



Office of General Services

DESIGN & CONSTRUCTION GROUP
THE GOVERNOR NELSON A. ROCKEFELLER
EMPIRE STATE PLAZA
ALBANY, NY 12242

ADDENDUM NO. 5 TO PROJECT NO. 47007

CONSTRUCTION WORK
PROVIDE EXTERIOR RENOVATIONS
BUILDING 102
MANHATTAN PSYCHIATRIC CENTER
600 EAST 125TH STREET
NEW YORK, NY

June 26, 2025

NOTE: This Addendum forms a part of the Contract Documents. Insert it in the Project Manual. Acknowledge receipt of this Addendum in the space provided on the Bid Form.
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SPECIFICATIONS

1. SECTION 083113 ACCESS DOORS AND FRAMES: Add the accompanying section (pages 083113 – 1 through 083113 – 6) to the Project Manual.
2. SECTION 092900 GYPSUM BOARD: Add the accompanying section (pages 092900 – 1 through 092900 – 7) to the Project Manual.
3. SECTION 095123 ACOUSTIC TILE CEILINGS: Add the accompanying section (pages 095123 – 1 through 095123 – 9) to the Project Manual.

DRAWINGS

- 4 Revised Drawings:
 - a. Drawing Nos. A-103 and A-504, noted “ADDENDUM #5” accompany this Addendum and supersede the same numbered originally issued drawings.

END OF ADDENDUM

Brady M. Sherlock, P.E.
Director, Division of Design
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SECTION 083113 - ACCESS DOORS AND FRAMES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Fire rated and non fire rated access doors and panels with frames.

1.2 REFERENCE STANDARDS

A. ASTM International:

1. ASTM A153 - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
2. ASTM A653 - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
3. ASTM A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
4. ASTM A879 - Standard Specification for Steel Sheet, Zinc Coated by the Electrolytic Process for Applications Requiring Designation of the Coating Mass on Each Surface.
5. ASTM A1008 - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Solution Hardened, and Bake Hardenable.
6. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials.
7. ASTM F2329 - Standard Specification for Zinc Coating, Hot-Dip, Requirements for Application to Carbon and Alloy Steel Bolts, Screws, Washers, Nuts, and Special Threaded Fasteners.

B. National Fire Protection Association:

1. NFPA 80 - Standard for Fire Doors and Other Opening Protectives.
2. NFPA 252 - Standard Methods of Fire Tests of Door Assemblies.
3. NFPA 288 - Standard Methods of Fire Tests of Horizontal Fire Door Assemblies Installed in Horizontal Fire Resistance-Rated Assemblies.

C. UL:

1. UL 10B - Standard for Fire Tests of Door Assemblies.
2. UL 263 - Standard for Fire Tests of Building Construction and Materials.

1.3 COORDINATION

- A. Section 013000 - Administrative Requirements: Requirements for coordination.

- B. Coordinate Work of this Section with controls, valves, traps, dampers, cleanouts, and similar items requiring operation behind finished surfaces.
- C. Coordinate exact locations of access doors and panels.

1.4 SUBMITTALS

- A. Submittals for this section are subject to the re-evaluation fee identified in Article 4 of the General Conditions.
- B. Manufacturer's installation instructions shall be provided along with product data.
- C. Submittals shall be provided in the order in which they are specified and tabbed (for combined submittals).
- D. Section 013300 - Submittal Procedures: Requirements for submittals.
- E. Product Data: Submit manufacturer's information indicating sizes, types, finishes, hardware, scheduled locations, fire resistances, and details of adjoining Work.
- F. Shop Drawings: Indicate exact position of access door units and any special installation conditions.
- G. Samples: Submit one sample, 12 by 12 inches in size, illustrating frame configuration and anchoring.
- H. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
- I. Manufacturer Instructions: Submit installation requirements and rough-in dimensions.
- J. Qualifications Statements:
 - 1. Submit qualifications for manufacturer and fabricator.

1.5 QUALITY ASSURANCE

- A. Fire-Rated Access Door Construction:
 - 1. Wall Access Doors: Comply with NFPA 252 or UL 10B.
 - 2. Ceiling Access Doors: Comply with ASTM E119 or UL 263.
- B. Fire-Rated Floor Hatch: Tested according to NFPA 288.
- C. Installed Fire-Rated Access Door Assembly: Comply with NFPA 80 for fire-rated class as indicated on Drawings.
- D. Attach label from agency approved by authority having jurisdiction to identify each fire-rated access door.

- E. Fire Rated Access Doors for Walls: Complete assemblies complying with Underwriter's Laboratories, Inc (UL) requirements for 1-1/2 hour "B Label" rating. Identify each assembly with UL label.
- F. Fire Rated Access Doors for Ceilings: Complete assemblies complying with Warnock Hersey (WHI) requirements for two-hour rating in non-combustible assemblies. Identify each assembly with WHI label and NFPA requirement indicating "For Horizontal Installation".

1.6 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum three years' documented experience.
- B. Fabricator: Company specializing in fabricating products specified in this Section with minimum three years' documented experience.

1.7 CLOSEOUT SUBMITTALS

- A. Project Record Documents: Record actual locations of access units.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Inspection: Accept materials on Site in manufacturer's original packaging and inspect for damage.
- B. Store materials according to manufacturer instructions.
- C. Protection:
 - 1. Protect materials from moisture and dust by storing in clean, dry location remote from construction operations areas.
 - 2. Provide additional protection according to manufacturer instructions.

1.9 EXISTING CONDITIONS

- A. Field Measurements:
 - 1. Verify field measurements prior to fabrication.
 - 2. Indicate field measurements on Shop Drawings.

PART 2 - PRODUCTS

2.1 ACCESS DOORS AND PANELS

- A. Manufacturers:

1. Acudor Access Panels (basis of design)
- B. Flush-Framed Access Doors:
1. Exposed Frame Flanges:
 - a. Width: Nominal 3/4 inch
 - b. Material: 16-gage galvanized steel.
 2. Door Panels: Flush Type 14-gage galvanized steel.
- C. Gypsum Board Access Doors:
1. Frame Flanges:
 - a. Width: Nominal 1 inch
 - b. Material: 16-gage galvanized steel.
 2. Flange Design: Concealed by gypsum board joint-finishing compound as specified in Section 092116 - Gypsum Board Assemblies.
- D. Fire-Rated Access Doors:
1. Exposed Frame Flanges:
 - a. Width: Nominal 1 inch.
 - b. Material: 16-gage galvanized steel.
 2. Door Panels: 20-gage steel.
 3. Furnish self-closing and latching doors with keyed mortise lock
- E. Gypsum Board Fire-Rated Access Doors:
1. Frames: 16-gage steel with minimum 22-gage galvanized-steel drywall bead flanges.
 2. Door Panels: 20-gage galvanized steel.
 3. Flange Design: Concealed by gypsum board joint-finishing compound as specified in Section 092116 - Gypsum Board Assemblies.
 4. Furnish self-closing and latching doors with keyed mortise lock
- F. Galvanized-Steel Sheet:
1. Description: Mill-phosphatized; stretcher-leveled.
 2. Comply with ASTM A653.
 3. Quality: CQ.
 4. Coating: Designation: G90.
- G. Steel Sheet:
1. Description:
 - a. Commercial quality, cold-rolled carbon steel sheet.

- b. Stretcher-leveled.
- 2. Comply with following requirements at fabricator's option:
 - a. ASTM A879.
 - b. Cold-Rolled Steel Sheet Substrate: ASTM A1008; Type CS; exposed.
 - c. Finish: Electrolytic zinc coated

H. Frame Anchors: Same material as door face.

I. Inserts, Bolts, and Anchor Fasteners:

- 1. Hot-dip galvanized steel.
- 2. Comply with ASTM A153

2.2 FABRICATION

A. Construction:

- 1. Continuously welded.
- 2. Joints: Weld, fill, and grind to ensure flush and square units.

B. Wall and Ceiling Access Door, and Panel Hardware:

- 1. Hinges:
 - a. Type: Standard continuous or concealed spring pin.
 - b. Material: Steel.
 - c. Rotation: 175 degrees.
- 2. Lock:
 - a. Type: Self-latching.
 - b. Operation: Provide mortise lock

C. Size Variations: As approved by Architect/Director's Representative.

2.3 FINISHES

A. Base Metal Protection:

- 1. Coat units with baked-on primer.

B. Top Coat:

- 1. Color: as selected to match adjacent wall or ceiling surface

2.4 EXAMINATION

A. Verify that rough openings for access doors and panels are correctly sized and located.

2.5 INSTALLATION

- A. Secure frames rigidly in place, plumb, and level in opening.
- B. Adjacent Surfaces:
 - 1. Align plane of door and panel face with adjacent finished surfaces.
 - 2. Set concealed-frame type units flush with adjacent finished surfaces.
- C. Position unit to provide convenient access to concealed Work.
- D. Fire-Rated Units: Comply with NFPA 80 and fire-listing requirements.

2.6 ADJUSTING

- A. Adjust hardware and doors for proper operation.

2.7 SCHEDULE

- A. Provide non-fire rated access doors in non-fire rated construction and fire rated access doors in fire rated construction.

END OF SECTION 083113

SECTION 092900 - GYPSUM BOARD

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Interior gypsum board for walls, ceilings and soffits

1.3 SUBMITTALS

- A. Submittals for this section are subject to the re-evaluation fee identified in Article 4 of the General Conditions.
- B. Manufacturer's installation instructions shall be provided along with product data.
- C. Submittals shall be provided in the order in which they are specified and tabbed (for combined submittals).
- D. Product Data: Catalog sheets, specifications and installation instructions for each item specified:
 - 1. Gypsum wallboard.
 - 2. Gypsum board, Type X.
 - 3. Mold-resistant gypsum board.
 - 4. Interior trim.
 - 5. Joint treatment materials.
- E. Samples: For the following products:
 - 1. Trim Accessories: Full-size Sample in 12-inch long length for each trim accessory indicated.
 - 2. Fasteners: 10 each for type specified.
- F. Samples for Verification: For the following products:
 - 1. Trim Accessories: Full-size Sample in 12-inch long length for each trim accessory indicated.

1.4 QUALITY ASSURANCE

- A. Mockups: Build mockups of at least 100 sq. ft in surface area to demonstrate aesthetic effects and to set quality standards for materials and execution.
 - 1. Build mockups for the following:
 - a. Each level of gypsum board finish indicated for use in exposed locations.
 - b. Each texture finish indicated.
 - 2. Apply or install final decoration indicated, including painting and wallcoverings, on exposed surfaces for review of mockups.
 - 3. Simulate finished lighting conditions for review of mockups.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Store materials inside under cover and keep them dry and protected against weather, condensation, direct sunlight, construction traffic, and other potential causes of damage. Stack panels flat and supported on risers on a flat platform to prevent sagging.

1.6 FIELD CONDITIONS

- A. Environmental Limitations: Comply with ASTM C840 requirements or gypsum board manufacturer's written instructions, whichever are more stringent.
- B. Do not install paper-faced gypsum panels until installation areas are enclosed and conditioned.
- C. Do not install panels that are wet, moisture damaged, and mold damaged.
 - 1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
 - 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.
- D. Comply with gypsum board manufacturer's printed temperature and ventilation requirements during application and finishing. Ventilate installation areas to relieve excess moisture.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Fire-Resistance-Rated Assemblies: For fire-resistance-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E119 by an independent testing agency.

2.2 GYPSUM BOARD, GENERAL

- A. Size: Provide maximum lengths and widths available that will minimize joints in each area and that correspond with support system indicated.

2.3 INTERIOR GYPSUM BOARD

- A. Gypsum Board, Type X: ASTM C1396.
 - 1. Thickness: 5/8 inch.
 - 2. Long Edges: Tapered
 - 3. Mold Resistance: ASTM D3273, score of 10 as rated according to ASTM D3274.
 - 4. Core: 5/8 inch, Type X
- B. Interior Trim: ASTM C1047.
 - 1. Material: Galvanized coated steel sheet
 - a. Cornerbead.
 - b. Bullnose bead.
 - c. LC-Bead: J-shaped; exposed long flange receives joint compound.
 - d. L-Bead: L-shaped; exposed long flange receives joint compound.

2.4 JOINT TREATMENT MATERIALS

- A. General: Comply with ASTM C475.
- B. Joint Tape:
 - 1. Interior Gypsum Board: Fiberglass
- C. Joint Compound for Interior Gypsum Board: For each coat, use formulation that is compatible with other compounds applied on previous or for successive coats.
 - 1. Prefilling: At open joints, beveled panel edges, and damaged surface areas, use setting-type taping compound.
 - 2. Embedding and First Coat: For embedding tape and first coat on joints, fasteners, and trim flanges, use drying-type, all-purpose compound.
 - a. Use setting-type compound for installing paper-faced metal trim accessories.
 - 3. Fill Coat: For second coat, use drying-type, all-purpose compound.
 - 4. Finish Coat: For third coat, use drying-type, all-purpose compound.

2.5 AUXILIARY MATERIALS

- A. Provide auxiliary materials that comply with referenced installation standards and manufacturer's written instructions.

- B. Laminating Adhesive: Adhesive or joint compound recommended for directly adhering gypsum panels to continuous substrate.
- C. Steel Drill Screws: ASTM C1002 unless otherwise indicated.
 - 1. Use screws complying with ASTM C954 for fastening panels to steel members from 0.033 to 0.112 inch thick.
 - a. Flame-Spread Index: 25 or less.
 - b. Smoke-Developed Index: 50
 - 2. NRC: 0.55 according to ASTM C423.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and substrates including welded hollow-metal frames and support framing, with Installer present, for compliance with requirements and other conditions affecting performance of the Work.
- B. Examine panels before installation. Reject panels that are wet, moisture damaged, and mold damaged.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION AND FINISHING OF PANELS, GENERAL

- A. Comply with ASTM C840.
- B. Install ceiling panels across framing to minimize the number of abutting end joints and to avoid abutting end joints in central area of each ceiling. Stagger abutting end joints of adjacent panels not less than one framing member.
- C. Install panels with face side out. Butt panels together for a light contact at edges and ends with not more than 1/16 inch of open space between panels. Do not force into place.
- D. Locate edge and end joints over supports, except in ceiling applications where intermediate supports or gypsum board back-blocking is provided behind end joints. Do not place tapered edges against cut edges or ends. Stagger vertical joints on opposite sides of partitions. Do not make joints other than control joints at corners of framed openings.
- E. Form control and expansion joints with space between edges of adjoining gypsum panels.
- F. Cover both faces of support framing with gypsum panels in concealed spaces (above ceilings, etc.), except in chases braced internally.

1. Unless concealed application is indicated or required for sound, fire, air, or smoke ratings, coverage may be accomplished with scraps of not less than 8 sq. ft. in area.
 2. Fit gypsum panels around ducts, pipes, and conduits.
 3. Where partitions intersect structural members projecting below underside of floor/roof slabs and decks, cut gypsum panels to fit profile formed by structural members; allow 1/4- to 3/8-inch wide joints to install sealant.
- G. Isolate perimeter of gypsum board applied to non-load-bearing partitions at structural abutments. Provide 1/4- to 1/2-inch wide spaces at these locations and trim edges with edge trim where edges of panels are exposed. Seal joints between edges and abutting structural surfaces with acoustical sealant.
- H. Attachment to Steel Framing: Attach panels so leading edge or end of each panel is attached to open (unsupported) edges of stud flanges first.
- I. at perimeters, behind control joints, and at openings and penetrations with a continuous bead of acoustical sealant. Install acoustical sealant at both faces of partitions at perimeters and through penetrations. Comply with ASTM C919 and with manufacturer's written instructions for locating edge trim and closing off sound-flanking paths around or through assemblies, including sealing partitions above acoustical ceilings.

3.3 INSTALLATION OF INTERIOR GYPSUM BOARD

- A. Install interior gypsum board in the following locations:
1. Wallboard Type: as indicated on Drawings, generally ceilings and soffits
 2. Type X: C1396
 3. Mold-Resistant Type: ASTM D3273, score of 10 as rated according to ASTM D3274.
- B. Single-Layer Application:
1. On ceilings, apply gypsum panels before wall/partition board application to greatest extent possible and at right angles to framing unless otherwise indicated.
 - a. On Z-shaped furring members, apply gypsum panels vertically (assembly parallel to framing) with no end joints. Locate edge joints over furring members.
 2. Fastening Methods: Apply gypsum panels to supports with steel drill screws.
- C. Multilayer Application:
1. On ceilings, apply gypsum board indicated for base layers before applying face layers on walls/partitions; apply face layers in same sequence. Apply base layers at right angles to framing members and offset face-layer joints one framing member, 16 inches minimum, from parallel base-layer joints, unless otherwise indicated or required by fire-resistance-rated assembly.
 2. Fastening Methods: Fasten base layers and with screws; fasten face layers with adhesive and supplementary fasteners.
- D. Laminating to Substrate: Where gypsum panels are indicated as directly adhered to a substrate (other than studs, joists, furring members, or base layer of gypsum board), comply with gypsum

board manufacturer's written instructions and temporarily brace or fasten gypsum panels until fastening adhesive has set.

3.4 INSTALLATION OF TRIM ACCESSORIES

- A. General: For trim with back flanges intended for fasteners, attach to framing with same fasteners used for panels. Otherwise, attach trim according to manufacturer's written instructions.
- B. Interior Trim: Install in the following locations:
 - 1. Cornerbead: Use at outside corners
 - 2. LC-Bead: Use at exposed panel edges
 - 3. L-Bead: Use at corners
 - 4. U-Bead: Use at exposed panel edges

3.5 FINISHING GYPSUM BOARD

- A. General: Treat gypsum board joints, interior angles, edge trim, control joints, penetrations, fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration. Promptly remove residual joint compound from adjacent surfaces.
- B. Prefill open joints, rounded or beveled edges, and damaged surface areas.
- C. Apply joint tape over gypsum board joints, except for trim products specifically indicated as not intended to receive tape.
- D. Gypsum Board Finish Levels: Finish panels to levels indicated below and according to ASTM C840:
 - 1. Level 4: ceilings and soffits
 - a. Primer and its application to surfaces are specified in Section 099123 "Interior Painting."

3.6 PROTECTION

- A. Protect adjacent surfaces from drywall compound and promptly remove from floors and other non-drywall surfaces. Repair surfaces stained, marred, or otherwise damaged during drywall application.
- B. Protect installed products from damage from weather, condensation, direct sunlight, construction, and other causes during remainder of the construction period.
- C. Remove and replace panels that are wet, moisture damaged, and mold damaged.
 - 1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
 - 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

END OF SECTION 092900

SECTION 095123 - ACOUSTICAL TILE CEILINGS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Acoustical tiles for interior ceilings.
 - 2. Fully concealed, direct-hung, suspension systems.
- B. Products furnished, but not installed under this Section, include anchors, clips, and other ceiling attachment devices to be cast in concrete.

1.2 REFERENCES

- A. ASTM E 1264 - Standard Classification for Acoustical Ceiling Products.
- B. Ceilings and Interior Systems Contractors Association (CISCA) Acoustical Ceilings: Use and Practice.
- C. Ceilings and Interior Systems Contractors Association (CISCA) Acoustical Ceilings: Ceiling Systems Handbook.
- D. UL - Fire Resistance Directory and Building Material Directory.

1.3 DEFINITIONS

- A. Company Field Advisor: An employee of the Company which markets the primary components of the system under their name who is certified in writing by the Company to be technically qualified in the design and installation of the ceiling systems.

1.4 SUBMITTALS

- A. General: Submittals for this section are subject to the re-evaluation fee identified in Article 4 of the General Conditions.
- B. Manufacturer's installation instructions shall be provided along with product data.
- C. Submittals shall be provided in the order in which they are specified and tabbed (for combined submittals).
- D. Submittals Package: Submit the Coordination Drawings, Product Data, Quality Control Submittals and Evaluation Reports specified below at the same time as a package.

- E. Product Data: For each type of product including product testing data.
- F. Samples: For each exposed product and for each color and texture specified, 6 inches in size.
- G. Samples for Initial Selection: For components with factory-applied finishes.
- H. Samples for Verification: For each component indicated and for each exposed finish required, prepared on Samples of sizes indicated below:
 - 1. Acoustical Tiles: Set of full-size Samples of each type, color, pattern, and texture.
 - 2. Exposed Moldings and Trim: Set of 6-inch- long Samples of each type and color.
 - 3. Seismic Clips: Full size.
 - 4. Adhesive: One quart.
 - 5. Fasteners: Each type required.
 - 6. Wire: 12 inches long piece.
- I. Delegated-Design Submittal: For seismic restraints for ceiling systems.
 - 1. Include design calculations for seismic restraints including analysis data signed and sealed by the qualified professional engineer, licensed in the State of New York, responsible for their preparation.
- J. Coordination Drawings: Reflected ceiling plans, drawn to scale, on which the following items are shown and coordinated with each other, using input from installers of the items involved:
 - 1. Ceiling suspension-system members.
 - 2. Structural members to which suspension systems will be attached.
 - 3. Method of attaching hangers to building structure.
 - 4. Carrying channels or other supplemental support for hanger-wire attachment where conditions do not permit installation of hanger wires at required spacing.
 - 5. Size and location of initial access modules for acoustical tile.
 - 6. Items penetrating finished ceiling and ceiling-mounted items including the following:
 - a. Lighting fixtures.
 - b. Diffusers.
 - c. Grilles.
 - d. Speakers.
 - e. Sprinklers.
 - f. Access panels.
 - g. Perimeter moldings.
 - 7. Show operation of hinged and sliding components adjacent to acoustical tiles.
 - 8. Minimum Drawing Scale: 1/8 inch = 1 foot.
- K. Product Test Reports: For each acoustical tile ceiling, for tests performed by a qualified testing agency.
- L. Quality Control Submittals:
 - 1. Installer's Qualifications Data:

- a. Name of each person who will be performing the Work and their employer's name, business address and telephone number.
 - b. Names and addresses of 3 similar projects that each person has worked on during the past 5 years.
- 2. Company Field Advisor Data:
 - a. Name, business address and telephone number of Company Field Advisor secured for the required services.
 - b. Certified statement from the Company listing qualifications of the Company Field Advisor.
 - c. Services and each product for which authorization is given by the Company, listed specifically for this project.
- M. Evaluation Reports: For each acoustical tile ceiling suspension system from ICC-ES.

1.5 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For finishes to include in maintenance manuals.

1.6 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Acoustical Ceiling Units: Full-size tiles equal to 2 percent of quantity installed.
 - 2. Suspension-System Components: Quantity of each concealed grid and exposed component equal to 2 percent of quantity installed.

1.7 QUALITY ASSURANCE

- A. Mockups: Build mockups to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for materials and execution.
 - 1. Build mockup of typical ceiling area as shown on Drawings.
 - 2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Director's Representative specifically approves such deviations in writing.
 - 3. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.
- B. Qualifications: The person(s) installing the ceiling system and their Supervisor shall be personally experienced in ceiling system work and shall have been regularly employed by a Company installing ceiling systems for a minimum of 5 years.
- C. Company Field Advisor: Secure the services of a Company Field Advisor for a minimum of 8 working hours for the following:

1. Attending the pre-installation conference
2. Render advice regarding installation of the ceiling system.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver acoustical tiles, suspension-system components, and accessories to Project site and store them in a fully enclosed, conditioned space where they will be protected against damage from moisture, humidity, temperature extremes, direct sunlight, surface contamination, and other causes.
- B. Before installing acoustical tiles, permit them to reach room temperature and a stabilized moisture content.

1.9 FIELD CONDITIONS

- A. Environmental Limitations: Do not install acoustical tile ceilings until spaces are enclosed and weathertight, wet-work in spaces is complete and dry, work above ceilings is complete, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.
- B. Environmental Requirements: Comply with acoustical units manufacturer's printed temperature and ventilation requirements before, during, and after installation.

PART 2 - PRODUCTS

2.1 MANUFACTURERS (SEE DRAWING A-103)

- A. Source Limitations:
 1. Suspended Acoustical Tile Ceilings: Obtain each type of acoustical ceiling tile and its suspension system from single source from single manufacturer.
 2. Directly Attached Acoustical Tile Ceilings: Obtain each type of acoustical ceiling tile from single source from single manufacturer.

2.2 PERFORMANCE REQUIREMENTS

- A. Design: Engage a qualified professional engineer, licensed in the State of New York, to design seismic restraints for ceiling systems.
- B. Seismic Performance: Suspended ceilings shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.
- C. Surface-Burning Characteristics: Comply with ASTM E84; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
 1. Flame-Spread Index: Class A according to ASTM E1264.

- 2. Smoke-Developed Index: 50 or less.
- D. Fire-Resistance Ratings: Comply with ASTM E119; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
 - 1. Indicate design designations from UL or from the listings of another qualified testing agency.
- E. Structural Performance and Suspension System Types:
 - 1. Type HD/EG: Heavy duty, direct hung, exposed grid. (Minimum load carrying capability of main runners: 16 lb/lin ft).

2.3 ACOUSTICAL TILES (see drawing A-103)

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - 1. Armstrong World Industries, Inc. (basis of design)
 - 2. CertainTeed Corporation; Saint-Gobain North America.
 - 3. USG Corporation.
 - 4. Approved equivalent.
- B. Acoustical Tile Standard: Provide manufacturer's standard tiles of configuration indicated that comply with ASTM E1264 classifications as designated by type, form, pattern, acoustical rating, and light reflectance to match selected basis of design acoustical tiles shown in drawing A-103..
- C. Color: white
- D. Light Reflectance (LR): Not less than 0.75 or greater.
- E. Ceiling Attenuation Class (CAC): Not less than 30 or greater.
- F. Noise Reduction Coefficient (NRC): Not less than 0.50-0.75.
- G. Edge/Joint Detail: As indicated in schedule A-103
- H. Thickness: As indicated in schedule in A-103
- I. Modular Size: As indicated in schedule on A-103
- J. Antimicrobial Treatment: Manufacturer's standard broad spectrum, antimicrobial formulation that inhibits fungus, mold, mildew, and gram-positive and gram-negative bacteria and showing no mold, mildew, or bacterial growth when tested according to ASTM D3273, ASTM D3274, or ASTM G21 and evaluated according to ASTM D3274 or ASTM G21.

2.4 METAL SUSPENSION SYSTEM (see drawing A-103)

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

1. Armstrong World Industries, Inc.
2. USG Corporation.
3. Approved equivalent.

B. Metal Suspension-System Standard: Provide manufacturer's standard, direct-hung, fully concealed, metal suspension system and accessories of type, structural classification, and finish indicated that complies with applicable requirements in ASTM C635 and as indicated in schedule in A-103

1. High-Humidity Finish: Where indicated, provide coating tested and classified for "severe environment performance" according to ASTM C635.
2. Retain existing ceiling suspension sub-system ("blackiron" and hangers), new acoustical ceiling grid to be supported from existing sub-system.
3. Provide seismic restrains for existing ceiling suspension sub-system if existing suspension system is found to not have seismic restrains.

2.5 ACCESSORIES

- A. Seismic Stabilizer Bars: Manufacturer's standard perimeter stabilizers designed to accommodate seismic forces.
- B. Seismic Struts: Manufacturer's standard compression struts designed to accommodate lateral forces.
- C. Seismic Clips: Manufacturer's standard seismic clips designed to secure acoustical tiles in-place during a seismic event.

2.6 METAL EDGE MOLDINGS AND TRIM

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 1. Armstrong World Industries, Inc.
 2. CertainTeed Corporation; Saint-Gobain North America.
 3. USG Corporation.
 4. Approved equivalent.
- B. Roll-Formed, Sheet-Metal Edge Moldings and Trim: Type manufacturer's standard moldings for shadow molding perimeter trim for ACT-1, lay-in perimeter trim for ACT-2, edges and penetrations complying with seismic design requirements; formed from sheet metal of same material, finish, and color as that used for of suspension-system runners.
 1. Finish: painted white
- C. Extruded-Aluminum Edge Moldings and Trim: Where indicated, provide manufacturer's extruded-aluminum edge moldings and trim of profile indicated or referenced by manufacturer's designations, including splice plates, corner pieces, and attachment and other clips, complying with seismic design requirements.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, including structural framing and substrates to which acoustical tile ceilings attach or abut, with Installer present, for compliance with requirements specified in this and other Sections that affect ceiling installation and anchorage and for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Examine acoustical tiles before installation. Reject acoustical tiles that are wet, moisture damaged, or mold damaged.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION OF SUSPENDED ACOUSTICAL TILE CEILING SYSTEMS

- A. Install suspended acoustical tile ceilings according to ASTM C636, seismic design requirements and in accordance with manufacturer's written instructions, and CISCA "Ceiling System Handbook".
- B. Lay-out grid system to match locations of previous grid system or if not indicate, lay out to a balanced design with edge units no less than 50 percent of acoustical unit size.
 - 1. Secure wire hangers (where applicable) to ceiling suspension members and to supports above with a minimum of three tight turns. Connect hangers directly to structure or to inserts, eye screws, or other devices that are secure and appropriate for substrate and that will not deteriorate or otherwise fail due to age, corrosion, or elevated temperatures.
 - 2. Secure flat, angle, channel, and rod hangers to structure (where applicable), including intermediate framing members, by attaching to inserts, eye screws, or other devices that are secure and appropriate for both the structure to which hangers are attached and the type of hanger involved. Install hangers in a manner that will not cause them to deteriorate or fail due to age, corrosion, or elevated temperatures.
 - 3. Do not support ceilings directly from permanent metal forms or floor deck. Fasten hangers to cast-in-place hanger inserts, postinstalled mechanical or adhesive anchors, or power-actuated fasteners that extend through forms into concrete.
 - 4. When steel framing does not permit installation of hanger wires at spacing required, install carrying channels or other supplemental support for attachment of hanger wires.
 - 5. Do not attach hangers to steel deck tabs.
 - 6. Do not hang grid system from walls, columns, ducts, pipes, and conduit.
 - 7. Do not attach hangers to steel roof deck. Attach hangers to structural members.
 - 8. Space hangers not more than 48 inches o.c. along each member supported directly from hangers unless otherwise indicated; provide hangers not more than 8 inches from ends of each member.
 - 9. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced standards.
- C. Secure bracing wires to ceiling suspension members and to supports with a minimum of four tight turns. Suspend bracing from building's structural members as required for hangers without

attaching to permanent metal forms, steel deck, or steel deck tabs. Fasten bracing wires into concrete with cast-in-place or postinstalled anchors.

- D. Install edge moldings and trim of type indicated at perimeter of acoustical ceiling area and where necessary to conceal edges of acoustical tiles.
 - 1. Apply acoustical sealant in a continuous ribbon concealed on back of vertical legs of moldings before they are installed.
 - 2. Screw attach moldings to substrate at intervals not more than 16 inches o.c. and not more than 3 inches from ends. Miter corners accurately and connect securely.
 - 3. Do not use exposed fasteners, including pop rivets, on moldings and trim.
- E. Install suspension-system runners so they are square and securely interlocked with one another. Remove and replace dented, bent, or kinked members.
 - 1. Form double-lapped joint between tiles by securely pressing tile tongues into corresponding tile grooves.
 - 2. Maintain bottom surface of tiles to a uniform level. Shim tile or correct substrate as required to maintain levelness.
 - 3. Maintain tight butt joints, aligned in both directions and coordinated with ceiling fixtures.
- F. Install edge moldings and trim of type indicated at perimeter of acoustical tile ceiling area and where necessary to conceal edges of acoustical units.

3.3 ERECTION TOLERANCES

- A. Suspended Ceilings: Install main and cross runners level to a tolerance of 1/8 inch in 12 feet, non-cumulative.
- B. Directly Attached Ceilings: Install bottom surface of tiles to a tolerance of 1/8 inch in 12 feet and not exceeding 1/4 inch cumulatively.
- C. Moldings and Trim: Install moldings and trim to substrate and level with ceiling suspension system to a tolerance of 1/8 inch in 12 feet, non-cumulative.

3.4 FIELD QUALITY CONTROL

- A. Special Inspections: The State will engage a qualified special inspector to perform the following special inspections:
 - 1. Periodic inspection during the installation of suspended ceiling grids according to ASCE/SEI 7.
- B. Acoustical tile ceiling hangers, anchors, and fasteners will be considered defective if they do not pass tests and inspections.
- C. Prepare test and inspection reports.

3.5 ADJUSTING

- A. Clean exposed surfaces of acoustical tile ceilings, including trim and edge moldings. Comply with manufacturer's written instructions for cleaning and touchup of minor finish damage.
- B. Remove and replace tiles and other ceiling components that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

END OF SECTION 095123



CEILING TILE SCHEDULE					
SYMBOL	MANUFACTURER	TYPE	COLOR	SIZE	NOTE
ACT1	ARMSTRONG	OPTIMA HEALTH_ZONE	WHITE	24" x 48" x 1"	PROVIDE 9/16" BEVELED TEGULAR SUPRAFINE GRID, COLOR: WHITE
ACT2	ARMSTRONG	CLEAN_ROOM_VL	WHITE	24" x 24" x 3/4"	SEE GENERAL NOTE #3

	5/8" GYPSUM WALLBOARD		SPRINKLER
	SUPPLY AIR DUCT		SMOKE DETECTOR
	RETURN AIR DUCT		SPEAKER
			PERSONAL ALARM DETECTOR
			EXIT SIGN

- 1- PROVIDE RATED ACCESS PANELS IN RATED GYPSUM WALL BOARD CEILINGS & PARTITIONS TO MATCH RATING OF CEILING, SEE MECHANICAL, PLUMBING & SPRINKLER DWGS. & COORDINATE LOCATIONS OF ACCESS PANELS WITH ALL EQUIPMENT OR CONTROLS REQUIRING ACCESS.
- 2- PROVIDE ACCESS PANELS IN GYPSUM WALL BOARD CEILING AND SOFFITS AS REQUIRED, SEE MECHANICAL, PLUMBING & SPRINKLER DWGS. & COORDINATE LOCATIONS OF ACCESS PANELS WITH ALL EQUIPMENT OR CONTROLS REQUIRING ACCESS.
- 3- PROVIDE ARMSTRONG STEEL SUSPENSION GRID, 1 1/2", COLOR: WHITE, WITH HOLD DOWN CLIPS
- 4- PAINT ALL WALL SURFACES IN CAFETERIA WITH PAINT TYPE AS PER PROJECT MANUAL. PAINT ALL EXISTING DOORS AND FRAMES WITH PAINT TYPE AS PER PROJECT MANUAL.
- 5- INSTALL NEW WALL 4" HIGH WALL, MFG. BY "ROPPE" (BASIS OF DESIGN) BASE IN CAFETERIA
- 6-INSTALL NEW SUSPENDED CEILINGS IN EXIST. SUSPENSION SYSTEM (BLACKIRON AND HANGERS).
- 7- PROVIDE (3) ADDITIONAL 18"x18" ACCESS PANELS WITH MORTISE LOCK, INSTALLED LOCATION TO BE DETERMINED (TOTAL OF 6 ACCESS PANELS)



