

SECTION 07321 (07 32 16)

CONCRETE ROOF TILE

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**\*\* NOTE TO SPECIFIER \*\*** Westlake Royal Roofing Solutions; Newpoint Concrete Roofing Tiles' standard weight and light weight concrete roof tile.

This section is based on the products of Westlake Royal Roofing Solutions, which is located at:  
2801 Post Oak, Suite 600  
Houston, TX 77056  
Toll free: 800-658-8004  
Email: request info  
Web: [westlakeroyalroofing.com](http://westlakeroyalroofing.com)

[[Click Here](#)] for additional information.

Westlake Royal Roofing was formed in 1997 as a joint venture between long-time industry leaders Monier Inc. and Westlake Royal Lifetile Inc. Monier was founded in 1965 and Lifetile in 1962. The company is the largest manufacturer of premium-quality roof tile in the United States. Newpoint Concrete Roof Tiles offers a broad selection of Concrete Roof Tile and Roof System Components for both new construction and reroof. Westlake Royal Roofing is committed to providing our customers with a tile roof, not just roof tile. The underlying foundation for a tile roof is just as vital as the tile that completes it. Our goal is to provide an optimal roof installation by offering tile and component products that make such an installation possible. When used together, Westlake Royal Roofing roof tile and Westlake Roayl Roof System Components can provide a long-lasting and better performing tile roof. For tile profiles (shapes), the specifier should review the manufacturer's literature or website. Colors should be verified based on the plant where the tile will be made.

## PART 1 GENERAL

### 1.1 SECTION INCLUDES

**\*\* NOTE TO SPECIFIER \*\*** Delete items below not required for project.

- A. Concrete roof tiles.
- B. Roof System Components:
  - 1. Underlayment.
  - 2. Roof flashing materials
  - 3. Related roof accessories.

### 1.2 RELATED SECTIONS

**\*\* NOTE TO SPECIFIER \*\*** Delete any sections below not relevant to this project; add others as required.

- A. Section 06100 - Rough Carpentry; Roof sheathing and nailers.
- B. Section 07600 - Flashing and Sheet Metal.

- C. Section 07710 - Roof Specialties; Roof gutters and downspouts.
- D. Section 08600 - Skylights.
- E. Division 15 - Mechanical: Mechanical work projecting through roof.
- F. Division 16: - Electrical: Electrical work projecting through roof.

### 1.3 REFERENCES

**\*\* NOTE TO SPECIFIER \*\*** Delete references from the list below that are not actually required by the text of the edited section.

- A. IAPMO ES Report - 412 for Westlake Royal Roofing Solutions' Newpoint Concrete Roof Tiles.
- B. IAPMO UES ER-2015 - TRI Concrete and Clay Roof Tile Installation Manual.
- C. Tile Roofing Institute (TRI) - Concrete and Clay Design Criteria for Cold and Snow Regions.
- D. FRSA/TRI Florida High Wind Tile Installation Manual, Revised 6th Edition, 2020.
- E. ICC AC 180 - Acceptance Criteria for Clay and Concrete Roof Tiles.
- F. Florida Building Codes, Product Approval - FL7849, FL14317, FL7804.
- G. CAN/CSA-A220. Series-06 - Concrete Roof Tiles.
- H. ICC AC 188 for Underlayments.
- I. AC 48 for Underlayments in severe climates.
- J. AC 148 for Wakaflex flashing and ridge venting products.
- K. Leadership in Energy and Environmental Design (LEED).
- L. California Title 24 Energy Efficient Standards.
- M. Cool Roof Rating Council (CRRC).

### 1.4 DESIGN REQUIREMENTS

**\*\* NOTE TO SPECIFIER \*\*** Roof tile materials and installation conforms to International Building Code, International Residential Code for One- and Two-Family Dwelling Code and the Florida Building Code.

- A. Roofing tile materials and installation shall conform to the requirements of IAPMO UER-412.

**\*\* NOTE TO SPECIFIER \*\*** The following paragraph applies to NewPoint Concrete Roof Tile products as listed. Edit as required for the project conditions and the tile specified in Part 2 of this specification. Delete the listing and products that are not applicable. Consult with manufacturer for additional information if required.

- B. Roofing tile materials and installation shall conform to the requirements of Miami Dade County Notice of Acceptance (NOA) as follows:
  1. NOA 21-0420.06 – Barcelona 900 Concrete Roof Tile.
  2. NOA 21-0712.03 – Villa 900 Concrete Roof Tile.
  3. NOA 19-1021.05 – Tejas Espana Concrete Roof Tile.
  4. NOA 19-1002.14 – Villa Concrete Roof Tile.
  5. NOA 12-0308.24 – Mission S Concrete Roof Tile.
  6. NOA 19-1021.04 – Espana Concrete Roof Tile.
  7. NOA 21-0420.03 – Saxony 900 Lake Wales (Shake, Slate, Split Shake) Concrete

- Roof Tile.
8. NOA 21-0420.04 – Saxony 900 Okeechobee Concrete Roof Tile.
  9. NOA 18-0502.03 – TileSeal.
  10. NOA 21-0604.02 – Wakaflex Flashing.
  11. NOA 19-1021.10 – Madera Concrete Roof Tile.

- C. Roofing tile materials and installation shall conform to the requirements of the State of Florida Product Approvals as follows:
1. FL 7849.
  2. FL 14317.
  3. FL 7804.
- D. Roofing tile materials and installation shall conform to the SBCCI Standard for Hurricane Resistant Residential Construction, SSTD10-99, the International Building Code for One- and Two-Family Dwelling Code and the Florida Building Code 2017.

## 1.5 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
1. Preparation instructions and recommendations.
  2. Storage and handling requirements and recommendations.
  3. Installation methods.
- C. Shop Drawings: Indicate metal flashing profiles, joint locations, fastening locations, and installation details. Indicate tile layout with location of cut and special shaped tiles identified.

**\*\* NOTE TO SPECIFIER \*\* Delete selection samples if colors have already been selected in the specification.**

- D. Selection Samples: For each finish product specified, two complete sets of tile colors representing manufacturer's full range of available colors and patterns.
- E. Verification Samples: For each finish product specified, two full size samples representing actual product, color, and patterns.
- F. Certificates of Compliance: Submit to certify compliance with referenced standards.

**\*\* NOTE TO SPECIFIER \*\* Retain the next article only if project is to be LEED Certified.  
LEED CERTIFICATION**

- G. LEED Submittals: Provide a roofing system that will achieve or aid in the qualification of points satisfying.
1. Sustainable Site credit 7.2 - Heat Island Effect - Roof.
  2. Materials and Resources credit 5 - Local and Regional Materials.

## 1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Minimum five years documented experience producing concrete roof tile and member of Tile Roof Industry Alliance.
- B. Installer Qualifications: Minimum five years documented experience installing products specified in this section.

**\*\* NOTE TO SPECIFIER \*\* Include a mock-up if the project size and/or quality warrant taking such a precaution. The following is one example of how a mock-up on a large project might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.**

- C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and

application workmanship.

1. Finish areas designated by Architect.
2. Mock-up shall be a minimum of a 10-foot (3.05 m) by 10-foot (3.05 m) area and include the edge, ridge, valley, and other typical transition conditions anticipated.
3. Do not proceed with remaining work until installation workmanship and appearance is approved by Architect.

**\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs.**

4. Mock-up may not remain as part of Work.
5. Accepted mock-up may remain as part of Work.

## 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Deliver products to project site in manufacturer's unopened pallets, labeled with data indicating compliance with specified requirements.
- C. Maintain dry storage area for products of this section until installation of products.

## 1.8 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.
- B. Do not overload the roof. Distribute stacks of tile uniformly on roof at not greater than 12 inches (305 mm) in height.

## 1.9 WARRANTY

- A. Roof Tile: Westlake Royal Roofing Solutions' Newpoint Concrete Roof Tiles' Limited Lifetime, Fully Transferable, Non-Prorated Product Warranty against defects in roof tile for the life of the structure.

**\*\* NOTE TO SPECIFIER \*\* Include the following if required for project. Verify that the installer will offer this warranty in the location of the project. Delete if not required.**

- B. Installation Warranty: Warrants products of this section, as installed, to be in accord with the Contract Documents and free from faults and defects in materials and workmanship for a period of 3 years after completion.

**\*\* NOTE TO SPECIFIER \*\* Include the following if required for project. Delete if not required.**

## 1.10 EXTRA MATERIALS

- A. Provide an additional 1 percent of installed roof tiles, but not less than one full square, for Owner's use in roof maintenance.
- B. Furnish extra materials packaged with protective covering for storage and identified with labels clearly describing contents.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Westlake Royal Roofing LLC which is located at: 2801 Post Oak, Suite 600, Houston, TX 77056; Toll free: 800-658-8004; Web: westlakeroyalroofing.com.

**\*\* NOTE TO SPECIFIER \*\* Select paragraphs representing the manufacturing and distribution center for the product specified and delete the others. Note that each plant manufactures a different selection of**

profiles and colors and although any profile/color is available anywhere in the U.S., appropriate shipping costs will apply. Refer to tile profiles for plants in the region of the project's location.

- B. Westlake Royal Roofing Solutions' NewPoint Concrete Roof Tile's Manufacturing and Distribution Facility:
1. Arizona Region:
    - a. Phoenix Plant, 1832 S. 51st Avenue, Phoenix, AZ 85043. Tel: 603-269-2288, Toll Free: 800-845-9921.
  2. Florida, Southeast, Northeast Regions:
    - a. Pompano Beach Plant, 1369 Hammondville Road, Pompano Beach, FL 33069. Tel: 954-786-5380, Toll Free: 800-818-0974.
    - b. Lake Wales Plant, 200 Story Road, Lake Wales, FL 33853. (P.O. Box 632, Lake Wales, FL 33859-0632), Tel: 863-678-9405, Toll Free: 800-282-3633.
    - c. Okeechobee, FL 1289 NE 9th Ave, Okeechobee, FL 34972 Tel: (863) 467-0042
  3. Hawaii Region:
    - a. Hawaii, Hawaii Docks, Lathrop Plant, 342 Roth Road, Lathrop, CA 95330. Tel: 209-983-1600. Tel: 800-669-8453.
  4. Northern California and Pacific Northwest Regions:
    - a. Lathrop Plant, 342 Roth Road, Lathrop, CA 95330. Tel: 209-983-1600. Tel: 800-669-8453.
    - b. Stockton Plant, 9508 South Harlan, French Camp, CA 95231, Mailing: PO Box 6037, Stockton, CA 95206. Tel: 209-982-1473. Tel: 800-669-8453.
  5. Rocky Mountain and Heartland Regions:
    - a. Denver Plant, 10121 Dallas Street, Henderson, CO 80640. Tel: 303-286-3856.
  6. Southern California Region:
    - a. Rialto Plant: 3511 North Riverside Avenue, Rialto, CA 92377. Tel: 909-822-4407. Tel: 800-769-8453.
  7. Southern Nevada Region:
    - a. Henderson Plant, 430 Eastgate, Henderson, NV 95020. Tel: 702-564-8453, Toll Free: 800-224-3560.
  8. Texas Region:
    - a. Katy Plant, 30595 FM 529, Brookside, TX 77434. Tel: 281-371-2634, Toll Free: 866-204-8426.

