

ASBESTOS ABATEMENT

ADDENDUM NUMBER ONE

May 10, 2024

AT

LAKE COUNTY COURTHOUSE

FOR

LAKE COUNTY
18 N. COUNTY STEET
WAUKEGAN, IL

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.
333 W. WACKER DRIVE, SUITE 1050
CHIGAGO, ILLINOIS 60606

To All Bidders:

- A. This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents – Project Manual Revised May 10, 2024.
- B. Bids shall include all items in Addendum Number One.
- C. This is Addendum Number One to the Contract Documents for the Lake County Mainframe Room, G27 Stairwell, and adjacent Storage Room.
- D. A revised Asbestos Work Plan has been provided. Revised sections include 01010, 01100, 02080, 02083, and the Cover Page, TOC, Exhibit A Schedule, and Exhibit B Abatement Work Plan.

Clarifications:

1. The abatement schedule and scope of work has been revised. The abatement in the G27 Stairwell will be completed on a weekend from August 16-18. Scaffolding and prep will be completed on August 16 (starting at 6pm), abatement on August 17 (starting at 10am tentatively), and clearance and teardown on August 18 (starting at 7am) for a total of 3 shifts.
2. If it is determined that the G27 Stairwell has firewalls to the ceiling deck, then the ceiling can be removed with the asbestos skim coat intact.
3. Glovebag abatement in the Storage Room has been removed from the scope. The schedule and abatement drawings has been revised accordingly.
4. Barrier locations on the abatement drawings have been revised.
5. Any asbestos floor tiles that are covered by the tunnel in the Mainframe room should be removed using heat removal methods following teardown (approximately 12 tiles).
6. The abatement contractor shall provide an electrician to install electrical pigtails and remove all lights from the Mainframe room. Lights will be disposed of by the contractor as non-asbestos.

7. Dumpsters are not allowed to be parked in the loading dock during the day. It is the abatement contractor's responsibility to obtain a permit from the Waukegan police department to park dumpsters on the street. A box truck can be used to removed waste from the site and can be parked at a designated Lake County parking lot at night.

END OF ADDENDUM NUMBER ONE

ATTACHMENTS

ASBESTOS ABATEMENT

MAINFRAME ROOM AND G27 STAIRWELL

AT

LAKE COUNTY COURTHOUSE
18 N. COUNTY STREET
WAUKEGAN, ILLINOIS 60085

FOR

LAKE COUNTY
18 N. COUNTY STREET
WAUKEGAN, ILLINOIS 60085

LIMITED PROJECT MANUAL

PROJECT SYNOPSIS

This project includes the removal of asbestos-containing material (ACM) floor tile, floor tile mastic, ceiling plaster skim coat, pipe fitting insulation, plaster overspray, and non-ACM ceiling plaster base coat from the Mainframe Room at the Lake County Administrative and Courts Complex. The ACM ceiling plaster skim coat and the non-ACM ceiling plaster base coat will be removed in the G27 Stairwell.

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312.288.3800

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ASBESTOS ABATEMENT

MAINFRAME ROOM AND G27 STAIRWELL

AT

LAKE COUNTY COURTHOUSE
18 N. COUNTY STREET
WAUKEGAN, ILLINOIS 60085

FOR

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The following listed documents comprise the Project Manual. Where numerical sequence of sections is interrupted, such interruptions are intentional.

PROJECT PROCEDURES

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END OF TOC

**SECTION 01010
SUMMARY OF WORK**

PART 1 - GENERAL

1.01 WORK COVERED BY CONTRACT DOCUMENTS

- A. The work to be performed in this contract is detailed in the Contract Documents.
- B. The abatement work includes the removal of designated ACM floor tile, floor tile mastic, ceiling plaster, pipe fitting insulation, and plaster overspray from the basement Mainframe Room at the Lake County Administrative and Courts Complex. ACM ceiling plaster will also be removed in the G27 Stairwell. Abatement in the Mainframe Room will be completed before the G27 Stairwell. Abatement in the G27 Stairwell will require scaffolding to be built. This work will be done in two phases in each work area where ceiling plaster is being removed. The first phase will include asbestos abatement of the acoustical ceiling plaster skim coat. After passing asbestos clearance sampling, the second phase will include removal of the non-ACM ceiling plaster base coat. If it is determined that the G27 Stairwell has firewalls to the ceiling deck, then the ceiling can be removed with the asbestos skim coat intact. See Exhibit B Drawings for details of each work area.
- C. Work includes construction of isolation barriers, negative pressure enclosures, decontamination units and installation of high-efficiency particulate air (HEPA) filtered air units. All work will be performed in accordance with these specifications, the Environmental Protection Agency (EPA), the Occupational Safety and Health Association (OSHA), the Illinois Department of Public Health (IDPH) and local requirements.
- D. Work is scheduled to be performed on evenings, Monday-Friday, to complete the project.
- E. The omission of minor details of construction, installation material or other essential items of usual or standard construction from the Plans and Specifications shall not relieve the Contractor from furnishing the same in place complete, and such omission shall not entitle the Contractor to make claims for extras on material and labor.

1.02 RELATED REQUIREMENTS SPECIFIED ELSEWHERE:

- A. Section 01100: Alternates
- B. Section 01710: Cleaning (Non-Asbestos)
- C. Section 02080: Asbestos Abatement

1.03 WORK UNDER SEPARATE CONTRACTS

- A. The Owner reserves the right to let other Contracts for additional work in connection with the Project. Contractors shall be allowed access and storage.
- B. There shall be complete cooperation between and among all Contractors, as well as between Contractor and Subcontractors to ensure satisfactory progress and performance of the Work.

1.04 WORK BY OWNER

- A. Owner will remove all furniture, equipment, and supplies as required to allow the Contractor to perform his duties in the areas noted in the Contract Documents.
- B. Owner will arrange for Contractor and Contractor's agents to access site prior to start of work for the delivery of equipment and supplies. Access will be limited to work areas only or as designated by Owner.
- C. Owner shall review with the Contractor a plan for emergency building exits during construction.

1.05 DEFINITIONS

All terms relating to asbestos work are as defined by the Occupational Safety and Health Administration (OSHA), the United States Environmental Protection Agency (USEPA) and the National Emission Standards for Hazardous Air Pollutants (NESHAP) Asbestos Regulations (40 CFR 61, Subpart M).

1.06 EXAMINATION OF SITE

Contractor shall visit the site of the Work, compare any Drawings and Specifications and other Contract Documents with existing conditions, and inform themselves of all conditions, including other work, if any, being performed. Failure to visit the site shall in no way relieve the Contractor from the necessity of furnishing of materials or performing any work that may be required to complete the work in accordance with the Contract Documents without additional cost to the Owner.

1.07 COORDINATION

Contractor shall not erect any portion of his work where it is necessary that the Work of other Contractors shall be erected first or carried forward simultaneously without having first given the other Contractors or superintendents a reasonable notice about his intentions.

1.08 SKILLED LABOR

- A. All labor on this Project shall be performed by skilled, licensed asbestos abatement workers qualified and competent to perform the best grade of workmanship. Each worker shall be licensed in the State of Illinois.
- B. Contractor and Subcontractor shall provide a competent foreman who shall be responsible for overseeing the Contractor's Work. Such foreman and/or superintendent shall be approved by Ramboll and shall be replaced only with his permission.

1.09 MANUFACTURER'S SPECIFICATIONS

- A. All materials, items, equipment, etc., shall be installed in accordance with the manufacturer's applicable specifications when not otherwise specified.
- B. Copies of such specifications shall be furnished as required.

1.10 DATE OF STANDARDS AND CODES

Reference made to standard specifications or codes refer to the latest edition at execution of Contract. Such reference includes correct addenda and errata if any.

1.11 OVERTIME/CHANGE OF WORK HOURS

- A. Contractor shall plan to perform the Abatement Work in accordance with the Schedule in Exhibit A.
- B. Any request of change of work hours or overtime proposed by the Contractor shall be agreed to in writing by the Owner and Ramboll (a minimum of 48-hours in advance).

1.12 JURISDICTION OF WORK

When completion of the work requires the Contractor or Subcontractor to furnish labor or materials other than that which is generally accepted by trade agreement or general practice to belong to his particular trade or branch of work, that Contractor shall subcontract same to a party engaged in that trade or branch of Work.

1.13 CERTIFICATION

Whenever the word "certification" and "certify" occurs in the Specifications, it shall be defined as a statement sworn before a notary and signed by an officer of the firm making the statement that the item, service, or material referred to conforms in all respects to the requirements of the Specifications.

1.14 STANDBY HELP

The Contractor shall apprise himself of all union requirements utilizing the services of union help other than those used directly as a part of his Contract and shall include the cost of such services in his proposal. This includes all types of standby help required by any and all unions.

1.15 SITE OPERATIONS

- A. Confine operations at the site to areas permitted by law, ordinances, permits, the Contract Documents, Ramboll, and the Owner.
- B. Workers shall enter the building through a designated entry to access the Work Area.

1.16 CONTRACTOR USE OF EXISTING BUILDINGS

- A. Maintain existing building in safe and weather tight conditions throughout the abatement period. Repair damage caused by the abatement operations. Take all precautions necessary to protect the building and its occupants during the abatement period.
- B. Keep public areas such as hallways, stairs, elevator lobbies, and toilet rooms free from accumulation of waste material, rubbish, and construction debris.

- C. Smoking or open fires will not be permitted within the building enclosure or on the premises.
- D. All work areas shall be designated as such and secure from entry by anyone other than construction workers, Owner, or Ramboll with signs or banners stating "Under Construction - Do Not Enter" or other warning.
- E. No alcoholic containing products will be permitted within the building enclosure or premises.

1.17 OCCUPANCY DURING ABATEMENT

- A. The Owner will occupy the building during abatement. The Owner will cooperate with Ramboll during abatement operations to minimize conflicts and to facilitate Owner usage. Ramboll will perform the work so as not to interfere with the Owner's operations.
- B. During occupied hours, limit construction and abatement operations to those methods and procedures which will not adversely and unduly affect the environment of occupied spaces, including noise, dust, odors, air pollution, ambient discomfort, poor lighting, hazards, and other undesirable effects and conditions

1.18 ADDITIONAL WORK AND ADDITIONAL COST

- A. Any additional work performed by Ramboll due to Contractor's negligence, carelessness, or delay is to be charged to the Contractor and deducted from the payments due to the Contractor.
- B. Any additional costs for the completion of the work as specified shall be the sole responsibility of the Contractor. All additional costs required of the Owner shall be charged to the Contractor and shall be deducted from payments due to the Contractor.

PART 2 - PRODUCTS

(No products are required in this Section)

PART 3 - EXECUTION

(No execution is required in this Section)

END OF 01010

SECTION 01100 ALTERNATES

PART 1 - GENERAL

1.01 WORK COVERED BY THE CONTRACT DOCUMENTS

- A. The work to be performed as part of this Section includes the removal of ACM floor tile, floor tile mastic, pipe fitting insulation, plaster overspray, the asbestos ceiling plaster skim coat, and non-asbestos ceiling plaster base coat from the Mainframe Room. The asbestos ceiling plaster skim coat and non-asbestos ceiling plaster base coat will be removed in the G27 Stairwell.

1.02 RELATED DOCUMENTS

Drawings and general provisions of the Contract, including General Conditions and Division 1 Specification sections, apply to work of this section.

1.03 RELATED WORK SPECIFIED ELSEWHERE

Sections of the Specifications as they pertain to respective Alternates.

1.04 DESCRIPTION OF REQUIREMENTS

- A. **Definition:** An alternate is an amount proposed by Bidders and stated on the Bid Form that will be added to or deducted from the Base Bid amount if the Owner decides to accept a corresponding change in either scope of work or in products, materials, equipment, systems, or installation methods described in the Contract Documents.
- B. **Coordination:** Coordinate related work and modify or adjust adjacent work as required to ensure that work affected by each accepted alternate is complete and fully integrated into the project.
- C. **Notification:** Immediately following award of Contract, prepare and distribute to each party involved, notification of the status of each alternate. Indicate whether alternates have been accepted, rejected, or deferred for consideration at a later date. Include a complete description of negotiated modifications to alternates, if any.
- D. **Schedule:** A "Schedule of Alternates" is included at the end of this section. Specification sections referenced in Schedule contain requirements necessary to achieve the work described under each alternate.
- E. Include as part of each alternate, miscellaneous devices appurtenances and similar items incidental to or required for a complete installation whether or not mentioned as part of the alternate.
- F. Any additional costs to the Contractor due to the inclusion of alternates shall be included in the amount to be added to the Contract Sum, so that no additional costs shall be borne by the Owner due to the inclusion of the additive alternates.
- G. Any deductive costs to the Contractor due to the inclusion of alternates shall be included in the amount to be deducted from the Contract Sum, so that all deductive costs will accrue to the Owner due to the inclusion of deductive alternatives.

PART 2 - PRODUCTS

(No products are required in this Section)

PART 3 - EXECUTION

3.01 SCHEDULE OF ALTERNATES

No alternates for this project.

END OF 01100

SECTION 01300
SUBMITTALS - ABATEMENT

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Work includes submission of Progress Schedule, shop drawings, product data, and samples to Ramboll as required by Specification Section 02080-1.06 and as specified herein.
- B. This information must be submitted prior to commencement of the work.

1.02 RELATED REQUIREMENTS SPECIFIED ELSEWHERE

- A. Contract Closeout: Section 01700.
- B. Asbestos Abatement: Section 02080.

1.03 SHOP DRAWINGS

- A. Submit three (3) copies of shop drawings indicating containment area, locations of decon units, waste out areas, HEPA locations, and emergency egress paths of travel.

1.04 OTHER SUBMITTALS

- A. Submit with reasonable promptness and in timely and proper sequence, all certificates, test reports, special instructions, etc., which are required by the Contract Documents Section 02080-1.06 and governing authorities.

END OF 01300

**SECTION 01370
SCHEDULE OF VALUES**

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Division 1 specification Sections, apply to work of this section.

1.02 WORK INCLUDED

- A. Each Contractor shall submit a Schedule of Values electronically via e-mail to Ramboll and Lake County at least ten (10) working days prior to submitting first application for payment. Refer to Lake County Purchase Order, Invoice, and Payment requirements.

1.03 RELATED REQUIREMENTS SPECIFIED ELSEWHERE

- A. Section 01700: Project Closeout.
- B. Upon request by Ramboll, support values given with data that will substantiate their correctness.
- C. Submit quantities of designated materials.
- D. See Schedule of Values only as a basis for Contractor's Application for Payment.

1.04 FORM OF SUBMITTAL

Submit typewritten Schedule of Values on 8 1/2 in. x 11 in. paper or on a standard preprinted form.

1.05 PREPARATION

- A. Itemize separate line-item cost for each of the following cost items:
 - 1. Performance and Labor and Material Payment Bonds.
 - 2. Field supervision and layout.
 - 3. Temporary facilities and controls.
- B. Itemize separate line-item cost for Work required.
- C. Round off figures to nearest ten dollars.
- D. Make sum of total costs of all items listed in Schedule equal to total Contract Sum.

1.06 REVIEW AND RESUBMIT

- A. After review by Ramboll revise and resubmit Schedule as required.
- B. Resubmit revised Schedule in same manner.
- C. Contractor shall submit list of Subcontractors that he will use for this project, provide Subcontractor's identification, experience, and references.
- D. Ramboll reserves the right to reject any and all Sub-contractors.

PART 2 - PRODUCTS

(No products are required in this Section)

PART 3 - EXECUTION

(No execution is required in this Section)

END OF 01370

SECTION 01500
CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

General provisions of the Contract, including General Conditions and Division 1 Specification sections, apply to work in this section.

1.02 WORK INCLUDED

- A. The Contractor shall be responsible for arranging for and providing all construction facilities and temporary controls as specified herein and as required for the proper and expeditious execution of the Work. The Contractor shall pay all costs for such facilities and controls, unless otherwise specified, until the date of substantial completion of the Project.
- B. Construction operations at the building site shall be in accordance with "The Manual for Accident Prevention" (AGC) and shall be subject to all applicable laws, governmental rules, and regulations.

1.03 RELATED REQUIREMENTS SPECIFIED ELSEWHERE

- A. Section 01010: Summary of Work
- B. Section 01710: Cleaning
- C. Section 02080: Asbestos Removal

1.04 TEMPORARY POWER AND LIGHTING

- A. Install, maintain in safe condition, relocate as required by progress of the Work and remove and legally dispose of temporary power and lighting systems when no longer needed.
- B. Comply with the requirements of all codes and authorities having jurisdiction.
- C. Electrical energy of the type and voltages available will be provided by the Owner free of charge at locations designated by the Owner and to the extent that use will not interfere with Owner's use. Provide any additional or differing energy required by execution of the Work at no additional cost.
- D. Extend from sources designated and provide duplex 110-volt grounded outlets arranged to permit work to proceed with the use of maximum 50 ft. extension cord.
- E. Contractor may provide Ground Fault Circuit Interrupter (G.F.C.I.) Board. G.F.C.I. Board will be connected to the building source by the Contractor with supervision by the Owner.

- F. Provide and maintain general illumination of not less than ½ watt per square foot throughout all of the building where work is being performed.
- G. Contractor shall provide his own extension cords. Due to the high moisture in the work area, all electrical equipment shall have double insulated wiring and be protected with ground fault circuit interrupting devices.

1.05 TEMPORARY HEAT AND VENTILATION

- A. Install, maintain in safe conditions, relocate as required by progress of the Work and remove and legally dispose of temporary heating and ventilation.
- B. Comply with the requirements of all codes and authorities having jurisdiction.
- C. The Owner's existing mechanical systems may be used for temporary heat and ventilation to the extent possible. Provide additional heat and ventilation required at no additional cost. Exercise measures to conserve energy.
- D. Maintain minimum temperature of 50° F. during working hours and minimum 40° F during non-working hours except where higher temperatures are required or specified.
- E. Maintain ventilation as required to avoid excessive moisture, cure the work, and to allow the work to dry. Do not use existing cooling systems.
- F. Provide temporary filters as required to avoid excessive moisture, cure the work, and to allow the Work to dry. Do not use existing cooling systems.
- G. The Owner will pay costs of fuel and electrical energy.

1.06 TEMPORARY TELEPHONE SERVICE

The Contractor shall provide his own temporary telephone.

1.07 TEMPORARY WATER

- A. The Owner will provide temporary water as required for construction to the extent available at sources designated.
- B. Extend from designated sources. Provide additional as required at no additional cost.
- C. Contractor shall use construction/industrial grade piping for decontamination shower facility to prevent water leaking, if necessary.
- D. Contractor shall follow Building Engineer's guidance and instruction to hook up water supply except at sink faucets.

1.08 TEMPORARY SANITARY FACILITIES

- A. The Owner will designate toilet facilities for use by workmen.

- B. Use of facilities will not be exclusive.
- C. Maintain the existing facilities daily in a clean and sanitary condition.

1.09 TEMPORARY ENCLOSURES

- A. Provide weather-tight closures on all openings resulting from construction operations.
- B. Provide dust-tight enclosures separating work area from occupied areas.
- C. Provide temporary enclosures required to maintain open routes to exits.
- D. Contractor shall follow instructions and regulations cited in Section 02080 for asbestos removal barriers and enclosures.

1.10 BARRIERS

- A. Provide barriers, warning signs, and lights as required to protect the public and the Owner's Personnel.

1.11 SPECIAL CONTROLS

- A. Comply with the requirements of all authorities having jurisdiction regarding environmental protection and pollution control.
- B. Do not track mud, dust or construction debris onto streets and public ways.
- C. Maintain noise, vibration, and dust to a minimum.
- D. Contractor's vehicles or equipment shall not be labeled with the word "asbestos" or have any indication or reference to asbestos abatement.
- E. Excessive noise will not be permitted during the normal business days.
- F. Areas outside of the construction barricades shall be kept clean at all times.
- G. Radio and alcoholic beverages will not be permitted.
- H. Workers shall not wear protective equipment, disposable suits or carry any items identified with the word "asbestos" in the public spaces in and around the building except as required by all applicable rules and regulations.
- I. Workers shall not enter any undesignated areas in the building.

1.12 TRAFFIC REGULATIONS

- A. Comply with the requirements of all authorities having jurisdiction regarding traffic, load limits and use of streets and public ways.
- B. Provide special signs, signals and flagmen as required.

1.13 TEMPORARY PROTECTION AND SECURITY

- A. Provide protection of Owner's existing property. Repair or replace property damaged to the satisfaction of the Owner.
- B. Protect and assume responsibility for losses by theft of the elements of materials stored at the site.
- C. Protect and assume responsibility for losses by theft of Work and materials in place.
- D. Provide all necessary security and protection services and systems during the construction period in coordination with the Owner's security system.
- E. Provide barriers to prevent unauthorized entry to abatement areas to allow for Owner's use of site, and to protect existing facilities and adjacent properties from damage from construction operations.

1.14 TEMPORARY OFFICES AND STORAGE

- A. Limit temporary offices and storage to areas designated by the Owner.
- B. Space is extremely limited. Do not encumber the site.

1.15 RESTORATION OF FACILITIES

Upon completion of the work all temporary facilities and controls shall be removed in their entirety and legally disposed of off-site. The facility shall be restored to its pre-construction condition. The repaired and patched areas shall not be discernable from the existing, untouched surfaces.

PART 2 - PRODUCTS

(No products are required in this Section)

PART 3 - EXECUTION

(No execution is required in this Section)

END OF 01500

**SECTION 01700
CONTRACT CLOSEOUT**

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, and Division 1 specification sections, apply to work of this section.

1.02 RELATED REQUIREMENTS SPECIFIED ELSEWHERE

- A. Section 01300: Submittals
- B. Section 01710: Cleaning
- C. Section 02080: Asbestos Abatement

1.03 PROJECT RECORD DOCUMENTS

- A. Maintain at Project Site, one copy of:
 - 1. Project Drawings and Manual, including addenda.
 - 2. Change Orders and Field Change Authorization.
 - 3. Other modifications to Contract.
 - 4. Field test records.
- B. Store documents in temporary field office, apart from documents used for construction. Provide files and racks for storage of documents.
- C. Maintain documents in clean, dry, legible conditions; do not use record documents for construction purposes.
- D. Make documents available at all times for inspection by Ramboll and Owner.
- E. Contract Drawings: Legibly mark to record actual construction.
- F. Specifications and Addenda: Legibly mark-up each Section to record:
 - 1. Manufacturer, trade name, catalog number, and supplier of each product and item of equipment actually installed.
 - 2. Change made by change order, field change authorization, and notice of clarification.
 - 3. Other matters not originally specified.
- G. Shop Drawings: Maintain as record documents; legibly annotate Shop Drawings to record changes made after approval.
- H. At completion of Project, deliver record documents and transparencies to Ramboll.

1.04 CLOSEOUT SUBMITTALS

- A. Submit all certificates and guarantees requested, for materials, items, installations, and compliance with standards as stated in this section of the specifications.
- B. Project Record Documents: Conform with paragraph 1.03 of this Section.
- C. Deliver evidence of compliance with requirements of governing authorities.
 - 1. Certificates of inspection.
 - 2. Certificates of occupancy.

1.05 SUBSTANTIAL COMPLETION

- A. Contractor:
 - 1. Submit written declaration to Ramboll that project, or designated portion of project, is substantially complete.
 - 2. Submit list of items to be completed or corrected.
- B. Ramboll will make preliminary inspection after receipt of Contractor's declaration.
- C. Should Ramboll consider that Work is not substantially complete:
 - 1. He shall immediately notify Contractor, in writing (punch list), stating reasons and provide Contractor with a designated time of completion.
 - 2. Contractor: Shall complete the items and certify that the project, or designated portion of Project, is substantially complete.
 - 3. Contractor: Shall complete work listed for completion or correction, within designated time.
- D. At time of inspection, should Substantial Completion not be certified, complete the work, and resubmit declaration in accordance with 1.05A.

1.06 FINAL COMPLETION

- A. Contractor shall submit written declaration to Owner and Ramboll that:
 - 1. All aspects of Contract Documents have been complied with.
 - 2. All items on Substantial Completion punch list have been completed.
 - 3. All tools, construction equipment, and surplus materials have been removed from site.
- B. Should Ramboll consider that Work is not finally complete:
 - 1. He shall notify Contractor, in writing, stating reasons.
 - 2. Contractor shall take immediate steps to remedy the stated deficiencies and send second written notice to Ramboll certifying that Work is complete.
 - 3. Ramboll will reinspect Work.
- C. When Owner and Ramboll consider that work is finally complete in accordance with Contract Document requirements, Ramboll will prepare and process closeout documents.

1.07 REINSPECTION COSTS

- A. Ramboll will conduct inspections of each work area at the end of work. The Owner, Ramboll and Contractor shall be present at all such inspections.
- B. Ramboll will perform two (2) inspections of the project per work area. The first inspection will be to prepare a "punch list" of uncompleted items and the second inspection to verify completion of the "punch list." Failure of the work to comply with the Contract Documents beyond these two (2) inspections will be the responsibility of the Contractor, and the Owner will compensate Ramboll for additional services and deduct amount paid from final payment to contractor.

1.08 FINAL ADJUSTMENT OF ACCOUNTS

- A. Submit final statement of accounting to Ramboll.
 - 1. Statement shall reflect all adjustments.
 - a. Original Contract sum.
 - b. Additions and deductions resulting from:
 - 1) Previous Change Orders.
 - 2) Other Adjustments.
 - 3) Deductions from uncorrected work.
 - 4) Deductions for Reinspection Payments.
 - c. Total Contract Sum, as adjusted.
 - d. Previous payments.
 - e. Sum remaining due.
- B. Ramboll will prepare final Change Order, reflecting approved adjustments to Contract Sum not previously made by Change Orders.

1.09 FINAL APPLICATION FOR PAYMENT

- A. Contractor shall submit the final application for payment in accordance with Contract Documents.
- B. Contractor shall use the AIA Document G702 for the payment application.

PART 2 - PRODUCTS

(No products are required in this Section)

PART 3 - EXECUTION

(No execution is required in this Section)

END OF 01700

SECTION 02080 ASBESTOS ABATEMENT

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Isolation of the work site to create a regulated area.
- B. Complete preparation of each work area into a negative pressure enclosure.
- C. Removal and disposal of all asbestos-containing floor tile, floor tile mastic, pipe fitting insulation, plaster overspray, and the asbestos ceiling plaster skim coat and non-asbestos ceiling plaster base coat from the basement Mainframe Room at the Lake County Administrative Courts Complex. The asbestos ceiling plaster skim coat and non-asbestos ceiling plaster base coat will be removed in the G27 Stairwell.
- D. Restoration of the work site to its pre-abatement condition:

Included is the repair or replacement of all materials, finishes, equipment, etc., which were damaged, affected or otherwise changed in a manner not in accordance with the contract documents during the course of the work. The Contractor shall provide Financial Remediation to the Owner to compensate for such repairs required as a result of his work. Prior to commencement of work at the site, the Contractor is responsible for identifying all materials, finishes, equipment, etc. not in good condition.

1.02 RELATED WORK [SPECIFIED ELSEWHERE]

- A. Section 01010: Summary of Work
- B. Section 01710: Cleaning

1.03 REGULATIONS

- A. All work must conform to the latest rules and regulations of the EPA, NESHAP, OSHA regulations on asbestos, Section 1926.1101, IDPH, and local government regulations which are incorporated by reference.
- B. The work must also conform to the requirements specified herein, which are a part of these contract documents.
- C. Wherever inconsistencies occur between the referenced materials, the more stringent shall apply. The intent of these documents is to assure that the work is conducted in a manner which provides the highest level of safety.

1.04 TESTING SERVICES

- A. The Contractor remains fully responsible for the health and safety of all persons coming into contact with affected areas.
- B. Ramboll will be responsible for personal and environmental sampling.

1.05 QUALITY ASSURANCE

- A. The work consists of the complete removal and disposal of all visible asbestos containing materials. Asbestos is proven to be a material which can cause a serious health risk to humans. The work is governed by a body of local, state, and federal rules, regulations, and laws. The Contractor agrees by accepting the contract that he is fully knowledgeable of this information and will bear full responsibility for the health and safety of his staff and all people, including Owner's employees and invitees, and all third persons who come in contact with the work site. The Contractor must state in writing any concerns he has about the adequacy of the rules, regulations and laws or the Contract Documents. The letter must be specific and include alternative safeguards and procedures that will correct the stated inadequacies.
- B. The Contractor remains responsible for the health and safety of the Workers and for all personal samples required. The Owner will have Ramboll monitoring the work and collecting area air samples for the Owner to further assure conformance to the Contract Documents.
- C. The Contractor shall cooperate with Ramboll. This cooperation shall include allowing access to the work to allow for visual monitoring, collecting area air samples for the Owner, providing requested data on personnel, equipment, scheduling, and any other manner which facilitates the Owner's monitoring of the work.
- D. The Contractor shall not allow anyone access to the site who is not authorized by the Owner or Ramboll to enter the site of the work.
- E. The Contractor shall provide all authorized person's full protective clothing, one Powered Air Purifying Respirator (PAPR) with adequate filters. The Contractor shall allow full use of all facilities by Ramboll.
- F. The Contractor is responsible for maintaining a log of all personnel by name and social security number who enter the workplace. A copy of all logs shall be submitted to Ramboll on a weekly basis.

1.06 NOTIFICATIONS AND SUBMITTALS

- A. Follow procedures set forth in NESHAP Section 61.145 and Paragraph 1.03 REGULATIONS as required by the Owner.
- B. Submit a detailed proposed work schedule and staffing report to the Owner and Ramboll.
- C. Manufacturer's data on all materials used at the workplace shall be submitted prior to the commencement of work.

- D. Submit the following pre-abatement information to the Ramboll at or prior to the start of work:
1. Insurance Certificates
 - a. Asbestos specific
 - b. General liability
 - c. Workers' compensation
 - d. Automobile
 - e. Aggregate/umbrella
 - f. Lake County and Ramboll to be named as additional insured.
 2. Notification/Permits
 - a. EPA
 - b. State, county, and local agencies (Bldg. Dept., Fire/Police Dept., Hospital)
 - c. Permits for transportation to and disposal at an approved landfill
 3. Site (in Addition to 1.06.B.1.)
 - a. Decontamination unit location
 - b. Owner occupancy
 - c. Utility Requirements
 - Water
 - Electrical
 - Power
 - Telephone
 - d. Storage areas, staging areas, etc.
 - e. Parking
 - f. Building security, entrance-exit
 - g. Discharge of filtered wastewater
 - h. List of workers to be on-site, employees' titles, experience
 4. Submittals
 - a. Name and location of disposal site
 - b. Copy of landfill handling procedures, signed by the landfill owner
 - c. Documentation of worker licenses
 - d. Copies of physicals
 - e. Drawings of decontamination chambers and barriers
 - f. NIOSH approvals for respirators
 - g. Manufacturer's certification of HEPA filters for respirators
 - h. Manufacturer's certification of HEPA filter capabilities for HEPA vacuums, HEPA filtered exhaust units, etc.
 - i. Manufacturer's certification that equipment conforms to ANSI Z9.2-79
 - j. Documentation that all employees and agents are fit tested.
 - k. Notification to rental companies for use of equipment on abatement site
 - l. Materials
 - Encapsulant characteristics
 - Encapsulant compatible with replacement materials including flooring mastics
 - Glove bag
 - m. Work area

- n. Electrical, mechanical; coordinate with Owner's personnel for installation
- 5. Arrangement for Meetings
 - a. Daily
 - b. Weekly
- 6. Emergency Phone Numbers
 - a. Ramboll
 - b. Contractor
 - c. Lake County

1.07 PROJECT SITE CONDITIONS

- A. The Contractor is responsible for having made a detailed review of the workplace prior to his having submitted a proposal. He is expected to have considered, and included in his bid, all aspects of the existing conditions and their impact, particularly to cost and health and safety, to his work.
- B. The Owner will make arrangements to allow access to the site.
- C. The work shall be limited to specific areas of the building. Since the building will be partially occupied, unlimited access is specifically not permitted. Arrangements for use of the building and site will be restricted to those areas specifically allowed by the Owner for the completion of the work.
- D. The Contractor shall verify the shutdown of mechanical and electrical systems in containment. The HEPA filtered exhaust units shall operate continuously 24 hours per day exhaust to the exterior of the building.
- E. Other contractors will be working at the site after completion of the asbestos abatement. The major effort of other contractors will be after the completion of asbestos abatement. This Contractor shall:
 - 1. Cooperate with all other contractors, and
 - 2. Prevent any work by others from jeopardizing the asbestos work.
 - 3. Inform the Owner of conflicts, contamination, etc.

1.08 PROJECT COORDINATION

- A. Ramboll shall have the authority and responsibilities defined by the Owner in accordance with Federal, State and Local regulations.
- B. The Contractor shall provide a full-time General Superintendent who is experienced in the administration and supervision of asbestos abatement projects including work practices, protective measures for building and personnel, disposal procedures, etc. This person shall also be the Competent Person as required by OSHA in 29 CFR 1926.1101 for the Contractor and the Contractor's representative responsible for compliance with all applicable federal, state, and local regulations, particularly those relating to asbestos-containing materials. This person shall have completed a course in an EPA Training Center or equivalent certification course in asbestos abatement

procedures, have had a minimum of two (2) years on-the-job training and meet any additional requirements set forth in 29 CFR 1926.1101 for a Competent Person.

- C. The Contractor's General Superintendent shall have been trained in accordance with 40 CFR Part 763, Model Contractor Accreditation Plan. This person shall meet the requirement of a Competent Person as defined by OSHA 1926.1101.
- D. The Contractor's General Superintendent shall also meet the requirements of NESHAP 61.145 section C (8) for the on-site representative and shall be present during removal operations.

1.09 EMERGENCY EVACUATION

- A. Contractor shall prepare a contingency plan for emergencies including fire, accident, power failure, HEPA filtered exhaust unit failure, supplied air system failure, or any other event that may require modification or abridgement of decontamination or work area isolation procedures. Include in the plan specific procedures for decontamination or work area isolation.

PART 2 - PRODUCTS

2.01 MATERIALS AND EQUIPMENT

- A. All materials shall be new and from unopened containers.
- B. Materials shall be stored in areas designated by the Owner.
- C. All plastic sheeting shall be fire retardant.
- D. All lumber shall be fire retardant.
- E. All circuits providing power to the containment area will be equipped with G.F.C.I devices at the source of the power.
- F. New construction materials furnished and installed by others shall not be adversely affected by the work completed by the abatement contractor. This Contractor alone bears full responsibility for assuring that new materials and work furnished by others will not be adversely affected by work under this section.

PART 3 - EXECUTION

3.01 PERSONNEL PROTECTION

- A. The Contractor is required to provide all training and equipment for his staff and workers and for providing respiratory protection in accordance with 29 CFR 1926.1101. At a minimum contractor will utilize PAPR respirators for gross removal. Half-mask respirators may be utilized if airborne fiber concentrations are maintained below 0.1 fibers per cubic centimeter (f/cc) and proper eye protection is utilized.
- B. The Contractor is responsible for preventing unauthorized personnel from entering the work area.

- C. Authorized persons not employed or paid by the Contractor must show evidence of proper respirator training and have a fitted PAPR.
- D. Personnel protection shall consist of full body and head covering as well as respirators, hard hats, safety glasses, gloves etc. depending on the project status in accordance with OSHA regulations.

3.02 BUILDING PROTECTION

- A. The Contractor shall follow the Owner's and Ramboll's recommendations to protect the building and take any and all other reasonable and necessary precautions to protect the building, subject to the Owner's approval.
- B. Contaminated filters in HEPA filtered exhaust units shall be removed only in contained or regulated areas and disposed of as ACM waste.

3.03 STOP WORK ORDER

- A. Ramboll has the authority to stop asbestos removal at any time activities or abatement conditions are not within specification requirements. Work will not resume until conditions have been corrected. The following are examples of situations requiring a stop work order:
 - 1. Excessive airborne fiber concentrations.
 - 2. Break in containment barriers.
 - 3. Serious injury within the containment area.
 - 4. Fire alarm system failure.
 - 5. Respiratory protection system failure.
 - 6. Power failure.
 - 7. Excessive airborne fiber concentrations inside the containment area.
- B. The work stoppage will continue until the unacceptable conditions have been corrected. Written authorization from Ramboll is required prior to commencing removal operations.

3.04 WORK AREA PREPARATION

- A. The Contractor shall prepare the work area as follows:
 - 1. Establish a regulated area and post caution signs in accordance with 29 CFR 1926.1101.
 - 2. Verify the shut down and lock out of electric power to all work areas. Provide temporary power and lighting and ensure safe installation of temporary power sources and equipment in accordance with the National Electrical Code. All power to work areas shall be brought in from outside the area through a ground-fault interrupter (GFI) at the source.
 - 3. Verify the shut down and isolation of heating, cooling, and ventilating air systems.
 - 4. Pre-clean the work area and any fixed objects within the work area using wet methods and/or HEPA vacuums. Cleaned fixed objects shall be wrapped with 6-mil plastic sheeting and sealed with tape.

5. Construct isolation containment barriers as described below.
 6. Maintain emergency and fire exits from the work areas.
- B. The Owner will provide the Contractor with the required information on shutting off all ventilation equipment to the affected areas.
- C. Isolation Containment Barriers:
1. Critical Barriers:
Physically isolate the work area from other portions of the building. Small openings such as cracks at doors and windows shall be sealed with plastic sheeting which is then sealed at its perimeter with duct tape. In some instances, a critical barrier may be an entire temporary wall fabricated from plastic sheeting or other materials.
 2. Primary Barriers (Gross Removal Areas):
Horizontal surfaces shall be pre-cleaned and sealed with two (2) layers of 6-mil plastic sheeting. Vertical surfaces shall be pre-cleaned and sealed with one (2) layer of 4-mil plastic sheeting unless noted otherwise. Primary barriers are to be installed over critical barriers. Plastic sheeting will be cleaned and disposed of as ACM waste upon completion of gross removal activities.

3.05 WORKER DECONTAMINATION SYSTEM

- A. A decontamination unit (DCU) shall consist of three (3) chambers including an equipment (dirty) room, shower, and clean room. The DCU shall be constructed contiguous to the work area.
- B. Cover vertical and horizontal surfaces with two (2) layers of 6-mil plastic sheeting on walls and three (3) layers of 6-mil plastic sheeting on floors.
- C. Hot and cold water, soap and disposable towels must be provided to the decontamination unit.
- D. Decontamination unit must be a minimum of seven feet (7') tall, inside height.
- E. The decontamination unit shall be watertight. The shower unit shall be placed in a leak proof metal pan. The Contractor will be liable and responsible to the Owner for any leaks/damages occurring during the abatement.

3.06 MAINTENANCE OF DECONTAMINATION ENCLOSURE SYSTEM AND WORKPLACE BARRIERS

- A. The Contractor shall perform the following:
1. All isolation barriers shall be inspected by the Contractor's Competent Person at least twice daily. Inspections and observations shall be documented in the daily project log. Damage and defects in the enclosure system shall be repaired upon discovery.
 2. At any time during the abatement activities after barriers have been erected, if visible emissions are observed outside of the work area or if damage occurs to barriers, work shall stop, repairs shall be made to the barriers, and visible

residue cleaned up using appropriate HEPA vacuuming and wet wiping procedures prior to resuming abatement activities.

3. The Contractor shall HEPA vacuum or wet wipe the equipment decontamination enclosure system and the entire worker decontamination enclosure system as necessary and at the end of each day of abatement activities.
- B. The Contractor shall provide copies of the Project log to Ramboll at the end of the project.
- C. Ramboll shall be immediately notified of any problem that has developed such as a puncture of the barrier system, electrical power loss, GFCI failure, equipment failure, accidental discharge into the occupied areas, partial collapse of the protection system (plastic sheet fails to remain in proper place), etc.

3.07 COMMENCEMENT OF WORK

- A. Abatement shall not begin until the following have occurred:
 1. Isolation barriers have been constructed and smoke tested.
 2. Contractor submittals, notifications, postings, and permits have been provided and are satisfactory to the Owner and Ramboll.
 3. Equipment for removal, clean up and disposal are on-site.
- B. Notification to start shall be received from Ramboll in written form.

3.08 WORKPLACE ENTRY AND EXIT

- A. Maintain emergency and fire exits from the work area or establish alternative exits satisfactory to local fire departments.
- B. Follow Procedures set forth in OSHA 1926.1101 Subpart J. Enforcement is the responsibility of the Contractor.
- C. Maintain an entry log of those persons who enter/exit the work area. Copies of the entry log shall be submitted to Ramboll weekly.
- D. Entry shall be controlled to prevent unauthorized, accidental access into the work area.
- E. Respiratory protection shall be wet wiped prior to re-entry into the work area.

3.09 REMOVAL PROCEDURES

- A. All ACBMs shall be removed using wet methods. Dry removal is strictly prohibited.
- B. Steps to the sequence of Gross Removal of ACM Floor Tile, Floor Tile Mastic, Acoustical Ceiling Plaster, Pipe fitting Insulation, and Plaster Overspray using gross removal methods in the Mainframe Room are as follows:
 1. Erect barriers to enclose the work area and establish a regulated area in accordance with OSHA 29 CFR 1926.1101(e).

2. Post caution signs in accordance with OSHA 29CFR 1926.1101(k)(6).
3. Provide visual barriers preceding regulated work areas.
4. Coordinate with the building engineer to shut down and lock out electric power isolate heating, cooling and ventilation systems that affect the work area(s).
5. Install critical seals on all openings.
6. Pre-clean all fixed objects to remain by wet wiping and HEPA vacuuming.
7. Install a tunnel from the corridor, through the Mainframe Room, to the Dark Room, using scaffolding.
8. Establish worker and equipment decontamination enclosure system.
9. Seal off the work area and create a negative pressure enclosure using two (2) layers of six (6) mil plastic sheeting on horizontal surfaces and two (2) layers of four (4) mil plastic sheeting walls.
12. Protect any existing light fixtures and other ceiling appurtenances to remain in or adjacent to the ceiling.
13. Establish HEPA filtered exhaust unit ventilation (negative pressure).
14. Pass Ramboll final visual evaluation of the containment area set-up.
10. Workers shall wear protective clothing.
11. Establish respiratory protection in accordance with OSHA regulations.
15. Perform gross removal of the ceiling plaster skim coat, followed by removal of the ACM floor tile and floor tile mastic.
16. Place all ACM waste materials into six (6) mil plastic waste bag, fiber drums or boxes with the appropriate asbestos labeling for disposal. Double bag all waste materials upon removal from the work area. Solvent can be used for the removal of the floor tile mastic.
16. Remove one (1) layer of plastic sheeting from the walls and floor. Clean all work area surfaces by HEPA vacuuming and wet wiping to remove all visible debris and residual ACM plaster.
17. Pass Ramboll final visual inspection that all visible ACM debris has been cleaned from all work area surfaces.
18. Lightly encapsulate the work area.
19. Pass an aggressive air clearance by Phase Contract Microscopy (PCM) National Institute of Occupational Safety and Health (NIOSH) 7400 method.
20. Following the receipt of passing clearance air samples, remove the remaining non-ACM plaster base coat before removing the containment and negative air units. All ceiling appurtenances (sprinklers, ductwork, speakers, etc.) will remain and should be temporarily supported. All black iron is to remain.
21. Following removal of the plaster ceiling base layer, remove any ACM pipe fitting insulation and plaster overspray from above the plaster ceiling using glove bag removal methods. Ramboll will inspect for any ACM plaster overspray above the plaster ceiling and determine areas where spot abatement is required. This should all be completed before removing the containment and negative air units.
22. Pass Ramboll final visual inspection.
23. Pass an aggressive air clearance by Phase Contract Microscopy (PCM) National Institute of Occupational Safety and Health (NIOSH) 7400 method
22. Remove barriers and re-establish the work area.
23. Conduct additional cleaning as required.

C.

Steps to the sequence of Gross Removal of ACM Acoustical Ceiling Plaster using gross removal methods in the G27 Stairwell are as follows:

1. Erect barriers to enclose the work area and establish a regulated area in accordance with OSHA 29 CFR 1926.1101(e).
2. Post caution signs in accordance with OSHA 29CFR 1926.1101(k)(6).
3. Provide visual barriers preceding regulated work areas.
4. Coordinate with the building engineer to shut down and lock out electric power isolate heating, cooling and ventilation systems that affect the work area(s).
5. Install critical seals on all openings.
6. Pre-clean all fixed objects to remain by wet wiping and HEPA vacuuming.
7. Establish worker and equipment DCU enclosure system.
8. Seal off the work area and create a negative pressure enclosure using two (2) layers of six (6) mil plastic sheeting on horizontal surfaces and two (2) layers of four (4) mil plastic sheeting walls. Protect wood walls inside of the Courtrooms using Masonite or other material acceptable to Lake County.
9. Workers shall wear protective clothing.
10. Establish respiratory protection in accordance with OSHA regulations.
11. Protect any existing light fixtures and other ceiling appurtenances to remain in or adjacent to the ceiling.
12. Establish HEPA filtered exhaust unit ventilation (negative pressure).
13. Pass Ramboll final visual evaluation of the containment area set-up.
14. Perform gross removal of the ACM acoustical ceiling plaster layer. If it is determined that the Stairwell has firewalls to the ceiling deck, then the ceiling can be removed with the asbestos skim coat intact. Place all ACM waste materials into six (6) mil plastic waste bag, fiber drums or boxes with the appropriate asbestos labeling for disposal. Double bag all waste materials upon removal from the work area.
15. Remove one (1) layer of plastic sheeting from the walls and floor. Clean all work area surfaces by HEPA vacuuming and wet wiping to remove all visible debris and residual ACM plaster.
16. Pass Ramboll final visual inspection that all visible ACM debris has been cleaned from all work area surfaces.
17. Lightly encapsulate the work area.
18. Pass an aggressive air clearance by PCM NIOSH 7400 method.
19. Following the receipt of passing clearance air samples, remove the remaining non-ACM plaster base coat (if not already removed), before removing the containment and negative air units. All ceiling appurtenances (sprinklers, ductwork, speakers, etc.) will remain and should be temporarily supported. All black iron is to remain.
20. Pass Ramboll final visual inspection.
21. Remove barriers and re-establish the work area.
22. Conduct additional cleaning as required.

3.10 ENCAPSULATION PROCEDURES

- A. Asbestos is not being encapsulated in lieu of removal.
- B. Encapsulant shall be applied with the use of an airless sprayer.

- C. Encapsulation shall not commence until ACM removal is complete and the area passes visual inspection by Ramboll.

3.11 CLEARANCE MONITORING AND ANALYSIS

- A. Follow EPA 40 CFR AHERA Subpart E, Section 763.90.
- B. Aggressive clearance testing utilizing PCM criteria shall be all samples measuring ≤ 0.01 f/cc. If any of the clearance air samples measure > 0.01 f/cc then the Contractor has the option to:
 - 1. Re-clean the area and have Ramboll perform a second post-abatement clearance test by PCM analysis, all at the expense of the contractor.
 - 2. Re-clean the area and have Ramboll perform a second post-abatement clearance test by TEM analysis, all at the expense of the contractor; If the average of all samples is ≤ 70 s/mm², then the work area passes release criteria.
- C. For aggressive clearance air testing utilizing transmission electron microscopy (TEM), the Owner will pay for analysis of the five inside area samples only. If the Contractor fails the clearance criteria of ≤ 70 seconds per millimeter squared (s/mm²) on average, the Contractor may elect to pay for comparison testing of inside and outside samples and blanks. If comparison testing passes the "Z" test, the Owner will pay for analysis cost.
- D. Failure of the final visual inspection or failure of the first set of clearance samples to meet the criteria will result in the Owner paying all costs of all additional testing and inspections required and deduct the amount paid from his final payment to the contractor.

3.12 EQUIPMENT AND WASTE CONTAINER REMOVAL

- A. Handle all equipment and waste container removal as described in NESHAP Section 61.150.
- B. All asbestos-containing waste shall be adequately wetted with an amended water solution and be placed in leak tight containers.
- C. All leak tight containers shall be labeled in accordance with NESHAP and all revisions.

3.13 DISPOSAL PROCEDURES

- A. Follow procedures set forth in OSHA 1926.1101 and NESHAP 61.150.
- B. Removed ACM waste shall be double bagged with 6-mil plastic bags or in two layers of 6-mil plastic sheeting and placed in approved sealed containers for disposal. ACM waste materials shall be removed from the work area on a daily basis. Bags shall be wet wiped upon removal from the work area. All waste bags or approved sealed containers shall be transported in covered push carts to the waste container. Waste shall not remain in the work area overnight.

- C. The contractor shall have a lockable and enclosed box truck on-site. The box truck can be parked at a nearby Lake County parking lot overnight. The box truck will be moved to the loading dock at the end of each shift for waste out. The asbestos waste will then be transported to an off-site lockable dumpster as needed.
- D. All dump receipts, trip tickets, waste shipment records and other documentation of disposal shall be delivered to the Owner within 72 hours of transport.
- E. A waste shipment record shall accompany all ACM waste that is transported off the work site. The waste shipment record shall be completed and include the necessary information in accordance with NESHAP Section 61.150.
- F. The waste shipment record shall include the following:
 - 1. Name and address of work site.
 - 2. Name and phone number of Owner.
 - 3. Name and address of company performing abatement.
 - a. Name and phone number of authorized agent.
 - 4. Name, address, physical site location, and phone number of waste disposal site.
 - 5. Name and address of agency responsible for administering asbestos NESHAP program.
 - 6. Type of asbestos waste material generated.
 - a. Amount of friable and non-friable asbestos material.
 - 7. Number and type of containers used.
 - 8. Quantity of asbestos waste.
 - 9. Special handling procedures, instructions.
 - 10. Name, address, and telephone of transporter.
 - 11. Any discrepancies when waste arrives at disposal site.
- G. The Generator, transporter, and disposal site operator shall each sign and date the waste shipment when the waste is received. Each should keep a copy of the shipment record with the appropriate signatures. The waste disposal site operator shall return a completed copy of the shipment record to the waste generator.

3.14 RE-ESTABLISHMENT OF THE WORK AREA

- A. The work area shall be reestablished only after the area passes a visual clearance inspection and clearance air monitoring.
- B. Remaining barriers and worker and equipment decontamination units shall be removed and disposed of as asbestos-containing waste. The entire area shall be wet wiped and/or HEPA vacuumed to remove residual asbestos fibers.
- C. All surfaces shall be checked for damage by the Contractor and Ramboll. All damaged areas shall be restored to their pre-abatement condition.

3.15 SUBSTANTIAL COMPLETION (ASBESTOS WORK)

Substantial Completion is the stage in the progress of the project where the Work, or a designated portion thereof, is sufficiently complete in accordance with the Contract Documents so that the Owner can safely occupy, begin reconstruction, or utilize the area for its intended use. At this stage in the progress of the project Ramboll has visually cleared the area of all barriers designated by Ramboll have been removed, and all asbestos abatement equipment, material, and waste have been removed.

END OF 02080

SECTION 02083 GLOVE BAG PROCEDURES

PART I – GENERAL

1.01 WORK COVERED BY CONTRACT DOCUMENTS

- A. Glove bag technique employed in this project is a part of the asbestos removal work. All instructions in SECTION 02080 ASBESTOS ABATEMENT shall be followed except as specifically indicated otherwise in this Section.
- B. Remove all identified asbestos-containing pipe fitting insulation (elbows, tees, valves, y's etc.), in the FCS Office abatement work area, identified on the drawings using glove bag procedures.
- C. Before commencing work, instruct workers in the proper use of glove bags and all aspects of work procedures and protective measures.

PART 2 - PRODUCTS

2.01 MATERIALS AND EQUIPMENT

- A. Asbestos removal bags specifically designed for removing asbestos insulation materials from pipes. Bags shall be of 6-mil thickness and of proper size according to manufacturer's recommendations for diameter of pipe and configuration of fittings, etc.
- B. Fire-retardant lumber (2" x 4") or PVC tubing for framing of mini-enclosures.
- C. Fire-retardant plastic sheeting.
- D. Decontamination unit.

PART 3 - EXECUTION

3.01 PERSONAL PROTECTION

The Contractor is required to provide all training and equipment for his staff and workers and for providing respiratory protection in accordance with current OSHA regulations.

3.02 WORKPLACE ENTRY AND EXIT

- A. Maintain emergency and fire exits from work area or establish alternative exits satisfactory to local fire departments.
- B. Disposable suit with head and foot coverings shall be worn by workers using glove bag technique. If a fiber release has occurred, before leaving work area, the worker shall put on a clean disposable suit either to proceed to another work area or the decontamination unit.

- C. One decontamination unit shall be constructed where designated by the Owner and as indicated on the drawings. Each decontamination unit will include five (5) chambers with a HEPA unit attached to the dirty room. Emergency decontamination shower procedures shall be established so that in the event of a glove bag failure, worker(s) will put on a second disposable suit, keep wearing their respirator, proceed to the decontamination unit, and follow normal decontamination procedures. All workers shall decontaminate at the end of the work shift.

3.03 GLOVE BAG REMOVAL PROCEDURES

- A. Steps to the sequence of ACBM glove bag removal of thermal system insulation are below. Follow Section 855.480 of the Rules. See Asbestos Abatement Schedule in Appendix B and drawings for locations.
1. Establish a regulated area per IDPH and OSHA regulations. Construct barriers, post caution signs, shut down, and lock out electrical power to the area, shut down and isolate heating, cooling, and ventilating air systems in the work area.
 2. All glove bag removal procedures shall be conducted within negative-pressure enclosures having a pressure differential from outside to the inside of the enclosure. "Negative Pressure Differential Glove Bags" are not allowed.
 3. The negative-pressure enclosure shall have framing consisting of 2x4 lumber or PVC tubing from floor to ceiling covered with one (1) layer of 6-mil plastic sheeting. The enclosure shall be large enough to accommodate the work, ladders, scaffold, negative air units, etc., and all other equipment necessary to complete the work.
 4. Establish HEPA filtered exhaust to the enclosure.
 5. Establish an airlock attached the enclosure.
 6. Establish a remote decontamination unit (G27 Stairwell decon).
 7. Verify that the HVAC system is shut off or isolated from the work area.
 8. Pass Ramboll visual inspection of enclosure.
 9. Wait a minimum of six (6) hours.
 10. Don protective clothing and respirator and enter the work area.
 11. All glove bag work shall be performed by a minimum of two (2) workers.
 12. Perform glove bag removal of ACBM according to the recommended guidelines outlined in OSHA 1926.1101(g)(5)(ii).
 13. Place glove bags into ACM labeled 6-mil plastic waste bags (double bag and gooseneck seal).
 14. Remove equipment from work area.
 15. Clean inside of negative-pressure enclosure using a HEPA vacuum and wet wiping methods.
 16. Pass Ramboll final visual inspection. All surfaces must be dust and debris free. Lightly encapsulate all surfaces in the negative-pressure enclosure and let dry.
 17. Pass aggressive testing <0.01 f/cc using NIOSH Method 7400 (PCM) or TEM the Asbestos Hazardous Emergency Response Act (AHERA) Clearance Protocol. There will be at least one (1) clearance per negative-pressure enclosure.
 18. Remove negative-pressure enclosure and isolation barriers.
 19. Where there are supports for piping (i.e., hangars and saddles) and insulation is to be removed, the hanger shall remain, and blocking shall be installed to ensure the pipe remains at the same height as it was prior to removal.
 20. Conduct additional cleaning as required.

END OF 02083

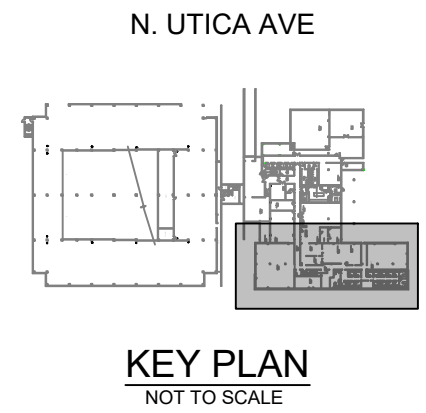
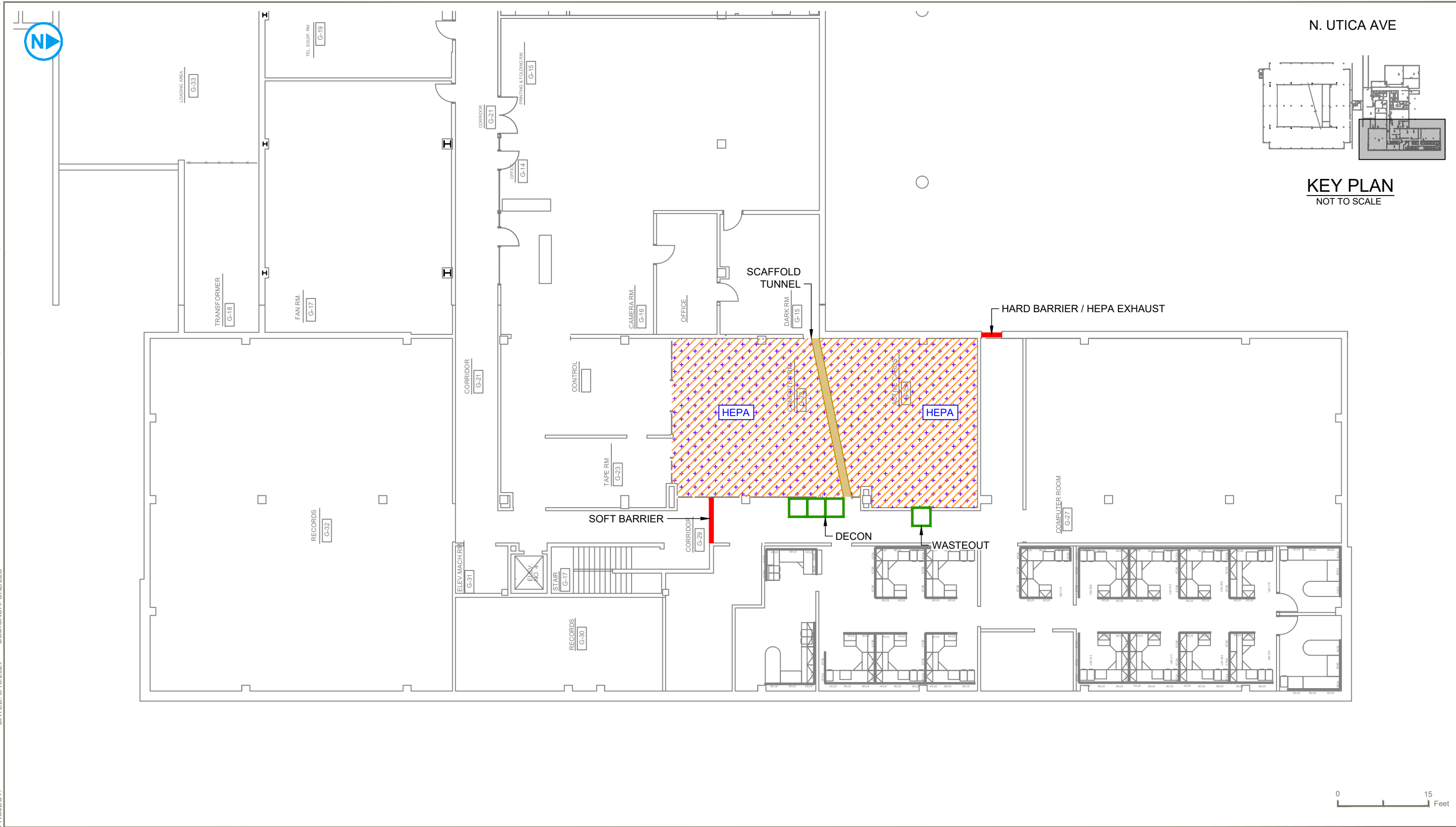
Exhibit A
Schedule





ASBESTOS ABATEMENT SCHEDULE
LAKE COUNTY ADMINISTRATIVE and COURTS COMPLEX
May 10, 2024
PROJECT #1940107559

LOCATION	ACM TO BE ABATED	METHOD	SHIFTS	DATES	NOTES
Mainframe Room	Floor Tile, Floor Tile Mastic, Ceiling Plaster, Pipe Fitting Insulation	Gross removal inside a negative pressure enclosure	10	August 5-16, 2024	All work shifts will begin at 6pm, Monday-Friday.
G27 Stairwell	Ceiling Plaster	Gross removal inside a negative pressure enclosure	3	August 16-18, 2024	Friday shift starts at 6pm. Saturday shifts starts at 10am (tentative). Sunday shifts start at 7am.

Exhibit B
Drawings



-  GROSS REMOVAL OF ASBESTOS FLOOR TILE, FLOOR TILE MASTIC, AND CEILING PLASTER SKIM COAT
-  GLOVEBAG REMOVAL OF ASBESTOS PIPE FITTING INSULATION FOLLOWING NON-ASBESTOS CEILING PLASTER BASE COAT REMOVAL

ASBESTOS ABATEMENT WORK PLAN BASEMENT

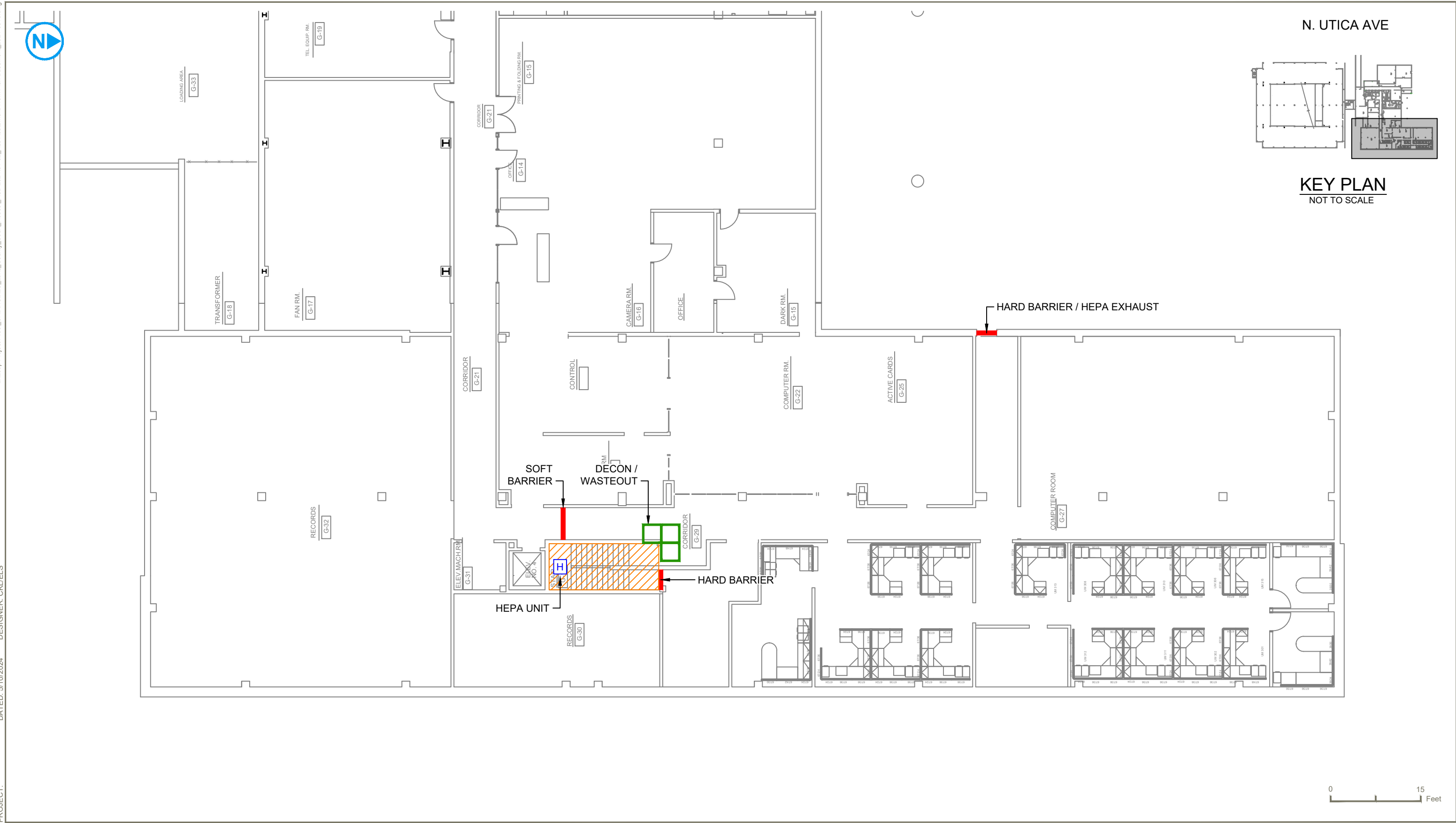
LAKE COUNTY ADMINISTRATIVE BUILDING AND COURTS COMPLEX
 18 NORTH COUNTY STREET
 WAUKEGAN, ILLINOIS

RAMBOLL AMERICAS
 ENGINEERING SOLUTIONS, INC.
 A RAMBOLL COMPANY

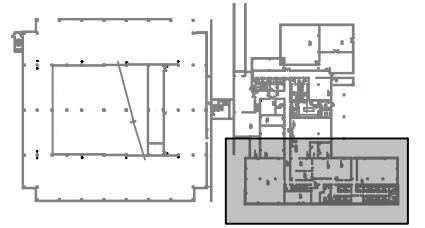


FIGURE 1




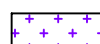


N. UTICA AVE



KEY PLAN
NOT TO SCALE



-  GROSS REMOVAL OF ASBESTOS CEILING PLASTER SKIM COAT. REMOVAL OF NON-ASBESTOS CEILING PLASTER BASE COAT FOLLOWING CLEARANCE. IF FIREWALLS EXTEND TO THE CEILING DECK THEN THE PLASTER CEILING CAN BE REMOVED INTACT.
-  GLOVEBAG REMOVAL OF ASBESTOS PIPE FITTING INSULATION

ASBESTOS ABATEMENT WORK PLAN BASEMENT

LAKE COUNTY ADMINISTRATIVE BUILDING AND COURTS COMPLEX
 18 NORTH COUNTY STREET
 WAUKEGAN, ILLINOIS

FIGURE 2

RAMBOLL AMERICAS
 ENGINEERING SOLUTIONS, INC.
 A RAMBOLL COMPANY

