

## Sample Specifications

Below is a template for you to use in preparing a final, quarry tile specification incorporating products manufactured by Metropolitan Ceramics, by Ironrock Capital, Inc. Quarry tile products are marketed under the names SOMERSET™, QUARRYBASICS®, DURA-QUARRY™, METRO TREAD® and Down to Earth®. This section includes installation materials not manufactured by Metropolitan Ceramics using the reference standard method of specifying.

**A typical specification to assure the use of Metropolitan Ceramics' unglazed tile on your next job should be written as follows:**

- A. Ceramic tile shall be "unglazed quarry tile as manufactured by Ironrock Capital, Canton, Ohio, 44711."
- B. The body composition shall be of the finest shales and clays producing a uniform dense body with slip-resisting texture.
- C. Color shall be: \_\_\_\_\_
- D. Sizes shall be: \_\_\_\_\_
- E. Patterns: as per drawing.
- F. Grout: Compatible colors as approved by architect.
- G. Test results shall be available upon request.
- H. For best installation results we recommend the following be included in the specification:
  - I. Nominal 3/8" joint widths (1/4" widths may be used with some products)
  - J. Mix tile from several cartons for best shading during installation.
  - K. Use beating block to embed tile and align surfaces and edges.
  - L. Clean colored grout with tile sponge, cheesecloth or toweling for uniform grout color and most uniform grout level and texture. Some acid cleaners may damage grout joints. Test a small area first. Wet floor with clean water before applying any acid cleaner. Do not use any product containing Hydrofluoric acid since it will attack both grout and tile.

### **Metropolitan Ceramics Architectural Specifications**

This section is intended as a general guide to the specification of Metropolitan Ceramics high density unglazed ceramic tile. For specific information and details, refer to the ANSI A108, The Tile Council of North America Handbook for the Installation of Ceramic Tile current edition and, where local environmental conditions are unusual or severe, local installation practices.

**09 30 16**  
**QUARRY TILE**

**PART I GENERAL**

**1.01 SUMMARY**

- A. Section Includes: Quarry tile and trim units, including unglazed quarry tile and trim units.
- Specifier Note: Revise Paragraph below to suit project requirements, Add section number per specifier's practice.
- B. Related Sections: Section(s) related to this section include:
1. Exterior Tile Units: Division 2 Unit Pavers Section.
  2. Concrete Substrate: Division 3 Concrete Sections.
  3. Plywood Subfloor: Division 6 Carpentry Sections.
  4. Waterproofing: Division 7 Waterproofing Sections.
  5. Sealants: Division 7 Joint Sealers Sections
  - **Specifier Note:** Coordinate Paragraph below to suit project requirements, Cementitious tile backer board, may be specified in Division 9 Gypsum Board Section or in Division 9 Tile Section.
  6. Tile Backer Board: Division 9 Gypsum Board Section.
  - **Specifier Note:** Coordinate Paragraph below to suit project requirements, This quarry tile section includes product materials only; section does not include installation material requirements which are specified in Division 9 Sections.
  7. Tile Installation: Division 9 Tile Section.
  - **Specifier Note:** References Article below may be omitted when specifying manufacturer's product and recommended installation, Retain references Article for specifying installation materials not manufactured by Ironrock Capital using the reference standard method. Establish policy for indicating edition date of standards referenced. Conditions of the Contract or Division 1 References Section may establish standard(s) edition date. This Article does not require compliance with standard, but is merely a listing of references used. Coordinate listed reference standards with other sections. Reference listed below are for proprietary product materials specified in this section. Coordinate reference for installation product materials with other sections.

