Fiberglass-Based Asphalt Shingles & Accessories

INNOVATIONS FOR LIVING®

Guide Specifications

PROJECT ARCHITECT RESPONSIBILITY: This is a general specification guide, intended to be used by experienced construction professionals, in conjunction with good construction practice and professional judgment. This guide is to aid in the creation of a complete building specification that is to be fully reviewed and edited by the architect of record (specifier). Sections of this guide should be included, edited, or omitted based on the requirements of a specific project. It is the responsibility of both the specifier and the purchaser to determine if a product or system is suitable for its intended use. Neither Owens Corning, nor any of its subsidiary or affiliated companies, assume any responsibility for the content of this specification guide relative to actual projects and specifically disclaim any and all liability for any errors or omissions in design, detail, structural capability, attachment details, shop drawings or other construction related details, whether based upon the information provided by Owens Corning or otherwise.

SECTION 07 31 13 - FIBERGLASS-BASED ASPHALT SHINGLES & ACCESSORIES

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Roof shingles and accessories including the following:
   1. Fiberglass-based asphalt shingles.
   2. Hip and ridge shingles.
   3. Starter shingles.
   4. Self-adhering ice and water barrier.
   5. Shingle underlayment.
   6. Attic ventilation.
   7. Fasteners.
   8. Metal flashing and trim.

1.2 RELATED SECTIONS

NOTE TO SPECIFIER Delete and/or add other sections as required.

A. Section 061000 - Rough Carpentry.

B. Section 071300 – Sheet Waterproofing.

C. Section 072400 - Roof and Deck Insulation; for insulation placed over roof decking.

D. Section 076000 - Flashing and Sheet Metal; for snow guards, metal flashing and drip edges, including step-type flashing installed with shingles.

E. Section 077200 - Roof Accessories, Skylights, Gutters, Downspouts.

NOTE TO SPECIFIER Delete references from the list below that are not required.

1.3 REFERENCES

A. ASTM International (ASTM):
   1. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
   2. ASTM B209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
   3. ASTM B370 – Standard Specification for Copper Sheet and Strip for Building Construction.
   4. ASTM D226 - Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing.
   5. ASTM D228 - Standard Test Method for Sampling, Testing, and Analysis of Asphalt Roll Roofing, Cap Sheets, and Shingles Used in Roofing and Waterproofing.
   6. ASTM D1970 - Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection.
   7. ASTM D3018 - Standard Specification for Class A Asphalt Shingles Surfaced with Mineral Granules.
   8. ASTM D3161 - Standard Test Method for Wind-Resistance of Asphalt Shingles (Fan-Induced Method).
   9. ASTM D3462 - Standard Specification for Asphalt Shingles Made from Glass felt and Surfaced with Mineral Granules.

10. ASTM D4869 - Standard Specification for Asphalt-Saturated Organic Felt Underlayment Used in Steep Slope Roofing.
11. ASTM D6381 - Standard Test Method for Measurement of Asphalt Shingle Mechanical Uplift Resistance.
12. ASTM D6757 – Standard Specification for Underlayment Felt Containing Inorganic Fibers Used in Steep-Slope Roofing.
13. ASTM D7158 - Standard Test Method for Wind Resistance of Sealed Asphalt Shingles (Uplift Force/Uplift Resistance Method).
14. ASTM E108 - Standard Test Methods for Fire Tests of Roof Coverings.
15. ASTM F1667 - Standard Specification for Driven Fasteners: Nails, Spikes, and Staples.

B. Canadian Standards Association (CSA): CSA A123.5 - Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules. Note: Applicable only to products sold for use in Canada.

C. California Building Standards Commission (CBSC):
1. California Building Code, California Code of Regulations Title 24.

D. Florida Building Commission (FBC):
1. Florida Building Code.
2. Florida Product Approvals.

E. International Code Council (ICC):
1. International Residential Code (IRC).
2. International Building Code (IBC).
3. ICC-ES Evaluation Reports.
4. ICC-ES Acceptance Criteria.

F. Underwriters Laboratories (UL):
1. UL 790 - Standard Test Methods for Fire Test of Roof Coverings.
2. UL 997 – Wind Resistance of Prepared Roof Covering Materials.
3. UL 2218 - Impact Resistance of Prepared Roof Covering Materials.
4. UL 2390 - Test Method for Wind Resistant Asphalt Shingles with Sealed Tabs.

G. Underwriters Laboratories Evaluation Services (UL-ES):
1. UL-ES Evaluation Reports.

H. Environmental Protection Agency (EPA): ENERGY STAR Rating System.

I. Cool Roof Rating Council (CRRC): Product Rating Program.

J. Miami-Dade County Building Code Compliance Office (BCCO), Product Control Division: Miami-Dade County Notice of Acceptance (NOA).

K. Texas Department of Insurance (TDI): Product Listing.

L. US Green Building Council (USGBC): Leadership in Energy and Environmental Design (LEED).

1.4 SUBMITTALS

A. Submit under provisions of Section 01300.

B. Product Data: Manufacturer's data sheets and detail drawings for each product to be used, including:
1. Preparation instructions and recommendations.
2. Storage and handling requirements and recommendations.
3. Product literature.
4. Installation methods.

NOTE TO SPECIFIER Delete selection samples if colors have already been selected.

C. Selection Samples: Two complete sets of samples, representing manufacturer's full range of available products and colors.

D. Verification Samples: For each product and finish specified, two samples representing actual products and colors.

E. Copy of Warranty: For warranty specified in Par. 1.8 in this Section.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications: Provide all primary roofing products, including shingles, underlayment, leak barrier, and ventilation, by a single manufacturer.

B. Installer Qualifications:
1. Installer shall follow Owens Corning Roofing and Asphalt published installation instructions.

NOTE TO SPECIFIER Delete one of two options below. Select option based on desired warranty.

2. Installer shall be an Owens Corning Roofing Preferred Contractor as defined and certified by manufacturer.
3. Installer shall be an Owens Corning Roofing Platinum Preferred Contractor as defined and certified by manufacturer.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to site in manufacturer's unopened bundles with labels intact and legible.

B. Store all products in manufacturer's unopened, labeled packaging until they are ready for installation.

C. Handle and store materials on site to prevent damage. Store products in a covered, ventilated area, at temperature not more than 110 degrees Fahrenheit (43 degrees Celsius); do not store near steam pipes, radiators, or in direct sunlight.

D. Store bundles on a flat surface. Do not stack product more than 2 pallets high. If stacking 2 pallets high, use separator boards to protect the shingles below. Store all rolls on end.

E. Do not install underlayment or shingles on wet surfaces.

F. Store and dispose of solvent-based materials in accordance with all federal, state and local regulations.

G. For rooftop loading, lay shingle bundles flat. Do not bend over the ridge.

1.7 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install systems under environmental conditions outside manufacturer's recommended limits.
1. Proceed with work only when existing and forecasted weather conditions will permit work to be performed in accordance with manufacturer's recommendations.

1.8 WARRANTY

A. Manufacturer's Warranty: Provide to the Owner manufacturer's standard prorated warranty coverage for materials in the event of a material defect, including up to 10 years Tru Protection® coverage. Refer to actual warranty for complete details, limitations and requirements.

