SECTION 096519 - RESILIENT TILE FLOORING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following:

1. Vinyl composition floor tile.
3. Rubber tile flooring.
4. Resilient Quartz Tile
5. Rubber stair treads and risers.

B. Resilient wall base, reducer strips, and other accessories installed with resilient floor tiles are specified in Division 9 Section "Resilient Wall Base and Accessories."

C. Extent of resilient flooring and accessories is shown on drawings, in schedules and specifications.

1. Resilient flooring is required under base cabinets and other built-in furniture which rest on floor, unless otherwise specifically noted.
2. Resilient flooring will not be required under carpet for new floor areas.
3. Apply resilient base to toe recess and base of casework and millwork cabinet work extending to floor, unless otherwise indicated.

D. Related Section: 079200 "Joint Sealants."

1.3 SUBMITTALS

A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification Sections.

B. Product data for each type of product specified.

C. Samples for initial selection purposes in form of manufacturer's color charts consisting of actual tiles or sections of tiles showing full range of colors and patterns available for each type of resilient floor tile indicated. Colors and patterns must be equivalent to those indicated on the color schedule.

D. Samples for verification purposes in full-size tiles of each different color and pattern of resilient floor tile specified, showing full range of variations expected in these characteristics.

E. Maintenance data for resilient floor tile, to include in Operating and Maintenance Manual specified in Division 1.

F. Shop Drawings showing floor pattern cuts, pieces and joints.

1.4 QUALITY ASSURANCE

A. Single-Source Responsibility for Floor Tile: Obtain each type, color, and pattern of tile from a single source with resources to provide products of consistent quality in appearance and physical properties without delaying progress of the Work.

B. Fire Performance Characteristics: Provide resilient floor tile with the following fire performance characteristics as determined by testing products per ASTM test method indicated below by UL or another testing and inspecting agency acceptable to authorities having jurisdiction.

1. Critical Radiant Flux: 0.45 watts per sq. cm or more per ASTM E 648.
2. Smoke Density: Less than 450 per ASTM E 662.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver tiles and installation accessories to Project site in original manufacturer's unopened cartons and containers each bearing names of product and manufacturer, Project identification, and shipping and handling instructions.

B. Store flooring materials in dry spaces protected from the weather with ambient temperatures maintained between 50 deg F (10 deg C) and 90 deg F (32 deg C).

C. Store tiles on flat surfaces. Move tiles and installation accessories into spaces where they will be installed at least 48 hours in advance of installation.

D. The entire quantity of like tiles, including those required under 1.8 of this section, must be supplied with one delivery and from one "dye lot."

1.6 PROJECT CONDITIONS

A. Maintain a minimum temperature of 70 deg F (21 deg C) in spaces to receive tiles for at least 48 hours prior to installation, during installation, and for not less than 48 hours after installation. After this period, maintain a temperature of not less than 55 deg F (13 deg C).

B. Do not install tiles until they are at the same temperature as the space where they are to be installed.

C. Close spaces to traffic during tile installation.

1.7 SEQUENCING AND SCHEDULING

A. Install tiles and accessories after other finishing operations, including painting, have been completed.

B. Do not install tiles over concrete slabs until the slabs have cured and are sufficiently dry to bond with adhesive as determined by tile manufacturer's recommended bond and moisture test.

1.8 EXTRA MATERIALS

A. Deliver extra materials to Owner. Furnish extra materials matching products installed as described below, packaged with protective covering for storage and identified with labels clearly describing contents. Coordinate turn-in to School Maintenance Facility.

1. Furnish not less than three boxes for each 50 boxes or fraction thereof, of each class, wearing surface, color, pattern and size of resilient floor tile installed.
2. All extra materials must be from same "dye lot" as installed tile.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Available Products: Subject to compliance with requirements, resilient floor tiles that may be incorporated in the Work include, and are limited to, the following without prior approval by Architect:

1. Vinyl Composition Tile:

a. Armstrong World Industries, Inc. (Basis of Design).
b. Tarkett, Inc.
c. Mannington
d. Azrock
e. Mohawk Congolium "Alternatives" and "Choices."

2. Resilient QuartzTile:

a. Altro (Basis of Design).

3. Rubber Tile Flooring and Rubber Stair Treads and Risers:

b. Johnsonite (Basis of Design).
b. Endura
c. Estrie
d. Roppe Corporation
e. Johnsonite

2.2 RESILIENT TILE

A. Vinyl Composition Floor Tile: Products complying with ASTM F 1066-95a, Class 2 (nonasbestos formulated), and with requirements specified in FS SS-T-312, Type IV; 12″x12″ unless otherwise indicated and as follows:

1. Thickness: 1/8″
2. Colors and Patterns: As indicated on drawings and color schedule, or if not otherwise indicated, as selected by Architect from manufacturer's full range of equivalent colors and patterns.

B. Resilient Terrazzo Tile: Provide flat tile complying with the following:

1. Type: Polyester resin marble chip flooring equivalent to Floorazz Gem as manufactured by Matsinc
2. Facial Dimensions: 24" x 24".
3. Thickness: 3/16".
4. Face: Plain square edged.
5. Colors and Patterns: As indicated on drawings and color schedule, or if not otherwise indicated, as selected by Architect from manufacturer's full range of equivalent colors and patterns.

C. Rubber Tile: Products complying with ASTM F 1344, Class I-A, homogenous rubber tile.

1. Thickness: 1/8".
2. Wearing Surface: Square.
3. Size: 12" x 12".
4. Hardness: Durometer hardness not less than 85 Shore Type A per ASTM D 2240 as required according to ASTM F 1344.
5. Colors and Patterns: As selected by Architect from manufacturer's full range of colors and patterns.

6. Accessories:
   a. Stair Treads: As selected from manufacturer's full range of colors and patterns; shall meet federal specification RR-T-650B, Type A.
   b. Stair Risers: Smooth, flat, coved-toe risers, 1/8 inch thick by height and length required to cover risers.

2.3 INSTALLATION ACCESSORIES

A. Concrete Slab Primer: Nonstaining type as recommended by flooring manufacturer.

B. Trowelable Underlayments and Patching Compounds: Latex-modified, Portland-cement-based formulation provided or approved by tile manufacturer for applications indicated.

C. Adhesives (Cements): Water-resistant type recommended by tile manufacturer to suit resilient floor tile products and substrate conditions indicated. Adhesive to be low VOC type as approved and recommended by manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

A. General: Examine areas where installation of tiles will occur, with Installer present, to verify that substrates and conditions are satisfactory for tile installation and comply with tile manufacturer's requirements and those specified in this Section.

B. Concrete Subfloors: Verify that concrete slabs comply with ASTM F 710 and the following:

   1. Slab substrates are dry and free of curing compounds, sealers, hardeners, and other materials whose presence would interfere with bonding of adhesive. Determine adhesion and dryness characteristics by performing bond and moisture tests recommended by tile manufacturer.
   2. Finishes of subfloors comply with tolerances and other requirements specified in Division 3 Section "Cast-In-Place Concrete" for slabs receiving resilient flooring.
   3. Subfloors are free of cracks, ridges, depressions, scale, and foreign deposits of any kind.

C. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. General: Comply with manufacturer's installation specifications to prepare substrates indicated to receive tile.

B. Use trowelable leveling and patching compounds per tile manufacturer's directions to fill cracks, holes, and depressions in substrates.

C. Remove coatings, including curing compounds, and other substances that are incompatible with flooring adhesives and that contain soap, wax, oil, or silicone, by using a terrazzo or concrete grinder, a drum sander, or a polishing machine equipped with a heavy-duty wire brush. Skim coat all existing substrates with Ardex Feather Finish or equivalent, following manufacturer's instructions for installation.

D. Broom or vacuum clean substrates to be covered by tiles immediately before tile installation. Following cleaning, examine substrates for moisture, alkaline salts, carbonation, or dust.

E. Apply concrete slab primer, if recommended by flooring manufacturer, prior to applying adhesive. Apply according to manufacturer's directions.

3.3 INSTALLATION

A. General: Comply with tile manufacturer's installation directions and other requirements indicated that are applicable to each type of tile installation included in Project.

B. Lay out 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 at perimeter that equal less than one-half of a tile. Install tiles square with room axis, unless otherwise indicated. Coordinate layout with patterns as indicated.

C. Match tiles for color and pattern by selecting tiles from cartons in same sequence as manufactured and packaged, if so numbered. Cut tiles neatly around all fixtures. Discard broken, cracked, chipped, or deformed tiles.

1. Lay tiles with grain running in alternating directions, checkerboard pattern.

D. Scribe, cut, and fit tiles to butt tightly to vertical surfaces, permanent fixtures, built-in furniture including cabinets, pipes, outlets, edgings, thresholds, and nosings.

E. Extend tiles into toe spaces, door reveals, closets, and similar openings.

F. Maintain reference markers, holes, or openings that are in place or plainly marked for future cutting by repeating on finish flooring as marked on subfloor. Use chalk or other nonpermanent marking device.

G. Install tiles on covers for telephone and electrical ducts, and similar items occurring within finished floor areas as applicable. Maintain overall continuity of color and pattern with pieces of flooring installed on these covers. Tightly adhere edges to perimeter of floor around covers and to covers.

H. Adhere tiles to flooring substrates without producing open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, or other surface imperfections in completed tile installation.

I. Use full spread of adhesive applied to substrate in compliance with tile manufacturer's directions including those for trowel notching, adhesive mixing, and adhesive open and working times.

J. Hand roll tiles where required by tile manufacturer.

K. Install rubber tile flooring in accordance with manufacturer's instructions.

L. Use computer controlled lazer cuts for cuts required to achieve designated patterns. Minimize the number of small tile pieces, especially at corners. Equivalent to Hydro-Lazer (412) 826-3900.

3.4 CLEANING AND PROTECTION

A. Perform the following operations immediately after completing tile installation:

1. Remove visible adhesive and other surface blemishes using cleaner recommended by tile manufacturers.
2. Sweep or vacuum floor thoroughly.
3. Damp-mop tile to remove black marks and soil. Additional cleaning and waxing is NIC.

B. Protect flooring against mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period. Use protection methods indicated or recommended by tile manufacturer.

END OF SECTION 096519