## 1.02 REFERENCES

- A. American National Standards Institute (ANSI):
1. ANSI A108 Series - Specifications for Installation of Ceramic Tile and Dimensional Tile.
  2. ANSI A 108. 1 A - Specifications for Installation of Ceramic Tile in the Wet Set Method.
  3. ANSI A 108. 10 - Load Bearing, Bonded, Waterproof Membranes for ThinSet Ceramic Tile and Dimensional Tile
  4. ANSI A 118 Series - Specifications for Ceramic Tile Mortars and Grouts.
  5. ANSI A 136.1 Organic Adhesives for Installation of Ceramic Tile,
  6. ANSI A 137.1 Specifications for Ceramic Tile.
  7. ANSI A 138.1 Specification for sustainable ceramic tile, glass tile and tile installation materials aka Green Squared<sup>sm</sup>.
- B. American Society for Testing and Materials (ASTM):
1. ASTM C499 Facial Dimensions and Thickness of Flat, Rectangular Ceramic Wall And Floor Tile.
  2. ASTM C1243 Test Method for Resistance to Deep Abrasion Wear of Unglazed Ceramic Tile by Means of a Rotating Disk and the use of Abrasive Material.
  3. ASTM C 1028 Test Method for Determining the Static Coefficient of Friction of Ceramic Tile and Other Tile Like Surfaces by the Horizontal Dynamometer Pull Meter Method.
    - **Specifier Note:** Article below includes submittal of relevant data to be furnished by Contractor either before, during or after construction. Coordinate this Article with Architect's and Contractor's duties and responsibilities in Conditions of the Contract and in Division I Submittal Procedures Section.

## 1.03 SUBMITTALS

- A. General: Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedures Section.
- B. Product Data: Submit product data, including manufacturer's product sheet, for specified products,
- C. Samples: Submit selection and verification samples for finishes, colors and textures,
- D. Quality Assurance Submittals: Submit the following:
1. Test Reports: Certified test reports showing compliance with specified performance characteristics and physical properties.
  2. Certificates: Product certificates signed by manufacturer certifying materials comply with specified performance characteristics and physical requirements.
  3. Master Grade Certificate: Submit material master grade certification for quarry tile products.

4. Manufacturer's Instructions: Manufacturer's installation instructions.
- E. Closeout Submittals: Submit the following:
  1. Maintenance Data: Maintenance data for installed products in accordance with Division 1 Closeout Submittals, Maintenance Data and Operation Data Section, Include methods for maintaining installed products and precautions against cleaning materials and methods detrimental to finishes and performance.
  2. Warranty: Warranty documents specified herein.
    - **Specifier Note:** Article below should include prerequisites, standards, limitations and criteria which establish an overall level of quality for products and workmanship for this section. Coordinate below Article with Division 1 Quality Assurance Section.

#### 1.04 QUALITY ASSURANCE

- A. Installer Qualifications: Installer experienced, as determined by contractor, in performing work of this section who has specialized in the installation of work similar to that required for this project and who is acceptable to product manufacturer.
- B. Material Certificates: Provide Master Grade Certificates for each shipment of quarry tile signed by tile manufacturer and Installer.
- C. Pre Installation Meetings: Conduct pre-installation meeting to verify project requirements, substrate conditions, manufacturer's installation instructions and manufacturer's warranty requirements, Comply with Division 1 Project Management and Coordination, Project Meetings Section.
  - **Specifier Note:** Article below should include special and unique requirements. Coordinate Article below Division I Product Requirements Sections.
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#### 1.05 DELIVERY, STORAGE, AND HANDLING

- A. General: Comply with Division 1 Product Requirements Sections.
- B. Ordering; Comply with manufacturer's ordering instructions and lead time requirements to avoid construction delays.
- C. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact. Comply with ANSI A137.1 for labeling sealed tile containers.
- D. Storage and Protection: Store materials protected from exposure to harmful weather conditions and at temperature conditions recommended by manufacturer.

## 1.06 PROJECT CONDITIONS

- A. Temperature Requirements: Maintain ambient temperature and humidity conditions in spaces where products will be installed for time period before, during and after installation as recommended by manufacturer.
  - 1. Minimum Temperature: Maintain temperature at 50oF (10oC) minimum during installation and for seven days after completion.
    - **Specifier Note:** Coordinate Article below with Conditions of the Contract and with Division I Closeout Submittals, Warranty Section.

## 1.07 WARRANTY

- A. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.
- B. Manufacturer's Warranty; Submit, for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty is in addition to, and not a limitation of, other rights Owner may have under the Contract Documents.
  - **Specifier Note:** Coordinate Paragraph below with manufacturer's warranty requirements, Manufacturer has specific notification requirements for claims of latent and nonlatent defects under the warranty.
    - 1. Warranty Period: (Specify term) years commencing on Date of Substantial Completion.
      - **Specifier Note:** Coordinate Article below with Division I Closeout Submittals, Maintenance Materials Section.

## 1.08 MAINTENANCE

- A. Extra Materials: Deliver to Owner extra materials from same production run as products installed, Package products with protective covering and identify with descriptive labels. Comply with Division I Closeout Submittals, Maintenance Materials Section.
  - **Specifier Note:** Revise Paragraph below size and percentage as required.
    - 1. Quantity: Furnish quantity of full size units equal to 2% of amount installed for tile and trim units.
    - 2. Delivery, Storage and Protection: Comply with Owner's requirements for delivery, storage and protection of extra materials.

## PART 2 PRODUCTS

- **Specifier Note:** Retain Article below for proprietary method specification. Add product attributes, performance characteristics, material standards and descriptions as applicable. Use of such phrases as "or equal" or "approved equal" may cause ambiguity in the specifications, such phrases require verification

procedural, legal, regulatory and responsibility for determining equivalence of products.

## 2.01 QUARRY TILE

A. Manufacturer: Metropolitan Ceramics, by Ironrock Capital, Inc.

Retain or delete Paragraph below per project requirements and specifier's practice.

1. Contact: P.O. Box 9240, Canton, OH 44711; Telephone: (800) 325-3945, (330) 484-4887; Fax: (330) 484-4880.
- **Specifier Note:** Edit Paragraph below to suit project requirements, Select proprietary products, products below are suitable for interior and exterior use.
2. Proprietary Products: (Somerset™, QUARRYBASICS®, DURA-QUARRY™, Metro Tread®, Down to Earth®, vitreous quarry tile and trim units.

a. Somerset™ Quarry Tile:

- i. Tile Description: Unglazed, relieved edge flat tile.
- ii. Wearing Surface: (ASTM C1243 Abrasion resistance maximum value of 275mm<sup>3</sup>). Metropolitan tests at < 275mm<sup>3</sup> (specify wearing surface).
- iii. Coefficient of Friction  
Dynamic Coefficient of Friction (DCOF Acu Test -wet Ansi 137.1-2012): No industry standard - threshold of 0.42. At time of Manufacture, Somerset™ meets or exceeds 0.60. (Specify dynamic coefficient of friction).
- iv. Nominal Size (ASTM C499) The facial dimension of each tile in the sample shall not vary more than ±2.00% from the nominal dimension.
- v. Thickness: 1/2" (13 mm).
- vi. Reduction Fired Colors (range): (#250 Galaxy) (#255 Aztec) (#350 Harvard Square) (#458 Cordoba)
- vii Environmental Properties (ANSI A138.1) Green Squared<sup>sm</sup>  
Certified colors: (#250 Galaxy) (#350 Harvard Square) (#458 Cordoba)

b. Quarrybasics® Quarry Tile:

- i. Tile Description: Unglazed, relieved edge flat tile.
- ii. Wearing Surface: (ASTM C1243 Abrasion resistance maximum value of 275mm<sup>3</sup>). Metropolitan tests at < 275mm<sup>3</sup> (specify wearing surface).
- iii. Coefficient of Friction  
Dynamic Coefficient of Friction (DCOF Acu Test -wet Ansi 137.1-2012): No industry standard- threshold of 0.42. At time of Manufacture, Quarrybasics single tone colors meet or exceed measure of 0.60. Quarrybasics XA Abrasive (enhanced slip

- resisting product) meets or exceeds 0.70 (Specify dynamic coefficient of friction).
  - iv. Nominal Size (ASTM C499) the facial dimension of each tile in the sample shall not vary more than  $\pm 2.00\%$  from the nominal dimension.
  - v. Thickness: 1/2" (13 mm).
  - vi. Clear Tone Colors: (#310 Mayflower Red, #507 Puritan Gray, #105 Buckskin, #107 Boulevard, #505 Plaza Gray, #108 Chestnut Brown, # 101 Oyster Bay, #220 Auburn, #205 Adobe, #710 Raven).
  - vii. QuarryBasics XA Abrasive Colors silicon carbide and metallic additive enhanced tiles: (#15XA Buckskin) (#31XA Mayflower Red) (57XA Puritan Gray) (18XA Chestnut Brown)
  - viii. Environmental Properties (ANSI A138.1) Green Squared<sup>sm</sup> Certified colors: (#310 Mayflower Red) (#220 Auburn) (#108 Chestnut Brown).
- c. DURA-QUARRY™ Quarry Tile
- i. Tile Description: Unglazed, relieved edge flat tile with in excess of 50% pre-consumer recycled content.
  - ii. Wearing Surface: (ASTM C1243 Abrasion resistance maximum value of 275mm<sup>3</sup>). Metropolitan tests at < 275mm<sup>3</sup> (specify wearing surface).
  - iii. Coefficient of Friction  
Dynamic Coefficient of Friction (DCOF Acu Test -wet Ansi 137.1-2012): No industry standard threshold of 0.42. At time of Manufacture DURA-QUARRY™ meets or exceeds 0.60. (Specify dynamic coefficient of friction).
  - iv. Nominal Size (ASTM C499) The facial dimension of each tile in the sample shall not vary more than  $\pm 2.00\%$  from the nominal dimension.
  - v. Thickness: 1/2" (13 mm)  
Special Order 3/8" (9.5 mm).
  - vi. Colors: #308 Single Tone. (Runs may vary due to recycled content).
  - vii. Environmental Properties (ANSI A138.1) Green Squared<sup>sm</sup> Certified.
- d. Metro Tread® Quarry Tile:
- i. Tile Description: Unglazed, relieved edge tile with treads.
  - ii. Wearing Surface: Nine raised treads, spaced 5/8" (16 mm) running length of each tile.
  - iii. Coefficient of Friction  
Dynamic Coefficient of Friction (DCOF Acu Test -wet Ansi 137.1-2012): No industry standard threshold of 0.42. At time of Manufacture Metro Tread® meets or exceeds 0.60. (Specify dynamic coefficient of friction).

- iv. Face Dimensions: 6" x 6" (152 x 152 mm).
  - v. Nominal Size (ASTM C499) The facial dimension of each tile in the sample shall not vary more than  $\pm 2.00\%$  from the nominal dimension.
  - vi. Thickness: 1/2" (13 mm).
  - vii. Color: (MT 31T Mayflower Red. ) (MT 57T Puritan Gray.) (MT 15T Buckskin).
  - viii. Environmental Properties (ANSI A138.1) Green Squared<sup>sm</sup> Certified colors: (#31T Mayflower Red).
- e. Down to Earth® Quarry Tile:
- i. Tile Description: Unglazed, square edge flat tile with textured surface.
  - ii. Wearing Surface: (ASTM C1243 Abrasion resistance maximum value of 275mm<sup>3</sup>). Metropolitan tests at < 275mm<sup>3</sup> (specify wearing surface)
  - iii. Coefficient of Friction  
Dynamic Coefficient of Friction (DCOF Acu Test-wet Ansi 137.1-2012): No industry standard threshold of 0.42. At time of Manufacture Down to Earth® Quarry Tile meets or exceeds 0.60. (Specify dynamic coefficient of friction).
  - iv. Nominal Size (ASTM C499) The facial dimension of each tile in the sample shall not vary more than  $\pm 2.00\%$  from the nominal dimension.
  - v. Thickness: 1/2" (13 mm).
  - vi. Colors: (#255 Desert Floor) (#155 Cobblestone) (#350 Red Paver) (#458 Bedrock).
  - vii. Environmental Properties (ANSI A138.1) Green Squared<sup>sm</sup> Certified colors: (#350 Red Paver)(#458 Bedrock).
- 3. Trim Product Description: Manufacturer's standard trim units.
  - 4. Protective Coating: No protective coating required. See manufacturer's recommendations for sealing.
  - 5. Quarry Tile Products Testing: Comply with ANSI A137.1.
    - **Specifier Note:** Edit Paragraph below to suit project requirements, If substitutions are permitted, edit text below. Add text to refer to Division 1 Product Requirements, Product Substitution Procedures Section.
- B. Substitutions: No substitutions permitted.
- **Specifier Note:** Coordinate Article below for related materials specified in other sections with product requirements of this section.

## 2.02 RELATED MATERIALS

- A. Reference: Refer to Tile Setting And Accessories Section.
  - 1. Setting Materials: Refer to ANSI A108.1A, ANSI A118 series and ANSI 136.1
  - 2. Grouting Materials: Refer to ANSI 108.10, ANSI A118 series.



3. Accessory Materials: Refer to Tile Setting And Accessories Section
4. Sealant Materials: Refer to Joint Sealant Section.
5. Backer Board: Refer to Gypsum Board, Cementitious Section.

## **2.03 SOURCE QUALITY**

- A. Source Quality: Obtain quarry tile from a single manufacturer.

## **PART 3 EXECUTION**

- **Specifier Note:** Retain or delete Article below to suit project requirements and specifier's practice.

### **3.01 MANUFACTURER'S INSTRUCTIONS**

- A. Compliance: Comply with manufacturer's product data, including product technical bulletins, product catalog installation instructions and product carton instructions.

### **3.02 EXAMINATION**

- A. Site Verification of Conditions: Verify substrate conditions, which have been previously installed under other sections, are acceptable for product installation in accordance with manufacturer's instructions.

### **3.03 PREPARATION**

- A. Surface Preparation: Prepare substrates to receive quarry tile in accordance with industry installation reference standards and manufacturer's installation instructions.
- **Specifier Note:** Coordinate Article below with manufacturer's recommended installation details and instructions.

### **3.04 INSTALLATION**

- A. References:
  1. ANSI Tile Installation Standard: Comply with ANSI A108 series.
  2. TCA Installation Reference: Comply with TCA Handbook for Ceramic Tile Installation.
- B. Field Blending: Mix and blend tile from several cartons to ensure random distribution of shade variations.
- C. Floor Tile Installation:
  1. General: Install quarry floor tile and trim in accordance with industry reference standards.
  2. Joint Widths: Allow for joints widths in quarry floor tile as indicated on drawings.
- D. Wall Tile Installation
  1. General: Install quarry wall tile and trim in accordance with industry reference standards.
  2. Joint Widths: Allow for joints width in quarry wall tile as indicated on drawings.

- E. Patterns: Install quarry tile in pattern indicated on drawings.
- F. Related Materials Installation:
  - 1. Concrete: Refer to Division 3 Concrete Sections.
  - 2. Wood (Plywood): Refer to Division 6 Carpentry Sections.
  - 3. Waterproofing: Refer to Division 7 Waterproofing Sections.
  - 4. Sealants: Refer to Division 7 Joint Sealers Sections.
  - 5. Tile Backer Board: Refer to Division 9 Gypsum Board Section.
  - 6. Tile Accessories: Refer to Tile Setting And Accessories Section.
  - **Specifier Note:** Article below is combination of two Article titles recommended in CSI Section Format into one Article title. Coordinate Article below with Division I Execution Requirements, Cleaning and Protecting Installed Construction Section.

### **3.05 CLEANING AND PROTECTION**

- A. Cleaning: Remove temporary coverings and protection of adjacent work areas. Repair or replace damaged installed products, Clean installed products in accordance with manufacturer's instructions prior to owner's acceptance. Remove construction debris from project site and legally dispose of debris.
- B. Protection: Protect installed product's finish surfaces from damage during construction.

### **END OF SECTION**



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