**\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs: coordinate with requirements of Division 1 section on product options and substitutions.**

- C. Substitutions: Not permitted.
- D. Requests for substitutions will be considered in accordance with provisions of Section 01600.

**\*\* NOTE TO SPECIFIER \*\* The following Concrete Roof Tile and Roof System Components paragraphs represent the Manufacturing and Distribution locations for each Westlake Royal Roofing Region. Select the Region(s) representing the project location and delete those that are not applicable. Edit the products listed to suit the project requirements.**

**\*\* NOTE TO SPECIFIER \*\* The following Concrete Roof Tile and Roof System Components paragraphs represents the products available in Westlake Royal Roofing's Arizona Region, Phoenix Plant, 1832 S. 51st Avenue, Phoenix, AZ 85043. Tel: 603-269-2288 and 800-845-9921. Select the Weight and the Profile required and delete those not required.**

## 2.2 CONCRETE ROOF TILE - ARIZONA

**\*\* NOTE TO SPECIFIER \*\* Standard weight tiles weigh 900 lbs./square or more. Delete all but one of the following tile profiles. If more than one is required, indicate where each is to be used on the Drawings or Specifications.**

- A. Standard Weight Tile: Mission "S" profile.

1. Finishing Tile: Provide Mansard Trim, Hip Starter and Mansard Apex 3-Way tiles.
2. Size: 16-1/2 inches (419 mm) by 13 inches (330 mm), nominal.
3. Coverage: 90 field tiles per 100 square feet (9.29 sq m) of roof area.
4. Installed Weight per Square: Approximately 1030 lbs. (467 kg).
5. Color: As selected by the Architect.

B. Standard Weight Tile: Boosted Barcelona profile.

**\*\* NOTE TO SPECIFIER \*\* Boosted Barcelona is an application of Barcelona which, when added to Barcelona field tile, creates the appearance of a mortar-boosted tile.**

1. Size: 13-1/2 inches (343 mm) by 6-1/2 inches (165 mm), nominal.
2. Coverage: 10 percent application, 20 percent application, 30 percent application.
3. Installed weight per square including field tile: 10 percent, 945 lbs. (429 kg), 20 percent, 990 lbs. (449 kg), 30 percent, 1,050 lbs. (476 kg).
4. Color: As selected by the Architect.

C. Standard Weight Tile: Saxony Slate profile.

1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles.
2. Size: 16-1/2 inches (419 mm) by 13 inches (330 mm), nominal.
3. Coverage: 88 field tiles per 100 square feet (9.29 sq m) of roof area.
4. Installed Weight per Square: Approximately 950 lbs. (431 kg).
5. Color: As selected by the Architect.

D. Standard Weight Tile: Saxony Shake profile.

1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles.
2. Size: 16-1/2 inches (419 mm) by 13 inches (330 mm), nominal.
3. Coverage: 88 field tiles per 100 square feet (9.29 sq m) of roof area.
4. Installed Weight per Square: Approximately 950 lbs. (431 kg).
5. Color: As selected by the Architect.

E. Standard Weight Tile: Saxony Country Slate profile.

1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles.
2. Size: 16-1/2 inches (419 mm) by 13 inches (330 mm), nominal.
3. Coverage: 88 field tiles per 100 square feet (9.29 sq m) of roof area.
4. Installed Weight per Square: Approximately 950 lbs. (431 kg).
5. Color: As selected by the Architect.

F. Standard Weight Tile: Madera 900 profile.

1. Finishing Tile: Provide Rake, Hip/Ridge and Tapered Eave Starter tiles.
2. Size: 13-1/2 inches (343 mm) by 13 inches (330 mm), nominal.
3. Coverage: 120 field tiles per 100 square feet (9.29 sq m) of roof area.
4. Installed Weight: Approximately 950 lbs. (431 kg).
5. Color: As selected by the Architect.

**\*\* NOTE TO SPECIFIER \*\* Midweight tiles weigh less than 900 lbs./square and are not recommended for use in areas with severe winter weather. Delete all but one of the following tile profiles. If more than one is required, indicate where each is to be used on the Drawings or Specifications.**

G. Midweight Tile: Madera 700 profile.

1. Finishing Tile: Provide Rake, Hip/Ridge and Tapered Eave Starter tiles.
2. Size: 13-1/2 inches (343 mm) by 13 inches (330 mm), nominal.
3. Coverage: 120 field tiles per 100 square feet (9.29 sq m) of roof area.
4. Installed Weight: Approximately 720 lbs. (327 kg).
5. Color: As selected by the Architect.

**\*\* NOTE TO SPECIFIER \*\* Lightweight tiles weigh no more than 600 lbs./square and are not**

recommended for use in areas with severe winter weather. Delete all but one of the following tile profiles. If more than one is required, indicate where each is to be used on the Drawings or Specifications.

- H. Lightweight Tile: Cedarlite 600 profile.
  - 1. Finishing Tile: Provide Rake, Hip/Ridge and Tapered Eave Starter tiles.
  - 2. Size: 13-1/2 inches (343 mm) by 13 inches (330 mm), nominal.
  - 3. Coverage: 120 field tiles per 100 square feet (9.29 sq m) of roof area.
  - 4. Installed Weight: Approximately 590 lbs. (268 kg).
  - 5. Color: As selected by the Architect.
  
- I. Lightweight Tile: Duralite Espana 600 profile.
  - 1. Finishing Tile: Provide Capri Trim, Capri Hip Starter and Apex 3-Way tiles.
  - 2. Size: 17 inches (432 mm) by 12-3/8 inches (314 mm), nominal.
  - 3. Coverage: 89 field tiles per 100 square feet (9.29 sq m) of roof area.
  - 4. Installed Weight: Approximately 590 lbs. (268 kg).
  - 5. Color: As selected by the Architect.

**\*\* NOTE TO SPECIFIER \*\*** The tile in the following 4 paragraphs are available from Westlake Royal Roofing's Southern California Rialto Plant.

- J. Lightweight Tile: Duralite Villa 600 profile.
  - 1. Finishing Tile: Provide Capri Trim, Capri Hip Starter and Apex 3-Way tiles.
  - 2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  - 3. Coverage: 87 field tiles per 100 square feet (9.29 sq m) of roof area.
  - 4. Installed Weight: Approximately 580 lbs. (263 kg).
  - 5. Color: As selected by the Architect.
  
- K. Lightweight Tile: Duralite Saxony 600 Shake profile.
  - 1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles.
  - 2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  - 3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  - 4. Installed Weight: Approximately 570 lbs. (258 kg).
  - 5. Color: As selected by the Architect.
  
- L. Lightweight Tile: Duralite Saxony 600 Split Shake profile.
  - 1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 or 4-Way tiles.
  - 2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  - 3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  - 4. Installed Weight: Approximately 570 lbs. (258 kg).
  - 5. Color: As selected by the Architect.
  
- M. Lightweight Tile: Duralite Saxony 600 Slate profile.
  - 1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles.
  - 2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  - 3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  - 4. Installed Weight: Approximately 570 lbs. (258 kg).
  - 5. Color: As selected by the Architect.

**\*\* NOTE TO SPECIFIER \*\*** Westlake Royal Roofing offers a complete line of Roof System Components that are recommended to ensure an optimal roof installation. Select the Accessory Material items which are appropriate for the project and the system selected. Consult with the manufacturer for additional information on Roof System Components.

## 2.3 ROOF SYSTEM COMPONENTS - ARIZONA

**\*\* NOTE TO SPECIFIER \*\*** Select the required underlayment from the following paragraphs and delete



paragraphs not relevant to this project.

- A. Underlayment:
1. Westlake Royal TileSeal HT Self-Adhering Underlayment.
  2. GatorSeal Granular Heavy Duty Self-Adhering Underlayment.
  3. Westlake Royal TileSeal 40 Underlayment.
  4. Westlake Royal Ply40 Underlayment.
  5. Westlake Royal ORG Ply40 Underlayment.
  6. SwiftGuard Engineered Synthetic Underlayment.
- B. Fasteners: Sized to penetrate deck minimum 3/4 inch (19 mm) or through thickness of deck or batten.

**\*\* NOTE TO SPECIFIER \*\*** Select the required flashing material from the following paragraphs and delete those not required. Coordinate with flashing specified in other sections of the specification.

- C. Flashings:
1. Tile Pan, 26-gauge Galvanized Sheet Steel side wall flashing.
  2. Wakaflex universal flashing for abutments at chimneys, walls, and other rising structures.
  3. Terminal Bar metal flashing for chimneys and other roof to wall structures.
  4. Ribbed Valley Metal 1-inch minimum Center Diverter, 26-gauge, Galvanized Sheet Steel.
  5. Plumbing Stacks and Other Pipes Penetrating Roofs.

**\*\* NOTE TO SPECIFIER \*\*** Select adhesive if required, delete if not required.

- D. Adhesive: Code approved adhesive suitable to bond to concrete roof tile.

**\*\* NOTE TO SPECIFIER \*\*** Select the eave closure required from the following paragraphs and delete those not required.

- E. Eave Closures:
1. Vented Eave Riser - Metal to match tile profile.
  2. Eave Riser - Metal to match tile profile.

- F. Battens:

**\*\* NOTE TO SPECIFIER \*\*** Select battens required from the following paragraphs and delete those not required,

1. Elevated Batten System 1 inch (25 mm) x 2 inches (51 mm) x 8 ft (2.44 m).
2. Elevated Batten System 1 inch (25 mm) x 3 inches (76 mm) x 8 ft (2.44 m).
3. Elevated Batten System 1 inch (25 mm) x 2 inches (51 mm) x 4 ft (1.22 m).
4. FirePro Elevated Batten System 1 inch (25 mm) x 3 inches (76 mm) x 4 ft (1.22 m). Fire Retardant Treated.
5. FirePro Elevated Batten System 1 inch (25 mm) x 2 inches (51 mm) x 4 ft (1.22 m). Fire Retardant Treated.
6. Batten Extenders 10 inches (254 mm) for use with standard battens at tile pans.
7. Batten Extenders 18 inches (457 mm) for use with standard battens at valleys.

- G. Hip and Ridge:

**\*\* NOTE TO SPECIFIER \*\*** Select to match profile of concrete roof tile.

1. Figaroll Plus: Ridge vent and weather block for all profiles.
2. Zephyr Roll: Ridge vent and weather block flat tiles, 11 inches by 33 feet (279 mm by 10 M).
3. Zephyr Roll: Ridge vent and weather block, 13.4 inches by 33 feet (340 mm by 10 M). For medium and high-profile tiles.
4. Ridge Riser: Elevates ridge board to proper height. For all profiles. For use with Figaroll Plus or Zephyr Roll.



