6University of South Carolina, School of Medicine
USC SOM \#28 Sim II
6311 Garners Ferry Road, Columbia, South Carolina
State Project Number: H27-z325
September 27, 2018

## ADDENDUM NO. 4

This addendum forms a part of the Contract documents and modifies the original Bidding Documents and any previous Addenda as noted below. Acknowledge receipt of this Addendum in the space provided in the Bid Form. Failure to do so may subject Bidder to disqualification.

## MODIFICATIONS TO PREVIOUS ADDENDA:

None
MODIFICATIONS TO PROJECT MANUAL: None
MODIFICATIONS TO DRAWINGS:
ARCHITECTURAL DRAWINGS:

1. Reference Sheet A701: DELETE Sheet A701, dated 8/10/2018, ADD Sheet A701, dated 8/10/2018, Revised 9/27/2018.

## REQUESTED PRODUCT APPROVALS:

1. Ductless splits - Add Fujitsu and Panasonic as approved equals.
2. Louver - Add Nailor and NCA Manufacturing as approved equals.

## QUESTIONS FROM CONTRACTORS:

1. Question: Due to the conditions of the concrete throughout the area, can an allowance be set for floor prep where new quartz flooring will be installed?
a. Answer: Contractor shall include in his pricing, to float Training Room 127 and Office 110 completely with Ardex K15 or equal product that is compatible and acceptable to finish flooring manufacturer.
2. Question: Spec 096519, 1.2, A, 1\&2 includes solid vinyl floor tile and VCT. Does this spec govern the requirements for the UPO Quartz Tile?
a. Answer: See revised specification 096519, revised 9/27/2018.
3. Question: Sheet A701, Finish Specification, lists QT 1 with a note to see finish floor plan for floor pattern layout. Is there a pattern for the Quartz Tile?
a. Answer: There is no floor pattern for this area. All floor tile to run in the same direction. Coordinate with existing floor tile and install to match direction.
4. Question: Sheet A701 lists QT 2 as the floor finish in two spaces. Should this be QT 1 as described in the legend?
a. Answer: See revised sheet A701, dated 8/10/2018, Revised 9/27/2018.
5. Question: Sheet A701, Finish Floor Plan, space Sim Storage 116 is shown with QT 2 noted. Is the correct floor finish for space 116 under alternate 1 base only placed within the area shown for that space on sheet A102?
a. Answer: QT2 should is not required in Sim Storage 116. See revised sheet A701, dated 8/10/2018, revised 9/27/2018.

END OF ADDENDUM NO. 4


SECTION 096519 - QUARTZ TILE FLOORING, Revised 9/27/2018

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. Quartz Tile

### 1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.
B. Shop Drawings: For each type of floor tile. Include floor tile layouts, edges, columns, doorways, enclosing partitions, built-in furniture, cabinets, and cutouts.

1. Show details of special patterns.
C. Samples: Full-size units of each color and pattern of floor tile required.
D. Samples for Initial Selection: For each type of floor tile indicated.
E. Samples for Verification: Full-size units of each color and pattern of floor tile required.
F. Product Schedule: For floor tile. Use same designations indicated on Drawings.

### 1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

### 1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For each type of floor tile to include in maintenance manuals.

### 1.6 MAINTENANCE MATERIAL SUBMITTALS

A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Floor Tile: Furnish one box for every 50 boxes or fraction thereof, of each type, color, and pattern of floor tile installed.

### 1.7 QUALITY ASSURANCE

A. Installer Qualifications: A qualified installer who employs workers for this Project who are competent in techniques required by manufacturer for floor tile installation and seaming method indicated.

1. Engage an installer who employs workers for this Project who are trained or certified by floor tile manufacturer for installation techniques required.
B. Mockups: Build mockups to verify selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
2. Build mockups for floor tile including resilient base and accessories.
a. Size: Minimum 100 sq. ft. ( 9.3 sq. m) for each type, color, and pattern in locations directed by Architect.
3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

### 1.8 DELIVERY, STORAGE, AND HANDLING

A. Store floor tile and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by manufacturer, but not less than $50 \operatorname{deg} \mathrm{~F}(10 \operatorname{deg} \mathrm{C})$ or more than $90 \operatorname{deg} \mathrm{~F}(32 \operatorname{deg} \mathrm{C})$. Store floor tiles on flat surfaces.

### 1.9 FIELD CONDITIONS

A. Maintain ambient temperatures within range recommended by manufacturer, but not less than 70 deg $F(21 \operatorname{deg} C)$ or more than $95 \operatorname{deg} F(35 \operatorname{deg} C)$, in spaces to receive floor tile during the following time periods:

1. 48 hours before installation.
2. During installation.
3. 48 hours after installation.
B. After installation and until Substantial Completion, maintain ambient temperatures within range recommended by manufacturer, but not less than 55 deg F ( 13 deg C ) or more than $95 \operatorname{deg} \mathrm{~F}(35 \operatorname{deg} \mathrm{C})$.
C. Close spaces to traffic during floor tile installation.
D. Close spaces to traffic for 48 hours after floor tile installation.
E. Install floor tile after other finishing operations, including painting, have been completed.

PART 2 - PRODUCTS

### 2.1 PERFORMANCE REQUIREMENTS

A. Fire-Test-Response Characteristics: For resilient tile flooring, as determined by testing identical products according to ASTME648 or NFPA 253 by a qualified testing agency.

1. Critical Radiant Flux Classification: Class I, not less than $0.45 \mathrm{~W} / \mathrm{sq} . \mathrm{cm}$.

### 2.2 QUARTZ TILE

A. Quartz Tile: See Finish Schedule

### 2.3 INSTALLATION MATERIALS

A. Trowelable Leveling and Patching Compounds: Latex-modified, portland cement based or blended hydraulic-cement-based formulation provided or approved by floor tile manufacturer for applications indicated.
B. Adhesives: Water-resistant type recommended by floor tile and adhesive manufacturers to suit floor tile and substrate conditions indicated.

1. Chemical-Bonding Compound: Manufacturer's product for chemically bonding seams.
C. Floor Polish: Provide protective, liquid floor-polish products recommended by floor tile manufacturer.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

A. Examine substrates, with Installer present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.

1. Verify that finishes of substrates comply with tolerances and other requirements specified in other Sections and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of floor tile.
B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

A. Prepare substrates according to floor tile manufacturer's written instructions to ensure adhesion of resilient products.
B. Concrete Substrates: Prepare according to ASTM F 710.

1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
2. Remove substrate coatings and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by floor tile manufacturer. Do not use solvents.
3. Alkalinity and Adhesion Testing: Perform tests recommended by floor tile manufacturer. Proceed with installation only after substrate alkalinity falls within range on pH scale recommended by manufacturer in writing, but not less than 5 or more than 9 pH .
4. Moisture Testing: Proceed with installation only after substrates pass testing according to floor tile manufacturer's written recommendations, but not less stringent than the following:
a. Perform anhydrous calcium chloride test according to ASTM F 1869. Proceed with installation only after substrates have maximum moisture-vapor-emission rate of 3 lb of water/1000 sq. ft . ( 1.36 kg of water/92.9 sq. m) in 24 hours.
b. Perform relative humidity test using in situ probes according to ASTM F 2170. Proceed with installation only after substrates have a maximum 75 percent relative humidity level or as required by resilient tile manufacturer, whichever is more restrictive.
C. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound; remove bumps and ridges to produce a uniform and smooth substrate.
D. Do not install floor tiles until they are the same temperature as the space where they are to be installed.
5. At least 48 hours in advance of installation, move resilient floor tile and installation materials into spaces where they will be installed.
E. Immediately before installation, sweep and vacuum clean substrates to be covered by resilient floor tile.

### 3.3 FLOOR TILE INSTALLATION

A. Comply with manufacturer's written instructions for installing floor tile.
B. Lay out floor tiles from center marks established with principal walls, discounting minor offsets, so tiles at opposite edges of room are of equal width. Adjust as necessary to avoid using cut widths that equal less than one-half tile at perimeter.

1. Lay tiles in pattern indicated.
C. Match floor tiles for color and pattern by selecting tiles from cartons in the same sequence as manufactured and packaged, if so numbered. Discard broken, cracked, chipped, or deformed tiles.
2. Lay tiles in pattern of colors and sizes indicated.
D. Scribe, cut, and fit floor tiles to butt neatly and tightly to vertical surfaces and permanent fixtures including built-in furniture, cabinets, pipes, outlets, and door frames.
E. Extend floor tiles into toe spaces, door reveals, closets, and similar openings. Extend floor tiles to center of door openings.
F. Maintain reference markers, holes, and openings that are in place or marked for future cutting by repeating on floor tiles as marked on substrates. Use chalk or other nonpermanent marking device.
G. Install floor tiles on covers for telephone and electrical ducts, building expansion-joint covers, and similar items in finished floor areas. Maintain overall continuity of color and pattern between pieces of tile installed on covers and adjoining tiles. Tightly adhere tile edges to substrates that abut covers and to cover perimeters.
H. Adhere floor tiles to flooring substrates using a full spread of adhesive applied to substrate to produce a completed installation without open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, and other surface imperfections.

### 3.4 CLEANING AND PROTECTION

A. Comply with manufacturer's written instructions for cleaning and protecting floor tile.
B. Perform the following operations immediately after completing floor tile installation:

1. Remove adhesive and other blemishes from exposed surfaces.
2. Sweep and vacuum surfaces thoroughly.
3. Damp-mop surfaces to remove marks and soil.
C. Protect floor tile from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period.
D. Floor Polish: Remove soil, adhesive, and blemishes from floor tile surfaces before applying liquid floor polish.
4. Apply two coat(s).
E. Cover floor tile until Substantial Completion.

END OF SECTION 096519

