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Product Approval
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OFFICE OF THE SECRETARY

FL #	FL4911-R13
Application Type	Revision
Code Version	2017
Application Status	Approved
Comments	
Archived	<input type="checkbox"/>
Product Manufacturer	GAF
Address/Phone/Email	1 Campus Drive Parispany, NJ 07054 (800) 766-3411 mstieh@gaf.com
Authorized Signature	Robert Nieminen lindar@nemoetc.com
Technical Representative	William Broussard
Address/Phone/Email	1 Campus Drive Parsippany, NJ 07054 (800) 766-3411 TechnicalQuestionsGAF@gaf.com
Quality Assurance Representative	
Address/Phone/Email	
Category	Roofing
Subcategory	Waterproofing
Compliance Method	Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer <input type="checkbox"/> Evaluation Report - Hardcopy Received
Florida Engineer or Architect Name who developed the Evaluation Report	Robert Nieminen
Florida License	PE-59166
Quality Assurance Entity	UL LLC
Quality Assurance Contract Expiration Date	10/18/2018
Validated By	John W. Knezevich, PE <input checked="" type="checkbox"/> Validation Checklist - Hardcopy Received
Certificate of Independence	FL4911_R13_COI_2018_01_COI_NIEMINEN.pdf

Referenced Standard and Year (of Standard)	Standard	Year
	ASTM D1970	2015
	ASTM D6083	2005
	ASTM D6164	2011
	ASTM D6222	2011
	ASTM D6878	2011
	FM 4474	2011
	TAS 114	2011
	TAS 139	1995

Equivalence of Product Standards
Certified By

Sections from the Code

Product Approval Method Method 1 Option D

Date Submitted 04/02/2018
Date Validated 04/09/2018
Date Pending FBC Approval 04/13/2018
Date Approved 06/12/2018

Summary of Products

FL #	Model, Number or Name	Description
4911.1	GAF Waterproofing and Plaza Deck Systems	Modified Bitumen, Thermoplastic and Liquid Applied Waterproofing and Plaza Deck Systems
Limits of Use Approved for use in HVHZ: No Approved for use outside HVHZ: Yes Impact Resistant: N/A Design Pressure: +N/A/-607.5 Other: 1.) The design pressure herein relates to one specific system. Refer to ER Appendix for all systems and design pressures. 2.) Refer to ER Section 5 for Limits of Use.		Installation Instructions FL4911 R13 II 2018 03 FINAL A1 ER GAF WTRPRG FL4911-R13.pdf Verified By: Robert Nieminen PE-59166 Created by Independent Third Party: Yes Evaluation Reports FL4911 R13 AE 2018 03 FINAL ER GAF WTRPFG FL4911-R13.pdf Created by Independent Third Party: Yes

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NEMO|etc.

Certificate of Authorization #32455
353 Christian Street, Unit #13
Oxford, CT 06478
(203) 262-9245

ENGINEER

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EVALUATION REPORT

GAF

1 Campus Drive
Parsippany, NJ 07054
(800) 766-3411

Evaluation Report 01506.09.08-R13

FL4911-R13

Date of Issuance: 09/26/2008

Revision 13: 03/19/2018

SCOPE:

This Evaluation Report is issued under **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 **6th Edition (2017) Florida Building Code** sections noted herein.

DESCRIPTION: GAF Waterproofing and Plaza Deck Systems

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

CONTINUED COMPLIANCE: This Evaluation Report is valid until such time as the named product(s) changes, the referenced Quality Assurance documentation changes, or provisions of the Code that relate to the product change. Acceptance of this Evaluation Report by the named client constitutes agreement to notify Robert Nieminen, P.E. of any changes to the product(s), the Quality Assurance or the production facility location(s). NEMO|etc. requires a complete review of this Evaluation Report relative to updated Code requirements with each Code Cycle.

ADVERTISEMENT: The Evaluation Report number preceded by the words "NEMO|etc. Evaluated" may be displayed in advertising literature. If any portion of the Evaluation Report is displayed, then it shall be done in its entirety.

INSPECTION: Upon request, a copy of this entire Evaluation Report 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 Evaluation Report consists of pages 1 through 4, plus a 4-page Appendix.

Prepared by:

Robert J.M. Nieminen, P.E.

Florida Registration No. 59166, Florida DCA ANE1983



The facimile seal appearing was authorized by Robert Nieminen, P.E. on 03/19/2018 This does not serve as an electronically signed document.

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 evaluation reports 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. nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this Evaluation Report, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.

ROOFING SYSTEMS EVALUATION:
1. SCOPE:
Product Category: Roofing

Sub-Category: Waterproofing

Compliance Statement: **GAF Waterproofing and Plaza Deck Systems**, as produced by **GAF**, have demonstrated compliance with the following sections of the **6th Edition (2017) Florida Building Code** through testing in accordance with the following Standards. Compliance is subject to the Installation Requirements and Limitations / Conditions of Use set forth herein.

2. STANDARDS:

<u>Section</u>	<u>Property</u>	<u>Standard</u>	<u>Year</u>
1504.3.1	Wind	FM 4474	2011
1515.1.1	Wind	TAS 114	2011
1507.6.3	Physical Properties	ASTM D1970	2015
1507.15.2	Physical Properties	ASTM D6083	2005
1507.11.2	Physical Properties	ASTM D6164	2011
1507.11.2	Physical Properties	ASTM D6222	2011
1507.13.2	Physical Properties	ASTM D6878	2011
TAS 110	Physical Properties	TAS 139	1995

3. REFERENCES:

<u>Entity</u>	<u>Examination</u>	<u>Reference</u>	<u>Date</u>
ERD (TST6049)	TAS 114	18031.07.02	07/24/2002
ERD (TST6049)	TAS 114	18026.03.02-R2	12/05/2007
ERD (TST6049)	TAS 114	G6040.03.07-R1	12/06/2007
ERD (TST6049)	ASTM D6222	G30250.02.10-2	02/11/2010
ERD (TST6049)	ASTM D6164	G31360.03.10	03/31/2010
ERD (TST6049)	ASTM D6164	G33470.01.11	01/13/2011
ERD (TST6049)	ASTM D6222	G40620.07.12-2	07/17/2012
ERD (TST6049)	Physical Properties	G40630.09.12-1	09/19/2012
ERD (TST6049)	ASTM D6164	G40630.01.14-2A-1	01/07/2014
FM Approvals (TST1867)	FM 4470/4474	3015619	03/15/2006
FM Approvals (TST1867)	FM 4470/4474	3044862	05/11/2012
Miami-Dade (CER1592)	HVHZ compliance	17-0213.08	09/07/2017
Miami-Dade (CER1592)	HVHZ compliance	15-0128.10	03/26/2015
MTI (TST2508)	ASTM D6083	EX14A3A	02/26/2004
PRI (TST5878)	ASTM D6083	GAF-087-02-01	09/26/2005
PRI (TST5878)	TAS 139	GAF-110-02-01	02/15/2006
PRI (TST5878)	TAS 139	GAF-122-02-01	05/07/2006
PRI (TST5878)	ASTM D6083	GAF-084-02-01	05/07/2006
PRI (TST5878)	ASTM D6083	GAF-082-02-01	05/07/2006
PRI (TST5878)	ASTM D6083	GAF-065-02-01	12/14/2006
PRI (TST5878)	ASTM D1970	GAF-238-02-01	03/03/2010
PRI (TST5878)	ASTM D1970	GAF-275-02-01	11/11/2010
PRI (TST5878)	FM 4470/4474	GAF-416-02-01	06/26/2013
PRI (TST5878)	ASTM D6878	GAF-425-02-01	11/11/2013
PRI (TST5878)	FM 4470/4474	GAF-416-02-01	07/24/2014
UL,LLC. (QUA9625)	QA (modified bitumen)	Inspection Report, (AL)	11/07/2017
UL,LLC. (QUA9625)	QA (modified bitumen)	Inspection Report, (CA1)	11/05/2017
UL,LLC. (QUA9625)	QA (modified bitumen)	Inspection Report, (CA2)	01/25/2018
UL,LLC. (QUA9625)	QA (modified bitumen)	Inspection Report, (GA)	01/25/2018
UL,LLC. (QUA9625)	QA (modified bitumen)	Inspection Report, (IN)	01/10/2018
UL,LLC. (QUA9625)	Quality Assurance	Inspection Report, R1306 (FL)	03/06/2017
UL,LLC. (QUA9625)	QA (TPO)	Inspect Report, R1306 (TX)	10/20/2016

Entity	Examination	Reference	Date
UL,LLC. (QUA9625)	QA (TPO)	Inspect Report, R1306 (IN)	10/27/2016
UL,LLC. (QUA9625)	QA (TPO)	Inspect Report, R1306 (MA)	10/18/2016
UL,LLC. (QUA9625)	QA (TPO)	Inspect Report, R1306 (UT)	12/01/2016
UL, LLC. (QUA9625)	QA (liquids)	Inspection Report, R1306 (MA)	02/01/2018
UL, LLC. (QUA9625)	QA (liquid)	Inspection Report, R6935 (AZ)	10/12/2017
UL, LLC. (QUA9625)	QA (liquids)	Inspection Report, R6935 (SC)	02/08/2018

4. PRODUCT DESCRIPTION:

This Evaluation Report covers **GAF Waterproofing and Plaza Deck Systems** installed in accordance with **GAF** published installation instructions and the Limitations / Conditions of Use herein. The following products make up the subject systems.

TABLE 1A: MEMBRANES FOR GAF WATERPROOFING AND PLAZA DECK SYSTEMS

Type	Product	Specification		
		Reference	Type	Grade
Modified Bitumen	UnderRoof™ HT High Temperature Leak Barrier	ASTM D1970	N/A	N/A
	WeatherWatch® XT Mat Surfaced Leak Barrier	ASTM D1970	N/A	N/A
	Ruberoid® Mop Smooth 1.5	ASTM D6164	I	S
	Ruberoid® Mop Smooth	ASTM D6164	I	S
	Ruberoid® Mop Plus Smooth	ASTM D6164	II	S
	Ruberoid® Torch Smooth	ASTM D6222	I	S
	Tri-Ply® APP Smooth Membrane	ASTM D6222	I	S
Thermoplastic	EverGuard® TPO FB Ultra	ASTM D6878	N/A	N/A

TABLE 1B: LIQUIDS AND SEALANTS FOR GAF WATERPROOFING SYSTEMS

Type	Product	Specification	Use
Liquid Applied	TOPCOAT® Membrane	ASTM D6083	Waterproofing
	United Coatings™ Roof Mate™ TCM Coating (formerly TOPCOAT® Membrane)	ASTM D6083	Waterproofing
	TOPCOAT® Surface Seal SB	ASTM D6083	Waterproofing
	United Coatings™ Surface Seal SB Roof Coating	ASTM D6083	Waterproofing
	TOPCOAT® Flashing – Liquid Fabric	N/A	Flashing
	United Coatings™ Roof Mate™ Liquid Fabric	N/A	Flashing
	TOPCOAT® FlexSeal™	TAS 139	Flashing/Detailing
	GAF FlexSeal™ Sealant	TAS 139	Flashing/Detailing
	TOPCOAT® Flashing – Brush Grade	TAS 139	Flashing/Detailing
	United Coatings™ Roof Mate™ TCM Flashing (formerly Roof Mate™ Spray Grade Flashing or TOPCOAT® Flashing – Spray Grade)	TAS 139	Flashing
	TOPCOAT® MP-300	N/A	Primer
	GAF XR-2000 Primer (formerly TOPCOAT® XR-2000)	N/A	Primer
	TOPCOAT® Precote	N/A	Primer

5. LIMITATIONS:

- 5.1 This is a building code evaluation. Neither NEMO|etc. nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this Evaluation Report, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.
- 5.2 This Evaluation Report is not for use in FBC HVHZ jurisdictions.
- 5.3 Fire classification is not part of this evaluation report. Refer to a current Roofing Materials Directory for fire ratings of this product.

- 5.4 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. Load resistance of the roof deck shall be documented through proper codified and/or FBC Approval documentation.
- 5.5 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.
- 5.6 For bonded insulation or membrane over existing substrates in a re-roof (tear off) or recover installation, the existing deck or existing 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 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.
- 5.7 Metal edge attachment (except gutters), shall be designed and installed for wind loads in accordance with FBC Chapter 16 and tested for resistance in accordance with **ANSI/SPRI ES-1 or Roofing Application Standard RAS 111**, except the basic wind speed shall be determined from **FBC Figure 1609.3(1), 1609.3(2) or 1609.3(3)**.
- 5.8 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 the overburden material. Testing, if required by the Authority Having Jurisdiction, should be conducted by a qualified design professional.
- 5.9 All products in the roof assembly shall have quality assurance audit in accordance with the **F.A.C. Rule 61G20-3**.
- 5.9.1 This evaluation pertains to the **GAF** components making up the waterproofing assembly, and performance when used in conjunction with non-**GAF** components, as outlined in Appendix 1. This evaluation does not purport to address QA for non-**GAF** components within the waterproofing assemblies, such as overburden products.

6. INSTALLATION:

- 6.1 **GAF Waterproofing and Plaza Deck Systems** shall be installed in accordance with **GAF** published installation instructions by contractors Approved by **GAF**, subject to the Limitations / Conditions of Use noted herein. Flashing and detailing shall be in accordance with **GAF** published installation instructions using **GAF** specified materials to establish a watertight condition.
- 6.2 System attachment requirements for wind load resistance are set forth in Appendix 1. "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.

7. BUILDING PERMIT REQUIREMENTS:

As required by the Building Official or Authority Having Jurisdiction in order 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.

9. QUALITY ASSURANCE ENTITY:

UL, LLC. – QUA9625; (847) 664-3281

- THE FOUR (4) PAGES THAT FOLLOW FORM PART OF THIS EVALUATION REPORT -

APPENDIX 1: ATTACHMENT REQUIREMENTS FOR WIND UPLIFT RESISTANCE

Table	Deck	Application	Type	Description	Page
1A-1	Structural concrete	New or Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Waterproofing (topping slab overburden)	2
1A-2	Structural concrete	New or Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Waterproofing (ceramic tile overburden)	3
1B	Structural concrete	New, Reroof (Tear-Off) or Recover	F	Non-Insulated, Bonded Waterproofing	4

The following notes apply to the systems outlined herein:

- The roof system evaluation herein pertains to above-deck waterproofing components. Decks and structural members shall be in accordance with FBC requirements to the satisfaction of the Authority Having Jurisdiction. Load resistance of the deck shall be documented through proper codified and/or FBC Approval documentation.
- Unless otherwise noted, insulation adhesive application rates are as follows. Ribbon or bead width is at the time of application; the ribbons/beads shall expand as noted in the manufacturer's published instructions.
 - Hot asphalt (HA): Full Coverage at 25-30 lbs/square.
 - GAF 2-Part Roofing Adhesive (GAF 2-Part): Continuous 2.5 to 3.5-inch ribbons, 12-inch o.c.
 - LRF Adhesive M (LRF-M): Continuous 0.75 to 1-inch wide ribbons, 12-inch o.c.
 - OlyBond 500 / OlyBond Green (OB500): Continuous ¾ to 1-inch wide ribbons, 12-inch o.c. using OMG PaceCart, SpotShot or Canister delivery methods.
 - *Note: When multiple layers(s) of insulation and/or coverboard are installed in ribbon-applied adhesive, board joints shall be staggered.*
 - *Note: The maximum edge distance from the adhesive ribbon to the edge of the insulation board shall be not less than one-half the specified ribbons spacing.*
- Unless otherwise noted, all insulations are flat stock or taper board of the minimum thickness noted. Tapered polyisocyanurate at the following thickness limitations may be substituted with the following Maximum Design Pressure (MDP) limitations (where MDP is applicable). In no case shall these values be used to 'increase' the MDP listings in the tables; rather if MDP listing below meets or exceeds that listed for a particular system in the tables, then the thinner board listed below may be used as a drop-in for the equivalent thicker material listed in the table.
 - GAF 2-Part Roofing Adhesive (GAF 2-Part): MDP = ≈117.5 psf (Min. 0.5-inch)
 - LRF Adhesive M (LRF-M): MDP = -232.5 psf (Min. 0.5-inch thick EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation)
 - OMG OlyBond 500 (OB500): MDP -315.0 psf (Min. 0.5-inch thick EnergyGuard RH)
 - OlyBond 500 (OB500): MDP = -292.5 psf (Min. 0.5-inch thick EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation)
- Bonded polyisocyanurate insulation boards shall be maximum 4 x 4 ft.
- The maximum design pressure for the selected assembly shall meet or exceed critical design pressure determined in accordance with FBC Chapter 16, and no rational analysis is permitted.
- Unless otherwise noted, modified bitumen base and top ply membranes are designated as follows based on method of installation:

Reference	Layer	Membrane	Installation
MB-AA (Modified Bitumen, Asphalt-Applied)	Base	Ruberoid Mop Smooth 1.5; Ruberoid Mop Smooth; Ruberoid Mop Plus Smooth	Hot asphalt at 25 lbs/sq.
	Top	Ruberoid Mop Smooth 1.5; Ruberoid Mop Smooth; Ruberoid Mop Plus Smooth	
MB-HW (Modified Bitumen, Heat-Welded)	Base	Ruberoid Torch Smooth; Tri-Ply APP Smooth Membrane	Heat welded
	Top	Ruberoid Torch Smooth; Tri-Ply APP Smooth Membrane	
MB-CA (Modified Bitumen, Cold-Applied)	Base	Ruberoid Mop Smooth 1.5; Ruberoid Mop Smooth; Ruberoid Mop Plus Smooth	Matrix™ 102 SBS Membrane Adhesive at 1 to 2 gallon/square
	Top	Ruberoid Mop Smooth 1.5; Ruberoid Mop Smooth; Ruberoid Mop Plus Smooth	

- The following insulations are interchangeable within the scope of this Evaluation Report:
 - EnergyGuard Polyiso Insulation ⇔ EnergyGuard NH Polyiso Insulation;
 - EnergyGuard Ultra Polyiso Insulation ⇔ EnergyGuard NH Ultra Polyiso Insulation;
 - EnergyGuard HD Polyiso Insulation ⇔ EnergyGuard NH HD Polyiso Insulation;
 - EnergyGuard HD Plus Polyiso Insulation ⇔ EnergyGuard NH HD Plus Polyiso Insulation.
- "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.

**TABLE 1A-1: STRUCTURAL CONCRETE DECKS; NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1: BONDED INSULATION, BONDED WATERPROOFING (TOPPING SLAB OVERBURDEN)**

Sys. No.	Deck (See Note 1)	Prime	VB / Temp Roof	Base Insulation		Top Insulation		Waterproofing System		Wearing Course or Over Burden	MDP (psf)
				Type	Attach	Type	Attach	Base Ply(s)	Top Ply		
C-1.	Structural concrete	Matrix™ 307 Premium Asphalt Primer or ASTM D41	None	Min. 1.5-inch EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation, EnergyGuard RA, EnergyGuard RH, EnergyGuard RN	HA	Min. 0.5-inch Dens Deck	HA	One or more MB-AA or MB-HW	MB-AA or MB-HW	Drainage board and concrete topping slab	N/A
C-2.	Structural concrete	(Optional) Matrix™ 307 Premium Asphalt Primer or ASTM D41	None	Min. 1.5-inch EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation, EnergyGuard RA, EnergyGuard RH, EnergyGuard RN	LRF-M, OB500, GAF 2-Part or CR-20	Min. 0.5-inch Dens Deck	LRF-M, OB500, GAF 2-Part or CR-20	One or more MB-AA or MB-HW	MB-AA or MB-HW	Drainage board and concrete topping slab	N/A
C-3.	Structural concrete	Matrix™ 307 Premium Asphalt Primer or ASTM D41	UnderRoof™ HT High Temperature Leak Barrier, self-adhered	Min. 1.5-inch EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation, EnergyGuard RA, EnergyGuard RH, EnergyGuard RN	OB500	Min. 0.5-inch Dens Deck	HA, LRF-M, OB500, GAF 2-Part or CR-20	One or more MB-AA or MB-HW	MB-AA or MB-HW	Drainage board and concrete topping slab	N/A
C-4.	Structural concrete	Matrix™ 307 Premium Asphalt Primer or ASTM D41	UnderRoof™ HT High Temperature Leak Barrier, self-adhered	Min. 0.5-inch EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation, EnergyGuard RH, EnergyGuard RN; min. 1-inch EnergyGuard RA	OB500	(Optional) Additional layer(s) base insulation	OB500	WeatherWatch® XT Mat Surfaced Leak Barrier, self-adhered	MB-HW	Drainage board and concrete topping slab	N/A
C-5.	Structural concrete	Matrix™ 307 Premium Asphalt Primer or ASTM D41	UnderRoof™ HT High Temperature Leak Barrier, self-adhered	Min. 0.5-inch EnergyGuard Polyiso Insulation, EnergyGuard Ultra Polyiso Insulation, EnergyGuard RH, EnergyGuard RN; min. 1-inch EnergyGuard RA	OB500	Min. 0.5-inch Dens Deck Prime, Dens Deck DuraGuard or SECUROCK Gypsum-Fiber Roof Board	OB500	WeatherWatch® XT Mat Surfaced Leak Barrier, self-adhered	MB-HW	Drainage board and concrete topping slab	N/A

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

System No.	Deck (See Note 1)	Prime	Base Insulation		Top Insulation		Waterproofing System			Wearing Course or Over Burden	MDP (psf)
			Type	Attach	Type	Attach	Membrane	Primer	Coating		
C-6.	Structural concrete	None	Min. 1-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra Polyiso Insulation	OB500	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	EverGuard TPO FB Ultra in LRF-M at 6-inch o.c. <i>(roll into place, creating full coverage)</i>	EverGuard® TPO Base Coat or TPO Red Primer 0.5 gal/sq.	TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating at 1 gal/sq.	Exterior grade ceramic tiles (ANSI A137.1) embedded in FlexBond in accordance with ANSI A108.5 and Custom Building Products instructions	-232.5
C-7.	Structural concrete	None	Min. 1-inch EnergyGuard RH	OB500	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	EverGuard TPO FB Ultra in LRF-M at 6-inch o.c. <i>(roll into place, creating full coverage)</i>	EverGuard® TPO Base Coat or TPO Red Primer 0.5 gal/sq.	TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating at 1 gal/sq.	Exterior grade ceramic tiles (ANSI A137.1) embedded in FlexBond in accordance with ANSI A108.5 and Custom Building Products instructions	-322.5
C-8.	Structural concrete	None	Min. 1-inch EnergyGuard RH	OB500, 6-inch o.c.	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500, 6-inch o.c.	EverGuard TPO FB Ultra in LRF-M at 6-inch o.c. <i>(roll into place, creating full coverage)</i>	EverGuard® TPO Base Coat or TPO Red Primer 0.5 gal/sq.	TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating at 1 gal/sq.	Exterior grade ceramic tiles (ANSI A137.1) embedded in FlexBond in accordance with ANSI A108.5 and Custom Building Products instructions	-405.0
C-9.	Structural concrete	None	Min. 1-inch EnergyGuard Polyiso Insulation or EnergyGuard Ultra Polyiso Insulation	LRF-M	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	LRF-M	EverGuard TPO FB Ultra in LRF-M at 6-inch o.c. <i>(roll into place, creating full coverage)</i>	EverGuard® TPO Base Coat or TPO Red Primer 0.5 gal/sq.	TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating at 1 gal/sq.	Exterior grade ceramic tiles (ANSI A137.1) embedded in FlexBond in accordance with ANSI A108.5 and Custom Building Products instructions	-232.5
C-10.	Structural concrete	None	Min. 1-inch EnergyGuard RH	LRF-M	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	LRF-M	EverGuard TPO FB Ultra in LRF-M at 6-inch o.c. <i>(roll into place, creating full coverage)</i>	EverGuard® TPO Base Coat or TPO Red Primer 0.5 gal/sq.	TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating at 1 gal/sq.	Exterior grade ceramic tiles (ANSI A137.1) embedded in FlexBond in accordance with ANSI A108.5 and Custom Building Products instructions	-337.5
C-11.	Structural concrete	None	Min. 1-inch EnergyGuard RH	LRF-M, 6-inch o.c.	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	LRF-M, 6-inch o.c.	EverGuard TPO FB Ultra in LRF-M at 6-inch o.c. <i>(roll into place, creating full coverage)</i>	EverGuard® TPO Base Coat or TPO Red Primer 0.5 gal/sq.	TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating at 1 gal/sq.	Exterior grade ceramic tiles (ANSI A137.1) embedded in FlexBond in accordance with ANSI A108.5 and Custom Building Products instructions	-412.5

**TABLE 1B: STRUCTURAL CONCRETE DECKS; NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE F: NON-INSULATED, WATERPROOFING**

System No.	Deck (See Note 1)	Primer	Waterproofing System		Wearing Course or Over Burden	MDP (psf)
			Base Ply(s)	Top Ply		
C-12.	Structural concrete	Matrix™ 307 Premium Asphalt Primer or ASTM D41	One or more MB-AA, MB-HW or MB-CA	MB-AA, MB-HW or MB-CA	Drainage board and concrete topping slab	N/A
C-13.	Structural concrete	Matrix™ 307 Premium Asphalt Primer or ASTM D41	One or more MB-AA	MB-AA	Exterior grade ceramic plaza deck walking tiles embedded in Custom Building Products thin-set mortar applied with a ¼-inch notched trowel in accordance with ANSI A108.5	-447.5
C-14.	Structural concrete	Matrix™ 307 Premium Asphalt Primer or ASTM D41	One or more MB-TA	MB-TA	Exterior grade ceramic plaza deck walking tiles embedded in Custom Building Products thin-set mortar applied with a ¼-inch notched trowel in accordance with ANSI A108.5	-537.5
C-15.	Structural concrete	None	Two or more coats TOPCOAT® Membrane or United Coatings™ Roof Mate TCM Coating (<i>formerly TOPCOAT® Membrane</i>) at 1.25 gallons/square per coat to min. wet mil thickness of 20 mils for each coat. Allow 24 hours to cure and inspect for and repair defects.	One or more finish coats TOPCOAT® Membrane or United Coatings™ Roof Mate TCM Coating (<i>formerly TOPCOAT® Membrane</i>) at 1.75 gallons/square per coat to min. wet mil thickness of 28 mils per coat.	None	-576.0
C-16.	Structural concrete	None	Three coats TOPCOAT® Membrane or United Coatings™ Roof Mate TCM Coating (<i>formerly TOPCOAT® Membrane</i>) at 1 gallons/square per coat to min. wet mil thickness of 16 mils for each coat. Allow 24 hours to cure and inspect for and repair defects.		Exterior grade ceramic plaza deck walking tiles embedded in Custom Building Products Polymer Modified Portland Cement applied with a ¼-inch notched trowel in accordance with ANSI A108.5	-607.5
C-17.	Structural concrete	None	Two or more coats TOPCOAT® Surface Seal SB or United Coatings™ Surface Seal SB Roof Coating at 1 gallons/square per coat to min. wet mil thickness of 16 mils for each coat. Allow 24 hours to cure and inspect for and repair defects.		Exterior grade ceramic plaza deck walking tiles embedded in Custom Building Products Polymer Modified Portland Cement applied with a ¼-inch notched trowel in accordance with ANSI A108.5	-591.0