADIOACTIVE COMPOUNDS. THE PURPOSE OF THE HAZARDS ABATEMENT PORTION OF THE WORK IS TO REMOVE THESE MATERIALS FROM THE WHALEY CENTER PRIOR TO RENOVATION OR DEMOLITION SO THAT PERSONNEL CAN SAFELY PERFORM THEIR WORK WITHOUT CREATING HAZARDS TO HEALTH OR THE ENVIRONMENT.

2. THE WORK DOES NOT INCLUDE REMOVAL OF ALL HAZARDOUS MATERIALS IN THE BUILDING. REMOVE HAZARDOUS MATERIALS COORDINATING WITH OTHER TRADES, AS SPECIFIED AND/OR INDICATED ON THE DRAWINGS, OUTLINED IN THE SPECIFICATIONS, AND AS REQUIRED TO COMPLETE THE WORK. "REMOVAL" INCLUDES PROPER HANDLING, PACKAGING AND DISPOSAL OF MATERIALS REMOVED.

3. POTENTIALLY HAZARDOUS MATERIALS SUCH AS MERCURY-CONTAINING LAMPS AND THERMOSTATS, RADIOACTIVE SMOKE DETECTORS, METALLIC LEAD ITEMS, AND PCB CONTAINING BALLASTS AFFECTED BY THE PROJECT ARE TO BE REMOVED AND DISPOSED OF PROPERLY. REFER TO SPECIFICATIONS AND THE CONTRACTOR'S APPROVED WORK PLAN FOR HAZARDOUS MATERIALS REMOVAL, DISTURBANCE, CLEARANCE, AND DISPOSAL PROCEDURES.

4. LEAD-BASED PAINTS (PAINT CONTAINING EQUAL TO OR GREATER THAN 1.0 mg/cm²) WERE NOT IDENTIFIED DURING THE LIMITED LEAD TESTING SHOWN IN THE HAZMAT SURVEY, BUT LEAD-BASED PAINTS MAY BE PRESENT AT OTHER LOCATIONS. LOW LEVELS OF LEAD FOUND BY XRF TESTING DOES NOT MEAN THE PAINTS ARE FREE OF LEAD, THE PAINTS MAY CONTAIN MEASURABLE AMOUNTS OF LEAD. LEAD-CONTAINING MATERIALS INCLUDE ALL PAINTED SURFACES, CERAMIC TILES, AND METALLIC LEAD, AS WELL AS LEAD-CONTAINING DUSTS. THIS IS NOT A LEAD ABATEMENT PROJECT, AND ALL TRADES WILL LIKELY DISTURB SOME LEAD-CONTAINING MATERIALS. CONTROL WORKER EXPOSURES USING LEAD-SAFE WORK PRACTICES AND CHOICE OF MEANS AND METHODS OF CONDUCTING THE WORK TO COMPLY WITH 40 CFR 745 AND 29 CFR 1926.62 AND TO AVOID CONTAMINATION OF THE WORK AREA AND SITE.

5. PERFORM INITIAL AIR MONITORING TESTS ON ALL TASKS THAT DISTURB ASBESTOS OR LEAD-CONTAINING MATERIALS, DUST OR PAINT TO DETERMINE THE APPROPRIATE WORKER AND SITE PROTECTION PROCEDURES REQUIRED. DUE TO THE AGE OF THE BUILDINGS, METALLIC LEAD IS ASSUMED PRESENT IN BELL AND SPIGOT PIPE JOINTS AND IN SOLDER ON COPPER PIPES.

6. SETTLED AND CONCEALED DUST ON ARCHITECTURAL, STRUCTURAL, ELECTRICAL AND MECHANICAL COMPONENTS THROUGHOUT THE PROJECT AREA(S) WAS FOUND TO CONTAIN REGULATED AIR CONTAMINANTS INCLUDING ASBESTOS AND LEAD. WORK OF ALL TRADES MAY INCLUDE DISTURBANCE OF ASBESTOS AND LEAD AND MAY RESULT IN WORKER EXPOSURE TO ASBESTOS AND LEAD ABOVE THE OSHA ACTION LEVEL OR PERMISSIBLE EXPOSURE LIMITS FOR ASBESTOS OR LEAD IF PROPER WORK PRACTICES AND/OR ENGINEERING CONTROLS ARE NOT USED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CHOOSE APPROPRIATE WORKER AND SITE PROTECTION PROCEDURES SO THAT THEIR WORKERS ARE NOT EXPOSED ABOVE THOSE LIMITS AND THAT WORK IS PERFORMED IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS. THE PRESENCE OF ASBESTOS OR LEAD IN DUSTS DOES NOT NECESSARILY MAKE THEM A HAZARD TO WORKERS OR A HAZARDOUS WASTE.

7. THE CONTRACTOR'S INDEPENDENT LABORATORY SHALL PROVIDE ALL INSPECTIONS, MONITORING, SAMPLING, ANALYSES AND REPORTING SERVICES AS SPECIFIED. CLEARANCE AIR MONITORING SHALL BE CONDUCTED IN ACCORDANCE WITH 40 CFR 763. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION ON SAMPLING.

8. LOCATIONS OF MATERIALS SHOWN ON THESE DRAWINGS ARE SCHEMATIC AND APPROXIMATE. FIELD VERIFY AND COORDINATE CONSTRUCTION DETAILS, DIMENSIONS, WORK CONDITIONS, AND LOCATIONS WHICH WILL AFFECT THE REMOVAL OR DISTURBANCE OF HAZARDOUS MATERIALS. HAZARDOUS MATERIALS MAY HAVE COME LOOSE AND FALLEN ONTO FLOORS, CEILINGS, CHASES, OR WALL CAVITIES. THE QUANTITIES SHOWN IN THE SHEET SUMMARY ARE APPROXIMATE AND MAY VARY DEPENDING ON THE CONTRACTOR'S MEANS AND METHODS. REQUIRE ALL TRADES TO COORDINATE WITH EACH OTHER AND TO CONDUCT THEIR WORK TO PREVENT WORKER EXPOSURE OR SITE CONTAMINATION, SEE DRAWINGS OF ALL DISCIPLINES FOR ADDITIONAL INFORMATION RELATING TO HAZARDOUS MATERIALS. IMMEDIATELY COMMUNICATE ALL DISCREPANCIES IN QUANTITIES TO THE OWNER. REFER TO HAZARDOUS MATERIALS ASSESSMENT FOR MORE INFORMATION ABOUT POTENTIALLY HAZARDOUS MATERIALS THAT ARE NOT SCHEDULED FOR DISTURBANCE BY THIS PROJECT. FURNISH ALL WORK AND MATERIALS REQUIRED FOR A FINISHED PROJECT AS DESCRIBED IN THE CONTRACT DOCUMENTS. QUANTITIES LISTED WITH A * MAY VARY DEPENDING ON THE CONTRACTOR'S MEANS AND METHODS. CONTRACTOR'S MEANS AND METHODS RESULTING IN ADDITIONAL MATERIALS REMOVAL SHALL NOT RESULT IN ADDED CONTRACT COSTS TO THE OWNER.

9. PROVIDE ALL WASTE TESTING, PACKAGING, HANDLING, TRANSPORTATION AND DISPOSAL. ALL COSTS FOR DISPOSAL SHALL BE BORNE BY THE CONTRACTOR. PERFORM TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP) TEST(S) OF WASTE(S) CONTAINING LEAD OR PAINTED WITH LEAD-CONTAINING PAINT TO CHARACTERIZE THE WASTE(S) AS HAZARDOUS OR NON-HAZARDOUS PRIOR TO DISPOSAL. PERFORM TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP) TEST(S) OF HEAT TRANSFER FLUIDS (GLYCOL OR WATER) IN HEATING SYSTEM TO CHARACTERIZE THE WASTE(S) AS HAZARDOUS OR NON-HAZARDOUS PRIOR TO DISPOSAL. COORDINATE REQUIREMENTS OF LANDFILL(S) REGARDING MATERIALS PACKAGING, HANDLING, AND DISPOSAL REQUIREMENTS PRIOR TO SUBMITTING BID.

SHEET NOTES

HAZARDS ABATEMENT DRAWINGS DO NOT SHOW ALL DETAILS OF WORK REQUIRED. ALL TRADES SHALL EXAMINE DRAWINGS OF OTHER TRADES AND COORDINATE WITH EACH OTHER TO DETERMINE EXTENT, TIMING AND LOCATIONS OF MATERIALS AFFECTED BY THE PROJECT.

1. FLOORING BEING REMOVED IN MOST AREAS WAS CALLED OUT TO ORIGINALLY BE COVERED WITH CARPETING, AND THE CARPET MASTICS HAVE BEEN SAMPLED AND FOUND TO NOT CONTAIN ASBESTOS. THIS AREA OF FLOORING WAS ORIGINALLY COVERED WITH AN ASBESTOS-CONTAINING SHEET VINYL FLOORING, AND REMNANTS OF THE ASSUMED ASBESTOS-CONTAINING BACKING UNDERNEATH THE EPOXY FLOORING ARE TO BE REMOVED.

2. REMOVE PLYWOOD OR OTHER COVERING MATERIALS FROM WALLS, AS CALLED FOR BY OTHER TRADES, AND REPAIR, REMOVE OR CREATE PENETRATIONS IN GYPSUM WALL BOARD SUBSTRATE WITH ASBESTOS-CONTAINING JOINT COMPOUND AND ASBESTOS-CONTAINING CEILING GRID MASTICS AS REQUIRED TO COMPLETE THE WORK. APPLY BRIDGING ENCAPSULANT TO CUT AND BROKEN EDGES. COORDINATE EXTENT OF REMOVAL AND DISTURBANCE WITH OTHER TRADES. CONTRACTOR' HAS THE OPTION TO REMOVE AND REPLACE GYPSUM WALL BOARD, ETC. AT NO ADDITIONAL COST.

3. REMOVE GYPSUM WALL BOARD ON WALLS WITH ASBESTOS-CONTAINING JOINT COMPOUND AS COORDINATED WITH OTHER TRADES.

4. REMOVE AND/OR CREATE PENETRATIONS IN CORRIDOR WALLS WHICH WERE ORIGINALLY COVERED WITH CEMENT ASBESTOS BOARD. CEMENT ASBESTOS BOARD STILL EXISTS IN SOME AREAS, AND HAS BEEN PREVIOUSLY REMOVED AND REPLACED WITH "MARLITE" HARDBOARD PANELS, BUT THE ORIGINAL, RED, ASBESTOS-CONTAMINATED MASTICS, ORIGINAL ASBESTOS-CONTAINING JOINT COMPOUND TO THE GYPSUM WALL BOARD, AND ASBESTOS-CONTAINING CEILING GRID MASTICS ARE STILL PRESENT, AND REQUIRED TO BE REMOVED OR DISTURBED AS REQUIRED TO COMPLETE THE WORK.

5. REMOVE 1991 ERA WALLS AND CEILINGS WITH MULTIPLE LAYERS OF GYPSUM WALLBOARD, ALSO COVERED WITH EPOXY COATING. THE MASTICS BETWEEN THE VARIOUS LAYERS OF GYPSUM WALL BOARD ARE ASSUMED TO HAVE ASBESTOS-CONTAINING "LIQUID NAILS" TYPE MASTICS, WHICH SHALL BE SAMPLED ALONG WITH THE GYPSUM WALL BOARD, AND JOINT COMPOUND AND TREATED IN ACCORDANCE WITH THE LABORATORY RESULTS.

6. REMOVE ASSUMED FLUORESCENT LIGHT FIXTURES WITH MERCURY-CONTAINING LIGHT TUBES AND UNIVERSAL WASTE BACK-UP BATTERIES.

7. REMOVE OR RELOCATE SMOKE DETECTORS WITH RADIOACTIVE COMPONENTS AS SHOWN BY OTHER TRADES.

ESTIMATED QUANTITIES TO BE REMOVED (ENTIRE PROJECT)

INCIDENTAL QUANTITIES OF MATERIALS, INCLUDING LEAD-CONTAINING MATERIALS, THAT ARE REQUIRED TO BE REMOVED TO COMPLETE THE WORK, BUT OTHERWISE ARE TO REMAIN, ARE NOT INCLUDED HERE, AS THEY WILL VARY DEPENDING ON THE CONTRACTOR'S CHOICE OF MEANS AND METHODS.

280	SQUARE FEET OF GYPSUM WALLBOARD WITH ASBESTOS-CONTAINING JOINT COMPOUND TO BE REMOVED.
***	COORDINATE QUANTITY OF GYPSUM WALL BOARD WITH ASBESTOS-CONTAINING JOINT COMPOUND AND ASBESTOS-CONTAINING MASTIC TO CEILING GRIDS TO BE REMOVED OR REPAIRED WHEN DAMAGED DUE TO CONTRACTOR'S MEANS AND METHODS OF REMOVING PLYWOOD AND OTHER COVERING MATERIALS FROM WALLS.
8	MERCURY-CONTAINING FLUORESCENT LAMPS AND COMPACT FLUORESCENT LAMPS
30	SQUARE FEET OF REMNANTS OF ASBESTOS-CONTAINING SHEET VINYL BACKING UNDER EPOXY FLOORING.
2	FLUORESCENT LIGHT FIXTURES WITH UNIVERSAL WASTE BACKUP BATTERIES
6	EACH SMOKE DETECTORS TO BE REMOVED OR RELOCATED.

LEGEND

- LOCATION OF ASSUMED REMNANTS OF ASBESTOS-CONTAINING BACKING TO ORIGINAL SHEET VINYL FLOORING, PREVIOUSLY REMOVED IN 1991. INSPECT AND REMOVE MASTIC AND REMNANT BACKING.
- LOCATION OF ORIGINAL CEMENT ASBESTOS BOARD ON GYPSUM WALLBOARD WITH ASBESTOS-CONTAINING JOINT COMPOUND AND ASBESTOS-CONTAINING CEILING GRID MASTIC. CEMENT ASBESTOS BOARD HAS BEEN REMOVED IN MANY AREAS AND REPLACED BY "MARLITE", BUT THE ASBESTOS-CONTAMINATED MASTIC REMAINED.
- LOCATION OF ORIGINAL GYPSUM WALLBOARD WITH ASBESTOS-CONTAINING JOINT COMPOUND AND ASBESTOS-CONTAINING CEILING GRID MASTIC. GRAYED INDICATES TO REMAIN AND BE DISTURBED AS NECESSARY.
- LOCATION OF 1991 WALLS TO "TIME-OUT" ROOMS WITH MULTIPLE LAYERS OF GYPSUM WALL BOARD ASSUMED TO HAVE AN ASBESTOS-CONTAINING MASTIC BETWEEN LAYERS OF GYPSUM WALL BOARD. MASTICS, GWB AND JOINT COMPOUNDS TO BE TESTED AND TREATED IN ACCORDANCE WITH RESULTS.

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ANCHORAGE SCHOOL DISTRICT
WHALEY MULTI-SENSORY DE-ESCALATION ROOM RENOVATIONS
PROJECT NO. 8075
BID DOCUMENTS

STATE OF ALASKA
49 TH
Robert A. French
12/18/2023
No. ME9128
REGISTERED PROFESSIONAL ENGINEER

HAZARDS ABATEMENT - NOTES AND QUANTITIES
AUTHOR: JHL CHECKED: RAF
REVISION: ADDENDA #1
ISSUE DATE: 12/18/23
OWNER PROJECT # 625011

H0.1

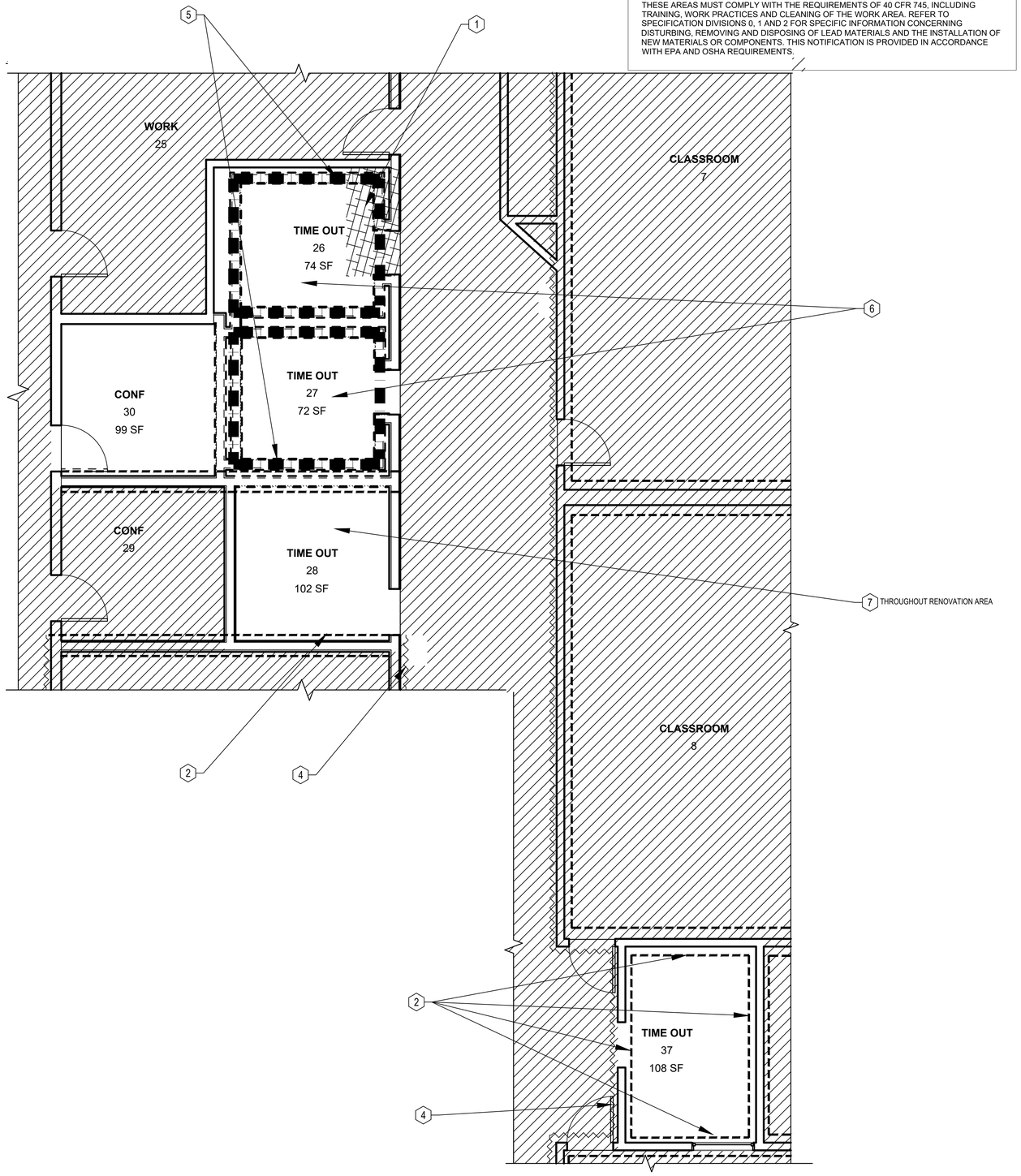
FULL SIZE PRINTED ON 22 x 34

NOTIFICATION OF CHILD OCCUPIED FACILITY

PORTIONS OF THIS BUILDING ARE CLASSIFIED AS A CHILD OCCUPIED FACILITY IN ACCORDANCE WITH 40 CFR 745 AND LEAD-BASED PAINTS MAY BE PRESENT ON COMPONENTS TO BE DISTURBED IN THOSE AREAS. PERSONNEL PERFORMING WORK IN THESE AREAS MUST COMPLY WITH THE REQUIREMENTS OF 40 CFR 745, INCLUDING TRAINING, WORK PRACTICES AND CLEANING OF THE WORK AREA. REFER TO SPECIFICATION DIVISIONS 0, 1 AND 2 FOR SPECIFIC INFORMATION CONCERNING DISTURBING, REMOVING AND DISPOSING OF LEAD MATERIALS AND THE INSTALLATION OF NEW MATERIALS OR COMPONENTS. THIS NOTIFICATION IS PROVIDED IN ACCORDANCE WITH EPA AND OSHA REQUIREMENTS.

NOTIFICATION OF POTENTIAL HAZARDS

ASBESTOS, LEAD, AND OTHER HAZARDOUS MATERIALS ARE PRESENT IN THE BUILDING AND MAY IMPACT THE WORK OF ALL TRADES. REGULATED AIR CONTAMINATES, INCLUDING ASBESTOS AND LEAD, ARE ALSO PRESENT IN SETTLED AND CONCEALED DUST IN AND ON ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS OR SYSTEMS THROUGHOUT THE BUILDING. ALL TRADES SHALL COORDINATE WITH OTHER TRADES AND CONDUCT THEIR WORK TO PREVENT WORKER EXPOSURE OR SITE CONTAMINATION. REFER TO SPECIFICATION DIVISIONS 0, 1, AND 2 FOR SPECIFIC INFORMATION CONCERNING DISTURBING, REMOVING, AND DISPOSING OF THESE MATERIALS AND THE INSTALLATION OF NEW MATERIALS OR COMPONENTS. THIS NOTIFICATION IS PROVIDED IN ACCORDANCE WITH EPA AND OSHA REQUIREMENTS.



1 / H1.0 HAZARDS ABATEMENT - ROOM 27

FULL SIZE: 1/4" = 1'-0"

SHEET NOTES

HAZARDS ABATEMENT DRAWINGS DO NOT SHOW ALL DETAILS OF WORK REQUIRED. ALL TRADES SHALL EXAMINE DRAWINGS OF OTHER TRADES AND COORDINATE WITH EACH OTHER TO DETERMINE EXTENT, TIMING AND LOCATIONS OF MATERIALS AFFECTED BY THE PROJECT.

1. FLOORING BEING REMOVED IN MOST AREAS WAS CALLED OUT TO ORIGINALLY BE COVERED WITH CARPETING, AND THE CARPET MASTICS HAVE BEEN SAMPLED AND FOUND TO NOT CONTAIN ASBESTOS. THIS AREA OF FLOORING WAS ORIGINALLY COVERED WITH AN ASBESTOS-CONTAINING SHEET VINYL FLOORING, AND REMNANTS OF THE ASSUMED ASBESTOS-CONTAINING BACKING UNDERNEATH THE EPOXY FLOORING ARE TO BE REMOVED.
2. REMOVE PLYWOOD OR OTHER COVERING MATERIALS FROM WALLS, AS CALLED FOR BY OTHER TRADES, AND REPAIR, REMOVE OR CREATE PENETRATIONS IN GYPSUM WALL BOARD SUBSTRATE WITH ASBESTOS-CONTAINING JOINT COMPOUND AND ASBESTOS-CONTAINING CEILING GRID MASTICS AS REQUIRED TO COMPLETE THE WORK. APPLY BRIDGING ENCAPSULANT TO CUT AND BROKEN EDGES. COORDINATE EXTENT OF REMOVAL AND DISTURBANCE WITH OTHER TRADES. CONTRACTOR' HAS THE OPTION TO REMOVE AND REPLACE GYPSUM WALL BOARD, ETC. AT NO ADDITIONAL COST.
3. REMOVE GYPSUM WALL BOARD ON WALLS WITH ASBESTOS-CONTAINING JOINT COMPOUND AS COORDINATED WITH OTHER TRADES.
4. REMOVE AND/OR CREATE PENETRATIONS IN CORRIDOR WALLS WHICH WERE ORIGINALLY COVERED WITH CEMENT ASBESTOS BOARD. CEMENT ASBESTOS BOARD STILL EXISTS IN SOME AREAS, AND HAS BEEN PREVIOUSLY REMOVED AND REPLACED WITH "MARLITE" HARDBOARD PANELS, BUT THE ORIGINAL, RED, ASBESTOS-CONTAMINATED MASTICS, ORIGINAL ASBESTOS-CONTAINING JOINT COMPOUND TO THE GYPSUM WALL BOARD, AND ASBESTOS-CONTAINING CEILING GRID MASTICS ARE STILL PRESENT, AND REQUIRED TO BE REMOVED OR DISTURBED AS REQUIRED TO COMPLETE THE WORK.
5. REMOVE 1991 ERA WALLS AND CEILINGS WITH MULTIPLE LAYERS OF GYPSUM WALLBOARD, ALSO COVERED WITH EPOXY COATING. THE MASTICS BETWEEN THE VARIOUS LAYERS OF GYPSUM WALL BOARD ARE ASSUMED TO HAVE ASBESTOS-CONTAINING "LIQUID NAILS" TYPE MASTICS, WHICH SHALL BE SAMPLED ALONG WITH THE GYPSUM WALL BOARD, AND JOINT COMPOUND AND TREATED IN ACCORDANCE WITH THE LABORATORY RESULTS.
6. REMOVE ASSUMED FLUORESCENT LIGHT FIXTURES WITH MERCURY-CONTAINING LIGHT TUBES AND UNIVERSAL WASTE BACK-UP BATTERIES.
7. REMOVE OR RELOCATE SMOKE DETECTORS WITH RADIOACTIVE COMPONENTS AS SHOWN BY OTHER TRADES.

LEGEND

- LOCATION OF ASSUMED REMNANTS OF ASBESTOS-CONTAINING BACKING TO ORIGINAL SHEET VINYL FLOORING, PREVIOUSLY REMOVED IN 1991. INSPECT AND REMOVE MASTIC AND REMNANT BACKING.
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ANCHORAGE SCHOOL DISTRICT
WHALEY MULTI-SENSORY DE-ESCALATION ROOM RENOVATIONS
BID DOCUMENTS
PROJECT NO. 8075

STATE OF ALASKA 49 TH
Robert A. French
12/18/2023
No. ME9128
REGISTERED PROFESSIONAL ENGINEER

HAZARDS ABATEMENT - NEW
ROOM 30 AND 37
AUTHOR:JHL CHECKED:RAF
REVISION: ADDENDA #1
ISSUE DATE:12/18/23
OWNER PROJECT # 625011

H1.0

FULL SIZE PRINTED ON 22 x 34

NOTIFICATION OF CHILD OCCUPIED FACILITY

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NOTIFICATION OF POTENTIAL HAZARDS

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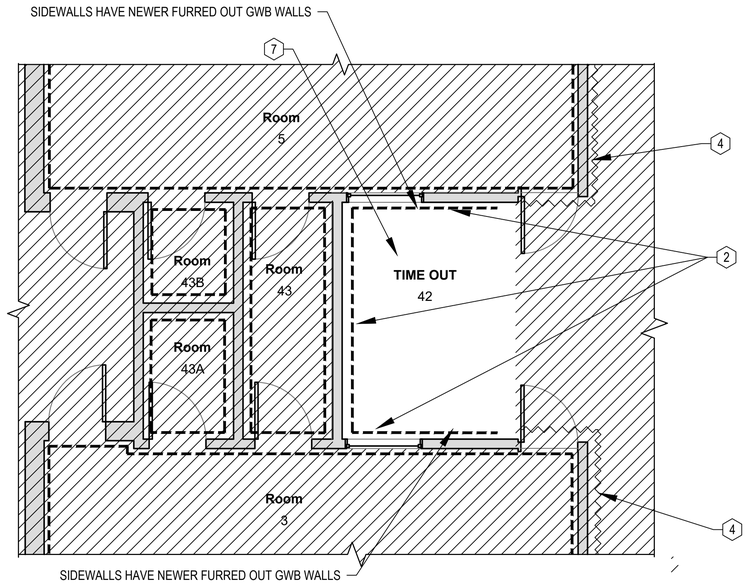
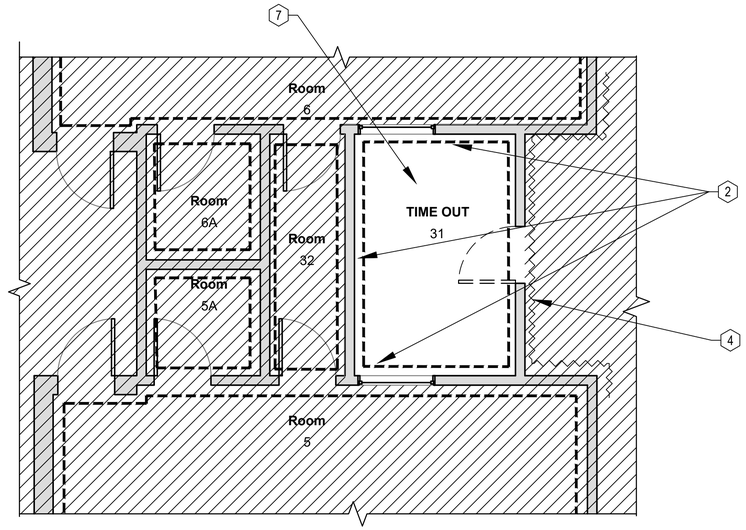


2 / H1.1 HAZARDS ABATEMENT - ROOM 42

FULL SIZE: 1/4" = 1'-0" HALF SIZE: 1/8" = 1'-0"



1 / H1.1 HAZARDS ABATEMENT - ROOM 31

FULL SIZE: 1/4" = 1'-0"

SHEET NOTES

HAZARDS ABATEMENT DRAWINGS DO NOT SHOW ALL DETAILS OF WORK REQUIRED. ALL TRADES SHALL EXAMINE DRAWINGS OF OTHER TRADES AND COORDINATE WITH EACH OTHER TO DETERMINE EXTENT, TIMING AND LOCATIONS OF MATERIALS AFFECTED BY THE PROJECT.

1. FLOORING BEING REMOVED IN MOST AREAS WAS CALLED OUT TO ORIGINALLY BE COVERED WITH CARPETING, AND THE CARPET MASTICS HAVE BEEN SAMPLED AND FOUND TO NOT CONTAIN ASBESTOS. THIS AREA OF FLOORING WAS ORIGINALLY COVERED WITH AN ASBESTOS-CONTAINING SHEET VINYL FLOORING, AND REMNANTS OF THE ASSUMED ASBESTOS-CONTAINING BACKING UNDERNEATH THE EPOXY FLOORING ARE TO BE REMOVED.
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5. REMOVE 1991 ERA WALLS AND CEILINGS WITH MULTIPLE LAYERS OF GYPSUM WALLBOARD, ALSO COVERED WITH EPOXY COATING. THE MASTICS BETWEEN THE VARIOUS LAYERS OF GYPSUM WALL BOARD ARE ASSUMED TO HAVE ASBESTOS-CONTAINING "LIQUID NAILS" TYPE MASTICS, WHICH SHALL BE SAMPLED ALONG WITH THE GYPSUM WALL BOARD, AND JOINT COMPOUND AND TREATED IN ACCORDANCE WITH THE LABORATORY RESULTS.
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7. REMOVE OR RELOCATE SMOKE DETECTORS WITH RADIOACTIVE COMPONENTS AS SHOWN BY OTHER TRADES.