B. Manufacturer's Extended Warranty: Provide to the Owner manufacturer's standard extended warranty coverage labor and materials in the event of a material defect. Refer to actual warranty for complete details, limitations and requirements.

NOTE TO SPECIFIER Delete one of two options below. Select option based on desired warranty.

1. System Protection Roofing Limited Warranty includes up to 50 years of Tru Protection® (non-prorated) coverage on installed Owens Corning Roofing System products and labor. The length of the Tru Protection® coverage is based upon the shingle product installed on the field of the roof. Coverage can only be provided by a designated Owens Corning Roofing Preferred or Platinum Preferred Contractor.
2. Preferred Protection Roofing System Limited Warranty includes up to 50 years of Tru Protection® (non-prorated) coverage on installed Owens Corning Roofing System products and labor. The length of the Tru Protection® coverage is based upon the shingle product installed on the field of the roof. This warranty will also cover workmanship defects by the installer. Coverage can only be provided by a designated Owens Corning Roofing Preferred or Platinum Preferred Contractor.
3. Platinum Protection Roofing System Limited Warranty includes up to 50 years of Tru Protection® (non-prorated) coverage on installed Owens Corning Roofing System products and labor. The length of the Tru Protection® coverage is based upon the shingle product installed on the field of the roof. This warranty will

also cover workmanship defects by the installer. Coverage can only be provided by a designated Owens Corning Roofing Platinum Preferred Contractor.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: Owens Corning Roofing and Asphalt, LLC. One Owens Corning Pkwy. Toledo, OH 43659. Toll Free: 1-800-ROOFING. Email: ocbuildingspec@owenscorning.com. Web: www.owenscorning.com.

NOTE TO SPECIFIER Delete one of the following two paragraphs; coordinate with requirements of Division 1 Section on Product Options and Substitutions.

B. Substitutions: Not permitted.

C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 ROOF SHINGLES

NOTE TO SPECIFIER Delete roof shingle products from the list below that are not required.
NOTE TO SPECIFIER Verify with the manufacturer regional product availability.

A. Duration® Premium (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
2. Exposure: 5-5/8 in (143 mm).
3. Shingles per Square: 64.
4. Bundles per Square: 4 bundles of 16 shingles.
5. Coverage per Square: 98.4 sq ft (9.1 sq m).
6. Color: As selected from manufacturer's full range.
7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), ICC-ES AC438, and UL ER2453-01.

B. Duration® Premium (Non Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
2. Exposure: 5-5/8 in (143 mm).
3. Shingles per Square: 64.
4. Bundles per Square: 4 bundles of 16 shingles.
5. Coverage per Square: 98.4 sq ft (9.1 sq m).
6. Color: As selected from manufacturer's full range.
7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), ICC-ES AC438, and UL ER2453-01.

C. Duration® Premium Cool (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
2. Exposure: 5-5/8 in (143 mm).
3. Shingles per Square: 64.
4. Bundles per Square: 4 bundles of 16 shingles.
5. Coverage per Square: 98.4 sq ft (9.1 sq m).
6. Color: As selected from manufacturer's full range.
7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), meets the ENERGY STAR® requirements for initial solar reflectance of 0.25 and 3-year aged solar reflectance of 0.15, 2010 California Building Energy Efficiency Standards, Title 24, Part 6 requirements, Rated by the Cool Roof Rating Council (CRRC), Florida Product Approval (FL10674), ICC-ES AC438, and UL ER2453-01.

D. TruDefinition® Duration® (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
   1. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
   2. Exposure: 5-5/8 in (143 mm).
   3. Shingles per Square: 64.
   4. Bundles per Square: 3 bundles of 20 or 22 shingles.
   5. Coverage per Square: 98.4 sq ft (9.1 sq m).
   6. Color: As selected from manufacturer's full range.
   7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), CSA A123.5, Florida Product Approval (FL10674), Miami-Dade County Product Approval (12-0309.01), ICC-ES AC438, and UL ER2453-01.

E. TruDefinition® Duration® (Non Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
   1. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
   2. Exposure: 5-5/8 in (143 mm).
   3. Shingles per Square: 64.
   4. Bundles per Square: 3 bundles of 20 or 22 shingles.
   5. Coverage per Square: 98.4 sq ft (9.1 sq m).
   6. Color: As selected from manufacturer's full range.
   7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), ICC-ES AC438, and UL ER2453-01.

F. TruDefinition® Duration® Designer Color Collections (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
   1. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
   2. Exposure: 5-5/8 in (143 mm).
   3. Shingles per Square: 64.
   4. Bundles per Square: 3 bundles of 20 or 22 shingles.
   5. Coverage per Square: 98.4 sq ft (9.1 sq m).
   6. Color: As selected from manufacturer's full range.
   7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL790 (Class A Fire Resistance), CSA A123.5, Florida Product Approval (FL10674), Miami-Dade County Product Approval (12-0309.01), ICC-ES AC438, and UL ER2453-01.

G. TruDefinition® Duration® Designer Color Collections (Non Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
   1. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
   2. Exposure: 5-5/8 in (143 mm).
   3. Shingles per Square: 64.
   4. Bundles per Square: 3 bundles of 20 or 22 shingles.
   5. Coverage per Square: 98.4 sq ft (9.1 sq m).
   6. Color: As selected from manufacturer's full range.
   7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL790 (Class A Fire Resistance), ICC-ES AC438, and UL ER2453-01.

H. TruDefinition® Duration MAX™ (Non Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
   1. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
   2. Exposure: 5-5/8 in (143 mm).
   3. Shingles per Square: 64.
   4. Bundles per Square: 4 bundles of 16 shingles.
   5. Coverage per Square: 98.4 sq ft (9.1 sq m).
   6. Color: As selected from manufacturer's full range.
   7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), ICC-ES AC438, and UL ER2453-01.

Fiberglass-Based Asphalt Shingles & Accessories

Guide Specifications

I. TruDefinition® Duration STORM® (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
   1. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
   2. Exposure: 5-5/8 in (143 mm).
   3. Shingles per Square: 64.
   4. Bundles per Square: 3 bundles of 20 or 22 shingles.
   5. Coverage per Square: 98.4 sq ft (9.1 sq m).
   6. Color: As selected from manufacturer's full range.
   7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), UL 2218 (Class 4 Impact Resistance), CSA A123.5, ICC-ES AC438, and UL ER2453-01.

J. TruDefinition® Oakridge® (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
   1. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
   2. Exposure: 5-5/8 in (143 mm).
      1. Shingles per Square: 64.
      2. Bundles per Square: 3.
      3. Coverage per Square: 98.4 sq ft (9.1 sq m).
      4. Color: As selected from manufacturer's full range.
      5. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), Florida Product Approval (FL10674), Miami-Dade County Product Approval (12-0430.01), ICC-ES AC438, and UL ER2453-01.

K. TruDefinition® WeatherGuard® (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
   1. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
   2. Exposure: 5-5/8 in (143 mm).
      1. Shingles per Square: 64.
      2. Bundles per Square: 3.
      3. Coverage per Square: 98.4 sq ft (9.1 sq m).
      4. Color: As selected from manufacturer's full range.
      5. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), UL 2218 (Class 4 Impact Resistance), ICC-ES AC438, and UL ER2453-01.

