



EVALUATION REPORT

FLORIDA BUILDING CODE, 8TH EDITION (2023)

Manufacturer: ACRYSYSTEMS LABORATORIES, INC. *Issued August 15, 2023*
 dba ACRYLABS
 101 North Prospect
 Reading, PA 19606
 (866) 273-1355
www.acrylabs.com

Manufacturing: Reading, PA

Quality Assurance: FM Approvals (QUA1860)

SCOPE

Category: Roofing
Subcategory: Liquid Applied Roof Systems
Code Edition: Florida Building Code, 8th Edition (2023) including High-Velocity Hurricane Zones (HVHZ)
Code Sections: 1504.3.1, 1507.10.2, 1507.15, 1523.1.1,
Properties: Wind Resistance, Wind-Driven Water Infiltration Resistance, Physical Properties

REFERENCES

| <u>Entity</u> | <u>Report No.</u> | <u>Standard</u> | <u>Year</u> |
|---|-------------------|-----------------|-------------|
| PRI Construction Materials Technologies (TST5878) | ALI-002-02-01 | ASTM D 6083 | 2021 |
| PRI Construction Materials Technologies (TST5878) | CMA-001-02-01 | UL 580 | 2006 |
| | | UL 1897 | 2015 |
| | | TAS 125 | 2003 |
| PRI Construction Materials Technologies (TST5878) | CMA-001-02-01 | TAS 100 | 2023 |
| QAI Laboratories (TST9808) | RJ0525-Rev. 2 | ASTM C 1325 | 2018 |

PRODUCT DESCRIPTION

Acrylabs Roof System: ASTM D 6083, Type I elastomeric coating composed of Acrylabs 2100 Finish Coat applied over Acrylabs 2100B Base Coat with an embedded Acrylabs Mesh 2000 fabric.

Island Style Roof: A novel steep slope roof system composed of the Acrylabs Roof System applied over National Gypsum's 5/8" thick PermaBase Cement Board as described in the Application section of this report.

APPLICATION

Note - Refer to the [APPROVED ASSEMBLIES](#) section of this report for the maximum design pressures of the approved assemblies.

Unless otherwise specified in this report the following installation details shall be met for the named products:

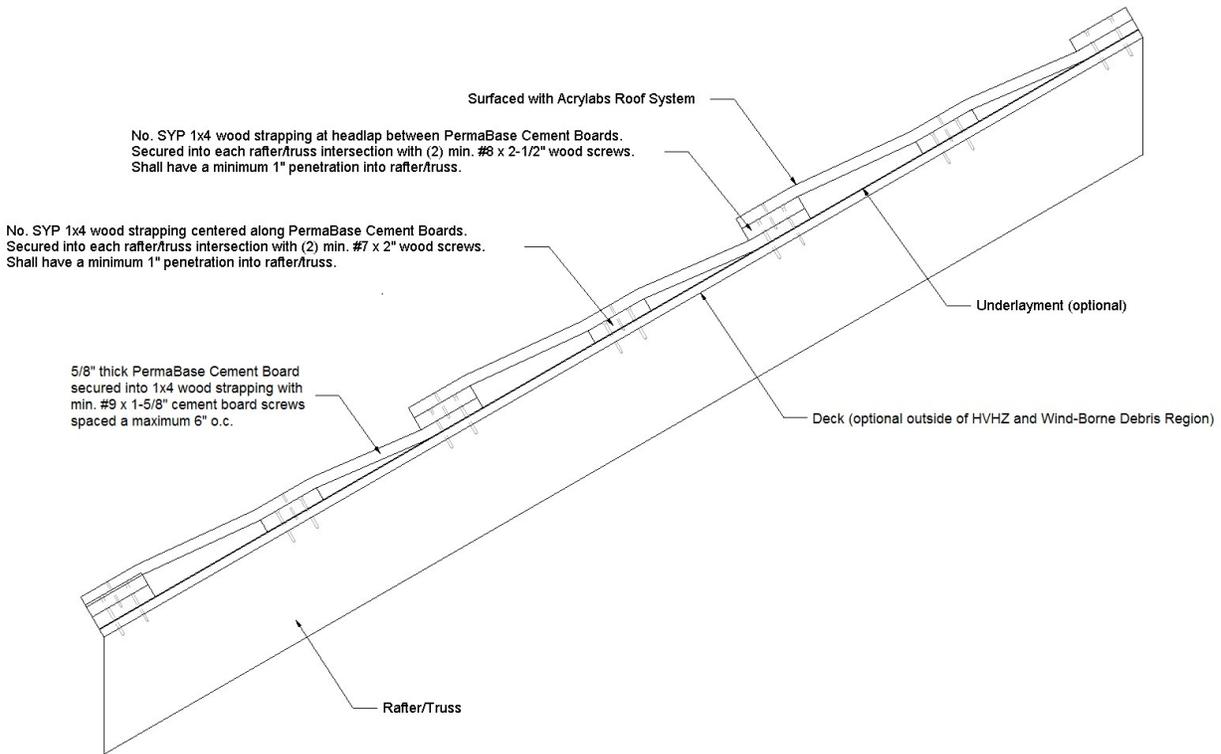
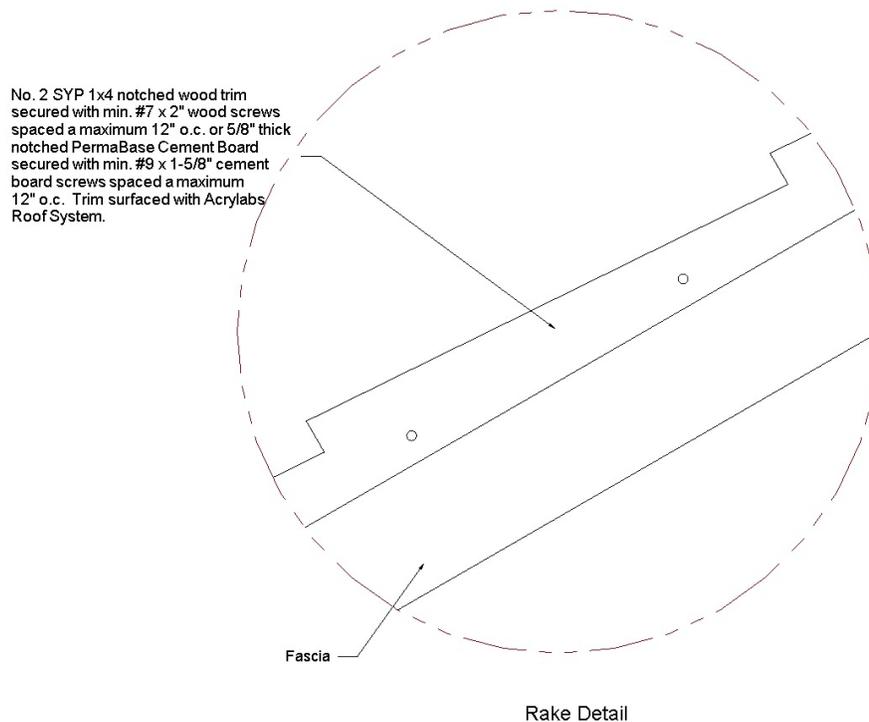
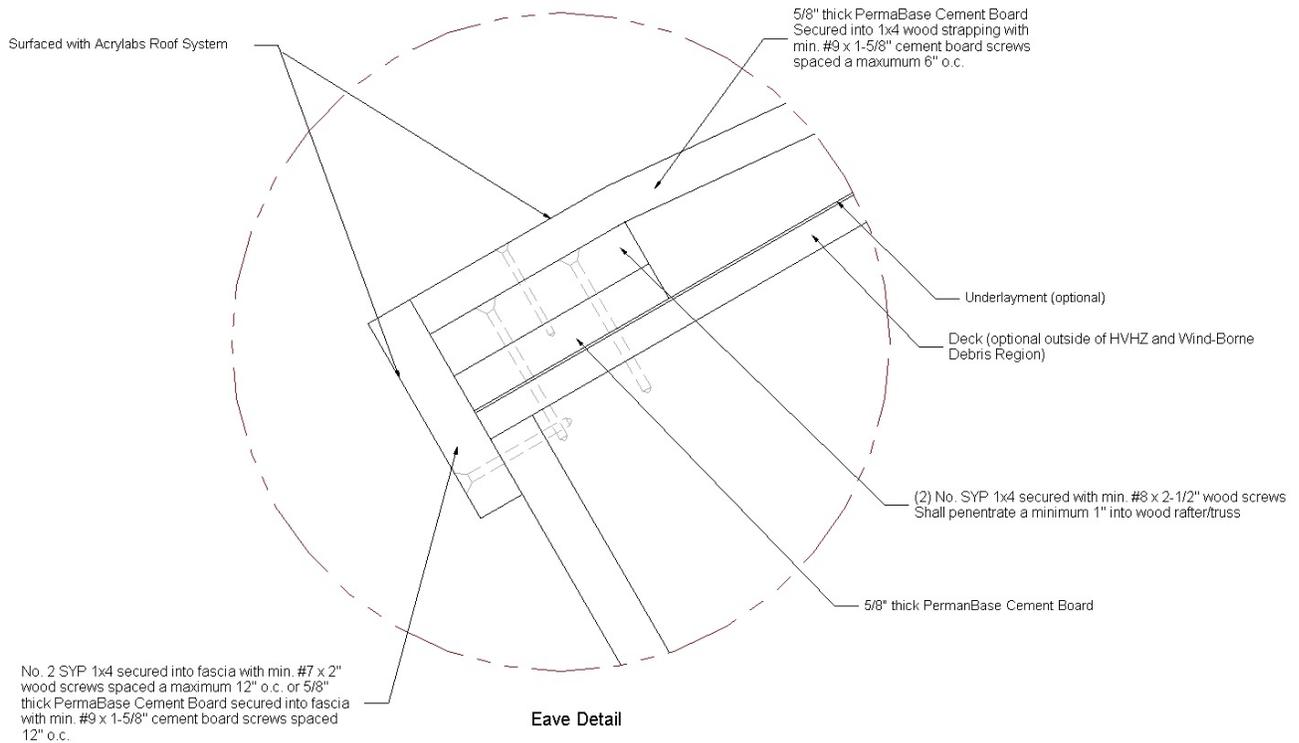


Figure 1: Island Style Roof with Acrylabs Roof System

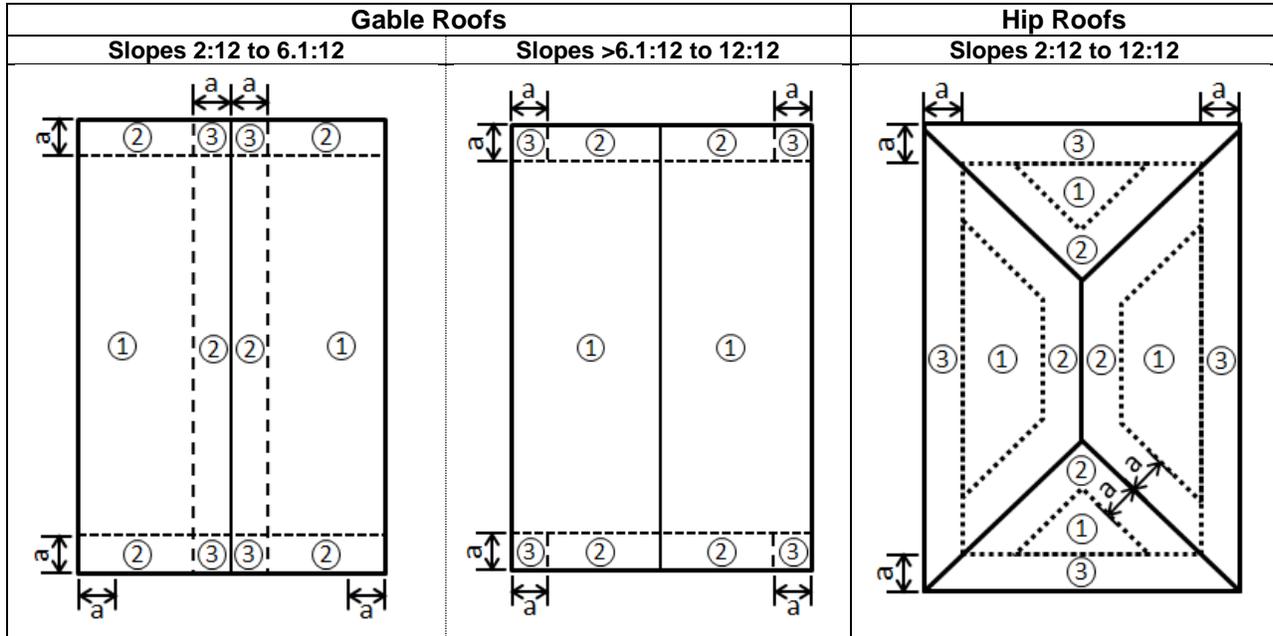
| Island Style Roof shall be defined as: | | |
|---|--|--|
| Use | Product | Installation |
| Strapping | Nominal No. 2 1x4 SYP | Installed approximately 10-inch o.c. as shown above and perpendicular to the roof rafters/trusses. Strapping shall be secured as indicated above. Fasteners shall penetrate a minimum 1-inch into the rafter/truss. |
| Roof Base | National Gypsum PermaBase Cement Board | 5/8-inch thick; 24-inch wide sections installed in courses over 1x4 wood strapping as shown in Figure 1; secured with #9 x 1-5/8" cement board screws using two (2) fasteners at the end of each course and one (1) fastener 6-inch o.c. in the field; board butt joints shall be treated with Acrylabs Brushable Sealant as needed. |
| Base Coat | Acrylabs 2100B Base Coat | Applied at a rate of 1.25 gal/100-ft ² |
| Reinforcement | Acrylabs Mesh 2000 fabric | Fully embedded into wet base coat |
| Top Coat | Acrylabs 2100B Base Coat | Applied at a rate of 1.25 gal/100-ft ² over embedded fabric |
| Finish Coat | Acrylabs 2100 Finish Coat | Two (2) successive applied at a rate of 1.25 gal/100-ft ² |



APPROVED ASSEMBLIES

| System 1 | | | | | | | | | |
|---|---|-------|-------|-------|-------|-------|-------|-------|-------|
| Slope: | 2:12 or greater | | | | | | | | |
| Rafter/Truss Spacing: | Maximum 24-inch o.c. | | | | | | | | |
| Roof Deck: (Optional, except in Wind-Borne Debris Region and HVHZ) | Solid or closely fitted min. 15/32 in., 32/16 span rated, 4-ply, CDX plywood sheathing for new and existing construction at max. 24 in. span; In the HVHZ, new construction shall be min. 19/32 in., 40/20 span rated, CDX plywood at max. 24 in. span; Designed by others in accordance with FBC requirements. | | | | | | | | |
| Underlayment: (Optional) | Installed in accordance with FBC requirements. In the HVHZ, the underlayment shall be installed in accordance with Section 1518.2. | | | | | | | | |
| Roof Covering: | <i>Island Style Roof</i> as described in the Application section of this report; Fasteners shall comply with section 1506.6. | | | | | | | | |
| Eave Detail: | See Application section of this report. | | | | | | | | |
| Rake Detail: | See Application section of this report. | | | | | | | | |
| Valley Detail: | The PermaBase Cement Boards mitered to form a closed valley. <i>Acrylabs Roof System</i> shall be applied over boards. | | | | | | | | |
| Maximum Design Pressures: | -146.25 psf <i>Pressure calculated using 2:1 margin of safety</i> | | | | | | | | |
| Maximum Mean Roof Heights Slopes 2:12 — 12:12 | | | | | | | | | |
| Exposure | Basic Wind Speed (mph) | | | | | | | | |
| | ≤120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 |
| Zone 1 for Gable/Hip Roofs | | | | | | | | | |
| B | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft |
| C | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft |
| D | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 51 ft |
| Zone 2 for Gable Roofs and Zones 2 & 3 for Hip Roofs | | | | | | | | | |
| B | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft |
| C | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 47 ft | 28 ft |
| D | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 35 ft | 18 ft | NA |
| Zone 3 for Gable Roofs | | | | | | | | | |
| B | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 57 ft | 39 ft |
| C | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 37 ft | 21 ft | NA | NA |
| D | 60 ft | 60 ft | 60 ft | 59 ft | 28 ft | NA | NA | NA | NA |
| Notes: 1) Exposure category for the structure location shall be as defined in the Florida Building Code 2) Limitations are based on an effective wind area of 10ft ² or less 3) Topographic factors such as escarpments or hills are not included in the above assessment 4) Applicable for Enclosed Buildings without overhangs 5) NA = "Not Allowed" 6) Kd = 0.85 7) Ke = 1.0 8) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 9) See page 6 for details for dimensions and locales of Zone 1, 2, and 3 10) Vult is shown in the tables above. Design wind loads are calculated using Vasd = Vult√0.6 per 1609.3.1. | | | | | | | | | |

| System 2 | | | | | | | | | |
|---|---|-------|-------|-------|-------|-------|-------|-------|-------|
| Slope: | 2:12 or greater | | | | | | | | |
| Rafter/Truss Spacing: | Maximum 16-inch o.c. | | | | | | | | |
| Roof Deck: (Optional, except in Wind-Borne Debris Region and HVHZ) | Solid or closely fitted min. 15/32 in., 32/16 span rated, 4-ply, CDX plywood sheathing for new and existing construction at max. 24 in. span; In the HVHZ, new construction shall be min. 19/32 in., 40/20 span rated, CDX plywood at max. 24 in. span; Designed by others in accordance with FBC requirements. | | | | | | | | |
| Underlayment: (Optional) | Installed in accordance with FBC requirements. In the HVHZ, the underlayment shall be installed in accordance with Section 1518.2 or any approved underlayment for use in the HVHZ. | | | | | | | | |
| Roof Covering: | <i>Island Style Roof</i> as described in the Application section of this report; Fasteners shall comply with section 1506.6. | | | | | | | | |
| Eave Detail: | See Application section of this report. | | | | | | | | |
| Rake Detail: | See Application section of this report. | | | | | | | | |
| Valley Detail: | PermaBase Cement Boards mitered to form a closed valley. <i>Acrylabs Roof System</i> shall be applied over valley boards. | | | | | | | | |
| Maximum Design Pressures: | -150 psf <i>Pressure calculated using 2:1 margin of safety</i> | | | | | | | | |
| Maximum Mean Roof Heights Slopes 2:12 — 12:12 | | | | | | | | | |
| Exposure | Basic Wind Speed (mph) | | | | | | | | |
| | ≤120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 |
| Zone 1 for Gable/Hip Roofs | | | | | | | | | |
| B | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft |
| C | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft |
| D | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft |
| Zone 2 for Gable Roofs and Zones 2 & 3 for Hip Roofs | | | | | | | | | |
| B | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft |
| C | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 53 ft | 32 ft |
| D | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 40 ft | 21 ft | NA |
| Zone 3 for Gable Roofs | | | | | | | | | |
| B | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 43 ft |
| C | 60 ft | 60 ft | 60 ft | 60 ft | 60 ft | 42 ft | 24 ft | NA | NA |
| D | 60 ft | 60 ft | 60 ft | 60 ft | 33 ft | 16 ft | NA | NA | NA |
| Notes: 1) Exposure category for the structure location shall be as defined in the Florida Building Code 2) Limitations are based on an effective wind area of 10ft ² or less 3) Topographic factors such as escarpments or hills are not included in the above assessment 4) Applicable for Enclosed Buildings without overhangs 5) NA = "Not Allowed" 6) Kd = 0.85 7) Ke = 1.0 8) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 9) See page 6 for details for dimensions and locales of Zone 1, 2, and 3 10) Vult is shown in the tables above. Design wind loads are calculated using Vasd = Vult/0.6 per 1609.3.1. | | | | | | | | | |



Dimension "a" shall be 10% of the least horizontal dimension or (0.4 x *Mean Roof Height*), whichever is smaller, but not less than either 4% of the least horizontal dimension or 3ft.

LIMITATIONS

1. Fire classification is not within the scope of this evaluation.
2. The roof deck and the roof deck attachment information are provided based on testing. FBC requirements for the rational design of the roof deck, including the attachment, are not within the scope of this evaluation.
3. Reroofing shall be in accordance with FBC Section 1511 outside the HVHZ or Section 1521 within the HVHZ.
4. Installation of the evaluated products shall comply with this report, the FBC and RAS 133 in the HVHZ, and the manufacturer's published application instructions. Where discrepancies exist between these sources, the more restrictive and FBC compliant installation detail shall prevail.
5. All products listed in this report shall be manufactured under a quality assurance program in compliance with Rule 61G20-3.

COMPLIANCE STATEMENT

The products evaluated herein by Zachary R. Priest, P.E. have demonstrated compliance with the Florida Building Code, 8th Edition (2023) including High-Velocity Hurricane Zones (HVHZ) as evidenced in the referenced documents submitted by the named manufacturer.



This item has been digitally signed and sealed by Zachary R. Priest, PE, on 8/15/2023.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Zachary R. Priest, P.E.
Florida Registration No. 74021
Organization No. ANE9641

CERTIFICATION OF INDEPENDENCE

CREEK Technical Services, LLC does not have, nor will it acquire, a financial interest in any company manufacturing or distributing products under this evaluation.

CREEK Technical Services, LLC is not owned, operated, or controlled by any company manufacturing or distributing products under this evaluation.

Zachary R. Priest, P.E. does not have, nor will acquire, a financial interest in any company manufacturing or distributing products under this evaluation.

Zachary R. Priest, P.E. does not have, nor will acquire, a financial interest in any other entity involved in the approval process of the product.

END OF REPORT