H. Rake and Gable End: Rake and Ridge tiles. Choose to match tile profile and color.

I. Field Venting: Select to match profile of concrete roof tile.

**\*\* NOTE TO SPECIFIER \*\*** The following Concrete Roof Tile and Roof System Components paragraphs represents the products available in Westlake Royal Roofing's Florida Region; Pompano Beach Plant, 1369 Hammondville Road, Pompano Beach, FL 33069. Tel: 954-786-5380 and 800-818-0974; Lake Wales Plant, 200 Story Road, Lake Wales, FL 33853. (P.O. Box 632, Lake Wales, FL 33859-0632), Tel: 863-678-9405 and 800-282-3633, and Okeechobee. Select the Weight and the Profile required and delete those not required.

## 2.4 CONCRETE ROOF TILE - FLORIDA, SOUTHEAST, NORTHEAST

**\*\* NOTE TO SPECIFIER \*\*** Standard weight tiles weigh 900 lbs./square or more. Delete all but one of the following tile profiles. If more than one is required, be sure to indicate where each is to be used on the Drawings or the Specifications.

**\*\* NOTE TO SPECIFIER \*\*** The tile in the following paragraph is available from Westlake Royal Roofing's Lake Wales Plant.

A. Standard Weight Tile: Barcelona 900 profile.

1. Finishing Tile: Provide Capri Trim, Hip Starter and Capri Apex 3-Way tiles.
2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
4. Installed Weight per Square: Approximately 950 lbs. (431 kg).
5. Color: As selected by the Architect.

B. Standard Weight Tile: Boosted Barcelona profile.

**\*\* NOTE TO SPECIFIER \*\*** Boosted Barcelona is an application of Barcelona which, when added to Barcelona field tile, creates the appearance of a mortar-boosted tile.

1. Size: 13-1/2 inches (343 mm) by 6-1/2 inches (165 mm), nominal.
2. Coverage: 10 percent application, 20 percent application, 30 percent application.
3. Installed weight per square including field tile: 10 percent, 945 lbs. (429 kg), 20 percent 990 lbs. (449 kg), 30 percent, 1,050 lbs. (476 kg).
4. Color: As selected by the Architect.

**\*\* NOTE TO SPECIFIER \*\*** The tiles in the following 5 paragraphs are available from Westlake Royal Roofing's Lake Wales Plant.

C. Standard Weight Tile: Villa 900 profile.

1. Finishing Tile: Provide Rake, Ridge, Capri Trim, Hip Starter and Capri Apex 3-Way.
2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
4. Installed Weight per Square: Approximately 920 lbs. (418 kg).
5. Color: As selected by the Architect.

D. Standard Weight Tile: Saxony 900 Slate profile.

1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3- or 4-Way tiles.
2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
4. Installed Weight per Square: Approximately 950 lbs. (432 kg).
5. Color: As selected by the Architect.

E. Standard Weight Tile: Saxony 900 Shake profile.

1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3- or 4-Way tiles.
2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
4. Installed Weight per Square: Approximately 950 lbs. (432 kg).

5. Color: As selected by the Architect.
- F. Standard Weight Tile: Saxony 900 Split Shake profile.
1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3- or 4-Way tiles.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight per Square: Approximately 950 lbs. (432 kg).
  5. Color: As selected by the Architect.
- G. Standard Weight Tile: Westlake Royal Roofing's Madera 900 profile.
1. Finishing Tile: Provide Rake, V Ridge and Tapered Eave Starter tiles.
  2. Size: 13-1/2 inches (343 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 120 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight: Approximately 950 lbs. (432 kg).
  5. Color: As selected by the Architect.

**\*\* NOTE TO SPECIFIER \*\*** The tile in the following paragraph is available from Westlake Royal Roofing's Okeechobee Plant.

## 2.5 CONCRETE ROOF TILE - FLORIDA, SOUTHEAST, NORTHEAST (Okeechobee)

- A. Standard Weight Tile: Galena Spanish profile.
1. Finishing Tile: Provide Barrel, Rake Trim tiles.
  2. Size: 17 inches (432 mm) by 10 inches (254 mm), nominal.
  3. Coverage: 111 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight per Square: Approximately 877 lbs. (398 kg).
  5. Color: As selected by the Architect.
- B. Standard Weight Tile: Plantation profile.
1. Finishing Tile: Provide V-Ridge, Rake tiles.
  2. Size: 16-1/2 inches (419 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 91 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight per Square: Approximately 974 lbs. (442 kg).
  5. Color: As selected by the Architect.
- C. Standard Weight Tile: Estate "S" profile.
1. Finishing Tile: Provide Barrel and Rake trim.
  2. Size: 16-1/2 inches (419 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 91 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed weight per square including field tile: 828 lbs. (376 kg).
  5. Color: As selected by the Architect.
- D. Standard Weight Tile: Bermuda profile.
1. Finishing Tile: Provide V-Ridge, Rake and Thick Butt tile.
  2. Size: 16 inches (406 mm) by 10 inches (254 mm), nominal.
  3. Coverage: 123 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight per Square: Approximately 1255 lbs. (569 kg).
  5. Color: As selected by the Architect.
- E. Standard Weight Tile: Saxony 900 Series profiles.
1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3- or 4-Way tiles.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight per Square: Approximately 950 lbs. (432 kg).
  5. Color: As selected by the Architect.

**\*\* NOTE TO SPECIFIER \*\*** Westlake Royal Roofing offers a complete line of Roof System Components that are recommended to ensure an optimal roof installation. Select the Accessory Material items, which are appropriate for the project and the system selected. Consult with the manufacturer for additional information on Roof System Components.

## 2.6 ROOF SYSTEM COMPONENTS - FLORIDA, SOUTHEAST, NORTHEAST

**\*\* NOTE TO SPECIFIER \*\*** Select the required underlayment from the following paragraphs and delete paragraphs not relevant to this project.

- A. Underlayment:
  - 1. Westlake Royal TileSeal HT Self-Adhering Underlayment.
  - 2. Citadel Plus Base Sheet.
  
- B. Fasteners: Sized to penetrate deck minimum 3/4 inch (19 mm) or through thickness of deck or batten.
  - 1. Quik Drive Screws, Roofing Specific.

**\*\* NOTE TO SPECIFIER \*\*** Select to match profile of chosen concrete roof tile. Contact Westlake Royal Roofing for storm clip recommendations.

- C. Wind Clips:
  - 1. Zip-Clip Adjustable Tile Clip.

**\*\* NOTE TO SPECIFIER \*\*** Select the required flashing material from the following paragraphs and delete those not required. Coordinate with flashing specified in other sections of the specification.

- D. Flashings:
  - 1. Ribbed Tile Pan, 26-gauge Galvanized Sheet Steel sidewall flashing.
  - 2. Wakaflex universal flashing for abutments at chimneys, walls, and other rising structures.
  - 3. Terminal Bar metal flashing for chimneys and other roof to wall structures.
  - 4. Ribbed Valley Metal 1 inch Center Diverter, 26-gauge, Galvanized Sheet Steel.
  - 5. Plumbing Stacks and Other Pipes Penetrating.

- E. Adhesive: Code approved adhesive suitable to bond to concrete roof tile.

**\*\* NOTE TO SPECIFIER \*\*** Select the eave closure required from the following paragraphs and delete those not required.

- F. Eave Closures: Provide to match tile profile.
  - 1. Vented Eave Riser - Metal.
  - 2. Eave Riser - Metal.
  
- G. Battens:
  - 1. Elevated Batten System 1 inch (25 mm) by 2 inches (51 mm) by 8 feet (2.44 m).

- H. Hip and Ridge:

**\*\* NOTE TO SPECIFIER \*\*** Select to match profile of concrete roof tile.

- 1. Figaroll Plus: Ridge vent and weather block for all profiles.
  - 2. Zephyr Roll: Ridge vent and weather block flat tiles, 11 inches by 33 feet (279 mm by 10 M).
  - 3. Zephyr Roll: Ridge vent and weather block, 13.4 inches by 33 feet (340 mm by 10 M). For medium and high-profile tiles.
  - 4. Ridge Riser: Elevates ridge board to proper height. For all profiles. For use with Figaroll Plus or Zephyr Roll.
  - 5. Trim Lock Hip and Ridge Metal. Choose size to match tile profile.
  
- I. Ridge, Rake and Gable End Tiles:
  - 1. Choose to match tile profile and color.

- J. Field Venting:  
1. Select to match profile of concrete roof tile.

**\*\* NOTE TO SPECIFIER \*\*** The following Concrete Roof Tile and Roof System Components paragraphs represents the products available in Westlake Royal Roofing's Hawaii Region: Hawaii, Hawaii Docks, Tacoma Plant, 10920 Steele Street Lakewood WA 98499. Tel: 800-699-8453. Select the Weight and the Profile required and delete those not required.

## 2.7 CONCRETE ROOF TILE - HAWAII

**\*\* NOTE TO SPECIFIER \*\*** Standard weight tiles weigh 900 lbs./square or more. Delete all but one of the following tile profiles. If more than one is required, indicate where each is to be used on the Drawings or Specifications.

- A. Standard Weight Tile: Barcelona 900 profile.
1. Finishing Tile: Provide Capri Trim, Hip Starter and Capri Apex 3-Way tiles as needed.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Approximately 930 lbs. (422 kg).
  5. Color: As selected by the Architect.
- B. Standard Weight Tile: Villa 900 profile.
1. Finishing Tile: Provide Capri Trim, Hip Starter and Capri Apex 3-Way tiles as needed.
  2. Size: 16-1/2 inches (419 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 90 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight per Square: Approximately 900 lbs. (409 kg).
  5. Color: As selected by the Architect.
- C. Standard Weight Tile: Saxony 900 Slate profile.
1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles as needed.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight per Square: Approximately 910 lbs. (413 kg).
  5. Color: As selected by the Architect.
- D. Standard Weight Tile: Saxony 900 Hartford Slate profile.
1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles as needed.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight per Square: Approximately 910 lbs. (413 kg).
  5. Color: As selected by the Architect.
- E. Standard Weight Tile: Saxony 900 Shake profile.
1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles as needed.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight per Square: Approximately 910 lbs. (413 kg).
  5. Color: As selected by the Architect.
- F. Standard Weight Tile: Madera 900 profile.
1. Finishing Tile: Provide Rake, V Ridge and Tapered Eave Starter tiles as needed.
  2. Size: 13-1/2 inches (343 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 120 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight: Approximately 950 lbs. (432 kg).
  5. Color: As selected by the Architect.

