

SECTION 09330 – QUARRY TILE

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Quarry floor tile.
- B. Related Requirements:
 - 1. Section 01351 – Regulatory Compliance.
 - a. Disposal and removal of hazardous construction and universal waste.
 - b. Work practice control methods for airborne respirable dust.
 - 2. Division 3 - Concrete Slab: Flooring substrate finish and preparation.
 - a. Concrete for interior slabs on ground
 - b. Floor substrate preparation.
 - 3. Section 06065 – Plastic Materials: Plastic transition strip at walk-in freezer.
 - 4. Section 07900 - Joint Sealers: Sealant at tile penetrations and control/construction joints.
 - 5. Section 09310 – Ceramic Tile.

1.2 REFERENCES

- A. The publications listed below form a part of this specification to the extent referenced. Publications are referenced within the text by these basic designations only.
- B. American National Standards Institute (ANSI):
 - 1. ANSI A108.1 – Installation of Ceramic Tile
 - 2. ANSI A108.5 - Installation of Ceramic Tile with Dry-Set Portland Cement Mortar or Latex Portland Cement Mortar.
 - 3. ANSI A108.6 - Installation of Ceramic Tile with Chemical Resistant, Water Cleanable Tile-Setting and Grouting Epoxy
 - 4. ANSI A118.1 - Dry-Set Portland Cement Mortar.
 - 5. ANSI A118.3 - Chemical Resistant Water Cleanable Tile-Setting and Grouting Epoxy and Water Cleanable Tile Setting Epoxy Adhesive.
 - 6. ANSI A118.4 - Latex-Portland Cement Mortar.
 - 7. ANSI A118.6 - Ceramic Tile Grouts.
 - 8. ANSI A137.1 - Recommended Standard Specifications for Ceramic Tile.
- C. Occupational Safety and Health Administration (OSHA):
 - 1. OSHA 01926.1153 Respirable Crystalline Silica.
- D. Tile Council of America, Inc. (TCA):
 - 1. TCA Handbook for Ceramic Tile Installation.

1.3 ENVIRONMENTAL REQUIREMENTS

- A. Minimize dust emissions or provide equipment that suppresses dust.

1.4 QUALITY ASSURANCE

- A. Conform to ANSI A137.1.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Section 01600 - Product Requirements: Transport, Handle, Store, and Protect Products.
- B. Deliver and store packaged materials in original containers with seals unbroken and labels intact until time of use.
- C. Prevent damage or contamination to materials by water, freezing, foreign matter, and other causes.

1.6 SITE CONDITIONS

- A. Do not install adhesives in a closed, unventilated environment.
- B. Maintain 50 degrees F during installation of mortar materials.

1.7 MAINTENANCE

- A. Extra Materials: Provide one unopened box of tile with label indicating store number and date. Submit to Walmart Construction Manager at Date of Substantial Completion.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Tile: Provide products by the following manufacturers to the extent as specified in the Materials paragraph below:
 1. Dal-Tile Corporation, Dallas, TX. Contact: Paulett Newman, National Account Director (800) 507-5590.
 2. American Olean Tile Company, Dallas, TX. Contact: Gina Norman. (214) 309-4559.
 3. Summitville Tiles, Inc., Summitville, OH. Contact: Steve Clary (330) 223-1551 for local distributor.
 4. Metropolitan Ceramics, Canton, OH. Contact: Ellen Yossarian, (603) 942-8787 or Terrie Chastain, (888) 325-3945
- B. Mortar and Grout: Provide products by the following manufacturers:
 1. Laticrete International, Bethany, CT; (800) 243-4788.

2.2 MATERIALS

- A. Provide tile and grout of type and color specified as shown on the drawings. Provide sizes specified or as shown on the drawings. Provide product of one manufacturer where more than one is specified.
- B. Quarry Tile: Unglazed floor tile.
 1. QT-3: Abrasive aggregate embedded in surface:
 - a. Quarry Colors, Q06 Fawn Gray, by American Olean.
 - b. X Quarry Basics, 57X Stone Gray, by Metropolitan Ceramics.
 - c. Quarry Textures, #TO3 Ashen Gray, by Dal-Tile.
 2. QT-31: Abrasive aggregate embedded in surface
 - a. Q40 Red Blaze, by Dal-Tile.
 - b. 10 Summitville Red, by Summitville Tiles.
 - c. 0Q01 Canyon Red, by American Olean
- C. Quarry Tile Base: Provide matching 5 x 6 inch cove base, inside and outside corners, and trim if required to match existing conditions.
- D. Mortar:
 1. Dry Set Portland Cement Mortar: ANSI A118.1.
 2. Latex-Portland Cement Mortar: ANSI A118.4
 3. Epoxy Mortar: ANSI A118.3
- E. SpectraLOCK Grout by Laticrete.
 1. G-1: Platinum #42.

2. G-10: Quarry Red #46.

F. Control Joints:

1. Dal-Seal CIS membrane by Dal-Tile, Dallas, TX (800) 933-8453.

G. Sealant: See Section 07900.

H. Aluminum Edge Strip: RENO-AERP-125-B-90, 1/2-inch high profile, 3-1/2-inch ramp, satin anodized aluminum edge strip by Schluter Systems, Plattsburgh, NY, Contact: Earl Maicus (800) 472-4588, Ext 111.

I. Substitutions: Not permitted.

2.3 MORTAR MIX AND GROUT

A. Mix mortars and grouts to comply with requirements of referenced standards and manufacturers for proportioning of materials, water or additive content; type of mixing equipment, selection of mixer speeds, mixing containers, and mixing time to produce mortars and grouts of uniform quality with optimum performance characteristics for application indicated.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine surfaces and adjacent areas where products will be installed and verify that surfaces conform to product manufacturer's requirements for substrate conditions. Do not proceed until unsatisfactory conditions have been corrected.

B. Beginning of installation indicates acceptance of substrate conditions.

3.2 PREPARATION

A. Protect surrounding work from damage or disfiguration.

B. Vacuum clean existing substrate and damp clean.

C. Seal substrate surface cracks with filler. Level existing substrate surfaces to acceptable flatness tolerances.

D. Prepare substrate surfaces with sealers or conditioners as recommended by adhesive manufacturer.

3.3 INSTALLATION

a. ANSI Tile Installation Standards: Comply with parts of ANSI A108 Series "Specifications for Installation of Ceramic Tile" that apply to types of setting and grouting materials shown and specified.

b. TCA Installation Guidelines: TCA's "Handbook for Ceramic Tile Installation." Comply with applicable TCA installation methods.

B. Lay tile at locations and in pattern indicated. Do not interrupt tile pattern through openings.

1. Lay Metro Tread Systems by Metropolitan Ceramics in basket weave (alternating) pattern.

C. Cut tile using saws equipped with integrated water delivery system that continuously feeds water to the blade.

D. Fit tile tight to penetrations. Form corners neatly.

E. Place tile joints uniform in width, subject to variance in tolerance allowed in tile size. Make joints watertight, without voids, cracks, excess mortar, or excess grout.

- F. Sound tile after setting. Replace hollow sounding units.
- G. Control Joints: Provide tile control joints over control and construction joints in concrete slab. Before starting installation of membrane, remove debris from concrete joint using HEPA-rated filter vacuum.
 1. Following manufacturer's printed recommendations for installation, provide continuous x minimum 24" wide membrane.
 2. Set membrane in full bed of modified thin-set bond coat.
 3. Lap membrane and make single cut, reducing total thickness to one membrane.
 4. Following recommendation from thin-set mortar manufacturer, set tile in accordance with referenced TCA setting method.
- H. Allow tile to set for a minimum of 48 hours prior to grouting.
- I. Grout tile joints.
 1. Provide continuous elastomeric grout joints on each side of bridged concrete joint following recommendation and requirements of TCA EJ171.
- J. Apply sealant to junction of tile and dissimilar materials, at tile penetrations, and at tile expansion joints.
- K. Aluminum Edge Strip: Install edge strip at transitions between quarry tile and concrete or VCT. Install during tile placement in accordance with edge strip manufacturer's instructions.

3.4 FIELD QUALITY CONTROL

- A. Inspect tile installation, joints, grout line alignment, and attachment to substrate.
- B. Correct deficiencies in Work which inspection indicates are not in compliance with Contract Documents.

3.5 CLEANING

- A. On completion of placement and grouting, clean all tile surfaces so they are free of foreign matter.
 1. Initially clean and remove grout residue from tile as soon as possible according to tile and grout manufacturer's written instructions. Use cleaners recommended by tile and grout manufacturers and only after determining that cleaners are safe to use by testing on samples of tile and other surfaces to be cleaned. Protect metal surfaces and plumbing fixtures from effects of cleaning. Flush surfaces with clean water before and after cleaning.
 2. Begin final cleaning approximately 1 hour after initial cleaning of the grout. Mix cleaning additive to 2 gallons of clean, cool water. Use a white scrub pad to lightly scrub apart any of the leftover residue remaining on the surface of the tile. Drag a clean, damp sponge diagonally over the scrubbed surfaces to remove any froth and residue. Rinse sponge often and change water every 50 sq. ft. Allow cleaned areas to dry and inspect entire surface of tile. Repeat process if haze remains.
 3. If haze remains 24 hours after installation, clean surfaces using straight white vinegar or bleaching type cleanser by methods described in preceding paragraph.
- B. Remove excess mortar and grout from floor and wall surfaces without damage.
- C. Clean tile with cleaning materials recommended by tile manufacturer one day prior to Date of Substantial Completion.
- D. Dispose of construction waste in accordance with the requirements of Section 01351.

3.6 PROTECTION

- A. Prohibit traffic from floor finish for 72 hours after installation.
- B. Protect installed tile work with cardboard, Kraft paper, plywood or other heavy covering during remainder of

construction period to prevent staining, damage, and wear.

- C. If recommended by tile manufacturer, apply coat of neutral protective cleaner to completed tile floors.

END OF SECTION