L. Oakridge® (Non Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
   1. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
   2. Exposure: 5-5/8 in (143 mm).
   3. Shingles per Square: 64.
   4. Bundles per Square: 3 bundles of 20 or 22 shingles.
   5. Coverage per Square: 98.4 sq ft (9.1 sq m).
   6. Color: As selected from manufacturer's full range.
   7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), CSA A123.5, ICC-ES AC438, and UL ER2453-01. Shasta White Color meets ENERGY STAR requirements for initial solar reflectance of 0.25 and 3-year aged solar reflectance of 0.15.

M. Oakridge® (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
   1. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
   2. Exposure: 5-5/8 in (143 mm).
   3. Shingles per Square: 64.
   4. Bundles per Square: 3 bundles of 20 or 22 shingles.
   5. Coverage per Square: 98.4 sq ft (9.1 sq m).
   6. Color: As selected from manufacturer's full range.
   7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), CSA A123.5, ICC-ES AC438, UL ER2453-01, Florida Product Approval (FL10674), and Miami-Dade County Product Approval (12-0430.01). Shasta White Color meets ENERGY STAR requirements for initial solar reflectance of 0.25 and 3-year aged solar reflectance of 0.15.

N. Berkshire® (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
   1. Nominal Size: 18-3/4 in (476 mm) by 38 in (965 mm).

2. Exposure: 8-3/8 in. (213 mm).
3. Shingles per Square: 45.
4. Bundles per Square: 5 bundles of 9 shingles.
5. Coverage per Square: 99.5 sq ft (9.2 sq m).
6. Color: As selected from manufacturer's full range.
7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), ICC-ES AC438, UL ER2453-01, Florida Product Approval (FL10674), and Miami-Dade County Product Approval (10-0817.09).

O. Devonshire™ (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Nominal Size: 13-1/4 in (337 mm) by 40 in (1016 mm).
2. Exposure: 5-5/8 in. (143 mm).
3. Shingles per Square: 64.
4. Bundles per Square: 3 bundles of 21 or 22 shingles.
5. Coverage per Square: 100 sq ft (9.3 sq m).
6. Color: As selected from manufacturer's full range.
7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), ICC-ES AC438, UL ER2453-01, and Florida Product Approval (FL10674).

P. WeatherGuard® HP (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
2. Exposure: 5-5/8 in (143 mm).
3. Shingles per Square: 64.
4. Bundles per Square: 3 bundles of 20 or 22 shingles.
5. Coverage per Square: 98.4 sq ft (9.1 sq m).
6. Color: As selected from manufacturer's full range.
7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), ICC-ES AC438, UL ER2453-01, Florida Product Approval (FL10674), and Miami-Dade County Product Approval (10-0817.10).

Q. Woodmoor® (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Nominal Size: 14-1/4 in (362 mm) by 40 in (1016 mm).
2. Exposure: 4 in (102 mm).
3. Shingles per Square: 90.
4. Bundles per Square: 6 bundles of 15 shingles.
5. Coverage per Square: 100.0 sq ft (9.3 sq m).
6. Color: As selected from manufacturer's full range.
7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), CSA A123.5, ICC-ES AC438, and UL ER2453-01.

R. Woodcrest® (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Nominal Size: 14-1/4 in (362 mm) by 40 in (1016 mm).
2. Exposure: 4 in (102 mm).
3. Shingles per Square: 90.
4. Bundles per Square: 6 bundles of 15 shingles.
5. Coverage per Square: 100.0 sq ft (9.3 sq m).
6. Color: As selected from manufacturer's full range.
7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), CSA A123.5, ICC-ES AC438, and UL ER2453-01.

S. Supreme® (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Nominal Size: 12 in (305 mm) by 36 in (914 mm).
2. Exposure: 5 in (127 mm).
3. Shingles per Square: 80.
4. Bundles per Square: 3 bundles of 26, 27, 27 shingles.
5. Coverage per Square: 100.0 sq ft (9.3 sq m).
6. Color: As selected from manufacturer's full range.

7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), ICC-ES AC438, UL ER2453-01, Florida Product Approval (FL10674), and Miami-Dade County Product Approval (12-1204.03).

T. Supreme® (Non Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Nominal Size: 12 in (305 mm) by 36 in (914 mm).
2. Exposure: 5 in (127 mm).
3. Shingles per Square: 80.
4. Bundles per Square: 3 bundles of 26, 27, 27 shingles.
5. Coverage per Square: 100.0 sq ft (9.3 sq m).
6. Color: As selected from manufacturer's full range.
7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), ICC-ES AC438, and UL ER2453-01.

U. Supreme® (Algae Resistant) (Metric) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
2. Exposure: 5-5/8 in (143 mm).
3. Shingles per Square: 65.
4. Bundles per Square: 3 bundles of 21, 22, 22 shingles.
5. Coverage per Square: 100.0 sq ft (9.3 sq m).
6. Color: As selected from manufacturer's full range.
7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), CSA A123.5, ICC-ES AC438, and UL ER2453-01.

V. Supreme® (Non Algae Resistant) (Metric) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
2. Exposure: 5-5/8 in (143 mm).
3. Shingles per Square: 65.
4. Bundles per Square: 3 bundles of 21, 22, 22 shingles.
5. Coverage per Square: 100.0 sq ft (9.3 sq m).
6. Color: As selected from manufacturer's full range.
7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), ICC-ES AC438, and UL ER2453-01.

W. Classic® (Non Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Nominal Size: 12 in (305 mm) by 36 in (914 mm).
2. Exposure: 5 in (127 mm).
3. Shingles per Square: 80.
4. Bundles per Square: 3 bundles of 26, 27, 27 shingles.
5. Coverage per Square: 100.0 sq ft (9.3 sq m).
6. Color: As selected from manufacturer's full range.
7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), ICC-ES AC438, and UL ER2453-01.

X. Mineral Surface Roll (Non Algae Resistant): As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Nominal Size: 36 in (914 m) by 36 in (914 mm).
2. Exposure: 34 in (864 mm).
3. Rolls per Square: 1.
4. Coverage per Square: 100.0 sq ft (9.3 sq m).
5. Standards/Qualifications: ASTM E108/UL 790 (Class C Fire Resistance), and Florida Product Approval (FL12221).

2.3 HIP AND RIDGE SHINGLES

Provide hip and ridge shingles color formulated to complement field of roof.

NOTE TO SPECIFIER Delete hip and ridge shingle products from the list below that are not required.

Fiberglass-Based Asphalt Shingles & Accessories

Guide Specifications

NOTE TO SPECIFIER Verify with the manufacturer regional product availability.

A. RIZERidge® Hip and Ridge (Algae Resistant) Shingles with Sealant: As manufactured by Owens Corning Roofing and Asphalt, LLC.
   1. Foldable design provides multi-layered dimension along hips and ridges.
   2. Nominal Size: 12 in (305 mm) by 36 in (914 mm) with 6 in (152 mm) exposure.
   3. Piece Size: 12 in (305 mm) by 12 in (305 mm).
   4. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM E108/UL 790 (Class A Fire Resistance), ICC-ES AC438, UL ER2453-01, and Florida Product Approval (FL10674).

B. High Ridge Hip and Ridge (Algae Resistant) Shingles with Sealant: As manufactured by Owens Corning Roofing and Asphalt, LLC.
   1. Layered construction adds performance and dimension to the hip and ridge.
   2. Nominal Size: 12 in (305 mm) by 12 in (305 mm) with 8 in (203 mm) exposure.
   3. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM E108/UL 790 (Class A Fire Resistance), ICC-ES AC438, UL ER2453-01, Florida Building Code Approval (FL10674), and Miami-Dade County Product Approval (10-0817.08).

C. High Ridge Hip and Ridge (Non Algae Resistant) Shingles with Sealant: As manufactured by Owens Corning Roofing and Asphalt, LLC.
   1. Layered construction adds performance and dimension to the hip and ridge.
   2. Nominal Size: 12 in (305 mm) by 12 in (305 mm) with 8 in (203 mm) exposure.
   3. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM E108/UL 790 (Class A Fire Resistance), ICC-ES AC438, and UL ER2453-01.

D. DecoRidge® Hip and Ridge (Non Algae Resistant) Shingles with Sealant
   1. Durable, heavyweight laminate construction with SBS-modified asphalt provides maximum dimension and style to the hip and ridge.
   2. Nominal Size: 11-1/2 in (292 mm) by 8 in (203 mm) and 11-1/2 in (292 mm) by 10 in (254 mm) with 8 in (203 mm) exposure.
   3. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM E108/UL 790 (Class A Fire Resistance), and CSA A123.5.

E. ProEdge® Hip and Ridge (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
   1. Perforated shingles with factory installed cutouts designed for fast and easy installation.
   2. Nominal Size: 12 in (305 mm) by 36 in (914 mm) with 6 in (152 mm) exposure.
   3. Piece Size: 12 in (305 mm) by 12 in (305 mm).
   4. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM E108/UL 790 (Class A Fire Resistance), CSA A123.5, ICC-ES AC438, UL ER2453-01, Florida Product Approval (FL10674), and Miami-Dade County Product Approval (12-0725.01).

F. ProEdge® Hip and Ridge (Non Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
   1. Perforated shingles with factory installed cutouts designed for fast and easy installation.
   2. Nominal Size: 12 in (305 mm) by 36 in (914 mm) with 6 in (152 mm) exposure.
   3. Piece Size: 12 in (305 mm) by 12 in (305 mm).
   4. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM E108/UL 790 (Class A Fire Resistance), ICC-ES AC438, and UL ER2453-01.

G. ProEdge® Hip and Ridge (Algae Resistant) (Metric) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
   1. Perforated shingles with factory installed cutouts designed for fast and easy installation.
   2. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm) with 6-5/8 in (168 mm) exposure.
   3. Piece Size: 9-27/32 in (250 mm) by 13-1/4 in (337 mm).
   4. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM E108/UL 790 (Class A Fire Resistance), CSA A123.5, ICC-ES AC438, and UL ER2453-01.

H. ProEdge STORM® Hip and Ridge Impact Resistant (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
   1. Perforated design for easy installation offering Class 4 impact resistance.
   2. Nominal Size: 12 in (305 mm) by 36 in (914 mm) with 6 in (152 mm) exposure.

3. Piece Size: 12 in (305 mm) by 12 in (305 mm).
4. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM E108/UL 790 (Class A Fire Resistance), UL 2218 (Class 4 Impact Resistance), CSA A123.5, ICC-ES AC438, and UL ER2453-01.

I. Berkshire® Hip and Ridge (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Layered construction adds performance and dimension to the hip and ridge.
2. Nominal Size: 12 in (305 mm) by 12 in (305 mm) with 8 in (203 mm) exposure.
3. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM E108/UL 790 (Class A Fire Resistance), CSA A123.5, ICC-ES AC438, UL ER2453-01, Florida Product Approval (FL10674), and Miami-Dade County Product Approval (10-0817.08).

J. WeatherGuard® HP Hip and Ridge Impact Resistant (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Perforated design for easy installation offering Class 4 impact resistance.
2. Nominal Size: 12 in (305 mm) by 36 in (914 mm) with 6 in (152 mm) exposure.
3. Piece Size: 12 in (305 mm) by 12 in (305 mm).
4. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM E108/UL 790 (Class A Fire Resistance), UL 2218 (Class 4 Impact Resistance), UL ER2453-01, and Florida Product Approval (FL10674).

2.4 STARTER SHINGLES

NOTE TO SPECIFIER Delete starter shingle products from the list below that are not required.
NOTE TO SPECIFIER Verify with the manufacturer regional product availability.

A. Starter Shingle Roll: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Self-adhering, starter course. Each strip measures 7-1/5 in (191 mm) tall by 33-2/5 ft (10.1 m) wide.
2. Standards/Qualifications: CCMC 13403-R.

B. Starter Strip Shingle: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Nail applied starter course. Individual starter shingle is 6-5/8 in (168 mm) by 39-3/8 in (1000 mm).
2. Standards/Qualifications: ASTM D3462, ASTM D3161 (Class F Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), CSA A123.5, ICC-ES AC438, UL ER2453-01, and Florida Product Approval (FL10674).

C. Starter Strip PLUS: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Nail applied starter course. Individual starter shingle is 7-3/4 in (197 mm) by 39-3/8 in (1000 mm).
2. Standards/Qualifications: ASTM D3462, ASTM D3161 (Class F Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), ICC-ES AC438, UL ER2453-01, Florida Product Approval (FL10674), and Miami-Dade County Product Approval (09-0915.12).

D. WoodStart® Starter Shingle: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Nail applied starter course. Nominal Size is 13-3/8 in (340 mm) by 40 in (1016 mm).
2. Standards/Qualifications: ASTM D3462, ASTM D3161 (Class F Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), ICC-ES AC438, and UL ER2453-01.

2.5 SELF-ADHERING ICE AND WATER BARRIER

NOTE TO SPECIFIER Delete self-adhering ice and water barrier products from the list below that are not required.
NOTE TO SPECIFIER Verify with the manufacturer regional product availability.

A. WeatherLock® Mat: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Mat-faced skid resistant surface, self-adhering, self sealing, bituminous ice and water barrier.
2. Roll Width: 36 in (914 mm).
3. Selvage: 3 in (76 mm).
4. Standards/Qualifications: ASTM D1970, ASTM E108/UL 790 (Class A Fire Resistance), ICC-ESR 1783, CCMC 13403-R, Florida Product Approval (FL9777), and Miami-Dade County Product Approval (12-1114.01).

B. WeatherLock® G: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Granule skid resistant surface, self-adhering, self sealing, bituminous ice and water barrier.
2. Roll Width: 36 in (914 mm).
3. Selvage: 3 in (76 mm).

4. Standards/Qualifications: ASTM D1970, ASTM E108/UL 790 (Class A Fire Resistance), ICC-ESR 1783, CCMC 13403-R, Florida Product Approval (FL9777), and Miami-Dade County Approval (12-1114.01).

C. WeatherLock® Cold Climate: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Granule skid resistant surface, self-adhering, self sealing, bituminous ice and water barrier. Designed for low temperature adhesion.
2. Roll Width: 36 in (914 mm).
3. Selvage: 3 in (76 mm).
4. Standards/Qualifications: ASTM D1970, ASTM E108/UL 790 (Class A Fire Resistance), CCMC 13403-R, and ICC-ESR 1783.

D. WeatherLock® Flex: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Cross laminated poly surface with skid resistant traction surface, self-adhering, self sealing, bituminous ice and water barrier.
2. Roll Width: 36 in (914 mm).
3. Selvage: 3 in (76 mm).
4. Standards/Qualifications: ASTM D1970, ASTM E108/UL 790 (Class A Fire Resistance), CCMC 13403-R, and ICC-ESR 1783.

E. WeatherLock® Specialty Tile and Metal: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Polyester surface with skid resistant traction surface, self-adhering, self sealing, bituminous ice and water barrier.
2. Thermally stable in high temperatures up to 260 degrees Fahrenheit (126 degrees Celsius).
3. Designed for use with mechanically fastened tile systems.
4. Roll Width: 36 in (914 mm).
5. Selvage: 3 in (76 mm).
6. Standards/Qualification: ASTM D1970, ASTM E108/UL 790 (Class A Fire Resistance), ICC-ESR 1783, CCMC 13403-R, Florida Product Approval (FL13029), and Miami-Dade County Product Approval (12-0309.03).

2.6 SHINGLE UNDERLAYMENT

NOTE TO SPECIFIER Delete shingle underlayment products from the list below that are not required.
NOTE TO SPECIFIER Verify with the manufacturer regional product availability.

A. Fiberglas® Reinforced Felt Underlayment.
1. Wrinkle resistant, water resistant, breather type cellulose/glass fiber composite roofing underlayment.
2. Roll Width: 36 in (914 mm).
3. Roll Length: 141.5 ft (43.1 m).
4. Coverage Per Roll: 4 roof squares.
5. Standards/Qualifications: ASTM D226 (Type II), ASTM D4869 (Type IV), ASTM D6757, and Florida Product Approval (FL12536).

B. Deck Defense® High Performance Roof Underlayment.
1. Weather-shedding synthetic polyolefin barrier.
2. Roll Width: 48 in (1219 mm).
3. Roll Length: 125 ft (38.1 m) and 250 ft (76.2 m).
4. Coverage Per Roll: 5 and 10 roof squares.
5. Standards/Qualification: ASTM E108/UL 790 (Class A Fire Resistance), ICC-ESR 3229, CAN/CSA A220.1 Series-06, Florida Product Approval (FL14299), and Miami-Dade County Product Approval (11-0912.05).

2.7 ATTIC VENTILATION

NOTE TO SPECIFIER Delete attic ventilation products from the list below that are not required.
NOTE TO SPECIFIER Verify with the manufacturer regional product availability.

A. VentSure® Rigid Roll Ridge Vent with Weather PROtector® Moisture Barrier.
1. Shingle-over, low profile ridge vents with Weather PROtector® Moisture Barrier allows the passage of hot and/or moisture-laden air from attics, while prohibiting snow infiltration.
2. Provides 12.5 sq in (8200 sq mm) NFVA per lineal foot.
3. Available in 20 ft (6.1 m) rolls in three different widths (regional availability): 7 in (178 mm), 9 in (229 mm), and 11-1/4 in (286 mm).
4. Suitable on roofs with a pitch from 2:12 to 20:12.
5. Standards/Qualifications: ICC-ESR 2664, Passes Wind-Driven Rain with 8.8 in (224 mm) of rain at 110 mph (177 km/h), and Snow Infiltration at 35 mph (56 km/h) and 70 mph (112 km/h) Tests, Florida Product Approval (FL10758), and Miami-Dade County Product Approval (12-0309.02).

B. VentSure® 4 ft (1.2 m) Strip Heat and Moisture Ridge Vent, 12 in width (305 mm).
   1. Shingle-over, polypropylene ridge ventilator designed to work with eave/soffit intake ventilation to maximize the flow of cool, fresh air through the roof and attic structure.
   2. Patent-pending corrugated ridge design and interlocking feature for additional flexibility and strength
   3. Provides 20 sq in (12900 sq mm) NFVA per lineal foot.
   4. Optional filter provides added protection against wind-driven rain and snow infiltration.
   5. 4 ft (1.2 m) strip is 15 in (381 mm) wide and 1 in (25 mm) high, with a shingle-over width of 12 in (305 mm).
   6. Suitable on roofs with a pitch from 3:12 to 6:12.
   7. Standards/Qualifications: ICC-ESR 3007, Passes Wind-Driven Rain with 8-4/5 in (224 mm) of rain at 110 mph (177 km/h), Florida Product Approval (FL10758), Miami-Dade County Product Approval (09-1019.03), and TDI listed for usage in Texas Coastal Regions (RV-47).

C. VentSure® 4 ft (1.2 m) Strip Heat and Moisture Ridge Vent, 8 in (203 mm) and 10 in (254 mm) width.
   1. Shingle-over, polypropylene ridge ventilator designed to work with eave/soffit intake ventilation to maximize the flow of cool, fresh air through the roof and attic structure.
   2. Patent-pending corrugated ridge design and interlocking feature for additional flexibility and strength.
   3. Provides 18 sq in (11600 sq mm) NFVA per lineal foot.
   4. Optional filter provides added protection against wind-driven rain and snow infiltration.
   5. 4 ft (1.2 m) strip is available in 8 in (203 mm) and 10 in (254 mm) shingle-over widths that are 1 in (25 mm) high and overall product width is 11.43 in (290 mm) and 13.28 in (337 mm), respectively.
   6. Suitable on roofs with a pitch from 3:12 to 16:12.
   7. Standards/Qualifications: ICC-ESR 3007, Passes Wind-Driven Rain with 8-4/5 in (224 mm) of rain at 110 mph (177 km/h), Florida Product Approval (FL10758.1), Miami-Dade County Product Approval (09-1019.03), and TDI listed for usage in Texas Coastal Regions (RV-47).

D. VentSure® Metal Slant Back Roof Vent
   1. Rooftop mounted, slant-back designed, metal exhaust ventilator designed to evacuate hot and/or moisture-laden air from attics.
   2. Each vent provides 51 sq in (32900 sq mm) NFVA.
   3. Aluminum and galvanized steel available in Weathered Grey, Brown, Black, or Mill Finish.
   4. 16 in (406 mm) by 20 in (508 mm) base, 8 in (203 mm) diameter opening.
   5. Suitable on roofs with a pitch up to 12:12.
   6. Standards/Qualifications: TDI listed for usage in Texas Coastal Region (RV-20)

E. Plastic Slant Back Roof Vent
   1. Rooftop mounted, slant-back design with full screen, high-impact resin exhaust ventilator designed to evacuate hot and/or moisture-laden air from attics.
   2. Each vent provides 55 sq in (35500 sq mm) NFVA.
   3. Available in Weathered Grey, Brown, Black, Cedar, or White finish.
   4. 17 in (432 mm) by 18 in (457 mm) base, 9 in (229 mm) by 9 in (229 mm) opening.
   5. Standards/Qualifications: TDI listed for usage in Texas Coastal Region (RV-20).

F. VentSure® Metal Square Top Roof Vent
   1. Rooftop mounted, square-top designed, metal exhaust ventilator designed to evacuate hot and/or moisture-laden air from attics.
   2. Each vent provides 51 sq in (32900 sq m) NFVA.
   3. Aluminum and galvanized steel available in Weathered Grey, Brown, Black, or Mill finish.
   4. 16-1/2 in (419 mm) by 17-1/2 in (445 mm) base, 8 in (203 mm) by 8 in (203 mm) opening.
   5. Suitable on roofs with a pitch up to 12:12.

G. VentSure® Low Profile Slant Back Roof Vent with Exterior Louver
   1. Rooftop mounted, low-profile, slant back metal exhaust ventilator designed to evacuate hot and/or moisture-laden air from attics.
   2. Each vent provides 72 sq in (46500 sq mm) NFVA.
   3. Galvanized steel available in Black, White Brown, Light Grey, Dark Gray, or Mill finish.
   4. 32 in (813 mm) by 23 in (584 mm) base, 11 in (279 mm) by 11 in (279 mm) opening. Available with extended flange 36 in (914 mm) by 28 in (711 mm).
   5. Suitable on roofs with a 3:12 pitch or greater.
   6. Standards/Qualifications: Miami-Dade County Product Approval (11-0512.02).

H. VentSure® Metal Dome with Screen
   1. Rooftop mounted, dome, metal exhaust ventilator designed to evacuate hot and/or moisture-laden air from attics, while prohibiting snow infiltration.

2. Each vent provides 144 sq in (92900 sq mm) NFVA.
3. Galvanized steel available in Weathered Grey, Brown, Black, or Mill finish.
4. 25 in (635 mm) by 25 in (635 mm) base, 15 in (381 mm) diameter opening.
5. Suitable on roofs with a pitch up to 8:12.

I. VentSure® Internally Braced Premium Turbine Vent
1. Rooftop mounted, turbine designed, metal exhaust ventilator designed to evacuate hot and/or moisture-laden air from attics with sealed and lubricated stainless steel ball bearings.
2. Aluminum and galvanized steel available in Weathered Grey, Brown, Black, or Mill finish.
3. Available with 12 in (305 mm) diameter opening and 16 in (406 mm) base or 14 in (356 mm) diameter opening with 18 in (457 mm) base.

J. VentSure® Internally Braced Standard Turbine Vent
1. Rooftop mounted, turbine designed, metal exhaust ventilator designed to evacuate hot and/or moisture-laden air from attics.
2. Aluminum and galvanized steel available with a 12 in (305 mm) or 14 in (356 mm) opening.
3. 12 in (305 mm) opening with 16 in (406 mm) base available in Brown, Black, or Mill finish.
4. 14 in (356 mm) opening with 16 in (406 mm) base available in Mill finish.

K. VentSure® Externally Braced Premium Turbine Vent
1. Rooftop mounted, turbine designed, metal exhaust ventilator designed to evacuate hot and/or moisture-laden air from attics with sealed and lubricated stainless steel ball bearings.
2. Aluminum and galvanized steel available in Weathered Grey, Brown, Black, or Mill finish.
3. Available with 12 in (305 mm) opening and 16 in (406 mm) base.

L. VentSure® 1400 CFM Powered Roof Vent
1. Rooftop mounted, 1400 CFM (39.6 cu m/min), metal exhaust ventilator designed to evacuate hot and/or moisture-laden air from attics.
2. Each vent provides ventilation for 2000 sq ft (186 sq m) attic
3. Includes adjustable thermostat and humidistat and 4.5 Amp motor.
4. Aluminum and galvanized steel available in Weathered Grey, Brown, Black, or Mill finish.
5. 25 in (635 mm) by 25 in (635 mm) base with 15 in (381 mm) opening.
6. Suitable on roofs with a pitch up to 8:12.
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M. VentSure® 1080 CFM Powered Roof Vent
1. Rooftop mounted, 1080 CFM (30.6 cu m/min), metal exhaust ventilator designed to evacuate hot air from attics.
2. Each vent provides ventilation for 1600 sq ft (149 sq m) attic.
3. Includes adjustable thermostat and humidistat and 2.6 Amp motor.
4. Aluminum and galvanized steel available in Weathered Grey, Brown, Black or Mill finish.
5. 25 in (635 mm) by 25 in (635 mm) base with 15 in (381 mm) opening.
6. Suitable on roofs with a pitch up to 8:12.

N. VentSure® Aluminum Undereave Intake Vent
1. Rectangular aluminum intake vents designed to introduce fresh, dry air into the attic. Pre-drilled holes for easy installation and fully screened for first line of defense against insects.
2. Available in Mill and White and three different dimensions designed to work collectively with exhaust vents to provide ventilation to roof structures.
3. 4 in (102 mm) by 16 in (406 mm) opening provides 16.34 sq in (10500 sq mm) NFVA, 6 in (152 mm) by 16 in (406 mm) opening provides 27.23 sq in (17600 sq mm) NFVA and 8 in (203 mm) by 16 in (406 mm) opening provides 38.12 sq in (24600 sq mm) NFVA.

O. VentSure® 8 ft (2.4 m) Continuous Soffit Vent
1. 8 ft (2.4 m) continuous aluminum soffit vent offering 37.47 sq in (24200 sq mm) NVFA.
2. Available in 2 in (51 mm) widths, designed to work collectively with exhaust vents to provide ventilation to roof structures.

P. VentSure® Round Mini Soffit Vent
1. Round miniature aluminum soffit vents designed to introduce fresh, dry air into the attic.
2. Available in Mill finish and three sizes designed to work collectively with exhaust vents to provide ventilation to roof structures.
3. 2 in (51 mm) round opening provides 0.64 sq in (4100 sq mm) NFVA, 3 in (76 mm) round opening provides 1.36 sq in (8800 sq mm) NFVA, and 4 in (102 mm) round opening 2.43 sq in (15700 sq mm) NFVA.

Q. VentSure® InFlow™ Vent
1. Shingle-over, polypropylene intake vent solution for soffit-less and open-rafter homes, and homes with inadequate intake. Designed to work with exhaust ventilation to help achieve a balanced air ventilation system.
2. Patent-pending bottom intake design helps protect against wind-driven rain.
3. 4 ft (2.4 m) strip provides 10 sq in (6500 sq mm) NFVA per lineal foot, or 40 sq in (25800 sq mm) NFVA per vent
4. Weather PROtector® Moisture Barrier provides added protection against wind-driven rain and snow infiltration.
5. Roof Mount Unit dimensions: 48 in (1219 mm) length, 15 in (381 mm) width and 1 in (25 mm) height.
6. Suitable for use on roofs with a pitch from 4:12 to 16:12.
7. Standards/Qualifications: ICC-ES AC132; TDI listed for usage in Texas Coastal Region (Pending) and Florida Product Approval (Pending).

R. VentSure® Solar Attic Exhaust Fan: Roof Mount Unit
1. 25-Watt solar-powered attic ventilator efficiently exhausts hot, humid air from the attic. Designed to work as part of a balanced air ventilation system in conjunction with Undereave/Soffit vents.
2. Electronic thermostat and humidistat for efficient operation.
3. Electric backup available for hookup for continued operation after dusk or when adequate solar power is not available.
4. Ventilates up to 3200 sq ft (297 sq m) attic space (under certain conditions, including adequate intake ventilation).
5. 38-volt DC Motor (variable speed) with external brushes.
6. 14 in (356 mm) 3-wing ultra quiet aluminum blades with pitch angle matched to motor/solar panel.
7. Black, powder-coated, 20 gauge, 0.0396 in (1.006 mm) galvanized steel flashing and housing.
8. Remote Attic Monitor (optional) displays attic temp, humidity, fan operation, and source of power via portable device from almost anywhere in the home.
9. Roof Mount Unit dimensions: 26 in (660 mm) length, 26 in (660 mm) width, 10-3/16 in (259 mm) height; Solar Panel Dimensions: 18-3/4 in (476 mm) length, 17-1/4 in (438 mm) width and 1 in (25 m) height; 36.0 lbs (16.3 kg) shipping weight.
10. Suitable for use on asphalt-shingled roof decks with a pitch from 3:12 to 16:12.
11. Standards/Qualifications: TDI listed for use in Texas Coastal Regions (Pending); Florida Product Approval (FL16166), and complies with UL 1703 impact resistance requirements.

S. VentSure® Solar Attic Exhaust Fan: Gable Mount Unit
1. 25-Watt solar-powered attic ventilator efficiently exhausts hot, humid air from the attic. Designed to work as part of a balanced air ventilation system in conjunction with Undereave/Soffit vents.
2. Only the solar panel is mounted on the roof with the Gable Mount Solar Attic. The fan is mounted in the attic and vents out the gable vents.
3. Electronic thermostat and humidistat for efficient operation.
4. Electric backup available for hookup for continued operation after dusk or when adequate solar power is not available.
5. Ventilates up to 4200 sq ft (390 sq m) attic space (under certain conditions, including adequate intake ventilation)
6. 38-volt DC Motor (variable speed) with external brushes.
7. 14 in (356 mm) 3-wing ultra quiet aluminum blades with pitch angle matched to motor/solar panel
8. Fan housing is electro-deposition, galvanized, powder coated with 3 mils to 5 mils (0.076 mm to 0.127 mm) thickness.
9. Remote Attic Monitor (optional) displays attic temp, humidity, fan operation, and source of power via portable device from almost anywhere in the home.
10. Gable-Mount Solar Fan Dimensions: 16 in (406 mm) length, 14 in (356 mm) width, and 8-1/2 in (216 mm) height; Solar Panel Dimensions: 18-3/4 in (476 mm) length, 17-1/4 in (438 mm) width and 1 in (25 mm) height; 25.7 lbs (11.6 kg) shipping weight.
11. Suitable for use on roofs with a pitch from 3:12 to 16:12.
12. Standards/Qualifications: Solar panel complies with UL 1703 impact resistance requirements.

2.8 SKYLIGHTS

NOTE TO SPECIFIER Delete skylight products from the list below that are not required.
NOTE TO SPECIFIER Verify with the manufacturer regional product availability.

A. Illuminator® Tube Skylight – Non-impact Resistant Unit

1. Innovative solution for bringing natural light into home, reducing reliance on electricity. Units with composite and aluminum flashing are recommended for use with asphalt-shingled roofs, wood shakes, and slate roof types. Units with formable flashing are recommended for use with tile and metal roof applications.
2. Available in two sizes 10 in (254 mm) or 14 in (356 mm) acrylic dome, reflecting the equivalent of up to 300-Watts with a 10 in (254 mm) unit or 500-Watts with a 14 in (356 mm) unit of natural light.
3. Light is distributed evenly over 150 sq ft (13.9 sq m) area with a 10 in (254 mm) unit or 300 sq ft (27.9 sq m) area with a 14 in (356 mm) unit via adjustable, reflective tubing.
4. Black, composite flashing is designed to prevent leaking and is pitched for easier installation.
5. Units sold as a complete kit containing 4 ft (1.2 m) of adjustable, reflective tubing, a weather-resistant dome, one-piece flashing, and Energy Star rated diffuser lens.
6. Optional Electric Light Kit available for 10 in (254 mm) and 14 in (356 mm) units.
7. Remote control operated Solar Powered Dimmer allows full control over amount of light entering a room, without using electricity. For 10 in (254 mm) units only.
8. Standards/Qualifications: ASTM D635, ASTM D1929, ASTM D2843, ICC-ESR 1835, AAMA/WDMA/CSA 101/I.2S/A440, ENERGY STAR qualified, Florida Product Approval (FL15095.1), and TDI listed for usage in Texas Coastal Region (SK-35).

B. Illuminator® Tube Skylight – Impact Resistant Unit for use outside (High Velocity Hurricane Zone) HVHZ.
1. Innovative solution for bringing natural light into home, reducing reliance on electricity. Recommended for tile and metal roof applications.
2. Available in two sizes 10 in (254 mm) or 14 in (356 mm) polycarbonate dome, reflecting the equivalent of up to 300-Watts with a 10 in (254 mm) unit or 500-Watts with a 14 in (356 mm) unit of natural light.
3. Light is distributed evenly over 150 sq ft (13.9 sq m) area with a 10 in (254 mm) unit or 300 sq ft (27.9 sq m) area with a 14 in (356 mm) unit via adjustable, reflective tubing.
4. Silver, one-piece formable aluminum flashing is designed to prevent leaking. Secondary, formable flashing also included.
5. Units sold as a complete kit containing 4 ft (1.2 m) of adjustable, reflective tubing, a weather-resistant dome, one-piece flashing plus secondary flashing, and Energy Star rated diffuser lens.
6. Optional Electric Light Kit available for 10 in (254 mm) and 14 in (356 mm) units.
7. Remote control operated Solar Powered Dimmer allows full control over amount of light entering a room, without using electricity. For 10 in (254 mm) units only.
8. Standards/Qualifications: ASTM D635, ASTM D1929, ASTM D2843, ICC-ESR 1835, AAMA/WDMA/CSA 101/I.2S/A440, ENERGY STAR qualified, Florida Product Approval (FL15095.2), and TDI listed for usage in Texas Coastal Region (SK-36).

C. Illuminator® Tube Skylight – Impact Resistant Unit for use within and outside HVHZ.
1. Innovative solution for bringing natural light into home, reducing reliance on electricity.
2. Available in two sizes 10 in (254 mm) or 14 in (356 mm) polycarbonate dome, reflecting the equivalent of up to 300-Watts with a 10 in (254 mm) unit or 500-Watts with a 14 in (356 mm) unit of natural light.
3. Light is distributed evenly over 150 sq ft (13.9 sq m) area with a 10 in (254 mm) unit or 300 sq ft (27.9 sq m) area with a 14 in (356 mm) unit via adjustable, reflective tubing.
4. Black, spun aluminum flashing is designed to prevent leaking.
5. Units sold as a complete kit containing 4 ft (1.2 m) of adjustable, reflective tubing, a weather-resistant dome, one-piece flashing, and Energy Star rated diffuser lens.
6. Optional Electric Light Kit available for 10 in (254 mm) and 14 in (356 mm) units.
7. Remote control operated Solar Powered Dimmer allows full control over amount of light entering a room, without using electricity. For 10 in (254 mm) units only.
8. Standards/Qualifications: ASTM D635, ASTM D638, ASTM D1929, ASTM D2843, ICC-ESR 1835, AAMA/WDMA/CSA 101/I.2S/A440, ENERGY STAR qualified, Florida Product Approval (FL15095.3), and TDI listed for usage in Texas Coastal Region (SK-36).

2.9 FASTENERS

A. Fasteners: Galvanized steel, stainless steel, or aluminum nails complying with ASTM F1667, minimum 12 gauge, 0.0808 in (2.05 mm) shank with 3/8 in (9.5 mm) diameter head.

B. All fasteners must be driven flush with the shingle surface and penetrate at least 3/4 in (19.1 mm) into the wood deck. Where the deck is less than 3/4 in (19.1 mm) thick, the fastener should be long enough to penetrate fully and extend through roof sheathing.

2.10 METAL FLASHING

A. Flashing: Provide flashing as specified by Section 07600 - Metal Flashing and Sheet Metal.

PART 3 EXECUTION

3.1 EXAMINATION

A. Prior to starting work, examine all roof decks on which work is to be applied for defects in materials and workmanship which may be detrimental to the proper installation or long-term performance of the shingles.

B. Underlayment and shingles installed directly over roof insulation or similar type decks is not approved.

1. Roof deck must be dry, minimum 25/32 in (19.8 mm) thick, minimum 6 in (152 mm) wide boards with maximum 1/4 in (6.4 mm) spaces, or APA rated sheathing (exposure 1): minimum 3/8 in (9.5 mm) plywood, minimum 7/16 in (11.1 mm) oriented strand board. Consult your manufacturer for other approved constructions.
2. Ventilation under the roof deck must meet local code requirements.

C. Do not begin installation until the roof deck has been properly prepared.

D. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding. Commencement of installation constitutes acceptance of conditions.

3.2 PREPARATION

A. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

B. Remove all existing roofing down to the roof deck.

C. Verify installed roof deck is acceptable to receive shingles. Acceptable roof decks include the following:
1. Lumber sheathing: 6 in (152 mm) minimum width, 25/32 in (19.8 mm) minimum thickness.
2. Plywood sheathing: 3/8 in (9.5 mm) minimum thickness Exposure 1 grade plywood sheathing as recommended by APA and in compliance with applicable Codes.
3. OSB panels: 7/16 in (11.1 mm) minimum thickness non-veneer structural panels as recommended by APA and in compliance with applicable Codes.
4. Spacing between boards or panels shall not exceed 1/4 in (6.4 mm) between roof boards or between plywood or OSB sheathing panels.

D. Verify that the deck is dry, structurally sound, clean and smooth. It shall be free of any depressions, waves, and projections. Cover with minimum 28 gauge; 0.0187 in (0.475 mm) galvanized steel, 0.0156 in (0.396 mm) stainless steel, or 0.0126 in (0.320 mm) aluminum sheet metal all holes 1 in (25 mm) or less in diameter, cracks over 1/2 in (13 mm) in width, loose knots and excessively resinous areas. Decking or deck boards with holes greater than 1 in (25 mm) in diameter shall be replaced.

E. Verify that the deck is structurally sound and free of deteriorated decking. All deteriorated and damaged decking shall be removed and replaced with new materials.

F. Clean deck surfaces thoroughly prior to installation of self-sealing ice and water barrier and underlayment.

G. Verify that the existing shingles are dry, sound, clean and smooth. All curled, buckled or loose tabs shall be nailed down or removed.

3.3 UNDERLAYMENT APPLICATION

A. Install in accordance with manufacturer's instructions.
1. Install using methods recommended by shingle manufacturer and in accordance with local building codes. When local codes and application instructions are in conflict, the local code requirements shall take precedence.
2. Install self-adhering ice and water barrier from the eaves edge of roof up the slope a full 36 in (914 mm) but not less than 24 in (610 mm) beyond the interior edge of the exterior wall. Lap ends 6 in (152 mm) on roof decks sloped 5:12 and greater. On roofs with pitch from 2:12 up to 4:12, see application instructions printed on each package.

B. Drip Edge
1. Drip edge shall be installed on all roof edges.

2. Install drip edge on eaves first with underlayment installed over the drip edge.
3. Install drip edge on rakes after underlayment is installed, with the drip edge fastened over the underlayment.
4. Joints in drip edge shall be lapped minimum 2 in (51 mm) with the upslope piece lapped over the down slope piece.
5. Install fastener 8 in to 10 in (203 mm to 254 m) on center, approximately 1-3/4 in (44 mm) from the outside edge of the drip edge.

C. Valleys
1. Install self-adhering ice and water barrier at least 36 in (914 mm) wide and centered on the valley. Lap ends 6 in (152 mm) and seal.
2. Where valleys are indicated to be "open valleys", install metal flashing over self-adhering ice and water barrier before roof deck underlayment is installed; DO NOT nail through the flashing. Secure the flashing by nailing at 18 in (457 mm) on center just beyond edge of flashing so that nail heads hold down the edge, or use valley metal with a formed edge and secure with clips.

D. Roof Deck
1. On roofs with pitch greater than 4:12, lap horizontal edges at least 2 inches (51 mm) and at least 2 inches (51 mm) over self-adhering ice and water barrier. Lap ends at least 4 inches (102 m). End laps in succeeding course should be located at least 6 ft (1.8 m) from end laps in the preceding course.
2. On roofs with pitch between 2:12 to less than 4:12, see application instructions printed on each shingle wrapper, or follow local code requirements.
3. Lap underlayment over valley protection at least 6 inches (152 mm).

E. Penetrations
1. Vent pipes: Install a 24 in (610 mm) square piece of self-adhering ice and water barrier lapping over roof deck underlayment; seal tightly to pipe.
2. Vertical walls: Install self-adhering ice and water barrier extending at least 3 in to 4 in (76 mm to 102 mm) up the wall and 12 in (305 mm) on to the roof surface. Lap the membrane over the roof deck underlayment.
3. Chimneys: Install self-adhering ice and water barrier around entire chimney extending at least 6 in (152 mm) up the wall and 12 in (305 mm) on to the roof surface. Lap the membrane over the roof deck underlayment.

3.4 SHINGLE INSTALLATION

A. Install shingles in accordance with manufacturer's printed installation instructions.

B. Install starter course at lowest roof edge and along rake with edge of shingles extending 1/4 in (6.4 mm) over edge of roof.

C. Install first and successive courses of shingles stepping diagonally up and across roof deck with manufacturer's recommended offset at each succeeding course. Maintain uniform exposure of shingles at each succeeding course.

D. Fasten shingles to deck with manufacturer's recommended number of roofing nails per shingle, or in accordance with local codes.

E. Install ridge vents and shingles at valleys, hips and ridges in accordance with manufacturer's recommendations and local code requirements.

3.5 PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION