MIAMI-DADE

BUILDING CODE COMPLIANCE OFFICE (BCCO)
PRODUCT CONTROL DIVISION

MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING
140 WEST FLAGLER STREET, SUITE 1603
MIAMI, FLORIDA 33130-1563
(305) 375-2901 FAX (305) 375-2908

NOTICE OF ACCEPTANCE (NOA)

Greenstone Slate
Upper Road P.O. Box 134
Poultney, VT 05764

SCOPE:
This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Division (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Greenstone Roofing Slate-Natural

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This new NOA and consists of pages 1 through 5.
The submitted documentation was reviewed by Alex Tigera.

ROOFING ASSEMBLY APPROVAL

Category: Roofing
Sub-Category: 07310 Roofing Slate
Materials Slate
Deck Type: Wood

SCOPE:

This approves Greenstone Roofing Slate-Natural roofing System, manufactured by Greenstone Slate Company, Inc. in Poultney, VT., as described in this Notice of Acceptance, which is designed to comply with the Florida Building Code. For the locations where mean roof height, as determined by applicable building code, does not exceed 33 feet, or calculated in accordance RAS 127 with values in tables 1& 2 herein.

PRODUCT DESCRIPTION:

Product	Dimensions	Test Specifications	Product Description
Greenstone Roofing Slate-Natural	Various	TAS 110	Dense sound rock, quarried for roofing stock. Thickness from $^1/_4$" to $^3/4$" and various width and lengths.

COMPONENTS OR PRODUCTS MANUFACTURED BY OTHERS:

Product	Dimensions	Test Specifications	Product Description	Manufacturer
Copper Slating Nail	Min. 11 gauge 1-1/2" ring shank copper roofing nail, various lengths.	TAS 114, Appendix C	Copper Roofing Nails	Generic

EVIDENCE SUBMITTED:

Test Agency	Test Identifier	Test Name/Report	Date
PRI Asphalt Technologies, Inc.	TAS 100	Wind Driven Rain	07/27/05
PRI Asphalt Technologies, Inc.	ASTM C 406	Physical Properties	07/15/04
PRI Asphalt Technologies, Inc.	TAS 102	Static Uplift Resistance	07/28/05

APPROVED SYSTEMS:

Deck Type: Wood, Non-insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank.

Slope Range: 2:12" or greater

Underlayment: Double layer application (50% overlap) of ASTM D 226 type I. Or a single layer of ASTM D 2626 coated base sheet. Underlayment shall be fastened with corrosion resistant tin-caps and 12 gauge 1-¼" annular ring-shank nails, spaced 6" o.c. at all laps and two staggered rows 12" o.c. in the field of the roll. Or, any Miami-Dade County Product Control Approved underlayment having a current NOA.

Eave Metal: Eave and gable drip metal shall be fastened with minimum 12 gauge annular ring shank nails at a maximum spacing of 4" o.c. The nails shall be manufactured from similar and compatible material to the termination profile. All composite materials shall be fastened with non-ferrous nails. All metal profiles shall be installed in compliance with RAS 111.

Application: Install "Slate-Natural" as per Greenstone Slate Company's published installation instructions and this Notice of Acceptance. Starter course must overhang the eave and rake ½". Set the first 7" long starter on a ½" thick wood shim and fasten to the deck with 11 gauge 1-½" x 3/8" copper annular ring shank roofing nail long enough to penetrate through the sheathing or wood plank a minimum of $^{3}/_{16}$".

Slate s shall be laid so that alternate courses do not align, all joints shall be offset not less than 3" from any underlying joint. Spacing between slate (joints or slots) shall be no less than ¼" and no more than ½". Proper exposure is obtained by deducting 3" from the length of the slate and dividing that number by two.

Each slate shall be nailed with a minimum of two (2) copper slating nails. All slate shall be jobsite or factory machine punched. Holes shall be punched 4" from edge of the slate from the upper end, and 1-½" from the edge. No single slate width shall be less than one half of the associated length of the installed slate. Proper nail length shall be determined by multiplying the thickness of the slate by two (2) and adding one (1) inch. In all cases, fasteners shall be long enough to penetrate through the sheathing or wood plank a minimum of $^{3}/_{16}$" or penetrate a 1" or greater thickness of lumber a minimum of 1", assuring a minimum nail length shall be 1 ½".

Ensure no end joint is less than 2 inches from a nail in an underlying course. Drive nails straight so that the edge of the nail head does not make contact with the slate at an angle. Nail heads should be driven flush with the slate surface. Fasteners shall not be overdriven.

Slate shall be applied in straight, horizontal single courses. The under-eaves or starter course of slate should be attached to a cant strip of suitable thickness (determined by the thickness of the slate) to enable the second course of slate to be properly aligned. The beginning or starter course at the eave line shall be doubled. The butts of first course of slate shall project a maximum of 2" beyond the eave line and 1" at gable ends.

(Optional Interlayment) Each succeeding course of slate may be applied with an optional interlayment of ASTM D 226 Type II felt, 18" wide laid over the top portion of slate, and extending onto the sheathing with the bottom edge of the felt positioned at a distance above the butt equal to twice the distance of the weather exposure. For example, with a 10" exposure, interlayment shall be applied 20" above the slate butts. This will allow 14" of felt to extend onto the sheathing. No interlayment shall be exposed.

Valleys: Valley metal shall be a minimum 24" wide preformed W-shape metal with returns. If the slope is greater than 12": 12", valley metal may be reduced to 16" wide. Valley metal shall be set over a minimum 36" wide sweat sheet of minimum ASTM D 226 type II embedded in roofing cement, or an approved self-adhered membrane. Valley metal shall be secure with clips fabricated from similar or compatible material. Clips shall be spaced a maximum 12" o.c, and secured with a minimum of 2 approved 1-$^{1}/_{4}$" roofing nails set in roofing cement. Trim metal at all valley/ridge junctions, ensuring water-shedding capabilities onto the valley. Install metal soaker at all valley junctions. Turn soaker up on sides a minimum of 1" to create a water diverter, ensuring amble water-shedding capabilities. Valley detail shall be in accordance with the current published installation instructions and details in Greenstone Slate Company, Inc. current installation manual.

Ridges: Ridges shall be covered with slate having a width that is approximately the same as the field slate exposure. The exposure of the ridge slate shall be approximately the same as the width of the field slates. Pre-manufactured hip and ridge units are acceptable. In all cases the ridge slate cover the last course of the field slate by a minimum of 3". Ridge slate shall be installed in a saddle or combing method and shall be attached with an alternating overlap. All ridge slate shall be set in an 8" bed of ASTM D 4586 mastic.

DATA FOR ATTACHMENT CALCULATIONS:

Calculations shall be in compliance with RAS 127 as an uplift based system (RAS 127, section 3)

Table 1: Average Weight (W) and Dimensions (D)

Profile	Weight-W(lbf)	Length – l (feet)	Width – w (feet)
Slate-Natural	3.47	1	.833

Table 2: Attachment Resistance Expressed as a Uplift – F' (lbf)

Profile	Minimum Attachment Resistance
Slate-Natural	33.2

LIMITATIONS

1. This acceptance is for wood deck applications. Minimum deck requirements shall be in compliance with applicable building code.

2. All Slates shall bear the imprint or identifiable marking of the manufacturer, name or logo, or following statement: "Miami-Dade County Product Control Approved".

3. The applicant shall retain the services of a Miami-Dade County certified testing laboratory to maintain quality control in compliance with the Florida Building Code.

4. Application for building permit shall be accompanied by copies of the following:
   a. This Notice of Acceptance.
   b. Any other documents required by the Building Official or applicable Building Code in order to properly evaluate the installation of this system.

5. Calculations in accordance with RAS 127 shall be performed as an uplift based system.

6. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 9B-72 of the Florida Administrative Code.

END OF THIS ACCEPTANCE