LEGEND

- LOCATION OF ASSUMED REMNANTS OF ASBESTOS-CONTAINING BACKING TO ORIGINAL SHEET VINYL FLOORING, PREVIOUSLY REMOVED IN 1991. INSPECT AND REMOVE MASTIC AND REMNANT BACKING.
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ANCHORAGE SCHOOL DISTRICT
WHALEY MULTI-SENSORY DE-ESCALATION ROOM RENOVATIONS

BID DOCUMENTS
PROJECT NO. 8075

STATE OF ALASKA 49TH
Robert A. French
12/18/2023
No. ME9128
REGISTERED PROFESSIONAL ENGINEER

HAZARDS ABATEMENT - ROOM 31 AND ROOM 42
AUTHOR: JHL CHECKED: RAF
REVISION: ADDENDA #1
ISSUE DATE: 12/18/23
OWNER PROJECT # 625011

H1.1

FULL SIZE PRINTED ON 22 x 34

ADDENDUM NO. 1

NOTIFICATION OF CHILD OCCUPIED FACILITY

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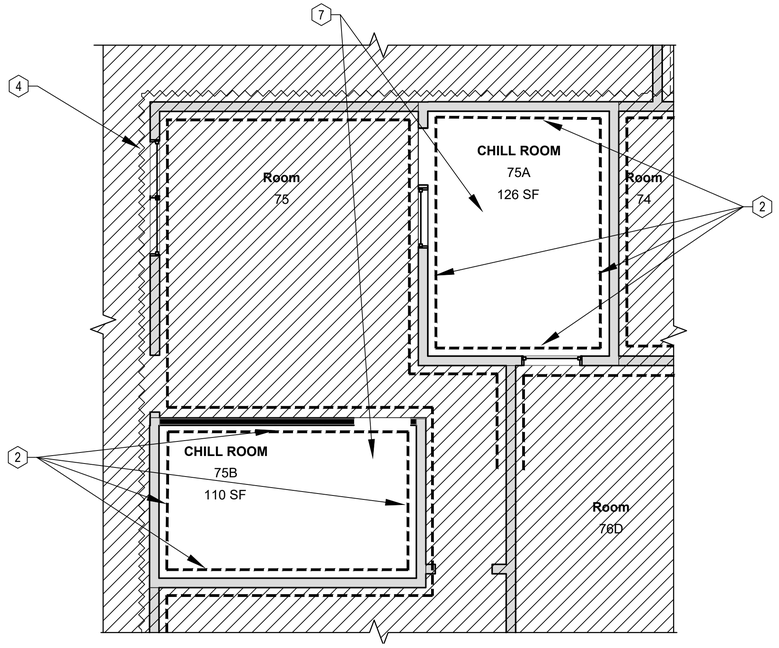
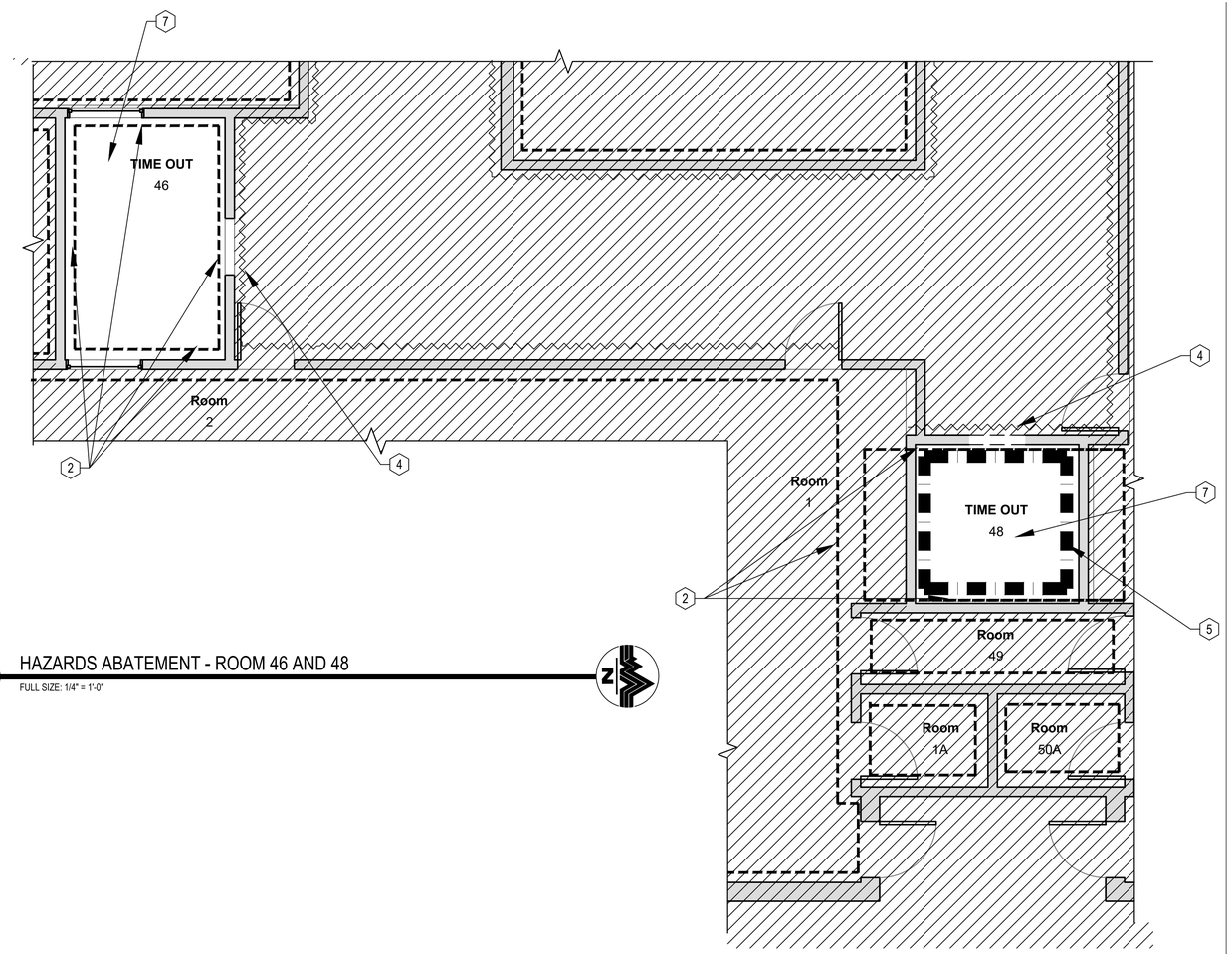


1 H1.2 HAZARDS ABATEMENT - ROOM 75A & 75B

FULL SIZE: 1/4" = 1'-0"



2 H1.2 HAZARDS ABATEMENT - ROOM 46 AND 48

FULL SIZE: 1/4" = 1'-0"

LEGEND

- LOCATION OF ASSUMED REMNANTS OF ASBESTOS-CONTAINING BACKING TO ORIGINAL SHEET VINYL FLOORING, PREVIOUSLY REMOVED IN 1991. INSPECT AND REMOVE MASTIC AND REMNANT BACKING.
- LOCATION OF ORIGINAL CEMENT ASBESTOS BOARD ON GYPSUM WALLBOARD WITH ASBESTOS-CONTAINING JOINT COMPOUND AND ASBESTOS-CONTAINING CEILING GRID MASTIC. CEMENT ASBESTOS BOARD HAS BEEN REMOVED IN MANY AREAS AND REPLACED BY "MARLITE", BUT THE ASBESTOS-CONTAMINATED MASTIC REMAINED.
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2. REMOVE PLYWOOD OR OTHER COVERING MATERIALS FROM WALLS, AS CALLED FOR BY OTHER TRADES, AND REPAIR, REMOVE OR CREATE PENETRATIONS IN GYPSUM WALL BOARD SUBSTRATE WITH ASBESTOS-CONTAINING JOINT COMPOUND AND ASBESTOS-CONTAINING CEILING GRID MASTICS AS REQUIRED TO COMPLETE THE WORK. APPLY BRIDGING ENCAPSULANT TO CUT AND BROKEN EDGES. COORDINATE EXTENT OF REMOVAL AND DISTURBANCE WITH OTHER TRADES. CONTRACTOR' HAS THE OPTION TO REMOVE AND REPLACE GYPSUM WALL BOARD, ETC. AT NO ADDITIONAL COST.
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ANCHORAGE SCHOOL DISTRICT
WHALEY MULTI-SENSORY DE-ESCALATION ROOM RENOVATIONS

BID DOCUMENTS
PROJECT NO. 8075

STATE OF ALASKA 49 TH
Robert A. French
12/18/2023
No. MED128
REGISTERED PROFESSIONAL ENGINEER

HAZARDS ABATEMENT - ROOMS 46 - 48 AND 75
AUTHOR: JHL CHECKED: RAF
REVISION: ADDENDA #1
ISSUE DATE: 12/18/23
OWNER PROJECT # 625011

H1.2

FULL SIZE PRINTED ON 22 x 34

ADDENDUM NO. 1

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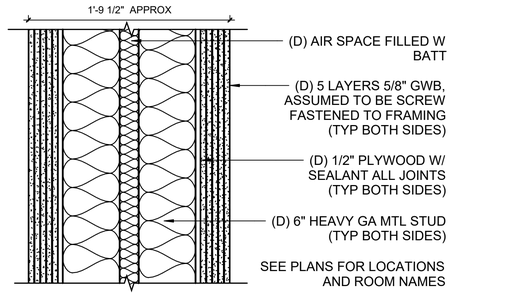
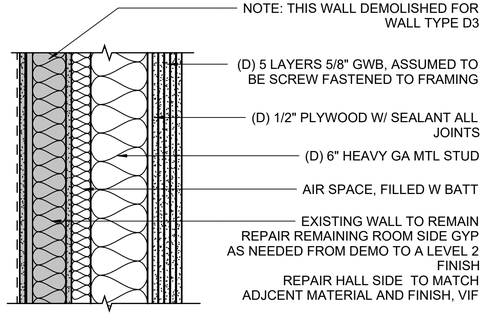
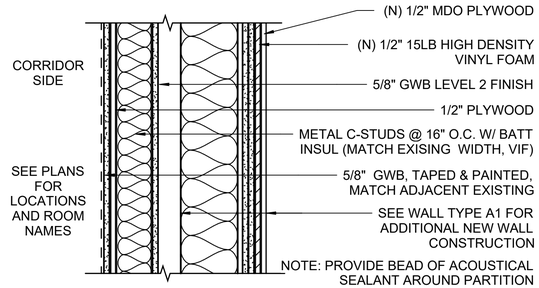


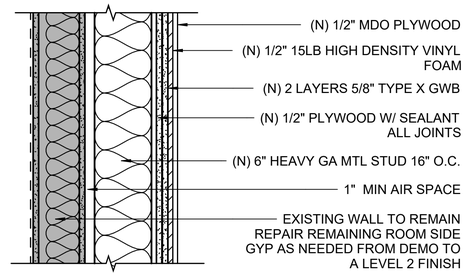
4 (DEMO) WALL ASSEMBLY - D1
1 1/2" = 1'-0"



3 (DEMO) INT. WALL ASSEMBLY - D2 AND D3
1 1/2" = 1'-0"



2 (N) WALL ASSEMBLY - DOOR INFILL- A2
1 1/2" = 1'-0"



1 SECTION - (N) INT. WALL ASSEMBLY - A1
1 1/2" = 1'-0"

5 SECTION - (N) INT. WALL ASSEMBLY SINGLE STUD - A3 APPROX STC: 58
1 1/2" = 1'-0"

6 MSDR HARD LID AT EXISTING WALLS
1 1/2" = 1'-0"

10 MDO BUTT JOINT DETAIL
6" = 1'-0"

9 MDO AT RELITE AND DOOR FRAME
6" = 1'-0"

8 SECTION DETAIL - DOOR HEAD/SILL AT MSDR ROOM, TYP.
1 1/2" = 1'-0"

7 PLAN DETAIL - MSDR ROOM DOOR JAMB
1 1/2" = 1'-0"

11 MDO FASTENING DETAIL
6" = 1'-0"

12 WALL BASE DETAIL
6" = 1'-0"

NOTE: GRAY DENOTES (E) TO REMAIN

ECI ARCHITECTURE DESIGN STRATEGY
821 N St. Ste 201
ANCHORAGE, ALASKA 99501 907.561.5543

PROJECT NO.19-0028.03

ANCHORAGE SCHOOL DISTRICT
WHALEY MULTI-SENSORY DE-ESCALATION ROOM RENOVATIONS

BID DOCUMENTS

STATE OF ALASKA
49 TH
JASON W. SMITH
12.19.2023
REGISTERED PROFESSIONAL ARCHITECT

ASSEMBLIES AND DETAILS

AUTHOR: DR/DS CHECKED: JWS
REVISION: ADDENDA #1
ISSUE DATE: 12/18/23
OWNER PROJECT # 625011

A1.01

FULL SIZE PRINTED ON 22 x 34

ADDENDUM NO. 1

NOTIFICATION OF CHILD OCCUPIED FACILITY

PORTIONS OF THIS BUILDING ARE CLASSIFIED AS A CHILD OCCUPIED FACILITY IN ACCORDANCE WITH 40 CFR 745 AND LEAD-BASED PAINTS MAY BE PRESENT ON COMPONENTS TO BE DISTURBED IN THOSE AREAS. PERSONNEL PERFORMING WORK IN THESE AREAS MUST COMPLY WITH THE REQUIREMENTS OF 40 CFR 745, INCLUDING TRAINING, WORK PRACTICES AND CLEANING OF THE WORK AREA. REFER TO SPECIFICATION DIVISIONS 0, 1 AND 2 FOR SPECIFIC INFORMATION CONCERNING DISTURBING, REMOVING AND DISPOSING OF LEAD MATERIALS AND THE INSTALLATION OF NEW MATERIALS OR COMPONENTS. THIS NOTIFICATION IS PROVIDED IN ACCORDANCE WITH EPA AND OSHA REQUIREMENTS.

NOTIFICATION OF POTENTIAL HAZARDS

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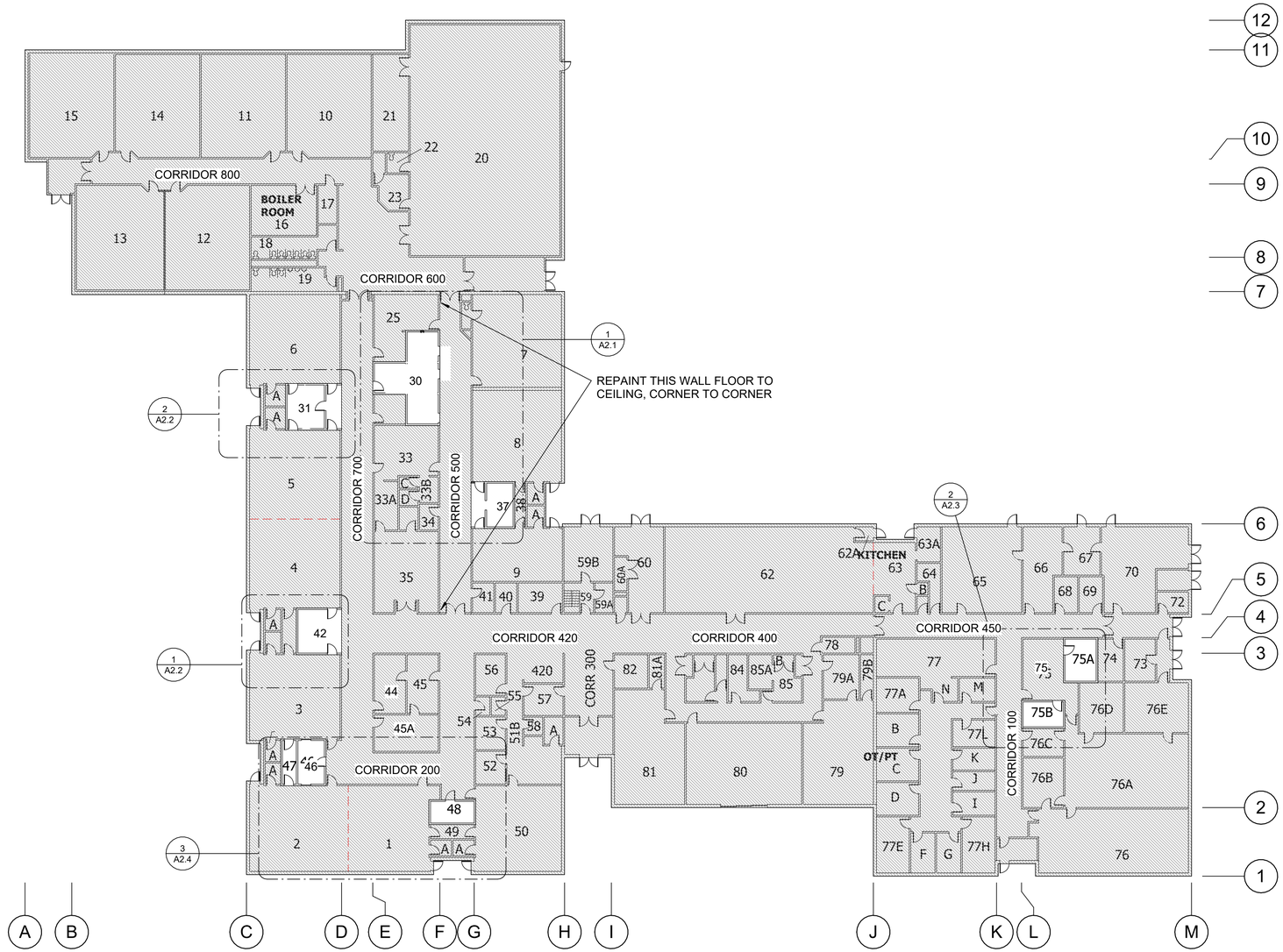

1 OVERALL FLOOR PLAN - NEW
3/64" = 1'-0"

DEMOLITION LEGEND

- EXISTING TO REMAIN
- DEMOLISHED
- NOT IN SCOPE OF WORK

NORTH

ECI ARCHITECTURE DESIGN STRATEGY
821 N St. Ste 201
ANCHORAGE, ALASKA 99501 907.561.5543

PROJECT NO.19-0028.03

ANCHORAGE SCHOOL DISTRICT
WHALEY MULTI-SENSORY DE-ESCALATION ROOM RENOVATIONS

BID DOCUMENTS

STATE OF ALASKA
49 TH
JASON W. SWIFT
12.19.2023
REGISTERED PROFESSIONAL ENGINEER

OVERALL FLOOR PLAN

AUTHOR: DR/DS CHECKED: JWS
REVISION: ADDENDA #1
ISSUE DATE: 12/18/23
OWNER PROJECT # 625011

A2.0

FULL SIZE PRINTED ON 22 x 34

ADDENDUM NO. 1

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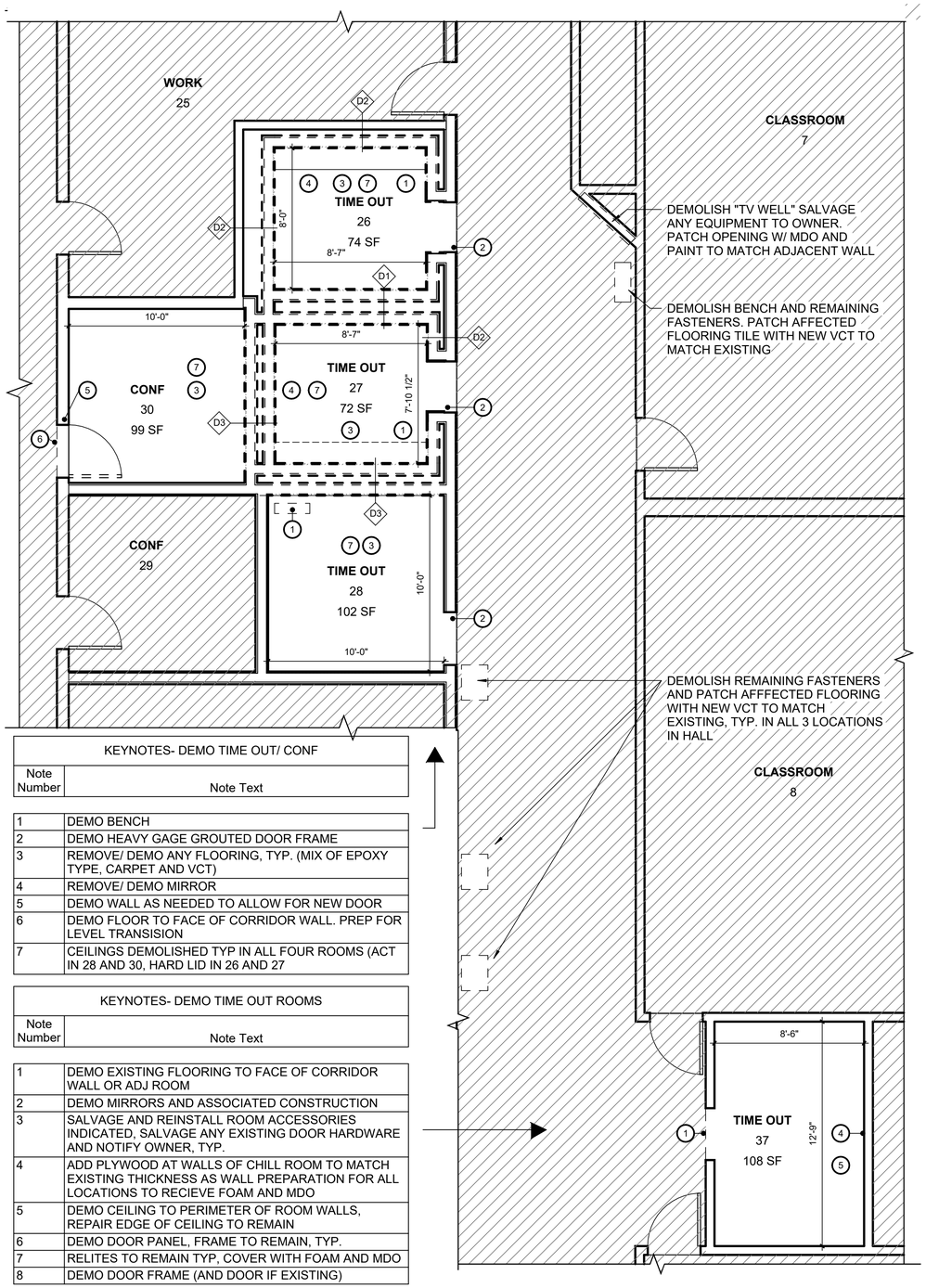
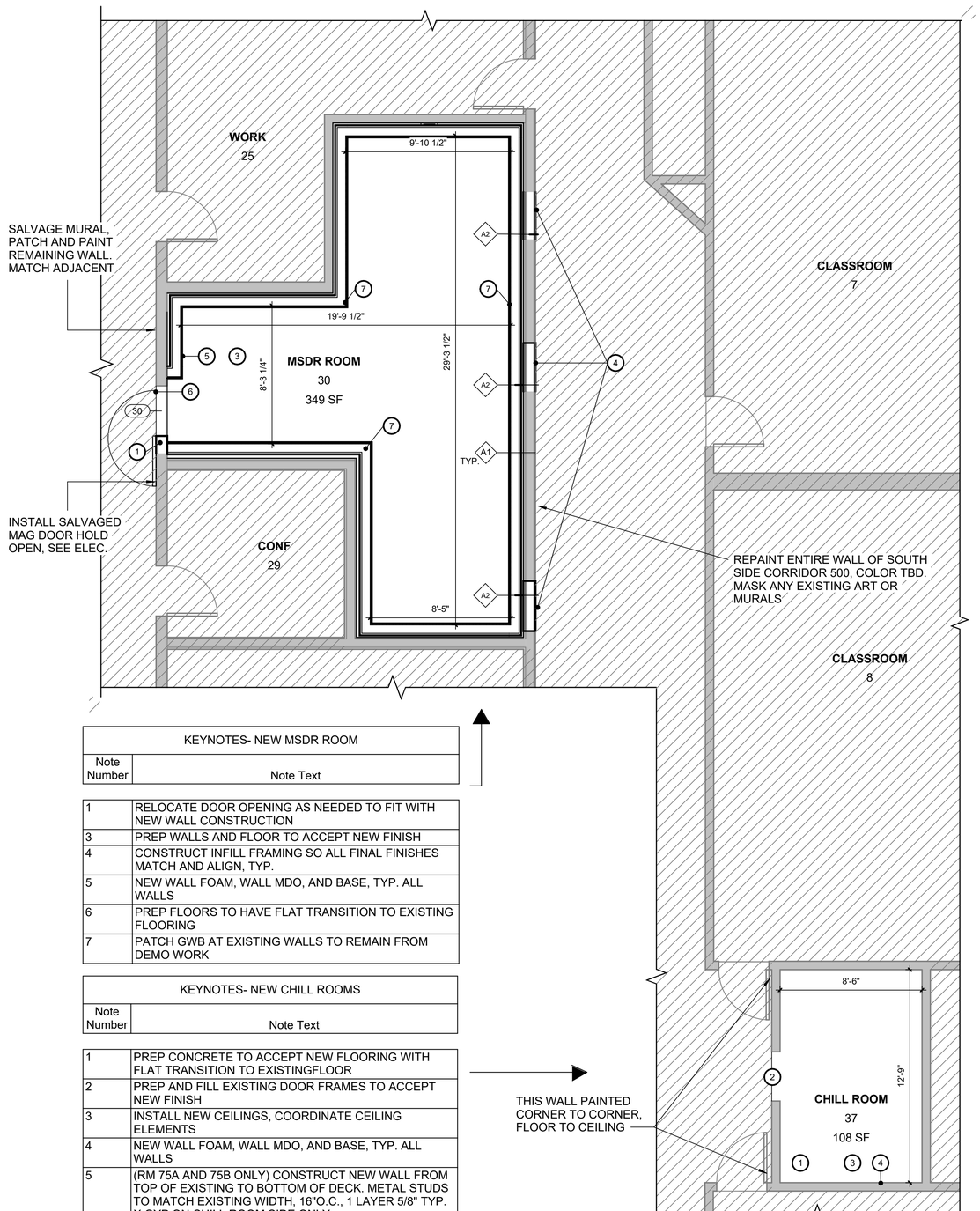


KEYNOTES- DEMO TIME OUT/ CONF	
Note Number	Note Text
1	DEMO BENCH
2	DEMO HEAVY GAGE GROUTED DOOR FRAME
3	REMOVE/ DEMO ANY FLOORING, TYP. (MIX OF EPOXY TYPE, CARPET AND VCT)
4	REMOVE/ DEMO MIRROR
5	DEMO WALL AS NEEDED TO ALLOW FOR NEW DOOR
6	DEMO FLOOR TO FACE OF CORRIDOR WALL. PREP FOR LEVEL TRANSISION
7	CEILINGS DEMOLISHED TYP IN ALL FOUR ROOMS (ACT IN 28 AND 30, HARD LID IN 26 AND 27

KEYNOTES- DEMO TIME OUT ROOMS	
Note Number	Note Text
1	DEMO EXISTING FLOORING TO FACE OF CORRIDOR WALL OR ADJ ROOM
2	DEMO MIRRORS AND ASSOCIATED CONSTRUCTION
3	SALVAGE AND REINSTALL ROOM ACCESSORIES INDICATED, SALVAGE ANY EXISTING DOOR HARDWARE AND NOTIFY OWNER, TYP.
4	ADD PLYWOOD AT WALLS OF CHILL ROOM TO MATCH EXISTING THICKNESS AS WALL PREPARATION FOR ALL LOCATIONS TO RECIEVE FOAM AND MDO
5	DEMO CEILING TO PERIMETER OF ROOM WALLS, REPAIR EDGE OF CEILING TO REMAIN
6	DEMO DOOR PANEL, FRAME TO REMAIN, TYP.
7	RELITES TO REMAIN TYP, COVER WITH FOAM AND MDO
8	DEMO DOOR FRAME (AND DOOR IF EXISTING)

1 FLOOR PLAN - ROOM 26,27,28,30 AND 37 DEMO
1/4" = 1'-0"



KEYNOTES- NEW MSDR ROOM	
Note Number	Note Text
1	RELOCATE DOOR OPENING AS NEEDED TO FIT WITH NEW WALL CONSTRUCTION
3	PREP WALLS AND FLOOR TO ACCEPT NEW FINISH
4	CONSTRUCT INFILL FRAMING SO ALL FINAL FINISHES MATCH AND ALIGN, TYP.
5	NEW WALL FOAM, WALL MDO, AND BASE, TYP. ALL WALLS
6	PREP FLOORS TO HAVE FLAT TRANSITION TO EXISTING FLOORING
7	PATCH GWB AT EXISTING WALLS TO REMAIN FROM DEMO WORK

KEYNOTES- NEW CHILL ROOMS	
Note Number	Note Text
1	PREP CONCRETE TO ACCEPT NEW FLOORING WITH FLAT TRANSITION TO EXISTINGFLOOR
2	PREP AND FILL EXISTING DOOR FRAMES TO ACCEPT NEW FINISH
3	INSTALL NEW CEILINGS, COORDINATE CEILING ELEMENTS
4	NEW WALL FOAM, WALL MDO, AND BASE, TYP. ALL WALLS
5	(RM 75A AND 75B ONLY) CONSTRUCT NEW WALL FROM TOP OF EXISTING TO BOTTOM OF DECK. METAL STUDS TO MATCH EXISTING WIDTH, 16"O.C., 1 LAYER 5/8" TYP. X GYP ON CHILL ROOM SIDE ONLY

2 FLOOR PLAN - ROOM 30 AND 37 NEW
1/4" = 1'-0"

ECI ARCHITECTURE DESIGN STRATEGY
821 N St. Ste 201
ANCHORAGE, ALASKA 99501 907.561.5543

PROJECT NO.19-0028.03

ANCHORAGE SCHOOL DISTRICT
WHALEY MULTI-SENSORY DE-ESCALATION ROOM RENOVATIONS

BID DOCUMENTS

STATE OF ALASKA
49 TH
JASON W. SWIFT
12.19.2023

ENLARGED FLOOR PLANS

AUTHOR: DR/DS CHECKED: JWS
REVISION: ADDENDA #1
ISSUE DATE: 12/18/23
OWNER PROJECT # 625011

A2.1

FULL SIZE PRINTED ON 22 x 34

ADDENDUM NO. 1

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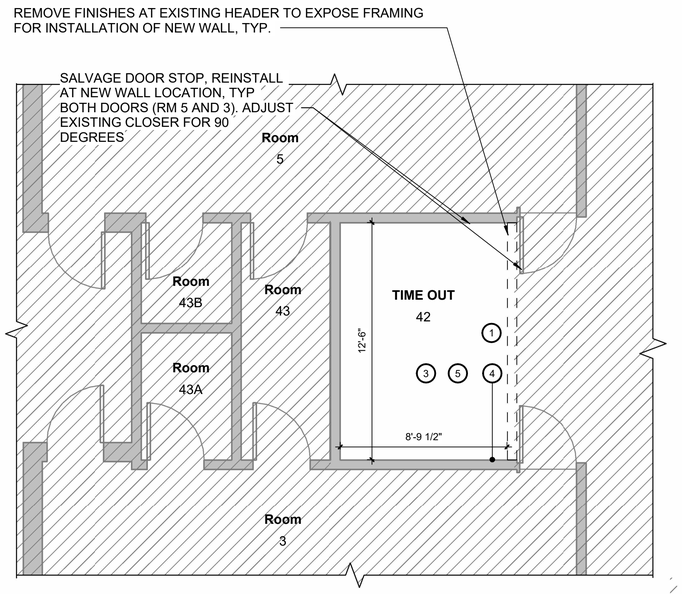
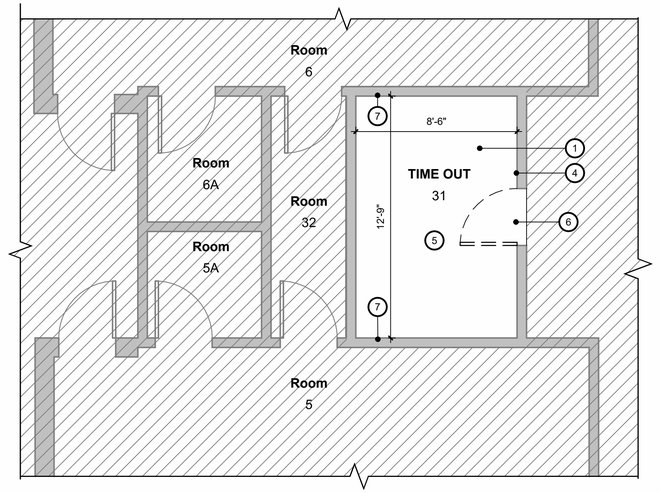


1 FLOOR PLAN - ROOM 42 DEMO
1/4" = 1'-0"



2 FLOOR PLAN - ROOM 31 DEMO
1/4" = 1'-0"

KEYNOTES- DEMO TIME OUT ROOMS	
Note Number	Note Text
1	DEMO EXISTING FLOORING TO FACE OF CORRIDOR WALL OR ADJ ROOM
2	DEMO MIRRORS AND ASSOCIATED CONSTRUCTION
3	SALVAGE AND REINSTALL ROOM ACCESSORIES INDICATED, SALVAGE ANY EXISTING DOOR HARDWARE AND NOTIFY OWNER, TYP.
4	ADD PLYWOOD AT WALLS OF CHILL ROOM TO MATCH EXISTING THICKNESS AS WALL PREPARATION FOR ALL LOCATIONS TO RECIEVE FOAM AND MDO
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6	DEMO DOOR PANEL, FRAME TO REMAIN, TYP.
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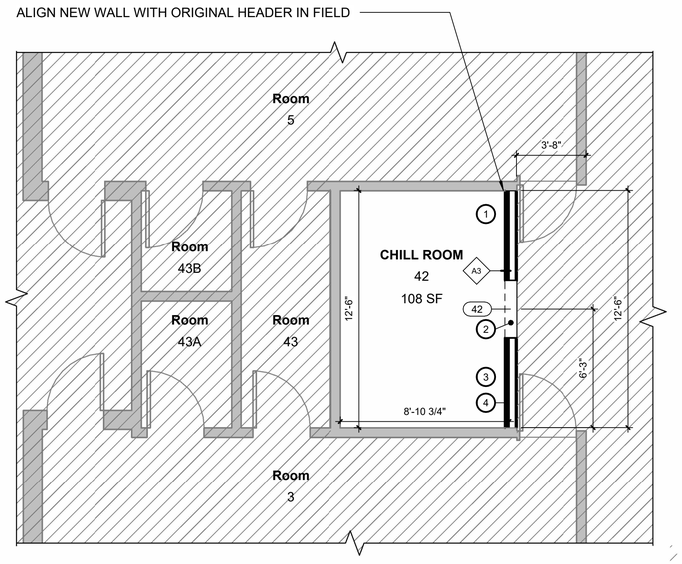
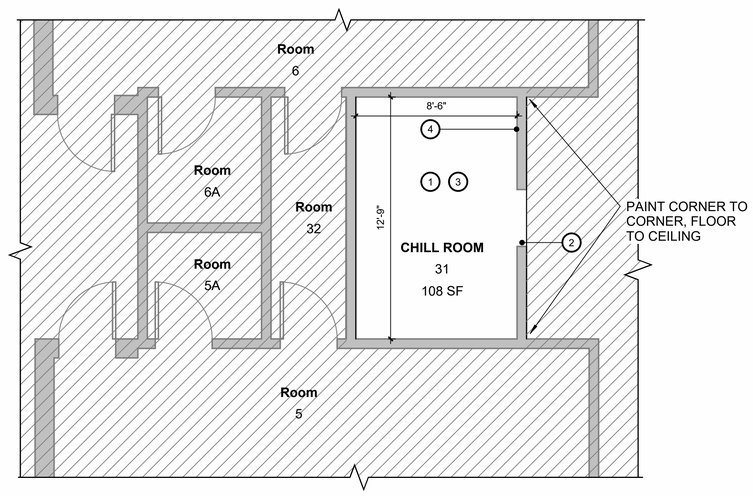


3 FLOOR PLAN -ROOM 42 NEW
1/4" = 1'-0"



4 FLOOR PLAN - ROOM 31 NEW
1/4" = 1'-0"

KEYNOTES- NEW CHILL ROOMS	
Note Number	Note Text
1	PREP CONCRETE TO ACCEPT NEW FLOORING WITH FLAT TRANSITION TO EXISTINGFLOOR
2	PREP AND FILL EXISTING DOOR FRAMES TO ACCEPT NEW FINISH
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4	NEW WALL FOAM, WALL MDO, AND BASE, TYP. ALL WALLS
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ECI ARCHITECTURE DESIGN STRATEGY
821 N St. Ste 201
ANCHORAGE, ALASKA 99501 907.561.5543