**\*\* NOTE TO SPECIFIER \*\* Lightweight tiles weigh no more than 600 lbs./square and are not recommended for use in areas with severe winter weather. Delete all but one of the following tile profiles. If more than one is required, indicate where each is to be used on the Drawings or Specifications.**

- G. Lightweight Tile: Cedarlite 600 profile.
1. Finishing Tile: Provide Rake, V Ridge and Tapered Eave Starter tiles as needed.
  2. Size: 13-1/2 inches (343 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 120 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight: Approximately 590 lbs. (268 kg).
  5. Color: As selected by the Architect.
- H. Lightweight Tile: Duralite Espana 600 profile.
1. Finishing Tile: Provide Capri Trim, Capri Hip Starter and Apex 3-Way tiles as needed.
  2. Size: 17 inches (432 mm) by 12-3/8 inches (314 mm), nominal.
  3. Coverage: 89 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight: Approximately 590 lbs. (268 kg).
  5. Color: As selected by the Architect.
- I. Lightweight Tile: Duralite Villa profile.
1. Finishing Tile: Provide 600 Capri Trim, Hip Starter Capri, and Apex 3-Way tiles as needed.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 87 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight: Approximately 600 lbs. (272 kg).
  5. Color: As selected by the Architect.
- J. Lightweight Tile: Duralite Saxony 600 Shake profile.
1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3y tiles as needed.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight: Approximately 570 lbs. (258 kg).
  5. Color: As selected by the Architect.
- K. Lightweight Tile: Duralite Saxony 600 Split Shake profile.
1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles as needed.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight: Approximately 579 lbs. (263 kg).
  5. Color: As selected by the Architect.
- L. Lightweight Tile: Duralite Saxony 600 Slate profile.
1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles as needed.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight: Approximately 570 lbs. (259 kg).
  5. Color: As selected by the Architect.

**\*\* NOTE TO SPECIFIER \*\* Midweight tiles weigh less than 900 lbs./square and are not recommended for use in areas with severe winter weather. Delete all but one of the following tile profiles. If more than one is required, indicate where each is to be used on the Drawings or Specifications.**

- M. Midweight Tile: Duralite Saxony 700 Shake profile.
1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles as needed.

2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight: Approximately 720 lbs. (327 kg).
  5. Color: As selected by the Architect.
- N. Midweight Tile: Duralite Saxony 700 Split Shake profile.
1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles as needed.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight: Approximately 720 lbs. (327 kg).
  5. Color: As selected by the Architect.
- O. Midweight Tile: Duralite Saxony 700 Slate profile.
1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles as needed.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight: Approximately 720 lbs. (327 kg).
  5. Color: As selected by the Architect.

**\*\* NOTE TO SPECIFIER \*\*** Westlake Royal Roofing offers a complete line of Roof System Components that are recommended to ensure an optimal roof installation. Select the Accessory Material items which are appropriate for the project and the system selected. Consult with the manufacturer for additional information on Roof System Components.

## 2.8 ROOF SYSTEM COMPONENTS - HAWAII

- A. Underlayment:
1. Westlake Royal TileSeal HT Self-Adhering Underlayment.
- B. Fasteners: Sized to penetrate deck minimum 3/4 inch (19 mm) or through thickness of deck or batten.

**\*\* NOTE TO SPECIFIER \*\*** Select to match profile of chosen concrete roof tile. Contact Westlake Royal Roofing for storm clip recommendations.

- C. Wind Clips:
1. Zip-Clip, Adjustable Tile Clip.
  2. Wind Clips, stainless steel.

**\*\* NOTE TO SPECIFIER \*\*** Select the required flashing material from the following paragraphs and delete those not required. Coordinate with flashing specified in other sections of the specification.

- D. Flashings:
1. Ribbed Tile Pan, 26-gauge Galvanized Sheet Steel side wall flashing.
  2. Wakaflex universal flashing for abutments at chimneys, walls, and other rising structures.
  3. Terminal Bar metal flashing for chimneys and other roof to wall structures.
  4. Ribbed Valley Metal 1 inch Center Diverter, 26-gauge, Galvanized Sheet Steel.
  5. Plumbing Stacks and Other Pipes Penetrating Roof: Wakaflex Pipe Flashing.

**\*\* NOTE TO SPECIFIER \*\*** Select adhesive if required, delete if not required.

- E. Adhesive: Code approved adhesive suitable to bond to concrete roof tile.

**\*\* NOTE TO SPECIFIER \*\*** Select the eave closure required from the following paragraphs and delete those not required.

- F. Eave Closures: Provide to match tile profile.
1. Vented Eave Riser - Metal.



2. Eave Riser - Metal.

G. Battens:

1. Elevated Batten System:
  - a. Nominal 1 inch (25 mm) by 2 inches (51 mm) by 4 feet (1.22 m). Pressure Treated.
  - b. Nominal 1 inch (25 mm) by 3 inches (76.2 mm). Pressure Treated.

H. Hip and Ridge:

**\*\* NOTE TO SPECIFIER \*\* Select to match profile of concrete roof tile.**

1. Figaroll Plus: Ridge vent and weather block for all profiles.
2. Zephyr Roll: Ridge vent and weather block flat tiles, 11 inches by 33 feet (279 mm by 10 M).
3. Zephyr Roll: Ridge vent and weather block, 13.4 inches by 33 feet (340 mm by 10 M). For medium and high-profile tiles.
4. Ridge Riser: Elevates ridge board to proper height. For all profiles. For use with Figaroll Plus or Zephyr Roll.
5. Trim Lock Hip and Ridge Metal. Choose size to match tile profile.

I. Ridge, Rake and Gable End Tiles:

1. Choose to match tile profile and color.

J. Field Venting:

1. Select to match profile of concrete roof tile.

**\*\* NOTE TO SPECIFIER \*\* The following paragraph represents the standard weight tile, lightweight tile and accessory materials available Westlake Royal Roofing's Northern California Region, Lathrop Plant, 642 Roth Road, Lathrop, CA 95330. Tel: 209-983-1600 and 800-669-8453; Stockton Plant, 9508 South Harlan, French Camp, CA 95231, (Mailing: PO Box 6037, Stockton, CA 95206) Tel: 209-982-1473 and 800-669-8453. Select the Weight and the Profile of the Concrete Roof Tile and the Accessory Materials required for the project and delete those not required.**

## 2.9 CONCRETE ROOF TILE - NORTHERN CALIFORNIA AND PACIFIC NORTHWEST

**\*\* NOTE TO SPECIFIER \*\* Standard weight tiles weigh 900 lbs./square or more. Delete all but one of the following tile profiles. If more than one is required, indicate where each is to be used on the Drawings or Specifications.**

**\*\* NOTE TO SPECIFIER \*\* The tile in the following paragraph is available from Westlake Royal Roofing's Northern California Plant.**

A. Standard Weight Tile: Barcelona 900 profile.

1. Finishing Tile: Provide Capri Trim, Hip Starter and Capri Apex 3-Way tiles.
2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
4. Installed Weight per Square: Approximately 930 lbs. (422 kg).
5. Color: As selected by the Architect.

B. Standard Weight Tile: Boosted Barcelona profile.

**\*\* NOTE TO SPECIFIER \*\* Boosted Barcelona is an application of Barcelona which, when added to Barcelona field tile, creates the appearance of a mortar-boosted tile.**

1. Size: 13-1/2 inches (343 mm) by 7 inches (178 mm), nominal.
2. Coverage: 10 percent application, 20 percent application, 30 percent application.
3. Installed weight per square including field tile: 10 percent application, 945 lbs. (429 kg), 20 percent application, 990 lbs. (449 kg), 30 percent application, 1,050 lbs. (476 kg).
4. Color: As selected by the Architect.

**\*\* NOTE TO SPECIFIER \*\* The tile in the following paragraph is available from Westlake Royal**



**Roofing's Northern California Plant.**

- C. Standard Weight Tile: Villa 900 profile.
1. Finishing Tile: Provide Capri Trim, Hip Starter and Capri Apex 3-Way tiles.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 87 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight per Square: Approximately 930 lbs. (423 kg).
  5. Color: As selected by the Architect.

**\*\* NOTE TO SPECIFIER \*\* The tile in the following paragraph is available from Westlake Royal Roofing's Northern California Stockton Plant.**

- D. Standard Weight Tile: Saxony 900 Hartford Slate profile.
1. Finishing Tile: Provide manufacturer's 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight per Square: Approximately 910 lbs. (414 kg).
  5. Color: Natural Marble, Classics Finish.

**\*\* NOTE TO SPECIFIER \*\* The tile in the following paragraph is available from Westlake Royal Roofing's Northern California Stockton Plant.**

- E. Standard Weight Tile: Saxony 900 Slate profile.
1. Finishing Tile: Provide manufacturer's 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight per Square: Approximately 910 lbs. (414 kg).
  5. Color: Natural Marble, Classics Finish.

**\*\* NOTE TO SPECIFIER \*\* Tile in the following paragraph is available from Westlake Royal Roofing's Northern California Lathrop Plant.**

- F. Standard Weight Tile: Saxony 900 Shake profile.
1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight per Square: Approximately 910 lbs. (414kg).
  5. Color: As selected by the Architect.

**\*\* NOTE TO SPECIFIER \*\* The tile in the following paragraph is available from Westlake Royal Roofing's Northern California Stockton Plant.**

- G. Standard Weight Tile: Saxony 900 Split Old English Thatch profile.
1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 91 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight per Square: Approximately 980 lbs. (445 kg).
  5. Color: As selected by the Architect.

**\*\* NOTE TO SPECIFIER \*\* The tile in the following paragraph is available from Westlake Royal Roofing's Northern California Stockton Plant.**

- H. Standard Weight Tile: Madera 900 profile.
1. Finishing Tile: Provide Rake, V Ridge and Tapered Eave Starter tiles.
  2. Size: 13-1/2 inches (343 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 120 field tiles per 100 square feet (9.29 sq m) of roof area.

4. Installed Weight: Approximately 950 lbs. (431 kg).
5. Color: As selected by the Architect.

**\*\* NOTE TO SPECIFIER \*\*** Lightweight tiles weigh no more than 600 lbs./square and are not recommended for use in areas with severe winter weather. Refer to the Manufacturer's map for locations where Lightweight products are recommended.

**\*\* NOTE TO SPECIFIER \*\*** The tile in the following paragraph is available from Westlake Royal Roofing's Northern California Stockton Plant.

- I. Lightweight Tile: Cedarlite 600 profile.
  1. Finishing Tile: Provide Rake, V Ridge and Tapered Eave Starter tiles.
  2. Size: 13-1/2 inches (343 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 120 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight: Approximately 590 lbs. (268 kg).
  5. Color: As selected by the Architect.

**\*\* NOTE TO SPECIFIER \*\*** The tile in the following paragraph is available from Westlake Royal Roofing's Northern California Stockton Plant.

- J. Lightweight Tile: Duralite Espana 600 profile.
  1. Finishing Tile: Provide Capri Trim, Hip Starter Capri, and Apex 3-Way tiles.
  2. Size: 17 inches (432 mm) by 12-3/8 inches (314 mm), nominal.
  3. Coverage: 89 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight: Approximately 590 lbs. (268 kg).
  5. Color: As selected by the Architect.

**\*\* NOTE TO SPECIFIER \*\*** The tile in the following paragraph is available from Westlake Royal Roofing's Northern California Lathrop Plant.

- K. Lightweight Tile: Duralite 600 Villa profile.
  1. Finishing Tile: Provide Capri Trim, Hip Starter Capri, and Apex 3-Way tiles.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 87 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight: Approximately 600 lbs. (272 kg).
  5. Color: As selected by the Architect.

**\*\* NOTE TO SPECIFIER \*\*** The tile in the following 3 paragraphs are available from Westlake Royal Roofing's Northern California Stockton Plant.

- L. Lightweight Tile: Duralite Saxony 600 Shake profile.
  1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight: Approximately 570 lbs. (259 kg).
  5. Color: As selected by the Architect.

- M. Lightweight Tile: Duralite Saxony 600 Split Shake profile.
  1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight: Approximately 570 lbs. (259 kg).
  5. Color: As selected by the Architect.

- N. Lightweight Tile: Duralite Saxony 600 Slate profile.
  1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 or 4-Way tiles as needed.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.

4. Installed Weight: Approximately 570 lbs. (259 kg).
5. Color: As selected by the Architect.

**\*\* NOTE TO SPECIFIER \*\*** Midweight tiles weigh less than 900 lbs./square and are not recommended for use in areas with severe winter weather. Delete all but one of the following tile profiles. If more than one is required, indicate where each is to be used on the Drawings or Specifications.

- O. Midweight Tile: Duralite Saxony 700 Shake profile.
1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight: Approximately 720 lbs. (327 kg).
  5. Color: As selected by the Architect.
- P. Midweight Tile: Duralite Saxony 700 Split Shake profile.
1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  2. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  3. Installed Weight: Approximately 720 lbs. (327 kg).
  4. Color: As selected by the Architect.
- Q. Midweight Tile: Duralite Saxony 700 Slate profile.
1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight: Approximately 720 lbs. (327 kg).
  5. Color: As selected by the Architect.

**\*\* NOTE TO SPECIFIER \*\*** Westlake Royal Roofing offers a complete line of Roof System Components that are recommended to ensure an optimal roof installation. Select the Accessory Material items which are appropriate for the project and the system selected. Consult with the manufacturer for additional information on Roof System Components.

## 2.10 ROOF SYSTEM COMPONENTS - NORTHERN CALIFORNIA PACIFIC NORTHWEST

**\*\* NOTE TO SPECIFIER \*\*** Select the required underlayment from the following paragraphs and delete paragraphs not relevant to this project.

- A. Underlayment:
1. Westlake Royal TileSeal HT Self-Adhering Underlayment.
  2. GatorSeal Granular Heavy Duty Self-Adhering Underlayment
  3. Westlake Royal TileSeal 40 Underlayment.
  4. Westlake Royal Ply40 Underlayment.
  5. Westlake Royal ORG Ply40 Underlayment.
  6. SwiftGuard Engineered Synthetic Underlayment
- B. Fasteners: Sized to penetrate deck minimum 3/4 inch (19 mm) or through thickness of deck or batten.
1. Quik Drive Screws, Roofing Specific.

**\*\* NOTE TO SPECIFIER \*\*** Select to match profile of chosen concrete roof tile. Contact Westlake Royal Roofing for storm clip recommendations.

- C. Wind Clips:
1. Zip-Clip, Adjustable Tile Clip.

**\*\* NOTE TO SPECIFIER \*\*** Select the required flashing material from the following paragraphs and delete those not required. Coordinate with flashing specified in other sections of the specification.

D. Flashings:

1. Ribbed Tile Pan, 26-gauge Galvanized Sheet Steel side wall flashing.
2. Wakaflex universal flashing for abutments at chimneys, walls and other rising structures.
3. Terminal Bar metal flashing for chimneys and other roof to wall structures.
4. Ribbed Valley Metal 1 inch Center Diverter, 26-gauge, Galvanized Sheet Steel.
5. Plumbing Stacks and Other Pipes Penetrating Roof: Wakaflex Pipe Flashing.

**\*\* NOTE TO SPECIFIER \*\*** Select adhesive if required, delete if not required.

E. Adhesive: Code approved adhesive suitable to bond to concrete roof tile.

**\*\* NOTE TO SPECIFIER \*\*** Select the eave closure required from the following paragraphs and delete those not required. Eave closures apply to Standard Weight Westlake Royal Roofing Madera and Lightweight Cedarlite tile only; delete if not required.

F. Eave Closures:

1. Vented Eave Riser - Metal.
2. Eave Riser - Metal.
3. Eave Closure "T" - Metal.

G. Battens:

**\*\* NOTE TO SPECIFIER \*\*** Select battens required from the following paragraphs and delete those not required,

1. Elevated Batten System 1 inch (25 mm) by 3 inches (76 mm) by 8 feet (2.44 m). Pressure treated.
2. Elevated Batten System 1 inch (25 mm) by 3 inches (76 mm) by 8 feet (2.44 m).
3. Elevated Batten System 1 inch (25 mm) by 2 inches (51 mm) by 8 feet (2.44 m).
4. Elevated Batten System 1 inch (25 mm) by 3 inches (76 mm) by 4 feet (1.22 m).
5. Elevated Batten System 1 inch (25 mm) by 2 inches (51 mm) by 4 feet (1.22 m).
6. FirePro Elevated Batten System 1 inch (25 mm) by 3 inches (76 mm) by 4 feet (1.22 m). Fire Retardant Treated.
7. FirePro Elevated Batten System 1 inch (25 mm) by 2 inches (51 mm) by 4 feet (1.22 m). Fire Retardant Treated
8. Batten Extenders 18 inches (457 mm) for use with standard battens.
9. Batten Extenders 10 inches (254 mm) for use with standard battens.

H. Hip and Ridge:

**\*\* NOTE TO SPECIFIER \*\*** Select to match profile of concrete roof tile.

1. Figaroll Plus: Ridge vent and weather block, for all profiles.
2. Zephyr Roll: Ridge vent and weather block, 11 inches by 33 feet (279 by 10 m). For flat tiles.
3. Zephyr Roll: Ridge vent and weather block, 13.4 inches by 33 feet (340 by 10 m). For medium and high-profile tiles.
4. Ridge Riser: Elevates ridge board to proper height. For all profiles. For use with Figaroll Plus or Zephyr Roll.

I. Ridge, Rake and Gable End Tiles:

1. Choose to match tile profile and color.

**\*\* NOTE TO SPECIFIER \*\*** The following two paragraphs apply to Standard Weight Westlake Royal Roofing Madera and Lightweight Cedarlite tile only.

2. Metal Rake Trim.
3. Gable End Rubber Wedges.

J. Field Venting: Select to match profile of concrete roof tile.

**\*\* NOTE TO SPECIFIER \*\*** The following Concrete Roof Tile and Roof System Components paragraphs represents the products available in Westlake Royal Roofing's Rocky Mountain Region, Denver Plant,

10121 Dallas Street, Henderson, CO 80640. Tel: 303-286-3856. Select the Weight and the Profile required and delete those not required.

## 2.11 CONCRETE ROOF TILE - ROCKY MOUNTAIN, HEARTLAND

**\*\* NOTE TO SPECIFIER \*\*** Standard weight tiles weigh 900 lbs./square or more. Delete all but one of the following tile profiles. If more than one is required, be sure to indicate where each is to be used on the Drawings or the Specifications.

A. Standard Weight Tile: Barcelona 900 profile.

1. Finishing Tile: Provide Capri Trim, Hip Starter and Capri Apex 3-Way tiles.
2. Size: 17 inches (432 mm) by 12-3/8 inches (314 mm), nominal.
3. Coverage: 89 field tiles per 100 square feet (9.29 sq m) of roof area.
4. Installed Weight per Square: Approximately 900 lbs. (408 kg).
5. Color: As selected by the Architect.

B. Standard Weight Tile: Boosted Barcelona 900 profile.

**\*\* NOTE TO SPECIFIER \*\*** Boosted Barcelona is an application of Barcelona which, when added to Barcelona field tile, creates the appearance of a mortar-boosted tile.

1. Size: 13-1/2 inches (343 mm) by 6-1/2 inches (165 mm), nominal.
2. Coverage: 10 percent application, 20 percent application, 30 percent application.
3. Installed Weight per Square Including Field Tile: 10 percent application, 945 lbs. (429 kg), 20 percent application, 990 lbs. (449 kg), 30 percent application, 1,050 lbs. (476 kg).
4. Color: As selected by the Architect.

C. Standard Weight Tile: Villa 900 profile.

1. Finishing Tile: Provide Capri Trim, Hip Starter and Capri Apex 3-Way tiles.
2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
3. Coverage: 87 field tiles per 100 square feet (9.29 sq m) of roof area.
4. Installed Weight per Square: Approximately 900 lbs. (408 kg).
5. Color: As selected by the Architect.

D. Standard Weight Tile: Saxony Slate profile.

1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles.
2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
4. Installed Weight per Square: Approximately 960 lbs. (436 kg).
5. Color: As selected by the Architect.

E. Standard Weight Tile: Saxony Slate Impact profile.

1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles.
2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
4. Installed Weight per Square: Approximately 1000 lbs. (454 kg).
5. Color: As selected by the Architect.

F. Standard Weight Tile: Saxony Shake profile.

1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles.
2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
4. Installed Weight per Square: Approximately 960 lbs. (435 kg).
5. Color: As selected by the Architect.

- G. Standard Weight Tile: Saxony Split Old English Thatch profile.
1. Finishing Tile: Provide Ridge Angled, Rake Angled, and Hip Starter Angled tiles.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 88 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight per Square: Approximately 960 lbs. (435 kg).
  5. Color: As selected by the Architect.
- H. Standard Weight Tile: Madera 900 profile.
1. Finishing Tile: Provide Rake, V Ridge and Tapered Eave Starter tiles.
  2. Size: 13-1/2 inches (343 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 120 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight: Approximately 950 lbs. (431 kg).
  5. Color: As selected by the Architect.

**\*\* NOTE TO SPECIFIER \*\*** Westlake Royal Roofing offers a complete line of Roof System Components that are recommended to ensure an optimal roof installation. Select the Accessory Material items, which are appropriate for the project and the system selected. Consult with the manufacturer for additional information on Roof System Components.

## 2.12 ROOF SYSTEM COMPONENTS - ROCKY MOUNTAIN, HEARTLAND

**\*\* NOTE TO SPECIFIER \*\*** Select the required underlayment from the following paragraphs and delete paragraphs not relevant to this project.

