



**NEMO|etc.**

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ENGINEER

EVALUATE

TEST

CONSULT

**P.E. EVALUATION REPORT (PEER)**

**FBC Chemical Corp.**

P.O. Box 599  
Mars, PA 16046  
(330) 285-0146

PEER-FBC-001.A.R5

FL17522-R6

Date of Issuance: 02/23/2015

Revision 5: 08/06/2023

**SCOPE:**

This P.E. Evaluation Report (henceforth 'PEER') is issued under **F.A.C Rule 61G20-3** and the applicable rules and regulations governing the use of construction materials in the State of Florida. The documentation submitted has been reviewed by Robert Nieminen, P.E. for use of the product under the Florida Building Code. The product described herein has been evaluated for compliance with the **8<sup>th</sup> Edition (2023) Florida Building Code** [sections noted herein](#).

**DESCRIPTION: Laurencio Waterproofing Systems**

**LABELING:** Labeling shall be in accordance with the requirements of the Accredited Quality Assurance Agency noted herein.

**CONTINUED COMPLIANCE:** This PEER is valid until such time as the named product(s) changes, the referenced Quality Assurance or production facility location(s) changes, or Code provisions that relate to the product(s) change. Acceptance of our PEERs by the named client constitutes agreement to notify NEMO ETC, LLC of any changes to the product(s), the Quality Assurance or the production facility location(s). NEMO ETC, LLC requires a complete review of its PEER relative to updated Code requirements with each Code Cycle.

**ADVERTISEMENT:** The Florida Product Approval Number (FL#) preceded by the words "Nemo P.E. Evaluated" may be displayed in advertising literature. If any portion of the PEER is displayed, then it shall be done in its entirety.

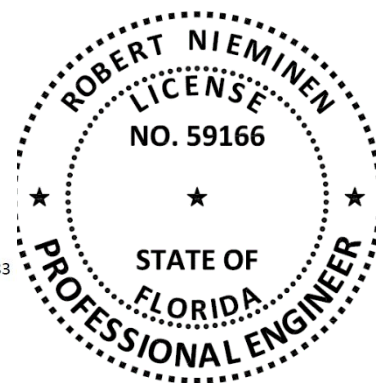
**INSPECTION:** Upon request, a copy of this entire PEER shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This PEER consists of pages 1 through 5, plus a 6-page Appendix.

Prepared by:

Digitally signed  
by Robert  
Nieminen  
Date: 2023.08.06  
'10:22:59 -04'00

This item has been digitally signed and sealed by Robert Nieminen, P.E. Printed copies of this document are not considered signed and sealed, and the signature must be verified on any electronic copies. Robert Nieminen, Florida P.E. 59166, FBC ANE1983 NEMO ETC, LLC, Florida CA #32455



**CERTIFICATION OF INDEPENDENCE:**

1. NEMO ETC, LLC does not have, nor does it intend to acquire or will it acquire, a financial interest in any company manufacturing or distributing products it evaluates.
2. NEMO ETC, LLC is not owned, operated or controlled by any company manufacturing or distributing products it evaluates.
3. Robert Nieminen, P.E. does not have nor will acquire, a financial interest in any company manufacturing or distributing products for which the PEERs are being issued.
4. Robert Nieminen, P.E. does not have, nor will acquire, a financial interest in any other entity involved in the approval process of the product.
5. This is a building code evaluation. Neither NEMO ETC, LLC nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this PEER, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.

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**ROOFING SYSTEMS EVALUATION:**
**1. SCOPE:**

**Product Category:** Roofing  
**Sub-Category:** Waterproofing  
**Product Approval Method:** Method 1, Option D – Codified Material, Evaluation by Engineer  
**Compliance Statement:** Laurencio Waterproofing Systems, as produced by FBC Chemical Corp., have demonstrated compliance with the following sections of the 8<sup>th</sup> Edition (2023) Florida Building Code and Florida Building Code, High Velocity Hurricane Zone through testing in accordance with the following Standards. Compliance is subject to the [Installation Requirements](#) and [Limitations of Use](#) set forth herein.

**2. STANDARDS:**

| <u>Section</u> | <u>Property</u>      | <u>Standard</u> | <u>Year</u> |
|----------------|----------------------|-----------------|-------------|
| 1504.3.1       | Wind resistance      | FM 4474         | 2011        |
| 1507.11.2      | Material standard    | ASTM D6163      | 2016        |
| 1507.11.2      | Material standard    | ASTM D6164      | 2016        |
| 1523.6.2       | Testing Requirements | TAS 110         | 2000        |
| TAS 110        | Wind resistance      | TAS 114         | 2011        |

**3. REFERENCES:**

| <u>Entity</u>        | <u>Examination</u>     | <u>Reference</u>       | <u>Date</u> |
|----------------------|------------------------|------------------------|-------------|
| ERD (TST6049)        | FM 4474 / TAS 114(D)   | 11194.01.03            | 01/08/2003  |
| ERD (TST6049)        | ASTM D6163             | P37590.03.13-2         | 02/05/2013  |
| ERD (TST6049)        | ASTM D6164             | P37590.07.13-1         | 07/02/2013  |
| ERD (TST6049)        | Physical Properties    | SC7535.03.15-1         | 03/31/2015  |
| ERD (TST6049)        | Physical Properties    | SC7535.08.15-1         | 08/31/2015  |
| ERD (TST6049)        | FM 4474 / TAS 114(D)   | SC7535.08.15-2-R1      | 09/04/2015  |
| Miami-Dade (CER1592) | FBC HVHZ Certification | 20-0624.15             | 08/06/2020  |
| NEMO (TST6049)       | FM 4474                | 4L-FBC-18-001-12-18-R1 | 12/11/2018  |
| NEMO (TST6049)       | ASTM D6163             | 4S-PLYG-18-002.01.19-A | 01/24/2019  |
| NEMO (TST6049)       | FM 4474                | 4a-FBC-19-LSWUS-01.A   | 01/15/2020  |
| PRI (TST5878)        | Physical Properties    | PUSA-064-02-02         | 02/27/2008  |
| UL, LLC. (QUA9625)   | Quality Control        | Service Confirmation   | 03/13/2019  |

#### 4. PRODUCT DESCRIPTION:

This PEER covers **Laurenco Waterproofing Systems** applied to Approved substrates as outlined in the [Limitations of Use](#) herein. The following products make up the subject systems.

| TABLE 1A: EVALUATED WATERPROOFING SYSTEM COMPONENTS |                               |                       |                                                                                |                  |
|-----------------------------------------------------|-------------------------------|-----------------------|--------------------------------------------------------------------------------|------------------|
| PRODUCT                                             | DIMENSIONS                    | MATERIAL STANDARD     | DESCRIPTION                                                                    | PLANT(S)         |
| Laurenco Adhesive                                   | 4.9 gal. pail                 | N/A<br>(not codified) | Liquid-applied, cold-process, modified asphalt / rubber waterproofing compound | Cleveland, OH    |
| Laurenco Sheet                                      | 36" x 73' 3" rolls            | N/A<br>(not codified) | Modified asphalt / rubber saturated waterproofing fabric                       | Cleveland, OH    |
| Laurenco SPC                                        | nominal<br>94 mil x 1 x 15 m  | ASTM D6163            | SBS modified bitumen, smooth-surface sheet used as protection layer            | Winter Haven, FL |
| Laurenco PPC                                        | nominal<br>120 mil x 1 x 10 m | ASTM D6164            | SBS modified bitumen, smooth-surface sheet used as protection layer            | Winter Haven, FL |
| Laurenco G Cap or<br>Laurenco G FR Cap              | nominal<br>160 mil x 1 x 10 m | ASTM D6164            | SBS modified bitumen, granule-surface sheet used as protection layer           | Winter Haven, FL |

| TABLE 1B: SYSTEM COMPONENTS, BY OTHERS |                              |                           |                                                                       |                                                      |
|----------------------------------------|------------------------------|---------------------------|-----------------------------------------------------------------------|------------------------------------------------------|
| PRODUCT                                | DIMENSIONS                   | SPECIFICATION             | DESCRIPTION                                                           | MANUFACTURER                                         |
| Styrofoam™ Brand<br>Highload 60        | 2' x 8'<br>1.5 to 3.0" thick | ASTM C578, VII<br>TAS 110 | Extruded polystyrene insulation                                       | DuPont de Nemours, Inc.<br>FL38732<br>NOA 21-0928.13 |
| Styrofoam™ Brand<br>Plazamate™         |                              |                           |                                                                       |                                                      |
| Exterior Ceramic Tiles                 | Min. 1' x 1' x 0.5" thick    | ASTM C56 & ANSI A137.1    | Ceramic plaza deck walking tiles                                      | generic                                              |
| Exterior Concrete Pavers               | Min. 2' x 2' x 1.5" thick    | ASTM C902                 | Concrete pavers                                                       | generic                                              |
| Dry-Set Mortar                         | N/A                          | ANSI A118.1               | Dry-set Portland based mortar for ceramic tile installation           | generic                                              |
| Modified thin-set mortar               | N/A                          | ANSI A118.4               | Modified thin-set Portland based mortar for ceramic tile installation | generic                                              |

#### 5. LIMITATIONS:

- 5.1 This is a building code evaluation. Neither NEMO ETC, LLC nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this PEER, or previous versions thereof, is/was used for permitting or design guidance. PEERs are not to be construed as representing any attributes not specifically listed, nor are PEERs to be construed as an endorsement of the subject, or a recommendation for its use. There is no warranty by NEMO ETC, LLC or Robert Nieminen, P.E., express or implied, as to any finding or other matter in this PEER, or as to any product covered by the PEER.

##### 5.2 Non-HVHZ Jurisdictions:

- 5.2.1 This PEER pertains to above-deck roof components. Roof decks and structural members shall be in accordance with FBC requirements to the satisfaction of the Authority Having Jurisdiction.
- 5.2.2 This PEER does not include evaluation of fire classification. Refer to **FBC 1505** for requirements and limitations regarding roof assembly fire classification. Refer to **FBC 2603** for requirements and limitations concerning the use of foam plastic insulation.

- 5.2.3 This PEER does not include evaluation of roof edge termination. Refer to **FBC 1504.5** for requirements and limitations regarding edge securement for low-slope roofs.
- 5.2.4 Refer to **FBC 1511** for requirements and limitations regarding recover installations.  
For bonded insulation or membrane over existing substrates in a re-roof (tear off), the existing deck surface shall be examined for compatibility with the adhesive to be installed. If any surface conditions exist that bring system performance into question, field uplift testing in accordance with [ANSI/SPRI IA-1](#), [ASTM E907](#), [FM Loss Prevention Data Sheet 1-52](#) or [Testing Application Standard TAS 124](#) shall be conducted on mock-ups of the proposed new roof assembly.
- 5.2.5 Refer to Appendix 1 for system attachment requirements for wind load resistance.  
“MDP” = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads, and reflects the ultimate passing pressure divided by 2 (the 2 to 1 margin of safety per **FBC 1504.9** has already been applied). Refer to **FBC 1609** for determination of design wind loads.  
For assemblies with all components fully bonded in place, the maximum design pressure for the selected assembly shall meet or exceed critical design pressure determined in accordance with **FBC Chapter 16**. No rational analysis is permitted for these systems.
- 5.2.6 All components in the roof assembly shall have quality assurance audit in accordance with **F.A.C. Rule 61G20-3**. Refer to the Product Approval of the component manufacturer for components listed in Appendix 1 that are produced by a Product Manufacturer other than the report holder on [Page 1](#) of this PEER.
- 5.3 **HVHZ Jurisdictions (i.e., Broward and Miami-Dade Counties):**
- 5.3.1 The evaluation herein pertains to above-deck roof components; deck-attachment details pertain to ‘as-tested’ conditions. Roof decks shall be in accordance with **FBC HVHZ** requirements to the satisfaction of the Authority Having Jurisdiction.
- 5.3.2 This PEER does not include evaluation of fire classification. Refer to **FBC HVHZ 1516** for requirements and limitations regarding roof assembly fire classification. Refer to **FBC 2603** for requirements and limitations concerning the use of foam plastic insulation.
- 5.3.3 This PEER does not include evaluation of roof edge termination. Refer to [Roofing Application Standard RAS 111](#) for requirements and limitations regarding edge securement for low-slope roofs.
- 5.3.4 Refer to **FBC HVHZ 1521** for requirements and limitations regarding recover installations.  
For bonded insulation or membrane over existing substrates in a re-roof (tear off) installation, the existing deck surface shall be examined for compatibility with the adhesive to be installed. If any surface conditions exist that bring system performance into question, field uplift testing in accordance with [Testing Application Standard TAS 124](#) shall be conducted on mock-ups of the proposed new roof assembly.
- 5.3.5 Refer to Appendix 1 for system attachment requirements for wind load resistance.  
“MDP” = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads, and reflects the ultimate passing pressure divided by 2 (the 2 to 1 margin of safety per [Testing Application Standard TAS 114](#) has already been applied). Refer to **FBC HVHZ 1620** and [Roofing Application Standard RAS 128](#) for determination of design wind loads.  
For assemblies marked with an asterisk\*, the maximum design pressure (MDP) limitation shall be applicable to all roof pressure zones. Rational analysis is not permitted.  
Direct-bond to wood deck is not permissible within FBC HVHZ jurisdictions (i.e., Broward and Miami-Dade Counties). Therefore, assemblies set forth in Appendix 1, Tables 1A and 1B are not for use in these jurisdictions.
- 5.3.6 All components in the roof assembly shall have quality assurance audit in accordance with **F.A.C. Rule 61G20-3**. Refer to the Product Approval of the component manufacturer for components listed in Appendix 1 that are produced by a Product Manufacturer other than the report holder on [Page 1](#) of this PEER.
- 5.3.7 Contractor Limitations:

A copy of the integrity test report in accordance with [ASTM D5957](#) shall be provided to the Building Official for review at the time of final inspection.

Contractor shall submit to the Building Official for review the system specifications and details. Submission of these documents, as well as the proper application and installation of all materials shall be the sole responsibility of the contractor.

Flashings shall be installed according to the manufacturer's published standard details, specific details, approved by FBC Chemical Corp and shall be submitted to the Building Official for review.

All work shall be performed by a contractor licensed to do roofing/waterproofing in the applicable county (Broward or Miami-Dade) and be a trained 'Qualified Applicator' approved and licensed by FBC Chemical Corp. FBC Chemical Corp. shall supply a list of approved applicators to the Authority Having Jurisdiction.

#### 6. INSTALLATION:

**Laurencio Waterproofing Systems** shall be installed in accordance with **FBC Chemical Corp.** current, published installation instructions, subject to the [Limitations of Use](#) noted herein. Flashing and detailing shall be in accordance with **FBC Chemical Corp.** published installation instructions using **FBC Chemical** specified materials to establish a watertight condition.

#### 7. BUILDING PERMIT REQUIREMENTS:

As required by the Building Official or Authority Having Jurisdiction to properly evaluate the installation of this product.

#### 8. MANUFACTURING PLANTS:

Contact the named QA entity for manufacturing facilities covered by **F.A.C. Rule 61G20-3** QA requirements. Refer to [Section 4](#) herein for products and production locations having met codified material standards.

#### 9. QUALITY ASSURANCE ENTITY:

UL, LLC – QUA9625: (360) 817-5512; [bsai.inspections@ul.com](mailto:bsai.inspections@ul.com)

**- THE SIX (6)-PAGES THAT FOLLOW FORM PART OF THIS PEER -**

**APPENDIX 1: ATTACHMENT REQUIREMENTS FOR WIND UPLIFT RESISTANCE**

| TABLE              | DECK                                       | APPLICATION              | TYPE | DESCRIPTION                         | PAGE |
|--------------------|--------------------------------------------|--------------------------|------|-------------------------------------|------|
| <a href="#">1A</a> | Wood                                       | New or Reroof (Tear-Off) | A-1  | Bonded Waterproofing, Insulation    | 2    |
| <a href="#">1B</a> | Wood                                       | New or Reroof (Tear-Off) | F    | Non-Insulated, Bonded Waterproofing | 2    |
| <a href="#">2A</a> | Structural concrete                        | New or Reroof (Tear-Off) | A-1  | Bonded Waterproofing, Insulation    | 3    |
| <a href="#">2B</a> | Structural concrete                        | New or Reroof (Tear-Off) | F    | Non-Insulated, Bonded Waterproofing | 4    |
| <a href="#">3A</a> | Lightweight concrete / structural concrete | New or Reroof (Tear-Off) | A-1  | Bonded Waterproofing, Insulation    | 5    |
| <a href="#">3B</a> | Lightweight concrete / structural concrete | New or Reroof (Tear-Off) | F    | Non-Insulated, Bonded Waterproofing | 6    |

The following notes apply to the systems outlined herein:

|   | NON-HVHZ JURISDICTIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | HVHZ JURISDICTIONS (I.E., BROWARD AND MIAMI-DADE COUNTIES)                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | The roof system evaluation herein pertains to above-deck roof components. Roof decks and structural members shall be in accordance with FBC requirements to the satisfaction of the Authority Having Jurisdiction.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | The roof system evaluation herein pertains to above-deck roof components. Roof decks and structural members shall be in accordance with FBC HVHZ requirements to the satisfaction of the Authority Having Jurisdiction.                                                                                                                                                                                                                                                                    |
| 2 | Unless otherwise noted, all insulations are flat-stock or taper board of the minimum thickness noted.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 3 | For adhered roof insulation and board-size: Unless otherwise noted, refer to Section 2.2.10.6.2 of <a href="#">FM Loss Prevention Data Sheet</a> 1-29 (February 2020).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Bonded insulation boards shall be maximum 4 x 4 ft.                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 4 | For assemblies with all components fully bonded, the maximum design pressure for the selected assembly shall meet or exceed critical design pressure determined in accordance with FBC Chapter 16. No rational analysis is permitted for these systems.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | For assemblies marked with an asterisk*, the maximum design pressure for the selected assembly shall meet or exceed critical design pressure determined in accordance with FBC Chapter 16. No rational analysis is permitted for these systems.                                                                                                                                                                                                                                            |
| 5 | For bonded insulation or membrane over existing substrates in a re-roof (tear off) installation, the existing deck roof surface shall be examined for compatibility with the adhesive to be installed. If any surface conditions exist that bring system performance into question, field uplift testing in accordance shall be conducted on mock-ups of the proposed new roof assembly. Field uplift testing shall be in accordance with <a href="#">ASTM E907</a> , <a href="#">FM Loss Prevention Data Sheet</a> 1-52 or <a href="#">Testing Application Standard</a> TAS 124.                                                                                                                                                                                                                                                                                                                                                                                                                                             | For bonded insulation or membrane over existing substrates in a re-roof (tear off) installation, the existing deck surface shall be examined for compatibility with the adhesive to be installed. If any surface conditions exist that bring system performance into question, field uplift testing in accordance shall be conducted on mock-ups of the proposed new roof assembly. Field uplift testing shall be in accordance with <a href="#">Testing Application Standard</a> TAS 124. |
| 6 | Lightweight insulating concrete (LWIC) shall be cast in accordance with FBC Section 1917 to the satisfaction of the Authority Having Jurisdiction. For systems where specific LWIC is referenced, refer to current LWIC Product Approval for specific deck construction and limitations. Unless otherwise noted, for systems where specific LWIC is not referenced, the minimum design mix shall be 300 psi. In all cases, the minimum top-coat thickness is 2-inches. For LWIC over structural concrete, reference is made to FBC Section 1917.4.1, Point 1. For "pre-existent" LWIC references, listings were established through testing over lightweight concrete cast using only foaming agent (ASTM C896), water and Portland cement (ASTM C150), with no proprietary additives, in accordance with procedures adopted by Miami-Dade BCCO (FBC CER1592). Use of these listings in new construction or re-roof (tear-off) applications is at the discretion of the Designer or Record and Authority Having Jurisdiction. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 7 | Overburden of soil and plantings (for 'garden roofs'; root barriers, filter fabric, drainage components, EPS / XPS insulation, etc.) or concrete topping slabs, that are specified by the Designer of Record, acceptable to the Authority Having Jurisdiction and do not form part of the load path to the waterproofing system, are permissible over the assemblies noted herein with no adverse effect on the wind uplift performance of the system. The Authority Having Jurisdiction may require integrity flood testing (ASTM D5957) or Electric Field Vector Mapping tests of all waterproofing systems prior to placement of overburden materials. Testing, if required by the Authority Having Jurisdiction, should be conducted by a qualified testing agency or professional.                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 8 | "MDP" = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads. Refer to FBC 1609 for determination of design wind loads.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | "MDP" = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads. Refer to FBC (HVHZ) 1620 and <a href="#">Roofing Application Standard</a> RAS 128 for determination of design wind loads.                                                                                                                                                                                                                                                 |

**TABLE 1A: WOOD DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)**  
**SYSTEM TYPE A-1: BONDED WATERPROOFING, BONDED INSULATION**  
**NOT FOR USE IN FBC HVHZ JURISDICTIONS**

| System No. | Deck (Note 1)                                                          | Primer                     | Waterproofing                                                      |                                                        | Protection Layer                                                            | Insulation Layer                       |                                                         | Overburden (Note 7)                                                                                                                                                    | MDP (psf) |
|------------|------------------------------------------------------------------------|----------------------------|--------------------------------------------------------------------|--------------------------------------------------------|-----------------------------------------------------------------------------|----------------------------------------|---------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
|            |                                                                        |                            | Base Ply(s)                                                        | Top                                                    |                                                                             | Type                                   | Attach                                                  |                                                                                                                                                                        |           |
| W-1.       | Min. 15/32" APA rated plywood, max. 24" span, #10 wood screws, 6" o.c. | (Optional) ASTM D41 primer | One or more Laurenco Sheet in Laurenco Adhesive at 1.5-2.0 gal/sq. | Laurenco Sheet in Laurenco Adhesive at 0.75-1.0 gal/sq | (Optional) Laurenco SPC or Laurenco PPC in Laurenco Adhesive at 2.0 gal/sq. | Min. 2-inch Dupont Styrofoam PlazaMate | Fully adhered in Laurenco Adhesive at 1.5 – 2.0 gal/sq. | Min. 12x12-inch ceramic plaza deck tiles or min. 24x24-inch concrete pavers embedded into dry-set Portland cement mortar (ANSI A118.1) in accordance with ANSI A108.5. | -100.0    |
| W-2.       | Min. 15/32" APA rated plywood, max. 24" span, #10 wood screws, 6" o.c. | (Optional) ASTM D41 primer | One or more Laurenco Sheet in Laurenco Adhesive at 1.5-2.0 gal/sq. | Laurenco Sheet in Laurenco Adhesive at 0.75-1.0 gal/sq | Laurenco SPC or Laurenco PPC in Laurenco Adhesive at 2.0 gal/sq.            | Min. 2-inch Dupont Styrofoam PlazaMate | Fully adhered in Laurenco Adhesive at 1.5 – 2.0 gal/sq. | As specified by the Designer of Record and acceptable to the AHJ. See Note 7.                                                                                          | -120.0    |

**TABLE 1B: WOOD DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)**  
**SYSTEM TYPE F: NON-INSULATED, BONDED WATERPROOFING COVER**  
**NOT FOR USE IN FBC HVHZ JURISDICTIONS**

| System No. | Deck (Note 1)                                                          | Primer                     | Waterproofing                                                      |                                                        | Protection Layer                                                                            | Overburden (Note 7)                                                                                                                                                                                                                    | MDP (psf) |
|------------|------------------------------------------------------------------------|----------------------------|--------------------------------------------------------------------|--------------------------------------------------------|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
|            |                                                                        |                            | Base Ply(s)                                                        | Top                                                    |                                                                                             |                                                                                                                                                                                                                                        |           |
| W-3.       | Min. 15/32" APA rated plywood, max. 24" span, #10 wood screws, 6" o.c. | (Optional) ASTM D41 primer | One or more Laurenco Sheet in Laurenco Adhesive at 1.5-2.0 gal/sq. | Laurenco Sheet in Laurenco Adhesive at 0.75-1.0 gal/sq | Laurenco SPC or Laurenco PPC in Laurenco Adhesive at 2.0 gal/sq.                            | Hanover Guardian Paver System; Guardian Pedestal Base adhered to protection layer in Rezi-Weld Gel Paste or Sikadur® 31 at full-coverage on the Guardian Pedestal Base.                                                                | -67.5     |
| W-4.       | Min. 15/32" APA rated plywood, max. 24" span, #10 wood screws, 6" o.c. | (Optional) ASTM D41 primer | One or more Laurenco Sheet in Laurenco Adhesive at 1.5-2.0 gal/sq. | Laurenco Sheet in Laurenco Adhesive at 0.75-1.0 gal/sq | Laurenco SPC or Laurenco PPC in Laurenco Adhesive at 2.0 gal/sq.                            | Min. 12x12-inch ceramic plaza deck tiles or min. 24x24-inch concrete pavers embedded into modified thin-set mortar (ANSI A118.4) with a notched trowel or dry-set Portland cement mortar (ANSI A118.1) in accordance with ANSI A108.5. | -120.0    |
| W-5.       | Min. 15/32" APA rated plywood, max. 24" span, #10 wood screws, 6" o.c. | (Optional) ASTM D41 primer | One or more Laurenco Sheet in Laurenco Adhesive at 1.5-2.0 gal/sq. | Laurenco Sheet in Laurenco Adhesive at 0.75-1.0 gal/sq | None                                                                                        | Min. 24x24-inch concrete pavers embedded into dry-set Portland cement mortar (ANSI A118.1) in a 2-inch thick mortar bed.                                                                                                               | -120.0    |
| W-6.       | Min. 15/32" APA rated plywood, max. 24" span, #10 wood screws, 6" o.c. | (Optional) ASTM D41 primer | One or more Laurenco Sheet in Laurenco Adhesive at 1.5-2.0 gal/sq. | Laurenco Sheet in Laurenco Adhesive at 0.75-1.0 gal/sq | Laurenco SPC, Laurenco PPC, Laurenco G or Laurenco G FR in Laurenco Adhesive at 2.0 gal/sq. | As specified by the Designer of Record and acceptable to the AHJ. See Note 7.                                                                                                                                                          | -120.0    |

**TABLE 2A: CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)**  
**SYSTEM TYPE A-1: BONDED WATERPROOFING, BONDED INSULATION**

| System No. | Deck<br>( <a href="#">Note 1</a> ) | Primer                     | Waterproofing                                                      |                                                        | Protection Layer                                                                                       | Drainage Media | Insulation Layer                                         |                                                                    | Overburden ( <a href="#">Note 7</a> )                                                                                                                                  | MDP<br>(psf)* |
|------------|------------------------------------|----------------------------|--------------------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------|----------------|----------------------------------------------------------|--------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
|            |                                    |                            | Base Ply(s)                                                        | Top                                                    |                                                                                                        |                | Type                                                     | Attach                                                             |                                                                                                                                                                        |               |
| C-1.       | Structural Concrete                | (Optional) ASTM D41 primer | One or more Laurenco Sheet in Laurenco Adhesive at 1.5-2.0 gal/sq. | Laurenco Sheet in Laurenco Adhesive at 0.75-1.0 gal/sq | (Optional) Laurenco SPC, Laurenco PPC, Laurenco G or Laurenco G FR in Laurenco Adhesive at 2.0 gal/sq. | J-DRain®       | Min. 1.5-inch Dupont Styrofoam High Load 60 or PlazaMate | Spot adhered to drainage board with Laurenco Trowel Grade Adhesive | Structural concrete topping slab                                                                                                                                       | N/A           |
| C-2.       | Structural Concrete                | (Optional) ASTM D41 primer | One or more Laurenco Sheet in Laurenco Adhesive at 1.5-2.0 gal/sq. | Laurenco Sheet in Laurenco Adhesive at 0.75-1.0 gal/sq | Laurenco SPC, Laurenco PPC, Laurenco G or Laurenco G FR in Laurenco Adhesive at 2.0 gal/sq.            | None           | Min. 1.5-inch Dupont Styrofoam High Load 60 or PlazaMate | Fully adhered in Laurenco Adhesive at 1.5 – 2.0 gal/sq.            | Structural concrete topping slab                                                                                                                                       | N/A           |
| C-3.       | Structural Concrete                | (Optional) ASTM D41 primer | One or more Laurenco Sheet in Laurenco Adhesive at 1.5-2.0 gal/sq. | Laurenco Sheet in Laurenco Adhesive at 0.75-1.0 gal/sq | (Optional) Laurenco SPC or Laurenco PPC in Laurenco Adhesive at 2.0 gal/sq.                            | None           | Min. 2-inch Dupont Styrofoam PlazaMate                   | Fully adhered in Laurenco Adhesive at 1.5 – 2.0 gal/sq.            | Min. 12x12-inch ceramic plaza deck tiles or min. 24x24-inch concrete pavers embedded into dry-set Portland cement mortar (ANSI A118.1) in accordance with ANSI A108.5. | -100.0        |
| C-4.       | Structural Concrete                | (Optional) ASTM D41 primer | One or more Laurenco Sheet in Laurenco Adhesive at 1.5-2.0 gal/sq. | Laurenco Sheet in Laurenco Adhesive at 0.75-1.0 gal/sq | Laurenco SPC or Laurenco PPC in Laurenco Adhesive at 2.0 gal/sq.                                       | None           | Min. 2-inch Dupont Styrofoam PlazaMate                   | Fully adhered in Laurenco Adhesive at 1.5 – 2.0 gal/sq.            | As specified by the Designer of Record and acceptable to the AHJ. See Note 7.                                                                                          | -170.0        |

**TABLE 2B: CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)**  
**SYSTEM TYPE F: NON-INSULATED, BONDED WATERPROOFING COVER**

| System No. | Deck<br>( <a href="#">Note 1</a> ) | Primer                     | Waterproofing                                                        |                                                          | Protection Layer                                                                                            | Drainage Media                                                    | Overburden ( <a href="#">Note 7</a> )                                                                                                                                   | MDP<br>(psf)* |
|------------|------------------------------------|----------------------------|----------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
|            |                                    |                            | Base Ply(s)                                                          | Top                                                      |                                                                                                             |                                                                   |                                                                                                                                                                         |               |
| C-5.       | Structural concrete                | (Optional) ASTM D41 primer | One or more Laurencos Sheet in Laurencos Adhesive at 1.5-2.0 gal/sq. | Laurencos Sheet in Laurencos Adhesive at 0.75-1.0 gal/sq | (Optional) Laurencos SPC, Laurencos PPC, Laurencos G or Laurencos G FR in Laurencos Adhesive at 2.0 gal/sq. | J-DRain® ( <i>required if Protection Layer is not installed</i> ) | Concrete topping slab                                                                                                                                                   | N/A           |
| C-6.       | Structural concrete                | (Optional) ASTM D41 primer | One or more Laurencos Sheet in Laurencos Adhesive at 1.5-2.0 gal/sq. | Laurencos Sheet in Laurencos Adhesive at 0.75-1.0 gal/sq | Laurencos SPC or Laurencos PPC in Laurencos Adhesive at 2.0 gal/sq.                                         | None                                                              | Hanover Guardian Paver System; Guardian Pedestal Base adhered to protection layer in Rezi-Weld Gel Paste or Sikadur® 31 at full-coverage on the Guardian Pedestal Base. | -67.5         |
| C-7.       | Structural concrete                | (Optional) ASTM D41 primer | One or more Laurencos Sheet in Laurencos Adhesive at 1.5-2.0 gal/sq. | Laurencos Sheet in Laurencos Adhesive at 0.75-1.0 gal/sq | Laurencos SPC or Laurencos PPC in Laurencos Adhesive at 2.0 gal/sq.                                         | None                                                              | Min. 12x12-inch ceramic plaza deck tiles or min. 24x24-inch concrete pavers embedded into modified thin-set mortar (ANSI A118.4) with a notched trowel.                 | -155.0        |
| C-8.       | Structural concrete                | (Optional) ASTM D41 primer | One or more Laurencos Sheet in Laurencos Adhesive at 1.5-2.0 gal/sq. | Laurencos Sheet in Laurencos Adhesive at 0.75-1.0 gal/sq | None                                                                                                        | None                                                              | Min. 24x24-inch concrete pavers embedded into dry-set Portland cement mortar (ANSI A118.1) in a 2-inch thick mortar bed.                                                | -242.5        |
| C-9.       | Structural concrete                | (Optional) ASTM D41 primer | One or more Laurencos Sheet in Laurencos Adhesive at 1.5-2.0 gal/sq. | Laurencos Sheet in Laurencos Adhesive at 0.75-1.0 gal/sq | Laurencos SPC or Laurencos PPC in Laurencos Adhesive at 2.0 gal/sq.                                         | None                                                              | Min. 12x12-inch ceramic plaza deck tiles or min. 24x24-inch concrete pavers embedded into dry-set Portland cement mortar (ANSI A118.1) in accordance with ANSI A108.5.  | -247.5        |
| C-10.      | Structural concrete                | (Optional) ASTM D41 primer | One or more Laurencos Sheet in Laurencos Adhesive at 1.5-2.0 gal/sq. | Laurencos Sheet in Laurencos Adhesive at 0.75-1.0 gal/sq | Laurencos SPC, Laurencos PPC, Laurencos G or Laurencos G FR in Laurencos Adhesive at 2.0 gal/sq.            | None                                                              | As specified by the Designer of Record and acceptable to the AHJ. See Note 7.                                                                                           | -247.5        |

**TABLE 3A: LIGHTWEIGHT CONCRETE OVER STRUCTURAL CONCRETE - NEW CONSTRUCTION OR REROOF (TEAR-OFF)**  
**SYSTEM TYPE A-1: BONDED WATERPROOFING, BONDED INSULATION**  
**NOT FOR USE IN FBC HVHZ JURISDICTIONS**

| System No.                           | Deck<br>( <a href="#">Note 1</a> ) | Lightweight Concrete<br>( <a href="#">Note 6</a> )                                  | Waterproofing                                                      |                                                        | Protection Layer                                                            | Drainage Media | Insulation Layer                       |                                                         | Overburden ( <a href="#">Note 7</a> )                                                                                                                                  | <a href="#">MDP (psf)*</a> |
|--------------------------------------|------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------|-----------------------------------------------------------------------------|----------------|----------------------------------------|---------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
|                                      |                                    |                                                                                     | Base Ply(s)                                                        | Top                                                    |                                                                             |                | Type                                   | Attach                                                  |                                                                                                                                                                        |                            |
| CELCORE (FL2037, NOA 18-0717.05):    |                                    |                                                                                     |                                                                    |                                                        |                                                                             |                |                                        |                                                         |                                                                                                                                                                        |                            |
| LWC-1.                               | Structural Concrete                | Min. 350 psi, min 2-inch thick Celcore Cellular Concrete.                           | One or more Laurenco Sheet in Laurenco Adhesive at 1.5-2.0 gal/sq. | Laurenco Sheet in Laurenco Adhesive at 0.75-1.0 gal/sq | (Optional) Laurenco SPC or Laurenco PPC in Laurenco Adhesive at 2.0 gal/sq. | None           | Min. 2-inch Dupont Styrofoam PlazaMate | Fully adhered in Laurenco Adhesive at 1.5 – 2.0 gal/sq. | Min. 12x12-inch ceramic plaza deck tiles or min. 24x24-inch concrete pavers embedded into dry-set Portland cement mortar (ANSI A118.1) in accordance with ANSI A108.5. | -100.0                     |
| LWC-2.                               | Structural Concrete                | Min. 350 psi, min 2-inch thick Celcore Cellular Concrete.                           | One or more Laurenco Sheet in Laurenco Adhesive at 1.5-2.0 gal/sq. | Laurenco Sheet in Laurenco Adhesive at 0.75-1.0 gal/sq | Laurenco SPC or Laurenco PPC in Laurenco Adhesive at 2.0 gal/sq.            | None           | Min. 2-inch Dupont Styrofoam PlazaMate | Fully adhered in Laurenco Adhesive at 1.5 – 2.0 gal/sq. | As specified by the Designer of Record and acceptable to the AHJ. See Note 7.                                                                                          | -127.5                     |
| ELASTIZELL (FL4994, NOA 18-0208.03): |                                    |                                                                                     |                                                                    |                                                        |                                                                             |                |                                        |                                                         |                                                                                                                                                                        |                            |
| LWC-1.                               | Structural Concrete                | Min. 250 psi, min 2-inch thick Range II Elastizell Lightweight Insulating Concrete. | One or more Laurenco Sheet in Laurenco Adhesive at 1.5-2.0 gal/sq. | Laurenco Sheet in Laurenco Adhesive at 0.75-1.0 gal/sq | (Optional) Laurenco SPC or Laurenco PPC in Laurenco Adhesive at 2.0 gal/sq. | None           | Min. 2-inch Dupont Styrofoam PlazaMate | Fully adhered in Laurenco Adhesive at 1.5 – 2.0 gal/sq. | Min. 12x12-inch ceramic plaza deck tiles or min. 24x24-inch concrete pavers embedded into dry-set Portland cement mortar (ANSI A118.1) in accordance with ANSI A108.5. | -100.0                     |
| LWC-2.                               | Structural Concrete                | Min. 250 psi, min 2-inch thick Range II Elastizell Lightweight Insulating Concrete. | One or more Laurenco Sheet in Laurenco Adhesive at 1.5-2.0 gal/sq. | Laurenco Sheet in Laurenco Adhesive at 0.75-1.0 gal/sq | Laurenco SPC or Laurenco PPC in Laurenco Adhesive at 2.0 gal/sq.            | None           | Min. 2-inch Dupont Styrofoam PlazaMate | Fully adhered in Laurenco Adhesive at 1.5 – 2.0 gal/sq. | As specified by the Designer of Record and acceptable to the AHJ. See Note 7.                                                                                          | -142.5                     |

**TABLE 3B: LIGHTWEIGHT CONCRETE OVER STRUCTURAL CONCRETE – NEW CONSTRUCTION OR REROOF (TEAR-OFF)**  
**SYSTEM TYPE F: NON-INSULATED, BONDED WATERPROOFING COVER**  
**NOT FOR USE IN FBC HVHZ JURISDICTIONS**

| System No.                           | Deck<br>( <a href="#">Note 1</a> ) | Lightweight Concrete<br>( <a href="#">Note 6</a> )                                  | Waterproofing                                                      |                                                        | Protection Layer                                                                            | Overburden ( <a href="#">Note 7</a> )                                                                                                                                                                                                  | <a href="#">MDP (psf)</a> |
|--------------------------------------|------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
|                                      |                                    |                                                                                     | Base Ply(s)                                                        | Top                                                    |                                                                                             |                                                                                                                                                                                                                                        |                           |
| CELCORE (FL2037, NOA 18-0717.05):    |                                    |                                                                                     |                                                                    |                                                        |                                                                                             |                                                                                                                                                                                                                                        |                           |
| LWC-3.                               | Structural concrete                | Min. 350 psi, min 2-inch thick Celcore Cellular Concrete.                           | One or more Laurengo Sheet in Laurengo Adhesive at 1.5-2.0 gal/sq. | Laurengo Sheet in Laurengo Adhesive at 0.75-1.0 gal/sq | Laurengo SPC or Laurengo PPC in Laurengo Adhesive at 2.0 gal/sq.                            | Hanover Guardian Paver System; Guardian Pedestal Base adhered to protection layer in Rezi-Weld Gel Paste or Sikadur® 31 at full-coverage on the Guardian Pedestal Base.                                                                | -67.5                     |
| LWC-4.                               | Structural concrete                | Min. 350 psi, min 2-inch thick Celcore Cellular Concrete.                           | One or more Laurengo Sheet in Laurengo Adhesive at 1.5-2.0 gal/sq. | Laurengo Sheet in Laurengo Adhesive at 0.75-1.0 gal/sq | Laurengo SPC or Laurengo PPC in Laurengo Adhesive at 2.0 gal/sq.                            | Min. 12x12-inch ceramic plaza deck tiles or min. 24x24-inch concrete pavers embedded into modified thin-set mortar (ANSI A118.4) with a notched trowel or dry-set Portland cement mortar (ANSI A118.1) in accordance with ANSI A108.5. | -127.5                    |
| LWC-5.                               | Structural concrete                | Min. 350 psi, min 2-inch thick Celcore Cellular Concrete.                           | One or more Laurengo Sheet in Laurengo Adhesive at 1.5-2.0 gal/sq. | Laurengo Sheet in Laurengo Adhesive at 0.75-1.0 gal/sq | None                                                                                        | Min. 24x24-inch concrete pavers embedded into dry-set Portland cement mortar (ANSI A118.1) in a 2-inch thick mortar bed.                                                                                                               | -127.5                    |
| LWC-6.                               | Structural concrete                | Min. 350 psi, min 2-inch thick Celcore Cellular Concrete.                           | One or more Laurengo Sheet in Laurengo Adhesive at 1.5-2.0 gal/sq. | Laurengo Sheet in Laurengo Adhesive at 0.75-1.0 gal/sq | Laurengo SPC, Laurengo PPC, Laurengo G or Laurengo G FR in Laurengo Adhesive at 2.0 gal/sq. | As specified by the Designer of Record and acceptable to the AHJ. See Note 7.                                                                                                                                                          | -127.5                    |
| ELASTIZELL (FL4994, NOA 18-0208.03): |                                    |                                                                                     |                                                                    |                                                        |                                                                                             |                                                                                                                                                                                                                                        |                           |
| LWC-7.                               | Structural concrete                | Min. 250 psi, min 2-inch thick Range II Elastizell Lightweight Insulating Concrete. | One or more Laurengo Sheet in Laurengo Adhesive at 1.5-2.0 gal/sq. | Laurengo Sheet in Laurengo Adhesive at 0.75-1.0 gal/sq | Laurengo SPC or Laurengo PPC in Laurengo Adhesive at 2.0 gal/sq.                            | Hanover Guardian Paver System; Guardian Pedestal Base adhered to protection layer in Rezi-Weld Gel Paste or Sikadur® 31 at full-coverage on the Guardian Pedestal Base.                                                                | -67.5                     |
| LWC-8.                               | Structural concrete                | Min. 250 psi, min 2-inch thick Range II Elastizell Lightweight Insulating Concrete. | One or more Laurengo Sheet in Laurengo Adhesive at 1.5-2.0 gal/sq. | Laurengo Sheet in Laurengo Adhesive at 0.75-1.0 gal/sq | Laurengo SPC or Laurengo PPC in Laurengo Adhesive at 2.0 gal/sq.                            | Min. 12x12-inch ceramic plaza deck tiles or min. 24x24-inch concrete pavers embedded into modified thin-set mortar (ANSI A118.4) with a notched trowel or dry-set Portland cement mortar (ANSI A118.1) in accordance with ANSI A108.5. | -142.5                    |
| LWC-9.                               | Structural concrete                | Min. 250 psi, min 2-inch thick Range II Elastizell Lightweight Insulating Concrete. | One or more Laurengo Sheet in Laurengo Adhesive at 1.5-2.0 gal/sq. | Laurengo Sheet in Laurengo Adhesive at 0.75-1.0 gal/sq | None                                                                                        | Min. 24x24-inch concrete pavers embedded into dry-set Portland cement mortar (ANSI A118.1) in a 2-inch thick mortar bed.                                                                                                               | -142.5                    |
| LWC-10.                              | Structural concrete                | Min. 250 psi, min 2-inch thick Range II Elastizell Lightweight Insulating Concrete. | One or more Laurengo Sheet in Laurengo Adhesive at 1.5-2.0 gal/sq. | Laurengo Sheet in Laurengo Adhesive at 0.75-1.0 gal/sq | Laurengo SPC, Laurengo PPC, Laurengo G or Laurengo G FR in Laurengo Adhesive at 2.0 gal/sq. | As specified by the Designer of Record and acceptable to the AHJ. See Note 7.                                                                                                                                                          | -142.5                    |