CAMBRIDGE
CONSTRUCTION MANAGEMENT

BID ADDENDUM NO. 1 COVER

TO: All Bidders of Record

FROM: Cambridge Construction Management, Inc.

DATE: April 7, 2015

RE: Ramapo College of New Jersey
Phase 1 College Park Apartments Interior Renovations – Holly and Mimosa
RCNJ Project No. 2015-64-02C

All items of this addendum become part of the Contract Documents and amend, supplement, modify, change, delete or add to the provisions of the Contract Documents. Where any provision of the Contract Documents is so affected, the unaltered provisions shall remain in effect. Where possible, the provisions of this addendum shall be construed together with and harmonized with the provisions of the Contract Documents, but where the provisions of this addendum cannot be harmonized, the provisions of this addendum take precedence over conflicting provisions, articles, paragraphs or subparagraphs in the Contract Documents.

BIDDERS OF RECORD ARE REQUIRED TO SIGN THIS ADDENDUM AND RETURN TO GREGORY ROMERO, JR. VIA EMAIL AT GROMEROJR@CAMBRIDGECM.COM TO ACKNOWLEDGE RECEIPT OF THIS DOCUMENT.

RECEIVED BY:_____ DATE:_____

COMPANY:_____

Enclosures:
Addendum No. 1 dated April 7, 2015

97 GRAYROCK ROAD
CLINTON, NEW JERSEY 08809
Phone 908.638.9700
Fax 908.638.9701
www.cambridgecm.com

PROPOSAL FORM
RAMAPO COLLEGE OF NEW JERSEY

Return this proposal in a sealed envelope marked with the Project Bid No. and indicate "Sealed Bid" in the lower left hand corner.

Date: **April 16, 2015**

RCNJ Project No.: **2015-64-02C**

Proposal Submitted To:

Project Title: **Phase I College Park Apartments Interior Renovations – Holly & Mimosa**

Richard M. Roberts, Contracting Officer
Ramapo College of New Jersey
505 Ramapo Valley Road
Mahwah, NJ 07430

This proposal will be accepted no later than **2:00 PM, Thursday, April 16, 2015,** after which time all proposals will be publicly opened and read.

****
Firm Name &
Address
****

The undersigned propose to furnish all labor and materials as called for in the Bidding Documents for:

BID AMOUNT (BASE BID)

_____ (dollars) ($_____).
(Lump Sum all trades)

ADD ALTERNATE

1. Mimosa Building scope including demolition, environmental abatement, and renovation.

_____ (dollars) ($_____).
(Lump Sum all trades)

_____
Signature of Principal

_____
Printed Name

BIDDING DOCUMENTS:

BASE BID DOCUMENTS

Construction Documents Specifications
Construction Documents Drawings

TIME:
The work to be performed under this Contract shall be complete in accordance with the following milestone dates (see section 01 11 05 Time of Completion):

Pricing to hold good through **60 days after bid due date**.

The Bidder must complete required information on the original and all supplemental pages of this proposal. If the information is not properly completed and is not received on time, the bid proposal may not be read and may be rejected.

****

A Certified Check or Bid Bond in amount of 10% of the base bid is required. A bid bond of lesser value is not acceptable and the bid will be considered non-responsive.

****

Bidders must submit prices for all alternates and unit prices when requested, otherwise the bid will be considered non-responsive.

Having examined the plans and specifications with related documents and the site of the proposed work and being familiar with all of the conditions surrounding the construction of the proposed project including availability of materials and labor, Bidder hereby proposes to furnish all labor and materials, and supplies, and to construct the project in accordance with the Contract Documents, within the time set forth therein, and at the price stated. This price is to cover all expenses incurred in performing the work required under the Contract Documents, of which this proposal is a part.

Bidder hereby agrees to commence work under this contract on or before a date to be specified in written "Notice to Proceed" of the Owner and to fully complete the project as stipulated in the specifications. Bidder further agrees to pay as liquidated damages, a sum for each consecutive calendar day thereafter as provided in the General Conditions.

Bidder acknowledges and affirms review of the valid prevailing wage rates for all trades involved in the project, the geographic location of the project as issued by the Commission of the Department of Labor and Industry, Trenton, NJ 08625, (609) 292-2259.

Signature of Principal

Printed Name

FOR BIDDER

Following are two (2) projects of similar scope and complexity, and value completed by our firm. Bidder acknowledges that the College may contact the Owners or their representatives for references.

1. Owner: _____
   Owner Contact: _____Tel. No.: ( ) _____
   Construction Manager:_____
   CM Contact: _____Tel. No.: ( ) _____
   Architect:_____
   Architect Contact: _____Tel. No.: ( ) _____
   Location: _____
   Description:_____
   Original Bid Amount:$_____
   Contract Increases: $_____
   Original Contract Completion Date:_____
   Actual Completion Date:_____
   Was Project Free of Claims and Litigation: YES NO
   If NO, Please Explain:
   _____
   _____

2. Owner: _____
   Owner Contact: _____Tel. No.: ( ) _____
   Construction Manager:_____
   CM Contact: _____Tel. No.: ( ) _____
   Architect:_____
   Architect Contact: _____Tel. No.: ( ) _____
   Location: _____
   Description:_____
   Original Bid Amount:$_____
   Contract Increases: $_____
   Original Contract Completion Date:_____
   Actual Completion Date:_____
   Was Project Free of Claims and Litigation: YES NO
   If NO, Please Explain:
   _____
   _____

_____

Signature of Principal

_____

Printed Name

LIST OF SUBCONTRACTORS

The Bidder confirms that the Subcontractors listed below will be awarded the subcontract for the work identified if the Bidder is awarded the contract for the Project. The College will not accept any change from the Subcontractors listed unless the listed Subcontractor provides the College with a letter authorizing the Bidder to award a subcontract to another company. The College has the right to reject any subcontractor with no impact to project schedule or bid amount.

Structural Steel and Ornamental Iron Work **(DPMC Prequalification Required)**:
Company Name:_____
City/State:_____
Phone:_____
Contact:_____
Bid Amount:_____
**** Subcontractor is to provide a list of open contracts which supports the amount listed on the DPMC Uncompleted Contracts Form. List shall include project name, firm name that is holding the contract, contact name and information, total contract value, uncompleted value, and expected completion date.***

Plumbing and Gas Fitting Work **(DPMC Prequalification Required)**:
Company Name:_____
City/State:_____
Phone:_____
Contact:_____
Bid Amount:_____
**** Subcontractor is to provide a list of open contracts which supports the amount listed on the DPMC Uncompleted Contracts Form. List shall include project name, firm name that is holding the contract, contact name and information, total contract value, uncompleted value, and expected completion date.***

Heating and Ventilating Systems and Equipment **(DPMC Prequalification Required)**:
Company Name:_____
City/State:_____
Phone:_____
Contact:_____
Bid Amount:_____
**** Subcontractor is to provide a list of open contracts which supports the amount listed on the DPMC Uncompleted Contracts Form. List shall include project name, firm name that is holding the contract, contact name and information, total contract value, uncompleted value, and expected completion date.***

Electrical Work **(DPMC Prequalification Required)**:
Company Name:_____
City/State:_____
Phone:_____
Contact:_____
Bid Amount:_____
**** Subcontractor is to provide a list of open contracts which supports the amount listed on the DPMC Uncompleted Contracts Form. List shall include project name, firm name that is holding the contract, contact name and information, total contract value, uncompleted value, and expected completion date.***

_____
Signature of Principal

_____
Printed Name

Bidder acknowledges receipt of the following Addenda:

Addendum Number	**Date of Addendum**
_____	_____
_____	_____
_____	_____

The Bidder agrees that this bid shall be good and may not be withdrawn for a period of 60 calendar days after the scheduled closing time for bids.

Upon receipt of written notice of the acceptance of this bid, Bidder will execute the formal contract within seven (7) calendar days and deliver Performance and Payment Bonds as required in Instructions to Bidders.

The bid security attached in the sum of _____($_____) is to become the property of the State in the event the contract and bond are not executed within the time set forth, as liquidated damages for the delay and additional expense to the Owner caused thereby.

I certify that our firm is classified by the Division of Property Management and Construction in the approved amount of $ _____ for _____ (trade), until _____(expiration date). I further certify that the amount of this bid proposal, including all outstanding incomplete contracts, does not exceed my pre-qualification dollar limit.

Respectfully submitted,

(Seal if bid is by a corporation)

By:_____
(Name of firm)

_____
(Signature)

_____
(Title)

_____
(Business Address)

Telephone No.
Facsimile No.

Any change in ownership information since filing your current financial/experience statement? If yes, attach explanation.

( ) YES ( ) NO

Federal Identification No.

Social Security No.

SECTION 01 11 00 – SUMMARY OF WORK

PART 1 - GENERAL

1.1 SUMMARY

A. This Section specifies the summary of work for the project including, but not necessarily limited to:

1. Project Description
2. Owner Occupancy
3. Items Not In Contract
4. Knowledge of the Contract Requirements
5. Contract Documents Information
6. Project Requirements

1.2 PROJECT DESCRIPTION

A. The project includes the interior renovation of two freestanding, multi-unit college dormitories. Scope of work to include, but not limited to demolition down to the framing and subfloors, environmental abatement, new kitchens, mechanical, electrical, and plumbing, bathrooms, sheetrock, flooring, new lighting fixtures, appliances, toilets and accessories.

B. The extent of the contract work is indicated in the Contract Documents.

C. The scope of the work shall not be limited to what is specifically called out on the drawings or specifications, but shall include any and all demolition, temporary work, and new work as well as any cutting and patching as required to accomplish the intended construction.

1.3 OWNER OCCUPANCY

A. The dormitories will be vacant. Staging area, storage and dumpster locations must be approved by Ramapo College of New Jersey.

1.4 ITEMS NOT IN CONTRACT

A. Items designated NIC (Not in Contract) will be completed by others.

B. Items that are not clearly identified as “NIC” throughout the Contract Documents are to be furnished and installed under this Contract by the Contractor.

C. Items Not In Contract

1. Data/Telecommunication system wiring, jacks, and terminations.

2. Security camera system removal and re-installation

1.5 KNOWLEDGE OF CONTRACT REQUIREMENTS

A. The Contractor and Subcontractor's shall consult in detail all Contract Documents, provide all labor, materials, equipment and services necessary to furnish, install and complete the work in strict conformance with all provisions thereof.

B. The Contractor will be held to have examined the site of the Work prior to submitting his proposal and informed himself, his Subcontractors, Sub-Subcontractors and material men of all existing conditions affecting the execution of the work.

C. The Contractor is responsible to examine the Contract Documents as they may affect subdivisions of the work and inform himself, his Subcontractors, Sub-Subcontractors and material men of all conditions thereof affecting the execution of the work.

D. The Scope of Work for the Contract is not necessarily limited to the description of each section of the Specifications and the illustrations shown on the Drawings. Include all items not expressly indicated in the Contract Documents, or as might be found necessary as a result of field conditions, in order to complete the work as it is intended, without any gaps between the various subdivisions of work of the Contractor and his Subcontractors.

E. The Contractor will be held to be thoroughly familiar with all conditions affecting labor for the project including, but not limited to, Unions, incentive pay, procurement, living and commuting conditions and to have informed his Subcontractors and Sub-Subcontractors thereof. It is the Contractors responsibility to resolve any labor issues without any additional cost to the Owner.

1.6 CONTRACT DOCUMENTS INFORMATION

A. The Contract Documents are prepared in accordance with available information as to existing conditions and locations. If, during construction, conditions are revealed at variance with the Contract Documents, notify the Construction Manager and Architect immediately so that supplementary instructions may be issued.

B. The Specifications determine the kinds and methods of installation of the various materials, the Drawings establish the quantities, dimensions and details of materials, the schedules on the Drawings give the location, type and extent of the materials.

C. Should the Drawings, Specifications or schedules disagree in themselves or with either or both of the others, the better quality or greater quantity of work or materials shall be performed and provided at no additional cost to the owner, unless otherwise directed in writing by the Construction Manager.

D. Should an item of work appear in the Specifications and not on the Drawings, or vice versa, all related work items associated with this scope is to be included in the contract at no additional cost to the Owner unless specifically omitted in writing during the bid process.

E. Dimensions given on the Drawings govern scale measurements and large scale drawings govern small scale drawings, except as to anything omitted unless such omission is expressly noted on the larger scale drawings.

F. The techniques or methods of specifying to record requirements varies throughout text, and may include "prescriptive", "open generic/descriptive", "compliance with standards", "performance", "proprietary", or a combination of these. The method used for specifying one unit of work has no bearing on requirements for another unit of work.

G. Whenever a material, article or piece of equipment is referred to in the singular number in the Contract Documents, it shall be the same as referring to it in the plural. As many such materials, articles or pieces of equipment shall be provided as are required to complete the work.

H. Work included in small details not usually shown or specified, but necessary for the proper installation and operation of the work, shall be provided at no additional cost to the Owner.

1.7 PROJECT REQUIREMENT

A. The following is a summary of work to be used in conjunction with the contract documents and drawings.

1. Demolition shall include the removal and storage of all existing furniture in the buildings. This furniture is to be stored safely in waterproof, locked storage containers who will be provided by the Contractor.

2. Demolition shall include the removal of all floor finishes, all gypsum walls and ceilings, wall and ceiling insulation, casework, plumbing, mechanical and electrical equipment and fixtures, material between modular unit floor and ceiling between 1st floor gypsum ceiling, and 2nd floor joists.

3. Abatement shall include all asbestos containing materials identified in the Contract Documents.

4. In lieu of complete subfloor removal, after all layers of flooring (VCT, VAT, linoleum, carpet, ¼" plywood, ceramic tile, cement board, etc.) down to the original ¾" plywood subfloor, the contractor shall encapsulate exposed plywood subfloor surfaces with white tinted encapsulate, FiberlockAsbestos Building Compound, Aramsco Chemsafe 500W, or Foster 32-32 within a negative pressure enclosure and in accordance with N.J.A.C 5:23-8.15. After satisfactory final inspection per N.J.A.C. 5:23-8, the contractor shall install and secure with screws ¼" plywood subfloor from the removed areas.

5. Prior to plywood flooring installation, wood blocking must be installed between modular units in the doorways. This condition exists but not limited to doorways leading into each unit, kitchens, bathrooms, and bedrooms. Any gap between units at door thresholds must be blocked with wood prior to plywood installation.

6. Existing fire alarm system, including all wiring, panels, and devices are to be removed.

7. Existing electrical and data/telecommunication boxes and wiring to be removed back to panels.

8. Contractor is required to drain and blow out existing sprinkler system prior to starting work. Once demolition and abatement is complete, contractor shall air pressure test the sprinkler system to ensure no damage has occurred during demolition and abatement.

9. Supply and install all required millwork and carpentry as shown on the contract documents.

10. Supply and install new hollow metal knockdown door frames, wood and FRP doors where shown on the contract documents, and applicable hardware as required.

11. The Contractor will coordinate and install electronic hardware for the entrances to the suites and the bedroom doors. This hardware will be provided to the Contactor by the College.

12. Supply and install new fiber glass insulation in all the exterior walls and at the ceiling of all the apartments. On those walls between the rooms that are not exterior, fiberglass sound insulation must be supplied and installed.

13. Supply and install all new drywall, tape and float throughout the buildings including the suites, vestibule's, closest etc. to make the project complete. Frame and install drywall soffits as required and shown to encompass exiting sprinkler system.

14. Paint all units throughout as shown on drawings.

15. Supply and install new kitchen cabinets, counter tops, and kitchen appliances.

16. The contractor will prepare the existing floors as required for the installation of the final floor finishes. This includes elevation changes that are not consistent with the manufactures requirements for the floor finishes or do not meet code.

17. Supply and install VCT, Rubber treads, carpet tiles, vinyl and wood base as shown on the contract documents.

18. Supply and install all required caulking and fire caulking as shown on the contract documents and as required by the building code for all trades.

19. Supply and install any and all access doors required by code for all trades.

20. Supply and install all required signage as shown on the contact documents.

21. Supply and install all new light fixtures, switch plates and convince outlet plates to make the existing electrical system complete when the work is completed.

22. Supply and install new Stonhard polymer coating (poured in place) with integral cove base on bathroom floors where shown.

23. Supply and install solid polymer walls where shown in the bathrooms.

24. Supply and install all new plumbing fixtures, associated piping, shower heads, faucets, new composite shower pans, solid surface polymer wall panels, as required and shown on the contract documents to make the plumbing system complete.

25. In bathroom area supply and install new floor drain with trap primer.

26. Supply and install new bathroom vanities with solid polymer vanity countertop, front fascia panel with integral sink, and single lever faucet.

27. Supply and install all required toilet accessories as shown and called for in the contract documents.

28. Supply and install new sprinkler heads to the existing system as required. Modifications must be made to the system to bring it up to present building code. NJPE signed and sealed stamped shop drawing will be required to be submitted to FM and to NJDCA for their review and approval.

29. Supply and install all new fan coil units, associated piping, and controls in the buildings as shown on the contract documents or as required to make the system complete.

30. Supply 2.5mm Marmorette Linoleum Flooring or equal in Living/Dining/Kitchen Room with heat weld seaming.

31. Contractor is to remove, dispose, and replace existing water heaters with new, 80 gallon water heaters. Specifications noted on drawings.

32. Contractor to install a dry fire suppression system in crawl space and attic as per fire protection drawings.

33. Contractor is to provide cabinetry in kitchen and bathroom with solid marine-grade polymer outdoor cabinetry by Werever Outdoor products or equal.

34. Contractor to provide a complete design/build new fire alarm system to include, but not limited to, conduit, wiring, devices, and programming in accordance with all applicable codes. Contractor to prepare shop drawings and product data signed and sealed by a licensed NJ professional engineer for submission to NJDCA for permitting. Campus service vendor is United Fire Corporation, (908) 688-0300, 1 Mark Road, Kenilworth, NJ 07033

35. Contractor to provide empty conduit and boxes for data/telecommunication wiring by others at all locations shown on the drawings. Contractor shall also provide pull strings in all conduits.

- END OF SECTION 01 11 00 –

SECTION 01 11 05 – TIME OF COMPLETION

PART 1 - GENERAL

1.1 TIME OF COMPLETION AND SCHEDULING

A. In preparation of the CPM schedule, the Contractor must allow for the following activities and durations:

1. The Contractor can anticipate a Notice to Proceed to be issued no later than (7) calendar days after the opening of the bids.

2. The Contractor can anticipate construction permits being issued by the New Jersey Department of Community Affairs (DCA) no later than (14) calendar days after the Contractor has submitted to DCA the permit technical applications and required signed/sealed drawings and specifications prepared by the Contractor.

B. The listed milestone dates represent the Contractor's contractual obligations to the College under this Contract:

1. File for Construction Permits: (3) Calendar days after Notice to Proceed

2. Furnish All Submittals for Review: (30) Calendar days after Notice to Proceed
(Submittals that require field verification and dimensions that cannot be prepared within this period are excluded of this milestone)

3. Holly Substantial Completion: (104) calendar days after Notice to Proceed.

4. Alternate - Mimosa Substantial Completion: (134) calendar days after Notice to Proceed.

5. Final Completion: (10) calendar days after Substantial Completion.

C. The following are schedule constraints that the Contractor must adhere to and include in the CPM schedule:

1. The contractor is required to work first and second shifts in order to complete the project in accordance with the above milestone dates. If a third shift is required, contractor shall include rate differential in bid proposal.

2. If add alternate for Mimosa is accepted, each building must be worked concurrently, not in sequence.

3. Buildings will not be available for demolition until May 18, 2015.

- END OF SECTION 01 11 05 -

SECTION 01 23 00 – ALTERNATES

PART 1 - GENERAL

1.1 SUMMARY

A. This Section specifies administrative and procedural requirements for Alternates.

B. Definition: An Alternate is an amount proposed by Bidders and stated on the Proposal Form for certain construction activities defined in the Bidding Requirements that may be added to or deducted from Base Bid amount if the Owner decides to accept a corresponding change in either the amount of construction to be completed, or in the products, materials, equipment, systems or installation methods described in Contract Documents.

C. Coordination: Coordinate related Work and modify or adjust adjacent Work as necessary to ensure that Work affected by each accepted Alternate is complete and fully integrated into the project. Costs for the coordination, modification, or adjustment necessary for each alternate are included in the costs for each Alternate.

D. Alternate pricing submitted on the bid proposal form shall be held by the Contractor for the duration of the Contract with no increase or decrease in cost if the College elects to execute an alternate during the contract duration.

1.2 PROCEDURES

A. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.

1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.

B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated revisions to alternates.

C. Execute accepted alternates under the same conditions as other work of the Contract.

D. Schedule: A schedule of alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

SECTION 01 23 00 – ALTERNATES

1.3 SCHEDULE OF ALTERNATES

A. Add Alternates:

1. ADD Mimosa Building scope of work which includes, but not limited to, interior demolition, environmental abatement, and interior renovation.

- END OF SECTION 01 23 00 -

SECTION 01 70 00 – CLOSEOUT REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

A. This Section specifies administrative and procedural requirements for project closeout, including but not limited to:

1. Systems Demonstration and Training
2. Operation and Maintenance Manuals.
3. As-Built Drawings.
4. Attic Stock.
5. Valve Charts and One-Line Diagrams.
6. Guarantees and Warranties.

1.2 SYSTEMS DEMONSTRATION AND TRAINING

A. Demonstrate operation and maintenance of all equipment and systems to the College's personnel two weeks prior to the date of substantial completion and one month after Substantial Completion. Allow for two (2) training and demonstration sessions at each time before/after Substantial Completion. There shall be no minimum time established for each training and demonstration session.

B. Demonstrate start-up, operation, control, adjustment, trouble shooting, servicing, maintenance, and shutdown of each piece of equipment and system during the training and demonstration session.

C. In addition to above, for equipment and systems requiring seasonal operation, provide an additional two training and demonstration sessions for each season change.

D. All demonstration and training is to be provided by a manufacturer's representative of the equipment and system. Onsite superintendent's and/or foremen are not acceptable for this requirement.

E. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with the College's personnel in detail to explain all aspects of operation and maintenance.

F. The demonstration and maintenance instruction is to be digitally recorded by the Contractor with three DVD copies being provided to the College.

1.3 OPERATION AND MAINTENANCE MANUALS

A. Prepare instructions and data by personnel experienced in maintenance and operation of described products. Final payment will not be processed until submitted and approved. A total of four (4) copies and an electronic version on CD are to be submitted.

B. Prepare data in the form of an instructional manual.

C. Binders are to be commercial quality, 8-1/2 x 11 inch three ring binders with durable plastic covers. When multiple binders are used, correlate data into related consistent groupings.

1. Identify each binder with typed or printed title "Operation and Maintenance Instructions", identify the project, identify subject matter of contents.

2. Provide tabbed dividers for each separate product and system, with typed description of product and major component parts of equipment.

3. Arrange content by systems under section numbers and sequence table of contents of the project manuals.

4. Manuals are to include the following information:
   a) Subcontractor and suppliers names, addresses, and phone numbers
   b) Significant design data
   c) List of equipment
   d) Parts list for each component
   e) Operating instructions
   f) Maintenance instructions for equipment and systems
   g) Maintenance instructions for special finishes, included recommended cleaning methods and materials, and special precautions identifying detrimental agents
   h) Shop drawings and product data
   i) Warranties

1.4 AS-BUILT DRAWINGS

A. The Contractor shall maintain a clean, undamaged set of Contract Drawings and Shop Drawings. Mark the set to show the actual installation where the installation varies substantially from the Work as originally shown. Mark whichever drawing is most capable of showing conditions fully and accurately; where Shop Drawings are used, record a cross-reference at the corresponding location on the Contract Drawings. Give particular attention to concealed elements that would be difficult to measure and record at a later date.

1. Mark record sets with red erasable pencil; use other colors to distinguish between variations in separate categories of the Work.

2. Mark new information that is important to the Owner, but was not shown on Contract Drawings or Shop Drawings.

3. Note related Change Order numbers where applicable.

4. Organize record drawing sheets into manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identification on the cover of each set.

5. All utilities outside the building shall be located by a survey performed by a licensed surveyor who shall certify as to its accuracy.

B. The Contractor shall submit three (3) color copies of these documents to the Construction Manager, whether altered or not, with a certification as to the accuracy of the information thereon at the time of contract completion before final payment is made to the Contractor.

1.5 ATTIC STOCK

A. The Contractor shall provide and deliver all attic stock specified in the Contract Documents to a location designated by the College. The Contractor shall provide the following attic stock at a minimum if not specified elsewhere in the Contract Documents:

1. Unopened 5-gallon container of each paint color used

2. Five (5) unopened boxes of each vinyl composition tile and resilient tile used

3. Five (5) unopened boxes of each floor base used

4. Five (5) unopened boxes of each carpet tile used

5. One (1) complete roll of each resilient sheet flooring used

6. Sprinkler box with additional heads and tools

7. Two (2) faucets for each type installed

8. Two (2) flushometer for each type installed

9. One set of replacement belts for each piece of equipment

10. One set of replacement seal kits for each pump

11. Two (2) sets of replacement filters for each piece of equipment

B. Should there be a conflict between the above and elsewhere in the Contract Documents, the largest quantity shall be supplied by the Contractor.

1.6 VALVE CHARTS AND ONE-LINE DIAGRAMS

A. The Contractor shall prepare a complete set of typewritten control valve and circuit location diagrams, charts, diagrams and lists under frame glass in appropriate designated equipment rooms. The Contractor shall also furnish one-line diagrams, as well as such color coding of piping and wiring and identifying charges as specified or required. This information to be framed under glass and installed where directed.

1.7 GUARANTEES AND WARRANTIES

A. All guarantees and warranties required by the Specifications shall be in writing in requisite legal form and delivered to the Construction Manager. All Subcontractor's guarantees and warrantees shall be underwritten by the Contractor, who shall obtain and deliver same to the Construction Manager before the Work shall be deemed finished and accepted.

- END OF SECTION 01 70 00 -

SECTION 028211 – REMOVAL AND DISPOSAL OF ASBESTOS-CONTAINING MATERIALS

PART 1 – GENERAL

1.1 CONTRACTOR REQUIREMENTS AND QUALIFICATIONS

A. All work involving the removal and disposal of asbestos-containing materials shall be accomplished by a State of New Jersey, Department of Labor and Workforce Development, licensed Asbestos Abatement Contractor.

B. All employees shall possess and maintain on their person a valid asbestos worker or supervisor certification issued by the State of New Jersey, Department of Labor and Workforce Development, while working on this project.

C. The Contractor shall furnish evidence that each worker and supervisor has been given medical examinations and respiratory fit tests within the previous twelve months in accordance with United States Department of Labor, Occupational Safety and Health Administration (OSHA) 29 CFR 1910 and 29 CFR 1926 requirements.

D. The Contractor shall be responsible for securing the work area(s) at the end of the shift, and all on-site waste containers/dumpers. In addition, failure to comply with all site health and safety requirements, these Technical Specifications, and all applicable local, State and Federal regulations will require issuance of a Stop Work order by the Owner's Representative.

E. Temporary electric service for use during construction shall be provided by the Contractor. Temporary electrical service shall be made available to the Owner's Representative for sampling requirements. Temporary electrical service shall continue to operate at each work area until satisfactory clearance testing is achieved. The Contractor shall secure locations of all temporary electrical services (i.e., generators). The Contractor shall install GFCI protection at a point of source outside of containment.

F. All electrical connections, except to outlets and extension cords, will require the Contractor to utilize a State of New Jersey, licensed Electrician.

G. In buildings required by the Uniform Construction Code (UCC) to be of noncombustible constriction, all materials used to construct separation barriers must meet the UCC, building subcode requirements for that building. Polyethylene sheeting shall be a nominal six (6) mil and must be flame resistant.

1.2 NOTIFICATIONS

A. Send written notification as required by USEPA, National Emission Standards for Hazardous Air Pollutants (NESHAP), Asbestos Regulations (40 CFR, Part 61, Sub-part M), to the regional asbestos NESHAP Contact at least 10 business days prior to beginning any work on asbestos-containing materials. Send notification to the

following address for REGION 2:

1. United States Environmental Protection Agency- Region 2
   Division of Enforcement and Compliance Assistance
   Air Compliance Branch (DECA-ACB)
   290 Broadway - 21st Floor
   New York, NY 10007-1866

Send written notifications to the State Agencies listed, as applicable:

2. State of New Jersey
   Department of Environmental Protection
   Division of Solid and Hazardous Waste
   P.O. Box 414
   Trenton, NJ 08625-0414

3. State of New Jersey
   Department of Community Affairs
   Division of Codes and Standards
   Asbestos Safety Unit
   101 South Broad Street
   P.O. Box 816
   Trenton, NJ 08625-0816

4. State of New Jersey
   Department of Health
   Consumer, Environmental & Occupational Health Services
   P. O. Box 369
   Trenton, NJ 08625-0369

5. State of New Jersey
   Department of Labor & Workforce Development
   Division of Public Safety & Occupational Safety & Health
   Asbestos Control & Licensing Section
   1 John Fitch Plaza
   P.O. Box 949
   Trenton, NJ 08625-0949

1.3 CONTRACTOR SUBMITTALS

A. The Asbestos Abatement Contractor shall submit the following information to the Owner's Representative prior to mobilization at the worksite:

1. Notification forms submitted to State and Federal agencies;

2. Written description of emergency procedures to be followed in case of injury or fire. Include information regarding evacuation procedures, source of medical assistance and procedures to be used by medical personnel;

3. Inspection report of existing site conditions;

4. Supervisor's license;

5. Worker's license;

6. Telephone numbers and locations of emergency response personnel;

7. Written Respiratory Protection Program and proof of OSHA compliance with 29 CFR 134;

8. Material Safety Data Sheets (MSDS) for all materials and chemical agents brought onto the site;

B. After completion of work on this project the Asbestos Abatement Contractor shall submit the following information to the Owner:

1. Daily activity reports and personnel sign-in sheets

2. Waste material disposal manifests

1.4 DEFINITIONS

A. The following words, terms and abbreviations, when used in this section, shall have the following meanings unless the context clearly indicates otherwise.

1. Abatement - Procedures to control fiber release from asbestos-containing materials. Includes removal, encapsulation, enclosure, repair, demolition and renovation activities.

2. Airlock - A serial arrangement of rooms whose doors are spaced a minimum of four (4) feet apart so as to permit ingress or egress through one (1) room without interfering with the next and constructed in such a manner as to prevent or restrict the free flow of air in either direction.

3. Air Monitoring - The process of measuring the fiber content of a known volume of air collected during a specific period of time. The procedure utilized for asbestos follows the NIOSH Method 7400. For clearance air monitoring, electron microscopy methods may be utilized for lower limits of detection and specific fiber identification.

4. Amended Water - Water to which a surfactant has been added.

5. Asbestos - The asbestiform varieties of serpentinite (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite, anthophyllite, and actinolite-tremolite. For purposes of determining respiratory and worker protection both

the asbestiform and non- asbestiform varieties of the above minerals and any of these materials that have been chemically treated and/or altered shall be considered as asbestos.

3. Asbestos-Containing Material (ACM) - Material composed of asbestos of any type and in an amount greater than 1% by weight, either alone or mixed with other fibrous or non-fibrous materials.

7. Asbestos-Containing Waste Materials - Any material that is or suspected of being or any material contaminated with an asbestos-containing material, which is to be removed from a work area for disposal.

8. Authorized Personnel - The Owner, the Owner's representative, Asbestos Abatement Contractor personnel, Asbestos Safety Control Monitor personnel, emergency personnel, or a representative of any Federal, State or local regulatory agency or other personnel under contract for or having jurisdiction over the project.

9. Barrier - Any surface that seals off the work area to inhibit the movement of fibers.

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

11. Building Owner - The Owner or his authorized representative.

12. Category I Non-friable ACM - Asbestos-containing packing, gaskets, resilient floor covering and asphalt roofing products containing more than 1 percent asbestos as determined using the method specified in appendix A, subpart F, 40 CFR part 763, section 1, Polarized Light Microscopy.

13. Category II Non-friable ACM - Any material, excluding Category I non-friable ACM, containing more than l percent asbestos as determined using the methods specified in appendix A, subpart F, 40 CFR part 763, section l, Polarized Light Microscopy that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

14. Ceiling Concentration - The concentration of an airborne substance that shall not be exceeded.

15. Clean Room - An uncontaminated area or room which is a part of the worker decontamination enclosure system with provisions for storage of worker's street clothes and clean protective equipment.

16. Contractor - The Asbestos Abatement Contractor licensed by the State of New Jersey, Department of Labor and Workforce Development.

17. Critical Barrier - Two layers of nominal six (6) mil polyethylene sheeting that

completely seals off the work area to prevent the distribution of fibers to the surrounding area, such as the opening between the top of a wall and the underside of ceiling construction, electrical outlets, non-removable lights, HVAC systems, windows, doorways, entranceways, ducts, grilles, grates, diffusers, wall clocks, speaker grilles, floor drains, sink drains, etc.

18. Curtained Doorway - A device to allow ingress or egress from one room to another while permitting minimal air movement between the rooms, typically constructed by placing three (3) weighted overlapping sheets of plastic over an existing or temporarily framed doorway, securing each along the top of the doorway, securing the vertical edge of the two outer sheets along one vertical side of the doorway and securing the vertical edge of the middle sheet along the opposite vertical side of the doorway. Other effective designs are permissible.

19. Decontamination Enclosure System - A series of connected rooms, separated from the work area and from each other by air locks, for the decontamination of workers and equipment.

20. Disposal Bag – six (6) mil thick leak-tight plastic bags used for transporting asbestos waste from work and to disposal site. Each is labeled as follows:

DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD
AVOID BREATHING AIRBORNE ASBESTOS FIBERS
AND
Asbestos, NA2212, RQ
AND
Class 9 Label

The Contractor shall also label all disposal bags and/or containers with the name of the waste generator (Owner) and the location from which the waste was generated; all in accordance with the USEPA NESHAPS regulation - 40 CFR Part 651, Subpart M.

21. Encapsulant - A liquid material which can be applied to asbestos-containing material which controls the possible release of asbestos fibers from the material either by creating a membrane over the surface (bridging encapsulant) or by penetrating into the material and binding its components together (penetrating encapsulant).

22. Encapsulation - The application of an encapsulant to asbestos-containing materials to control the release of asbestos fibers into the air.

23. Filter - A media component used in respirators to remove solid or liquid particles from the inspired air.

24. Flame-Resistant Polyethylene Sheeting - A single polyethylene film in the largest sheet size possible to minimize seams, nominal six (6) mil thick, conforming to requirements set forth by the National Fire Protection Association Standard 701, Small Scale Fire Test for Flame-Resistant Textiles and Films.

25. Friable Asbestos Material - Material that contains more than 1% asbestos by weight and that can be crumbled, pulverized, or reduced to powder by hand pressure when dry.

26. HVAC - Heating, Ventilation and Air Conditioning system.

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

28. HEPA Filter Vacuum Collection Equipment (or vacuum cleaner) - High efficiency particulate air filtered vacuum collection equipment with a filter system capable of collecting and retaining asbestos fibers. Filters should be of 99.97% efficiency for retaining fibers of 0.3 microns or larger.

29. Negative Pressure - Air pressure lower than surrounding areas, generally caused by exhausting air from a sealed space (work area).

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

31. Negative Pressure Air Filtration Device (AFD) - A local exhaust system device, utilizing HEPA filtration capable of maintaining a negative pressure inside the work area and a constant air flow from adjacent areas into the work area and exhausting that air outside the work area.

32. Owner's Representative – USA Environmental Management, Inc., which will be represented on-site by an Industrial Hygiene Technician (IHT) for all non-permitted work and an Asbestos Safety Technician, certified by the New Jersey Department Affairs, for all permitted work. The IHT/AST shall ensure compliance with these Technical Specifications; all applicable local, State and Federal Regulations; perform air monitoring and analyze PCM air samples on-site.

33. Personal Monitoring - Sampling of the asbestos fiber concentrations within the breathing zone of an employee.

34. Prior Experience - Experience required of the contractor on asbestos projects of similar nature and scope to insure capability of performing the asbestos

abatement in a satisfactory manner. Similarities shall be in areas related to material composition, project size, abatement methods required, number of employees and the engineering, work practice and personal protection controls required.

35. Regulated Asbestos-Containing Material (RACM) - (a) Friable asbestos material, (b) Category I Non-friable ACM that has become friable, (c) Category I Non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or (d) Category II Non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

36. Removal - The stripping of any asbestos-containing materials from surfaces or components of a facility.

37. Renovation - Altering in any way one or more facility components. Operations in which load-supporting structural members are wrecked or taken out are excluded.

38. Respirator - A device designed to protect the wearer from the inhalation of harmful atmospheres.

39. Shower Room - A room between the clean room and the equipment room in the worker decontamination enclosure with hot and cold or warm running water controllable at the tap and suitably arranged for complete showering during decontamination.

40. Surfactant - A chemical wetting agent added to water to improve penetration, thus reducing the quantity of water required for a given operation or area.

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

42. Visible Emissions - Any emissions containing particulate asbestos material that are visually detectable without the aid of instruments. This does not include condensed uncombined water vapor.

43. Water Column (w.c.) - a unit of measurement for pressure differential.

44. Wet Cleaning - The process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops or other cleaning utensils that have been dampened with amended water or diluted removal encapsulant and afterwards thoroughly decontaminated or disposed of as asbestos contaminated waste.

45. Work Area - Designated rooms, spaces, or areas of the project in which asbestos abatement actions are to be undertaken or which may become

contaminated as a result of such abatement actions. A contained work area is a work area that has been sealed, plasticized and equipped with a negative pressure air-filtration system.

46. Worker decontamination enclosure - A decontamination system consisting of a clean room, a shower room, and an equipment room separated from each other and from the work area by airlocks and curtained doorways. This system is used for all worker entrances and exists to and from the work area and for equipment pass out for small jobs.

1.5 CODES & STANDARDS RELATIVE TO ASBESTOS ABATEMENT

A. Except to the extent that more explicit or more stringent requirements are written directly into the Contract Documents, all applicable codes, regulations and standards have the same force and effect (and are made a part of the Contract Documents by reference) as if copied directly into the Contract Documents, or as if published copies are bound herewith.

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

C. State of New Jersey requirements which govern asbestos abatement work or hauling and disposal of asbestos waste materials include but are not limited to the following:

1. Asbestos Licenses and Permits

New Jersey Department of Labor & Workforce Development
Division of Public Safety & Occupational Safety & Health
Asbestos Control & Licensing Section
1 John Fitch Plaza
P.O. Box 949
Trenton, NJ 08625-0949
(609) 633-3760

2. Asbestos Hazard Abatement Sub-code - N.J.A.C. 5:23-8

New Jersey Department of Community Affairs
Division of Codes and Standards
Asbestos Safety Unit
101 South Broad Street
P.O. Box 816
Trenton, NJ 08625-0816
(609) 633-6224

Fax Number (609) 633-1040

3. Asbestos Training Courses - N.J.A.C. 8:60 and 12:120

New Jersey Department of Health and Senior Services
Indoor Environments Program
Consumer and Environmental Health Services
P. O. Box 360
Trenton, NJ 08625-0360
(609) 588-7864
Fax Number (609) 984-5370

4. Disposal Regulations - N.J.A.C. 7:26

New Jersey Department of Environmental Protection
Division of Solid and Hazardous Waste
P.O. Box 414
Trenton, NJ 08625-0414
Fax Number (609) 984-6985

D. Standards which apply to asbestos abatement work of hauling and disposal of asbestos waste materials include but are not limited to the following:

1. American National Standards Institute (ANSI)
25 West 43rd Street, 4th floor
New York, NY 10036

- *Fundamentals Governing the Design and Operation of local Exhaust Systems Publication Z9.2-79.*
- *Practices for Respiratory Protection Publication Z88.2-80.*

2. American Society for Testing and Materials (ASTM)
100 Barr Harbor Drive, P.O. Box C700
West Conshohocken, PA 19428-2959

- *Safety and Health Requirements Relating to Occupational Exposure to Asbestos E 849-82.*
- *Specification for Encapsulants for Friable Asbestos-Containing Building Materials Proposal P-189.*

PART 2 – SCOPE OF WORK

2.1 SUMMARY OF WORK

This section covers the furnishing of all labor, materials, facilities, equipment, services, permits and agreements necessary to perform the work required for asbestos abatement in accordance with these Technical Specifications, United States Environmental Protection Agency (USEPA) and OSHA regulations, NIOSH recommendations, State of New Jersey regulations and other applicable federal, state and local government regulations. Wherever

there is a conflict or overlap of the above references the most stringent provisions shall apply. It shall be the Contractor's responsibility to verify exact quantities and locations of all asbestos-containing materials. The quantities shown are for informational purposes only. It is USA Environmental Management, Inc., understanding that the Contractor has verified the materials and quantities to be removed under this scope of work and has priced the work accordingly.

2.2 DESCRIPTION OF THE WORK

BASE BID:

A. Site:
Ramapo College of New Jersey
College Park Apartments – Phase I
Holly & Mimosa

B. Contractor shall remove and dispose of asbestos-containing drywall associated joint compound, adhesive associated with drywall joists/studs and multi-layered resilient floor coverings. Removal shall be completed, as specified in the Contract Documents, as per N.J.A.C. 5:23-8.15 – Asbestos Hazard Abatement Projects within a full containment for unoccupied buildings.

1. Remove select areas of resilient floor coverings, per Resilient Floor Covering Institute's (RFCI's) "Recommended Work Practices for the Removal of Resilient Floor Coverings", at locations as indicated in the Contract Documents.

C. In addition:

1. Remove and dispose of all fixtures and equipment including, but not limited to, carpet, interior doors, door hardware, cover plates, surface mounted wiring, lighting fixtures, thermostats, fan coil units, signs, molding, trim, cabinets, sink, faucets, stoves, refrigerators, shelving, mirrors, vanity, tub, toilet, etc. Preform selective demolition that does not impact asbestos-containing materials. If asbestos-containing materials may be impacted during selective demolition activities, the items which may impact ACM shall remain and be removed within a negative pressure enclosure.

2. All existing, in wall, electrical/it/communication wiring, outlets, plumbing and fire detection/suppression shall remain.

3. Exterior and exposed decontamination unit(s) shall be sheathed with one-half inch (1/2") plywood and a single layer of six (6) mil polyethylene sheeting shall be affixed to the exterior walls and ceiling of the decontamination unit.

4. Prior to any preparatory work associated with N.J.A.C. 5:23-8 and to allow for the installation of the decontamination unit for N.J.A.C. 5:23-8 abatement work, the contractor shall remove multi-layered asbestos-containing floor tile and associated mastic contaminated plywood sub-floors from the entrances/foyers. Original (bottom layer) plywood sub-floor to remain. Removal shall be accomplished via non-friable methods, in accordance with the contract documents.

5. Prior to pre-commencement inspection of N.J.A.C. 5:23-8, the contractor shall install critical barriers sealing off the crawlspace from the exterior and attic from the second floor abatement work.

6. Remove and dispose of all layers of asbestos-containing resilient floor coverings (floor tile and linoleum) and associated mastic contaminated plywood sub-floors. Original (bottom layer) plywood sub-floor to remain.

7. Remove and dispose of all layers of carpet, padding, tack strips as construction debris. Resilient floor coverings (floor tile) which adhere to carpet shall be disposed of as asbestos waste.

8. Remove asbestos-containing double layer drywall and associated joint compound from all accessible locations, including, but not limited to, walls, ceilings, soffits, etc. Remove all fasteners (tracks, staples, screws, nails, etc.), glue and adhesives flush with studs/joists. Drywall which is inaccessible and requires any removal of existing wood structural components shall be scored flush with the adjoining surfaces and the exposed edges shall be encapsulated.

9. Remove all insulation (pipe, batt, blown-in, etc.), ceramic tile and non-asbestos finishes as asbestos contaminated waste.

D. Refer to the Contract Drawings for the approximate location of all asbestos-containing materials to be removed, within the scope of this Contract.

E. Quantities:

The quantities shown are for informational purposes only and no guarantee is expressed or implied that the quantities are correct or that the asbestos-containing materials are easily removable from the substrate, surfaces or components. No allowances shall be made for failure of the Contractor to verify in the field amounts or existing field conditions.

Holly:

Room Name/ Number	**Material**	**Quantity**
Work Phases I & II		
Apartments A – H & Foyers	Drywall and Joint Compound	28,628 SF
Apartments A – H & Foyers	Resilient Floor Coverings*	3,802 SF
Apartments A – H & Foyers	Drywall Stud/Joist Adhesive	15,500 LF

Mimosa:

Room Name/ Number	Material	Quantity
Work Phase I, II & III		
Apartments A – L & Foyers	Drywall and Joint Compound	42,942 SF
Apartments A – L & Foyers	Resilient Floor Coverings*	5,703 SF
Apartments A – L & Foyers	Drywall Stud/Joist Adhesive	23,250 LF

Note: *Multi-Layered Resilient Floor Coverings (Floor Tile, Linoleum, etc.)

2.3 ADDITIONAL INFORMATION

A. The Contract Drawings are designed to compliment the Technical Specifications. Wherever conflicts arise between the Contract Drawings and the Technical Specifications, the more stringent shall apply.

B. Prepare all asbestos-containing materials for transportation and disposal in accordance with NEHAPS, OSHA and the United States Department of Transportation (USDOT) asbestos waste handling requirements.

C. The Contractor shall be aware that electrical, communication, other utility lines and HVAC duct system may exist in proximity to some locations where asbestos-containing material is to be removed. The Contractor shall exercise caution with his/her activities during preparation, removal, clean-up and final cleaning operations associated with asbestos abatement in these work areas, to prevent damaging said electrical, communication, other utility lines and HVAC ductwork. Where possible, the Contractor shall cautiously move and secure the aforementioned items.

1. Should the Contractor damage any electrical, communication, other utility lines and/or HVAC system components, the Contractor shall be responsible for either the cost to the Owner to repair/replace damaged lines/HVAC system or shall arrange for the lines/HVAC systems to be repaired/replace to the Owner's specifications with no additional cost to the Owner.

2. The Owner shall be the SOLE deciding factor as to which option referenced above the Contractor shall implement to repair/replace electrical, communication, other utility lines and/or HVAC system components that is damaged as a result of the asbestos abatement activities in these work area locations.

D. Damage caused by the Contractor to structural building components/members shall be restored to their existing conditions, The Contractor shall be responsible for either the cost to the Owner to restore damaged building components/members or shall arrange for the restoration to the Owner's specifications with no additional cost to the Owner.

E. The Contractor shall utilize proper protective equipment such as safety glasses, disposable gloves, protective suits, safety shoes and HEPA cartridge equipped full-

face respirators and other appropriate personal protective equipment when handling asbestos contaminated materials during pre-cleaning activities.

F. Project Schedule:

Holly:

1. It is the intention of the Client to complete the work within twenty-five (25), eight (8) hour work shifts, during normal business hours, Monday-Friday, 7:00am – 3:30pm as follows:

    a. Non-Friable Removal Work:
        i. Two (2) Work Shifts
    b. Selective Non-ACM Demolition & N.J.A.C. 5:23-8, Permitted Work:
        i. Twenty-Three (23) Work Shifts

Mimosa:

2. It is the intention of the Client to complete the work within thirty-seven (37), eight (8) hour work shifts, during normal business hours, Monday-Friday, 7:00am – 3:30pm as follows:

    a. Non-Friable Removal Work:
        i. Three (3) Work Shifts
    b. Selective Non-ACM Demolition & N.J.A.C. 5:23-8, Permitted Work:
        i. Thirty-Four (34) Work Shifts

3. The work schedule shall be maintained by the Contractor at all times. There shall be no provisions allowed for the Contractor to extend or alter the schedule. It is imperative that the work areas are turned over to the Client by the scheduled completion date/time.

    a. The schedule shall include satisfactory clearance air sampling, final inspection of the work area and demobilization of all Contractor equipment.

2.4 STANDARD OPERATING PROCEDURES

A. The Contractor shall develop and implement a written standard operating procedure for abatement work to ensure maximum protection and safeguard from asbestos exposure of the workers, visitors, general public and the environment.

B. The standard operating procedure shall ensure:

1. Proper protective clothing and respiratory protection prior to entering the work area.

2. Safe work practices in the work place, including provisions for inter-room communications, exclusion of eating, drinking, smoking or breaking of respiratory protection in any way.

3. Packing, labeling, loading, transporting and disposal of asbestos-containing materials in a way that minimizes exposure and contamination.

4. Proper exit practices from the workspace to the outside through the decontamination facility.

5. Emergency evacuation for medical or safety to minimize exposure.

6. Safety from accidents in the work area, especially from electrical shocks, slippery surfaces and entanglements in loose hoses, temporary wiring and other equipment.

7. Provisions for effective supervision and personnel air monitoring during work.

8. Engineering systems that minimize exposure to fibers in the work place.

C. Perform OSHA 8-hour Time Weighted Average personal exposure air monitoring in accordance with 29 CFR 1926.1101. OSHA monitoring is solely the responsibility of the Contractor, and the Contractor shall ensure that the Contractor's Supervisor performs OSHA monitoring in accordance with 29 CFR 1926.1101. The Owner's Representative is not responsible for the Contractor's compliance with OSHA monitoring.

D. Provide Personal Protective Equipment (PPE) to the Owner's Representative and inspector's representing Federal, State and local agencies, as required to perform progress inspections of the work.

2.5 NOTIFICATIONS, WARNING SIGNS, LABELS AND POSTERS

A. At the entrance to the work area and/or decontamination unit, the Contractor's ingress/egress point to the building and the exterior door that leads from the exterior of the building for the waste removal route, and all sides of the waste dumpster, post an approximate 20 inch by 14 inch manufactured caution sign displaying the following legend with letter sized and styles of a visibility required by 29 CFR 1926:

LEGEND:

DANGER
ASBESTOS
CANCER AND LUNG DISEASE HAZARD
RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED
IN THIS AREA

B. Disposal/Waste Bags/Containers shall be labeled as follows:

DANGER
CONTAINS ASBESTOS FIBERS

AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD
AVOID BREATHING AIRBORNE ASBESTOS FIBERS
AND
Asbestos, NA2212, RQ
AND
Class 9 Label

In addition, the Contractor shall also label all disposal bags and/or containers with the name of the waste generator (Owner) and the location from which the waste was generated; all in accordance with the USEPA NESHAPS regulation - 40 CFR Part 651, Subpart M.

C. Provide other signs, labels, warnings and posted instructions that are necessary to protect, inform and warn people of the hazard form asbestos exposure. Post in a prominent and convenient place for the workers a copy of the latest applicable regulations from OSHA, USEPA and NIOSH.

D. Post 10-day Notifications to the USEPA, New Jersey Department of Community Affairs (when applicable), New Jersey Department of Labor and Workforce Development, New Jersey Department of Environmental Protection and New Jersey Department of Health and Senior Services, at the entrance to the work area(s).

E. Post Construction Permits, if applicable, at the entrance to the work area(s).

2.6 FULL CONTAINMENT WORK AREA PREPARATION

A. The Contractor shall ensure all HVAC systems within the proposed work area are shut-down prior to the Contractor commencing with preparation activities, relative to asbestos abatement.

B. Electric systems within each work area(s) shall be shut-down. If approved by the ASCM, electric systems within the work area may be used if they are ground fault circuit interrupter (GFCI) protected, cleanable and precautions are used to protect the safety of all within the work area. Temporary lighting shall be the incorporated in the work area(s), and shall be the responsibility of the Contractor.

C. The Contractor shall ensure that prior to abatement preparation, all moveable items within each work area(s) have been cleaned removed from the work area. Items that cannot be removed from the work area(s) shall be cleaned and sealed airtight with two (2) layers of six (6) mil flame resistant rated polyethylene sheeting. The Contractor shall clean all residual dust and debris from the floor and other horizontal surfaces within each work area using HEPA filter equipped vacuums, prior to the installation of the Full Containment.

D. The Contractor shall construct a Worker Decontamination Unit contiguous to the work area for use by abatement personnel for personal decontamination.

E. The Contractor shall install sufficient negative air filtration devices (AFDs) within each work area(s). The AFDs shall be exhausted to the exterior of the building.

1. The Contractor shall install sufficient negative AFDs to supply the asbestos work area with a minimum of four (4) air changes per hour. Calculations shall be derived from field measurements of the installed AFDs on-site, prior to beginning work.

2. The Contractor shall provide HEPA, secondary and pre-filters for all AFDs. All HEPA filters shall not have more than the manufacture's hours of usage time. The pre-filter shall be changed every four (4) hours or sooner as required during abatement.

3. The Contractor shall be responsible for the complete operation and maintenance of the AFDs and components.

4. Mechanically affix all exhaust ducts to the AFDs and seal with duct tape. Install AFD units as per design. Exhaust AFDs to the exterior of the building.

5. For full containment – Unoccupied building conditions, the exhaust capacity from the work area shall be sufficient to establish a pressure differential between the work area and all adjacent spaces greater than or equal to 0.03 inches water column ("w.c.).

6. The Contractor shall supply digital manometer(s), in sufficient quantity, for the duration of the project. The Contractor shall be responsible to ensure that the manometer(s) remains functional at all times and has sufficient tape and ink to carryover into the next work day.

7. All permitted work being performed in accordance with N.J.A.C. 5:23-8 shall require the Asbestos Safety Control Monitor to install a digital manometer that provides a continuous strip chart record. The Asbestos Safety Control Monitor shall install the digital manometer(s) near the entrance(s) to the work area and between the work area(s) and any interior spaces from which make-up air is drawn. The IHT/AST and Contractor's supervisor shall be qualified and proficient in both the operation of the manometer unit and in calculating to determine the number of AFDs necessary to achieve and maintain the required 0.03" w.c. in the work area. The IHT/AST shall zero and level the gauges each time a reading is taken.

F. Contactor to provide written request to the Owner's Representative for inspection and approval of the abatement work area prior to commencement of the abatement asbestos-containing materials.

G. Removal shall commence closest to the decontamination unit.

H. The Owner's Representative will perform a visual inspection and conduct final clearance air monitoring of the work area. If analytical results are obtained that are

higher than the allowable threshold, the Contractor shall re-clean the work area and the Owner's Representative will re-test the area. This sequence shall be repeated until the final test results are acceptable.

I. Upon receipt of acceptable final air tests, the Contractor shall demobilize all critical and separation barriers, decontamination unit and engineering controls from the abatement area. All waste containers shall be off-site and en-route to an USEPA ID #27 approved landfill for final disposal.

J. The Owner's Representative will perform a final visual inspection of the abatement work area, with all waste off the premises. If the inspection is satisfactory, the ASCM firm shall file for and for a Certificate of Occupancy from the local code official and/or New Jersey Department of Community Affairs for all PERMITTED WORK referenced herein.

2.7 FULL CONTAINMENT REMOVAL

A. Pre-Cleaning

1. Prior to the start of abatement activities, the Contractor shall ensure all electric coming into the work area(s) is shut down or GFI protected.

2. The Contractor shall wet clean and HEPA vacuum all non-ACM, non-removable objects and seal in two (2) independent layers of six (6) mil polyethylene sheeting.

3. All removable items; i.e., electrical, heating, ventilating and other non-ACM objects, attached to the asbestos-containing material shall be HEPA vacuumed, wet cleaned and removed from the work area. All other removable items; i.e., chairs, furniture, desks, bookcases, etc., not scheduled for disposal as ACM, shall be HEPA vacuumed, wet cleaned, removed from the work area and placed in an on-site temporary storage area by the Contractor.

B. Full Containment Construction

1. Within the work area extents, the Contractor shall seal all openings in floors, walls, ceilings with expanding foam insulation and/or with critical barriers.

   a. Critical barriers shall be composed of two (2) independent layers of six (6) mil flame resistant polyethylene sheeting.
   b. The critical barriers shall be affixed to the substrate either with duct tape or stapled or fastened with spray-on adhesives, glue beads or horizontal wood battens.
   c. The Contractor shall support critical barrier walls with 2"x4" wood/metal studs (or equivalent) at intervals of approximately 32".

2. The Contractor shall install floor coverings within the work area consisting of

two (2) layers of six (6) mil flame resistant polyethylene sheeting, unless, the floor is to be removed as part of the abatement work.

a. The first floor layer shall extend up the wall at least 12 inches.
b. The second floor layer shall extend up the wall at least 24 inches.
c. The Contractor shall minimize the number of seams on the floor and no seams shall be permitted between wall and floor joints.

3. After floor coverings are in place, the Contractor shall erect one (1), six (6) mil flame resistant polyethylene sheeting wall, extending from the ceiling to the floor, overlapping floor sheeting by at least 18 inches, unless, the wall is to be removed as part of the abatement work.

a. No seams shall be located at the corners.
b. Where no walls exist, the Contractor shall first construct critical barriers to create walls for the work area(s).

4. The Contractor shall install a ceiling consisting of one (1) layer of six (6) mil flame resistant polyethylene sheeting, unless, the ceiling is to be removed as part of the abatement work.

.

5. AFDs shall be put in place, equipped with HEPA filters.

a. AFDs shall exhaust to the outside of the building.
b. Sufficient number of AFDs shall be utilized to ensure air changes every 15 minutes with an acceptable pressure established.
c. AFDs shall be field tested by the Owner's Representative, in accordance with N.J.A.C. 5:23-8.10(d)3.

6. The Contractor shall construct a decontamination unit as per N.J.A.C. 5:23-8.15(c) and install a digital manometer with continuous print out at the entrance of the decontamination unit. The Contractor's three (3) stage decontamination unit shall be contiguous with the work area. Entrance flaps for each chamber are to be weighted and installed so that the flaps will close if airflow into the work area is stopped for any reason.

a. Each chamber for the decontamination unit shall be minimum of 4'x4'. The decontamination unit shall be framed and each chamber enclosed with two (2) layers of six (6) mil flame resistant polyethylene sheeting. Three (3), six (6) mil flame resistant polyethylene flaps shall overlap at the entrance/exit to each chamber, the work area(s) and at the entrance into the decontamination unit to the work area(s).
b. The chambers shall consist of a clean room followed by a shower room, and finally an equipment room leading into the work area(s). The shower room shall have hot/cold running water with a shower and soap.

C. Removal

1. The asbestos-containing material(s) shall be sprayed with amended water or a removal encapsulant by means of a low-pressure sprayer. The ACM shall remain adequately wet at all times of removal.

2. Removal shall commence from the decontamination unit, towards the AFDs.

3. All waste shall be wet and placed into labeled 6 mil polyethylene bags. All bags shall be doubled with OSHA labels visible.

   a. The Contractor may place the sealed double bagged waste bags in a sealable drum.

4. Sharp objects shall be cut into manageable pieces while wet. The objects shall then be placed in sealable, leak proof containers or wrapped in two (2) layers of six (6) mil polyethylene sheeting.

5. After removal of the asbestos-containing material, the Contractor shall fine clean all surfaces with nylon brushes, wet sponges or equivalent. Material shall remain adequately wet.

6. Waste bags and/or drums shall be cleaned and disposed of in an on-site dumpster or Contractor's vehicle, registered with the New Jersey Department of Environmental Protection.

7. All accessories and equipment shall be moved to the equipment room of the decontamination unit and cleaned prior to exiting the decontamination unit.

8. Water utilized for the shower room of the decontamination unit shall be collected and added to the asbestos waste or solidified in a leak proof drum with an acceptable polymer.

D. Final Clean-up

1. The Contractor shall fine spray and/or mist the work area with amended water or a removal encapsulant; the work area shall remain adequately wet at all times. All vertical and horizontal surfaces shall be wet wiped and cloths disposed of as asbestos contaminated waste.

2. After completion of cleaning all surfaces, the Contractor shall request a pre-sealant inspection in writing to the Owner's Representative. If the work area passes the pre-sealant inspection, the Contractor shall apply a sealant to all exposed surfaces. The sealant shall be tinted so as to be distinct from the underlying substrate.

3. Once the sealant is dry, the Contractor shall remove all floors, walls and ceilings by means of carefully rolling up the polyethylene sheeting, with the

contaminated portion on the inside. The sheeting shall then be placed in labeled 6 mil waste bags, double bagged and disposed of properly.

4. The Contractor shall wet clean with amended water or a removal encapsulant all surfaces within the work area twice. All cloths used shall be disposed of as asbestos contaminated waste.

5. Critical and separation barriers shall remain in place until satisfactory air sample results are obtained.

E. Final Cleaning – Upon Receipt of Satisfactory Final Clearance Air Sample Results

1. The Contractor shall remove all critical barriers and dispose of properly.

2. Inside of windows shall be washed.

3. Transport all waste and waste containers off-site, to an USEPA ID #27 approved landfill.

2.8 WORK AREA CLEAN UP

A. All surfaces and Contractor equipment in the work area(s) shall be cleaned after completion of the removal activities.

B. All ceiling support system components and other ceiling-mounted, mechanical, electrical equipment etc. left in place in the work area shall be cleaned using a HEPA-filter equipped vacuum and wet cleaned with the water/surfactant mixture.

C. Walls shall be wet cleaned.

D. The polyethylene sheeting applied to the walls and floor shall be sprayed with the water/surfactant mixture, rolled up keeping the top surface to the inside and placed into six (6) mil asbestos disposal bags for disposal as asbestos contaminated waste.

E. Lastly, the walls and floor in the work area shall be cleaned with a HEPA-filter equipped vacuum.

F. AFDs, critical barriers and decontamination units shall remain. Upon issuance of a satisfactory Clean-up Inspection, the Owner's Representative shall proceed with the collection of final clearance air samples.

2.9 ASBESTOS WASTE HANDLING AND DISPOSAL

A. Disposal bags shall be six (6) mil, leak tight, and labeled in accordance with OSHA, NESHAPS, and the United States Department of Transportation (USDOT) regulations.

B. Load all asbestos-containing waste material in disposal bags or leak-tight drums. All

materials are to be contained in one (1) of the following:

1. Two (2), six (6) mil disposal bags, or,

2. Two (2), six (6) mil disposal bags and a fiberboard drum, or

3. Two (2), six (6) mil disposal bags, and sealed steel drum.

C. Two (2) layers of six (6) mil flame resistant polyethylene sheeting shall be utilized for wrapping large components not suited for disposal bags or drums.

D. Duct tape shall be used to seal disposal bags and wrapped components.

E. The Contractor's vehicle and/or dumpster shall be lined with two (2) layers of six (6) mil flame resistant polyethylene sheeting. The Contractor's vehicle and/or dumpster utilized to transport the asbestos waste off-site, and the Waste Hauler shall be licensed by the New Jersey Department of Environmental Protection.

F. Maintain records of waste shipments in accordance with NESHAPS 40 CFR Part 61, section 61.150, (d) 1-5 and (e). Provide waste shipment records with all requests for payment associated with the Contractor's work.

G. Notify the USEPA ID #27 approved landfill within 10-days prior to transportation of the asbestos-containing waste to the landfill. Provide the name and address of the landfill. Retain manifest from the landfill for all materials disposed. At the completion of asbestos abatement forward all manifests to the Owner.

H. On-site activities shall not be considered complete until all waste is off-site, upon demobilization of the work area(s), after receipt of satisfactory final clearance air sample results.

PART 3 – AIR MONITORING

3.1 DESCRIPTION OF THE WORK

A. This Section describes air monitoring to verify that the building beyond the work area and the outside environment remains uncontaminated. This Section also sets forth airborne fiber levels both inside and outside the work area as action levels, and describes the action required by the Contractor if an action level is met or exceeded.

B. AIR MONITORING REQUIRED BY OSHA IS WORK OF THE CONTRACTOR AND IS NOT COVERED IN THIS SECTION.

3.2 BACKGROUND AIR MONITORING

A. The Asbestos Safety Control Monitoring firm shall conduct background environmental/daily air monitoring to detect faults in the work area isolation, such as:

1. Contamination of the building outside of the work area with airborne asbestos fibers,

2. Failure of filtration or rupture in the differential pressure system,

B. Should any of the above occur, immediately cease asbestos abatement activities until the fault is corrected. Do not recommence work until authorized by the Asbestos Safety Control Monitoring firm.

C. Fiber Concentrations Outside the Work Area(s):

1. If any air sample taken outside of the work area(s) exceeds 0.010 fibers per cubic centimeter, immediately and automatically stop all work except corrective action.

2. The Asbestos Safety Control Monitoring firm will determine the source of the high reading and so notify the Contractor in writing.

3. If the high reading was the result of a failure of work area isolation measures, initiate the following actions:

   a. Immediately erect new critical barriers to isolate the affected area(s) from the balance of the building. Erect Critical Barriers at the next existing structural isolation of the involved space (e.g., wall, ceiling, floor).
   b. Clean and decontaminate the affected area utilizing wet wiping and HEPA vacuuming techniques.
   c. Require that respiratory protection be worn in affected areas until the area is cleared for re-occupancy via air sampling.
   d. Leave critical barriers in place until completion of work and ensure that the operation of the pressure differential system in the work area results in a flow of air from the balance of the building into the affected area.
   e. If the exit from the clean room of the personnel decontamination unit enters the affected area, establish a decontamination facility consisting of a shower room and changing room at entry point to affected area.
   f. After certification of visual inspection, by the Asbestos Safety Control Monitoring firm, in the work area remove critical barrier separating the work area from the affected area.
   g. Final air samples will be taken within the entire area as set forth in Part 3.3.

4. If the high reading was the result of other causes, initiate corrective action as determined by the Asbestos Safety Control Monitoring firm.

5. The Contractor shall complete all corrective work with no change in the

Contract sum.

C. Daily Air Monitoring shall be performed from the start of work to project decontamination, per shift. The Asbestos Safety Control Monitoring firm shall collect, at a minimum, air samples from locations adjacent to the work area, including critical barriers, the clean room of the decontamination unit and the waste removal route.

D. Phase Contrast Microscopy (PCM) sampling and analysis will be performed using the latest revision of NIOSH Method 7400. Where required, this analysis will be carried out at the job site so that results can be obtained within four hours from start of sampling. The analyst shall be listed in the Asbestos Analyst Registry of the AIHA for PCM analysis.

3.3 FINAL CLEARANCE AIR MONITORING

A. The Owner's Representative shall collect final clearance air samples at the completion of the abatement activities and after a satisfactory clean-up Inspection.

B. Engineering controls, critical barriers and the decontamination unit shall remain during final clearance air sampling.

C. All final clearance air samples will be taken using aggressive sampling techniques as follows:

1. Before sampling pumps are started, the exhaust from forced-air equipment (leaf blower with 1 HP electric motor) will be swept against all walls, ceilings, floors, ledges and other surfaces in the room. This procedure will be continued for five (5) minutes per 10,000 cubic feet of air volume.

2. One 20" diameter fan per 10,000 cubic feet of room volume will be mounted in a central location at approximately 2 meters above the floor, directed towards the ceiling and operated at low speed for the entire period of sample collection.

3. Air samples will be collected in areas subject to normal air circulation away from room corners, obstructed locations, and sites near windows, doors or vents.

D. A minimum of five (5) samples will be collected from the work area and analyzed in accordance with the method set forth in the AHERA Regulation 40 CFR Part 763 Appendix A.

1. Final clearance samples shall be analyzed utilizing Transmission Electron Microscopy (TEM).

2. TEM samples shall be analyzed at a laboratory accredited by the American Industrial Hygiene Association, participating in the National Voluntary

Laboratory Accreditation Program (NVLAP). Analytical results shall be available to the Owner's Representative within six (6) hours upon receipt by the laboratory.

3. Acceptable Clearance Criteria for work area demobilization and re-occupancy shall be as follows:

   a. TEM: Average of less than 70 Structures per millimeter squared for all five (5) samples analyzed.

PART 4 – PROJECT COMPLETION

4.1 FINAL INSPECTION

A. The Owner's Representative shall perform a final inspection of the work area in accordance with New Jersey Department of Labor and Workforce Development requirements. If analytical results are obtained that are higher than the allowable threshold the Contractor shall re-clean the work area and the Owner's Representative shall re-test the area. This sequence shall be repeated until the final test results are acceptable.

   1. The Contractor shall be financially responsible for additional cleaning, Owner's Representative services and final clearance air sampling and analysis at no cost to the Owner.

B. Upon receipt of acceptable final air tests the Contractor shall demobilize all critical and separation barriers, decontamination unit and engineering controls from the abatement work areas. All waste containers shall be off-site and en-route to an USEPA ID #27 approved landfill for final disposal.

C. The Owner's Environmental Representative will perform a final visual inspection of the abatement work area(s) to document the project has been completed in accordance with these Technical Specifications and all applicable Local, State and Federal regulations.

END OF SECTION 028211

Ramapo College of New Jersey
Phase 1 College Park Apartments Interior Renovations – Holly and Mimosa
RCNJ Project # 2015-64-02C

ADDENDUM NO. 01
Dated April 07, 2015

THE PURPOSE OF THIS ADDENDUM IS TO CHANGE THE FOLLOWING ITEMS:
Make changes to scope of work as identified in the following responses to bidders questions and noted specifications, drawings, and sketches (SK's).

RESPONSES TO BIDDERS QUESTIONS:

1. As an alternate(equal) material, can Corian be used as a manufacturer for solid surface countertops?
   RESPONSE: Corian can be used as an Approved Equal.

2. In drawings A003 detail 1-A004, if you are facing the sinks, the right wall is wall 4C. There are no details for wall 4C on the drawings.
   RESPONSE: Partition type #4 has been revised with a description for type 4C, see revised drawings.

3. It is not clear if insulation is needed on the second floor ceiling between the joists. There is already insulation in the attic on top of the joists.
   RESPONSE: Contractor shall provide new insulation.

4. It is specified on drawing A003 type 2 walls are to receive ½" resilient channels. In a similar dormitory (Buckeye), existing conditions show that there is an inconsistency with wood framing. Some bedrooms have 2x3" wood framing, and others have 2x4" wood framing. Can we delete the ½" resilient channels on the 2x4" wood framed walls and replace the specified ½" resilient channels with 1" resilient channels on the 2x3" wood framed walls so walls will be consistent and door frames can be the same size throughout?
   RESPONSE: Follow detail on drawings, resilient channels are acoustical value.

5. What size sound batt insulation can be used for interior walls. In a similar dormitory (Buckeye) there is an inconsistency with wood framing. A combination of 2x3" wood framed walls, and 2x4" wood framed walls. What sound insulation can be used with these conditions?
   RESPONSE: Compress 3 ½" insulation. Note, if this occurs on exterior wall, foil or paper faced insulation is required.

ADDED SCOPE:

1. Demolition and environmental abatement scope as defined in specification sections 011100 Summary of Work and 028211 Removal and Disposal of Asbestos Containing Materials and drawings. Disregard schedule requirements defined in specification section 028211, refer to specification section 011105 for time of completion requirements.

2. Complete new fire alarm system, design/build.

CHANGES TO THE SPECIFICATIONS:

1. Replace Specification Section 004000-2, Proposal Form
   Revised to change alternate for Mimosa scope from a DEDUCT to an ADD alternate

2. Replace Specification Section 011100, Summary of Work
    a. Revised to remove data/telecommunication wiring, jacks and terminations. Scope of work includes the installation of empty conduits, boxes, and pull string at locations shown on drawings.
    b. Revised to include a new complete fire alarm system
    c. Revised to include demolition and environmental scope of work

3. Replace Specification Section 011105, Time of Completion
    Revised to include revised Substantial Completion date requirements

4. Replace Specification Section 012300, Alternates
    Revised to change alternate for Mimosa scope from a DEDUCT to an ADD alternate

5. Add Specification Section 017000, Close Out Requirements

CHANGES TO THE DRAWINGS:

1. SNS Architects and Engineers, PC – Addendum Number 1 – Holly Summary
2. A-000 – Rev. 4/7/15
3. A-001 – Rev. 4/7/15
4. A-002 – Rev. 4/7/15
5. A-003 – Rev. 4/7/15
6. A-004 – Rev. 4/7/15
7. A-005 – Rev. 4/7/15
8. E-100 – Rev. 4/7/15
9. E-200 – Rev. 4/7/15
10. E-300 – Rev. 4/7/15
11. M-001 – Rev. 4/7/15
12. M-100 – Rev. 4/7/15
13. M-200 – Rev. 4/7/15
14. P-200 – Rev. 4/7/15
15. SNS Architects and Engineers, PC – Addendum Number 1 – Mimosa Summary
16. A-000 – Rev. 4/7/15
17. A-001 – Rev. 4/7/15
18. A-002 – Rev. 4/7/15
19. A-003 – Rev. 4/7/15
20. A-004 – Rev. 4/7/15
21. A-005 – Rev. 4/7/15
22. E-100 – Rev. 4/7/15
23. E-200 – Rev. 4/7/15
24. E-300 – Rev. 4/7/15
25. M-001 – Rev. 4/7/15
26. M-100 – Rev. 4/7/15
27. M-200 – Rev. 4/7/15
28. P-200 – Rev. 4/7/15

Attachments:

SPECIFICATION SECTIONS:

004000-2	Proposal Form
011100	Summary of Work
011105	Time of Completion
012300	Alternates
017000	Close Out Requirements
028211	Removal and Disposal of Asbestos Containing Materials

ATTACHMENTS:
Pre-Bid Conference Meeting Minutes
Pre-Bid Sign-In Sheet
Demolition and Abatement Bidder List

END OF BID ADDENDUM NO. 01

CAMBRIDGE
CONSTRUCTION MANAGEMENT

Phase 1 Holly & Mimosa Interior Demolition
RCNJ Project No. 2014-64-02C

Bidder Contact List

B&G Restoration – Tel: (973) 696-6869

East Coast Haz Mat Removal – Tel: (973) 345-0022

GL Group - Tel: (201) 710-9725

Greenwood Abatement – Tel: (973) 492-0477

Jupiter Environmental Services – Tel: (973) 575-8700

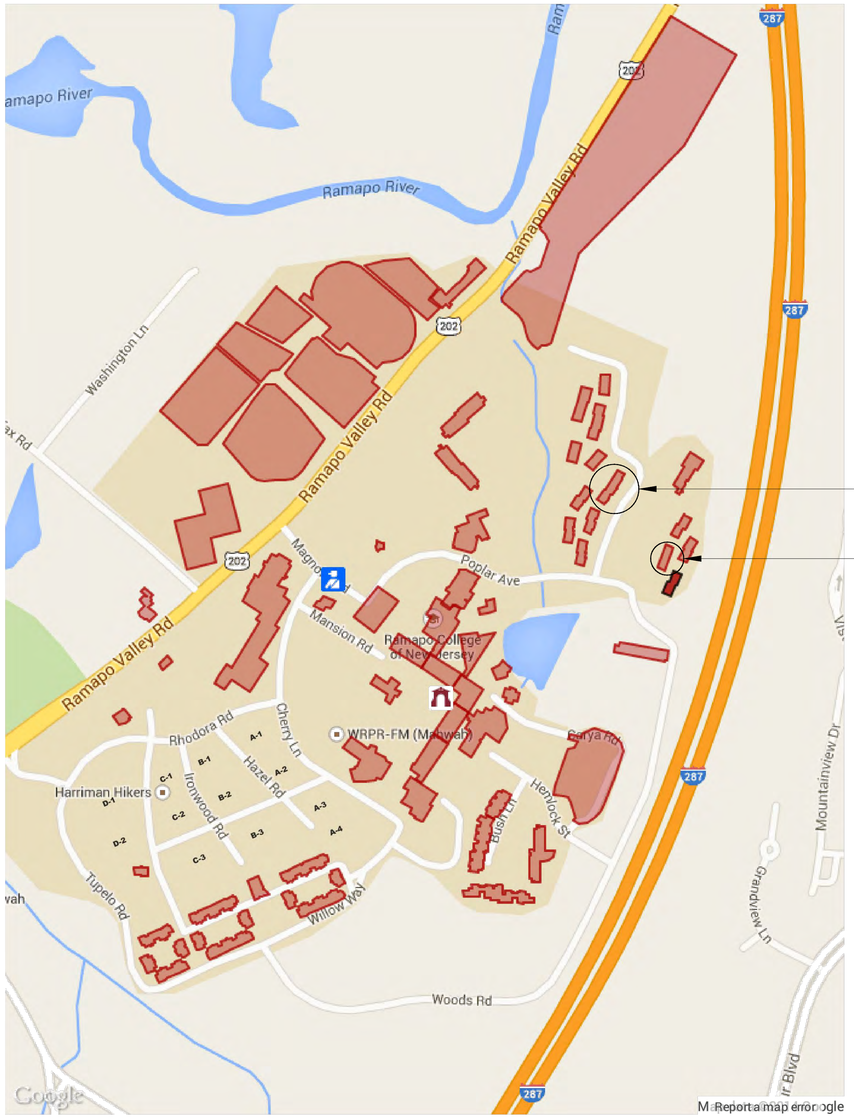
Shade Environmental – Tel: (856) 755-0099

SMAC Corp. – Tel: (973) 345-4055

Two Brothers Contracting – Tel: (973) 956-8700

VMC Co. – Tel: (973) 253-8828

97 GRAYROCK ROAD
CLINTON, NEW JERSEY 08809
Phone 908.638.9700
Fax 908.638.9701
www.cambridgecm.com



MIMOSA

HOLLY

2 AA.1 SITE LOCATION MAP

SCALE: N.T.S.

USAEMI Project Number: 15-020310-02

Scale: AS NOTED

Checked by: W.W.J.

Date: 02-27-2015

Drawn by: W.K.M.

William Weisgarber, Jr., Project Designer
Certificate No. NAETI 41684

USA Environmental Management, Inc,
344 West State Street
Trenton, NJ 08618
609.656.8101

Environmental, Engineering & Construction

Client: Ramapo College of New Jersey
505 Ramapo Valley Road
Mahwah, New Jersey 07430

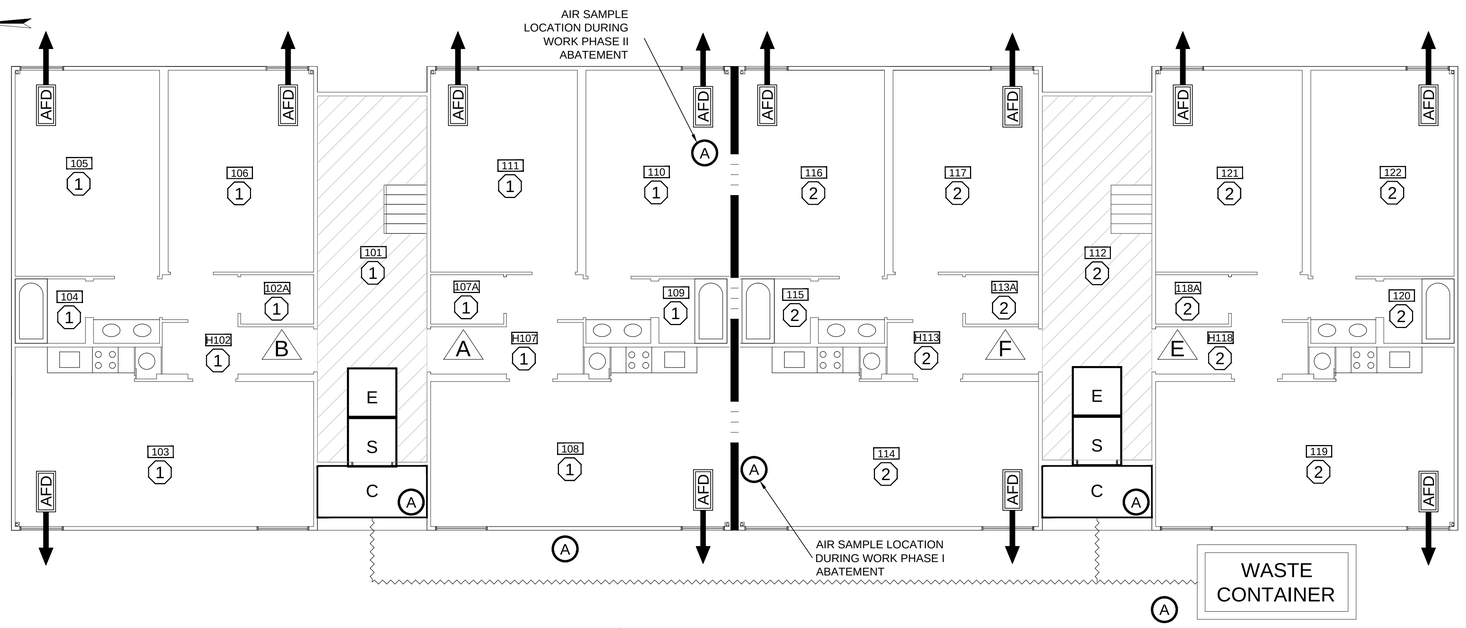
Site: College Park Apartments
Phase I

Drawing Title: Site Map of Holly & Mimosa

Drawing No. AA.1

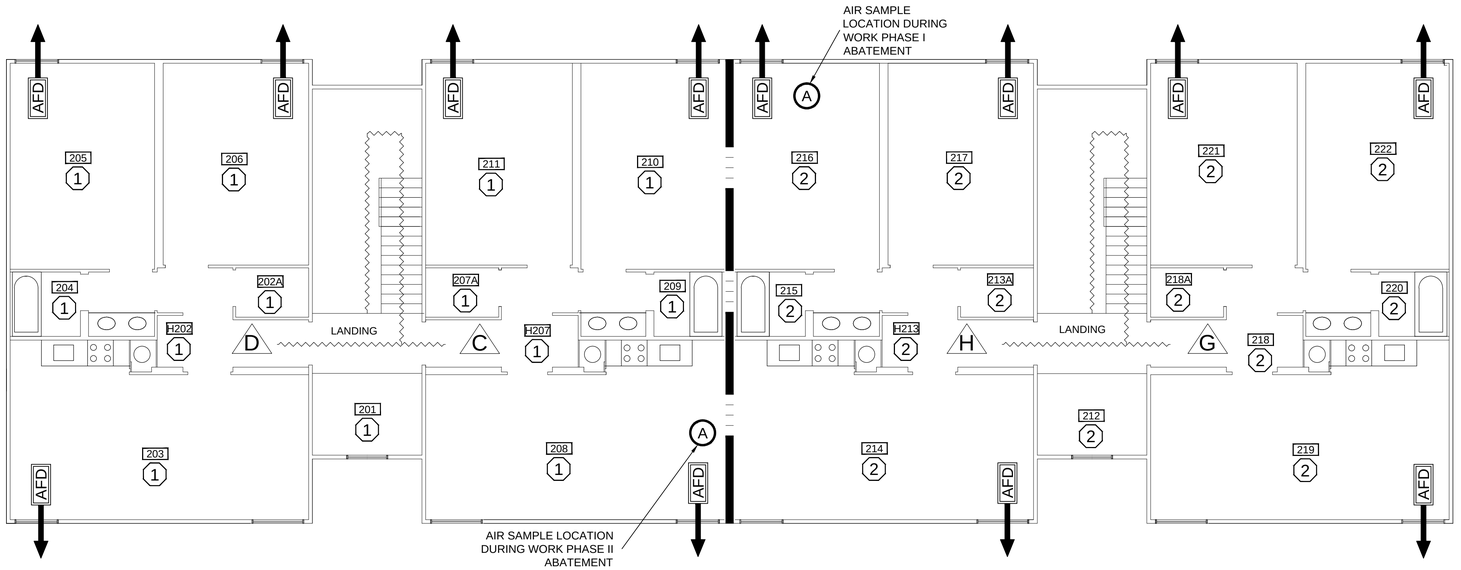
Sheet: 1 of 3

Rev #	Date	By



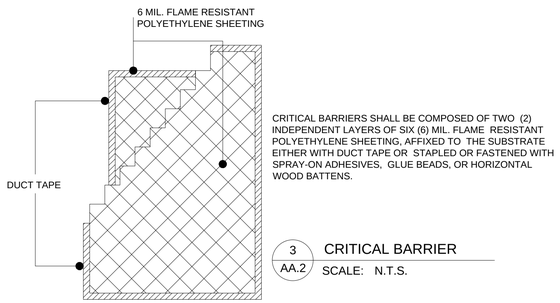
1 AA.2 HOLLY FIRST FLOOR

SCALE: 3/16" = 1' - 0"



2 AA.2 HOLLY SECOND FLOOR

SCALE: 3/16" = 1' - 0"



CRITICAL BARRIERS SHALL BE COMPOSED OF TWO (2) INDEPENDENT LAYERS OF SIX (6) MIL. FLAME RESISTANT POLYETHYLENE SHEETING, AFFIXED TO THE SUBSTRATE EITHER WITH DUCT TAPE OR STAPLED OR FASTENED WITH SPRAY-ON ADHESIVES, GLUE BEADS, OR HORIZONTAL WOOD BATTENS.

3 AA.2 CRITICAL BARRIER

SCALE: N.T.S.

- ABATEMENT LEGEND -

C S E — DECONTAMINATION UNIT: THREE (3) STAGE, AS INDICATED

A — AIR SAMPLE LOCATION

AFD — AIR FILTRATION DEVICE LOCATION

EXHAUST FOR AFD

CONTRACTOR INGRESS/EGRESS AND WASTE ROUTE

SEPARATION BARRIER

WASTE CONTAINER — WASTE CONTAINER

XXX — ROOM NUMBER

X — APARTMENT NUMBER

REMOVE AND DISPOSE OF MULTI-LAYERED FLOOR TILE AND ASSOCIATED MASTIC VIA NON-FRIABLE METHODS, PRIOR TO CONSTRUCTING DECONTAMINATION UNIT.

WORK PHASE I:

1 — REMOVE AND DISPOSE OF ASBESTOS-CONTAINING MATERIALS IN ACCORDANCE WITH N.J.A.C. 5:23-8.15 (FULL CONTAINMENT) DURING UNOCCUPIED BUILDING CONDITIONS.

WORK PHASE II:

2 — REMOVE AND DISPOSE OF ASBESTOS-CONTAINING MATERIALS IN ACCORDANCE WITH N.J.A.C. 5:23-8.15 (FULL CONTAINMENT) DURING UNOCCUPIED BUILDING CONDITIONS.

- ABATEMENT NOTES -

1. REMOVE AND DISPOSE OF ALL FIXTURES AND EQUIPMENT INCLUDING, BUT NOT LIMITED TO, CARPET, INTERIOR DOORS, DOOR HARDWARE, COVER PLATES, SURFACE MOUNTED WIRING, LIGHTING FIXTURES, THERMOSTATS, FAN COIL UNITS, SIGNS, MOLDING, TRIM, CABINETS, SINK, FAUCETS, STOVES, REFRIGERATORS, SHELVING, MIRRORS, VANITY, TUB, TOILET, ETC. PERFORM SELECTIVE DEMOLITION THAT DOES NOT IMPACT. ASBESTOS-CONTAINING MATERIALS. IF ASBESTOS-CONTAINING MATERIALS MAY BE IMPACTED DURING SELECTIVE DEMOLITION ACTIVITIES, THE ITEMS WHICH MAY IMPACT ACM SHALL REMAIN AND BE REMOVED WITHIN A NEGATIVE PRESSURE ENCLOSURE.
2. ALL EXISTING, IN WALL, ELECTRICAL/IT/COMMUNICATION WIRING, OUTLETS, PLUMBING AND FIRE DETECTION/SUPPRESSION SHALL REMAIN.
3. EXTERIOR AND EXPOSED DECONTAMINATION UNIT(S) SHALL BE SHEATHED WITH ONE-HALF INCH (1/2") PLYWOOD AND A SINGLE LAYER OF SIX (6) MIL POLYETHYLENE SHEETING SHALL BE AFFIXED TO THE EXTERIOR WALLS AND CEILING OF THE DECONTAMINATION UNIT.
4. PRIOR TO ANY PREPARATORY WORK ASSOCIATED WITH N.J.A.C. 5:23-8 AND TO ALLOW FOR THE INSTALLATION OF THE DECONTAMINATION UNIT FOR N.J.A.C. 5:23-8 ABATEMENT WORK, THE CONTRACTOR SHALL REMOVE MULTI-LAYERED ASBESTOS-CONTAINING FLOOR TILE AND ASSOCIATED MASTIC CONTAMINATED PLYWOOD SUB-FLOORS FROM THE ENTRANCES/FOYERS. ORIGINAL (BOTTOM LAYER) PLYWOOD SUB-FLOOR TO REMAIN. REMOVAL SHALL BE ACCOMPLISHED VIA NON-FRIABLE METHODS, IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
5. PRIOR TO PRE-COMMENCEMENT INSPECTION OF N.J.A.C. 5:23-8, THE CONTRACTOR SHALL INSTALL CRITICAL BARRIERS SEALING OFF THE CRAWLSPACE FROM THE EXTERIOR AND ATTIC FROM THE SECOND FLOOR ABATEMENT WORK.
6. REMOVE AND DISPOSE OF ALL LAYERS OF ASBESTOS-CONTAINING RESILIENT FLOOR COVERINGS (FLOOR TILE AND LINOLEUM) AND ASSOCIATED MASTIC CONTAMINATED PLYWOOD SUB-FLOORS. ORIGINAL (BOTTOM LAYER) PLYWOOD SUB-FLOOR TO REMAIN.
7. REMOVE AND DISPOSE OF ALL LAYERS OF CARPET, PADDING, TACK STRIPS AS CONSTRUCTION DEBRIS. RESILIENT FLOOR COVERINGS (FLOOR TILE) WHICH ADHERE TO CARPET SHALL BE DISPOSED OF AS ASBESTOS WASTE.
8. REMOVE ASBESTOS-CONTAINING DOUBLE LAYER DRYWALL AND ASSOCIATED JOINT COMPOUND FROM ALL ACCESSIBLE LOCATIONS, INCLUDING, BUT NOT LIMITED TO, WALLS, CEILINGS, SOFFITS, ETC. REMOVE ALL FASTENERS (STAPLES, SCREWS, NAILS, ETC.), GLUE AND ADHESIVES FLUSH WITH STUDS/JOISTS. DRYWALL WHICH IS INACCESSIBLE AND REQUIRES ANY REMOVAL OF EXISTING WOOD STRUCTURAL COMPONENTS SHALL BE SCORED FLUSH WITH THE ADJOINING SURFACES AND THE EXPOSED EDGES SHALL BE ENCAPSULATED.
9. REMOVE ALL INSULATION (PIPE, BATT, BLOWN-IN, ETC.), CERAMIC TILE AND NON-ASBESTOS FINISHES AS ASBESTOS CONTAMINATED WASTE.

- PHASE I, HOLLY QUANTITIES -

MATERIALS:	QUANTITY:
DOUBLE LAYER DRYWALL AND JOINT COMPOUND	28,628 SF
RESILIENT FLOOR COVERINGS	3,802 SF
DRYWALL STUD/JOIST ADHESIVE	15,500 LF

Rev #	Date	By

USAEMI Project Number: 15-020310-02

Scale: AS NOTED | Checked by: W.W.J.

Date: 02-27-2015 | Drawn by: W.K.M.

William Weisgarber, Jr., Project Designer
■ Certificate No. NAET/ 41684

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Environmental, Engineering & Construction

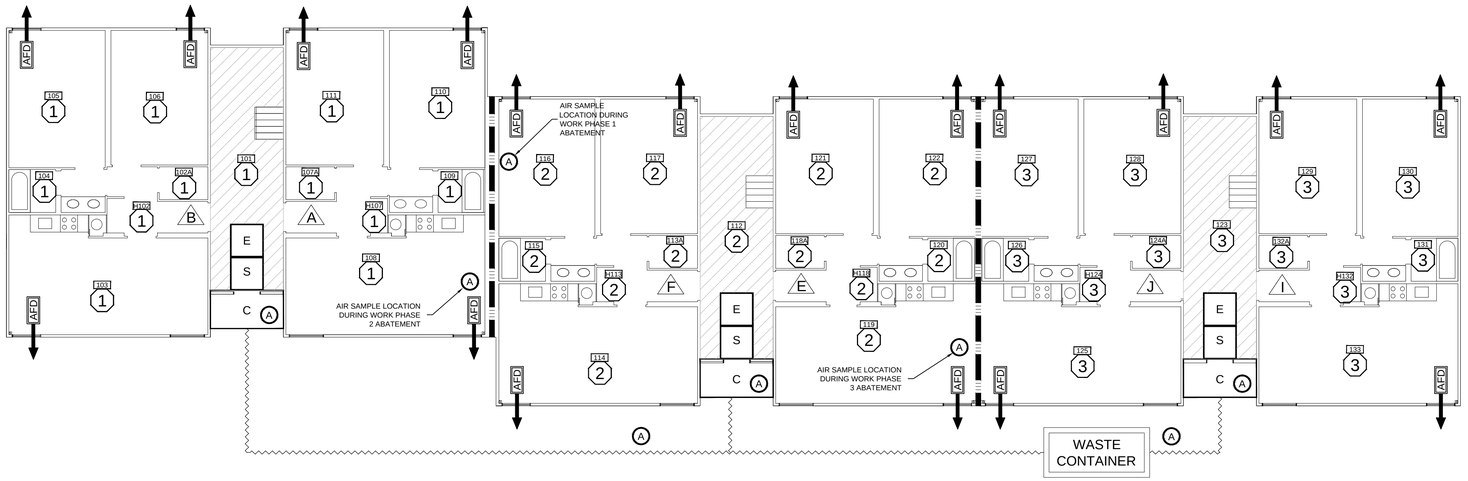
Client: Ramapo College of New Jersey
505 Ramapo Valley Road
Mahwah, New Jersey 07430

Site: College Park Apartments
Phase I

Drawing Title: Holly, Asbestos Abatement Plan

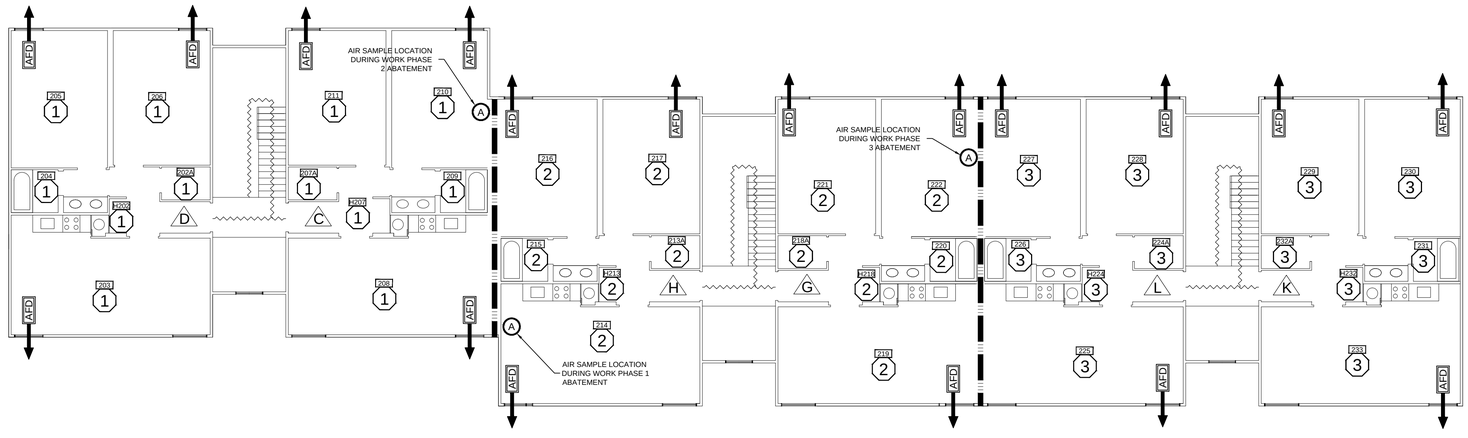
Drawing No. AA.2

Sheet: 2 of 3



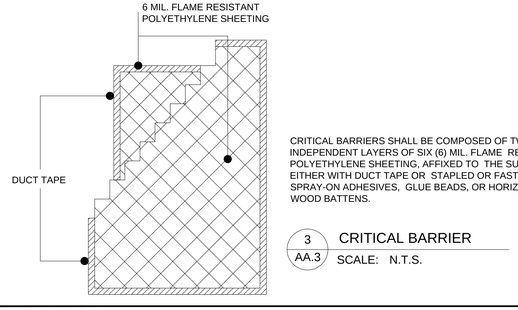
1 AA.3 MIMOSA FIRST FLOOR

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



2 AA.3 MIMOSA SECOND FLOOR

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



CRITICAL BARRIERS SHALL BE COMPOSED OF TWO (2) INDEPENDENT LAYERS OF SIX (6) MIL. FLAME RESISTANT POLYETHYLENE SHEETING, AFFIXED TO THE SUBSTRATE EITHER WITH DUCT TAPE OR STAPLED OR FASTENED WITH SPRAY-ON ADHESIVES, GLUE BEADS, OR HORIZONTAL WOOD BATTENS.

3 AA.3 CRITICAL BARRIER

SCALE: N.T.S.

- ABATEMENT LEGEND -

C S E	DECONTAMINATION UNIT: THREE (3) STAGE, AS INDICATED
A	AIR SAMPLE LOCATION
AFD	AIR FILTRATION DEVICE LOCATION
	EXHAUST FOR AFD
	CONTRACTOR INGRESS/EGRESS AND WASTE ROUTE
	SEPARATION BARRIER
WASTE CONTAINER	WASTE CONTAINER
XXX	ROOM NUMBER
X	APARTMENT NUMBER
	REMOVE AND DISPOSE OF MULTI-LAYERED FLOOR TILE AND ASSOCIATED MASTIC VIA NON-FRIABLE METHODS, PRIOR TO CONSTRUCTING DECONTAMINATION UNIT.
1	WORK PHASE I: REMOVE AND DISPOSE OF ASBESTOS-CONTAINING MATERIALS IN ACCORDANCE WITH N.J.A.C. 5:23-8.15 (FULL CONTAINMENT) DURING UNOCCUPIED BUILDING CONDITIONS.
2	WORK PHASE II: REMOVE AND DISPOSE OF ASBESTOS-CONTAINING MATERIALS IN ACCORDANCE WITH N.J.A.C. 5:23-8.15 (FULL CONTAINMENT) DURING UNOCCUPIED BUILDING CONDITIONS.
3	WORK PHASE III: REMOVE AND DISPOSE OF ASBESTOS-CONTAINING MATERIALS IN ACCORDANCE WITH N.J.A.C. 5:23-8.15 (FULL CONTAINMENT) DURING UNOCCUPIED BUILDING CONDITIONS.

- ABATEMENT NOTES -

1. REMOVE AND DISPOSE OF ALL FIXTURES AND EQUIPMENT INCLUDING, BUT NOT LIMITED TO, CARPET, INTERIOR DOORS, DOOR HARDWARE, COVER PLATES, SURFACE MOUNTED WIRING, LIGHTING FIXTURES, THERMOSTATS, FAN COIL UNITS, SIGNS, MOLDING, TRIM, CABINETS, SINK, FAUCETS, STOVES, REFRIGERATORS, SHELVING, MIRRORS, VANITY, TUB, TOILET, ETC. PERFORM SELECTIVE DEMOLITION THAT DOES NOT IMPACT. ASBESTOS-CONTAINING MATERIALS. IF ASBESTOS-CONTAINING MATERIALS MAY BE IMPACTED DURING SELECTIVE DEMOLITION ACTIVITIES, THE ITEMS WHICH MAY IMPACT ACM SHALL REMAIN AND BE REMOVED WITHIN A NEGATIVE PRESSURE ENCLOSURE.
2. ALL EXISTING, IN WALL, ELECTRICAL/IT/COMMUNICATION WIRING, OUTLETS, PLUMBING AND FIRE DETECTION/SUPPRESSION SHALL REMAIN.
3. EXTERIOR AND EXPOSED DECONTAMINATION UNIT(S) SHALL BE SHEATHED WITH ONE-HALF INCH (1/2") PLYWOOD AND A SINGLE LAYER OF SIX (6) MIL POLYETHYLENE SHEETING SHALL BE AFFIXED TO THE EXTERIOR WALLS AND CEILING OF THE DECONTAMINATION UNIT.
4. PRIOR TO ANY PREPARATORY WORK ASSOCIATED WITH N.J.A.C. 5:23-8 AND TO ALLOW FOR THE INSTALLATION OF THE DECONTAMINATION UNIT FOR N.J.A.C. 5:23-8 ABATEMENT WORK, THE CONTRACTOR SHALL REMOVE MULTI-LAYERED ASBESTOS-CONTAINING FLOOR TILE AND ASSOCIATED MASTIC CONTAMINATED PLYWOOD SUB-FLOORS FROM THE ENTRANCES/FOYERS. ORIGINAL (BOTTOM LAYER) PLYWOOD SUB-FLOOR TO REMAIN. REMOVAL SHALL BE ACCOMPLISHED VIA NON-FRIABLE METHODS, IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
5. PRIOR TO PRE-COMMENCEMENT INSPECTION OF N.J.A.C. 5:23-8, THE CONTRACTOR SHALL INSTALL CRITICAL BARRIERS SEALING OFF THE CRAWLSPACE FROM THE EXTERIOR AND ATTIC FROM THE SECOND FLOOR ABATEMENT WORK.
6. REMOVE AND DISPOSE OF ALL LAYERS OF ASBESTOS-CONTAINING RESILIENT FLOOR COVERINGS (FLOOR TILE AND LINOLEUM) AND ASSOCIATED MASTIC CONTAMINATED PLYWOOD SUB-FLOORS. ORIGINAL (BOTTOM LAYER) PLYWOOD SUB-FLOOR TO REMAIN.
7. REMOVE AND DISPOSE OF ALL LAYERS OF CARPET, PADDING, TACK STRIPS AS CONSTRUCTION DEBRIS. RESILIENT FLOOR COVERINGS (FLOOR TILE) WHICH ADHERE TO CARPET SHALL BE DISPOSED OF AS ASBESTOS WASTE.
8. REMOVE ASBESTOS-CONTAINING DOUBLE LAYER DRYWALL AND ASSOCIATED JOINT COMPOUND FROM ALL ACCESSIBLE LOCATIONS, INCLUDING, BUT NOT LIMITED TO, WALLS, CEILINGS, SOFFITS, ETC. REMOVE ALL FASTENERS (STAPLES, SCREWS, NAILS, ETC.), GLUE AND ADHESIVES FLUSH WITH STUDS/JOISTS. DRYWALL WHICH IS INACCESSIBLE AND REQUIRES ANY REMOVAL OF EXISTING WOOD STRUCTURAL COMPONENTS SHALL BE SCORED FLUSH WITH THE ADJOINING SURFACES AND THE EXPOSED EDGES SHALL BE ENCAPSULATED.
9. REMOVE ALL INSULATION (PIPE, BATT, BLOWN-IN, ETC.), CERAMIC TILE AND NON-ASBESTOS FINISHES AS ASBESTOS CONTAMINATED WASTE.

- PHASE I, MIMOSA QUANTITIES -

MATERIALS:	QUANTITY:
DOUBLE LAYER DRYWALL AND JOINT COMPOUND	42,942 SF
RESILIENT FLOOR COVERINGS	5,703 SF
DRYWALL STUD/JOIST ADHESIVE	23,250 LF

Rev #	Date	By

USA Environmental Management, Inc.
344 West State Street
Trenton, NJ 08618
609.656.8101
Environmental, Engineering & Construction

USAEMI Project Number: 15-020310-02

Scale: AS NOTED | Checked by: W.W.J.

Date: 02-27-2015 | Drawn by: W.K.M.

William Weisgarber, Jr., Project Designer
■ Certificate No. NAET/ 41684

Client: Ramapo College of New Jersey
505 Ramapo Valley Road
Mahwah, New Jersey 07430

Site: College Park Apartments
Phase I

Drawing Title: Mimosa, Asbestos Abatement Plan

Drawing No. AA.3

Sheet: 3 of 3

CAMBRIDGE
CONSTRUCTION MANAGEMENT

BID ADDENDUM NO. 1 COVER

TO: All Bidders of Record

FROM: Cambridge Construction Management, Inc.

DATE: April 7, 2015

RE: Ramapo College of New Jersey
Phase 1 College Park Apartments Interior Renovations – Holly and Mimosa
RCNJ Project No. 2015-64-02C

All items of this addendum become part of the Contract Documents and amend, supplement, modify, change, delete or add to the provisions of the Contract Documents. Where any provision of the Contract Documents is so affected, the unaltered provisions shall remain in effect. Where possible, the provisions of this addendum shall be construed together with and harmonized with the provisions of the Contract Documents, but where the provisions of this addendum cannot be harmonized, the provisions of this addendum take precedence over conflicting provisions, articles, paragraphs or subparagraphs in the Contract Documents.

BIDDERS OF RECORD ARE REQUIRED TO SIGN THIS ADDENDUM AND RETURN TO GREGORY ROMERO, JR. VIA EMAIL AT GROMEROJR@CAMBRIDGECM.COM TO ACKNOWLEDGE RECEIPT OF THIS DOCUMENT.

RECEIVED BY:_____ DATE:_____

COMPANY:_____

Enclosures:
Addendum No. 1 dated April 7, 2015

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