- A. Underlayment:
1. Westlake Royal TileSeal HT Self-Adhering Underlayment.
  2. Westlake Royal Ply 40 Underlayment.
  3. Westlake Royal ORG Ply40 Underlayment.
  4. SwiftGuard Engineered Synthetic Underlayment
- B. Fasteners: Sized to penetrate deck minimum 3/4 inch (19 mm) or through thickness of deck or batten.

**\*\* NOTE TO SPECIFIER \*\*** Select to match profile of chosen concrete roof tile. Contact Westlake Royal Roofing for storm clip recommendations.

- C. Wind Clips:
1. Zip-Clip, Adjustable Tile Clip.
  2. Wind Clips, galvanized.

**\*\* NOTE TO SPECIFIER \*\*** Select the required flashing material from the following paragraphs and delete those not required. Coordinate with flashing specified in other sections of the specification.

- D. Flashings:
1. Ribbed Tile Pan, 26-gauge Galvanized Sheet Steel side wall flashing.
  2. Wakaflex universal flashing for abutments at chimneys, walls, and other rising structures.
  3. Terminal Bar metal flashing for chimneys and other roof to wall structures.
  4. Ribbed Valley Metal 1 inch Center Diverter, 26-gauge, Galvanized Sheet Steel.
  5. Plumbing Stacks and Other Pipes Penetrating Roof: Wakaflex Pipe Flashing.

**\*\* NOTE TO SPECIFIER \*\*** Select adhesive if required, delete if not required.

- E. Adhesive: Code approved adhesive suitable to bond to concrete roof tile.

**\*\* NOTE TO SPECIFIER \*\*** Select the eave closure required from the following paragraphs and delete those not required.

- F. Eave Closures:
1. Vented Eave Riser - Metal.
  2. Eave Riser - Metal.



G. Battens:

**\*\* NOTE TO SPECIFIER \*\*** Select battens required from the following paragraphs and delete those not required,

1. Elevated Batten System 1 inch (25 mm) by 2 inches (51 mm) by 8 feet (2.44 m).
2. Elevated Batten System 1 inch (25 mm) by 3 inches (76 mm) by 8 feet (2.44 m).
3. Elevated Batten System 1 inch (25 mm) by 2 inches (51 mm) by 4 feet (1.22 m).
4. FirePro Elevated Batten System 1 inch (25 mm) by 3 inches (76 mm) by 4 feet (1.22 m). Fire Retardant Treated.
5. FirePro Elevated Batten System 1 inch (25 mm) by 2 inches (51 mm) by 4 feet (1.22 m). Fire Retardant Treated.
6. Batten Extenders 10 inches (254 mm) for use with standard battens at tile pans.
7. Batten Extenders 18 inches (457 mm) for use with standard battens at valleys.

H. Hip and Ridge:

**\*\* NOTE TO SPECIFIER \*\*** Select to match profile of concrete roof tile.

1. Figaroll Plus: Ridge vent and weather block for all profiles.
2. Zephyr Roll: Ridge vent and weather block flat tiles, 11 inches by 33 feet (279 mm by 10 M).
3. Zephyr Roll: Ridge vent and weather block, 13.4 inches by 33 feet (340 mm by 10 M). For medium and high-profile tiles.
4. Ridge Riser: Elevates ridge board to proper height. For all profiles. For use with Figaroll Plus or Zephyr Roll

I. Ridge, Rake and Gable End Tiles:

1. Choose to match tile profile and color.

J. Field Venting: Select to match profile of concrete roof tile.

**\*\* NOTE TO SPECIFIER \*\*** The following Concrete Roof Tile and Roof System Components paragraphs represents the products available in Westlake Royal Roofing's Southern California Region, Rialto Plant. Select the Weight and Profile of the Concrete Roof Tile and the Accessory Materials required for the project and delete those not required.

## 2.13 CONCRETE ROOF TILE - SOUTHERN CALIFORNIA

**\*\* NOTE TO SPECIFIER \*\*** Standard weight tiles weigh 900 lbs./square or more. Delete all but one of the following tile profiles. If more than one is required, be sure to indicate where each is to be used on the Drawings or the Specifications.

A. Standard Weight Tile: Barcelona 900 profile.

1. Finishing Tile: Provide Capri Trim, Hip Starter and Capri Apex 3 tiles.
2. Size: 17 inches (432 mm) by 12-3/8 inches (314 mm), nominal.
3. Coverage: 89 field tiles per 100 square feet (9.29 sq m) of roof area.
4. Installed Weight per Square: Approximately 900 lbs. (408 kg).
5. Color: As selected by the Architect.

B. Standard Weight Tile: Boosted Barcelona 900 profile.

**\*\* NOTE TO SPECIFIER \*\*** Boosted Barcelona is an application of Barcelona which, when added to Barcelona field tile, creates the appearance of a mortar-boosted tile.

1. Size: 13-1/2 inches (343 mm) by 6-1/2 inches (165 mm), nominal.
2. Coverage: 10 percent application, 20 percent application, 30 percent application.
3. Installed Weight per Square Including Field Tile: 10 percent application, 945 lbs. (429 kg), 20 percent application, 990 lbs. (449 kg), 30 percent application, 1,050 lbs. (476 kg).
4. Color: As selected by the Architect.

C. Standard Weight Tile: Villa 900 profile.



1. Finishing Tile: Provide Capri Trim, Hip Starter and Capri Apex 3 tiles.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 87 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight per Square: Approximately 900 lbs. (408 kg).
  5. Color: As selected by the Architect.
- D. Standard Weight Tile: Saxony 900 Slate profile.
1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight per Square: Approximately 930 lbs. (422 kg).
  5. Color: As selected by the Architect.
- E. Standard Weight Tile: Saxony 900 Hartford Slate profile.
1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight per Square: Approximately 930 lbs. (422 kg).
  5. Color: As selected by the Architect.
- F. Standard Weight Tile: Saxony 900 Country Slate profile.
1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 or 4-Way tiles.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight per Square: Approximately 930 lbs. (422 kg).
  5. Color: As selected by the Architect.
- G. Standard Weight Tile: Saxony 900 Split Old English Thatch profile.
1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight per Square: Approximately 930 lbs. (422 kg).
  5. Color: As selected by the Architect.
- H. Standard Weight Tile: Saxony 900 Shake profile.
1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight per Square: Approximately 930 lbs. (422 kg).
  5. Color: As selected by the Architect.
- I. Standard Weight Tile: Madera 900 profile.
1. Finishing Tile: Provide Rake, V Ridge and Tapered Eave Starter tiles.
  2. Size: 13-1/2 inches (343 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 120 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight: Approximately 950 lbs. (431 kg).
  5. Color: As selected by the Architect.

**\*\* NOTE TO SPECIFIER \*\* Lightweight tiles weigh no more than 600 lbs./square and are not recommended for use in areas with severe winter weather. Delete all but one of the following tile profiles. If more than one is required, indicate where each is to be used on the Drawings or Specifications.**

- J. Lightweight Tile: Cedarlite 600 profile.

1. Finishing Tile: Provide Rake, V Ridge and Tapered Eave Starter tiles.
  2. Size: 13-1/2 inches (343 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 120 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight: Approximately 590 lbs. (268 kg).
  5. Color: As selected by the Architect.
- K. Lightweight Tile: Duralite Espana 600 profile.
1. Finishing Tile: Provide Capri Trim, Hip Starter Capri, and Apex 3-Way tiles.
  2. Size: 17 inches (432 mm) by 12-3/8 inches (314 mm), nominal.
  3. Coverage: 89 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight: Approximately 590 lbs. (268 kg).
  5. Color: As selected by the Architect.
- L. Lightweight Tile: Duralite Villa 600 profile.
1. Finishing Tile: Provide Capri Trim, Hip Starter Capri, and Apex 3-Way tiles.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 87 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight: Approximately 580 lbs. (263 kg).
  5. Color: As selected by the Architect.
- M. Lightweight Tile: Duralite Saxony 600 Shake profile.
1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight: Approximately 570 lbs. (259 kg).
  5. Color: As selected by the Architect.
- N. Lightweight Tile: Duralite Saxony 600 Split Shake profile.
1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight: Approximately 570 lbs. (259 kg).
  5. Color: As selected by the Architect.
- O. Lightweight Tile: Duralite Saxony 600 Slate profile.
1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight: Approximately 570 lbs. (259 kg).
  5. Color: As selected by the Architect.
- P. Lightweight Tile: Duralite Saxony 700 Shake profile.
1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight: Approximately 720 lbs. (327 kg).
  5. Color: As selected by the Architect.
- Q. Lightweight Tile: Duralite Saxony 700 Split Shake profile.
1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.

4. Installed Weight: Approximately 720 lbs. (327 kg).
  5. Color: As selected by the Architect.
- R. Lightweight Tile: Duralite Saxony 700 Slate profile.
1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight: Approximately 720 lbs. (327 kg).
  5. Color: As selected by the Architect.

**\*\* NOTE TO SPECIFIER \*\*** Westlake Royal Roofing offers a complete line of Roof System Components that are recommended to ensure an optimal roof installation. Select the Accessory Material items which are appropriate for the project and the system selected. Consult with the manufacturer for additional information on Roof System Components.

#### 2.14 ROOF SYSTEM COMPONENTS - SOUTHERN CALIFORNIA

**\*\* NOTE TO SPECIFIER \*\*** Select the required underlayment from the following paragraphs and delete paragraphs not relevant to this project.

- A. Underlayment:
1. Westlake Royal TileSeal HT Self-Adhering Underlayment.
  2. Westlake Royal TileSeal 50 HT Self-Adhering Underlayment.
  3. Westlake Royal Ply 40 Underlayment.
  4. Westlake Royal ORG Ply40 Underlayment.
  5. SwiftGuard Engineered Synthetic Underlayment
- B. Fasteners: Sized to penetrate deck minimum 3/4 inch (19 mm) or through thickness of deck or batten.
1. Quik Drive Screws, Roofing Specific.

**\*\* NOTE TO SPECIFIER \*\*** Select to match profile of chosen concrete roof tile. Contact Westlake Royal Roofing for storm clip recommendations.

- C. Wind Clips:
1. Zip-Clip, Adjustable Tile Clip.

**\*\* NOTE TO SPECIFIER \*\*** Select the required flashing material from the following paragraphs and delete those not required. Coordinate with flashing specified in other sections of the specification.

- D. Flashings:
1. Ribbed Tile Pan, 26-gauge Galvanized Sheet Steel side wall flashing.
  2. Wakaflex universal flashing for abutments at chimneys, walls, and other rising structures.
  3. Terminal Bar metal flashing for chimneys and other roof to wall structures.
  4. Ribbed Valley Metal 1 inch Center Diverter, 26-gauge, Galvanized Sheet Steel.
  5. Plumbing Stacks and Other Pipes Penetrating Roof: Wakaflex Pipe Flashing.

