

ADDENDUM NO. 1

RE: CLINTON PLACE APARTMENTS RENOVATION
Mount Clemens, Michigan

DATE: February 8, 2023

TO: All Bidders

You are hereby directed to make the following changes in the Project Manual and/or Drawings of the subject job and each item shall become fully a part of the Construction Documents as if originally written and/or shown:

1. The date for receiving bids has been revised to **February 17, 2023**. The time remains the same (by 3:00 p.m., local time).

2. **CLARIFICATIONS:**

a. Question: On the room finish schedule - it indicates RB - but does not specify which one I need to use (in the spec book on page 520 it has 3 choices).

Response: Any of the specified "Resilient Base" products identified in Specification Section 09 65 00 may be provided where resilient base is identified in the Drawings.

b. Question: On the room finish schedule - it indicates CT - but does not specify which one I need to use (in the spec book on page 511 it has 3 choices).

Response: See revised Specification Section 09 30 13 issued with this Addendum.

c. Question: On the floor plan layout - it appears to have a pattern in the Elev. Lobby, the Lounge & corridor where CT is called for but again does not indicate what color should be used.

Response: For the purposes of bidding, the tile pattern shall be a staggered brick pattern with field color and 10% random accent color. Public toilet room floor tile shall be the field color in item 1.b. above. Public toilet room wall tile shall be 2 x 4 brick joint mosaic (MH04) White Ash.

d. Question: There are no floor plans for 3, 5, or 7 - am I ok to use the typical floor plan stated for 2, 4, 6?

Response: The "TYPICAL FLOOR PLAN" ON SHEET A1.1 represents floors 2 through 7. Reference Sheet A1.3 for the UPPER FLOOR CORE PLAN variations.

e. Question: Also, can you confirm the quantity of buildings for the entire project - I calculate 14 but want to make sure I am not missing anything.

Response: The buildings are tabulated on Sheet G1.0 – 14 residential buildings and one freestanding garage.

f. Question: Once an indication of the ceramic tiles are determined, am I to use the "pattern" layout shown on P.7 on the Ground Floor Core Plan? (see attached file)

Response: See item 1.c. response above for common area floor tile.

g. Question: Keynote 25 on building elevations identifies brick painting at 5-10% of the units. Is this correct?

Response: Keynote 25 is accurate where noted on the Garden Building side elevations only. Disregard painting Keynote 25 at the Townhouse Building elevations.

- h. Question: On the FA-HC units of the Garden Apts. The Family Tabulated Data says there are 2 bedrooms (P.1) However, the floor plan that I was able to find (P. 22) only shows 1 - can you tell me which is correct? if it is 2 do you have a floor plan layout including the 2nd bedroom?
- Response: The tabulation on Sheet G1.0 dated 1/20/23 is incorrect. There is only one bedroom in the FA-HC unit.
- i. Question: The Room Finish Schedule for the Garden Apt. Common - GA100 indicates W/O Carpet & VP but does not designate where each product would go - do you have a floor plan showing the determination?
- Response: Please see the GROUND FLOOR CORE PLAN on Sheet A1.4 for the location of the floor finishes in the Garden Apartment Buildings #1 and #2.
- j. Question: At entry to GA100 in the Garden Apartment Buildings, what does "WO CPT/VP" mean?
- Response: That space is to receive only walk-off carpet (WO CPT).
3. **SPECIFICATIONS;** 09 30 13 TILE WORK; has been revised in its entirety to update manufacturer and product information (see attached).
4. **SPECIFICATIONS;** 08 13 73 ALUMINUM BALCONY DOORS AND FRAMES; has been revised in its entirety updating warranty requirements and aluminum finish requirements (see attached).
5. **DRAWINGS;** Sheet No. G1.0; FAMILY TABULATED DATA; UNIT TYPE FA-HC; # OF BEDS; shall be revised from 2 to 1.
6. **DRAWINGS;** Sheet No. A1.4; revise floor material tag at entry to GA100 to "WO CPT".
7. **DRAWINGS;** Sheet No. A2.10; DEMOLITION NOTES; revise Note 5 to say, "REMOVE FLOORING THROUGHOUT THE UNIT EXCEPT PRESERVE CERAMIC TILE FLOORING AND BASE AT BATH AND PDR. RM. PREP SUBSTRATE FOR NEW FLOORING."
8. **DRAWINGS;** Sheet No. A2.11:
- a. DEMOLITION NOTES; revise Note 5 to say, "REMOVE FLOORING THROUGHOUT THE UNIT EXCEPT PRESERVE CERAMIC TILE FLOORING AND BASE AT BATH AND PDR. RM. PREP SUBSTRATE FOR NEW FLOORING."
- b. UNIT 'FB' GROUND FL. RENO. PLAN; revise "BATH" to "PDR. RM."

END OF ADDENDUM NO. 1

All bidders must acknowledge receipt of this Addendum in their bid.

08 13 73 ALUMINUM BALCONY DOORS AND FRAMESA. Scope1. Summary:

- a. Section includes labor and material to install aluminum balcony doors and frames. See Drawings for configuration and size and as follows:
- 1) Horizontal sliding aluminum door and frame system shall be provided at Mid-Rise dwelling units as part of base bid.
 - 2) In-swing aluminum terrace door system with ADA-compliant threshold shall be provided at Mid-Rise HC accessible dwelling units as part of the base bid.
 - 3) Perimeter trims.
 - 4) Stools and accessories.
 - 5) Shims and anchors.
- b. Related Sections:
- 1) Section 07 62 00 FLASHING AND TRIM.
 - 2) Section 07 92 00 JOINT SEALANTS.
 - 3) Section 08 43 13 ALUMINUM GLAZED STOREFRONT SYSTEM.
 - 4) Section 08 53 13 VINYL WINDOWS AND PATIO DOORS.
 - 5) Section 08 71 00 DOOR HARDWARE.
 - 6) Section 08 81 00 GLAZING.

2. References:

- a. Aluminum Association (AA): DAF-45 - "Designation System for Aluminum Finishes"
- b. American Architectural Manufacturers Association (AAMA):
- 1) 1503 - "Voluntary Test Method for Thermal Transmittance and Condensation Resistance of Windows, Doors and Glazed Wall Sections"
 - 2) 2604 - "Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels"
 - 3) 2605 - "Voluntary Specification, Performance Requirements and Test Procedures for Superior Performance Organic Coatings on Aluminum Extrusions and Panels"
 - 4) 1801 - "Voluntary Specification, Acoustical Rating of Windows, Doors, Skylights and Glazed Wall Sections"
 - 5) 502-08 - "Voluntary Specification, Newly Installed Fenestration Products"
 - 6) 511-08 - "Voluntary Specification, Installed Fenestration Products After 6 Months"
 - 7) CW10 - "Care and Handling of Architectural Aluminum from Shop to Site"
- c. ASTM International (ASTM) Publications:
- 1) C518 - "Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus"
 - 2) D3985 - "Standard Test Method for Oxygen Gas Transmission Rate Through Plastic Film and Sheeting Using a Coulometric Sensor"
 - 3) E90 - "Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements"
 - 4) E283 - "Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen"
 - 5) E330 - "Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors By Uniform Static Air Pressure Difference"
 - 6) E331 - "Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors By Uniform Static Air Pressure Difference"
 - 7) E547 - "Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Cyclic Static Air Pressure Differential"
 - 8) F1249 - "Standard Test Method for Water Vapor Transmission Rate Through Plastic Film and Sheeting Using a Modulated Infrared Sensor"

3. Submittals:

- a. Submit "Letter of Conformance" in accordance with Section 01 33 00 with the following supporting data:
- 1) Product data.
 - 2) Shop drawings.
 - 3) Samples.
 - 4) Submit certified independent laboratory test reports verifying compliance with all test requirements of 4. Performance Requirements.

4. Performance Requirements:

- a. Certify that doors have been tested in accordance with America Architectural Manufacturers Association (AAMA/WDMA) Specification for Performance Class specified complying with the following performance standards:
- 1) AAMA/WDMA/CSA 101/I.S.2/A440 Performance Requirements: Provide aluminum doors of the performance class and grade indicated that comply with AAMA/WDMA/CSA 101/I.S.2/A440.
 - a) Performance Class: AW
 - b) Performance Grade: 50
 - 2) Structural Test Performance Requirements (ASTM E330):
 - a) Uniform Load Deflection Test: No deflection of any unsupported span L of test unit in excess of L/175 at both a positive and negative load of 75 PSF.
 - b) Uniform Load Structural Test: Unit to be tested at 75 PSF, both positive and negative, with no glass breakage; damage to make door inoperable; or permanent deformation of any main frame or ventilating member in excess of 0.2% of its clear span.
 - 3) Water Resistance (ASTM E331 and ASTM E547): No uncontrolled water penetration at test pressure indicated when doors are in the closed and locked position.
 - a) Class SD-AW-50: 12.00 PSF
 - 4) Air Infiltration (ASTM E283):
 - a) Sliding Patio Doors: Maximum 0.3 CFM per sq./ft. of total exterior surface area, when tested at a static air pressure differential of 6.2 PSF minimum, and doors are in the closed and locked position.
 - 5) Thermal Resistance: When tested in accordance with AAMA 1503, the conductive thermal transmittance (U-factor) shall not be more than .38 BTU/hrs/sf/F.
 - 6) Condensation Resistance: When tested in accordance with AAMA 1503, the condensation resistance(CR) shall not be less than 46 for sliding units and shall not be less than 63 for in-swing units.
- b. Project Wind Loads: See Drawings for requirements.

5. Quality Assurance:

- a. All door units shall be manufactured by a single source.
- 1) All Aluminum balcony doors shall be provided by the same manufacturer and with comparable frame depth, profile, glazing bite, and installation requirements. Manufacturer must provide a sliding door system that can incorporate all configurations of sliding doors and windows used on the project.
 - 2) Standards: Requirements for aluminum doors, terminology and standard of performance, and fabrication workmanship are those specified and recommended in AAMA/WDMA/CSA 101/I.S.2/A440 and The Aluminum Association (AA).
 - a) Actual project aluminum sliding door sizes which do not exceed the "Minimum Test Size" as referred to in Gateway Performance Requirements table in (AAMA/WDMA/CSA 101/I.S.2/A440) shall be tested and certified at or exceeding the actual project maximum size in accordance with all other AAMA/WDMA/CSA 101/I.S.2/A440 requirements.

6. Delivery, Storage and Handling:

- a. Transportation and Handling: Transport products by methods to avoid product damage, deliver in undamaged condition in manufacturer's unopened containers or packaging. Provide equipment and personnel to handle products by method to prevent soiling or damage. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.
- b. Storage and Protection: Store products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather-tight enclosures; maintain with temperature and humidity ranges required by manufacturer's instruction.

7. Warranties:a. Aluminum Doors and Frames Warranty:

- 1) Products: Submit a written warranty, executed by the product manufacturer, for the following:
 - a) Warranty Period: A period of two (2) years from the date of Substantial Completion.
 - b) Framing Components and Hardware: A period of one (1) year from the date of Substantial Completion, against defective materials and workmanship, including substantial non-compliance with applicable specification requirements and industry standards, which results in premature failure of the windows or parts, outside of normal wear.
 - c) Insulated Glass Units: A period of (10) years from the date of manufacture, against insulated glass seal failure unrelated to glass breakage.
 - d) Aluminum Anodized Finish: Five (5) years from the date of manufacture.
 - e) Where applicable, materials which are applied to the face of insulated glass for the purpose of simulating division in glass openings (SDL's) are warranted against detaching from the glass surface for a period of (5) years.
- 2) Installation: Submit a written warranty, executed by the window installer, for a period of (1) year from the date of substantial completion, against defective materials or workmanship, including substantial non-compliance with applicable specification requirements, which result in premature failure.
 - a) In the event installation of Aluminum Doors and Frames or components are found to be defective, installer will repair or provide replacements without charge at the installer's option.

B. Products1. Manufacturers:a. Basis of Design:

- 1) Quaker Window Products Company, Inc.: Quaker M600 Series Aluminum Doors and Frames.
- 2) Approved Manufacturers: Products meeting or exceeding the requirements of the Specifications and Drawings may be submitted for approval as manufactured by Jeldwen-Premium Atlantic (sliding), Kawneer AA 3200 (sliding), Kawneer NX-8900 (terrace), PlyGem 4780 (sliding), and C.R. Lawrence Co., Inc. BAL-350 (terrace).
- 3) Substitutions: Products meeting or exceeding the requirements of the Specifications and Drawings may be submitted for Architect approval.

2. Materials:a. Aluminum Members:

- 1) Sliding Doors and Frames:
 - a) Extruded aluminum 6063-T6 alloy and temper.
 - b) Member Wall Thickness: .078" sill frame member, .062" jamb/head frame members, and door sash.

- c) Frame depth shall be a minimum of 5".
- 2) Terrace Doors and Frames:
- a) Extruded aluminum prime billet 6063-T6 alloy for primary components, 6063-T6, or 6061-T6 for structural components, all in accordance with (ASTM B221).
 - b) Member Wall Thickness: Outside walls shall have a wall thickness of .125", and inside wall thickness shall not be less than .070" of framing and door rail members.
 - c) Door frame depth shall be 4½" minimum.
 - d) Door threshold shall meet ADA requirements for accessibility without use of a ramp type accessory.
- b. Structural Thermal Barrier Construction:
- 1) Frame, sash and door panel members shall include a structural thermal barrier, applied in the manufacturer's facility, using concealed low-conductance poured-in-place polyurethane in a pre-treated cavity.
 - 2) After proper curing, the aluminum bridge section must be removed to provide a 1/2" minimum separation at sliding door system and 1/4" minimum at terrace door system between interior and exterior metal surfaces.
 - 3) The thermal barrier cavity shall have a manufactured mechanical lock applied consisting of abrading or lancing of the extrusion cavity prior to application of poured-in-place polyurethane.
 - 4) Thermal Break Performance Requirements:
 - a) Shear Strength: minimum 2,500 Lbf in accordance with (AAMA TIR-A8).
 - b) Flexural Strength: minimum 19,000 psi in accordance with (AAMA D 790).
 - c) Thermal Conductivity of Barrier Material: maximum 0.84 BTU-in/(hr-ft²-°F) in accordance with (ASTM C518).

Systems employing non-structural thermal barriers, or barrier systems absent of a mechanical lock application are not acceptable
- c. Accessories:
- 1) Fasteners: Aluminum, stainless steel, or other non-corrosive materials compatible with aluminum door members, hardware, and other components of the sliding door.
 - 2) Screens:
 - a) Sliding Doors: Provide sliding screen door constructed of extruded aluminum screen frame with aluminum wire mesh.
 - b) Terrace Doors: Provide hinged out-swing screen door, PCA Products, Inc., Model No. A-110. Frame finish to match terrace door finish. Provide lever "tasman" hardware. Coordinate hardware mounting height with terrace door hardware.
3. Glass Materials:
- a. Coated Low Emissivity Glass: Type 1 (transparent glass, flat), Class 1 (clear), Quality q3 (glazing select), with coating type and performance characteristics complying with requirements specified below:
 - 1) Low E Coating: Surface #2 on insulated units.
 - b. Tempered Glass: Type 1 (transparent glass, flat), Class 1 (clear), Quality q3, clear, fully tempered safety glass (meet requirements of ANSI Z97.1).
 - 1) All tempered glass shall conform to ASTM C1048, ANSI Z97.1, and CPSC 16 CFR Part 1201. Tempered glass shall bear permanent monogram indicating tempered quality. Fabrication marks on tempered glass shall be located to be concealed in completed installation.
 - c. Doors shall be glazed as follows:
 - 1) Sound Transmission Class (STC) (ASTM E413): Provide glazing required for conforming to overall STC ratings as specified for sliding aluminum doors.

- d. Insulating Glass: Manufacturer's standard units that comply with specified quality standards and coatings.
- 1) Provide preassembled units consisting of organically sealed panes of glass enclosing a hermetically sealed dehydrated air space and complying with ASTM E774 for performance classification indicated as well as with other requirements specified for glass characteristics, air space, sealing system, sealant, space material, and desiccants.
 - a) Total Thickness: 1"
 - 2) Tempered Safety Glass: Provide tempered glass on both inboard and outboard panes as required by local codes and ordinances.
 - 3) Insulated Unit Sealing System:
 - a) Thermal conductivity of insulated glass spacer shall perform in accordance to the following:
 - 1) Silicone: 0.202 BTU/hr-ft-F (0.350 W/m-K)
 - 2) PIB: 0.089 BTU/hr-ft-F (0.155 W/m-K)
 - 3) Desiccant (Loose Fill): 0.017 BTU/hr-ft-F (0.030 W/m-K)
 - 4) Spacer: 8.197 BTU/hr-ft-F (14.187 W/m-K)
 - b) Insulated glass unit spacer system must include a secondary dual seal. This also applied to solid foam warm edge seal glass spacer systems.

4. Related Materials:

- a. Sealants: Refer to Section 07 92 00 JOINT SEALANTS.

5. Fabrication:

a. Sliding Door:

- 1) All joints of the main frame and sashes shall be butt type, coped and joined neatly and secured by means of screws in integral ports. The main frame at the head and sill shall be sealed on the undersides with a narrow joint seal complying with AAMA 803.3.
- 2) Sash Construction: Meeting rails shall interlock in the closed position, and be composed of two separate and distinct metal interlock channels containing fin seal weatherstrip.
- 3) Weather seals shall be silicone-coated woven pile with polypropylene fin center in accordance with AAMA 701.
- 4) Hardware:
 - a) All hardware having component parts which are exposed shall be of aluminum, stainless steel, or other non-corrosive materials compatible with aluminum. Cadmium or zinc-plated steel where used must be in accordance with ASTM A164 or ASTM A165.
 - b) Rollers and Roller Assembly: Movable panels shall be fitted with rollers and roller assemblies conforming to AAMA 506.3. Rollers and roller assemblies shall be designed to provide easy movement and to adequately support the panel during extended usage without deforming or developing flat spots.
 - c) Provide D-loop handle, satin nickel finish.

b. Terrace Door:

- 1) Door corners are to be accurately joined with corner keys, and crimped.
- 2) Weather seals shall be open cell, urethane foam core, bonded to a U.V. stabilized polyurethane liner.
- 3) Hardware:
 - a) Hinging: Door leaves shall have minimum 1½ pairs of mortised butt hinges painted to match door finish.
 - b) Multi-Point Locking Hardware: "Euro Style Lock" gearbox type system, and "800 series" lever handles at exterior and interior by Amesbury Truth. Locking shall be keyed exterior cylinder and interior thumb turn. Door hardware finish shall be satin nickel.

6. Finishes:

- a. Finish on Aluminum Extrusion: Application shall be on clean extrusions free from serious surface blemishes or scratches and on all exposed surfaces visible when the installed product's operating sash are closed.
- 1) Provide color anodized finish – Class I – AAM10C22A44. Thickness shall be 0.7 mil and conform to AAMA 611.

C. Execution1. Examination:

- a. Site Verification of Conditions:
- 1) Verify that building substrates permit installation of Aluminum Sliding Doors and Frames according to the manufacturer's instructions, approved shop drawings, calculations and contract documents.
 - 2) Do not install Aluminum Sliding Doors and Frames until unsatisfactory conditions are corrected.

2. Installation:

- a. Erection of Aluminum Doors and Frames:
- 1) Install Aluminum Doors and Frames with skilled tradesmen in exact accordance with approved Shop Drawings, Installation Instructions, Specifications, and in accordance with requirements.
 - 2) Fabricated units must be installed plumb, square, and level for proper weathering and operation without warp, or rack of frame.
 - 3) Any uncoated aluminum components of Aluminum Sliding Doors and Frames shall be insulated from direct contact with steel, masonry, concrete, or other dissimilar metals by bituminous paint, zinc chromate primer, nonconductive shims, or other suitable insulating materials.
- b. Related Products Installation Requirements:
- 1) Perimeter Sealants: Refer to Section 07 92 00 JOINT SEALANTS.
 - 2) Glass: Refer to Section 08 81 00 GLAZING.
- c. Mockup: Install windows in one apartment, and tested and inspected by the third party testing agency, prior to commencing with project. This unit, after approved by Architect, will be used as a quality standard for the project.
- d. Field Tests: The Contractor shall coordinate window air and water leakage testing with the Owner's testing agency:
- 1) Window - Air & Water Leakage Testing: The testing agency shall perform air and water leakage testing. Air Leakage (infiltration) tests would be performed in general accordance with ASTM E783 and water leakage (penetration) tests shall be performed in general accordance with ASTM E1105 (*Air infiltration tests may not be practical on a portion of a continuous frame member per AAMA 503*). Three (3) days of field testing shall be performed with a two (2) man crew for up to two (2) window locations per day, depending on the complexity and exposure of the interior construction.
 - a) Testing will be conducted in general accordance with the following test methods:
 - (1) ASTM E783-02 (2010), Standard Test Method for Field Measurement of Air Leakage Rate Through Installed Exterior Windows and Doors.
 - (2) ASTM E1105-15, Standard Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Skylights, Doors, and Curtain Walls, by Uniform or Cyclic Static Air Pressure Difference.

- 2) Interior finishes be left uninstalled or removed prior to testing adjacent to the window locations tested.
- 3) Costs for re-tests or additional testing due to non-conformance or delays shall be the responsibility of the Contractor.
- 4) Items Provided by the Testing Agency:
 - a) Calibrated spray assembly capable of delivering water to the test area at a rate of 5 gallons of water per hour per square foot.
 - b) Calibrated spray nozzle assembly capable of delivering water to the test area at a rate of 30-35 psi of water pressure to the test area.
 - c) All materials and labor necessary for testing.
 - d) Test technician and assistant, gauges, and instrumentation for conducting testing.
 - e) Detailed test reports summarizing the results of the field tests.
- 5) Items Provided by the Contractor:
 - a) Source of water within 100 feet of the test area capable of delivering 30-35 psi of water pressure to the spray nozzle assembly (one 1-1/2" diameter water line or two 3/4" diameter water lines).
 - b) 110/120-volt power supply within 100 feet of test area.
 - c) Vertical access to the exterior and interior sides of the test areas, including any boom, scissor or other aerial lift and/or scaffolding as may be necessary.
 - d) Repair of any damage that may result from testing.
 - e) Notification and coordination of all parties involved (including Owner, Architect, trade contractors, etc.).
 - f) On-site parking for fully equipped test vehicle.
- 6) Testing agency shall not be responsible for damage to the window assemblies or surrounding areas which may result from testing. Some damage can be expected to interior finishes and caulking joints and shall be corrected by the Contractor.

3. Protection and Cleaning:

- a. After completion of Aluminum Sliding Doors and Frame installation, installed units shall be inspected, adjusted, put into working order and left clean, free of labels, dirt, or other debris. Protection from this point shall be the responsibility of the General Contractor.
- b. Protection: General Contractor shall protect product's finish surfaces from damage during construction. Protect all components from damage from grinding and polishing compounds, plaster, lime, acid, cement, or other harmful contaminants.

09 30 13 TILE WORKA. Scope

This section covers furnishing and installing all ceramic tile as shown on the Drawings and/or as required for the work specified.

1. Submittals:
 - a. Samples: Submit samples of all ceramic tile and grout in this section for Architect's approval prior to installation. Samples shall be of sufficient size to indicate true color and texture.
 - b. Product Data: Submit product data for mortar, grout, crack isolation membrane, and grout sealer complying with CDPH emission requirements.
2. Job Requirements: Clean all tile surfaces thoroughly at completion of grouting, exercising caution to observe manufacturer's instructions as to the use of acids and chemical cleaners. After cleaning, rinse thoroughly with clean water. After installation and final rinsing, protect all tile floors with heavy-duty, non-staining construction paper masked in place.
3. Related Sections:
 - a. Section 09 21 16 GYPSUM BOARD for substrate requirements.
 - b. Section 01 81 13 ENTERPRISE GREEN COMMUNITIES DESIGN REQUIREMENTS.

B. Materials

1. Tile shall be manufactured by Daltile as follows:
 - a. Floor Tile (CT-1): Shall be Daltile "Modern Hearth" glazed porcelain tile in sizes and colors as indicated. Grout joint shall be 3/16" (floors) and 1/16" (walls).
 - 1) Field Color: "White Ash - MH04", 12" x 24".
 - 2) Accent Color: "Chimney Corner - MH06", 12" x 24".
 - 3) Pattern: Staggered brick joint. Provide field color with a 10% random mix of accent color. Overlap shall not exceed 33%.
 - b. Wall Tile (CT-2): Shall be Daltile "Modern Hearth" mosaic tile, 2" x 4". Color shall be "White Ash - MH04". Provide Schluter-INDEC "RONDEC-DB" aluminum trim. Grout joint shall be 1/8".
 - c. Ceramic Base: Shall be Daltile "Modern Hearth" 3" x 12" floor bullnose. Color shall match adjacent tile flooring.
 - d. Mortar: Shall be TEC, PermaFlex Thin-Set Mortar 300 or equal by Mapei or Bonsai. Mortar shall comply with CDPH emission requirements.
 - e. Setting Materials: Shall be latex-Portland Cement Mortar conforming to ANSI A118.4 composed of a mixture of pre-packaged dry mortar and in acrylic polymer liquid latex additive.
 - f. Grouting Materials: Shall be unsanded, Portland Cement Grout complying with ANSI A118.6 and CDPH emission requirements. Color: TEC-933, Mapei Pewter 02, or Laticrete Natural Gray 24. Provide grout additive by manufacturer for grout stain resistance.
 - g. Crack Isolation Membrane: Shall be a two-component acrylic based system designed to bridge substrate cracks up to 1/8". The product shall be trowel applied to thickness recommended by the manufacturer.

- h. Grout Additive: Shall be TEC "Grout Boost" or equal by Mapei or Bonsai. VOC limits shall comply with CDPH emission requirements.

C. Installation

1. All tile work shall be installed using workmanship and materials conforming in all respects to the Specification requirements as listed in the Handbook for Ceramic Tile Installation.
2. Sealing: Wait 24 hours after any cleaning work prior to sealing. Apply a minimum of two (2) coats of sealer over entire floor area, including grout joints in accordance with manufacturer's instructions. Test surface to verify that the grout surfaces are completely sealed. If either tile or grout absorbs surface water, apply additional coats of sealer until surface is completely sealed.
3. Grout Removal and Replacement, Cleaning, and Sealing (Existing Tile and New Grout): Contractor shall mock up a test area for Architect and Owner approval prior to proceeding with grout removal and replacement, cleaning, and sealing at existing tile floors to remain.
 - a. Grout Removal: Sweep or vacuum surface, and remove grout per manufacturer's recommendations.
 - b. Heavy Duty Cleaning: Provide heavy duty cleaning at existing tile and grout per manufacturer's recommendations.
 - c. Sealing: Wait 24 hours after any cleaning work prior to sealing. Apply a minimum of two (2) coats of sealer over entire floor area, including grout joints in accordance with manufacturer's instructions. Test surface to verify that the grout surfaces are completely sealed. If either tile or grout absorbs surface water, apply additional coats of sealer until surface is completely sealed.