PROJECT NO.19-0028.03

ANCHORAGE SCHOOL DISTRICT
WHALEY MULTI-SENSORY DE-ESCALATION ROOM RENOVATIONS

BID DOCUMENTS

STATE OF ALASKA
49 TH
JASON W. SWIFT
12.19.2023

ENLARGED FLOOR PLANS

AUTHOR: DR/DS CHECKED: JWS
REVISION: ADDENDA #1
ISSUE DATE: 12/18/23
OWNER PROJECT # 625011

A2.2

FULL SIZE PRINTED ON 22 x 34

ADDENDUM NO. 1

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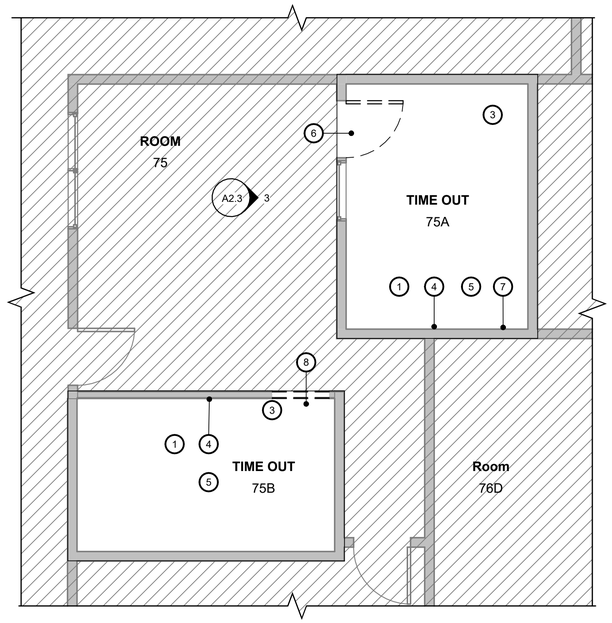

1 FLOOR PLAN - ROOM 75 DEMO
1/4" = 1'-0"

KEYNOTES- DEMO TIME OUT ROOMS	
Note Number	Note Text
1	DEMO EXISTING FLOORING TO FACE OF CORRIDOR WALL OR ADJ ROOM
2	DEMO MIRRORS AND ASSOCIATED CONSTRUCTION
3	SALVAGE AND REINSTALL ROOM ACCESSORIES INDICATED, SALVAGE ANY EXISTING DOOR HARDWARE AND NOTIFY OWNER, TYP.
4	ADD PLYWOOD AT WALLS OF CHILL ROOM TO MATCH EXISTING THICKNESS AS WALL PREPARATION FOR ALL LOCATIONS TO RECIEVE FOAM AND MDO
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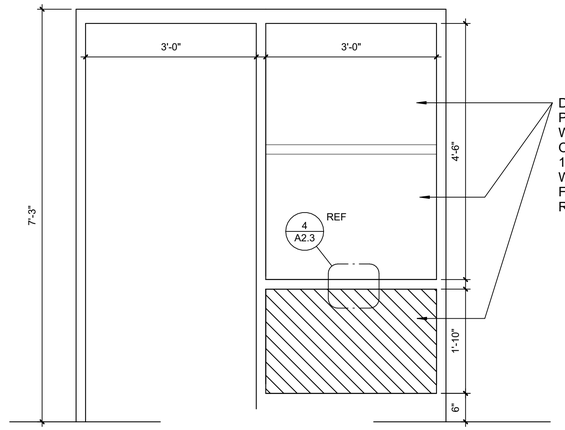
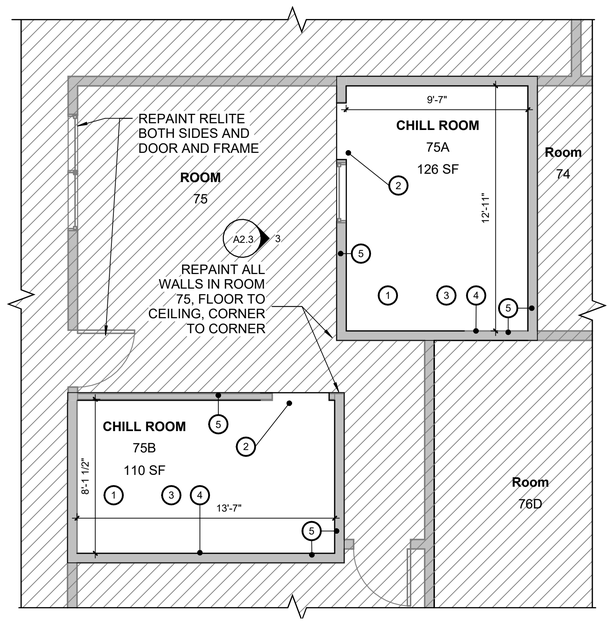


DEMOLISH ALL EXISTING RELITE PANELS. REPLACE BOTTOM RELITE WITH MDO, PAINT TO MATCH WALLS OF CHILL ROOM. TOP PANELS TO BE 1/2" POLYCARBONATE SECURED WITH HOLLOW METAL STOP SCREW FASTENED IN ACOUSTICAL SEALANT. REPLACE CROSS BAR AS NEEDED.

3 ELEVATION- 75A RELITE
3/4" = 1'-0"



2 FLOOR PLAN - ROOM 75 NEW
1/4" = 1'-0"

KEYNOTES- NEW CHILL ROOMS	
Note Number	Note Text
1	PREP CONCRETE TO ACCEPT NEW FLOORING WITH FLAT TRANSITION TO EXISTINGFLOOR
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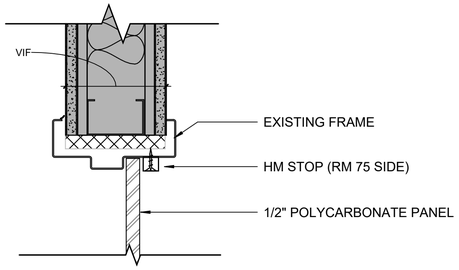

4 PLAN DETAIL- WINDOW STOP
3" = 1'-0"

ECI ARCHITECTURE DESIGN STRATEGY
821 N St. Ste 201
ANCHORAGE, ALASKA 99501 907.561.5543

PROJECT NO.19-0028.03

ANCHORAGE SCHOOL DISTRICT
WHALEY MULTI-SENSORY DE-ESCALATION ROOM RENOVATIONS

BID DOCUMENTS

STATE OF ALASKA 49TH
JASON W. SWIFT
REGISTERED PROFESSIONAL ARCHITECT
12.19.2023

ENLARGED FLOOR PLANS

AUTHOR: DR/DS CHECKED: JWS
REVISION: ADDENDA #1
ISSUE DATE: 12/18/23
OWNER PROJECT # 625011

A2.3

FULL SIZE PRINTED ON 22 x 34

ADDENDUM NO. 1

NOTIFICATION OF CHILD OCCUPIED FACILITY

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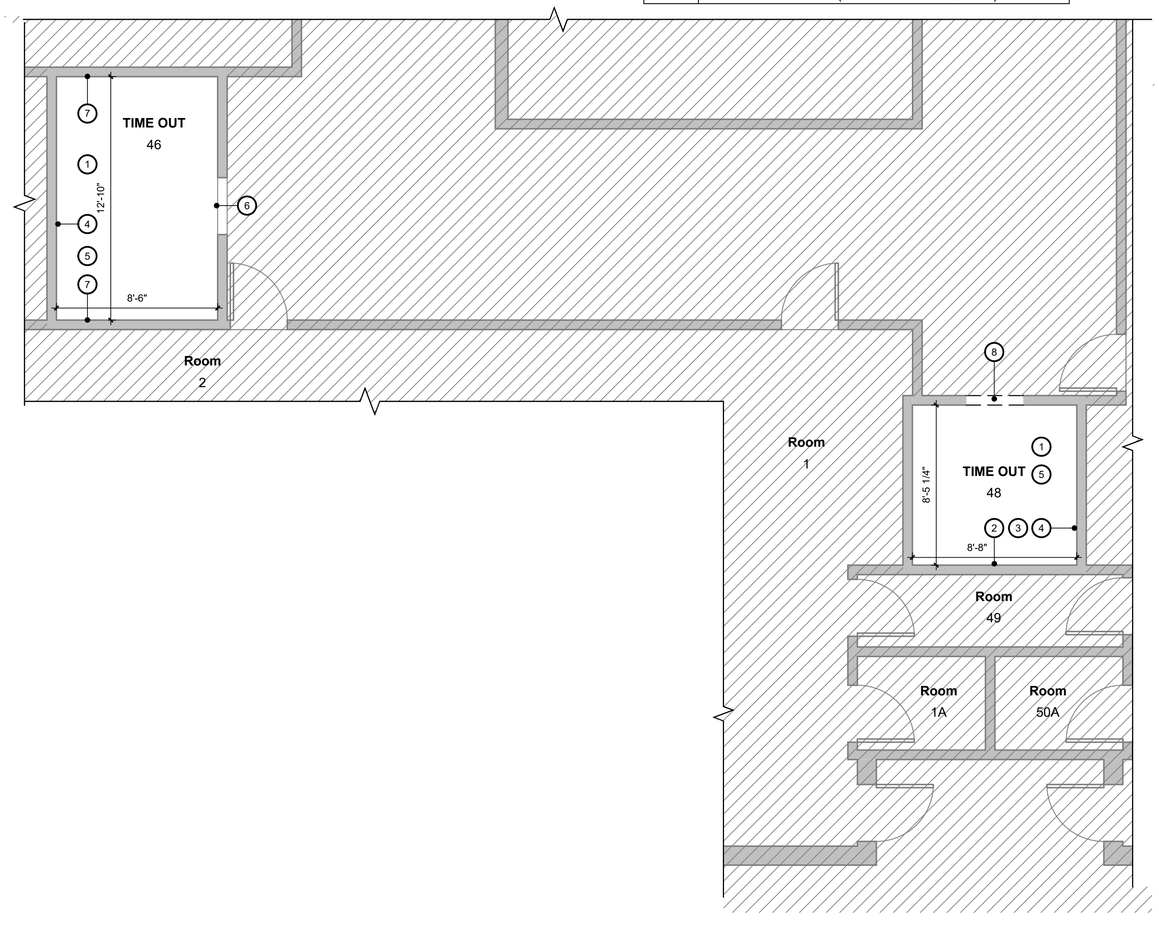
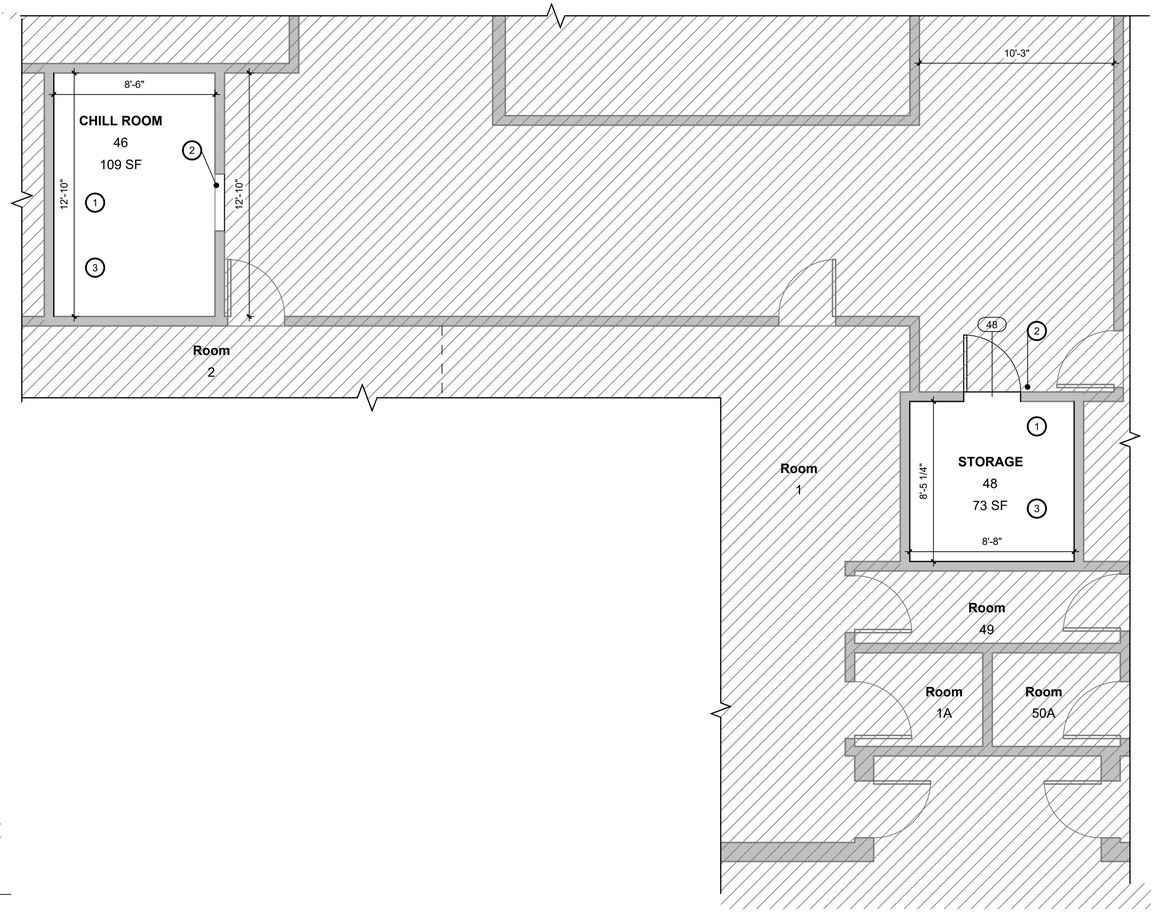
KEYNOTES- DEMO TIME OUT ROOMS	
Note Number	Note Text
1	DEMO EXISTING FLOORING TO FACE OF CORRIDOR WALL OR ADJ ROOM
2	DEMO MIRRORS AND ASSOCIATED CONSTRUCTION
3	SALVAGE AND REINSTALL ROOM ACCESSORIES INDICATED, SALVAGE ANY EXISTING DOOR HARDWARE AND NOTIFY OWNER, TYP.
4	ADD PLYWOOD AT WALLS OF CHILL ROOM TO MATCH EXISTING THICKNESS AS WALL PREPARATION FOR ALL LOCATIONS TO RECIEVE FOAM AND MDO
5	DEMO CEILING TO PERIMETER OF ROOM WALLS, REPAIR EDGE OF CEILING TO REMAIN
6	DEMO DOOR PANEL, FRAME TO REMAIN, TYP.
7	RELITES TO REMAIN TYP, COVER WITH FOAM AND MDO
8	DEMO DOOR FRAME (AND DOOR IF EXISTING)

KEYNOTES- NEW CHILL ROOMS	
Note Number	Note Text
1	PREP CONCRETE TO ACCEPT NEW FLOORING WITH FLAT TRANSITION TO EXISTINGFLOOR
2	PREP AND FILL EXISTING DOOR FRAMES TO ACCEPT NEW FINISH
3	INSTALL NEW CEILINGS, COORDINATE CEILING ELEMENTS
4	NEW WALL FOAM, WALL MDO, AND BASE, TYP. ALL WALLS
5	(RM 75A AND 75B ONLY) CONSTRUCT NEW WALL FROM TOP OF EXISTING TO BOTTOM OF DECK. METAL STUDS TO MATCH EXISTING WIDTH, 16"O.C., 1 LAYER 5/8" TYP. X GYP ON CHILL ROOM SIDE ONLY



1 FLOOR PLAN - ROOM 46/48 DEMO
1/4" = 1'-0"



3 FLOOR PLAN - ROOM 46/48 NEW
1/4" = 1'-0"

ECI ARCHITECTURE DESIGN STRATEGY
821 N St. Ste 201
ANCHORAGE, ALASKA 99501 907.561.5543

PROJECT NO.19-0028.03

ANCHORAGE SCHOOL DISTRICT
WHALEY MULTI-SENSORY DE-ESCALATION ROOM RENOVATIONS

BID DOCUMENTS

STATE OF ALASKA
49 TH
JASON W. SWIFT
REGISTERED PROFESSIONAL ARCHITECT
12.19.2023

ENLARGED FLOOR PLANS

AUTHOR: DR/DS CHECKED: JWS
REVISION: ADDENDA #1
ISSUE DATE: 12/18/23
OWNER PROJECT # 625011

A2.4

FULL SIZE PRINTED ON 22 x 34

ADDENDUM NO. 1

NOTIFICATION OF CHILD OCCUPIED FACILITY

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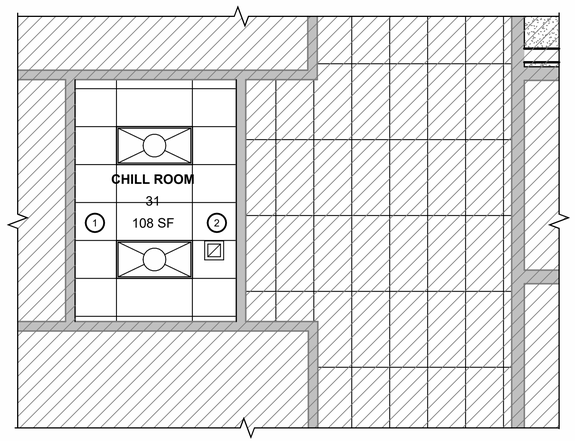
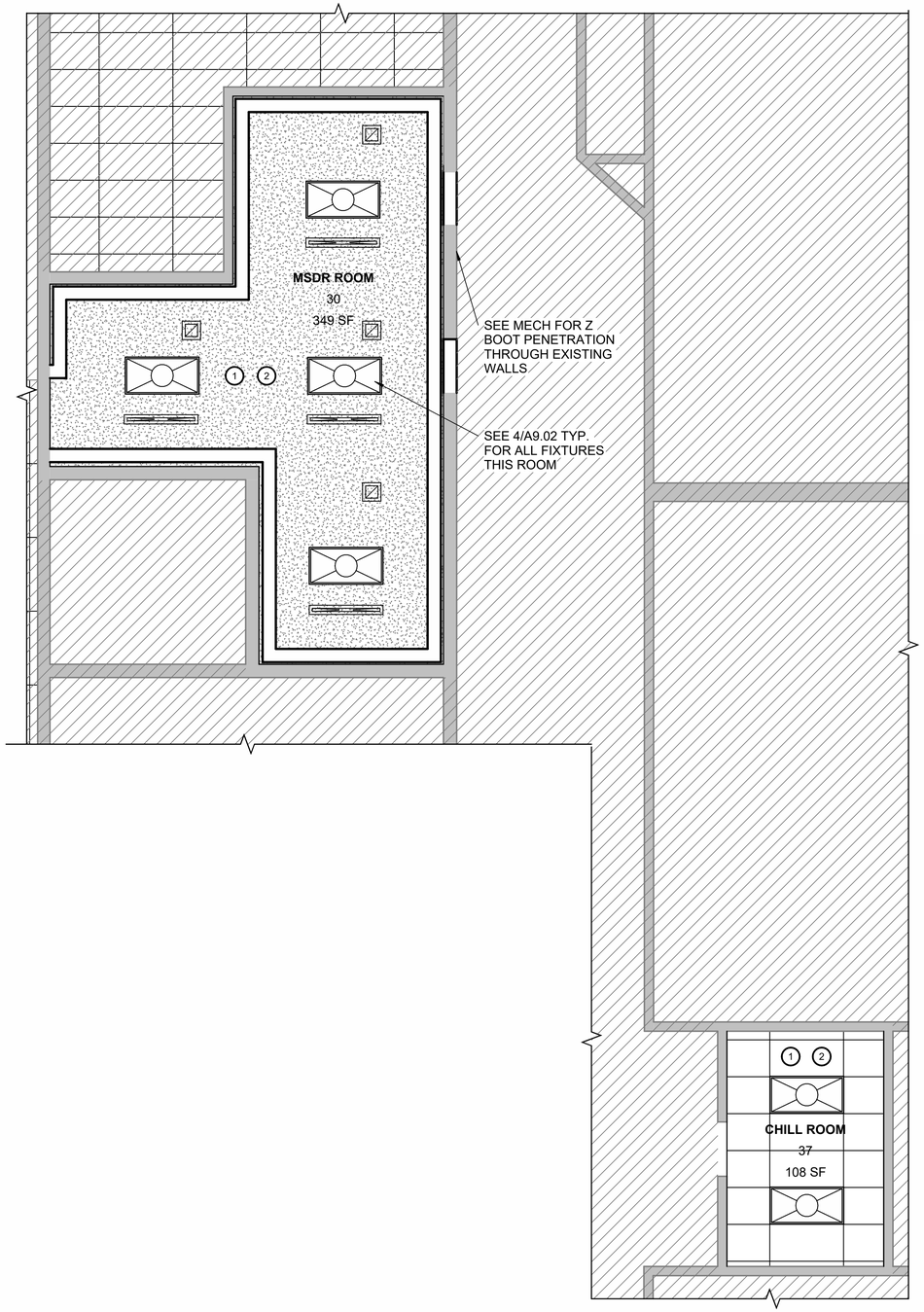
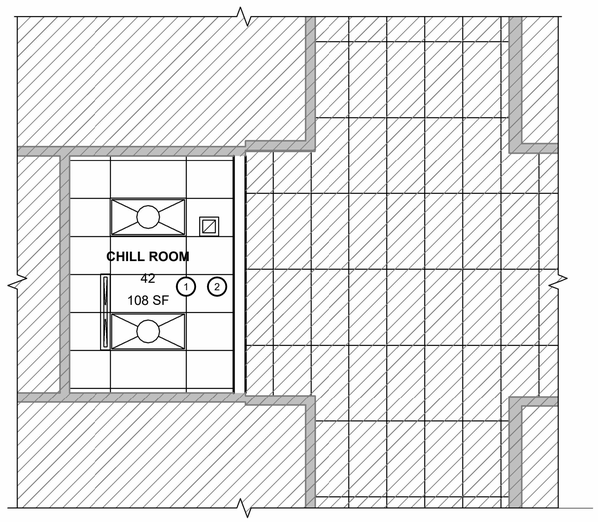


LEVEL 1 - REFLECTED CEILING PLAN - ROOM 31 NEW
3 1/4" = 1'-0"

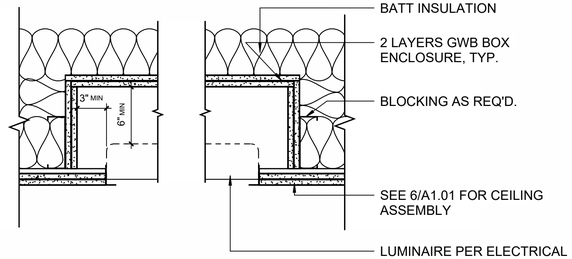


LEVEL 1 - REFLECTED CEILING PLAN - ROOM 27 NEW
2 1/4" = 1'-0"



LEVEL 1 - REFLECTED CEILING PLAN - ROOM 42 NEW
1 1/4" = 1'-0"

KEYNOTES- RCP	
Note Number	Note Text
1	INSTALL NEW CEILINGS, COORDINATE INSTALL OF ALL CEILING ELEMENTS, SEE DEMO FLOOR PLAN FOR SCOPE. NEW CEILINGS 9' TYP.
2	ALL NEW OR RELOCATED SPRINKLER HEADS IN HARD LID CEILINGS TO BE RECESSED W/ FLUSH COVERS. IN ACT CEILINGS MATCH EXISTING



SECTION DETAIL - TYPICIAL LUMINAIRE AT MSDR ROOM
4 1 1/2" = 1'-0"

CEILING LEGEND

C1 - ACT 1

C2 - PT-1

2 X 4 LAY-IN FIXTURE

0' 2' 4' 8' 16'

NORTH

ECI ARCHITECTURE DESIGN STRATEGY
821 N St. Ste 201
ANCHORAGE, ALASKA 99501 907.561.5543

PROJECT NO.19-0028.03

ANCHORAGE SCHOOL DISTRICT
WHALEY MULTI-SENSORY DE-ESCALATION ROOM RENOVATIONS

BID DOCUMENTS

STATE OF ALASKA
49 TH
JASON W. SMITH
12.19.2023
REGISTERED PROFESSIONAL ARCHITECT

REFLECTED CEILING PLANS - NEW

AUTHOR: DR/DS CHECKED: JWS
REVISION: ADDENDA #1
ISSUE DATE: 12/18/23
OWNER PROJECT # 625011

A9.02

FULL SIZE PRINTED ON 22 x 34

NOTIFICATION OF CHILD OCCUPIED FACILITY

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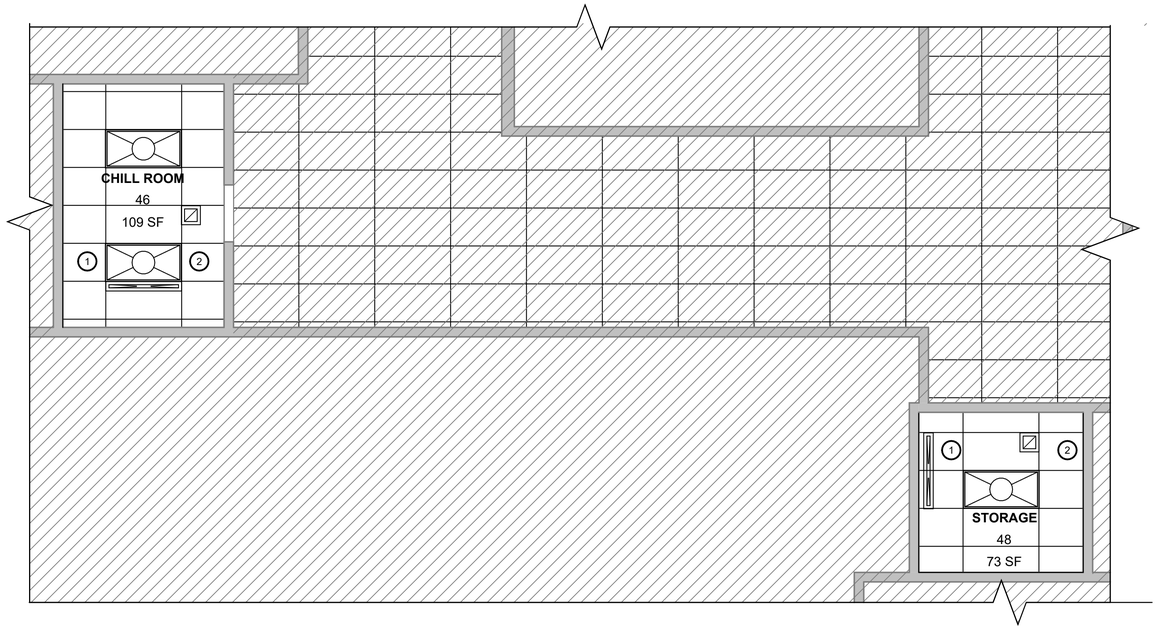
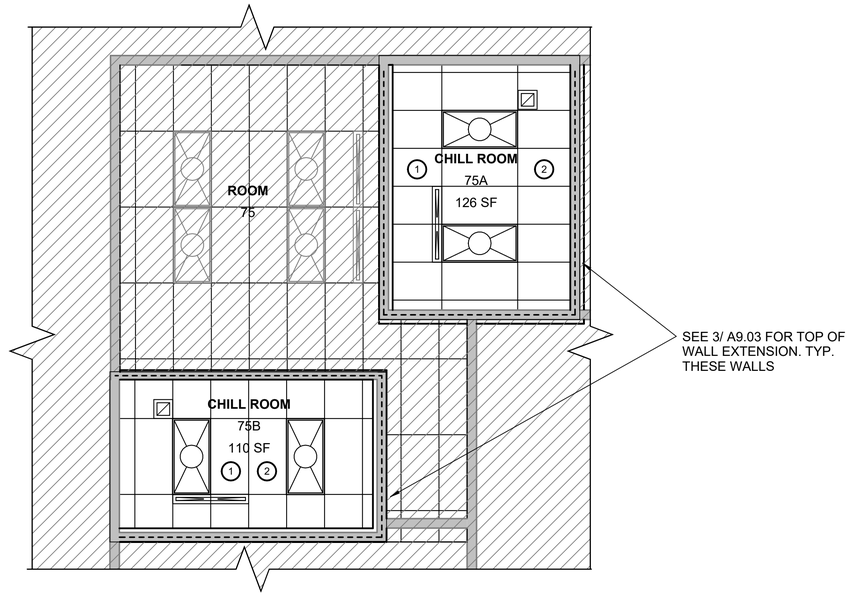


1 LEVEL 1 - REFLECTED CEILING PLAN - ROOM 46/48 NEW
1/4" = 1'-0"



2 LEVEL 1 - REFLECTED CEILING PLAN - ROOM 75A/75B
1/4" = 1'-0"

KEYNOTES- RCP	
Note Number	Note Text
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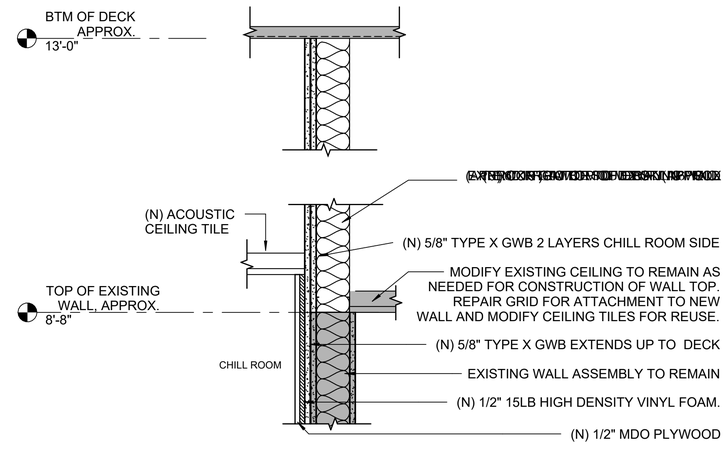
2	ALL NEW OR RELOCATED SPRINKLER HEADS IN HARD LID CEILINGS TO BE RECESSED W/ FLUSH COVERS. IN ACT CEILINGS MATCH EXISTING

CEILING LEGEND

C1 - ACT 1

C2 - PT-1

2 X 4 LAY-IN FIXTURE



3 SECTION OF NEW WALL ASSEMBLY ON TOP OF EXISTING
1 1/2" = 1'-0"

0' 2' 4' 8' 16'

NORTH

ADDENDUM NO. 1

ECI ARCHITECTURE DESIGN STRATEGY
821 N St. Ste 201
ANCHORAGE, ALASKA 99501 907.561.5543

PROJECT NO.19-0028.03

ANCHORAGE SCHOOL DISTRICT
WHALEY MULTI-SENSORY DE-ESCALATION ROOM RENOVATIONS

BID DOCUMENTS

STATE OF ALASKA 49 TH
JASON W. SWIFT
LICENSED PROFESSIONAL ENGINEER
12.19.2023

REFLECTED CEILING PLANS - NEW

AUTHOR: DR/DS CHECKED: JWS
REVISION: ADDENDA #1
ISSUE DATE: 12/18/23
OWNER PROJECT # 625011

A9.03

FULL SIZE PRINTED ON 22 x 34

ADDENDUM NO. 1

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ROOM FINISH SCHEDULE

NUMBER	NAME	FLOOR FINISH	BASE FINISH	Ceiling Finish	WALL FINISH				NOTES
					EAST	SOUTH	WEST	NORTH	
30	MSDR ROOM	LVP-1	MDO PT-3	PT-1	PT-1	PT-1	PT-1	PT-2	FOAM AND MDO ALL INTERIOR WALLS
31	CHILL ROOM	LVP-1	MDO PT-3	ACT-1	PT-1	PT-2	PT-2	PT-1	FOAM AND MDO ALL INTERIOR WALLS
37	CHILL ROOM	LVP-1	MDO PT-3	ACT-1	PT-1	PT-1	PT-1	PT-2	FOAM AND MDO ALL INTERIOR WALLS
42	CHILL ROOM	LVP-1	MDO PT-3	ACT-1	PT-1	PT-1	PT-2	PT-1	FOAM AND MDO ALL INTERIOR WALLS
46	CHILL ROOM	LVP-1	MDO PT-3	ACT-1	PT-1	PT-1	PT-2	PT-1	FOAM AND MDO ALL INTERIOR WALLS
48	STORAGE	LVP-1	MDO PT-3	ACT-1	PT-1	PT-1	PT-1	PT-1	PATCH EXISTING WALLS FOR NEW PAINT
75	ROOM	EXISTING TO REMAIN	EXISTING TO REMAIN	EXISTING TO REMAIN	PT-1	PT-1	PT-2	PT-1	PATCH EXISTING WALLS FOR NEW PAINT
75A	CHILL ROOM	LVP-1	MDO PT-3	ACT-1	PT-1	PT-1	PT-2	PT-1	FOAM AND MDO ALL INTERIOR WALLS
75B	CHILL ROOM	LVP-1	MDO PT-3	ACT-1	PT-1	PT-1	PT-2	PT-1	FOAM AND MDO ALL INTERIOR WALLS

FINISH MATERIAL LEGEND

MARK	MATERIAL	SPECIFICATION SECTION
ACT-1	ACOUSTIC CEILING TILE	09 51 00
LVP-1	LUXURY VINYL PLANK	09 65 00
PT-1	PAINT - SW 6119 ANTIQUE WHITE	09 90 00
PT-2	PAINT - COLOR TBD	09 90 00
PT-3	PAINT - COLOR TBD	09 90 00

BASIS OF DESIGN PRODUCTS

POLYCARBONATE - BASIS OF DESIGN- " MAKROLON AR". MINIMUM 1/2" THICKNESS OR AS NOTED. SCREW FASTEN STOP 12" O.C. PRODUCT TO HAVE A CLASS C RATING: FLAME SPREAD INDEX 76-200 AND SMOKE DEVELOPMENT INDEX OF 0-450.

MDO (MEDIUM DENSITY OVERLAY PLYWOOD)- BASIS OF DESIGN- " PLUM CREEK ULTRA CORE 1/2" THICKNESS".

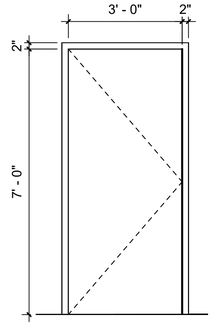
FOAM- BASIS OF DESIGN- "CROWN FOAM TECHNOLOGIES, HIGH DENSITY VINYL FOAM 15#+" 1/2" THICKNESS, BLACK 56" WIDTH. SEAL ALL E3DGES OF FOAM WITH PECORA AC-20 FTY IN 345 TRU WHITE

HOLLOW METAL FRAME FILLERS- BASIS OF DESIGN- "DON-JO FS-260-PC, P-HBP45" USE TO FILL EXISTING STRIKE AND HINGE PLATES ON FRAMES TO REMAIN.

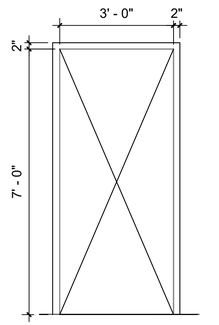
DOOR SCHEDULE

MARK	DOOR				FRAME		GLAZING	HDWR	FIRE RATING	NOTES
	WIDTH	HEIGHT	MAT'L	FIN	MAT'L	FIN	TYPE			
48	3'-0"	7'-0"	HM	PT-1	HM	PT-1		HW-23	0	
42	3'-0"	7'-0"	NA	NA	HM	PT-1		NA	0	FRAME ONLY
75B	3'-0"	7'-0"	NA	NA	HM	PT-1		NA	0	FRAME ONLY
30	3'-0"	7'-0"	IHM	PT-1	IHM	PT-1	SG	HW-18	20	180 OPENING, VERIFY WALL THICKNESS IN FIELD FOR THROATED FRAME DIMENSIONS

DOOR LEGEND



1 DOOR 30 AND 48
1/2" = 1'-0"



2 DOOR 42 AND 75B (FRAME ONLY)
1/2" = 1'-0"

ECI ARCHITECTURE DESIGN STRATEGY
821 N St. Ste 201
ANCHORAGE, ALASKA 99501 907.561.5543
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ANCHORAGE SCHOOL DISTRICT
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STATE OF ALASKA
49 TH
JASON W. SWIFT
12.19.2023
REGISTERED PROFESSIONAL ENGINEER

DOOR AND ROOM FINISH SCHEDULE

AUTHOR: DR/DS CHECKED: JWS
REVISION: ADDENDA #1
ISSUE DATE: 12/18/23
OWNER PROJECT # 625011

A12.01

FULL SIZE PRINTED ON 22 x 34

ADDENDUM NO. 1

NOTIFICATION OF CHILD OCCUPIED FACILITY

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GENERAL
THE CONTRACTOR MUST VERIFY AND COORDINATE ALL DIMENSIONS AMONG THE DRAWINGS BEFORE STARTING ANY WORK OR FABRICATION. IN CASE OF DISCREPANCIES BETWEEN DRAWINGS, SPECIFICATIONS, REFERENCE STANDARDS, SITE CONDITIONS OR GOVERNING CODE, THE MORE STRINGENT REQUIREMENTS MUST GOVERN. CONTRACTOR MUST NOTIFY THE ENGINEER OF DISCREPANCIES AND OBTAIN DIRECTION PRIOR TO PROCEEDING. NOTES ON INDIVIDUAL STRUCTURAL DRAWINGS MUST TAKE PRIORITY OVER GENERAL STRUCTURAL NOTES. NOTED DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. DO NOT SCALE DRAWINGS. TYPICAL DETAILS MAY NOT NECESSARILY BE INDICATED AS TYP ON THE PLANS BUT MUST APPLY AS SHOWN OR DESCRIBED IN THE DETAILS.

ALL CONSTRUCTION MUST COMPLY WITH THE 2018 INTERNATIONAL BUILDING CODE (IBC) AS AMENDED AND ADOPTED BY THE MUNICIPALITY OF ANCHORAGE (MOA).

SAFETY - THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL FEDERAL, STATE AND LOCAL SAFETY STANDARDS. THE CONTRACTOR IS IN CHARGE OF ALL SAFETY MATTERS ON AND AROUND THE JOB SITE.

STRUCTURAL DESIGN DATA
STRUCTURAL DESIGN IS IN ACCORDANCE WITH THE IBC AS AMENDED AND ADOPTED BY THE MUNICIPALITY OF ANCHORAGE. RISK CATEGORY IS III IN ACCORDANCE WITH IBC SECTION 1604.5. STRUCTURAL DESIGN IS IN ACCORDANCE WITH THE 2018 IBC AND 2018 IEBC AS AMENDED AND ADOPTED BY THE MUNICIPALITY OF ANCHORAGE. WORK UNDER THE IEBC IS CONSIDERED A LEVEL II ALTERATION OR REPAIR. NO WORK WILL INCREASE THE STRESS DUE TO GRAVITY OR LATERAL LOADS TO ANY EXISTING MEMBER BY MORE THAN 10%.

REFER TO ARCHITECTURAL DRAWINGS FOR ELEVATIONS, SLOPES, DEPRESSIONS, NON-BEARING WALLS, FIRE-PROOFING, FASCIA, CURBS, DRAINS, RAILINGS, WATERPROOFING, FINISHES, ETC.

THE STRUCTURE HAS BEEN DESIGNED FOR THE FOLLOWING OPERATIONAL LOADS ON THE COMPLETED STRUCTURES. CONTRACTOR IS RESPONSIBLE FOR TEMPORARY SHORING AND BRACING DURING CONSTRUCTION.

SEISMIC LOADS: SITE CLASS D, SEISMIC DESIGN CATEGORY D,
Ss=1.5, S1=0.683, Sds=1.0, Sd1=0.683, Ie=1.25

EXISTING CONDITIONS
CONTRACTOR MUST VERIFY ALL EXISTING DIMENSIONS, MEMBER SIZES, AND CONDITIONS PRIOR TO COMMENCING WORK. DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS ARE INTENDED AS GUIDELINES ONLY AND MUST BE VERIFIED. EXISTING CONDITIONS SHOWN ON DRAWINGS ARE BASED ON EITHER SITE OBSERVATIONS, ORIGINAL DRAWINGS, OR WERE ASSUMED BASED ON EXPECTED CONDITIONS. IF EXISTING CONDITIONS DO NOT CLOSELY MATCH CONDITIONS SHOWN ON DRAWINGS, OR IF EXISTING MATERIALS ARE OF QUESTIONABLE OR SUBSTANDARD QUALITY, NOTIFY ENGINEER PRIOR TO COMMENCING WORK.

SPECIAL INSPECTION
NO SPECIAL INSPECTION IS REQUIRED.

DEFERRED SUBMITTALS
THE FOLLOWING ITEMS ARE NOT INCLUDED IN THESE DRAWINGS AND REQUIRE STRUCTURAL DESIGN TO BE FURNISHED BY THE CONTRACTOR:
1. SEISMIC ANCHORAGE OF MECHANICAL & ELECTRICAL EQUIPMENT

DRAWINGS AND CALCULATIONS FOR BUILDER-DESIGNED COMPONENTS, SEALED BY AN ALASKA STATE REGISTERED PROFESSIONAL ENGINEER RESPONSIBLE FOR THE DESIGN, MUST BE SUBMITTED TO THE ENGINEER FOR REVIEW FOR GENERAL CONFORMANCE TO THE CONTRACT DOCUMENTS PRIOR TO SUBMITTING TO BUILDING SAFETY FOR REVIEW. SUBMITTALS OF BUILDER-DESIGNED ITEMS MUST INCLUDE LOCATIONS, MAGNITUDES, AND DIRECTIONS OF ALL FORCES TRANSFERRED TO THE STRUCTURE. DEFERRED SUBMITTALS MUST BE REVIEWED AND APPROVED BY BUILDING SAFETY PRIOR TO INSTALLATION/CONSTRUCTION.

POST-INSTALLED ANCHORS
INSTALLATION MUST CONFORM TO MANUFACTURER'S INSTRUCTIONS AND REQUIREMENTS OF ICC-ES REPORT. ALL POST-INSTALLED ANCHORS MUST HAVE A CURRENT ICC-ES REPORT AND BE AUTHORIZED FOR USE IN SEISMIC DESIGN CATEGORY D. ALL ANCHORS ARE DESIGNED TO BE LESS THAN 50% STRESSED, THEREFORE NO SPECIAL INSPECTION IS REQUIRED. INSTALLATION OF ADHESIVE ANCHORS HORIZONTALLY OR UPWARDLY INCLINED MUST BE PERFORMED BY ACI/CRSI CERTIFIED PERSONNEL ONLY AND REQUIRES CONTINUOUS SPECIAL INSPECTION.

THREADED ROD MUST BE ASTM A307, UON (OR ISO898 CLASS 5.8), TENSILE STRENGTH OF 60 KSI MIN, AND GALVANIZED WHERE EXPOSED TO THE WEATHER.

SCREW ANCHORS IN CONCRETE AND GROUT FILLED MASONRY MUST BE ONE OF THE FOLLOWING (OR AN APPROVED EQUIVALENT):
- -HILTI "KH-EZ" (ESR-3027 CONC, ESR-3056 CMU)
- -SIMPSON "TITEN HD" (ESR-2713 CONC, ESR-1056 CMU)
- -ITW "TAPCON+" (ESR-3699 CONC ONLY)
- -ITW "TAPCON" (ESR-1671 CMU ONLY)
- -DEWALT "SCREW-BOLT+" (ESR-3889 CONC, ESR-4042 CMU)

POWER-ACTUATED FASTENERS (PAF) MUST NOT BE USED TO RESIST ANY LATERAL LOAD INDUCED BY AN EARTHQUAKE. PAF MUST BE 0.148-INCHES IN DIAMETER AND THE ANCHOR TYPE AND POWER LOAD MUST BE SUITED TO THE MATERIAL BEING FASTENED AND THE SUBSTRATE MATERIAL. PRODUCT MUST BE ITW RAMSET/RED HEAD (ESR-1799, 1955 OR 2579) OR APPROVED EQUAL. SPECIAL INSPECTION IS NOT REQUIRED FOR PAF INSTALLATION.

COLD FORMED STEEL
COLD FORMED STEEL MUST MEET ASTM A1003 STRUCTURAL GRADE 33 TYPE H (Fy=33 KSI) FOR 18 GAUGE (43 MIL) AND LIGHTER MEMBERS.

ALL STRUCTURAL MEMBERS MUST BE DESIGNED PER THE AMERICAN IRON AND STEEL INSTITUTE (AISI) "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS", LATEST EDITION.

USE ONLY ONE MANUFACTURER OF COLD FORMED JOIST THROUGHOUT THE WORK, UNLESS OTHERWISE SHOWN ON THE DRAWINGS OR SPECIFICALLY APPROVED IN ADVANCE BY THE ENGINEER. ACCEPTABLE JOIST MANUFACTURERS INCLUDE ANY MEMBER OF THE STEEL STUD MANUFACTURER'S ASSOCIATION.

PROVIDE ALL ACCESSORIES INCLUDING TRACKS, CLIPS, WEB STIFFENERS, ANCHORS, FASTENING DEVICES, RESILIENT CLIPS, AND OTHER ITEMS REQUIRED FOR A COMPLETE AND PROPER INSTALLATION. INSTALL ALL ITEMS RECOMMENDED BY THE MANUFACTURER.

FASTENING OF COMPONENTS MUST BE WITH SELF-DRILLING SCREWS (ASTM C1513) OR WELDS OF SUFFICIENT SIZE TO INSURE THE STRENGTH OF THE CONNECTION. WIRE TYING OF COMPONENTS MUST NOT BE PERMITTED. ALL WELDS MUST BE TOUCHED UP WITH A ZINC-RICH PAINT.

UNLESS OTHERWISE INDICATED:
1. TRACKS MUST BE CONNECTED WITH TWO #8 SCREWS OR PAF TO SUPPORTING SUBSTRATE AT EACH STUD, OR AN EQUIVALENT EQUAL SPACING;
2. OVERLAPPING STUDS OR BRACES MUST BE CONNECTED WITH THREE #8 SCREWS;
3. STUDS MUST BE CONNECTED TO TOP AND BOTTOM TRACKS WITH TWO #8 SCREWS, ONE AT EACH FLANGE;
4. BUILT-UP MEMBERS MUST BE STITCHED TOGETHER WITH WELDS OR #8 SCREWS AT EACH CORNER AT 6-INCHES ON-CENTER.

PROVIDE COMMERCIAL GROUT FOR LEVELING THE FLOOR RUNNER OF STEEL STUD PARTITIONS AS REQUIRED.

POWDER DRIVEN FASTENERS SHALL BE HILTI X-U (ESR-2269) OR AN APPROVED EQUIVALENT.

@	At	BLKG	Blocking	EA	Each	INT	Interior	OH	Overhead	SIM	Similar	TYP	Typical
AB	Anchor Bolts	BM	Beam	EQ	Equal. Earthquake	LAG	Lag Screw	OPNG	Opening	SQ	Square	UON	Unless Otherwise Noted
BLDG	Building	BOT	Bottom	EW	Each Way	LOC	Location	PL	Plate	STL	Steel	VERT	Vertical
ARCH	Architect	BTWN	Between	EXP	Expansion	LONG	Longitudinal	PLS	Places	T&B	Top and Bottom	W/	With
AR	Anchor Rod	CL	Center-Line	FDN	Foundation	MAX	Maximum	PSF	Pounds-per-square-foot	T&G	Tongue and Groove	W/O	Without
ALT	Alternate	CLR	Clear	FF	Finished Floor	MEZZ	Mezzanine	PSI	Pounds-per-square-inch	T.O.	Top of	W	Wide-Flange, Wide
AHJ	Authority Having Jurisdiction	COL	Column	GALV	Galvanized	MIN	Minimum	REQ'D	Required	T.O.B.	Top of Beam	W/C	Water / Cement Ratio
AFF	Above Finish Floor	CONC	Concrete	GLB	Glue-Laminated Beam	MFR	Manufacturer	RO	Rough Opening	T.O.S.	Top of Steel	W.P.	Work Point
ADH	Adhesive	CONT	Continuous, Continue	HORZ	Horizontal	(N)	New	SBN	Shearwall Boundary Nailing	T.O.W.	Top of Wall	WWR	Welded Wire Reinforcement
ADD'L	Additional	DBN	Diaphragm Boundary Nailing	HSS	Hollow Structural Steel	OC	On-Center	SCH	Schedule	TRANS	Transverse		
		(E)	Existing	IBC	International Building Code								

ECI | ARCHITECTURE DESIGN STRATEGY
821 N St. Ste 201
ANCHORAGE, ALASKA 99501 907.561.5543

Project
PROJECT NO. Number

ANCHORAGE SCHOOL DISTRICT
WHALEY ELEMENTARY SCHOOL
MSDR PROJECT

100% SUBMITTAL

STATE OF ALASKA
49 TH
GARRETT BAGINSKI
No. CE 147718
REGISTERED PROFESSIONAL ENGINEER
12/18/2023

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GENERAL NOTES

AUTHOR: GC CHECKED: GB
REVISION: ADDENDA #1
ISSUE DATE: 12/18/23
OWNER PROJECT # 625011

S0.1

FULL SIZE PRINTED ON 22 x 34

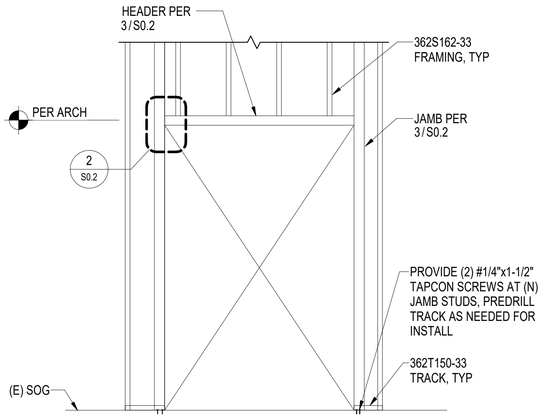
ADDENDUM NO. 1

NOTIFICATION OF CHILD OCCUPIED FACILITY

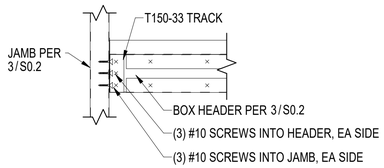
PORTIONS OF THIS BUILDING ARE CLASSIFIED AS A CHILD OCCUPIED FACILITY IN ACCORDANCE WITH 40 CFR 745 AND LEAD-BASED PAINTS MAY BE PRESENT ON COMPONENTS TO BE DISTURBED IN THOSE AREAS. PERSONNEL PERFORMING WORK IN THESE AREAS MUST COMPLY WITH THE REQUIREMENTS OF 40 CFR 745, INCLUDING TRAINING, WORK PRACTICES AND CLEANING OF THE WORK AREA. REFER TO SPECIFICATION DIVISIONS 0, 1 AND 2 FOR SPECIFIC INFORMATION CONCERNING DISTURBING, REMOVING AND DISPOSING OF LEAD MATERIALS AND THE INSTALLATION OF NEW MATERIALS OR COMPONENTS. THIS NOTIFICATION IS PROVIDED IN ACCORDANCE WITH EPA AND OSHA REQUIREMENTS.

NOTIFICATION OF POTENTIAL HAZARDS

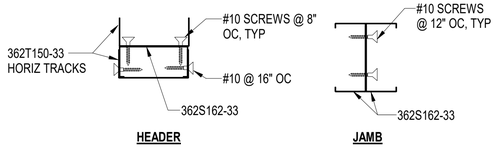
ASBESTOS, LEAD, AND OTHER HAZARDOUS MATERIALS ARE PRESENT IN THE BUILDING AND MAY IMPACT THE WORK OF ALL TRADES. REGULATED AIR CONTAMINATES, INCLUDING ASBESTOS AND LEAD, ARE ALSO PRESENT IN SETTLED AND CONCEALED DUST IN AND ON ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS OR SYSTEMS THROUGHOUT THE BUILDING. ALL TRADES SHALL COORDINATE WITH OTHER TRADES AND CONDUCT THEIR WORK TO PREVENT WORKER EXPOSURE OR SITE CONTAMINATION. REFER TO SPECIFICATION DIVISIONS 0, 1, AND 2 FOR SPECIFIC INFORMATION CONCERNING DISTURBING, REMOVING, AND DISPOSING OF THESE MATERIALS AND THE INSTALLATION OF NEW MATERIALS OR COMPONENTS. THIS NOTIFICATION IS PROVIDED IN ACCORDANCE WITH EPA AND OSHA REQUIREMENTS.



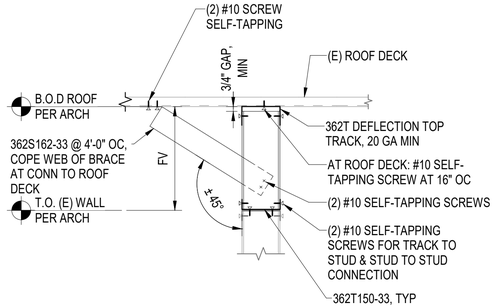
1 S0.2 TYP DOOR OPENING
1/2" = 1'-0"



2 TYP HEADER TO JAMB CONNECTION
1 1/2" = 1'-0"



3 S0.2 TYP HEADER & JAMB
3" = 1'-0"



4 S0.2 TYP WALL IN SLIP TRACK
1" = 1'-0"

ECI ARCHITECTURE DESIGN STRATEGY
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Project PROJECT NO. Number

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49 TH
GARRETT BAGINSKI
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TYPICAL DETAILS

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S0.2

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PIPING LEGEND

FIRE SPRINKLER HEAD

LOGIC

POINT OF CONNECTION

SHEET NOTES

CONNECTION — NECK SIZE
CFM — CFM
DIFFUSER OR GRILLE TYPE

DUCTWORK LEGEND

THERMOSTAT

SUPPLY AIR UP & DOWN

RETURN AIR UP & DOWN

EXHAUST AIR UP & DOWN

VOLUME DAMPER

SOUND LINED DUCTWORK

12/24 — DUCT SIZE
(FIRST FIGURE – SIDE SHOWN)
(SECOND FIGURE – SIDE NOT SHOWN)

INSULATED DUCTWORK

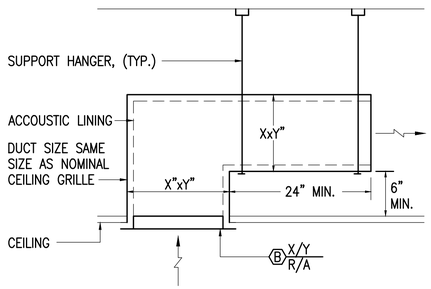
FLEXIBLE DUCT

ABBREVIATIONS

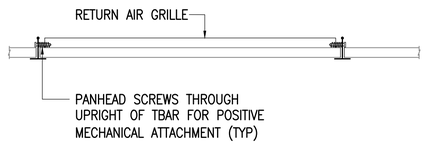
ABV	ABOVE	F	FAHRENHEIT
ADA	AMERICAN W/ DISABILITIES ACT GUIDELINES	FCO	FLOOR CLEANOUT
		GA	GAUGE
AD	ACCESS DOOR	GPM	GALLONS PER MINUTE
AHAP	AS HIGH AS POSSIBLE	HD	HEAD
AL	ALUMINUM	HP	HORSEPOWER
AMPS	AMPERES	IN	INCHES
ARCH	ARCHITECTURAL	MAX	MAXIMUM
BLDG	BUILDING	MBH	THOUSAND BTUH
BOD	BOTTOM OF DUCT	MFGR	MANUFACTURER
BTUH	BRITISH THERMAL UNIT/HOUR	MIN	MINIMUM
CAP	CAPACITY	MTD	MOUNTED
CFM	CUBIC FEET PER MINUTE	NC	NOISE CRITERIA
CIRC	CIRCULATING	NTS	NOT TO SCALE
CLG	CEILING	OC	ON CENTER
CONT	CONTINUED	O/A	OUTSIDE AIR
C.O./CO	CLEANOUT	OD	OUTSIDE DAMPER
CONN	CONNECTION	PH	PHASE
CUH–X	CABINET UNIT HEATER DESIGNATOR	PSI	POUND PER SQUARE INCH
CU	COPPER	R/A	RETURN AIR
CW	COLD WATER	RPM	REVOLUTIONS PER MINUTE
DIA	DIAMETER	S/A	SUPPLY AIR
DEG	DEGREE	SP	STATIC PRESSURE
DIM	DIMENSION	TSP	TOTAL STATIC PRESSURE
DWG	DRAWING	T'STAT	THERMOSTAT
(E)	EXISTING	TYP	TYPICAL
E/A	EXHAUST AIR	UH–X	UNIT HEATER DESIGNATOR
EAT	ENTERING AIR TEMPERATURE		
EF–X	EXHAUST FAN DESIGNATOR		
EXH	EXHAUST		
FT	FEET		
FC	FORWARD CURVE		

AIR INLET/OUTLET SCHEDULE

SYMBOL	MANUFACTURER	MODEL	TYPE	USE	MATERIAL	FINISH	CFM	FACE SIZE (IN.)	NC	REMARKS
A	TITUS	ML–38	CEILING	SUPPLY	ALUMINUM	WHITE	PER PLANS	PER PLANS	<25	3/4" BLADE SPACING, 2 SLOT SUPPLY WITH ML–38 PLENUM, FASTEN TO CEILING PER ASD STANDARDS.
B	TITUS	45 F	CEILING	RETURN	ALUMINUM	WHITE	PER PLANS	PER PLANS	<25	PROVIDE MOUNTING HARDWARE PER CEILING TYPE. PROVIDE EARTHQUAKE TABS, FASTEN TO CEILING PER ASD STANDARDS..



1 TRANSFER AIR DETAIL
1/8" = 1'-0"



2 AIR INLET/OUTLET FASTENING DETAIL
NO SCALE

RSA Engineering, Inc.
MECHANICAL AND ELECTRICAL CONSULTING ENGINEERS
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PROJECT NO.19-0028.03

ANCHORAGE SCHOOL DISTRICT
WHALEY MULTI-SENSORY DE-ESCALATION ROOM RENOVATIONS

BID DOCUMENTS

STATE OF ALASKA
4 QTH
DUSTIN R. MCCLESKEY
ME-124904
12/19/23
REGISTERED PROFESSIONAL ENGINEER

LEGEND, ABB, AND SCHEDULES

AUTHOR:SR CHECKED:DRM
REVISION: ADDENDA #1
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M0.01

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SECTION 21 00 00 – FIRE SUPPRESSION

CONTRACTOR IS TO REVISE EXISTING WET AUTOMATIC FIRE SPRINKLER SYSTEM TO PROVIDE COMPLETE COVERAGE OF PROJECT AREA WHERE AFFECTED BY PARTITION CHANGES. FIRE PROTECTION SYSTEM SHALL BE IN COMPLIANCE WITH CONTRACT DOCUMENTS, APPLICABLE CODES AND STANDARDS, AS WELL AS THE AUTHORITY HAVING JURISDICTION ASA DEFINED IN NFPA 13. PROVIDE NEW SPRINKLER HEADS AS REQUIRED, NEW HEADS SHALL MATCH MAKE, MODEL, AND FINISH OF EXISTING SPRINKLERS WHILE COMPLYING WITH NFPA 13 STANDARDS. SUBMIT SHOP DRAWINGS TO ENGINEER AND OWNER FOR APPROVAL.

A. SUBMITTALS: SUBMIT PRODUCT DATA FOR APPROVAL, DESIGNERS NICET CERTIFICATION, SHOP DRAWINGS, AND HYDRAULIC CALCULATIONS MATERIALS:
   1. WET FIRE SPRINKLER PIPING:
      1.1. BLACK STEEL PIPING, ASTM A135 SCHEDULE 10 OR ASTME A795 SCHEDULE 40, UL LISTED OR FM APPROVED FOR FIRE SPRINKLER SERVICE.
      1.2. PIPING MAY BE ROLL–GROOVED, THREADED, FLANGED, OR WELDED FOR CONNECTION. ALL THREADED PIPING SHALL BE SCHEDULE 40. NO PLAIN–END FITTING CONNECTIONS ARE ALLOWED.
   2. FIRE SPRINKLER HEADS:
      2.1. PROVIDE PENDANT IN ALL AREAS THAT ARE NOT CONSIDERED MSDR ROOMS. PROVIDE RECESSED STANDARD SPRAY PENDANT SPRINKLERS IN AREAS LABELED AS MSDR ROOMS. SPRINKLERS AND ESCUTCHEONS TO BE CHROME FINISH. TYCO TY–FRB OR EQUAL TO MATCH (E).

B. INSTALLATION:
   1. INSTALL PIPING TO CONSERVE BUILDING SPACE AND ROUTE PARALLEL TO BUILDING LINES AND AROUND ACCESS PANELS AND OPENINGS.
   2. PROVIDE SEISMIC PROTECTION FOR PIPING IN ACCORDANCE WITH NFPA 13 STANDARDS.
   3. HYDROSTATICALLY TEST THE ENTIRE SYSTEM IN ACCORDANCE WITH NFPA 13 STANDARDS.
   4. TEST ALL SYSTEM ALARMS.
   5. PERFORM MAIN DRAIN TEST.

SECTION 22 05 00: 23 05 00 – COMMON WORK RESULTS FOR MECHANICAL

THE INFORMATION SHOWN ON THESE PLANS FOR EXISTING CONDITIONS IS TAKEN FROM AS–BUILT DRAWINGS AND A NON–DESTRUCTIVE INVESTIGATION OF THE FACILITY. THE INFORMATION SHOWN FOR EXISTING CONDITIONS MAY OR MAY NOT BE ACCURATE OR COMPLETE. THE CONTRACTOR SHALL FIELD VERIFY ALL ITEMS SCHEDULED FOR DEMOLITION PRIOR TO START OF WORK.

PLANS – THE CONTRACTOR SHALL PROVIDE ALL MATERIALS AND LABOR NECESSARY FOR A COMPLETE AND OPERABLE SYSTEM. THE DRAWINGS ARE PARTLY DIAGRAMMATIC, NOT NECESSARILY SHOWING ALL OFFSETS OR EXACT LOCATIONS OF PIPING AND DUCTS UNLESS SPECIFICALLY DIMENSIONED. CONTRACTOR IS TO COORDINATE PIPING, DUCTWORK, SPRINKLER HEADS, AND EQUIPMENT LOCATIONS WITH ARCHITECTURAL, STRUCTURAL, AND ELECTRICAL PLANS TO AVOID CONFLICTS. REVIEW THE DRAWINGS AND SPECIFICATIONS FOR EQUIPMENT FURNISHED BY OTHER CRAFTS BUT INSTALLED IN ACCORDANCE WITH THIS SECTION. BRING QUESTIONABLE OR OBSCURE ITEMS, APPARENT CONFLICTS BETWEEN PLANS AND SPECIFICATIONS, GOVERNING CODES OR UTILITY REGULATIONS TO THE ATTENTION OF THE OWNER. CODES, ORDINANCES, REGULATIONS, STANDARDS, OR MANUFACTURER'S INSTRUCTIONS TAKE PRECEDENCE WHEN THEY ARE MORE STRINGENT OR CONFLICT WITH THE DRAWINGS AND SPECIFICATIONS. COORDINATE WITH PHASING PLAN TO PERFORM COORDINATED WORK IN SEQUENCE WITH OTHER TRADES. MAINTAIN CODE MINIMUM MECHANICAL SERVICE TO ALL AREAS IMPACTED BY WORK WHERE STILL OCCUPIED BY THE OWNER.

STANDARDS, CODES, AND REGULATIONS – ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF THE INTERNATIONAL BUILDING CODE (IBC), INTERNATIONAL MECHANICAL CODE (IMC), INTERNATIONAL FIRE CODE (IFC), UNIFORM PLUMBING CODE (UPC), INTERNATIONAL ENERGY CONSERVATION CODE (IECC), INTERNATIONAL FUEL GAS CODE (IFGC), AND NATIONAL ELECTRIC CODE (NEC) AS AMENDED BY THE MUNICIPALITY OF ANCHORAGE. SHEET METAL WORK SHALL BE DONE IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARDS.

ELECTRICAL WORK – ALL ELECTRICAL WORK IS TO BE PERFORMED BY A LICENSED ELECTRICIAN AND IN ACCORDANCE WITH NEC STANDARDS.

PERMITS – THE CONTRACTOR SHALL SECURE AND PAY FOR ALL NECESSARY PERMITS AND FEES.

SUBMITTALS – SUBMITTALS SHALL BE IN ELECTRONIC FORM. THE DATA SHALL BE ARRANGED AND BOOKMARKED BY SPECIFICATION SECTION. SUBMIT ON ALL SCHEDULED EQUIPMENT AND ALL MATERIALS AND EQUIPMENT AS NOTED IN THE SPECIFICATIONS.

MATERIALS – ALL MATERIALS OTHER THAN OWNER SUPPLIED SHALL BE NEW AND UNUSED, INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS AND IN THE BEST PRACTICE OF THE CRAFT. OBTAIN OWNER APPROVAL OF ALL PRODUCTS PRIOR TO ORDERING OR INSTALLING ANY PART OF ANY SYSTEM.

EQUIPMENT SUBSTITUTIONS – ALL EQUIPMENT LISTED AND SCHEDULED ARE REPRESENTATIVE OF THE STANDARD OF QUALITY AND PERFORMANCE REQUIRED. "OR EQUAL" SUBSTITUTIONS WILL BE CONSIDERED IF SUBSTITUTE DATA SHEETS ARE SUBMITTED AND ARE SHOWN TO BE OF EQUAL OR BETTER QUALITY, INCLUDING EFFICIENCY OF PERFORMANCE, AND SIZE AND WEIGHT. OWNER SHALL HAVE FIRST RIGHT OF REFUSAL FOR ALL SUBSTITUTIONS.

WORKMANSHIP – INSTALLATION OF ALL WORK SHALL BE MADE SO THAT ITS SEVERAL COMPONENT PARTS SHALL FUNCTION AS A WORKABLE SYSTEM COMPLETE WITH ALL ACCESSORIES NECESSARY FOR ITS OPERATION. ALL MATERIAL AND EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, INSTRUCTIONS AND/OR INSTALLATION DRAWINGS. MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL CONFORM WITH APPLICABLE INDUSTRY STANDARDS, AND THIRD PARTY LISTINGS WHERE APPLICABLE.

WARRANTY – ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM PROJECT COMPLETION AND OWNER ACCEPTANCE. ANY FAULTY MATERIALS OR WORKMANSHIP SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER DURING THE WARRANTY PERIOD.

EQUIPMENT INSTALLATION AND ACCESS – INSTALL ALL EQUIPMENT WHERE NOTED ON THE DRAWINGS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. PROVIDE MISCELLANEOUS APPURTENANCES IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS INCLUDING ACCESSORIES, SUPPORTS AND CONTROL CONNECTIONS REQUIRED FOR COMPLETE AND OPERATING SYSTEMS. MAINTAIN MANUFACTURER'S RECOMMENDED SERVICE CLEARANCES AND PROVIDE WORKABLE ACCESS TO ALL SERVICEABLE AND/OR OPERABLE EQUIPMENT.

OPERATION AND MAINTENANCE MANUAL – PROVIDE THE OWNER WITH AN OPERATING AND MAINTENANCE MANUAL. TO INCLUDE DATA CUTSHEETS MARKED WITH THE SPECIFIC ITEM USED, MANUFACTURER'S SPECIFICATIONS, OPERATING AND MAINTENANCE INSTRUCTIONS, WARRANTY INFORMATION ON EACH PIECE OF EQUIPMENT, RECORD DRAWINGS WITH INSTALLED LOCATIONS NOTED, SOURCE OF SUPPLY FOR SPARE PARTS AND SERVICE. OPERATION AND MAINTENANCE MANUAL SHALL BE IN ELECTRONIC FORM AND SHALL BE SUBMITTED FOR REVIEW. THE DATA SHALL BE ARRANGED AND BOOKMARKED BY SPECIFICATION SECTION.

RECORD DRAWINGS – PROVIDE ACCURATE PROJECT RECORD DRAWINGS, SHOWN IN RED INK ON A CLEAN SET OF PRINTS. SHOWING ALL CHANGES FROM THE ORIGINAL PLANS MADE DURING INSTALLATION OF THE WORK. SHOW THE DIMENSIONED LOCATION AND ROUTING OF ALL MECHANICAL WORK THAT IS PERMANENTLY CONCEALED. SHOW ROUTING OF WORK IN PERMANENTLY CONCEALED BLIND SPACES WITHIN THE BUILDING. SHOW COMPLETE ROUTING AND SIZING OF ANY SIGNIFICANT REVISIONS TO THE SYSTEMS SHOWN. SUBMIT ORIGINAL COPY TO OWNER AT THE COMPLETION OF WORK AND PRIOR TO SUBSTANTIAL COMPLETION INSPECTION. PROVIDE ELECTRONIC COPY OF UPDATED CONTROLS SHOP DRAWINGS INCLUDING PLANS, PANEL WIRING DIAGRAMS, AND SEQUENCES OF OPERATIONS TO ACCURATELY REFLECT INSTALLED CONDITIONS.

SEISMIC RESTRAINT – ALL PIPING, DUCTWORK, AND EQUIPMENT INSTALLED UNDER THIS PROJECT SHALL BE SEISMICALLY RATED AND RESTRAINED FOR A SEISMIC EVENT IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF THE IBC AND ASCE 7 AS AMENDED BY THE MUNICIPALITY OF ANCHORAGE. THE CONTRACTOR SHALL PROVIDE A DEFERRED SUBMITTAL FOR REVIEW TO THE ENGINEER FOR SEISMIC RESTRAINT DESIGN WITH CALCULATIONS AND SHOP DRAWINGS. SEISMIC RESTRAINT CALCULATIONS AND SHOP DRAWINGS SHALL INCLUDE A STRUCTURAL ENGINEERS STAMP AND SIGNATURE PRIOR TO INSTALLATION. .

DEMOLITION DRAWINGS ARE BASED ON AS–BUILT DRAWINGS AND A NON–DESTRUCTIVE WALK–THROUGH OF THE FACILITY. REPORT DISCREPANCIES TO OWNER BEFORE DISTURBING THE EXISTING INSTALLATION. DISABLE SYSTEMS ONLY TO MAKE SWITCH OVERS AND CONNECTIONS. COORDINATE WITH PHASING PLAN TO PERFORM WORK IN SEQUENCE WITH OTHER TRADES AND MAINTAIN CODE MINIMUM MECHANICAL SERVICE CLEARANCES TO ALL AREAS IMPACTED BY WORK AND STILL OCCUPIED. OBTAIN PERMISSION FROM OWNER AT LEAST 72 HOURS PRIOR TO PARTIALLY OR COMPLETELY DISABLING SYSTEM. MINIMIZE OUTAGE DURATION AND MAKE TEMPORARY CONNECTIONS TO MAINTAIN SERVICE IN AREAS ADJACENT TO WORK AREAS. WHEN WORK MUST BE PERFORMED ON ENERGIZED EQUIPMENT OR CIRCUITS, USE PERSONNEL EXPERIENCED IN SUCH OPERATIONS. REMOVE, RELOCATE, AND/OR EXTEND EXISTING INSTALLATIONS TO ACCOMMODATE NEW CONSTRUCTIONS. REMOVE ABANDONED WIRING TO SOURCE OF SUPPLY. REMOVE EXPOSED ABANDONED DUCTWORK, INSULATION, HANGERS AND SUPPORTS, CONTROLS AND CONTROL WIRING, AND ANY OTHER ABANDONED MECHANICAL EQUIPMENT. THIS INCLUDES ABANDONED EQUIPMENT ABOVE ACCESSIBLE CEILING FINISHES. WHERE ABANDONED PIPE ENTERS EXISTING SURFACES TO REMAIN, CUT PIPE FLUSH WITH WALLS, AND FLOORS, CAP/PLUG PIPE AND PATCH SURFACES. REPAIR ADJACENT CONSTRUCTION AND FINISHES DAMAGED DURING DEMOLITION AND REMODEL WORK. MAINTAIN ACCESS TO EXISTING MECHANICAL INSTALLATIONS WHICH REMAIN ACTIVE.

SECTION 23 05 29 – HANGERS & SUPPORTS FOR HVAC & EQUIPMENT

A. SUBMITTALS: SUBMIT PRODUCT DATA FOR APPROVAL.

B. MATERIALS:
   1. DUCT HANGERS AND SUPPORTS:
      1.1. THREADED ROD: STEEL, THREADED, ASTM A36/A36M.
      1.2. CHANNEL STRUT: 12–GAUGE FORMED STEEL CHANNELS CONFORMING TO ASTM A653 G433. ASTM 675 NUTS, ASTM 307 SCREWS.
      1.3. SHEET METAL STRAPS: ASTM A653/A653M GALVANIZED STEEL WITH ZINC COATING.

C. INSTALLATION
   1. INSTALL DUCT HANGERS IN ACCORDANCE WITH SMACNA.
   2. INSTALLED AS PER THE MANUFACTURERS INSTRUCTIONS. PROVIDE SEISMIC SUPPORT FOR ALL PIPING AND EQUIPMENT IN ACCORDANCE WITH IBC AND ASD STANDARDS.

SECTION 23 05 53 – IDENTIFICATION FOR PIPING AND EQUIPMENT

A. SUBMITTALS: SUBMIT PRODUCT DATA FOR APPROVAL.

B. MATERIALS:
   1. COLORING SCHEME IN ACCORDANCE WITH ANSI A13.1, SETON OPTI–CODE OR EQUAL.

C. INSTALLATION:
   1. IDENTIFY DUCTWORK TO INDICATE CONTENTS AND FLOW DIRECTION USING PIPE MARKERS OR BY A LABELED SLEEVES IN LETTERS READABLE FROM FLOOR AT LEAST ONCE IN EACH ROOM AND AT INTERVALS OF NOT MORE THAT 20' APART AND ON EACH SIDE OF PARTITION PENETRATIONS.
   2. CEILING LABELS: 3/4" X 2" VINYL LABEL, 3.0 MIL SELF–ADHESIVE VINYL SIMILAR TO DURALABEL PRO. LABEL COLOR SHALL BE BLACK TEXT ON A WHITE BACKGROUND.

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PROJECT NO.19-0028.03

ANCHORAGE SCHOOL DISTRICT
WHALEY MULTI-SENSORY DE-ESCALATION ROOM RENOVATIONS

BID DOCUMENTS

STATE OF ALASKA
49TH
DUSTIN R. MCCLESKEY
ME–124904
12/18/23
REGISTERED PROFESSIONAL ENGINEER

MECHANICAL SPECIFICATIONS

AUTHOR:SR CHECKED:DRM
REVISION: ADDENDA #1
ISSUE DATE:12/18/2023
OWNER PROJECT # M3136

M0.02

FULL SIZE PRINTED ON 22 x 34

NOTIFICATION OF CHILD OCCUPIED FACILITY

PORTIONS OF THIS BUILDING ARE CLASSIFIED AS A CHILD OCCUPIED FACILITY IN ACCORDANCE WITH 40 CFR 745 AND LEAD-BASED PAINTS MAY BE PRESENT ON COMPONENTS TO BE DISTURBED IN THOSE AREAS. PERSONNEL PERFORMING WORK IN THESE AREAS MUST COMPLY WITH THE REQUIREMENTS OF 40 CFR 745, INCLUDING TRAINING, WORK PRACTICES AND CLEANING OF THE WORK AREA. REFER TO SPECIFICATION DIVISIONS 0, 1 AND 2 FOR SPECIFIC INFORMATION CONCERNING DISTURBING, REMOVING AND DISPOSING OF LEAD MATERIALS AND THE INSTALLATION OF NEW MATERIALS OR COMPONENTS. THIS NOTIFICATION IS PROVIDED IN ACCORDANCE WITH EPA AND OSHA REQUIREMENTS.

NOTIFICATION OF POTENTIAL HAZARDS

ASBESTOS, LEAD, AND OTHER HAZARDOUS MATERIALS ARE PRESENT IN THE BUILDING AND MAY IMPACT THE WORK OF ALL TRADES. REGULATED AIR CONTAMINATES, INCLUDING ASBESTOS AND LEAD, ARE ALSO PRESENT IN SETTLED AND CONCEALED DUST IN AND ON ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS OR SYSTEMS THROUGHOUT THE BUILDING. ALL TRADES SHALL COORDINATE WITH OTHER TRADES AND CONDUCT THEIR WORK TO PREVENT WORKER EXPOSURE OR SITE CONTAMINATION. REFER TO SPECIFICATION DIVISIONS 0, 1, AND 2 FOR SPECIFIC INFORMATION CONCERNING DISTURBING, REMOVING, AND DISPOSING OF THESE MATERIALS AND THE INSTALLATION OF NEW MATERIALS OR COMPONENTS. THIS NOTIFICATION IS PROVIDED IN ACCORDANCE WITH EPA AND OSHA REQUIREMENTS.

SECTION 22 07 00; 23 07 00 – INSULATION

A. SUBMITTALS: SUBMIT PRODUCT DATA FOR APPROVAL.

B. MATERIALS

1. INTERIOR DUCTWORK INSULATION – FSK DUCT WRAP: FLEXIBLE GLASS FIBER; ANSI/ASTM C553; COMMERCIAL GRADE; 'K' VALUE OF 0.27 AT 75 DEG F. JOHNS MANVILLE "800 SERIES SPIN-GLAS" OR EQUAL.
2. RIGID FIBER BOARD, LINER – ASTM C1071; 'K' VALUE OF 0.23 AT 75'F; COATED AIR SIDE FOR MAXIMUM 6,000 FPM AIR VELOCITY, UL LISTED ADHESIVE GALVANIZED STEEL PINS. JOHNS MANVILLE "LINEACOUSTIC R-300" OR APPROVED EQUAL.
3. FIBER FREE DUCT LINER – CLOSE-CELL, CFC AND HCFC FREE FLEXIBLE ELASTOMERIC ACOUSTICAL INSULATION WITH SCRIM-REINFORCED ACRYLIC ADHESIVE ON ONE SIDE. ASTM C534 TYPE 2 (SHEET) GRADE 1, 'K' VALUE OF 0.25 AT 75'F; NOISE REDUCTION COEFFICIENT OF 0.5 AT 1" THICKNESS. UL LISTED ADHESIVE GALVANIZED STEEL PINS. K-FLEX USA "K-FLEX DUCT LINER GRAY" OR APPROVED EQUAL.

C. INSTALLATION

1. DUCTWORK
   - 1.1. PROVIDE 1" DUCT LINER ON ALL TRANSFER AIR DUCTWORK, AND RETURN AND SUPPLY DUCTWORK AS INDICATED ON THE PLANS. DUCTWORK DIMENSIONS INDICATED ARE NET INSIDER DIMENSIONS REQUIRED FOR AIRFLOW. INCREASE DUCTWORK TO ALLOW FOR LINER THICKNESS.
   - 1.2. PROVIDE 1" FIBERGLASS INSULATION ON ALL SUPPLY AND RETURN DUCTWORK.
2. INSTALL ALL INSULATION MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, AND ALL APPLICABLE BUILDING CODES AND INDUSTRY STANDARDS.

SECTION 23 05 93 – TESTING, ADJUSTING, AND BALANCING FOR HVAC

A. SUBMITTALS: SUBMIT QUALIFICATIONS, NEBB CERTIFICATIONS OR 5 YEARS DOCUMENTED PROJECT EXPERIENCE OF SIMILAR OR GREATER MAGNITUDE, EQUIPMENT CALIBRATIONS, PRELIMINARY AND FINAL BALANCING REPORTS.

B. MATERIALS:

1. BALANCING INSTRUMENTS AS NECESSARY TO COMPLETE WORK TO MEASURE AT LEAST THE FOLLOWING: AIR VELOCITY, STATIC PRESSURE, RPM, TEMPERATURE, AND FLOW.

C. EXECUTION:

1. THE CONTRACTOR SHALL BALANCE AIR SYSTEMS ACCORDING TO NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB) RECOMMENDED PROCEDURES AND CONTRACT DOCUMENTS, AND TO THE SATISFACTION OF THE OWNER.

SECTION 23 31 00 – HVAC DUCTS AND CASINGS

A. SUBMITTALS: SUBMIT PRODUCT DATA FOR APPROVAL

B. MATERIALS:

1. DUCTWORK:
   - 1.1. GALVANIZED STEEL – ASTM A653/A653M GALVANIZED SHEET, LOCK-FORMING QUALITY, ASTM A90/90M G90 ZINC COATING.
   - 1.2. FASTENERS – RIVETS, BOLTS, OR SHEET METAL SCREWS.
2. SINGLE WALL, ROUND SPIRAL DUCT – UL 181, CLASS 1, ROUND SPIRAL LOCKSEAM, GALVANIZED STEEL. DUCT SIZE GAUGES PER SMACNA STANDARDS.
3. INSTALLATION:
1. LOW AND MEDIUM PRESSURE DUCTWORK – FABRICATE, INSTALL, AND SUPPORT IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS AND ASHRAE HANDBOOKS, EXCEPT AS INDICATED. SEAL ALL DUCT SEAMS AND JOINTS AIRTIGHT. USE TURNING VANES IN ALL SQUARE ELBOWS AND FLAT OVAL ELBOWS. INSTALL VOLUME DAMPERS AND EXTRACTORS WHERE SHOWN ON THE DRAWINGS. ALL SHEET METAL WORK TO BE CONSTRUCTED, INSTALLED, TESTED AND BALANCED IN ACCORDANCE WITH SMACNA STANDARDS. SUPPORT LOW AND MEDIUM PRESSURE DUCTWORK PER SMACNA GUIDELINES.
2. PROVIDE SEISMIC SUPPORT AND RESTRAINT FOR ALL DUCTWORK AND EQUIPMENT IN ACCORDANCE WITH THE IBC.

SECTION 23 33 00 – AIR DUCT ACCESSORIES

A. SUBMITTALS: SUBMIT PRODUCT DATA FOR APPROVAL

B. MATERIALS:

1. DAMPERS:
   - 1.1. MANUAL BALANCING – DIFFERENTIAL PRESSURE RATING OF 1" W.G., VELOCITY RATING OF 2,000 FPM. DAMPER FRAME AND SLEEVE SHALL BE OF ONE-PIECE DESIGN, 20 GAUGE GALVANIZED STEEL, SINGLE BLADE. GREENHECK "MBDR-50" OR APPROVED EQUAL.
2. TURNING VANES – AIR FOIL, DOUBLE WIDTH, GALVANIZED, 2" INSIDE RADIUS.

C. INSTALLATION:

1. INSTALL COMPONENTS IN ACCORDANCE WITH NFPA 90A AND SMACNA DUCT CONSTRUCTION STANDARDS.
2. INSTALL TEMPORARY DUCT TEST HOLES AS REQUIRED FOR TESTING AND BALANCING. CAP ALL HOLES WITH NEOPRENE OR THREADED PLUGS.

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ANCHORAGE SCHOOL DISTRICT
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BID DOCUMENTS

STATE OF ALASKA
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ME-124904
12/19/23
REGISTERED PROFESSIONAL ENGINEER

MECHANICAL SPECIFICATIONS

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M0.03

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ADDENDUM NO. 1

NOTIFICATION OF CHILD OCCUPIED FACILITY

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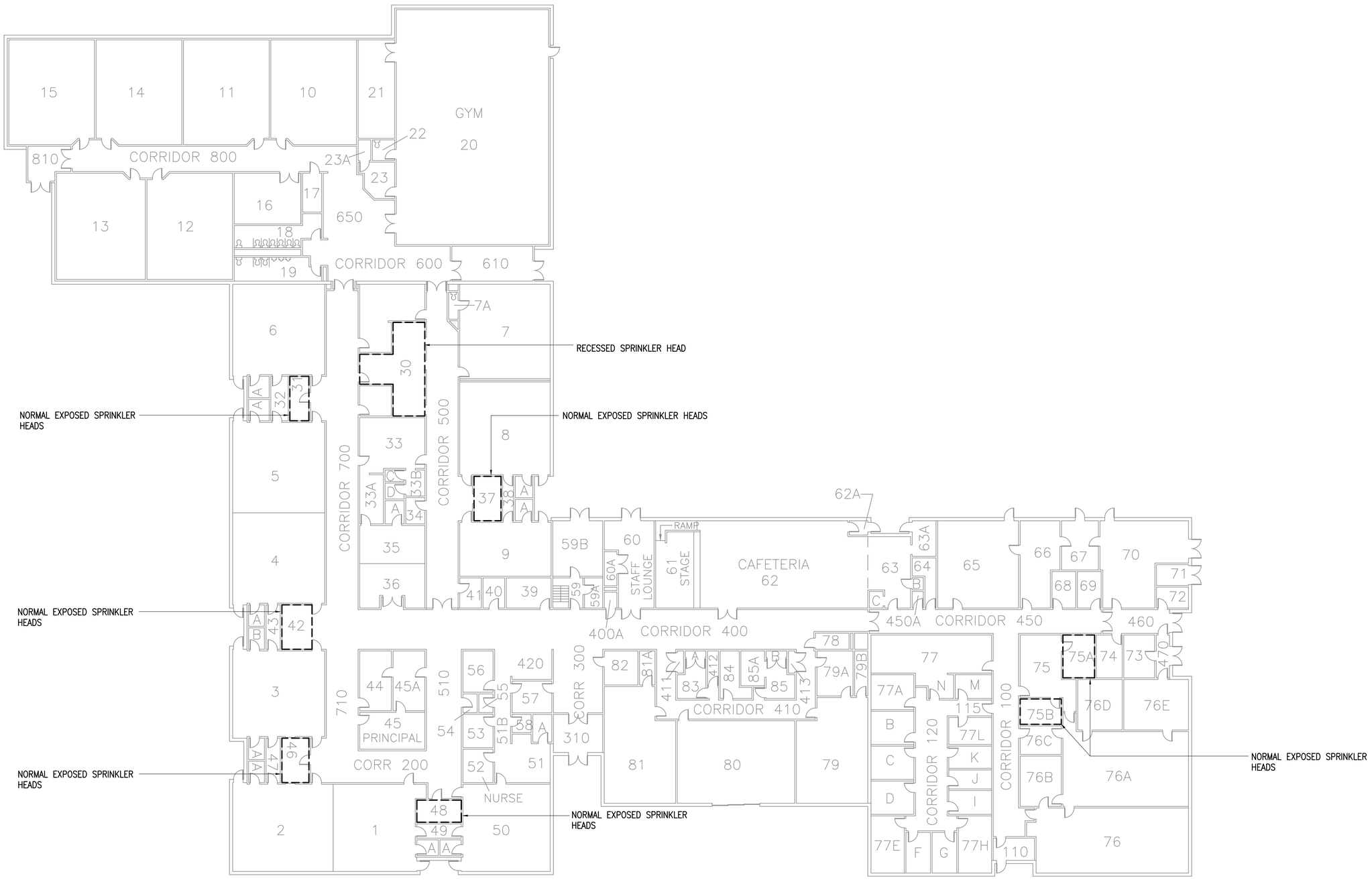

1 FIRE PROTECTION FLOOR PLAN
1/4" = 1'-0"

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FIRE PROTECTION FLOOR PLAN

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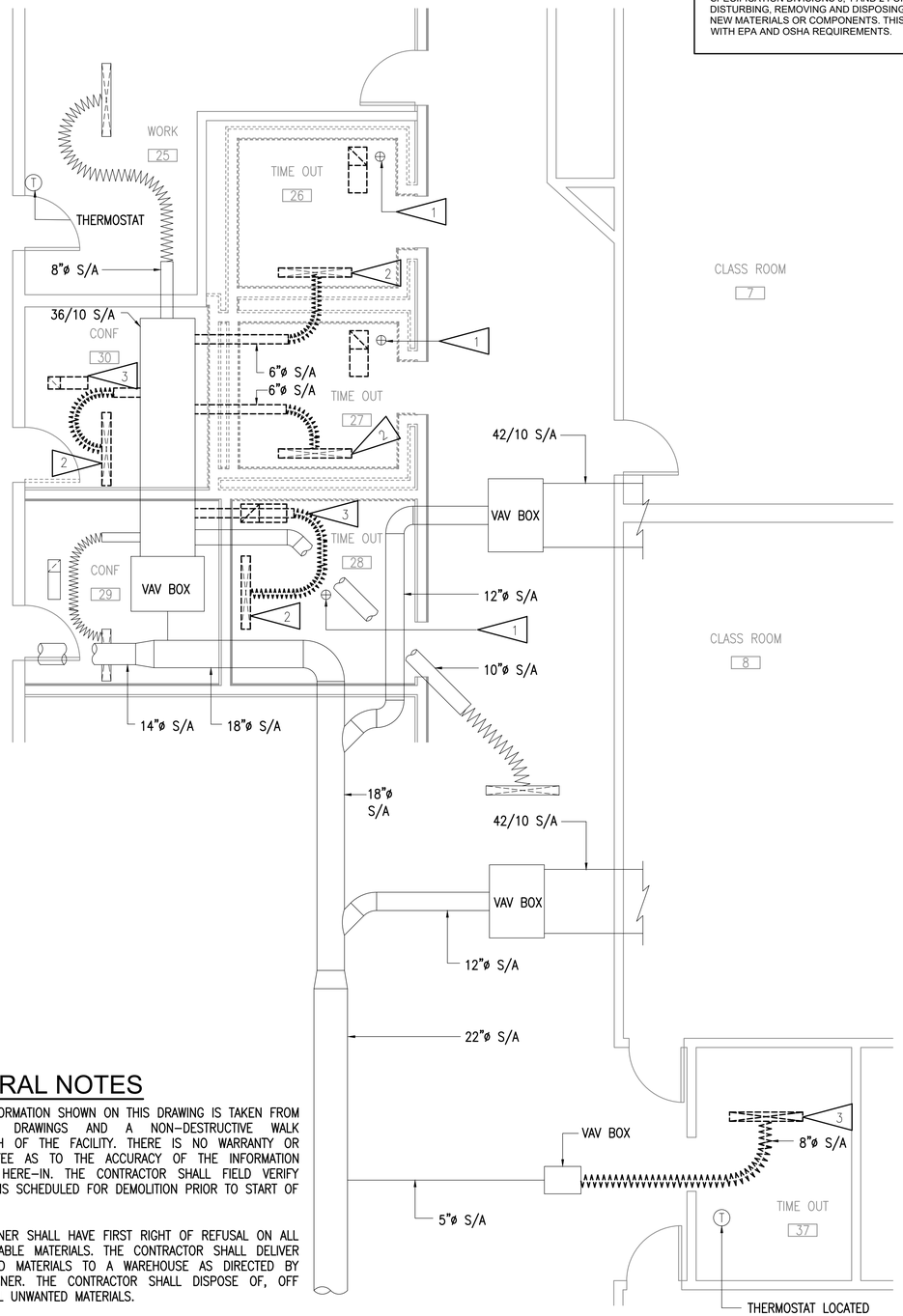


GENERAL NOTES

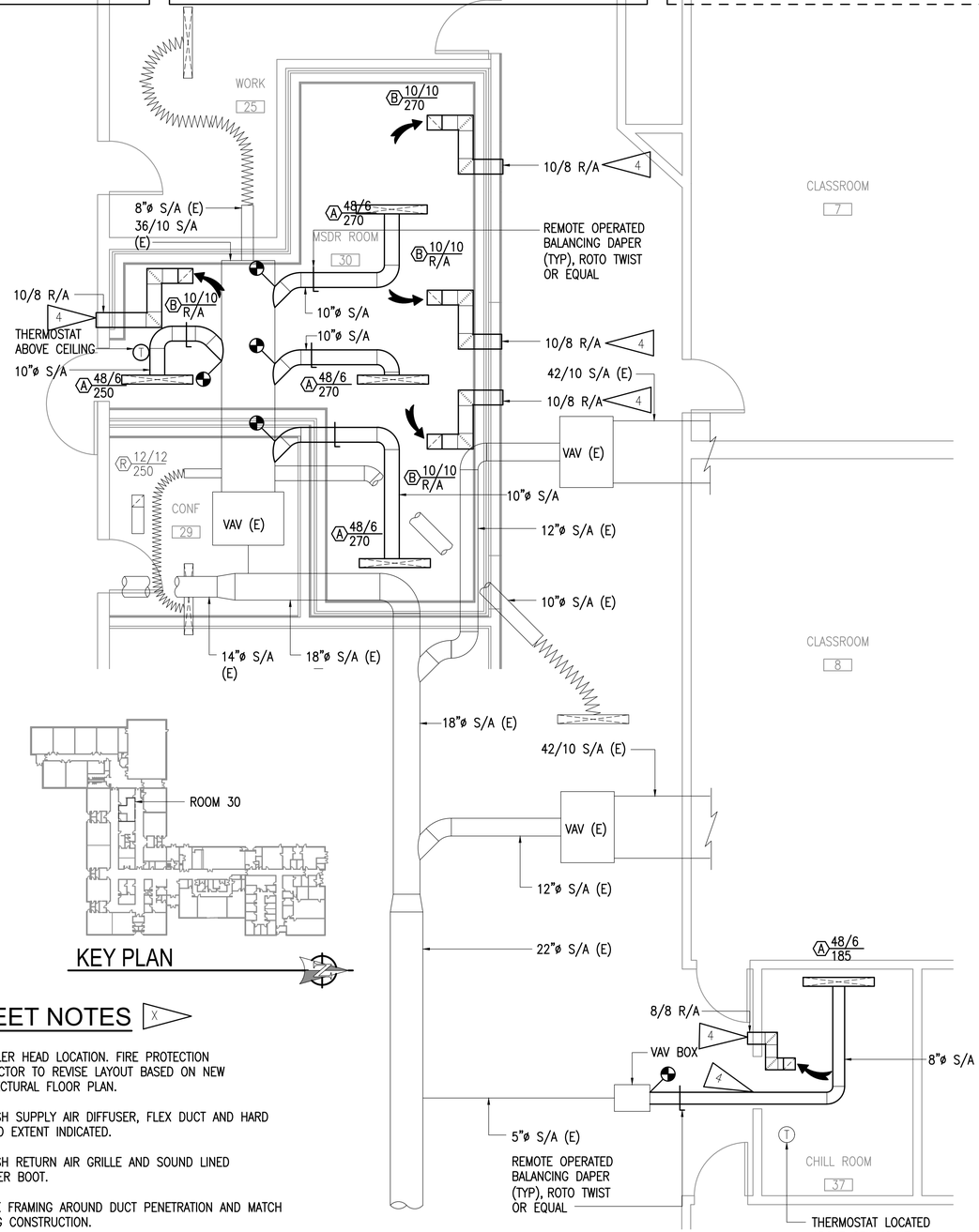
A. THE INFORMATION SHOWN ON THIS DRAWING IS TAKEN FROM RECORD DRAWINGS AND A NON-DESTRUCTIVE WALK THROUGH OF THE FACILITY. THERE IS NO WARRANTY OR GUARANTEE AS TO THE ACCURACY OF THE INFORMATION SHOWN HERE-IN. THE CONTRACTOR SHALL FIELD VERIFY ALL ITEMS SCHEDULED FOR DEMOLITION PRIOR TO START OF WORK.

B. THE OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL SALVAGEABLE MATERIALS. THE CONTRACTOR SHALL DELIVER SALVAGED MATERIALS TO A WAREHOUSE AS DIRECTED BY THE OWNER. THE CONTRACTOR SHALL DISPOSE OF, OFF SITE, ALL UNWANTED MATERIALS.

C. DASHED OR DOTTED LINES INDICATE ITEMS TO BE REMOVED. SOLID LINES INDICATE EXISTING ITEMS TO REMAIN.

1 ROOM 27 DEMOLITION

1/4" = 1'-0"



KEY PLAN

SHEET NOTES X

1. SPRINKLER HEAD LOCATION. FIRE PROTECTION CONTRACTOR TO REVISE LAYOUT BASED ON NEW ARCHITECTURAL FLOOR PLAN.
2. DEMOLISH SUPPLY AIR DIFFUSER, FLEX DUCT AND HARD DUCT TO EXTENT INDICATED.
3. DEMOLISH RETURN AIR GRILLE AND SOUND LINED TRANSFER BOOT.
4. PROVIDE FRAMING AROUND DUCT PENETRATION AND MATCH EXISTING CONSTRUCTION.

2 ROOM 27 REMODEL

1/4" = 1'-0"

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ANCHORAGE SCHOOL DISTRICT
WHALEY MULTI-SENSORY DE-ESCALATION ROOM RENOVATIONS

BID DOCUMENTS

STATE OF ALASKA
DUSTIN R. MCCLESKEY
ME-124904
12/18/23
REGISTERED PROFESSIONAL ENGINEER

ROOM 27 DEMO & REMODEL PLAN

AUTHOR:SR CHECKED:DRM
REVISION: ADDENDA #1
ISSUE DATE:12/18/2023
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M1.01

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ADDENDUM NO. 1

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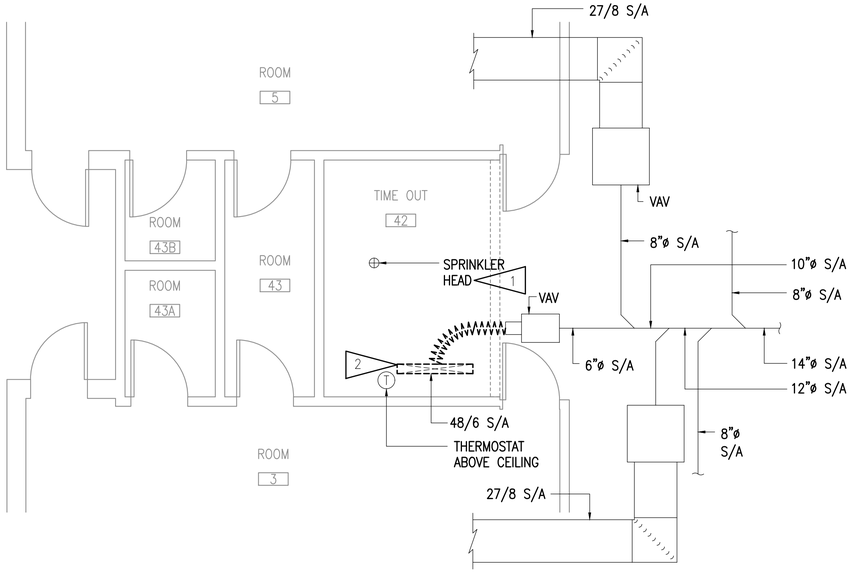
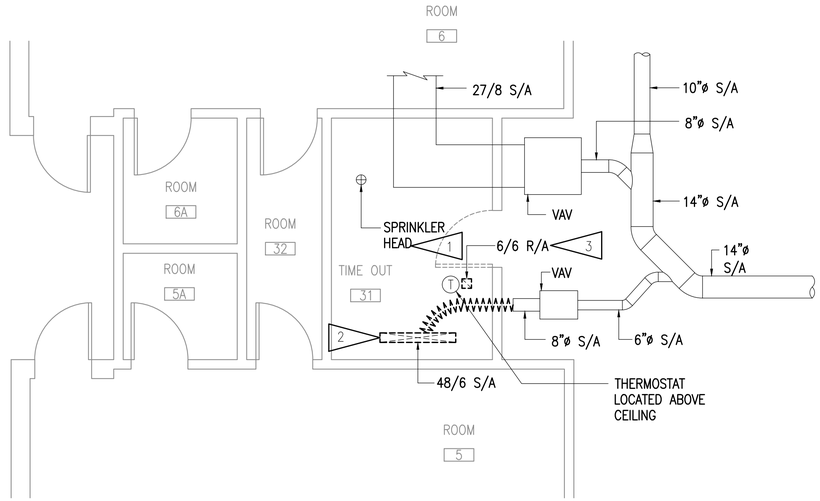




GENERAL NOTES

A. THE INFORMATION SHOWN ON THIS DRAWING IS TAKEN FROM RECORD DRAWINGS AND A NON-DESTRUCTIVE WALK THROUGH OF THE FACILITY. THERE IS NO WARRANTY OR GUARANTEE AS TO THE ACCURACY OF THE INFORMATION SHOWN HERE-IN. THE CONTRACTOR SHALL FIELD VERIFY ALL ITEMS SCHEDULED FOR DEMOLITION PRIOR TO START OF WORK.

B. THE OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL SALVAGEABLE MATERIALS. THE CONTRACTOR SHALL DELIVER SALVAGED MATERIALS TO A WAREHOUSE AS DIRECTED BY THE OWNER. THE CONTRACTOR SHALL DISPOSE OF, OFF SITE, ALL UNWANTED MATERIALS.

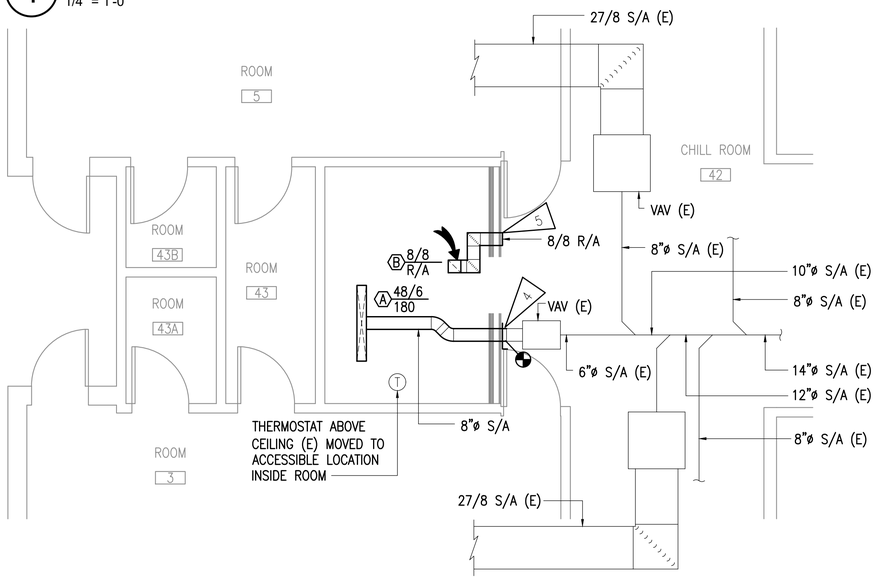
C. DASHED OR DOTTED LINES INDICATE ITEMS TO BE REMOVED. SOLID LINES INDICATE EXISTING ITEMS TO REMAIN.

SHEET NOTES X

1. SPRINKLER HEAD LOCATION. FIRE PROTECTION CONTRACTOR TO REVISE LAYOUT BASED ON NEW ARCHITECTURAL FLOOR PLAN.
2. DEMOLISH SUPPLY AIR DIFFUSER, FLEX DUCT AND HARD DUCT TO EXTENT INDICATED.
3. DEMOLISH RETURN AIR GRILLE AND SOUND LINED TRANSFER BOOT.
4. PROVIDE FRAMING AROUND DUCT PENETRATION AND MATCH EXISTING CONSTRUCTION.
5. PROVIDE FRAMING AROUND DUCT PENETRATION AND MATCH EXISTING CONSTRUCITON. R/A IS NECESSARY IF THERE IS A DOOR PROVIDED IN FUTURE.

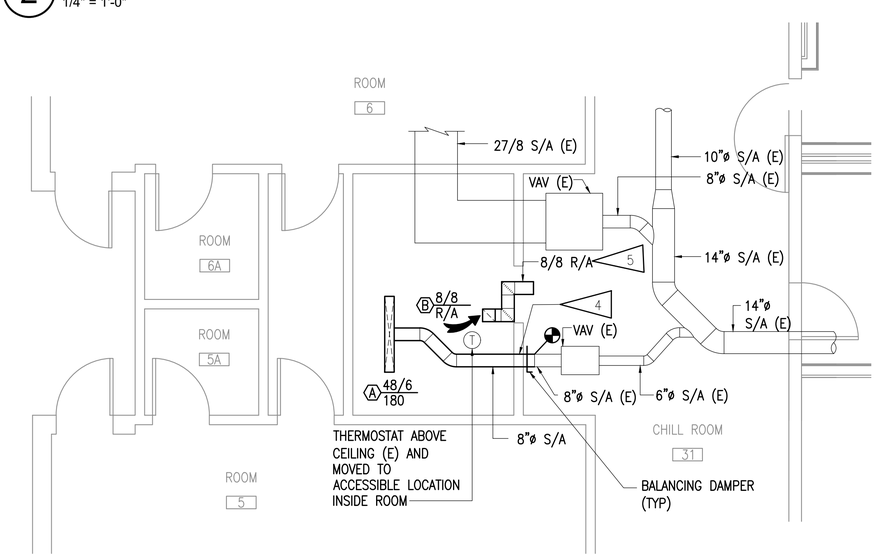
1 ROOM 42 DEMOLITION

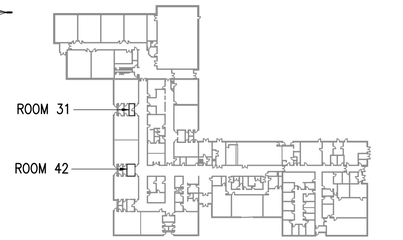
1/4" = 1'-0"



2 ROOM 31 DEMOLITION

1/4" = 1'-0"





KEY PLAN

3 ROOM 42 REMODEL

1/4" = 1'-0"

4 ROOM 31 REMODEL

1/4" = 1'-0"

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BID DOCUMENTS

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Dustin McClay
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12/18/23
REGISTERED PROFESSIONAL ENGINEER

ROOMS 42, 31 DEMO & REMODEL PLAN

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REVISION: ADDENDA #1
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ADDENDUM NO. 1

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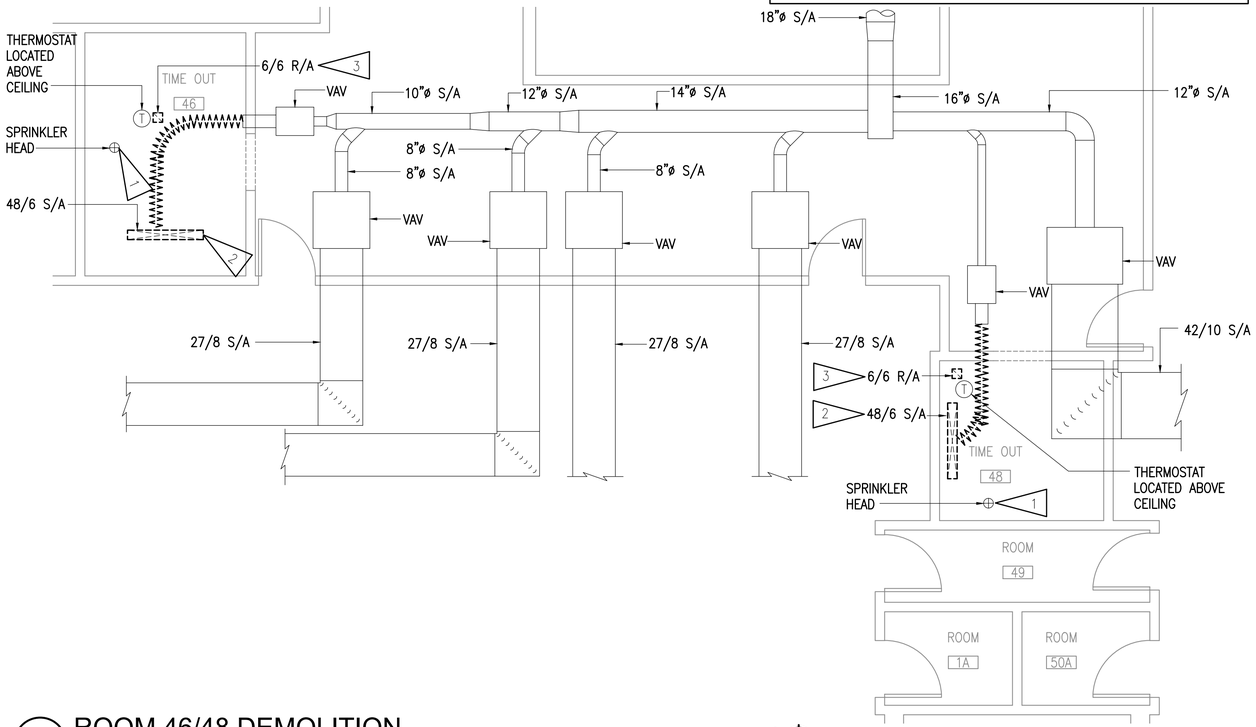

1 ROOM 46/48 DEMOLITION

1/4" = 1'-0"

GENERAL NOTES

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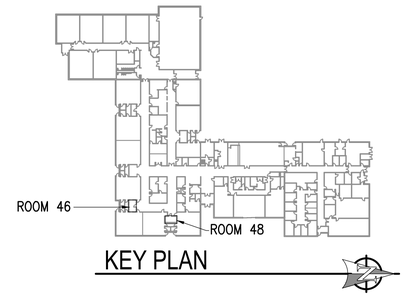
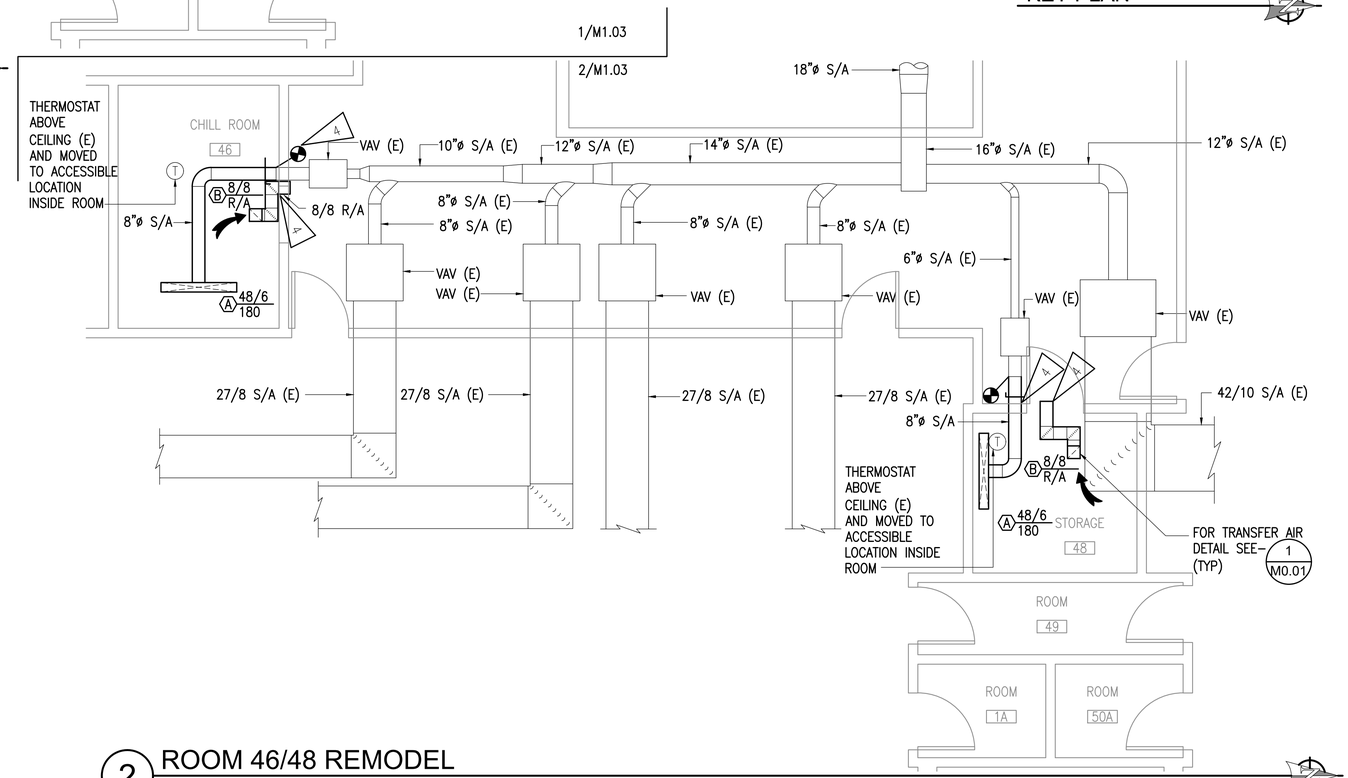
C. DASHED OR DOTTED LINES INDICATE ITEMS TO BE REMOVED. SOLID LINES INDICATE EXISTING ITEMS TO REMAIN.

SHEET NOTES X

1. SPRINKLER HEAD LOCATION. FIRE PROTECTION CONTRACTOR TO REVISE LAYOUT BASED ON NEW ARCHITECTURAL FLOOR PLAN.
2. DEMOLISH SUPPLY AIR DIFFUSER, FLEX DUCT AND HARD DUCT TO EXTENT INDICATED.
3. DEMOLISH RETURN AIR GRILLE AND SOUND LINED TRANSFER BOOT.
4. PROVIDE FRAMING AROUND DUCT PENETRATION AND MATCH EXISTING CONSTRUCTION.





2 ROOM 46/48 REMODEL

1/4" = 1'-0"

RSA Engineering, Inc.
MECHANICAL AND ELECTRICAL CONSULTING ENGINEERS
670 West Fireweed Lane, Suite 200 - Anchorage, AK 99503 - (907) 276-0521
Corporate No.: AECC642
ECI ARCHITECTURE DESIGN STRATEGY
821 N St. Ste 201
ANCHORAGE, ALASKA 99501 907.561.5543
PROJECT NO.19-0028.03

ANCHORAGE SCHOOL DISTRICT
WHALEY MULTI-SENSORY DE-ESCALATION ROOM RENOVATIONS

BID DOCUMENTS

STATE OF ALASKA
AUSTIN R. MCCLESKEY
ME-124904
12/19/23
REGISTERED PROFESSIONAL ENGINEER

ROOMS 46/48 DEMO & REMODEL PLAN

AUTHOR:SR CHECKED:DRM
REVISION: ADDENDA #1
ISSUE DATE:12/18/2023
OWNER PROJECT # M3136

M1.03

FULL SIZE PRINTED ON 22 x 34

ADDENDUM NO. 1

NOTIFICATION OF CHILD OCCUPIED FACILITY

PORTIONS OF THIS BUILDING ARE CLASSIFIED AS A CHILD OCCUPIED FACILITY IN ACCORDANCE WITH 40 CFR 745 AND LEAD-BASED PAINTS MAY BE PRESENT ON COMPONENTS TO BE DISTURBED IN THOSE AREAS. PERSONNEL PERFORMING WORK IN THESE AREAS MUST COMPLY WITH THE REQUIREMENTS OF 40 CFR 745, INCLUDING TRAINING, WORK PRACTICES AND CLEANING OF THE WORK AREA. REFER TO SPECIFICATION DIVISIONS 0, 1 AND 2 FOR SPECIFIC INFORMATION CONCERNING DISTURBING, REMOVING AND DISPOSING OF LEAD MATERIALS AND THE INSTALLATION OF NEW MATERIALS OR COMPONENTS. THIS NOTIFICATION IS PROVIDED IN ACCORDANCE WITH EPA AND OSHA REQUIREMENTS.

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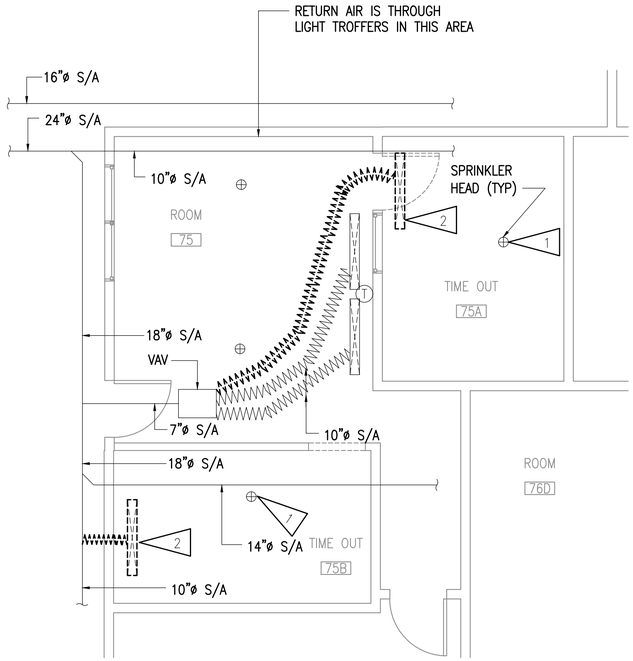
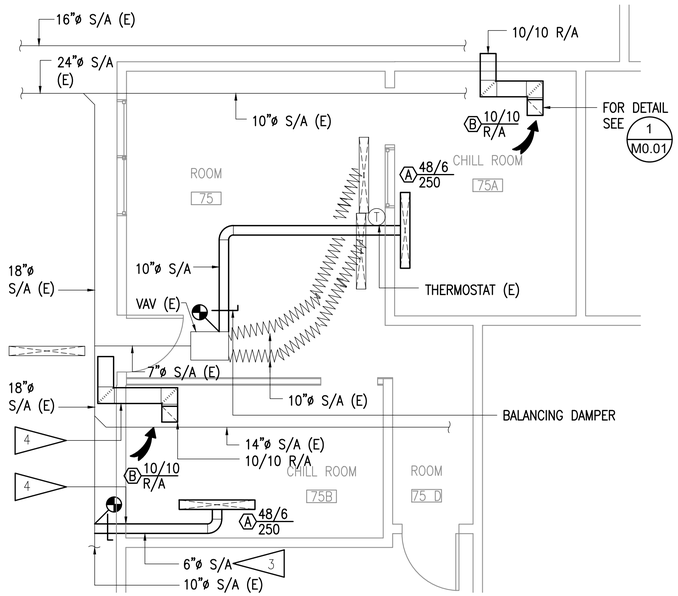


1 ROOM 75A AND 75B DEMOLITION

1/4" = 1'-0"



2 ROOM 75A AND 75B REMODEL

1/4" = 1'-0"

GENERAL NOTES

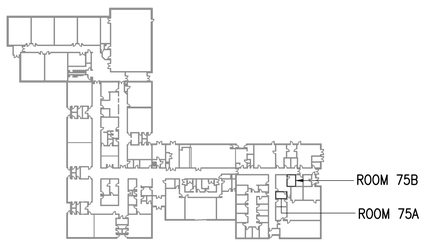
A. THE INFORMATION SHOWN ON THIS DRAWING IS TAKEN FROM RECORD DRAWINGS AND A NON–DESTRUCTIVE WALK THROUGH OF THE FACILITY. THERE IS NO WARRANTY OR GUARANTEE AS TO THE ACCURACY OF THE INFORMATION SHOWN HERE–IN. THE CONTRACTOR SHALL FIELD VERIFY ALL ITEMS SCHEDULED FOR DEMOLITION PRIOR TO START OF WORK.

B. THE OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL SALVAGEABLE MATERIALS. THE CONTRACTOR SHALL DELIVER SALVAGED MATERIALS TO A WAREHOUSE AS DIRECTED BY THE OWNER. THE CONTRACTOR SHALL DISPOSE OF, OFF SITE, ALL UNWANTED MATERIALS.

C. DASHED OR DOTTED LINES INDICATE ITEMS TO BE REMOVED. SOLID LINES INDICATE EXISTING ITEMS TO REMAIN.

SHEET NOTES

1. SPRINKLER HEAD LOCATION. FIRE PROTECTION CONTRACTOR TO REVISE LAYOUT BASED ON NEW ARCHITECTURAL FLOOR PLAN.
2. DEMOLISH SUPPLY AIR DIFFUSER, FLEX DUCT AND HARD DUCT TO EXTENT INDICATED.
3. PROVIDE SOUND LINING FOR DUCT SERVING DIFFUSER.
4. PROVIDE FRAMING AROUND DUCT PENETRATION AND MATCH EXISTING CONSTRUCTION.



KEY PLAN

RSA Engineering, Inc.
MECHANICAL AND ELECTRICAL CONSULTING ENGINEERS
670 West Fireweed Lane, Suite 200 • Anchorage, AK 99503 • (907) 276-0521
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ECI ARCHITECTURE DESIGN STRATEGY
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ANCHORAGE, ALASKA 99501 907.561.5543
PROJECT NO.19-0028.03

ANCHORAGE SCHOOL DISTRICT
WHALEY MULTI-SENSORY DE-ESCALATION ROOM RENOVATIONS

BID DOCUMENTS

STATE OF ALASKA
DUSTIN R. MCCLESKEY
ME–124904
12/15/23
REGISTERED PROFESSIONAL ENGINEER

ROOM 75 DEMO & REMODEL PLAN

AUTHOR:SR CHECKED:DRM
REVISION: ADDENDA #1
ISSUE DATE:12/18/2023
OWNER PROJECT # M3136

M1.04

FULL SIZE PRINTED ON 22 x 34

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MOA PLAN REVIEW PROJECT SUMMARY

MULTI-SENSORY DE-ESCELLATION ROOM (MSDR) PROJECT. WORK TO INCLUDE:

- DEMOLITION OF EXISTING ROOM LIGHTING
- DEMOLITION OF CCTV CAMERAS & EQUIPMENT
- REPLACEMENT OF EXISTING RECEPTACLES AND TELECOM OUTLETS WITH TAMPER RESISTANT TYPE
- NEW MSDR/CHILL ROOM LIGHTING
- FIRE ALARM SYSTEM UPGRADES AS NECESSARY TO ACCOMMODATE NEW FLOOR PLAN LAYOUTS

ELECTRICAL LEGEND

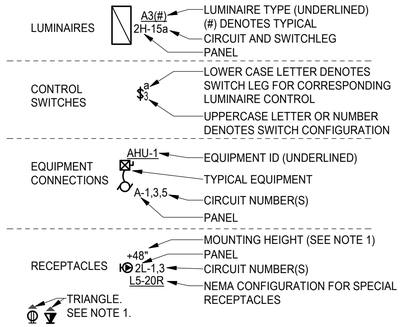
- LUMINAIRE - TYPE AS NOTED ON PLAN - LINEWORK MAY VARY
- LUMINAIRE - FILL INDICATES EMERGENCY (MAY VARY) - TYPE ENDS WITH 'E'
- $ SWITCH - SINGLE POLE, SINGLE THROW, UON
- $x SWITCH - SEE SWITCH LEGEND FOR TYPE
- WALL SENSOR - SEE SWITCH LEGEND: WALL SENSOR FOR TYPE
- POWER PANELBOARD
- JUNCTION BOX OR EQUIPMENT CONNECTION (CEILING; WALL; FLOOR)
- DUPLEX RECEPTACLE
- DOUBLE DUPLEX RECEPTACLE
- TELECOMMUNICATION OUTLET
- SMOKE DETECTOR - PHOTO ELECTRIC
- FIRE ALARM CONTROLLED MAGNETIC DOOR HOLDER / RELEASE
- FIRE ALARM COMBINATION HORN/STROBE (WALL; CEILING)
- SPEAKER (CEILING; WALL; FLOOR)
- SC SECURITY CAMERA (FIXED POSITION)

SWITCH LEGEND

3 (THREE WAY); 4 (FOUR WAY); B (THREE WAY DIMMER); C (TIMER); D (DIMMER); K (KEYED); L (LOW VOLTAGE); P (PILOT LIGHT); S (VARIABLE SPEED CONTROL); T (INTEGRAL MOTOR OVERLOAD)
-WALL SENSOR: 2 (DUAL CIRCUIT OCCUPANCY); D (DIMMING VACANCY SENSOR); O (OCCUPANCY SENSOR); V (VACANCY SENSOR)

- XXXX DENOTES AVAILABLE FAULT CURRENT
- LINETYPE/LINEWEIGHT DENOTING FUTURE WORK
- LINETYPE/LINEWEIGHT DENOTING EXISTING WORK TO REMAIN
- LINETYPE/LINEWEIGHT DENOTING NEW WORK
- LINETYPE/LINEWEIGHT DENOTING DEMO WORK
- LINETYPE/LINEWEIGHT DENOTING BELOW GRADE CONDUIT
- LINETYPE/LINEWEIGHT DENOTING CONTROL WIRING

EQUIPMENT TAG LEGEND



NOTE 1: DIMENSIONS (WHEN GIVEN ARE AFF). TRIANGLE DENOTES 46" AFF IN OPEN AREAS OR AT CASEWORK LOCATIONS TO BE 4" ABOVE COUNTERTOP (BACKSPLASH WHEN PRESENT). COORDINATE WITH ARCHITECTURE. THIS APPLIES TO ALL ELECTRICAL DEVICES.

ABBREVIATIONS	
INDUSTRY STANDARD ABBREVIATIONS SHALL ALSO BE APPLICABLE.	
Key Name	**FullWord**
(#)	DENOTES TYPICAL IN LIGHT FIXTURE TYPES
(D)	DEMOLISH
(E)	EXISTING
(R)	RELOCATED
AER	ARC ENERGY REDUCTION
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AL	ALUMINUM
ASD	ANCHORAGE SCHOOL DISTRICT
BJ	BONDING JUMPER
CB	CIRCUIT BREAKER
CEA	CHUGACH ELECTRIC ASSOCIATION
CO, C.O.	CONDUIT ONLY
CT	CURRENT TRANSFORMER
CU	COPPER
EGC	EQUIPMENT GROUNDING CONDUCTOR
FAA	FIRE ALARM ANNUCIATOR
FACP	FIRE ALARM CONTROL PANEL
FC	FOOTCANDLE ILLUMINATION
FHP	FRACTIONAL HORSEPOWER
FLA	FULL LOAD AMPS
FSD	FIRE SMOKE DAMPER
G, GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GEC	GROUNDING ELECTRODE CONDUCTOR
GES	GROUNDING ELECTRODE SYSTEM
GFPE	GROUND FAULT PROTECTION OF EQUIPMENT
MCA	MINIMUM CIRCUIT AMPACITY
MFS	MAXIMUM FUSE SIZE
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT (NOT IN SCOPE)
NO	NORMALLY OPEN
P	POLES
PC	PHOTO CELL
PH, Ø	PHASE
PNL	PANEL
RIB	RELAY IN A BOX (MOTOR RATED)
SCA	SHORT CIRCUIT AMPS
SCCR	SHORT CIRCUIT CURRENT RATING
SE	SERVICE ENTRANCE RATED
SSBJ	SUPPLY SIDE BONDING JUMPER
SSEBJ	SUPPLY SIDE EQUIPMENT BONDING JUMPER
TGB	TELECOMMUNICATION GROUNDING BUSBAR
TMGB	TELECOMMUNICATION MAIN GROUNDING BUSBAR
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
VFD	VARIABLE FREQUENCY DRIVE
W	WATTS OR WIRE
WG	WIRE GUARD
WP	WEATHERPROOF
XFMR	TRANSFORMER

MOUNTING HEIGHT SCHEDULE	
EQUIPMENT (TO CENTER UON)	**HEIGHT (UON)**
CONTACTORS, MOTOR STARTERS, DISCONNECT (TOP)	66"
INDICATING DEVICES (BOTTOM)	80"
PANELBOARDS - POWER; SPECIAL SYSTEMS (TOP)	72"
PULL STATIONS, PUSH BUTTONS	46"
REC IN FINISHED AREAS	18"
TELECOMMUNICATION OUTLETS	18"
WALL MOUNTED SWITCHES	46"

LUMINAIRE SCHEDULE							
NOTES							
(KEY)	'(x)' DENOTES A GENERAL, NON-REFERENCED, NOTE. NUMBERED NOTES ARE REFERENCED IN THE SCHEDULE.						
(A)	CATALOG NUMBERS ARE FOR GENERAL REFERENCE AND ARE NOT INCLUSIVE OF ALL OPTIONS/REQUIREMENTS DENOTED ON PLANS AND SPECIFICATIONS. ASTERISK (*) DENOTES COORDINATION ITEMS.						
(B)	REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND PROVIDE MOUNTING HARDWARE/FLANGES ETC FOR ALL LUMINAIRES FOR CEILING TYPES SHOWN.						
(C)	PROVIDE UNIVERSAL OR MULTI-VOLTAGE VOLTAGE DRIVERS WHEN AVAILABLE. COORDINATE EXACT VOLTAGE/PHASE WITH CONNECTED CIRCUITS IN ALL OTHER SITUATIONS.						
(D)	LIGHT SOURCE COLOR TEMPERATURE, UNLESS OTHERWISE NOTED: 4000K (SELECT NEAREST AVAILABLE COLOR TEMP FOR EACH LUMINAIRE TYPE). LIGHT SOURCE CRI TO BE 80 MIN, UON.						
1	NOT USED.						
SCHEDULE							
TYPE	**DESCRIPTION**	**WATTS**	**LUMENS**	**MOUNTING**	**MANUFACTURER**	**MODEL**	**NOTES**
FC4	2' X 4' TUNABLE WHITE LED VOLUMETRIC TROFFER W/ INTEGRAL NLIGHT CONTROLS, 0-10V DIMMING DRIVER & DRYWALL GRID ADAPTER	32 W	4000 LM LED	CEILING RECESSED	LITHONIA	2BLT4-TUWH-RHYR-40L-ADSM-MVOLT-NLT-DGA24	
FC4E	2' X 4' TUNABLE WHITE LED VOLUMETRIC TROFFER W/ INTEGRAL NLIGHT CONTROLS, 0-10V DIMMING DRIVER, DRYWALL GRID ADAPTER & EMERGENCY BATTERY UNIT	32 W	4000 LM LED	CEILING RECESSED	LITHONIA	2BLT4-TUWH-RHYR-40L-ADSM-MVOLT-NLT-EL14L-DGA24	
GB4	2' X 4' LED VOLUMETRIC TROFFER W/ INTEGRAL NLIGHT CONTROLS	31 W	4000 LM LED	CEILING GRID	LITHONIA	2BLT4-40L-ADSM-MVOLT-EZ1-LP840-N100	
GC4	2' X 4' TUNABLE WHITE LED VOLUMETRIC TROFFER W/ INTEGRAL NLIGHT CONTROLS & 0-10V DIMMING DRIVER	32 W	4000 LM LED	CEILING GRID	LITHONIA	2BLT4-TUWH-RHYR-40L-ADSM-MVOLT-NLT	

INTERIOR LIGHTING CALCULATIONS							
ENERGY CODE: IECC 2018						**(BLDG TYPE: SCHOOL/ UNIVERSITY)**	
					ALLOWANCES		**DESIGN**
RM NUM	**RM NAME**	**AREA**	**SPACE TYPE**	**AVERAGE ESTIMATED FC**	**LPD (W/FT^2)**	**LPA (W)**	**TOTAL CONNECTED POWER (W)**
30	MSDR ROOM	365.97 SF	<Building>	29 fc	0.81 W/ft²	296 W	125 W
31	CHILL ROOM	115.46 SF	<Building>	39 fc	0.81 W/ft²	94 W	63 W
37	CHILL ROOM	115.46 SF	<Building>	39 fc	0.81 W/ft²	94 W	63 W
42	CHILL ROOM	115.38 SF	<Building>	39 fc	0.81 W/ft²	93 W	63 W
46	CHILL ROOM	116.19 SF	<Building>	39 fc	0.81 W/ft²	94 W	63 W
48	STORAGE	78.83 SF	<Building>	26 fc	0.81 W/ft²	64 W	30 W
75A	CHILL ROOM	133.28 SF	<Building>	35 fc	0.81 W/ft²	108 W	63 W
75B	CHILL ROOM	116.79 SF	<Building>	39 fc	0.81 W/ft²	95 W	63 W
TOTALS:		1157.36 SF				937 W	532 W

ELECTRICAL SHEET LIST	
NUM	**SHEET TITLE**
E0.1	ELECTRICAL LEGEND
E0.2	ELECTRICAL SPECIFICATIONS
E1.1	OVERALL ELECTRICAL PLAN
E2.1	ELECTRICAL PLANS - DEMOLITION WORK
E2.2	ELECTRICAL PLANS - DEMOLITION WORK
E3.1	ELECTRICAL PLANS - NEW WORK
E3.2	ELECTRICAL PLANS - NEW WORK
E4.1	ELECTRICAL DIAGRAMS & DEFAILS
TOTAL SHEETS: 8	

REVISIONS

REV	DESCRIPTION	DATE

EIC ENGINEERS, INC
EIC JOB NO: E23-4252
6927 OLD SEWARD HWY, SUITE 200
ECI ARCHITECTURE DESIGN STRATEGY
821 N St. Ste 201
ANCHORAGE, ALASKA 99501 907.561.5543
PROJECT NO.19-0028.03

ANCHORAGE SCHOOL DISTRICT
WHALEY MULTI-SENSORY DE-ESCALATION ROOM RENOVATIONS
BID DOCUMENTS

STATE OF ALASKA 49TH
BRIAN L. SCHMID EE-11784
12/18/2023
REGISTERED PROFESSIONAL ENGINEER
CORP. #AECC1105

ELECTRICAL LEGEND
AUTHOR: BLS CHECKED: EDC
REVISION: ADDENDA #1
ISSUE DATE: 12/18/2023
OWNER PROJECT # 625011

E0.1

FULL SIZE PRINTED ON 22 x 34

ADDENDUM NO. 1

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ELECTRICAL SPECIFICATIONS

"X" = PROVIDE SUBMITTAL

26 00 00 - GENERAL REQUIREMENTS: ALL ELECTRICAL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE (NEC), STATE, MUNICIPAL, FEDERAL LAWS, ANCHORAGE SCHOOLD DISTRICT, AND AMENDMENTS GOVERNING THE PROJECT. ALL WORK SHALL BE PERFORMED UNDER THE SUPERVISION OF A CERTIFIED ADMINISTRATOR JOURNEYMAN ELECTRICIAN.

ALL ELECTRICAL EQUIPMENT SHALL BE NEW COMMERCIAL GRADE AND INCLUDE THE SEAL OF A NATIONALLY RECOGNIZED TESTING LABORATORY FOR THE PURPOSE IT IS INSTALLED AS A COMPLETE ASSEMBLY. THE CONTRACTOR SHALL SUBMIT A REQUEST FOR ANY SUBSTITUTION OR DEVIATION FROM THE DESIGN IN WRITING TO THE ENGINEER. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED CONSTRUCTION PERMITS, SCHEDULE INSPECTIONS, AND PAY ALL ASSOCIATED FEES UNLESS DIRECTED OTHERWISE.

WORKING CLEARANCES: THE CONTRACTOR IS REQUIRED TO COORDINATE THE MINIMUM WORKING CLEARANCES AND DEDICATED EQUIPMENT REQUIRED BY THE NEC. THE CONTRACTOR IS REQUIRED TO COORDINATE WITH ALL SUBCONTRACTORS SO THAT ENCROACHMENTS INTO THE RESTRICTED SPACE ARE PREVENTED.

PROVIDE ALL CUTTING, CORING, AND PATCHING REQUIRED FOR ELECTRICAL INSTALLATION. REGISTERED STRUCTURAL ENGINEER APPROVAL IS REQUIRED WHEN CORING OR CUTTING OF STRUCTURAL MEMBERS IS REQUIRED.

PLENUM RATING: ALL CABLING, RACEWAYS, CABLE TIES AND COMPONENTS LOCATED IN CEILING SPACES THAT ARE PLENUMS SHALL BE PLENUM RATED.

COORDINATE WITH ARCHITECTURAL PLANS, SHOP DRAWINGS, AND OTHER TRADES PRIOR ROUGH-IN FOR FOR DEVICE AND EQUIPMENT LOCATIONS AND REQUIREMENTS.

BARRIER RATINGS: ALL ELECTRICAL PENETRATIONS THROUGH FIRE RATED BARRIERS SHALL BE SEALED IN ACCORDANCE WITH NEC ARTICLE 300.21. PROVIDE FIRE PUTTY OR SHEET ROCK CONFIGURED FOR UL FIRE RATING WRAPPING ALL BOXES AND PANELS MATCHING WALL AND CEILING FIRE RATING. CONTRACTOR TO PROVIDE SUBMITTAL OF ALL FIRE RATING SYSTEMS TO BE USED. VAPOR BARRIERS: SEAL ALL VAPOR BARRIER PENETRATIONS TO MAINTAIN SYSTEM INTEGRITY. RACEWAYS EXPOSED TO DIFFERENT TEMPERATURES SHALL BE FILLED WITH AN APPROVED MATERIAL IN ACCORDANCE WITH NEC TO STOP AIR FLOW..

ACCESS PANELS: PROVIDE ACCESS PANELS FOR ALL LOCATIONS NECESSARY TO ACCESS ELECTRICAL EQUIPMENT AND JUNCTION BOXES. ACCESS PANELS SHALL BE FIRE RATED EQUAL TO OR EXCEEDING THE ADJACENT WALL OR CEILING CONSTRUCTION AND PAINTED TO MATCH.

REMODEL: TRACE OUT EXISTING CIRCUIT CONFIGURATIONS IMPACTED BY REMODEL REQUIREMENTS. PROVIDE CIRCUIT CONTINUITY FOR ALL CIRCUITS THAT ARE MODIFIED DURING CONSTRUCTION AND PROVIDE TEMPORARY POWER AND LIGHTING FOR ALL AREAS OF THE BUILDING DURING THE RENOVATION WHERE REQUIRED. DEMOLISH ALL ABANDONED CONTROL, SIGNAL AND POWER WIRING BACK TO SOURCE. UPDATE ALL PANEL SCHEDULES TO REFLECT CURRENT CIRCUIT DESCRIPTIONS. REMOVE, RE-INSTALL, CLEAN AND TEST EXISTING EQUIPMENT, DEVICES, FIXTURES ETC WHERE WALLS OR CEILINGS ARE MODIFIED REQUIRING SYSTEM MODIFICATION. EXISTING/REMODEL WIRING THAT CANNOT BE CONCEALED DUE TO EXISTING SOLID CORE OR CONCRETE CONSTRUCTION SHALL BE INSTALLED USING WIREMOLD SURFACE MOUNTED RACEWAY AND BOXES IN FINISHED AREAS AND EXPOSED CONDUIT IN NON-FINISHED AREAS. CIRCUITS POWERING EMERGENCY LIGHTING MUST BE RECONFIGURED TO NOT BE PART OF A MULTI-WIRE (SHARED NEUTRAL) CIRCUIT.

26 01 10 - SUBMITTALS: PROVIDE MATERIAL AND EQUIPMENT SUBMITTAL FOR EACH SPECIFICATION SECTION DENOTED AS REQUIRED AT MINIMUM. SUBMITTALS SHALL BE SUBMITTED ELECTRONICALLY IN PDF FORMAT (UNLESS HARD COPY IS REQUIRED BY OTHER CONTRACT APPLYING TO THE ENTIRE PROJECT). SUBMIT ALL REQUIRED SECTIONS IN A SINGLE SUBMITTAL OR BROKEN INTO NO MORE THAN THE FOLLOWING SEPARATE SECTIONS: "LIGHTING", "EQUIPMENT", "WIRING/DEVICES", AND "SPECIAL SYSTEMS". ORGANIZE SUBMITTAL AND/OR EACH SECTION BY SPECIFICATION NUMBER FOLLOWED BY ANY MAJOR EQUIPMENT REFERENCE ON THE DRAWINGS WITH ALL OPTIONS AND SELECTIONS HIGHLIGHTED TO DENOTE THE SPECIFIC EQUIPMENT PROPOSED. SUBMITTAL REVIEW IS FOR GENERAL DESIGN AND CONFIGURATION AND DOES NOT RELIEVE THE CONTRACTOR FROM PROVIDING A COMPLETE OPERATIONAL SYSTEM COMPLIANT WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

26 01 21 - RECORD DRAWINGS: MARK UP A SET OF DRAWINGS (REDLINES) SHOWING ALL ELECTRICAL WORK. SHOW DIAGRAMMATIC ROUTING MODIFICATIONS, SIZING, AND CIRCUIT REVISIONS TO THE CONTRACT PLANS. RECORD DRAWINGS SHALL BE KEPT ON SITE AVAILABLE FOR REVIEW DURING THE ENTIRE CONSTRUCTION PERIOD. SUBMIT FINAL REDLINE SET FOR APPROVAL PRIOR TO FINAL INSPECTION.

26 01 22 - WARRANTY: THE CONTRACTOR SHALL GUARANTEE ALL WORK EXECUTED UNDER THIS CONTRACT TO BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM SUBSTANTIAL COMPLETION. ANY FAULTY MATERIALS OR WORKMANSHIP SHALL BE REPAIRED DURING THE GUARANTEE PERIOD AT NO ADDITIONAL COST TO THE OWNER.

26 05 15 - POWER AND LIGHTING CONDUCTORS: STRANDED COPPER ROUTED IN CONDUIT UNLESS NOTED OTHERWISE. INSULATION TO BE THHN-2 90 DEGREE C FOR INDOOR APPLICATIONS AND XHHW-2 90 DEGREE C FOR OUTDOOR LOCATIONS, IN UNHEATED SPACES, OR INSTALLED WHILE THE AMBIENT TEMPERATURE IS LESS THAN -7C (20F). ALL CONDUCTORS SHALL BE INSTALLED IN ACCORDANCE WITH NEC REQUIREMENTS FOR AMBIENT TEMPERATURE DERATING, CONDUIT FILL DERATING, AND BOX FILL. PROVIDE UNSHARED DEDICATED NEUTRAL FOR EACH CIRCUIT. BRANCH CIRCUIT WIRING MAY BE INSTALLED IN CABLES WHERE ROUTED CONCEALED AND SUPPORTED BY NEC REQUIREMENTS AND TYPE TYPE W OR EQUAL CORDS WHERE INSTALLED IN ACCORDANCE WITH THE NEC REQUIREMENTS SIZED AS DENOTED IN THE NEC TABLES 400.5(A)(2) AND 400.5(A)(3).

208V/120V CONDUCTORS: COLOR CODE CONDUCTORS BLACK, RED, BLUE, WHITE, AND GREEN. MINIMUM SIZE CONDUCTORS FOR 15 AND 20 AMP BRANCH CIRCUITS MEASURED FROM THE PANELBOARD TO THE FURTHEST DEVICE ON THE CIRCUIT UNLESS OTHERWISE NOTED ON THE DRAWINGS: 12 AWG UP TO 75 FT, 10 AWG 75 FT TO 140 FT, GREATER THAN 140 FT SIZE CONDUCTORS TO LIMIT VOLTAGE DROP TO 5% OR LESS.

ELECTRICAL SPECIFICATIONS

"X" = PROVIDE SUBMITTAL

26 05 19 - MC CABLES: METALCLAD (MC) CABLE WITH STEEL OUTER SHEATH. ALLOWED USES DRY WHERE ROUTED CONCEALED AND PROTECTED.

26 05 22 - SIGNAL AND CONTROL: CONDUCTORS TO BE CABLE OR CONDUCTORS IN CONDUIT OF THE TYPE AND CONFIGURATION AS MANUFACTURER RECOMMENDATIONS FOR EACH SYSTEM. CONDUCTORS/CABLES TO BE INSTALLED IN RACEWAY, CABLE TRAYS, OR CAT 6 RATED J-HOOKS SPACED NO MORE THAN 4 FT APART. WHEN ROUTED IN NON-ACCESSIBLE LOCATIONS, RETURN AIR CEILING OR FLOOR PLENUM, CABLES MUST BE CMP PLENUM RATED OR IN CONDUIT. DO NOT INSTALL WHEN AMBIENT TEMPERATURES ARE LESS THAN -7C (20F). CLASS 1: WHERE SYSTEM POWER SUPPLY IS NOT MARKED AS CLASS 2, PROVIDE ALL CONDUCTORS IN RACEWAY OR OTHER CLASS 1 RATED CABLE. CLASS 2: CABLES CAN BE IN CONDUIT OR CLASS 2 RATED CABLE.

26 05 26 - GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS: PROVIDE EQUI-POTENTIAL GROUNDING SYSTEM, IN ACCORDANCE WITH NEC ARTICLE 250. PROVIDE GROUNDING CONDUCTOR IN ALL RACEWAYS BONDED TO EQUIPMENT AND TO RACEWAY SYSTEM.

26 05 29 - HANGARS AND SUPPORTS FOR ELECTRICAL SYSTEMS: SUPPORT ALL ELECTRICAL EQUIPMENT INCLUDING, BUT NOT LIMITED TO, LIGHT FIXTURES, PANELBOARDS, BOXES, CONDUIT, ETC. PER NEC AND IBC SEISMIC REQUIREMENTS. PROVIDE SEISMIC SUPPORT AND DESIGN SEALED BY A LICENSED STRUCTURAL ENGINEER AS A DEFERRED SUBMITTAL TO THE AHJ FOR ALL EQUIPMENT OVER 400 LBS AND, EQUIPMENT OVER 20 LBS MOUNTED GREATER THAN 4FT AFF, CONDUIT 2.5"C OR GREATER AND ALL TRAPEZE OR WALL SUPPORTED RACEWAY 10 LBS/LF OR GREATER. SUPPORT STRUT AND MOUNTING HARDWARE TO BE GALVANIZED

26 05 30 - RACEWAY: ALL POWER, LIGHTING, CLASS 1, CLASS 2/3 CIRCUITS INSTALLED IN CONDUIT SHALL BE CONCEALED RACEWAY EXCEPT WHERE SPECIFICALLY INDICATED ELSEWHERE IN THE SPECIFICATIONS OR SHOWN ON THE DRAWINGS. ELECTRICAL EQUIPMENT AND WIRING CAN BE EXPOSED IN MECHANICAL/ELECTRICAL ROOMS, COOLER/FREEZERS, TELECOMMUNICATION ROOMS, OPEN CEILING SPACES, OR WHERE SPECIFICALLY NOTED. DO NOT ROUTE RACEWAYS ON THE EXTERIOR SURFACE OF THE BUILDING OR THE ROOF UNLESS SPECIFICALLY NOTED OTHERWISE. RACEWAYS CROSSING BUILDING SEISMIC JOINTS OR CONNECTING TO EQUIPMENT WHICH MOVES OR VIBRATES REQUIRE TRANSITION TO FLEXIBLE RACEWAY ACROSS JOINT WITH ENOUGH SLACK TO ALLOW BUILDING MOVEMENT IN ALL DIRECTIONS WITHOUT DAMAGE.

26 05 34 - ELECTRICAL METALLIC TUBING (EMT): ANSI C80.3, UL 797; GALVANIZED STEEL TUBING. FITTINGS: NEMA FB 1; GALVANIZED STEEL OR MALLEABLE IRON SET SCREW OR COMPRESSION. DIE CAST OR PRESSURE CAST FITTINGS OR LOCKNUTS ARE NOT PERMITTED. USES: WET OR DRY CONCEALED OR EXPOSED WHERE NOT SUBJECT TO PHYSICAL DAMAGE. WET OR DAMP LOCATIONS REQUIRE WET RATED GLAND COMPRESSION COUPLINGS AND CONNECTORS.

26 05 35 - FLEXIBLE METAL CONDUIT (FMC): GALVANIZED OR ZINC COATED FLEXIBLE STEEL CONSTRUCTION. FMC FITTINGS: GALVANIZED MALLEABLE IRON OR STEEL WITH INSULATED THROATS. USES: DRY SPACES LENGTHS LESS THAN 6FT FOR CONNECTIONS TO MOTORS, TRANSFORMERS, AND OTHER MOVABLE OR VIBRATING EQUIPMENT.

26 05 40 - BOXES: PROVIDE PULL AND JUNCTION BOXES AS REQUIRED SIZED PER NEC REQUIREMENTS. BOX TO BE NEMA RATED FOR THE THE ENVIRONMENT INSTALLED. BRANCH CIRCUIT JUNCTION BOXES TO BE ELECTRO-GALVANIZED, 4" SQUARE BY 1 1/2" DEEP MINIMUM FOR USE IN DRY INTERIOR AREAS. PROVIDE 4 11/16" SQUARE BY 2 1/8" DEEP OUTLET BOXES FOR ALL VOICE AND DATA OUTLETS. DO NOT INSTALL BOXES BACK-TO-BACK IN WALLS. PROVIDE SEPARATION TO MINIMIZE SOUND TRANSFER. PROVIDE FIRE RATED PADS TO COVER EACH BOX IN FIRE RATED WALLS WHERE NECESSARY TO MAINTAIN FIRE WALL RATING.

26 05 55 - IDENTIFICATION OF ELECTRICAL DEVICES: IDENTIFY ALL NEW POWER OUTLETS AND WALL SWITCHES WITH LABEL DENOTING PANELBOARD NAME AND CIRCUIT NUMBER . LABELS TO BE DYNAMO PRINTED CLEAR BACKGROUND WITH BLACK LETTERS 1/8 INCH TALL.

26 05 56 - CONDUCTOR IDENTIFICATION: LABEL EACH BRANCH CIRCUIT CONDUCTOR AT EACH TERMINATION OR INTERCONNECTION OF WIRING IN PANELBOARDS, GUTTERS, PULL BOXES, OUTLETS AND LOAD CONNECTIONS. LABEL SHALL DENOTE PANEL NAME AND CIRCUIT NUMBER. COLOR CODE PHASE CONDUCTORS PER CONDUCTOR SPECIFICATION.

X 26 27 26 - WIRING DEVICE PLATES: ALL WALL PLATES SHALL BE STAINLESS STEEL, UNLESS OTHERWISE NOTED.

X 26 27 27 - RECEPTACLES: DUPLEX (AS DENOTED ON THE PLANS) COMMERCIAL GRADE, 2 POLE, 3 WIRE, 120V, 20 AMP STRAIGHT BLADE, UON, UL LISTED, SMOOTH NYLON FACE, BACK AND SIDE WIRED. INSTALL RECEPTACLES VERTICALLY WITH GROUNDING POLE ON BOTTOM UNLESS NOTED OTHERWISE.

TAMPER-RESISTANT: ALL 15 AND 20 AMP, 125- AND 250-VOLT NONLOCKING-TYPE RECEPTACLES SHALL BE LISTED TAMPER-RESISTANT FOR ALL RECEPTACLES LESS THAN 5-1/2 FT AFF.

ELECTRICAL SPECIFICATIONS

"X" = PROVIDE SUBMITTAL

26 27 35 - SWITCHES: 20 AMP, 120/277V AC, BACK AND SIDE WIRED CONFIGURED AS INDICATED ON THE DRAWINGS. PROVIDE NEUTRAL (GROUNDED CONDUCTOR) IN ALL SWITCH BOXES FOR EACH SWITCHED CIRCUIT TO ALLOW FUTURE TECHNOLOGIES TO BE INSTALLED WHICH REQUIRE NEUTRAL CONDUCTOR.

X 26 27 36 - DIMMING SWITCHES: ACUITY NLIGHT LOW VOLTAGE NETWORKABLE CONTROL SWITCH WITH ON/OFF, DIMMING RAISE/LOWER, AND COLOR TEMPERATURE RAISE/LOWER PUSHBUTTONS. PROVIDE WITH STAINLESS STEEL WALL PLATE.

X 26 27 37 - OCCUPANCY WALL SENSORS: ACUITY NLIGHT LOW VOLTAGE NETWORKABLE CONTROL SWITCH WITH DUAL TECHNOLOGY, PASSIVE INFRARED (PIR), SELF ADJUSTING, AUTOMATIC DUAL MODE WITH AUTO ON - AUTO OFF CONFIGURATION. PROVIDE WITH STAINLESS STEEL WALL PLATE.

X 26 51 00 - LUMINAIRES: PROVIDE AND INSTALL ALL LIGHTING EQUIPMENT AS SHOWN ON THE DRAWINGS AND DESCRIBED IN THE LUMINAIRE SCHEDULE CONFIGURED WITH OPTIONS AND MOUNTING HARDWARE FOR CEILING TYPE DENOTED ON THE ARCHITECTURAL PLANS. PROVIDE SUBMITTAL WITH FINISH COLOR AND MATERIAL OPTIONS FOR FINAL SELECTION BY THE ARCHITECT WHERE APPLICABLE. LED'S TO BE LONG-LIFE COUPLED WITH HIGH-EFFICIENCY DRIVERS RATED GREATER THAN 100 LPW WITH AN 80% LED LUMEN MAINTENANCE AT 60,000 HOURS MINIMUM. DIMMING TO BE FLICKER-FREE (0-10V) DOWN TO 1% UNLESS OTHERWISE NOTED. DRIVERS TO BE 120-277 MULTI-VOLT INPUT UNLESS OTHERWISE NOTED. EXTERIOR FIXTURES AND DRIVERS TO BE COLD AND WET RATED FOR THE LOCAL ENVIRONMENT.

X 27 15 00 - TELECOMMUNICATION OUTLET: PROVIDE TAMPER RESISTANT WALL PLATES FOR EXISTING TELECOM OUTLETS, HUBBELL #TPF1OW OR APPROVED EQUAL.

X 28 31 11.1 - FIRE ALARM UPGRADE: EXISTING SYSTEM TO BE UPGRADED, RECONFIGURED, AND EXPANDED AS REQUIRED TO ACCOMMODATE THE SPACE USE AND FLOOR PLAN LAYOUT. THE FIRE ALARM SYSTEM SHALL BE A DESIGN BUILD COMPONENT OF THE PROJECT TO BE PROVIDED BY THE CONTRACTOR. SYSTEM SHALL PROVIDE ALL CODE REQUIREMENTS AT MINIMUM. FIRE ALARM SYSTEM DESIGN AND MODIFICATIONS TO BE PERFORMED AND APPROVED BY A NICET LEVEL 3 DO OR HIGHER DESIGNER. SHOP DRAWINGS DENOTING ALL REQUIREMENTS OF NEC ARTICLE 760, NFPA 72, FM GLOBAL, ASD, AND AUTHORITY HAVING JURISDICTION OF THE SYSTEM INSTALLATION ARE TO BE SUBMITTED TO THE FIRE MARSHAL IF REQUIRED. THE CONTRACTOR IS RESPONSIBLE FOR ALL SYSTEM REQUIREMENTS, MATERIALS, EQUIPMENT, TESTING AND RESUBMITTALS FOR THE NECESSARY FOR AN APPROVED SYSTEM. IF THE EXISTING FIRE ALARM SYSTEM IS DISABLED TO PERFORM WORK, THE CONTRACTOR SHALL PROVIDE A FIRE WATCH COORDINATED WITH ASD.

REVISIONS

REV	DESCRIPTION	DATE

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PROJECT NO.19-0028.03

ANCHORAGE SCHOOL DISTRICT
WHALEY MULTI-SENSORY
DE-ESCALATION ROOM
RENOVATIONS

BID DOCUMENTS

STATE OF ALASKA 49TH
BRIAN L. SCHMID
EE-11784
12/18/2023
REGISTERED PROFESSIONAL ENGINEER

CORP. #AECC1105

ELECTRICAL SPECIFICATIONS

AUTHOR: BLS CHECKED: EDC
REVISION: ADDENDA #1
ISSUE DATE: 12/18/2023
OWNER PROJECT # 625011

E0.2

FULL SIZE PRINTED ON 22 x 34

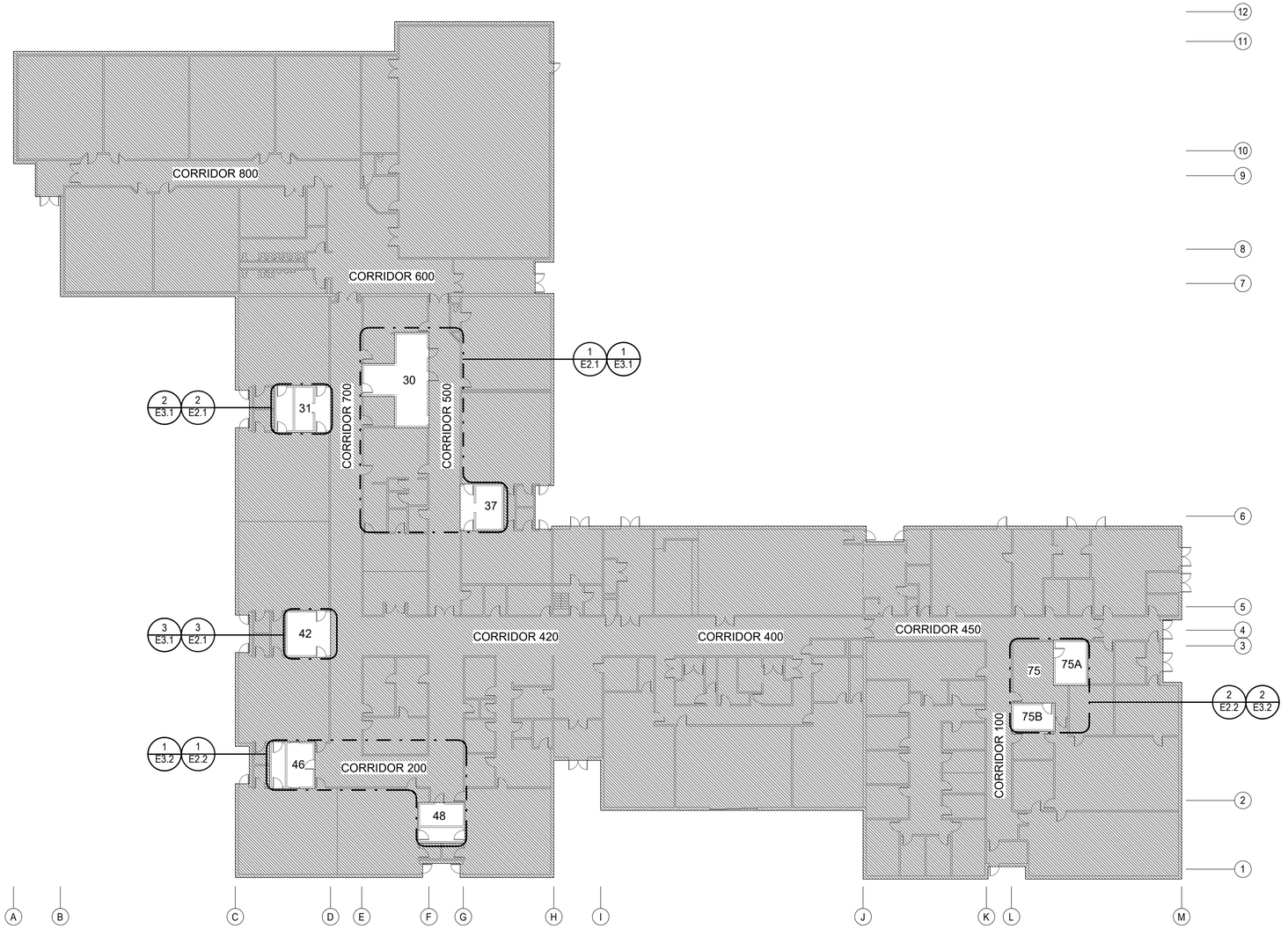
ADDENDUM NO. 1

NOTIFICATION OF CHILD OCCUPIED FACILITY

PORTIONS OF THIS BUILDING ARE CLASSIFIED AS A CHILD OCCUPIED FACILITY IN ACCORDANCE WITH 40 CFR 745 AND LEAD-BASED PAINTS MAY BE PRESENT ON COMPONENTS TO BE DISTURBED IN THOSE AREAS. PERSONNEL PERFORMING WORK IN THESE AREAS MUST COMPLY WITH THE REQUIREMENTS OF 40 CFR 745, INCLUDING TRAINING, WORK PRACTICES AND CLEANING OF THE WORK AREA. REFER TO SPECIFICATION DIVISIONS 0, 1 AND 2 FOR SPECIFIC INFORMATION CONCERNING DISTURBING, REMOVING AND DISPOSING OF LEAD MATERIALS AND THE INSTALLATION OF NEW MATERIALS OR COMPONENTS. THIS NOTIFICATION IS PROVIDED IN ACCORDANCE WITH EPA AND OSHA REQUIREMENTS.

NOTIFICATION OF POTENTIAL HAZARDS

ASBESTOS, LEAD, AND OTHER HAZARDOUS MATERIALS ARE PRESENT IN THE BUILDING AND MAY IMPACT THE WORK OF ALL TRADES. REGULATED AIR CONTAMINATES, INCLUDING ASBESTOS AND LEAD, ARE ALSO PRESENT IN SETTLED AND CONCEALED DUST IN AND ON ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS OR SYSTEMS THROUGHOUT THE BUILDING. ALL TRADES SHALL COORDINATE WITH OTHER TRADES AND CONDUCT THEIR WORK TO PREVENT WORKER EXPOSURE OR SITE CONTAMINATION. REFER TO SPECIFICATION DIVISIONS 0, 1, AND 2 FOR SPECIFIC INFORMATION CONCERNING DISTURBING, REMOVING, AND DISPOSING OF THESE MATERIALS AND THE INSTALLATION OF NEW MATERIALS OR COMPONENTS. THIS NOTIFICATION IS PROVIDED IN ACCORDANCE WITH EPA AND OSHA REQUIREMENTS.



1 E1.1 OVERALL ELECTRICAL PLAN
SCALE: 3/64" = 1'-0"

EIC ENGINEERS, INC
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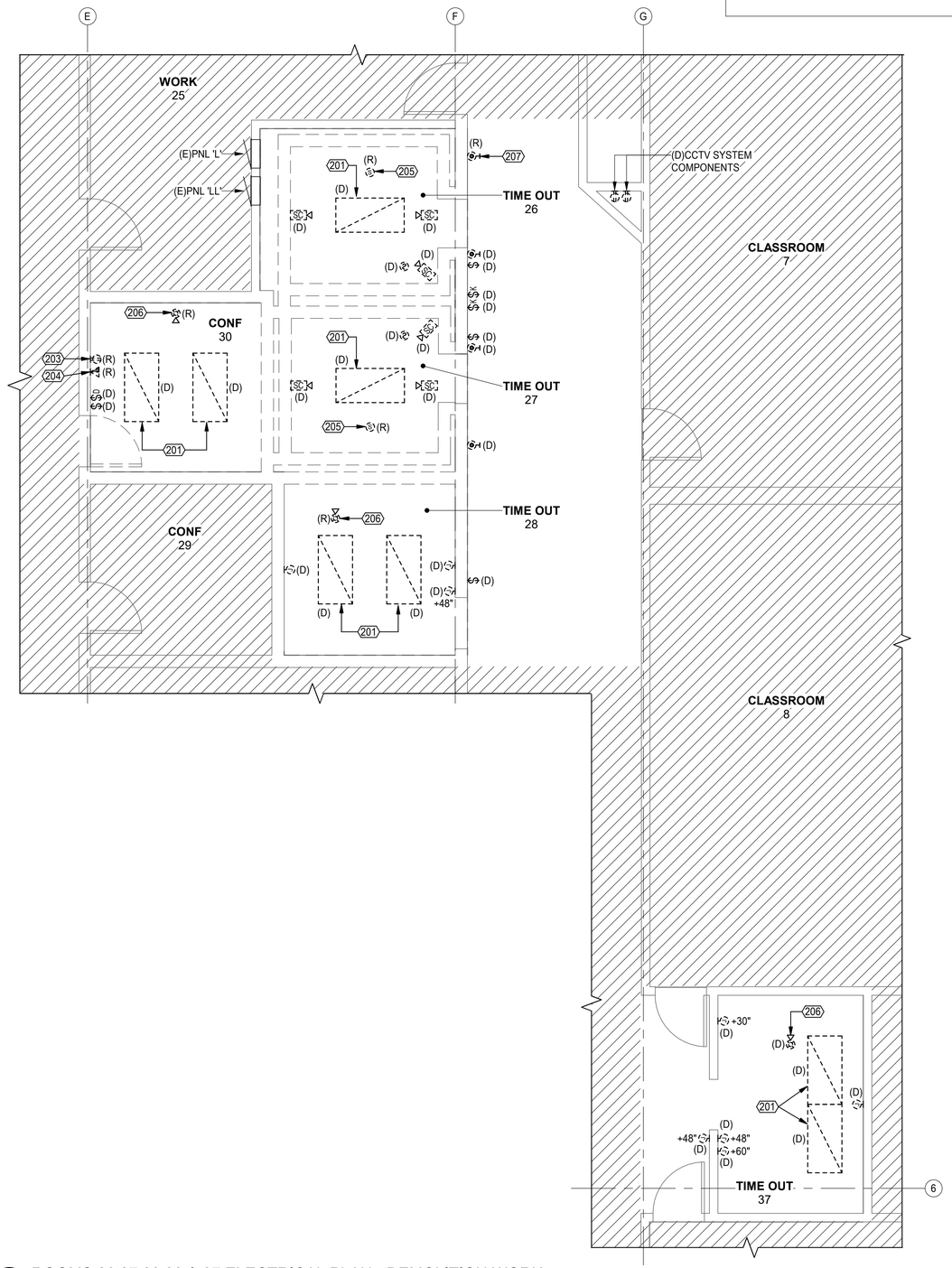
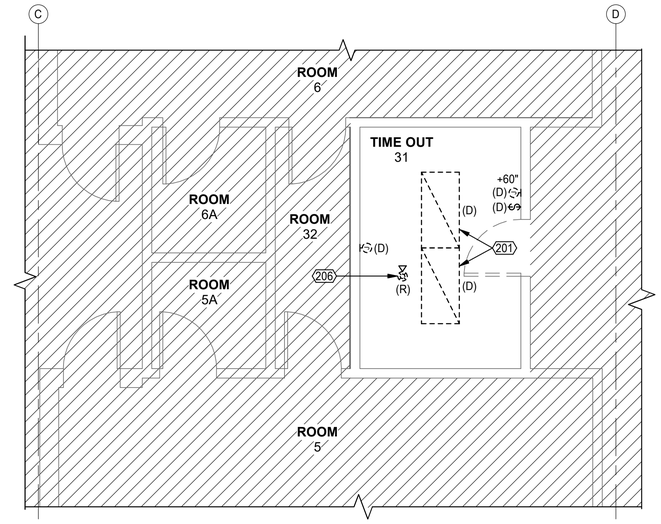
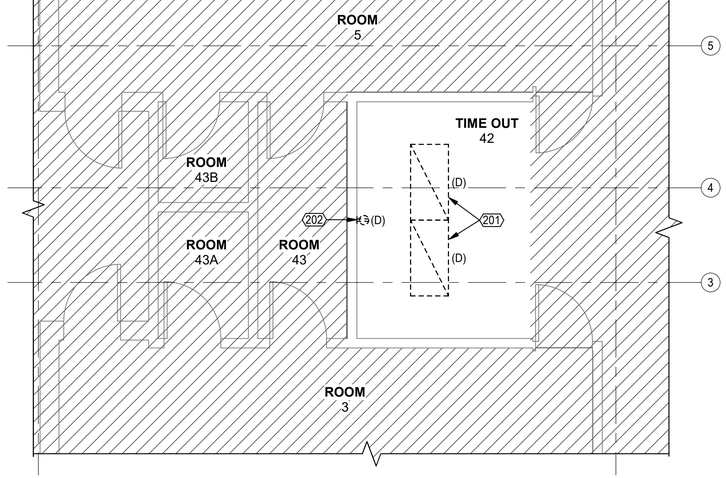


1 E2.1 ROOMS 26,27,28,30 & 37 ELECTRICAL PLAN - DEMOLITION WORK
SCALE: 1/4" = 1'-0"



2 E2.1 ROOM 31 ELECTRICAL PLAN - DEMOLITION WORK
SCALE: 1/4" = 1'-0"



3 E2.1 ROOM 42 ELECTRICAL PLAN - DEMOLITION WORK
SCALE: 1/4" = 1'-0"

GENERAL NOTES

1. CONTRACTOR TO DEMOLISH ALL ELECTRICAL EQUIPMENT, DEVICES, AND LIGHTING NOTED, AND EXISTING BRANCH CIRCUITS BACK TO SERVING PANEL OR DEVICE TO REMAIN. EXISTING BRANCH CIRCUIT WIRING MAY BE RE-USED WHERE APPLICABLE IF OF GOOD CONDITION AND MEETS CURRENT CODE REQUIREMENTS.
2. DEMOLISH ALL UNUSED TELECOM/WAP CABLES BACK TO SERVING TELECOM RACK.
3. DEMOLISH ALL UNUSED CAMERA CABLES BACK TO SERVING HEAD END EQUIPMENT. RETURN ALL CCTV CAMERAS, MONITORS, AND SYSTEM EQUIPMENT TO ASD FOR SALVAGE.

(#) REFERENCED SHEET NOTES

REF	NOTE
201	DEMOLISH 2X4 LUMINAIRE(S) AND SAVE BRANCH CIRCUIT FOR RECONNECTION TO NEW LIGHTING.
202	EXISTING RECEPTACLE TO BE REPLACED WITH TAMPER RESISTANT TYPE.
203	EXISTING RECEPTACLE TO BE RELOCATED AND REPLACED WITH TAMPER RESISTANT TYPE. SEE NEW WORK PLAN FOR NEW LOCATION.
204	EXISTING TELECOM OUTLET TO BE RELOCATED AND REPLACED WITH TAMPER RESISTANT TYPE. SEE NEW WORK PLAN FOR NEW LOCATION.
205	EXISTING PA SPEAKER TO BE RELOCATED. SEE NEW WORK PLAN FOR NEW LOCATION.
206	EXISTING FIRE ALARM DEVICE TO BE RELOCATED. SEE NEW WORK PLAN FOR NEW LOCATION.
207	EXISTING MAGNETIC DOOR HOLDER TO BE RELOCATED. SEE NEW WORK PLAN FOR NEW LOCATION.

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E2.1

FULL SIZE PRINTED ON 22 x 34

ADDENDUM NO. 1

NOTIFICATION OF CHILD OCCUPIED FACILITY

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GENERAL NOTES

1. CONTRACTOR TO DEMOLISH ALL ELECTRICAL EQUIPMENT, DEVICES, AND LIGHTING NOTED, AND EXISTING BRANCH CIRCUITS BACK TO SERVING PANEL OR DEVICE TO REMAIN. EXISTING BRANCH CIRCUIT WIRING MAY BE RE-USED WHERE APPLICABLE IF OF GOOD CONDITION AND MEETS CURRENT CODE REQUIREMENTS.
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⟨#⟩ REFERENCED SHEET NOTES

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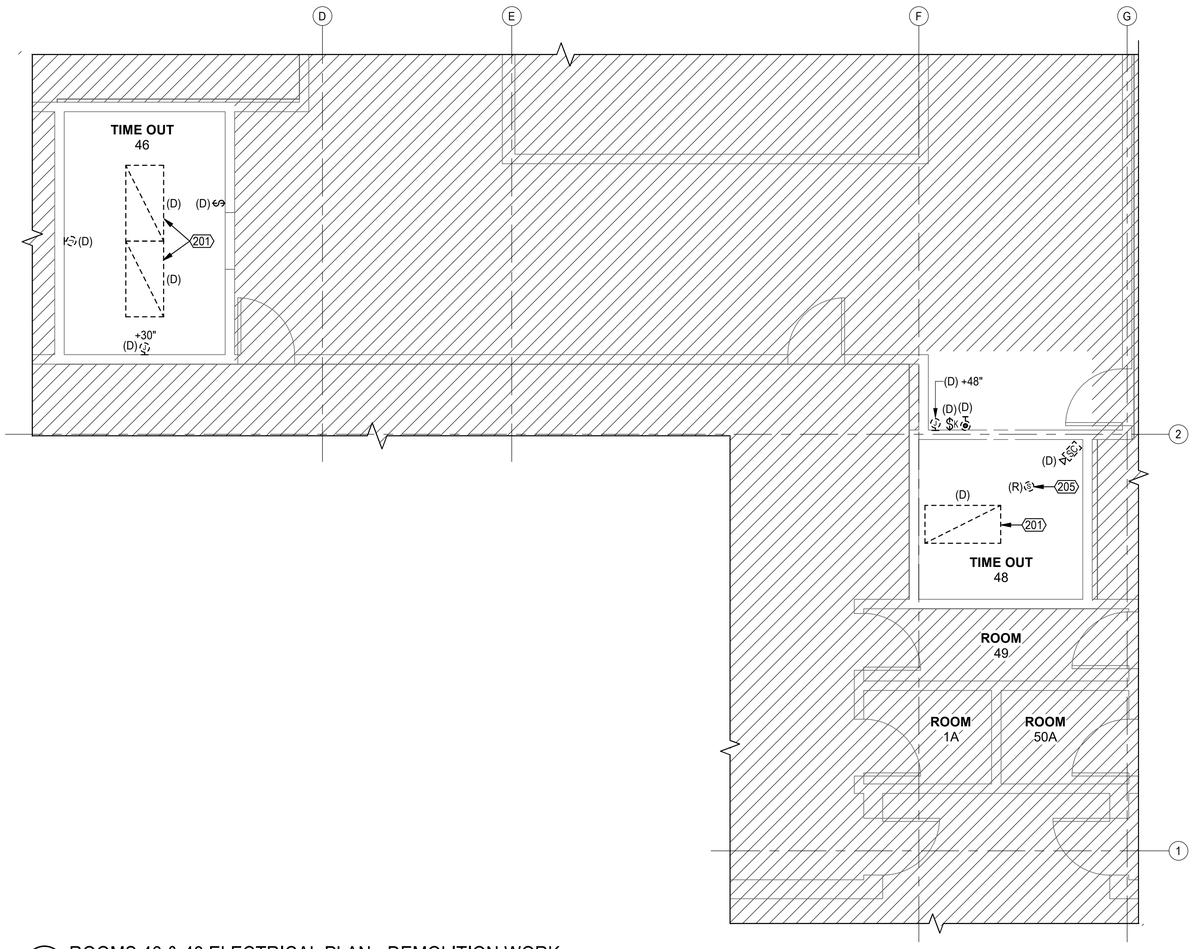
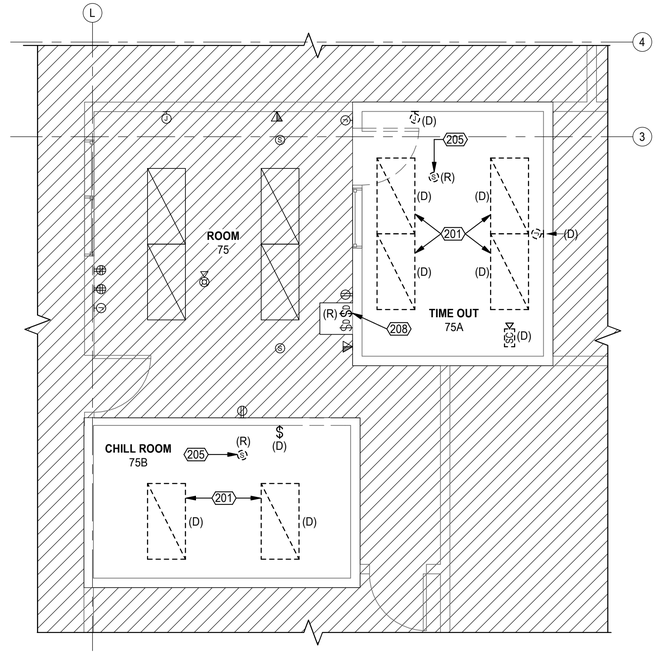
205	EXISTING PA SPEAKER TO BE RELOCATED. SEE NEW WORK PLAN FOR NEW LOCATION.
208	EXISTING LOW VOLTAGE ON/OFF, DIMMER, AND COLOR TEMPERATURE SWITCH FOR ROOM 75A TO BE RELOCATED. SEE NEW WORK PLAN.



1 E2.2 ROOMS 46 & 48 ELECTRICAL PLAN - DEMOLITION WORK
SCALE: 1/4" = 1'-0"



2 E2.2 ROOMS 75A & 75B ELECTRICAL PLAN - DEMOLITION WORK
SCALE: 1/4" = 1'-0"

REVISIONS

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STATE OF ALASKA 49TH
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ELECTRICAL PLANS - DEMOLITION WORK
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REVISION: ADDENDA #1
ISSUE DATE: 12/18/2023
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E2.2

FULL SIZE PRINTED ON 22 x 34

ADDENDUM NO. 1

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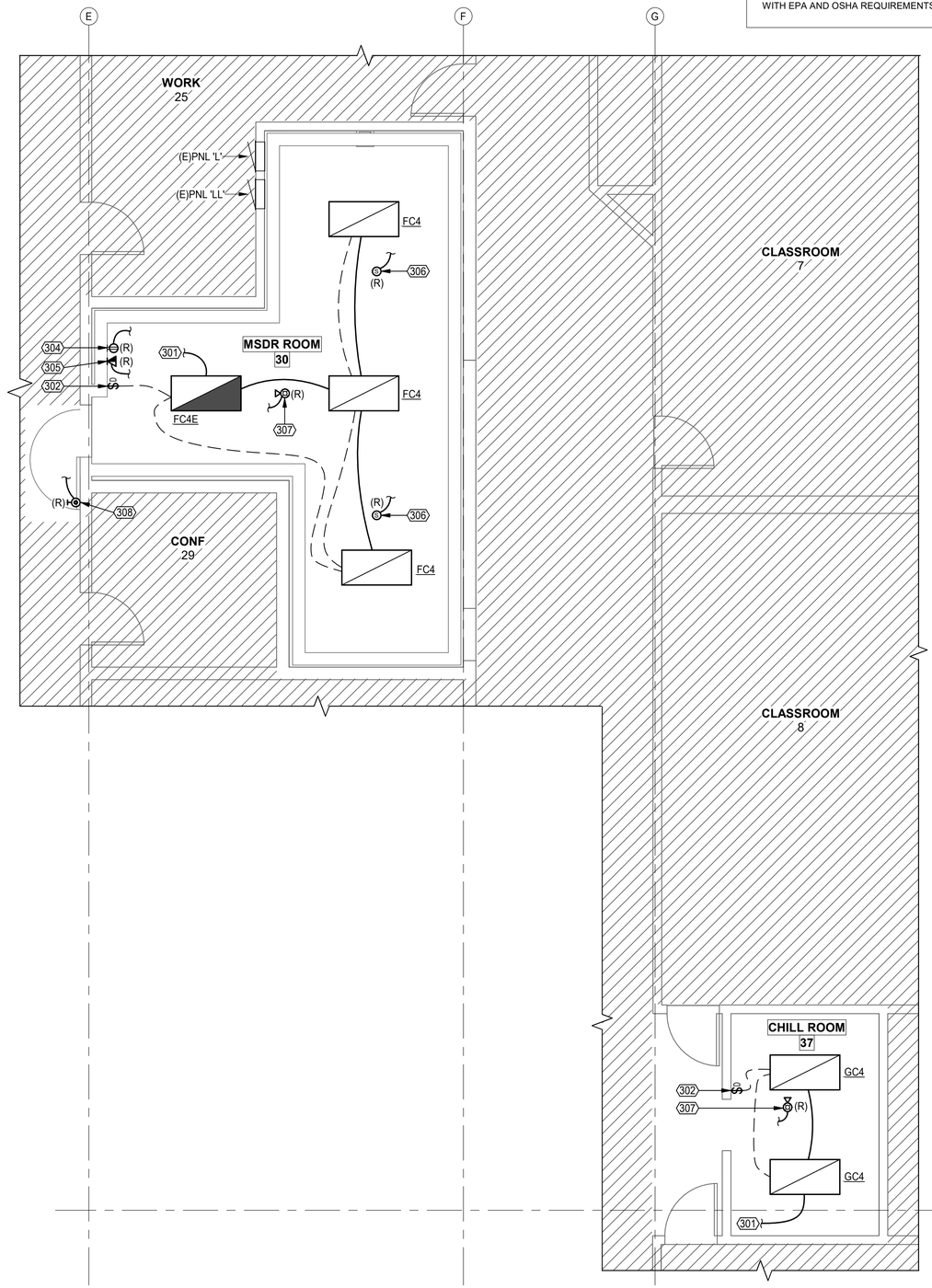
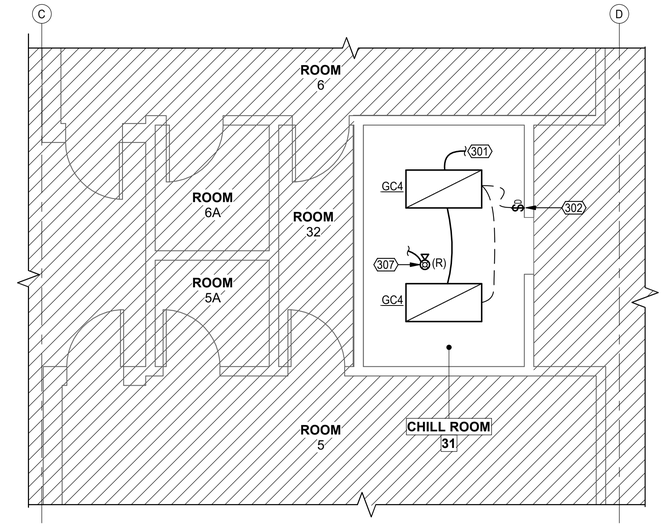
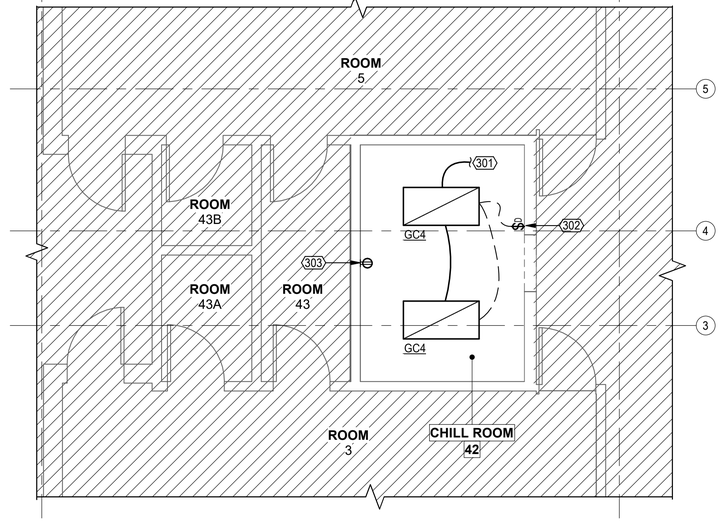


1 E3.1 ROOMS 30 & 37 ELECTRICAL PLAN - NEW WORK
SCALE: 1/4" = 1'-0"



2 E3.1 ROOM 31 ELECTRICAL PLAN - NEW WORK
SCALE: 1/4" = 1'-0"



3 E3.1 ROOM 42 ELECTRICAL PLAN - NEW WORK
SCALE: 1/4" = 1'-0"

GENERAL NOTES

1. PROVIDE STAINLESS STEEL DEVICE PLATES FOR ALL RECEPTACLES AND LIGHT SWITCHES IF NOT CURRENTLY PRESENT.
2. UPGRADES TO THE EXISTING FIRE ALARM SYSTEM IS A DESIGN/BUILD COMPONENT OF THE PROJECT TO BE PROVIDED BY THE CONTRACTOR. DEVICE QUANTITIES AND LOCATIONS SHOWN ARE MEANT TO CONVEY SCOPE ONLY. ACTUAL DEVICE QUANTITIES, TYPES, AND LOCATIONS TO BE DETERMINED BY FIRE ALARM SYSTEM DESIGNER. SEE ELECTRICAL SPECIFICATIONS FOR DETAIL.
3. PROVIDE NETWORK STYLE LOW VOLTAGE LIGHTING CONTROL SYSTEMS AS NOTED. BASIS OF DESIGN IS ACUITY NLIGHT. CONTRACTOR TO CONNECT NEW SYSTEM COMPONENTS TO BUILDING'S EXISTING NLIGHT SYSTEM AND SOFTWARE AS NECESSARY IF PRESENT. IF BUILDING NETWORKED NLIGHT SYSTEM IS NOT PRESENT, LIGHTING DEVICES TO OPERATE IN STAND-ALONE MODE. SEE 1/E4.1 FOR SYSTEM DETAIL.
4. MOUNT ALL LIGHTING CONTROL SYSTEM RELAYS, POWER PACKS, BRIDGES, ETC IN ACCESSIBLE CEILING SPACE WHERE FEASIBLE. PROVIDE ACCESS PANELS FOR DEVICES WHERE NOT INSTALLED IN ACCESSIBLE CEILINGS. COORDINATE ALL ACCESS PANELS WITH ARCHITECTURAL PRIOR TO ROUGH-IN.

⟨#⟩ REFERENCED SHEET NOTES

REF	NOTE
301	CONNECT NEW LIGHTING TO EXISTING SAVED BRANCH CIRCUIT. NEW LIGHTING LOAD IS LESS THAN OR EQUAL TO NEW LIGHTING LOAD.
302	PROVIDE LOW VOLTAGE SWITCH WITH ON/OFF, DIMMING RAISE/LOWER, AND COLOR TEMPERATURE RAISE/LOWER CONTROLS.
303	PROVIDE TAMPER RESISTANT TYPE RECEPTACLE AT EXISTING RECEPTACLE LOCATION.
304	RELOCATED RECEPTACLE. PROVIDE TAMPER RESISTANT TYPE RECEPTACLE. EXTEND EXISTING BRANCH CIRCUIT TO NEW LOCATION AS NECESSARY.
305	RELOCATED TELECOM OUTLET. PROVIDE TAMPER RESISTANT TYPE (HUBBELL #TPF10W OR EQUAL). EXTEND TELECOM CABLING TO NEW LOCATION AS NECESSARY.
306	RELOCATED PA SPEAKER. EXTEND EXISTING CIRCUIT TO NEW LOCATION AS NECESSARY.
307	RELOCATED FIRE ALARM DEVICE. EXTEND EXISTING CIRCUIT TO NEW LOCATION AS NECESSARY. SPLICING OF EXISTING WIRING IS NOT ALLOWED. IF EXISTING WIRING DOES NOT REACH NEW DEVICE LOCATION, CONTRACTOR TO REPLACE WIRING BACK TO SOURCE OR EXISTING DEVICE TO REMAIN.
308	RELOCATED DOOR MAGNETIC HOLDER. DOOR HOLDER TO RELEASE UPON FIRE ALARM. EXTEND EXISTING CIRCUIT AND CONNECTION TO FIRE ALARM SYSTEM AS NECESSARY.

REVISIONS

REV	DESCRIPTION	DATE

EIC JOB NO.: E23-4252
EIC ENGINEERS, INC
6927 OLD SEWARD HWY, SUITE 200
ECI ARCHITECTURE DESIGN STRATEGY
821 N St. Ste 201
ANCHORAGE, ALASKA 99501 907.561.5543
PROJECT NO.19-0028.03

ANCHORAGE SCHOOL DISTRICT
WHALEY MULTI-SENSORY
DE-ESCALATION ROOM
RENOVATIONS

BID DOCUMENTS

STATE OF ALASKA 49TH
BRIAN L. SCHMID
EE-11784
12/18/2023
REGISTERED PROFESSIONAL ENGINEER
CORP. #AECC1105

ELECTRICAL PLANS - NEW WORK

AUTHOR: BLS CHECKED:EDC
REVISION: ADDENDA #1
ISSUE DATE: 12/18/2023
OWNER PROJECT # 625011

E3.1

FULL SIZE PRINTED ON 22 x 34

ADDENDUM NO. 1

NOTIFICATION OF CHILD OCCUPIED FACILITY

PORTIONS OF THIS BUILDING ARE CLASSIFIED AS A CHILD OCCUPIED FACILITY IN ACCORDANCE WITH 40 CFR 745 AND LEAD-BASED PAINTS MAY BE PRESENT ON COMPONENTS TO BE DISTURBED IN THOSE AREAS. PERSONNEL PERFORMING WORK IN THESE AREAS MUST COMPLY WITH THE REQUIREMENTS OF 40 CFR 745, INCLUDING TRAINING, WORK PRACTICES AND CLEANING OF THE WORK AREA. REFER TO SPECIFICATION DIVISIONS 0, 1 AND 2 FOR SPECIFIC INFORMATION CONCERNING DISTURBING, REMOVING AND DISPOSING OF LEAD MATERIALS AND THE INSTALLATION OF NEW MATERIALS OR COMPONENTS. THIS NOTIFICATION IS PROVIDED IN ACCORDANCE WITH EPA AND OSHA REQUIREMENTS.

NOTIFICATION OF POTENTIAL HAZARDS

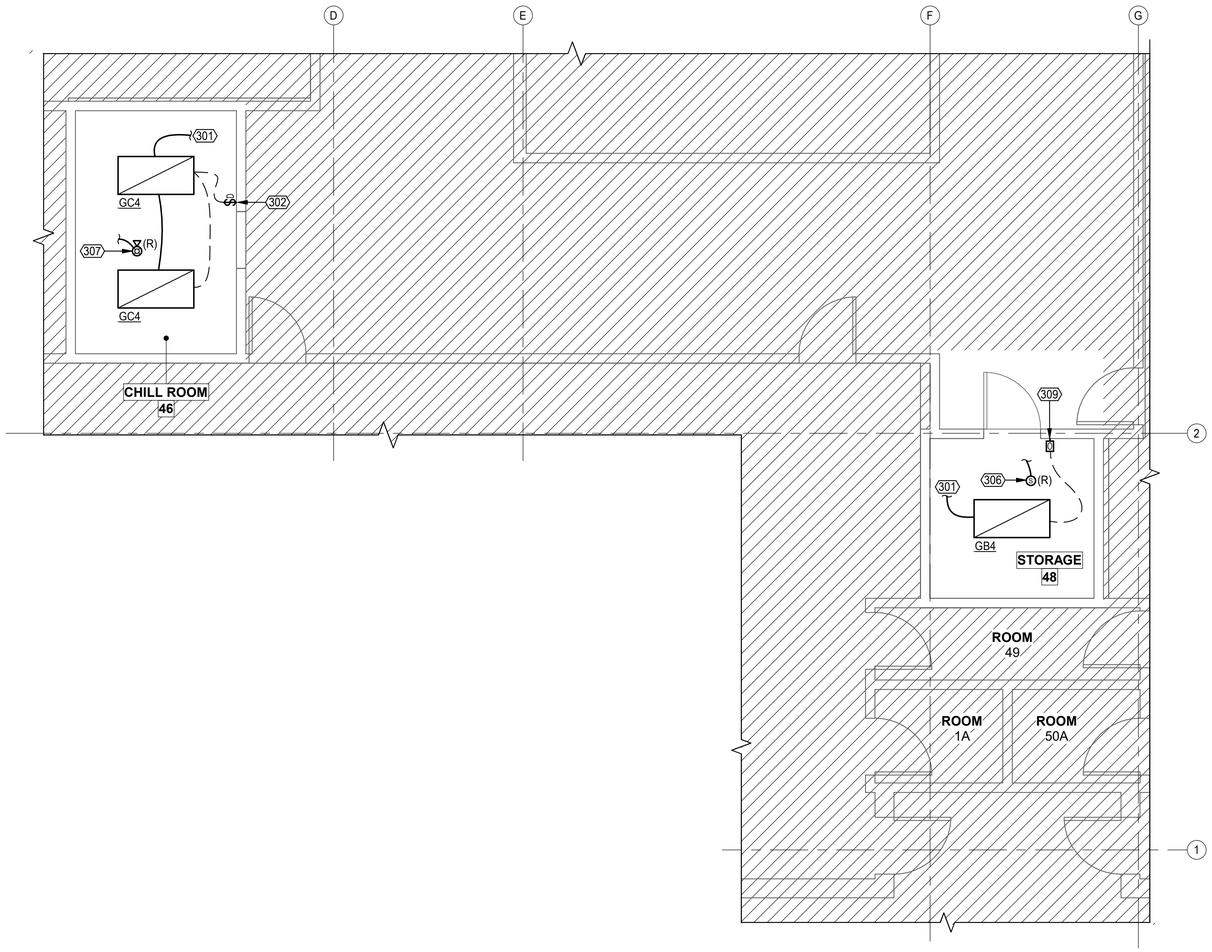
ASBESTOS, LEAD, AND OTHER HAZARDOUS MATERIALS ARE PRESENT IN THE BUILDING AND MAY IMPACT THE WORK OF ALL TRADES. REGULATED AIR CONTAMINATES, INCLUDING ASBESTOS AND LEAD, ARE ALSO PRESENT IN SETTLED AND CONCEALED DUST IN AND ON ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS OR SYSTEMS THROUGHOUT THE BUILDING. ALL TRADES SHALL COORDINATE WITH OTHER TRADES AND CONDUCT THEIR WORK TO PREVENT WORKER EXPOSURE OR SITE CONTAMINATION. REFER TO SPECIFICATION DIVISIONS 0, 1, AND 2 FOR SPECIFIC INFORMATION CONCERNING DISTURBING, REMOVING, AND DISPOSING OF THESE MATERIALS AND THE INSTALLATION OF NEW MATERIALS OR COMPONENTS. THIS NOTIFICATION IS PROVIDED IN ACCORDANCE WITH EPA AND OSHA REQUIREMENTS.

GENERAL NOTES

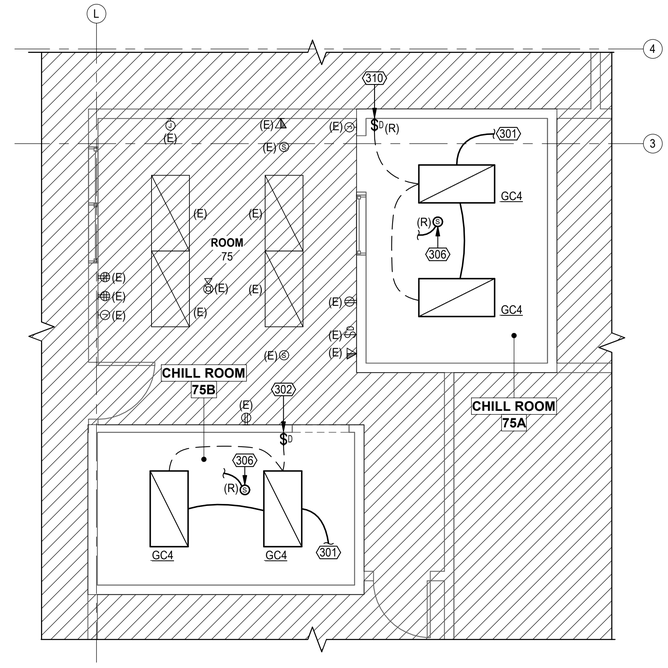
1. PROVIDE STAINLESS STEEL DEVICE PLATES FOR ALL RECEPTACLES AND LIGHT SWITCHES IF NOT CURRENTLY PRESENT.
2. UPGRADES TO THE EXISTING FIRE ALARM SYSTEM IS A DESIGN/BUILD COMPONENT OF THE PROJECT TO BE PROVIDED BY THE CONTRACTOR. DEVICE QUANTITIES AND LOCATIONS SHOWN ARE MEANT TO CONVEY SCOPE ONLY. ACTUAL DEVICE QUANTITIES, TYPES, AND LOCATIONS TO BE DETERMINED BY FIRE ALARM SYSTEM DESIGNER. SEE ELECTRICAL SPECIFICATIONS FOR DETAIL.
3. PROVIDE NETWORK STYLE LOW VOLTAGE LIGHTING CONTROL SYSTEMS AS NOTED. BASIS OF DESIGN IS ACUITY NLIGHT. CONTRACTOR TO CONNECT NEW SYSTEM COMPONENTS TO BUILDING'S EXISTING NLIGHT SYSTEM AND SOFTWARE AS NECESSARY IF PRESENT. IF BUILDING NETWORKED NLIGHT SYSTEM IS NOT PRESENT, LIGHTING DEVICES TO OPERATE IN STAND-ALONE MODE. SEE 1/E4.1 FOR SYSTEM DETAIL.
4. MOUNT ALL LIGHTING CONTROL SYSTEM RELAYS, POWER PACKS, BRIDGES, ETC IN ACCESSIBLE CEILING SPACE WHERE FEASIBLE. PROVIDE ACCESS PANELS FOR DEVICES WHERE NOT INSTALLED IN ACCESSIBLE CEILINGS. COORDINATE ALL ACCESS PANELS WITH ARCHITECTURAL PRIOR TO ROUGH-IN.

⟨#⟩ REFERENCED SHEET NOTES

REF	NOTE
301	CONNECT NEW LIGHTING TO EXISTING SAVED BRANCH CIRCUIT. NEW LIGHTING LOAD IS LESS THAN OR EQUAL TO NEW LIGHTING LOAD.
302	PROVIDE LOW VOLTAGE SWITCH WITH ON/OFF, DIMMING RAISE/LOWER, AND COLOR TEMPERATURE RAISE/LOWER CONTROLS.
306	RELOCATED PA SPEAKER. EXTEND EXISTING CIRCUIT TO NEW LOCATION AS NECESSARY.
307	RELOCATED FIRE ALARM DEVICE. EXTEND EXISTING CIRCUIT TO NEW LOCATION AS NECESSARY. SPLICING OF EXISTING WIRING IS NOT ALLOWED. IF EXISTING WIRING DOES NOT REACH NEW DEVICE LOCATION, CONTRACTOR TO REPLACE WIRING BACK TO SOURCE OR EXISTING DEVICE TO REMAIN.
309	PROVIDE LOW VOLAGE OCCUPANCY SENSOR ON/OFF SWITCH.
310	CONNECT RELOCATED LOW VOLTAGE SWITCH WITH ON/OFF, DIMMING RAISE/LOWER, AND COLOR TEMPERATURE RAISE/LOWER CONTROLS TO NEW LIGHTING ARRANGEMENT AS INDICATED.



1 E3.2 ROOMS 46 & 48 ELECTRICAL PLAN - NEW WORK
SCALE: 1/4" = 1'-0"



2 E3.2 ROOMS 75A & 75B ELECTRICAL PLAN - NEW WORK
SCALE: 1/4" = 1'-0"

REVISIONS

REV	DESCRIPTION	DATE

EIC ENGINEERS, INC
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PROJECT NO.19-0028.03

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12/18/2023
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ELECTRICAL PLANS - NEW WORK

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OWNER PROJECT # 625011

E3.2

FULL SIZE PRINTED ON 22 x 34

ADDENDUM NO. 1

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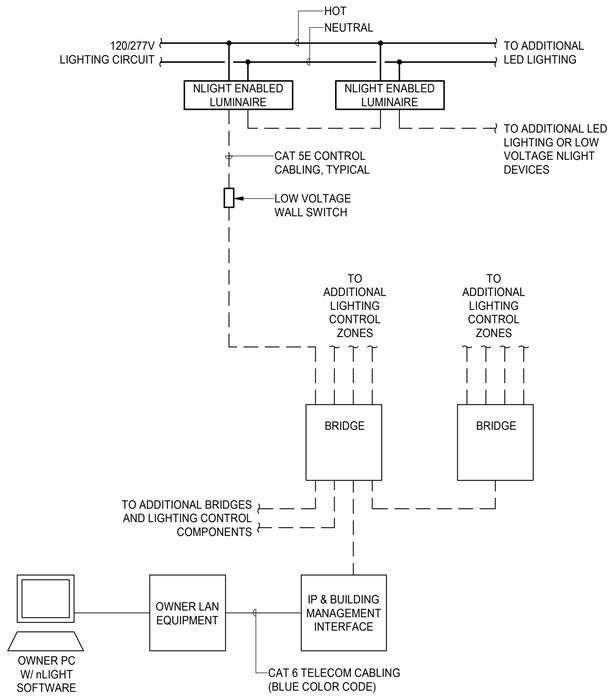
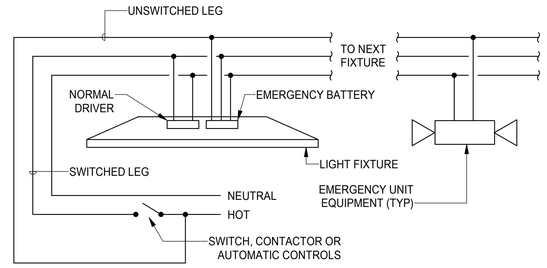


DETAIL NOTES:

1. DIAGRAM SHOWN IS BASED ON ACUITY NLIGHT PRODUCTS. CONTRACTOR TO COORDINATE EXACT SYSTEM REQUIREMENTS, EQUIPMENT, AND CABLING NECESSARY FOR COMPLETE SYSTEM WITH SYSTEM VENDOR.
2. ALL CONTROL CABLING LOCATED IN PLENUM CEILING SPACES SHALL BE PLENUM RATED.
3. PROVIDE VENDOR COMMISSIONING AND SYSTEM PROGRAMMING. COORDINATE SYSTEM FUNCTIONALITY AND INTEGRATION INTO EXISTING BUILDING NLIGHT NETWORKED SYSTEMS WITH OWNER IF PRESENT, OTHERWISE, SYSTEM COMPONENTS TO OPERATE IN LOCAL STAND-ALONE MODE ONLY .

1 TYPICAL LIGHTING CONTROL SYSTEM ARCHITECTURE

E4.1 SCALE: NONE



DETAIL NOTES:

1. EMERGENCY FIXTURES AND EXIT SIGNS TO BE CONNECTED TO LOCAL LIGHTING CIRCUIT TO ILLUMINATE WHEN UNSWITCHED LEG CIRCUIT FAILS NO MATTER WHAT STATE LIGHTING IS OPERATING.

2 TYPICAL EMERGENCY LIGHTING CONNECTION DIAGRAM

E4.1 SCALE: NONE

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ELECTRICAL DIAGRAMS & DETAILS

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E4.1

FULL SIZE PRINTED ON 22 x 34