**\*\* NOTE TO SPECIFIER \*\*** Select adhesive if required, delete if not required.

- E. Adhesive: Code approved adhesive suitable to bond to concrete roof tile.

**\*\* NOTE TO SPECIFIER \*\*** Select the eave closure required from the following paragraphs and delete those not required. Eave Closures apply to Standard Weight Westlake Royal Roofing Madera and Lightweight Cedarlite tile only; delete if not required.

- F. Eave Closures: Provide to match tile profile.
1. Vented Eave Riser - Metal.
  2. Eave Riser - Metal.
  3. Eave Closure "T" - Metal.

G. Battens:

**\*\* NOTE TO SPECIFIER \*\*** Select battens required from the following paragraphs and delete those not required,

1. Elevated Batten System 1 inch (25 mm) by 3 inches (76 mm) by 8 feet (2.44 m) pressure treated.
2. Elevated Batten System 1 inch (25 mm) by 3 inches (76 mm) by 8 feet (2.44 m).
3. Elevated Batten System 1 inch (25 mm) by 2 inches (51 mm) by 8 feet (2.44 m).
4. Elevated Batten System 1 inch (25 mm) by 3 inches (76 mm) by 4 feet (1.22 m). Fire Retardant Treated.
5. Elevated Batten System 1 inch (25 mm) by 2 inches (51 mm) by 4 feet (1.22 m). Fire Retardant Treated
6. FirePro Elevated Batten System 1 inch (25 mm) by 3 inches (76 mm) by 4 feet (1.22 m). Fire Retardant Treated.
7. FirePro Elevated Batten System 1 inch (25 mm) by 2 inches (51 mm) by 4 feet (1.22 m). Fire Retardant Treated.
8. Batten Extenders 18 inches (457 mm) for use with standard battens.

H. Hip and Ridge:

**\*\* NOTE TO SPECIFIER \*\*** Select to match profile of concrete roof tile.

1. Figaroll Plus: Ridge vent and weather block for all profiles.
2. Zephyr Roll: Ridge vent and weather block flat tiles, 11 inches by 33 feet (279 mm by 10 M).
3. Zephyr Roll: Ridge vent and weather block, 13.4 inches by 33 feet (340 mm by 10 M). For medium and high-profile tiles.
4. Ridge Riser: Elevates ridge board to proper height. For all profiles. For use with Figaroll Plus or Zephyr Roll.

I. Ridge, Rake and Gable End Tiles:

1. Choose to match tile profile and color.

**\*\* NOTE TO SPECIFIER \*\*** The following two paragraphs apply to Standard Weight Westlake Royal Roofing Madera, Cedarlite and Saxony tiles only.

2. Metal Rake Trim.
3. Gable End Rubber Wedges.

J. Field Venting: Select to match profile of concrete roof tile.

**\*\* NOTE TO SPECIFIER \*\*** The following Concrete Roof Tile and Roof System Components paragraphs represents the products available in Westlake Royal Roofing's Southern Nevada Region, Henderson Plant. Select the Weight and the Profile required and delete those not required.

## 2.15 CONCRETE ROOF TILE - SOUTHERN NEVADA

**\*\* NOTE TO SPECIFIER \*\*** Standard weight tiles weigh 900 lbs./square or more. Delete all but one of the following tile profiles. If more than one is required, be sure to indicate where each is to be used on the Drawings or Specifications.

A. Standard Weight Tile: Barcelona profile.

1. Finishing Tile: Provide Capri Trim, Hip Starter and Capri Apex 3-Way tiles.
2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
3. Coverage: 89 field tiles per 100 square feet (9.29 sq m) of roof area.
4. Installed Weight per Square: Approximately 900 lbs. (408 kg).
5. Color: As selected by the Architect.

B. Standard Weight Tile: Boosted Barcelona profile.

**\*\* NOTE TO SPECIFIER \*\*** Boosted Barcelona is an application of Barcelona which, when added to Barcelona field tile, creates the appearance of a mortar-boosted tile.

1. Size: 13-1/2 inches (343 mm) by 6-1/2 inches (165 mm), nominal.

2. Coverage: 10 percent application, 20 percent application, 30 percent application.
  3. Installed Weight per Square Including Field Tile: 10 percent application, 945 lbs. (429 kg), 20 percent application, 990 lbs (449 kg), 30 percent application, 1,050 lbs. (476 kg).
  4. Color: As selected by the Architect.
- C. Standard Weight Tile: Saxony 900 Slate profile.
1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight per Square: Approximately 910 lbs. (413 kg).
  5. Color: As selected by the Architect.
- D. Standard Weight Tile: Saxony 900 Shake profile.
1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles.
  2. Size: 17 inches (432 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 85 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight per Square: Approximately 910 lbs. (414 kg).
  5. Color: As selected by the Architect.
- E. Standard Weight Tile: Madera 900 profile.
1. Finishing Tile: Provide Rake, V Ridge and Tapered Eave Starter tiles.
  2. Size: 13-1/2 inches (343 mm) by 13 inches (330 mm), nominal.
  3. Coverage: 120 field tiles per 100 square feet (9.29 sq m) of roof area.
  4. Installed Weight: Approximately 950 lbs. (431 kg).
  5. Color: As selected by the Architect.

**\*\* NOTE TO SPECIFIER \*\* Westlake Royal Roofing offers a complete line of Roof System Components that are recommended to ensure an optimal roof installation. Select the Accessory Material items, which are appropriate for the project and the system selected. Consult with the manufacturer for additional information on Roof System Components.**

## 2.16 ROOF SYSTEM COMPONENTS - SOUTHERN NEVADA

- A. Underlayment:
1. Westlake Royal TileSeal HT Self-Adhering Underlayment.
  2. Westlake Royal Ply 40 Underlayment.
  3. Westlake Royal ORG Ply40 Underlayment.
  4. SwiftGuard Engineered Synthetic Underlayment
- B. Fasteners: Sized to penetrate deck minimum 3/4 inch (19 mm) or through thickness of deck or batten.

**\*\* NOTE TO SPECIFIER \*\* Select to match profile of chosen concrete roof tile.**

- C. Wind Clips:
1. Wind Clips, Galvanized.

**\*\* NOTE TO SPECIFIER \*\* Select the required flashing material from the following paragraphs and delete those not required. Coordinate with flashing specified in other sections of the specification.**

- D. Flashings:
1. Ribbed Tile Pan, 26-gauge Galvanized Sheet Steel side wall flashing.
  2. Wakaflex universal flashing for abutments at chimneys, walls, and other rising structures.
  3. Terminal Bar metal flashing for chimneys and other roof to wall structures.
  4. Ribbed Valley Metal 1 inch Center Diverter, 26-gauge, Galvanized Sheet Steel.

5. Plumbing Stacks and Other Pipes Penetrating Roof: Wakaflex Pipe Flashing.

**\*\* NOTE TO SPECIFIER \*\*** Select adhesive if required, delete if not required.

E. Adhesive: Code approved adhesive suitable to bond to concrete roof tile.

**\*\* NOTE TO SPECIFIER \*\*** Select the eave closure required from the following paragraphs and delete those not required. Eave Closures apply to Standard Weight Westlake Royal Roofing Madera tile only; delete if not required.

F. Eave Closures: Provide to match tile profile.

1. Vented Eave Riser - Metal.
2. Eave Riser - Metal.

G. Battens:

1. Elevated Batten System 1 inch (25 mm) by 2 inches (51 mm) by 8 feet (2.44 m).
2. Elevated Batten System 1 inch (25 mm) by 3 inches (76 mm) by 8 feet (2.44 m).
3. Elevated Batten System 1 inch (25 mm) by 2 inches (51 mm) by 4 feet (1.22 m).
4. FirePro Elevated Batten System 1 inch (25 mm) by 3 inches (76 mm) by 4 feet (1.22 m). Fire Retardant Treated.
5. FirePro Elevated Batten System 1 inch (25 mm) by 2 inches (51 mm) by 4 feet (1.22 m). Fire Retardant Treated.
6. Batten Extenders 10 inches (254 mm) for use with standard battens at tile pans.
7. Batten Extenders 18 inches (457 mm) for use with standard battens at valleys.

H. Hip and Ridge:

**\*\* NOTE TO SPECIFIER \*\*** Select to match profile of concrete roof tile.

1. Figaroll Plus: Ridge vent and weather block for all profiles.
2. Zephyr Roll: Ridge vent and weather block flat tiles, 11 inches by 33 feet (279 mm by 10 M).
3. Zephyr Roll: Ridge vent and weather block, 13.4 inches by 33 feet (340 mm by 10 M). For medium and high-profile tiles.
4. Ridge Riser: Elevates ridge board to proper height. For all profiles. For use with Figaroll Plus or Zephyr Roll.

I. Ridge, Rake and Gable End Tiles:

1. Choose to match tile profile and color.

J. Field Venting: Select to match profile of concrete roof tile.

**\*\* NOTE TO SPECIFIER \*\*** The following Concrete Roof Tile and Roof System Components paragraphs represents the products available in Westlake Royal Roofing's Texas Region, Katy Plant. Select the Weight and the Profile required and delete those not required.

## 2.17 CONCRETE ROOF TILE - TEXAS

**\*\* NOTE TO SPECIFIER \*\*** Standard weight tiles weigh 900 lbs./square or more. Delete all but one of the following tile profiles. If more than one is required, be sure to indicate where each is to be used on the Drawings or Specifications.

A. Standard Weight Tile: Tejas Espana profile.

1. Finishing Tile: Provide Capri Trim, Hip Starter and Capri Apex 3-Way tiles.
2. Size: 16-1/2 inches (419 mm) by 13 inches (330 mm), nominal.
3. Coverage: 87 field tiles per 100 square feet (9.29 sq m) of roof area.
4. Installed Weight per Square: Approximately 900 lbs. (408 kg).
5. Color: As selected by the Architect.

B. Standard Weight Tile: Barcelona Impact profile.

1. Finishing Tile: Provide Capri Trim, Hip Starter and Capri Apex 3-Way tiles.
2. Size: 16-1/2 inches (419 mm) by 13 inches (330 mm), nominal.

3. Coverage: 89 field tiles per 100 square feet (9.29 sq m) of roof area.
4. Installed Weight per Square: Approximately 1030 lbs. (467 kg).
5. Color: As selected by the Architect.

C. Standard Weight Tile: Boosted Barcelona profile.

**\*\* NOTE TO SPECIFIER \*\* Boosted Barcelona is an application of Barcelona which, when added to Barcelona field tile, creates the appearance of a mortar-boosted tile.**

1. Size: 13-1/2 inches (343 mm) by 6-1/2 inches (165 mm), nominal.
2. Coverage: 10 percent application, 20 percent application, 30 percent application.
3. Installed Weight per Square Including Field Tile: 10 percent application, 945 lbs. (429 kg), 20 percent application, 990 lbs. (449 kg), 30 percent application, 1,050 lbs. (476 kg).
4. Color: As selected by the Architect.

D. Standard Weight Tile: Villa profile.

1. Finishing Tile: Provide Capri Trim, Hip Starter and Capri Apex 3 tiles.
2. Size: 16-1/2 inches (419 mm) by 13 inches (330 mm), nominal.
3. Coverage: 90 field tiles per 100 square feet (9.29 sq m) of roof area.
4. Installed Weight per Square: Approximately 900 lbs. (408 kg).
5. Color: As selected by the Architect.

E. Standard Weight Tile: Saxony Shake profile.

1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles.
2. Size: 16-1/2 inches (419 mm) by 13 inches (330 mm), nominal.
3. Coverage: 92 field tiles per 100 square feet (9.29 sq m) of roof area.
4. Installed Weight per Square: Approximately 1030 lbs. (467 kg).
5. Color: As selected by the Architect.

F. Standard Weight Tile: Saxony Country Slate profile.

1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles.
2. Size: 16-1/2 inches (419 mm) by 13 inches (330 mm), nominal.
3. Coverage: 92 field tiles per 100 square feet (9.29 sq m) of roof area.
4. Installed Weight per Square: Approximately 1030 lbs. (467 kg).
5. Color: As selected by the Architect.

G. Standard Weight Tile: Saxony Country Slate Impact profile.

1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3 tiles.
2. Size: 16-1/2 inches (419 mm) by 13 inches (330 mm), nominal.
3. Coverage: 92 field tiles per 100 square feet (9.29 sq m) of roof area.
4. Installed Weight per Square: Approximately 1080 lbs. (490 kg).
5. Color: As selected by the Architect.

H. Standard Weight Tile: Saxony Country Split Shake profile.

1. Finishing Tile: Provide 90-degree Rake, 3-Sided Ridge, 3-Sided Hip Starter and Apex 3y tiles.
2. Size: 16-1/2 inches (419 mm) by 13 inches (330 mm), nominal.
3. Coverage: 92 field tiles per 100 square feet (9.29 sq m) of roof area.
4. Installed Weight per Square: Approximately 1030 lbs. (467 kg).
5. Color: As selected by the Architect.

I. Standard Weight Tile: Madera 900 profile.

1. Finishing Tile: Provide Rake, V Ridge and Tapered Eave Starter tiles.
2. Size: 13-1/2 inches (343 mm) by 13 inches (330 mm), nominal.
3. Coverage: 120 field tiles per 100 square feet (9.29 sq m) of roof area.



4. Installed Weight: Approximately 935 lbs. (424 kg).
5. Color: As selected by the Architect.

**\*\* NOTE TO SPECIFIER \*\*** Westlake Royal Roofing offers a complete line of Roof System Components that are recommended to ensure an optimal roof installation. Select the Accessory Material items, which are appropriate for the project and the system selected. Consult with the manufacturer for additional information on Roof System Components.

## 2.18 ROOF SYSTEM COMPONENTS - TEXAS

**\*\* NOTE TO SPECIFIER \*\*** Select the required underlayment from the following paragraphs and delete paragraphs not relevant to this project.

- A. Underlayment:
1. Westlake Royal TileSeal HT Self-Adhering Underlayment.
  2. Westlake Royal TileSeal 50 HT Self-Adhering Underlayment.
  3. GatorSeal Granular Heavy Duty Self-Adhering Underlayment.
  4. Westlake Royal Ply40 Underlayment.
  5. Westlake Royal ORG Ply40 Underlayment.
  6. SwiftGuard Engineered Synthetic Underlayment.
- B. Fasteners: Sized to penetrate deck minimum 3/4 inch (19 mm) or through thickness of deck or batten.
1. Quik Drive Screws, Roofing Specific.

**\*\* NOTE TO SPECIFIER \*\*** Select to match profile of chosen concrete roof tile. Contact Westlake Royal Roofing for storm clip recommendations.

- C. Wind Clips:
1. Zip-Clip, Adjustable Tile Clip.
  2. Wind Clips, Galvanized.

**\*\* NOTE TO SPECIFIER \*\*** Select the required flashing material from the following paragraphs and delete those not required. Coordinate with flashing specified in other sections of the specification.

- D. Flashings:
1. Ribbed Tile Pan, 26-gauge Galvanized Sheet Steel side wall flashing.
  2. Wakaflex universal flashing for abutments at chimneys, walls and other rising structures.
  3. Terminal Bar metal flashing for chimneys and other roof to wall structures.
  4. Ribbed Valley Metal 1 inch Center Diverter, 26-gauge, Galvanized Sheet Steel.
  5. Plumbing Stacks and Other Pipes Penetrating Roof: Wakaflex Pipe Flashing.

**\*\* NOTE TO SPECIFIER \*\*** Select adhesive if required, delete if not required.

- E. Adhesive: Code approved adhesive suitable to bond to concrete roof tile.

**\*\* NOTE TO SPECIFIER \*\*** Select the eave closure required from the following paragraphs and delete those not required. The first two paragraphs apply to Standard Weight Westlake Royal Roofing Madera and Lightweight Cedarlite tile only; delete if not required.

- F. Eave Closures: Provide to match tile profile.
1. Vented Eave Riser - Metal.
  2. Eave Riser - Metal.
  3. Eave Closure "T" - Metal. For flat tiles only.

- G. Battens:

**\*\* NOTE TO SPECIFIER \*\*** Select battens required from the following paragraphs and delete those not required,

1. Elevated Batten System 1 inch (25 mm) by 3 inches (76 mm) by 8 feet (2.44 m).
2. Elevated Batten System 1 inch (25 mm) by 2 inches (51 mm) by 8 feet (2.44 m).

3. Elevated Batten System 1 inch (25 mm) by 2 inches (51 mm) by 4 feet (1.22 m).
4. Batten Extenders 18 inches (457 mm) for use with standard battens.

H. Hip and Ridge:

**\*\* NOTE TO SPECIFIER \*\* Select to match profile of concrete roof tile.**

1. Figaroll Plus: Ridge vent and weather block for all profiles.
2. Zephyr Roll: Ridge vent and weather block flat tiles, 11 inches by 33 feet (279 mm by 10 M).
3. Zephyr Roll: Ridge vent and weather block, 13.4 inches by 33 feet (340 mm by 10 M). For medium and high-profile tiles.
4. Ridge Riser: Elevates ridge board to proper height. For all profiles. For use with Figaroll Plus or Zephyr Roll.

I. Ridge, Rake and Gable End Tiles:

1. Choose to match tile profile and color.

**\*\* NOTE TO SPECIFIER \*\* The following paragraph apply to Standard Weight Westlake Royal Roofing Madera and Lightweight Cedarlite tile only.**

2. Gable End Rubber Wedges.

J. Field Venting: Select to match profile of concrete roof tile.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. Verify surfaces are uniform, smooth, clean, and dry.
- C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

### 3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result under the project conditions.

### 3.3 INSTALLATION - GENERAL

**\*\* NOTE TO SPECIFIER \*\* Select paragraphs applicable to project and region of installation and delete the paragraphs that are not applicable.**

- A. Install in accordance with manufacturer's instructions and the following:
  1. IAPMO UES ER-2015 - TRI Concrete and Clay Roof Tile Installation Manual - 2015 (TRI Installation Manual). TRI/WSRCA Standard Installation Guides for Concrete and Clay Roof Tile in Cold Weather Applications.
  2. FRSA/TRI Concrete and Clay Roof Tile Installation Manual Sixth Edition (For Florida Applications).
  3. CAN/CSA-A220.1-Series-06 - Concrete Roof Tiles.

### 3.4 UNDERLAYMENT APPLICATION:

- A. Underlayment: Install in accordance with the manufacturer's instructions and TRI Installation Manual.
- B. Install ridge vents; follow vent manufacturer's installation recommendations and TRI

Installation Manual.

### 3.5 FLASHING INSTALLATION

- A. Install flashings to shed water and prevent water penetration under tiles.
- B. Valleys: Install preformed metal flashing over underlayment.
  - 1. Follow manufacturer's installation recommendations.
  - 2. Follow TRI Installation Manual.
- C. Side Wall Flashing:
  - 1. Follow manufacturer's installation recommendations.
  - 2. Follow TRI Installation Manual.
- D. Counter Flashing:
  - 1. Follow manufacturer's installation recommendations.
  - 2. Follow TRI Installation Manual.

**\*\* NOTE TO SPECIFIER \*\*** Select one of the following two paragraphs and delete the paragraph not required. Select the first paragraph when using standard wood battens fastened directly to the roof deck. Delete the paragraph not required.

- E. Install batten extenders to support tile over flashing.
- F. Install tiles so as not to inhibit water flow on flashings.
- G. Head and Apron Flashing:
  - 1. Follow vent manufacturer's installation recommendations.
  - 2. Follow TRI Installation Manual.

**\*\* NOTE TO SPECIFIER \*\*** For self-curbing or prefabricated skylights, refer to skylight manufacturer's installation instructions.

- H. Flashing at Curb Mounted Skylights and Other Items:
  - 1. Follow manufacturer's installation recommendations.
  - 2. Follow TRI Installation Manual.
- I. Flashing at Plumbing Stacks, Pipes, Turbines, Vents, etc.:
  - 1. Follow manufacturer's installation recommendations.
  - 2. Follow TRI Installation Manual.
  - 3. Apply color coordinated paint to all exposed metal flashings.
- J. Coatings: Apply color coordinated paint to all exposed metal flashings.

### 3.6 BATTEN INSTALLATION

**\*\* NOTE TO SPECIFIER \*\*** Battens are optional on roof pitches between 4:12 and 7:12.

- A. Install battens in accordance with the manufacturer's installation recommendations and TRI.

### 3.7 TILE INSTALLATION

- A. Layout:
  - 1. Follow manufacturer's installation recommendations.
  - 2. Follow TRI Installation Manual.
- B. Wind clips:
  - 1. Follow manufacturer's installation recommendations.
  - 2. Follow TRI Installation Manual.

- C. Hips: Use prefabricated hip starter.
  - 1. Follow manufacturer's installation recommendations.
  - 2. Follow TRI Installation Manual.
- D. Hips and Ridges, mechanically fastened:
  - 1. Follow manufacturer's installation recommendations.
  - 2. Follow TRI Installation Manual.
- E. Rakes and Gables:
  - 1. Follow manufacturer's installation recommendations.
  - 2. Follow TRI Installation Manual.

### 3.8 CLEANING

- A. Remove all broken tile, debris, and excess tile from roof.
- B. Sweep cut tiles clean.

### 3.9 REPAIR AND REPLACEMENT

- A. Damaged Tile:
  - 1. Follow manufacturer's installation recommendations.
  - 2. Follow TRI Installation Manual.
- B. Damaged Small Valley and Hip Cuts:
  - 1. Follow manufacturer's installation recommendations.
  - 2. Follow TRI Installation Manual.

### 3.10 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION