



City of Belle Isle Job Site Card Roofing PERMIT 2018-04-056

PERMIT MUST BE POSTED ON SITE - A permit expires in 6 months if approved inspections are not recorded /scheduled within that time frame. You are responsible for scheduling and keeping track of all your inspections -

Permit Number 2018-04-056
Site Address: 5435 Pasadena Dr
Class: Residential
Description of Work: Re-roof 5000 SQFT- Asphalt Shingles.

Issue Date: 04-23--2018
Parcel Number: 18-23-30-8858-00-010
Subdivision:

Issued To: FIDDLER'S ROOFING, INC.
Name: SCHAFFNIT, HANS

Business Phone: 407 366-2300
Contractor License CCC1331478

Payment Date & Method: 4 24 2018

Visa Master Card Amex Discover Check / Money Order # 230

Schedule Inspections via Email at: BIDScheduling@universalengineering.com
SCHEDULE INSPECTIONS BY 4PM CUT OFF TIME
Inspection Results Will Be Sent Out the Following Business Day

"WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT."

ROOF	INSPECTOR	DATE	COMMENTS
700 In-progress			
710 Final			

Inspection requests are to be emailed to BIDScheduling@UniversalEngineering.com; a confirmation email will be sent back to you upon scheduling. Next-Day Inspection requests must be made by 4pm. Please include the following in your request: Permit #, project address, type of inspection, date of the requested inspection, a contact name & a contact phone number. AM or PM may be requested but cannot be guaranteed.



City of Belle Isle
 Universal Engineering Sciences 3532 Maggie Blvd., Orlando, FL 32811
 Tel 407-581-8161 * Fax 407-581-0313 * www.universalengineering.com

RECEIVED
 APR 20 2018
 BY: [Signature]

APPLICATION FOR ROOFING PERMIT

WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT.

DATE OF APPLICATION: 4/19/18

ROOF PERMIT NUMBER 2018-01-056

PLEASE PRINT. The undersigned hereby applies for a permit to make installations as indicated below:

Project Address 5435 PASADENA DR, Belle Isle, FL X 32809 32812

Property Owner Joseph Doherty and Kelli Martin Phone _____

Property Owner's Mailing Address 5435 Pasadena Dr City Belle Isle

State FL Zip Code 32809 Parcel Id Number: 18-23-30-8858-00-010

REQUIRED! To obtain this information, please visit <http://www.ocpaf.org/Searches/ParcelSearch.aspx>

Class of Building: Old New Type of Building: Residential Commercial Other
 Type of Work: New Roof ReRoof

REQUIRED! Florida Product Approval Form - NOTE: installation instructions must be posted on-site before your first inspection!!

Please indicate the nature of work by completing the information below:

Roof Square Footage: 5000 Number of Stories: 1 Job Valuation: \$ 21,000

Type: Asphalt Shingles Metal Modified Bitumen Other: _____

I hereby certify that the above is true and correct to the best of my knowledge and make Application for Permit as outlined above, and if same is granted I agree to conform to all Florida Building Code Regulations and City Ordinances regulating same and in accordance with plans submitted. The issuance of this permit does not grant permission to violate any applicable Town and/or State of Florida codes and/or ordinances. By signing below, I recognize Republic Services is by legal contract the sole authorized provider of garbage, recycling, yard waste, and commercial garbage and construction debris collection and disposal services with the city limits of the City. Contractors, homeowners and commercial businesses may contact Republic Services at 407-293-8000 to setup accounts for Commercial, Construction Roll Off, or other services needed. Rates are fixed by contract and are available at City Hall or from Republic Services. The City enforces the contract through its code enforcement office. Failure to comply will result in a stop work order.

LICENSE HOLDER SIGNATURE [Signature] LICENSE # CCC1331478

LICENSE HOLDER NAME Hans Schaffnit COMPANY NAME Fiddler's Roofing, INC

Street Address 8008 Spring Creek Dr

City Kissimmee State FL Zip Code 34747 Phone Number 407-366-2300

Email Address fiddlersroofingorlando@gmail.com

PAID
4-24-2018

Zoning Fee	\$ <u>30</u> ✓
Building Fee	\$ <u>125</u> ✓
Review Fee	\$ <u>0</u>
1% BCAIB Fee	\$ <u>2.00</u>
1.5% DCA Fee	\$ <u>2.00</u>
Total Permit Fee	\$ <u>159.00</u>

Building Official: SM Date 4-23-18

Verified Contractor's Licenses & Insurance are on file [Signature] Date 4-20-2018
 * Special Note: Licenses - L. [Signature] - [Signature]

NOTE: The Building Permit Number is required if the Roof Installation is associated with any construction or alteration where a Building Permit has been issued.

IST IK 25
 20X5
 100
 125

Building Permit Number _____

THIS INSTRUMENT PREPARED BY:
Name: NOVA SCHAFFNIT/FIDDLER'S ROOFING INC
Address: 8008 SPRING CREEK DR
KISSIMMEE, FL 34747

DOCH 20180235058
04/19/2018 12:34:30 PM Page 1 of 1
Rec Fee: \$10.00
Phil Diamond, Comptroller
Orange County, FL
IP - Ret To: FIDDLERS ROOFING INC

NOTICE OF COMMENCEMENT



Permit Number: _____
Parcel ID Number: 18-23-30-8858-00-010

The undersigned hereby gives notice that improvement will be made to certain real property, and in accordance with Chapter 713, Florida Statutes, the following information is provided in this Notice of Commencement.

1. DESCRIPTION OF PROPERTY: (Legal description of the property and street address if available)
5435 PASADENA DR BELLE ISLE, FL 32809
VENETIAN GARDENS REPLAT 18/66 LOT 1

2. GENERAL DESCRIPTION OF IMPROVEMENT:
RE ROOF WITH 100% ASPHALT SHINGLES

3. OWNER INFORMATION OR LESSEE INFORMATION IF THE LESSEE CONTRACTED FOR THE IMPROVEMENT:
Name and address: JOSEPH DOHER AND KELLI MARTIN 5435 PASADENA DR BELLE ISLE, FL 32809
Interest in property: OWNER
Fee Simple Title Holder (if other than owner listed above) Name: _____
Address: _____

4. CONTRACTOR: Name: FIDDLER'S ROOFING INC Phone Number: 407-366-2300
Address: 7862 W IRLO BRONSON MEMORIAL HWY #420 KISSIMMEE, FL 34747

5. SURETY (if applicable, a copy of the payment bond is attached): Name: _____
Address: _____

6. LENDER: Name: _____ Amount of Bond: _____
Address: _____ Phone Number: _____

7. Persons within the State of Florida Designated by Owner upon whom notice or other documents may be served as provided by Section 713.13(1)(a)7., Florida Statutes.
Name: BRETT RUBIN Phone Number: 407-366-2300
Address: 7862 W IRLO BRONSON MEMORIAL HWY #420 KISSIMMEE, FL 34747

8. In addition, Owner designates _____ of _____
to receive a copy of the Lienor's Notice as provided in Section 713.13(1)(b), Florida Statutes. Phone number: _____

9. Expiration Date of Notice of Commencement (The expiration is 1 year from date of recording unless a different date is specified) 10/31/18

WARNING TO OWNER: ANY PAYMENTS MADE BY THE OWNER AFTER THE EXPIRATION OF THE NOTICE OF COMMENCEMENT ARE CONSIDERED IMPROPER PAYMENTS UNDER CHAPTER 713, PART I, SECTION 713.13, FLORIDA STATUTES, AND CAN RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE COMMENCING WORK OR RECORDING YOUR NOTICE OF COMMENCEMENT.

[Signature]
(Signature of Owner or Lessee, or Owner's or Lessee's Authorized Officer/Director/Partner/Manager)

Joseph Doherty
(Print Name and Provide Signatory's Title/Office)

State of Florida County of Orange

The foregoing instrument was acknowledged before me this 27th day of March, 2018
by Joseph Doherty Name of person making statement Who is personally known to me OR

who has produced identification type of identification produced: _____



[Signature]
Notary Signature
Rachael James



City of Belle Isle
 Universal Engineering Sciences 3532 Maggie Blvd., Orlando, FL 32811
 Tel 407-581-8161 * Fax 407-581-0313 * www.universalengineering.com

Product Approval Form

DATE: 4/19/18

PERMIT # _____

PROJECT ADDRESS 5435 Pasadena Dr, Belle Isle, FL 32809 32812

As required by Florida Statute 553.842 and Florida Administrative Code 9B-72m, please provide the information and approval numbers of the building components listed below if they will be utilized on the building or structure. FL Approved products are listed online at www.floridabuilding.org or can be obtained from the local product supplier. The following information must be turned in with permit application and available onsite for inspections:

• **NOTE:** The installation instructions must be posted on-site before your first inspection!!

Product Type	Manufacturer	Model/Series	FL Product Approval #	Product Type	Manufacturer	Model/Series	FL Product Approval #
EXTERIOR DOORS				WALL PANELS			
Swinging				Sliding			
Sliding				Soffits			
Sectional/Rollup				Storefront			
Other				Glass Block			
				Other			
WINDOWS				ROOFING PRODUCTS			
Single/Dbf Hung				Asphalt Shingles	GAF	Timberline ^{HD}	FL10124-R20
Horizontal Slider				Non Struct Metal			
Casement				Roofing Tiles			
Fixed				Single Ply Roof			
Mullion				Underlayment	GAF	Weatherwatch	FL10626-P13
Skylights				Other			
Other							
STRUCTURAL COMPONENTS				OTHER			
Wood Connectors							
Wood Anchors							
Truss Plates							
Insulation Forms							
Lintels							
Other							

It is the applicant's responsibility to verify that specific products have been installed in accordance with their limitations and with the minimum required design pressures for the structure. Specific compliance will be verified during field inspections.

Applicant Signature

Date

4/19/18



Product Approval
USER: Public User

[Product Approval Menu](#) > [Product or Application Search](#) > [Application List](#) > **Application Detail**



FL #	FL10124-R20
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	Asphalt Shingles
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	10/20/2018
Validated By	John W. Knezevich, PE <input checked="" type="checkbox"/> Validation Checklist - Hardcopy Received
Certificate of Independence	FL10124_R20_COI_2017_01_COI_Nieminen.pdf
Referenced Standard and Year (of Standard)	Standard ASTM D1970
	Year 2015

ASTM D3161	2016
ASTM D3462	2010
ASTM D7158	2011
TAS 107	1995

Equivalence of Product Standards
Certified By

Sections from the Code

Product Approval Method Method 1 Option D

Date Submitted 09/20/2017
Date Validated 09/27/2017
Date Pending FBC Approval 09/28/2017
Date Approved 12/12/2017

Summary of Products

FL #	Model, Number or Name	Description
10124.1	GAF Asphalt Roof Shingles	Fiberglass reinforced 3-tab, laminated, 5-tab and hip/ridge asphalt shingles
Limits of Use Approved for use in HVHZ: No Approved for use outside HVHZ: Yes Impact Resistant: N/A Design Pressure: N/A Other: Refer to ER, Section 5.		Installation Instructions FL10124 R20 II 2017 09 FINAL ER GAF Asphalt Shingles FL10124-R20.pdf Verified By: Robert Nieminen PE-59166 Created by Independent Third Party: Yes Evaluation Reports FL10124 R20 AE 2017 09 FINAL ER GAF Asphalt Shingles FL10124-R20.pdf Created by Independent Third Party: Yes

[Back](#) [Next](#)

Contact Us :: [2601 Blair Stone Road, Tallahassee FL 32399 Phone: 850-487-1824](#)

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Under Florida law, email addresses are public records. If you do not want your e-mail address released in response to a public-records request, do not send electronic mail to this entity. Instead, contact the office by phone or by traditional mail. If you have any questions, please contact 850.487.1395. *Pursuant to Section 455.275 (1), Florida Statutes, effective October 1, 2012, licensees licensed under Chapter 455, F.S. must provide the Department with an email address if they have one. The emails provided may be used for official communication with the licensee. However email addresses are public record. If you do not wish to supply a personal address, please provide the Department with an email address which can be made available to the public. To determine if you are a licensee under Chapter 455, F.S., please click [here](#).

Product Approval Accepts:



Credit Card
Safe





EXTERIOR RESEARCH & DESIGN, LLC.

Certificate of Authorization #9503

353 CHRISTIAN STREET, UNIT #13

OXFORD, CT 06478

(203) 262-9245

EVALUATION REPORT

GAF

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

Evaluation Report 01506.01.08-R22

FL10124-R20

Date of Issuance: 01/03/2008

Revision 22: 09/20/2017

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 and Florida Building Code, Residential Volume. The products described herein have been evaluated for compliance with the **6th Edition (2017) Florida Building Code** sections noted herein.

DESCRIPTION: GAF Asphalt Roof Shingles

LABELING: Labeling shall be in accordance with the requirements the Accredited Quality Assurance Agency noted herein and **FBC 1507.2.7.1 / R905.2.6.1**.

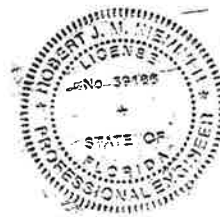
CONTINUED COMPLIANCE: This Evaluation Report is valid until such time as the named product(s) changes, the referenced Quality Assurance documentation changes, or provisions of the Code that relate to the product change. Acceptance of this Evaluation Report by the named client constitutes agreement to notify Robert Nieminen, P.E. if the product changes or the referenced Quality Assurance documentation changes. Trinity|ERD 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 "Trinity|ERD 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 6.

Prepared by:



The facsimile seal appearing was authorized by Robert Nieminen, P.E. on 09/20/2017. This does not serve as an electronically signed document.

CERTIFICATION OF INDEPENDENCE:

1. Trinity|ERD 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. Trinity|ERD 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 Trinity|ERD 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: Asphalt Shingles

Compliance Statement: GAF Asphalt Roof Shingles, as produced by GAF, have demonstrated compliance with the following sections of the 6th Edition (2017) Florida Building Code and Florida Building Code, Residential Volume 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>
1507.2.4 / 1507.1.1, R905.2.3 / R905.1.1	Physical Properties	ASTM D1970	2015
1507.2.5, R905.2.4	Physical Properties	ASTM D3462	2010
1507.2.7.1, R905.2.6.1	Wind Resistance	ASTM D3161	2016
1507.2.7.1, R905.2.6.1	Wind Resistance	ASTM D7158	2011
1507.2.7.1, R905.2.6.1	Wind Resistance	TAS 107	1995

3. REFERENCES:

<u>Entity</u>	<u>Examination</u>	<u>Reference</u>	<u>Date</u>
GAF (PDM 1915)	Letter of Equivalency	Seal-A-Ridge Impact Resistant IR	01/13/2012
PRI (TST 5878)	Physical Properties	GAF-025-02-01	03/27/2002
PRI (TST 5878)	ASTM D3462	GAF-059-02-01	09/02/2004
PRI (TST 5878)	ASTM D3462	GAF-080-02-01	05/25/2005
PRI (TST 5878)	Physical Properties	GAF-324-02-01	12/01/2011
PRI (TST 5878)	Wind Driven Rain	GAF-407-02-01	01/21/2013
UL (TST 1740)	ASTM D3462	93NK6295	11/29/1993
UL (TST 1740)	ASTM D3462	99NK43835	01/12/2000
UL (TST 1740)	TAS 107	94NK9632	03/29/2000
UL (TST 1740)	ASTM D3462	01NK06632	02/02/2001
UL (TST 1740)	ASTM D3161, TAS 107	01NK9226	05/21/2001
UL (TST 1740)	ASTM D3161	01NK37122	12/18/2001
UL (TST 1740)	ASTM D3462	01NK37122	12/19/2001
UL (TST 1740)	ASTM D3161, TAS 107	02NK12980	04/10/2002
UL (TST 1740)	ASTM D3161, TAS 107	02NK30871	09/09/2002
UL (TST 1740)	ASTM D3161	03CA5367	03/11/2003
UL (TST 1740)	ASTM D3462	03NK26444	10/17/2003
UL (TST 1740)	ASTM D3462	04NK13850	06/07/2004
UL (TST 1740)	ASTM D3161	04NK13850	06/23/2004
UL (TST 1740)	ASTM D3161	04NK30546	03/10/2005
UL (TST 1740)	ASTM D3462	04NK22009	05/06/2005
UL (TST 1740)	ASTM D3161	04NK22009	05/09/2005
UL (TST 1740)	ASTM D3462	05NK27924	02/10/2006
UL (TST 1740)	ASTM D3161	05NK27924	02/11/2006
UL (TST 1740)	ASTM D3161, D3462	06CA18077	06/05/2006
UL (TST 1740)	ASTM D3161, D3462	06CA18074	06/16/2006
UL (TST 1740)	ASTM D3161, D3462	06CA35251	10/18/2006
UL (TST 1740)	ASTM D3462	06CA31603	12/01/2006
UL (TST 1740)	ASTM D3161, D3462	06CA41095	12/27/2006
UL (TST 1740)	ASTM D3161	07NK05228	03/13/2007
UL (TST 1740)	ASTM D3161	06CA31611	04/04/2007
UL (TST 1740)	ASTM D3161	06CA61148	04/09/2007
UL (TST 1740)	ASTM D3161, D3462	07CA31742	11/08/2007
UL (TST 1740)	ASTM D3161, D7158, D3462	08CA06100	03/13/2008

<u>Entity</u>	<u>Examination</u>	<u>Reference</u>	<u>Date</u>
UL (TST 1740)	ASTM D3161, D3462	07CA55908	04/01/2008
UL (TST 1740)	ASTM D3161, D3462	09CA10592	03/26/2009
UL (TST 1740)	ASTM D3161, D3462	09CA06856	05/15/2009
UL (TST 1740)	ASTM D3161, D7158, D3462	09NK06647	08/01/2009
UL (TST 1740)	ASTM D3161, D7158, D3462	09CA27281	08/27/2009
UL (TST 1740)	ASTM D3161, D7158, D3462	10CA35554	03/05/2010
UL (TST 1740)	ASTM D3161, D7158, D3462	10CA13686	05/15/2010
UL (TST 1740)	ASTM D3462	10CA07264	05/27/2010
UL (TST 1740)	ASTM D3462	10CA11953	10/29/2010
UL (TST 1740)	ASTM D3161, D7158, D3462	10NK11951	10/30/2010
UL (TST 1740)	ASTM D3161, D7158, D3462	10NK12070	11/04/2010
UL (TST 1740)	ASTM D3161, D7158, D3462	08CA06100	01/30/2010
UL (TST 1740)	ASTM D3161, D7158, D3462	10CA53934	03/31/2011
UL (TST 1740)	ASTM D3161, D7158, D3462	11CA48924	10/22/2011
UL (TST 1740)	ASTM D3161, D7158, D3462	11CA47919	12/03/2011
UL (TST 1740)	ASTM D3161, D7158, D3462	11CA48408	12/08/2011
UL (TST 1740)	ASTM D3161, D7158, D3462	11CA48725	12/09/2011
UL, LLC. (TST 9628)	ASTM D3462	12CA34891	10/12/2012
UL, LLC. (TST 9628)	ASTM D3161, D7158, D3462	12CA58151	02/15/2013
UL, LLC. (TST 9628)	ASTM D3161	12CA38083	02/26/2013
UL, LLC. (TST 9628)	ASTM D3161	13CA32332	06/18/2013
UL, LLC. (TST 9628)	ASTM D3161	13CA37934	08/02/2013
UL, LLC. (TST 9628)	ASTM D3161, D7158, D3462	4786875675	07/17/2015
UL, LLC. (TST 9628)	ASTM D3161, D7158, D3462	4787434542	05/17/2016
UL, LLC. (QUA 9625)	Quality Control	Inspection Report, R21, Mobile, AL	10/25/2016
UL, LLC. (QUA 9625)	Quality Control	Inspection Report, R21, Myerstown, PA	10/20/2016
UL, LLC. (QUA 9625)	Quality Control	Inspection Report, R21, Tuscaloosa, AL	11/11/2016
UL, LLC. (QUA 9625)	Quality Control	Inspection Report, R21, Michigan Cty, IN	11/01/2016
UL, LLC. (QUA 9625)	Quality Control	Inspection Report, R21, Shafter, CA	11/17/2016
UL, LLC. (QUA 9625)	Quality Control	Inspection Report, R21, Savannah, GA	11/11/2016
UL, LLC. (QUA 9625)	Quality Control	Inspection Report, R21, Minneapolis, MN	10/25/2016
UL, LLC. (QUA 9625)	Quality Control	Inspection Report, R21, Mt. Vernon, IN	10/25/2016
UL, LLC. (QUA 9625)	Quality Control	Inspection Report, R21, Baltimore, MD	10/21/2016
UL, LLC. (QUA 9625)	Quality Control	Inspection Report, R21, Tampa, FL	11/17/2016
UL, LLC. (QUA 9625)	Quality Control	Inspection Report, R21, Dallas, TX	11/04/2016
UL, LLC. (QUA 9625)	Quality Control	Inspection Report, R21, Ennis, TX	11/03/2016
UL, LLC. (QUA 9625)	Quality Control	Inspection Report, R21, Fontana, CA	11/01/2016

4. PRODUCT DESCRIPTION:

4.1 Asphalt Shingles:

- 4.1.1 Marquis® WeatherMax®, Royal Sovereign® and Sentinel® are a fiberglass reinforced 3-tab asphalt roof shingles.
- 4.1.2 Camelot®, Camelot® II, Fortitude™, Glenwood™, Grand Canyon®, Grand Sequoia®, Grand Sequoia® IR, Grand Sequoia® ArmorShield™, Monaco®, Sienna®, Timberline® American Harvest®, Timberline® ArmorShield™ II, Timberline® Natural Shadow®, Timberline HD®, Timberline® Cool Series®, Timberline Ultra HD® and Woodland® are fiberglass reinforced, laminated asphalt roof shingles.
- 4.1.3 Slateline® is a fiberglass reinforced 5-tab asphalt roof shingle.

4.2 Hip & Ridge Shingles:

- 4.2.1 Seal-A-Ridge® Ridge Cap Shingles, Seal-A-Ridge® IR Impact-Resistant Ridge Cap Shingles, Seal-A-Ridge® ArmorShield™ Ridge Cap Shingles and Timbertex® Premium Ridge Cap Shingles are fiberglass reinforced, hip and ridge asphalt roof shingles.

4.3 Accessory Starter Strips:

- 4.3.1 Pro-Start® Eave/Rake Starter Strip Shingles and WeatherBlocker™ Premium Eave/Rake Starter Strip Shingles are starter strips for asphalt roof shingles.
- 4.3.2 QuickStart® Peel & Stick Starter Roll is a mineral-surfaced, fiberglass-reinforced, self-adhering SBS modified bitumen starter strip, nominal 9-inch x 33 ft roll, for use with asphalt shingles with exposure of 6-inch or less.
- 4.3.3 StarterMatch™ Starter Strip Shingles are color-coordinated starter strips for use with Grand Canyon® and Grand Sequoia® series asphalt shingles. StarterMatch™ are installed as the second starter for Grand Canyon® and Grand Sequoia® series installations.

5. LIMITATIONS:

- 5.1 This is a building code evaluation. Neither Trinity|ERD 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 current Approved Roofing Materials Directory for fire ratings of this product.

5.4 Wind Classification:

- 5.4.1 The **GAF asphalt shingles** noted in **Section 4.1** are Classified in accordance with **FBC Tables 1507.2.7.1 and R905.2.6.1 to ASTM D3161, Class F** and/or **ASTM D7158, Class H**, indicating the shingles are acceptable for use in all wind zones up to $V_{asd} = 150$ mph ($V_{ult} = 194$ mph). Refer to Section 6 for installation requirements to meet this wind rating.
- 5.4.2 The **GAF hip & ridge shingles** noted in **Section 4.2** are Classified in accordance with **FBC Tables 1507.2.7.1 and R905.2.6.1 to ASTM D3161, Class F**, indicating the shingles are acceptable for use in all wind zones up to $V_{asd} = 150$ mph ($V_{ult} = 194$ mph). Refer to Section 6 for installation requirements to meet this wind rating.
- 5.4.3 Classification by **ASTM D7158** applies only to **exposure category B or C**, as defined in **FBC 1609.4.3**, and a **mean roof height of 60 feet or less**. Calculations by a qualified design professional are required for conditions outside these limitations. Contact the shingle manufacturer for data specific to each shingle.
- 5.5 All products in the roof assembly shall have quality assurance audit in accordance with **F.A.C. Rule 61G20-3**.

6. INSTALLATION:

6.1 Underlayment:

- 6.1.1 Underlayment shall be acceptable to **GAF** and shall hold current Florida Statewide Product Approval, or be Locally Approved per **Rule 61G20-3**, per **FBC 1507.2.3, 1507.2.4 or R905.2.3**.

6.2 Starter Shingles or Starter Strip:

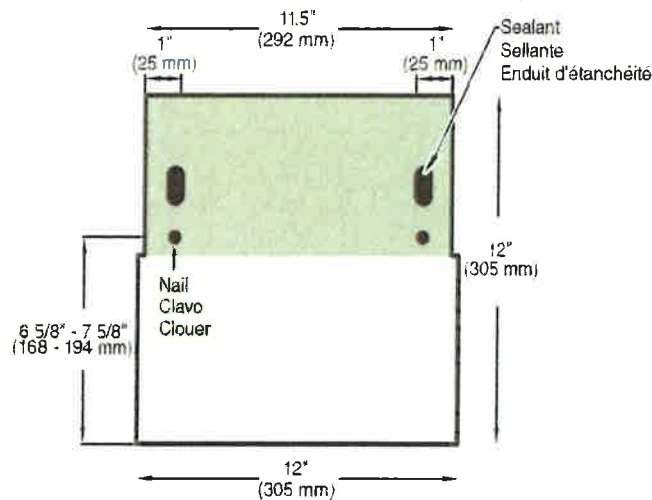
- 6.2.1 Installation of **Pro-Start Eave/Rake Starter Strip Shingles, WeatherBlocker Premium Eave/Rake Starter Strip Shingles** and **QuickStart Peel & Stick Starter Roll** shall comply with the **GAF** current published instructions.

6.3 Asphalt Shingles:

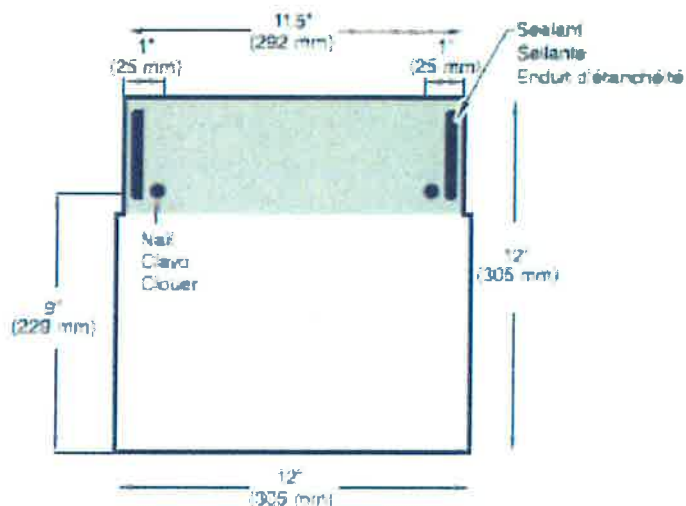
- 6.3.1 Installation of asphalt shingles shall comply with the **GAF** current published instructions, using minimum four (4) nails per shingle in accordance with **FBC 1507.2.7 or R905.2.6**, with the following exceptions:
 - **Camelot, Camelot II, Grand Canyon, Grand Sequoia, Grand Sequoia IR, Grand Sequoia ArmorShield,** and **Woodland** require minimum five (5) nails per shingle.
 - **Slateline** requires minimum six (6) nails per shingle.
- 6.3.2 Fasteners shall be in accordance with manufacturer's published requirements, but not less than **FBC 1507.2.6 or R905.2.5**. Staples are not permitted.
- 6.3.3 Where the roof slope exceeds 21 units vertical in 12 units horizontal, special methods of fastening are required. Contact the GAF for details.

6.4 Hip & Ridge Shingles:

- 6.4.1 Installation of **Seal-A-Ridge Ridge Cap Shingles**, **Seal-A-Ridge IR Impact-Resistant Ridge Cap Shingles** and **Seal-A-Ridge ArmorShield Ridge Cap Shingles** shall comply with the GAF current published instructions with a minimum two (2) nails, minimum 3/8-inch head diameter, per shingle and nominal 0.25-inch diameter beads of **Henkel "Loctite PL S30 Roof & Flashing Sealant"**.



- 6.4.2 Installation of **Timbertex Premium Ridge Cap Shingles** shall comply with GAF current published instructions with a minimum two (2) nails, minimum 3/8-inch head diameter, per shingle and beads of **Sonneborn NP1 Gun Grade Polyurethane Sealant** or **Henkel PL Roofing and Flashing Sealant**.



- 6.4.3 Fasteners shall be in accordance with GAF published requirements, but not less than **FBC 1507.2.6** or **R905.2.5**. Staples are not permitted.

7. LABELING:

- 7.1 Labeling shall be in accordance with the requirements the Accredited Quality Assurance Agency noted herein.
- 7.2 Asphalt shingle wrappers shall indicate compliance with one of the required classifications detailed in **FBC Table 1507.2.7.1 / R905.2.6.1.**

8. BUILDING PERMIT REQUIREMENTS:

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

9. MANUFACTURING PLANTS:

Contact the named QA entity for information on which plants produce products covered by Florida Rule 61G20-3 QA requirements.

10. QUALITY ASSURANCE ENTITY:

UL LLC – QUA9625; (847) 664-3281

- END OF EVALUATION REPORT -



Product Approval
USER: Public User

[Product Approval Menu](#) > [Product or Application Search](#) > [Application List](#) > **Application Detail**



FL #	FL10626-R13
Application Type	Revision
Code Version	2017
Application Status	Approved
Comments	
Archived	<input type="checkbox"/>
Product Manufacturer	GAF
Address/Phone/Email	1 Campus Drive Parsippany, 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	Underlayments
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	05/19/2020
Validated By	John W. Knezevich, PE <input checked="" type="checkbox"/> Validation Checklist - Hardcopy Received
Certificate of Independence	FL10626_R13_COI_2017_01_COI_Nieminen.pdf
Referenced Standard and Year (of Standard)	Standard ASTM D1970
	Year 2015

ASTM D6164	2011
ASTM D6757	2016
FM 4474	2011
FRSA/TRI April 2012 (04-12)	2012
TAS 103	1995

Equivalence of Product Standards
Certified By

Sections from the Code

Product Approval Method Method 1 Option D

Date Submitted	09/22/2017
Date Validated	09/29/2017
Date Pending FBC Approval	10/03/2017
Date Approved	12/12/2017

Summary of Products

FL #	Model, Number or Name	Description
10626.1	GAF Roof Underlayments	Roofing Underlayments for use in sloped roof systems
<p>Limits of Use Approved for use in HVHZ: No Approved for use outside HVHZ: Yes Impact Resistant: N/A Design Pressure: +N/A/--45.0 Other: 1.) The design pressure noted in this application relates to one particular underlayment system for use under foam-on tile systems. Refer to ER Section 5.6.4 for details. 2.) Refer to ER Section 5 for other Limits of Use.</p>		<p>Installation Instructions FL10626 R13 II 2017 09 FINAL ER GAF UNDERLAYMENTS FL10626-R13.pdf Verified By: Robert Niemien 59166 Created by Independent Third Party: Yes</p> <p>Evaluation Reports FL10626 R13 AE 2017 09 FINAL ER GAF UNDERLAYMENTS FL10626-R13.pdf Created by Independent Third Party: Yes</p>

[Back](#) [Next](#)

Contact Us :: [2601 Blair Stone Road, Tallahassee FL 32399](#) Phone: 850-487-1824

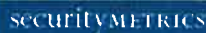
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Product Approval Accepts:



Credit Card
Safe





EXTERIOR RESEARCH & DESIGN, LLC.

Certificate of Authorization #9503
353 CHRISTIAN STREET, UNIT #13
OXFORD, CT 06478
(203) 262-9245

EVALUATION REPORT

GAF

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

Evaluation Report 01506.04.08-R13

FL10626-R13

Date of Issuance: 04/25/2008

Revision 13: 09/22/2017

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 and Florida Building Code, Residential Volume. The products described herein have been evaluated for compliance with the **6th Edition (2017) Florida Building Code** sections noted herein.

DESCRIPTION: GAF Roof Underlayments

LABELING: Labeling shall be in accordance with the requirements 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. if the product changes or the referenced Quality Assurance documentation changes. Trinity|ERD 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 "Trinity|ERD 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 9.

Prepared by:

Robert J.M. Nieminen, P.E.

Florida Registration No. 59166, Florida DCA ANE1983



The facsimile seal appearing was authorized by Robert Nieminen, P.E. on 09/22/2017. This does not serve as an electronically signed document. Signed, sealed hardcopies have been transmitted to the Product Approval Administrator and to the named client

CERTIFICATION OF INDEPENDENCE:

1. Trinity|ERD 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. Trinity|ERD 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 Trinity|ERD 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 COMPONENT EVALUATION:

1. SCOPE:

Product Category: Roofing

Sub-Category: Underlayment

Compliance Statement: **GAF Roof Underlayments**, as produced by **GAF**, have demonstrated compliance with the following sections of the 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 Uplift	FM 4474	2011
1507.2.3 / 1507.1.1	Physical Properties	ASTM D6757	2016
1507.2.4 / 1507.1.1, 1507.2.9.2	Physical Properties	ASTM D1970	2015
1507.3.3	Physical properties	FRSA/TRI April 2012 (04-12)	2012
1507.11.2	Physical Properties	ASTM D6164	2011
1523.6.5.2.1	Physical Properties	TAS 103	1995

3. REFERENCES:

<u>Entity</u>	<u>Examination</u>	<u>Reference</u>	<u>Date</u>
ERD (TST 6049)	FRSA/TRI April 2012 (Slippage)	G34150.08.11	11/14/2011
ERD (TST 6049)	ASTM D6164	G40630.01.14-2B	01/07/2014
ERD (TST 6049)	ASTM D6164	G46160.09.14-3A	09/09/2014
ERD (TST 6049)	ASTM D1970	GAF-SC13285.03.17-3	03/01/2017
ERD (TST 6049)	ASTM D1970	GAF-SC13285.03.17-4	03/01/2017
PRI (TST 5878)	ASTM D1970	GAF-026-02-01	03/26/2002
PRI (TST 5878)	ASTM D1970	GAF-027-02-01	03/26/2002
PRI (TST 5878)	Physical properties	GAF-042-02-01	06/03/2005
PRI (TST 5878)	ASTM D1970	GAF-238-02-01	03/03/2010
PRI (TST 5878)	ASTM D1970	GAF-275-02-01	11/11/2010
PRI (TST 5878)	Wind Uplift	GAF-434-02-01	09/16/2013
PRI (TST 5878)	Wind Uplift	GAF-434-02-03	09/16/2013
PRI (TST 5878)	Wind Uplift	GAF-434-02-04	09/16/2013
UL (TST 1740)	Physical properties	02NK22569	06/04/2002
UL (TST 1740)	ASTM D6757	10NK11990	05/18/2011
Miami-Dade (CER 1592)	HVHZ compliance	14-0915.02	09/10/2015
Miami-Dade (CER 1592)	HVHZ compliance	16-1216.02	02/02/2017
ICC-ES (EVL2396)	IBC compliance	ESR-1322	01/01/2017
UL, LLC. (QUA 9625)	Quality Control	Inspect, File R10689 (NC)	06/28/2017
UL, LLC. (QUA 9625)	Quality Control	Inspect, File R10689 (GA)	05/19/2016
UL, LLC. (QUA 9625)	Quality Control	Inspect, File R10689 (IN)	06/14/2017

4. PRODUCT DESCRIPTION:

4.1 Self-Adhering Underlayments:

4.1.1 Liberty™ SBS Self-Adhering Base/Ply Sheet is a smooth-surfaced, fiberglass-reinforced, self-adhering SBS modified bitumen roof underlayment; meets ASTM D1970.

4.1.2 StormGuard® Film Surfaced Leak Barrier is a film-surfaced, fiberglass-reinforced, self-adhering SBS modified bitumen roof underlayment; meets ASTM D1970. StormGuard® Film Surfaced Leak Barrier is also used as a secondary water barrier to seal roof decks.

4.1.3 UnderRoof™ HT High Temperature Leak Barrier is a polyester-mat-surfaced, fiberglass-reinforced, self-adhering SBS modified bitumen roof underlayment; meets ASTM D1970.

- 4.1.4 **WeatherWatch® Mineral Surfaced Leak Barrier** is a mineral-surfaced, fiberglass-reinforced, self-adhering SBS modified bitumen roof underlayment; meets ASTM D1970. WeatherWatch® Mineral Surfaced Leak Barrier is also used as a secondary water barrier to seal roof decks.
- 4.1.5 **WeatherWatch® XT Mat Surfaced Leak Barrier** is a coated-mat-surfaced, fiberglass-reinforced, self-adhering SBS modified bitumen roof underlayment; meets ASTM D1970.
- 4.2 **Mechanically Fastened Underlayments:**
- 4.2.1 **VersaShield® Fire-Resistant Roof Deck Protection** is a non-asphaltic, fiberglass-based roof underlayment and/or fire barrier; meets physical requirements of ASTM D6757.
- 4.3 **Asphalt-Applied Underlayments:**
- 4.3.1 **Ruberoid® Mop Granule** is a granule-surfaced, polyester-reinforced, asphalt-applied SBS modified bitumen roof underlayment; meets ASTM D6164.
- 4.3.2 **Ruberoid® Mop Granule FR** is a granule-surfaced, polyester-reinforced, asphalt-applied SBS modified bitumen roof underlayment; meets ASTM D6164.

5. LIMITATIONS:

- 5.1 This is a building code evaluation. Neither Trinity|ERD 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 current Approved Roofing Materials Directory or test report from accredited testing agency for fire ratings of this product.
- 5.4 **GAF Roof Underlayments** may be used with any prepared roof cover where the product is specifically referenced within FBC approval documents. If not listed, a request may be made to the Authority Having Jurisdiction for approval based on this evaluation combined with supporting data for the prepared roof covering.
- 5.5 Allowable Roof Covers:

TABLE 1: ROOF COVER OPTIONS						
Underlayment	Asphalt Shingles	Nail-On Tile	Foam-On Tile	Metal	Wood Shakes & Shingles	Slate or Simulated Slate
VersaShield® Fire-Resistant Roof Deck Protection	Yes	No	No	No	No	No
Liberty™ SBS Self-Adhering Base/Ply Sheet	Yes	No	No	No	No	No
StormGuard® Film Surfaced Leak Barrier	Yes	No	No	Yes	No	No
UnderRoof™ HT High Temperature Leak Barrier	Yes	No	No	Yes	No	No
WeatherWatch® Mineral Surfaced Leak Barrier	Yes	No	No	No	No	No
WeatherWatch® XT Mat Surfaced Leak Barrier	Yes	No	No	No	No	No
Ruberoid® Mop Granule	Yes	Yes	Yes See 5.5.1	No	Yes	Yes
Ruberoid® Mop Granule FR	Yes	Yes	Yes See 5.5.1	No	Yes	Yes

5.5.1 “Foam-On Tile” is limited to use of the following Approved tile adhesives / underlayment combinations.

TABLE 1A: ALLOWABLE TILE ADHESIVE / UNDERLAYMENT COMBINATIONS ¹		
Adhesive	Florida Product Approval	Underlayments
Dow TileBond™	FL22525	Ruberoid® Mop Granule; Ruberoid® Mop Granule FR

5.6 Allowable Substrates:

5.6.1 Direct-Bond to Deck:

- ✓ Liberty™ SBS Self-Adhering Base/Ply Sheet; StormGuard® Film Surfaced Leak Barrier; UnderRoof™ HT High Temperature Leak Barrier; WeatherWatch® Mineral Surfaced Leak Barrier and WeatherWatch® XT Mat Surfaced Leak Barrier self-adhered to new untreated plywood or existing untreated ASTM D41 primed plywood.
- ✓ Ruberoid® Mop Granule and Ruberoid® Mop Granule FR in hot asphalt to ASTM D41 primed structural concrete.

5.6.2 Bond to Mechanically Attached Base Layer:

- ✓ Liberty™ SBS Self-Adhering Base/Ply Sheet; StormGuard® Film Surfaced Leak Barrier; UnderRoof™ HT High Temperature Leak Barrier; WeatherWatch® Mineral Surfaced Leak Barrier and WeatherWatch® XT Mat Surfaced Leak Barrier self-adhered to ASTM D226, Type II felt
- ✓ Ruberoid® Mop Granule and Ruberoid® Mop Granule FR in hot asphalt to GAFGLAS® #80 Ultima™ Base Sheet or Ruberoid® 20 Smooth.

5.6.3 Bond to Other Substrate Types:

- ✓ ASTM D41 primed metal (flashing metal, valley metal, etc.)

5.6.4 Wind Resistance for Underlayment Systems in Foam-On Tile Applications:

FRSA/TRI April 2012 (04-12) does not address wind uplift resistance of all underlayment systems beneath foam-on or mortar-set tile systems, where the underlayment forms part of the load-path. The following wind uplift limitations apply to underlayment systems that are not addressed in **FRSA/TRI April 2012 (04-12)** and are used in foam-on or mortar-set tile applications. 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 **FRSA/TRI April 2012 (04-12), Appendix A, Table 1A** or **FBC 1609** for determination of design wind loads.

#1 Maximum Design Pressure = -45 psf.

- Deck: Min. 19/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
- Base Layer: GAFGLAS® #80 Ultima™ Base Sheet or Ruberoid® 20 Smooth mechanically attached with 12 ga., min. 1.25-inch long ring shank nails through 32 ga., 1-5/8 inch diameter tin caps spaced 9-inch o.c. at the 4-inch wide side laps and 9-inch o.c. at two (2), equally spaced, staggered center in the field of the sheet.
- Top Layer: Ruberoid® Mop Granule or Ruberoid® Mop Granule FR applied in full mopping of ASTM D312, Type IV hot asphalt at 20 to 25 lbs/square.

¹ Refer to Tile Manufacturer’s or Adhesive Manufacturer’s Florida Product Approval for Overturning Moment Resistance Performance.

#2 Maximum Design Pressure = -75 psf.

- Deck: Min. 19/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
- Base Layer: GAFGLAS® #80 Ultima™ Base Sheet or Ruberoid® 20 Smooth mechanically attached with 12 ga., min. 1.25-inch long ring shank nails through 32 ga., 1-5/8 inch diameter tin caps spaced 8-inch o.c. at the 4-inch wide side laps and 8-inch o.c. at three (3), equally spaced, staggered center in the field of the sheet.
- Top Layer: Ruberoid® Mop Granule or Ruberoid® Mop Granule FR applied in full mopping of ASTM D312, Type IV hot asphalt at 20 to 25 lbs/square.

#3 Maximum Design Pressure = -442.5 psf.

- Deck: Min. 2,500 psi structural concrete to meet project requirements to satisfaction of Authority Having Jurisdiction
- Base Layer: GAFGLAS #75 Base Sheet, Tri-Ply #75 Base Sheet, GAFGLAS #80 Ultima Base Sheet, GAFGLAS Ply 4, Tri-Ply Ply 4 or GAFGLAS FlexPly 6 applied in full mopping of ASTM D312, Type IV hot asphalt at 20 to 25 lbs/square.
- Top Layer: Ruberoid® Mop Granule or Ruberoid® Mop Granule FR applied in full mopping of ASTM D312, Type IV hot asphalt at 20 to 25 lbs/square.

5.6.4.1 For mechanically attached Base Sheet, the maximum design pressure for the selected assembly shall meet or exceed that required under **FRSA/TRI April 2012 (04-12), Appendix A, Table 1A.**

Alternatively, the maximum design pressure for the selected assembly shall meet or exceed the Zone 1 design pressure determined in accordance with **FBC 1609**. In this case, Zones 2 and 3 shall employ an attachment density designed by a qualified design professional to resist the elevated pressure criteria. Commonly used methods are **ANSI/SPRI WD1, FM Loss Prevention Data Sheet 1-29 and Roofing Application Standard RAS 117**. Assemblies marked with an asterisk* carry the limitations set forth in Section 2.2.10.1 of **FM Loss Prevention Data Sheet 1-29 (January 2016)** for Zone 2/3 enhancements.

5.7 Exposure Limitations:

Liberty™ SBS Self-Adhering Base/Ply Sheet; StormGuard® Film Surfaced Leak Barrier; UnderRoof™ HT High Temperature Leak Barrier; WeatherWatch® Mineral Surfaced Leak Barrier and WeatherWatch® XT Mat Surfaced Leak Barrier shall not be left exposed for longer than **30-days** after installation.

VersaShield® Fire-Resistant Roof Deck Protection, Ruberoid® Mop Granule and Ruberoid® Mop Granule FR shall not be left exposed for longer than **180-days** after installation.

5.8 Tile Slippage Limitations (TAS 103 per FRSA/TRI April 2012 (04-12)):

When loading roof tiles on the underlayment in direct-deck tile assemblies, the maximum roof slope shall be as follows. These slope limitations can only be exceeded by using battens during loading of the roof tiles.

TABLE 2: TILE SLIPPAGE LIMITATIONS FOR DIRECT-DECK TILE INSTALLATIONS			
Underlayment	Tile Profile	Staging Method	Maximum Slope
Ruberoid® Mop Granule	Flat	Max. 10-tile stack	4:12
	Flat	Max. 6-tile stack (4 over 2)	5:12
	Lugged	Max. 10-tile stack	5:12
Ruberoid® Mop Granule FR	Flat or Lugged	Max. 6-tile stack (4 over 2)	5:12
	Lugged	Max. 10-tile stack	4:12

6. INSTALLATION:

- 6.1 **GAF Roof Underlayments** shall be installed in accordance with **GAF** published installation instructions subject to the Limitations set forth in Section 5 herein and the specifics noted below.
- 6.2 Re-fasten any loose decking panels, and check for protruding nail heads. Sweep the substrate thoroughly to remove any dust and debris prior to application, and prime the substrate (if applicable).
- 6.3 Install self-adhering underlayments when ambient temperatures are minimum 45°F and rising.
- 6.4 All metal surfaces shall be primed with **Matrix™ 307 Premium Asphalt Primer** or alternate **GAF** accepted **ASTM D41** primer prior to application of self-adhering membranes.

6.5 VersaShield® Fire-Resistant Roof Deck Protection:

- 6.5.1 Shall be installed in compliance with the codified requirements for **ASTM D6757** underlayment in **FBC Table 1507.1.1** for the type of prepared roof covering to be installed. No hammer tacks or staples are permitted.
- 6.5.2 Optional, or if required by the Authority Having Jurisdiction: Install a leak barrier of **Liberty™ SBS Self-Adhering Base/Ply Sheet; StormGuard® Film Surfaced Leak Barrier; UnderRoof™ HT High Temperature Leak Barrier; WeatherWatch® Mineral Surfaced or WeatherWatch® XT Mat Surfaced Leak Barrier** at vulnerable leak areas, including but not limited to eaves, valleys, rakes, skylights and dormers. At eaves and valleys, install the leak barrier prior to installation of the underlayment. Along the rake, install the underlayment, leaving 6 to 8-inch of the deck exposed, and then install the leak barrier over the underlayment and exposed decking. At other areas, install the leak barrier over the underlayment.

6.6 Liberty™ SBS Self-Adhering Base/Ply Sheet:

- 6.6.1 Shall be installed in compliance with the codified requirements for **ASTM D1970** underlayment in **FBC Table 1507.1.1** for the type of prepared roof covering to be installed.
- 6.6.2 The minimum and maximum roof slopes are ½:12 and 6:12, respectively. Back-nailing is required when slope is 1:12 or greater. Back-nailing shall consist of minimum 1-inch square or round cap nails spaced 18" o.c. within 3-inch side laps.
- 6.6.3 Non-Tile Applications:
 Shall be fully self-adhered to the substrates noted in **Section 5.6**. For direct-bond to deck applications plywood shall be primed with **Matrix™ 307 Premium Asphalt Primer** or alternate **GAF** accepted **ASTM D41** primer at ½ to ¾ gallon per square.
 Prior to removal of release film, align sheets properly starting at the low-point of the roof (eave) with the selvage edge upslope and for minimum 2-inch overhang at eaves and rakes. Roll out sheet and allow to 'relax' for min. 30 minutes. Remove the lower piece of release film and bond to substrate and fold the overhanging 2-inch over the eave and nail into place 12" o.c. Remove the top piece of release film and bond to substrate. Install primed drip edge and fasten to meet **FBC Chapter 16** wind load requirements. Install 1/8-inch troweling of **Matrix™ 201 Premium SBS Flashing Cement** over drip edge.
 Continue upslope in a similar manner, maintaining minimum 3-inch side-laps and minimum 6-inch end-laps. Ensure all end laps are staggered at least 18-inch apart.
 Use a weighted lawn or linoleum roller to ensure complete adhesion to the substrate. Use a hand roller to firmly bond side and end laps.

6.7 StormGuard® Film Surfaced Leak Barrier:

6.7.1 Shall be installed in compliance with the codified requirements for **ASTM D1970** underlayment in **FBC Table 1507.1.1** for the type of prepared roof covering to be installed.

6.7.2 Back-nailing is required. Back-nailing shall consist of minimum 1-inch square or round cap nails spaced 18" o.c. within 3-inch side laps.

6.7.3 Non-Tile Applications:

Shall be fully self-adhered to the substrates noted in **Section 5.6**. Prior to removal of release film, align sheets properly starting at the low-point of the roof (eave) with the selvage edge upslope and for minimum 2-inch overhang at eaves and rakes. Remove the lower piece of release film and bond to substrate and fold the overhanging 2-inch over the eave and nail into place 12" o.c. Remove the top piece of release film and bond to substrate. Install primed drip edge and fasten to meet **FBC Chapter 16** wind load requirements. Install 1/8-inch troweling of **Matrix™ 201 Premium SBS Flashing Cement** over drip edge.

Continue upslope in a similar manner, maintaining minimum 3-inch side-laps and minimum 6-inch end-laps. Ensure all end laps are staggered at least 18-inch apart.

Use a hand roller to firmly bond side and end laps.

6.8 UnderRoof™ HT High Temperature Leak Barrier:

6.8.1 Shall be installed in compliance with the codified requirements for **ASTM D1970** underlayment in **FBC Table 1507.1.1** for the type of prepared roof covering to be installed.

6.8.2 The minimum and maximum roof slopes are 1:12 and 12:12, respectively. Back-nailing is required when slope is 4:12 or greater. Back-nailing shall consist of minimum 1-inch square or round cap nails spaced 12" o.c. within 4-inch side laps.

6.8.3 Non-Tile Applications:

Shall be fully self-adhered to the substrates noted in **Section 5.6**. Prior to removal of release film, align sheets properly starting at the low-point of the roof (eave) with the selvage edge upslope and for minimum 2-inch overhang at eaves and rakes. Remove the lower piece of release film and bond to substrate and fold the overhanging 2-inch over the eave and nail into place 12" o.c. Remove the top piece of release film and bond to substrate. Install primed drip edge and fasten to meet FBC Chapter 16 wind load requirements. Install 1/8-inch troweling of TopCoat® FlexSeal™ Caulk Grade over drip edge.

Continue upslope in a similar manner, maintaining minimum 4-inch side-laps and minimum 6-inch end-laps. Ensure all end laps are staggered at least 3-feet apart.

Use a hand roller to firmly bond side and end laps.

6.9 WeatherWatch® Mineral Surfaced Leak Barrier or WeatherWatch® XT Mat Surfaced Leak Barrier:

- 6.9.1 Shall be installed in compliance with the codified requirements for **ASTM D1970** underlayment in **FBC Table 1507.1.1** for the type of prepared roof covering to be installed.
- 6.9.2 **WeatherWatch® Mineral Surfaced Leak Barrier** may be installed as a secondary water barrier using minimum 4-inch wide rolls to seal plywood deck joints prior to installation of the primary underlayment system.
- 6.9.3 Back-nailing is required. Back-nailing shall consist of minimum 1-inch square or round cap nails spaced 18" o.c. within 4-inch side laps.
- 6.9.4 Non-Tile Applications:
 Shall be fully self-adhered to the substrates noted in **Section 5.6**. Prior to removal of release film, align sheets properly starting at the low-point of the roof (eave) with the selvage edge upslope and for minimum 2-inch overhang at eaves and rakes. Remove the lower piece of release film and bond to substrate and fold the overhanging 2-inch over the eave and nail into place 12" o.c. Remove the top piece of release film and bond to substrate. Install primed drip edge and fasten to meet **FBC Chapter 16** wind load requirements. Install 1/8-inch troweling of **Matrix™ 201 Premium SBS Flashing Cement** over drip edge.
 Continue upslope in a similar manner, maintaining minimum 3-inch side-laps and minimum 6-inch end-laps. Ensure all end laps are staggered at least 18-feet apart.
 Use a hand roller to firmly bond side and end laps.

6.10 Ruberoid® Mop Granule; Ruberoid® Mop Granule FR:

- 6.10.1 **Ruberoid® Mop Granule** or **Ruberoid® Mop Granule FR** shall be installed in compliance with current **GAF** published installation requirements.
- 6.10.2 For use in tile applications, **Ruberoid® Mop Granule** or **Ruberoid® Mop Granule FR** are for use as an alternate to "Mineral Surface Roll Roofing" (ASTM D6380, Class M) in the "Single Ply System" from **FRSA/TRI April 2012 (04-12)** beneath mechanically fastened tile roof systems or the Hot Asphalt applied "Cap Sheet" in the "Two Ply System" from **FRSA/TRI April 2012 (04-12)** beneath mechanically fastened or adhered tile roof systems.
- 6.10.3 Fully adhere in **ASTM D312**, Type IV hot-asphalt to the substrates noted in **Section 5.6**. Side laps shall be minimum 4-inch and end-laps minimum 6-inch wide, and offset end-laps minimum 3-feet from course to course. Side and end-laps shall be fully adhered in a complete mopping of hot asphalt with asphalt extending approximately 3/8-inch beyond the lap edge.
- 6.10.4 Consult **GAF** instructions regarding back-nailing requirements.

6.11 Tile Staging (Ruberoid® Mop Granule; Ruberoid® Mop Granule FR):

- 6.11.1 Tile shall be loaded and staged in a manner that prevents tile slippage and/or damage to the underlayment. Refer to **Table 2** herein, and **GAF** published requirements for tile staging.
- 6.11.2 Battens and/or Counter-battens, as required by the tile manufacturer and **FRSA/TRI April 2012 (04-12)** must be used on all roof slopes greater than 7:12. Precautions should be taken as needed, such as the use of battens or nail-boards, to prevent tile sliding and/or damage to the underlayment during the loading process.

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 noted QA agency for information on product locations covered for **F.A.C. 61G20-3** QA requirements. The following plants have qualified products under their respective physical properties specifications.

Plant	Specification	Product(s)
Conover, NC	ASTM D6757	VersaShield® Fire-Resistant Roof Deck Protection
Mt. Vernon, IN	ASTM D1970	Liberty™ SBS Self-Adhering Base/Ply Sheet; StormGuard® Film Surfaced Leak Barrier; WeatherWatch® Mineral Surfaced Leak Barrier
North Branch, NJ	ASTM D1970	UnderRoof™ HT High Temperature Leak Barrier; WeatherWatch® Mineral Surfaced Leak Barrier; WeatherWatch® XT Mat Surfaced Leak Barrier
Savannah, GA	ASTM D1970	StormGuard® Film Surfaced Leak Barrier; WeatherWatch® Mineral Surfaced Leak Barrier
	ASTM D6164	Ruberoid® Mop Granule; Ruberoid® Mop Granule FR

9. QUALITY ASSURANCE ENTITY:

UL, LLC. – QUA9625; (847) 664-3281

- END OF EVALUATION REPORT -

Application Instructions

Timberline HD[®], Timberline[®] Natural Shadow[®], Timberline Ultra HD[®],
Timberline[®] Cool Series, Timberline[®] American Harvest[™]

Updated: 9/15



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INSTALLATION INSTRUCTIONS · INSTRUCCIONES DE INSTALACIÓN · INSTRUCTIONS D'INSTALLATION

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GENERAL INSTRUCTIONS

- **SAFETY DATA SHEETS:** When using GAF products, e.g., shingles, underlayments, plastic cement, etc., please refer to the applicable SDS. The most current versions are available at gaf.com. GAF does not provide safety data sheets or installation instructions for products not manufactured by GAF. Please consult the material manufacturer for their SDS and installation instructions where appropriate.
- **ROOF DECKS:** Use minimum 3/8" (10mm) plywood or OSB decking as recommended by APA-The Engineered Wood Assn. Wood decks must be well-seasoned and supported having a maximum 1/8" (3mm) spacing, using minimum nominal 1" (25mm) thick lumber, a maximum 6" (152mm) width, having adequate nail-holding capacity and a smooth surface. Do NOT fasten shingles directly to insulation or insulated deck unless authorized in writing by GAF. Roof decks and existing surfacing material must be dry prior to application of shingles.
- **UNDERLAYMENT (LEAK BARRIER):** Install GAF leak barrier at the eaves in localities where leaks may be caused by water backing up behind ice or debris dams.
- **UNDERLAYMENT (ROOF DECK PROTECTION):** Underlayment beneath shingles has many benefits, including helping to prevent wind-driven rain from reaching the interior of the building and to prevent sap in some wood decking from reacting with asphalt shingles. When an underlayment is installed, use a breather-type underlayment, such as GAF Shingle-Mate® or Deck-Armor™ underlayments. GAF Tiger Paw™ underlayment, with its moisture control design, can also be used. Always have a design professional review ventilation requirements when using a moisture control design underlayment. Underlayment is also required by many code bodies and is required to maintain the shingles' UL Class A fire rating. When using FeltBuster™ High-Traction Synthetic Roofing Felt as underlayment, it MUST be installed over one layer of VersaShield® Fire-Resistant Roof Deck Protection in order to maintain a Class A fire rating for GAF asphalt shingles.
- **FASTENERS:** Use only zinc-coated steel or aluminum, 10-12 gauge, barbed, deformed, or smooth shank roofing nails with heads 3/8" (10mm) to 7/16" (12mm) in diameter. Fasteners should be long enough to penetrate at least 3/4" (19mm) into wood decks or just through the plywood decks. Fasteners must be driven flush with the surface of the shingle. Overdriving will damage the shingle. Raised fasteners will interfere with the sealing of the shingles and can back out.
- **ASPHALT PLASTIC CEMENT:** Use asphalt plastic cement conforming to ASTM D4586 Type I or II.
- **WIND RESISTANCE/HAND SEALING:** These shingles have a special thermal sealant that firmly bonds the shingles together after application when exposed to sun and warm temperatures. Shingles installed in fall or winter may not seal until the following spring. If shingles are damaged by winds before sealing or are not exposed to adequate surface temperatures, or if the self-sealant gets dirty, the shingles may never seal. Failure to seal under these circumstances results from the nature of self-sealing shingles, and is not a manufacturing defect. If shingles are to be applied during PROLONGED COLD periods or in areas where airborne dust or sand can be expected before sealing occurs, the shingles MUST be hand sealed. See Nailing Instructions / Hand Sealing.
- **MANSARD AND STEEP SLOPE APPLICATIONS:** For roof slopes greater than 21° per foot (1750mm/m), shingle must be hand sealed. DO NOT use on vertical side walls.
- **RELEASE FILM:** Plastic film strips are present either on the back or face of each shingle. The film strips are to prevent shingles from sticking together while in the bundle. Do not remove the film strip before or during the application.
- **THROUGH VENTILATION:** For optimal shingle life and to help prevent mold growth, all roof structures must have through ventilation to prevent entrapment of moisture-laden air behind roof sheathing. Ventilation must be designed to meet or exceed current F.H.A., H.U.D., or local code minimum requirements. Note: Minimum net free ventilation area of 1 sq. foot per 150 sq. feet (1 sq. meter per 150 sq. meters) of ceiling area is required. When vents are located at the eaves and near the roof's peak (balanced) for maximum air flow, ventilation may be reduced to 1 sq. foot per 300 sq. feet (1 sq. meter per 300 sq. meters).
- **EXPOSED METAL:** Paint all exposed metal surfaces (flashing, vents, etc.) with matching GAF Shingle-Match™ roof accessory paint for best appearance.
- **NOTE:** All drawings not drawn to scale.

INSTRUCCIONES GENERALES

- **HOJAS DE DATOS DE SEGURIDAD (SDS):** Cuando utilice los productos de GAF, tales como tejas, bases de pisos, cemento plástico, etc., consulte las SDS correspondientes. Las versiones más actuales están disponibles en es.gaf.com. GAF no proporciona hojas de datos de seguridad ni instrucciones de instalación para productos que no sean fabricados por GAF. Consulte al fabricante del material para sus SDS e instrucciones de instalación según corresponda.
- **PLATAFORMAS BASE DE TECHOS:** Use una plataforma base de 3/8" (10mm) de madera terciada u madera aglomerada orientada (OSB por sus siglas en inglés) como mínimo según lo recomendado por la Asociación Americana de Madera Terciada (APA por sus siglas en inglés). Las cubiertas de madera deben estar bien preparadas y apoyadas, con un espacio máximo de 1/8" (3mm), con un espesor mínimo nominal de 1" (25mm), con un ancho máximo de 6" (152mm), y una capacidad de retención de clavos adecuada y una superficie suave. NO asegure las tejas directamente al aislante o a la plataforma base aislada a menos que sea autorizado por escrito por GAF. Las plataformas base de techo y material de superficie existentes deben estar secas antes de la aplicación de las tejas.
- **CAPA BASE (barrera contra goteras):** Instale barrera de filtraciones de GAF en los aleros en lugares donde el estancamiento de agua detrás de hielo o desechos podría causar filtraciones.
- **CAPA BASE (PROTECCIÓN PARA CUBIERTAS DE TECHOS):** La capa base debajo de las tejas tiene muchos beneficios, incluyendo el ayudar a evitar que la lluvia arrastrada por el viento alcance el interior del edificio y evitar que la savia de algunas plataformas de madera reaccione con las tejas asfálticas. Donde vaya a instalar una capa base, use una de tipo respirable como las capas base ShingleMate® o Deck-Armor™ de GAF. También se puede utilizar la capa base Tiger Paw™ de GAF, con su diseño de control de la humedad. Siempre pida a un profesional en diseño que revise los requisitos de ventilación cuando utilice una capa base con diseño de control de la humedad. La capa base también es requerida por muchos códigos de construcción para mantener la calificación Clase A de UL contra incendios. Cuando utilice el Fieltro Sintético De Alta Tracción FeltBuster™ Para Techos como capa base, DEBE instalarse sobre una capa de Protección de la Cubierta del Techo Ignífuga VersaShield® con el fin de mantener una clasificación Clase A contra incendios para las tejas asfálticas GAF.

- **SUJETADORES:** Use sujetadores clavos de techo de acero o aluminio galvanizados, de calibre 10-12, arponados, deformados o con espiga suave con cabezas de 3/8" (10mm) a 7/16" (12mm) de diámetro. Los sujetadores deben ser suficientemente largos como para penetrar al menos 3/4" (19mm) en las plataformas base de techos o apenas a través de las plataformas base de madera terciada. Los sujetadores deben ser clavados a nivel con la superficie de la teja. Clavar en exceso puede dañar la teja. Los clavos sobresalientes interferirán con el sellado de las tejas, y pueden doblarse hacia atrás.
- **CEMENTO PLÁSTICO ASFÁLTICO:** Use cemento plástico asfáltico conforme a los Tipos I o II de ASTM D4586.
- **RESISTENCIA AL VIENTO / SELLADO A MANO:** Estas tejas tienen un sellador térmico especial que firmemente une las tejas entre sí después de la aplicación, cuando quedan expuestas al sol y a temperaturas cálidas. Las tejas instaladas en otoño o invierno pueden no sellar hasta la primavera siguiente. Si las tejas son dañadas por los vientos antes de sellar o no son expuestas a temperaturas de superficie adecuadas, o si el auto-sellante se ensucia, las tejas podrían no sellar jamás. La imposibilidad de sellar bajo estas circunstancias resulta de la naturaleza de las tejas auto-sellantes y no es un defecto de fábrica. Si las tejas deben ser aplicadas durante períodos PROLONGADOS DE FRÍO o en áreas donde se puede esperar la presencia de polvo o arena en el aire antes que el sellado ocurra, las tejas DEBEN ser selladas a mano. Ver instrucciones de clavado/sellado a mano.
- **APLICACIONES EN BUHARDILLAS Y PENDIENTES ESCARPADAS:** Para pendientes de techos superiores a las 21" por pie (1750mm/m), la teja debe ser sellada a mano. NO usar en paredes laterales verticales.
- **PELICULA SEPARADORA:** Las tiras separadoras de plástico están presentes o bien en la parte posterior o en la cara de cada teja. Las tiras separadoras sirven para evitar que las tejas se peguen entre sí estando en el manojo. No retire la banda de película antes o durante la aplicación.
- **VENTILACIÓN PASANTE:** Para la vida útil óptima de las tejas y para ayudar a prevenir el crecimiento de moho, todas las estructuras del techo deben tener ventilación continua para evitar el atrapamiento de aire cargado de humedad detrás del revestimiento del techo. La ventilación debe estar diseñada para cumplir o exceder los requerimientos mínimos actualizados de la F.H.A., H.U.D. o los requerimientos de códigos locales. Nota: Se requiere un área mínima de ventilación libre de red de 1 pie cuadrado por cada 150 pies cuadrados (1 metro cuadrado por cada 150 metros cuadrados) de cielorraso. Cuando las ventilaciones estén colocadas en los aleros y cerca del pico del techo (balanceadas) para un máximo flujo de aire, la ventilación puede reducirse a 1 pie cuadrado por cada 300 pies cuadrados (1 metro cuadrado por cada 28 metros cuadrados).
- **METAL EXPUESTO:** Pinte todas las superficies de metal expuesto (vierteaguas, ventilaciones, etc.) con la pintura de accesorio para techos GAF ShingleMatch™ para una mejor apariencia.
- **NOTA:** Las ilustraciones no están hechas a escala.

INSTRUCTIONS GÉNÉRALES

- **FICHE DONNÉES DE DONNÉES DE PRODUIT:** Quand vous utilisez des produits GAF, comme des bardeaux, des membranes de protection, du ciment plastique, etc., veuillez vous référer à la fiche signalétique de données de produit. Les versions les plus à jour sont disponibles sur le site fr.gaf.ca. GAF ne fournit pas de fiche signalétique de données de produit ni d'instructions d'installation pour des produits qui ne sont pas fabriqués par GAF. Veuillez consulter le fabricant du matériau pour leur fiche signalétique de données de produit et les instructions d'installation au besoin.
- **PLATELAGES DE TOIT:** Utiliser du plâlage en contreplaqué ou en OSB d'un minimum de 10mm (3/8po) tel que recommandé par APA - The Engineered Wood Assn. Les plâtages en bois doivent être bien asséchés et supportés et avoir un espacement minimum de 1/8po (3mm), être construits avec du bois d'oeuvre d'une largeur nominale minimale de 1po (25mm) d'épaisseur, une largeur maximale de 6po (152mm) ayant une capacité de support des clous adéquate ainsi qu'une surface lisse. NE pas fixer les bardeaux directement sur l'isolant ou sur des plâtages isolés sauf si autorisé par écrit par GAF. Les plâtages de toit et les matériaux de surface existants doivent être secs avant l'application de bardeaux.
- **MEMBRANE DE PROTECTION (PARE-FUITE):** Installer du pare-fuite de GAF aux avant-toits dans les localités où des fuites pourraient être causées par de l'eau qui s'accumulerait derrière des amoncellements de débris ou de glace.
- **MEMBRANE DE PROTECTION (PROTECTION DE PLATELAGE DE TOIT):** La membrane de protection sous les bardeaux comporte plusieurs avantages, notamment le fait de contribuer à empêcher la pluie portée par le vent de pénétrer à l'intérieur du bâtiment et d'empêcher la sève contenue dans certains plâtages en bois de réagir avec les bardeaux d'asphalte. Là où une feuille de protection sera utilisée, utiliser une feuille de protection qui respire comme Shingle-Mate^{MD} ou Deck-Armor^{MC} de GAF. La membrane de protection Tiger Paw^{MC} GAF avec son design de contrôle d'humidité peut aussi être utilisée. Assurez-vous toujours qu'un professionnel du design révisé les exigences en ventilation lors de l'utilisation d'une membrane de protection au design à contrôle d'humidité. Une feuille de protection est aussi exigée par plusieurs corps réglementaires et est requise pour maintenir un classement de résistance au feu de Classe A. Lors de l'utilisation de Feutre À Toiture Synthétique Adhérent FeltBuster^{MC} comme membrane de protection, DOIT être installé sur une couche de Protection de Plâlage de Toit Résistant au Feu VersaShield^{MD} afin de maintenir une cote de résistance au feu de Classe A pour les bardeaux d'asphalte GAF.
- **ATTACHES/FIXATIONS:** Utiliser uniquement des clous en acier galvanisé ou en aluminium, de calibre 10-12, à tige indentée, déformés ou des clous à toiture à tige lisse avec des têtes de 10mm à 12mm (3/8po - 7/16po) de diamètre. Les clous doivent être assez longs pour pénétrer d'au moins 19mm (3/4po) dans le plâlage du toit ou juste au travers du plâlage du toit. Les clous doivent être entraînés à effleurement avec la surface du bardeau. Trop les enfoncer endommagera le bardeau. Les clous relevés vont interférer avec la résistance aux vents des bardeaux.
- **CIMENT PLASTIQUE ASPHALTÉ:** Utiliser du ciment plastique asphalté qui est conforme à ASTM D4586 Type I ou II.
- **RÉSISTANCE AUX VENTS / SCÈLEMENT À LA MAIN:** Ces bardeaux offrent un scellant thermique spécial qui colle fermement les bardeaux ensemble après application lorsque exposés au soleil et aux températures chaudes. Les bardeaux installés en automne ou en hiver peuvent ne pas sceller avant le printemps suivant. Si les bardeaux sont endommagés par les vents avant le scèlement ou qu'ils ne sont pas exposés à des températures de surface adéquates, ou si l'auto-scèlement est sale, les bardeaux peuvent ne jamais se sceller. Le manquement à sceller dans de telles circonstances résulte de la nature même des bardeaux autoadhésifs et non pas d'un vice de fabrication. Si des bardeaux doivent être appliqués durant des périodes de FROID PROLONGÉ ou dans des endroits où la poussière dans l'air peut être anticipée avant le scèlement, les bardeaux DOIVENT être scèlés à la main. Voir les instructions de Clouage / Scèlement à la main.
- **APPLICACIONES AUX MANSARDES ET AUX PENTES FORTES:** Pour des pentes de toiture de plus de 1750mm/m (21po par pied, le bardeau doit être scèlé à la main. Ne PAS utiliser sur des murs verticaux.
- **PELLICULE DE DÉGAGEMENT:** Les bandes de pellicule de plastique sont présentes tant au verso ou à l'endos de chaque bardeau. Les bandes de film sont destinées à empêcher les bardeaux de s'agglutiner les uns aux autres lorsqu'ils sont groupés par lot. Ne pas retirer la bande de pellicule avant ou durant l'application.
- **AÉRATION DE BÂTIMENT:** Pour une durée de vie optimale du bardeau et pour aider à prévenir la croissance de moisissure, toutes les structures du toit doivent avoir suffisamment de ventilation pour prévenir l'emprisonnement d'air vicié humide derrière le plâlage de toit. La ventilation doit être conçue pour répondre ou dépasser les exigences actuelles des normes minimales F.H.A./H.U.D. ou celles associées au code local de construction. Remarque: Une surface de ventilation libre minimale de 1m² par 150m² (1pi² par 150pi²) de surface de plafond est requise. Lorsque les événements sont situés aux avant-toits et près du faite (dans une configuration bien équilibrée) pour un débit d'air maximum, la ventilation peut être réduite à 1m² par 300m² (1pi² par 300pi²).
- **MÉTAL EXPOSÉ:** Peindre toutes les surfaces en métal exposées (solin, événements, etc.) avec de la peinture pour accessoires ShingleMatch^{MC} GAF appariée pour une meilleure apparence.
- **REMARQUE:** Noter que toutes ces illustrations ne sont pas dessinées à l'échelle.

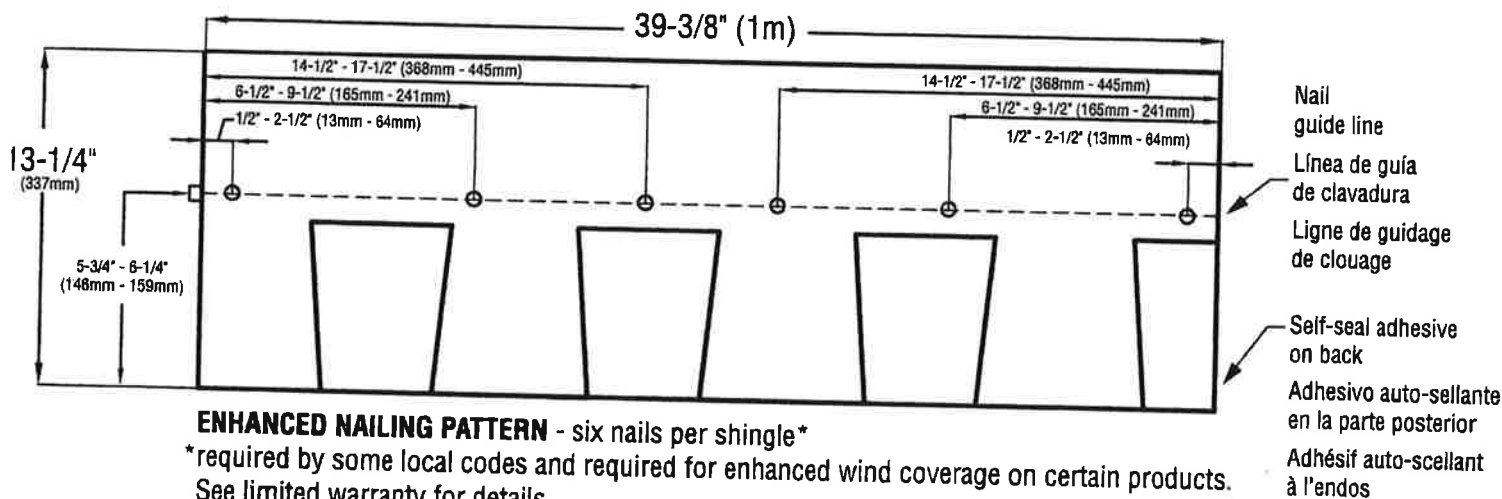
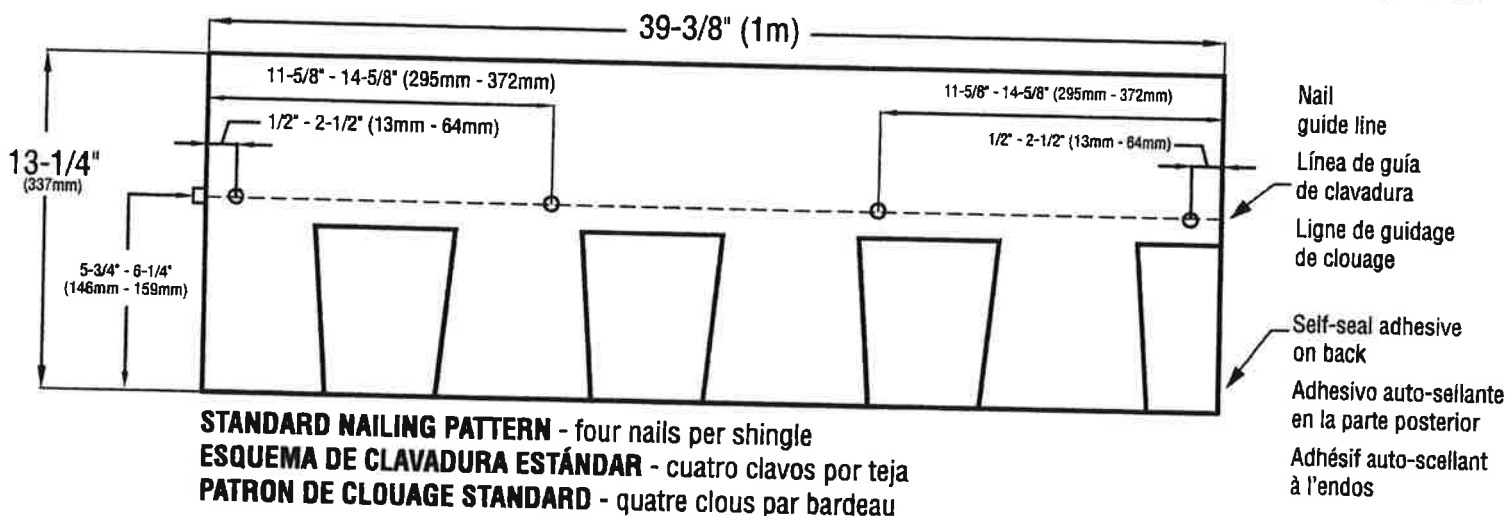
INSTRUCCIONES DE CLAVADURA / SELLADO A MANO

INSTRUCTIONS DE CLOUAGE / SCÉLLEMENT À LA MAIN

These shingles **MUST** be nailed a nominal 6" (152mm) from bottom of shingle, above the cut-outs, as shown. Nails must not be exposed. To hand-seal shingles and to insure immediate sealing, apply 4 quarter-sized dabs of shingle tab adhesive on the back of the shingle 1" (25mm) and 13" (330mm) in from each side and 1" (25mm) up from bottom of the shingle. Press shingle firmly into the adhesive. **CAUTION:** Apply **ONLY** a thin uniform layer of asphalt plastic cement less than 1/8" (3mm) thick. Excess amounts can cause blistering of the shingles and may soften the asphalt in underlayments and leak barriers, resulting in the asphalt dripping and staining.

Estas tejas **DEBEN** clavarse un nominal 6" (152mm) de la parte inferior de la teja, por encima de los recortes, como se muestra. Clavos no deben ser expuestos. Para entregar tejas sello y para asegurar sellado inmediato, aplica 4 toques suaves cuarto-calibrados de adhesivo de tabiilla en la espalda de la tabiilla 1" (25 mm) y 13" (330 mm) en de cada lado y 1" (25 mm) arriba de fondo de la tabiilla. Presione firmemente sobre el adhesivo. **ATENCIÓN:** Aplique **SOLAMENTE** una capa fina y uniforme de cemento asfáltico de plástico menos de 1/8"(3mm) de espesor. Cantidades excesivas puede causar ampollas de la culebrilla y puede ablandar el asfalto en las capas de base y las barreras de fugas, lo que resulta en el asfalto de goteo y las manchas.

Ces bardeaux **DOIVENT** être cloués à une distance nominale de 152mm (6po) de leur base, au-dessus des portions découpées, comme indiqué. Les clous ne doivent pas être exposés. Pour transmettre les bardeau le cachet et assurer sceller immédiat, appliquer 4 taches de quart-calibré d'adhésif d'étiquette de bardeau sur le dos du bardeau 1" (25 mm) et 13" (330 mm) en de chaque côté et 1" (25 mm) en haut du fond du bardeau. Pour assurer sceller immédiat, appuyer le bardeau fermement dans l'adhésif. **PRUDENCE:** S'appliquer **SEULEMENT** une couche uniforme mince d'asphalte ciment en plastique moins que 1/8" (3 mm) épais. Les quantités supplémentaires peuvent causer peler des bardeaux et peuvent amollir l'asphalte dans GAF underlayments et les barrières de fuite de GAF, avoir pour résultat l'asphalte qui dégoutte et tacher.



INSTALLING UNDERLAYMENT INSTALANDO LA CAPA BASE INSTALLATION DE LA MEMBRANE DE PROTECTION

UNDERLAYMENT: FOR ROOF SLOPES 2:12 TO LESS THAN 4:12

Application of eave flashing: At eaves and where ice dams can be expected, use one layer of GAF Leak Barrier. Eave flashing must not overhang the eave edge by more than 1/4" (6mm) and should extend 24" (610mm) beyond the inside wall line. Where ice dams or debris dams are not expected, install 2 plies of GAF Roof Deck Protection. **Application of underlayment:** Completely cover the deck with two layers of GAF Roof Deck Protection as shown. Use only enough nails to hold underlayment in place until covered by shingles.

CAPA BASE: PARA TECHOS CON PENDIENTES DE 2:12 A MENOS DE 4:12

Aplicación de vierteaguas para aleros: En los aleros y donde se pueda esperar la presencia de estancamientos de hielo, use una Capa de Barrera de Filtraciones de GAF. El vierteaguas para aleros no debe sobresalir el borde del techo más de 1/4" (6mm) y extenderse 24" (610mm) más allá de la línea interior de la pared. Donde no se esperen estancamientos de hielo o escombros, instale 2 pliegues de Protección de Plataformas Base de Techos de GAF. **Aplicación de capa base:** Cubra completamente la plataforma base con dos capas de Protección de Plataformas Base de Techos de GAF como se muestra. Use solamente la cantidad suficiente de clavos como para sostener la capa base en su lugar hasta que la haya cubierto con las tejas.

MEMBRANE DE PROTECTION: POUR PENTE DE TOIT DE 2:12 À MOINS DE 4:12

Application of solin d'avant-toit: Au niveau des avant-toits et aux endroits où les accumulations de glace peuvent survenir, veuillez utiliser une couche Pare-Fuite de GAF. Le solin d'avant-toit ne doit pas surplomber le rebord de l'avant-toit de plus de 1/4po (6mm) et doit s'étendre à plus de 24po (610mm) au-delà de la ligne du mur intérieur. Lorsque vous n'anticipez pas d'accumulation de glace ou de débris, veuillez installer 2 couches de Protection de Platelage de Toit GAF. **Application d'une membrane de protection:** Recouvrir complètement la plateforme du toit avec deux couches protection de platelage de toit GAF, tel que spécifié ci-contre. Utiliser suffisamment de clous pour maintenir en place la membrane de protection jusqu'à ce qu'elle soit recouverte de bardeaux.

Along rake, put non-corroding metal drip edge on top of GAF Roof Deck Protection.

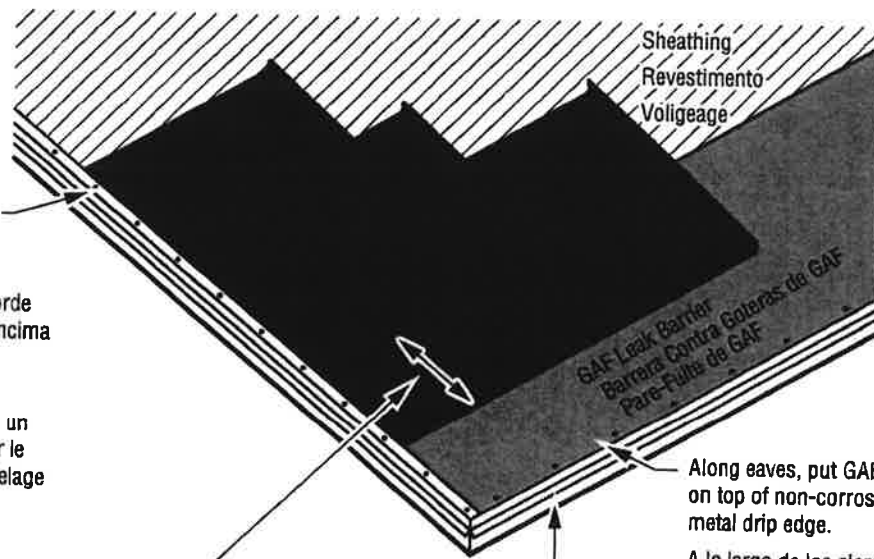
A lo largo del alero, coloque borde de goteo de metal inoxidable encima de la Protección de la Cubierta de Techo de GAF.

Au long de l'inclinaison, mettre un larmier en métal inoxydable sur le dessus de la Protection de Platelage de Toit GAF.

Exposure will vary depending on GAF Underlayment used. Follow application instructions on selected underlayment for proper exposure.

La exposición variará en función de la Capa Base de GAF utilizada. Siga las instrucciones de aplicación en la capa base seleccionada para una exposición adecuada.

Le pureau peut varier selon la Membrane de Protection GAF utilisée. Suivre les instructions d'application sur les membranes de protection sélectionnées pour le pureau adéquat.



Along eaves, put GAF Leak Barrier on top of non-corrosive metal drip edge.

A lo largo de los aleros, coloque la Barrera Contra Goteras de GAF sobre el borde de goteo de metal inoxidable.

Au long des avant-toits, mettre du Pare-Fuite de GAF sur le dessus du larmier en métal inoxydable.

Not more than 1/4" (6 mm) roof overhang
 No más que 1/4" (6 mm) techo sobresale por encima de
 Pas plus que 6 mm (1/4 po) le surplomb de toit

Application of eave flashing: At eaves and where ice dams can be expected, use one layer of GAF Leak Barrier. Eave flashing must extend 24" (610mm) beyond the inside wall line. **Application of underlayment:** Cover deck with one layer of GAF Roof Deck Protection installed without wrinkles. Use only enough nails to hold underlayment in place until covered by shingles.

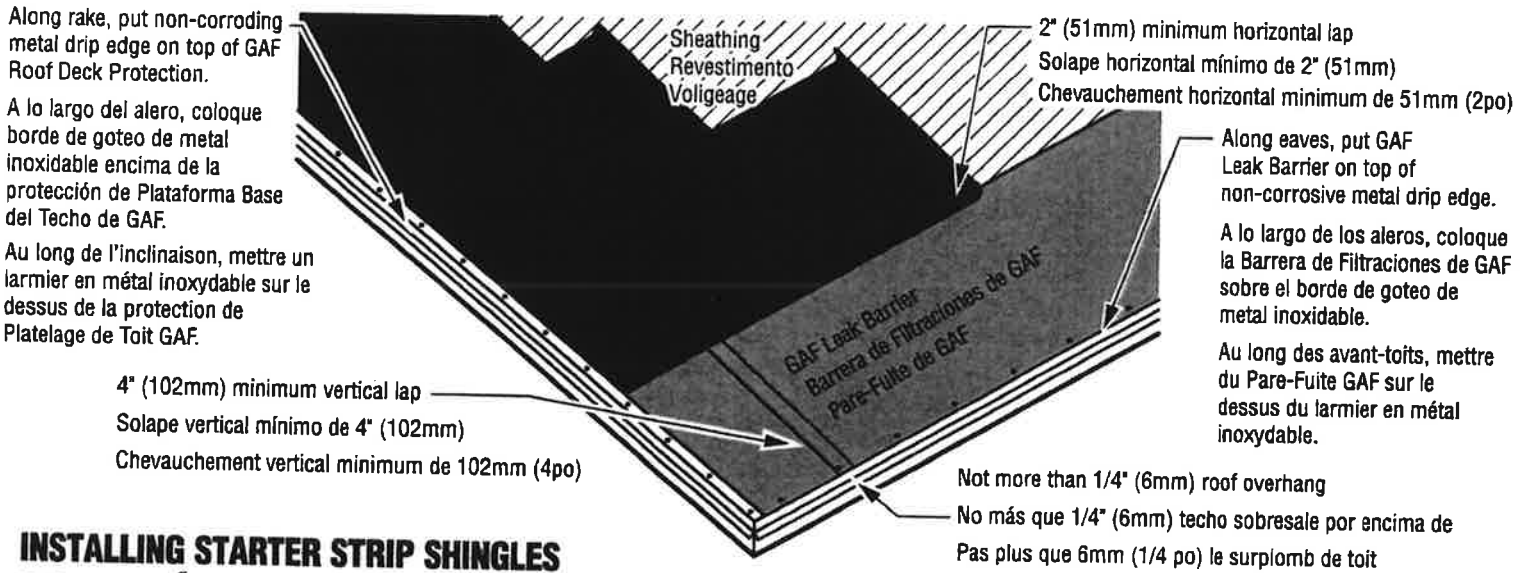
CAPA BASE: PARA TECHOS CON PENDIENTES DE 4:12 O MÁS

Aplicación de vierteaguas para aleros: En los aleros y donde se pueda esperar la presencia de estancamientos de hielo, use una Capa de Barrera de Filtraciones de GAF. El vierteaguas para aleros extenderse 24" (610mm) más allá de la línea interior de la pared.

Aplicación de capa base: Cubra la plataforma base con una capa de capa base de GAF instalada sin arrugas. Use solamente la cantidad suficiente de clavos como para sostener la capa base en su lugar hasta que la haya cubierto con las tejas.

MEMBRANE DE PROTECTION: FOR ROOF PENTES DE 4:12 OU PLUS

Application de solin d'avant-toit: Au niveau des avant-toits et aux endroits où les accumulations de glace peuvent survenir, veuillez utiliser une couche Pare-Fuite de GAF. Le solin d'avant-toit doit s'étendre de 24po (610mm) au-delà de la ligne du mur intérieur. **Application d'une membrane de protection:** Couvrir le platelage avec une couche de Protection de Platelage de Toit GAF installée sans plissement. Utiliser suffisamment de clous pour maintenir en place la membrane de protection jusqu'à ce qu'elle soit recouverte de bardeaux.



INSTALLING STARTER STRIP SHINGLES
INSTALACIÓN DE TEJAS DE HILADA INICIAL
INSTALLATION DES BARDEAUX DE BANDE DE DÉPART

STARTER COURSE

Use GAF starter strip shingles along the eaves and rake. Apply as shown. **NOTE:** GAF starter strip shingles are recommended at the rakes for best performance and required for enhanced warranty coverage on certain products (see limited warranties for details). Refer to application instructions for the selected starter strip shingles.

HILADA INICIAL

Use tejas de hilera inicial de GAF en los aleros. Aplicar como se muestra las inclinaciones. **NOTA:** Se recomienda usar tejas de hilera inicial de GAF en las inclinaciones para mejor rendimiento y se requiere para cobertura de la garantía contra el viento en ciertos productos (consulte la garantía limitada para detalles). Siga las instrucciones de aplicación de tejas de hilada inicial.

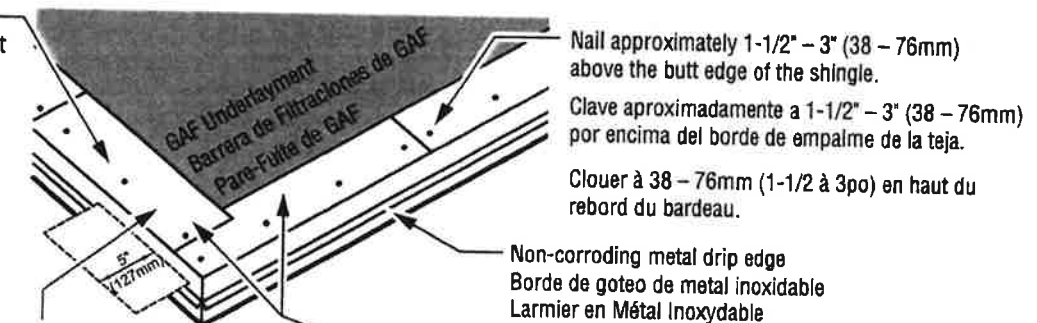
RANG DE DÉPART

Utiliser les bardeaux de bande de départ de GAF le long des avant-toits et inclinaison. Appliquer tel qu'indiqué. **REMARQUE:** Les bardeaux de bande de départ GAF sont recommandés aux inclinaisons pour une meilleure performance et sont requis pour une couverture de garantie accrue contre les vents sur certains produits (voir la garantie limitée pour les détails). Suivre les instructions d'application des bardeaux de bande de départ.

For maximum wind resistance along rakes, install any GAF Starter Strip shingles which contain sealant or cement shingles to underlayment and each other in a 4" (102mm) width of asphalt plastic cement.

Para máxima resistencia al viento a lo largo de las inclinaciones, instale cualquier teja de Hilada Inicial de GAF con conteniendo sellador o cemento las tejas a la capa base y entre sí en un ancho de 4" (102mm) de cemento plástico asfáltico.

Pour une résistance maximale contre les vents le long des inclinaisons, installer des bardeaux de Bande de Départ GAF avec scellant ou colle les bardeaux à la membrane de protection et l'un à l'autre dans une largeur de ciment plastique asphalé de 4po (102mm).



INSTALLACIÓN DE TEJAS

INSTALLATION DES BARDEAUX

FIRST COURSE

Shingle exposure should be 5-5/8" (143mm)

PRIMERA HILADA

La exposición de la tablilla debe ser 5-5/8" (143mm)

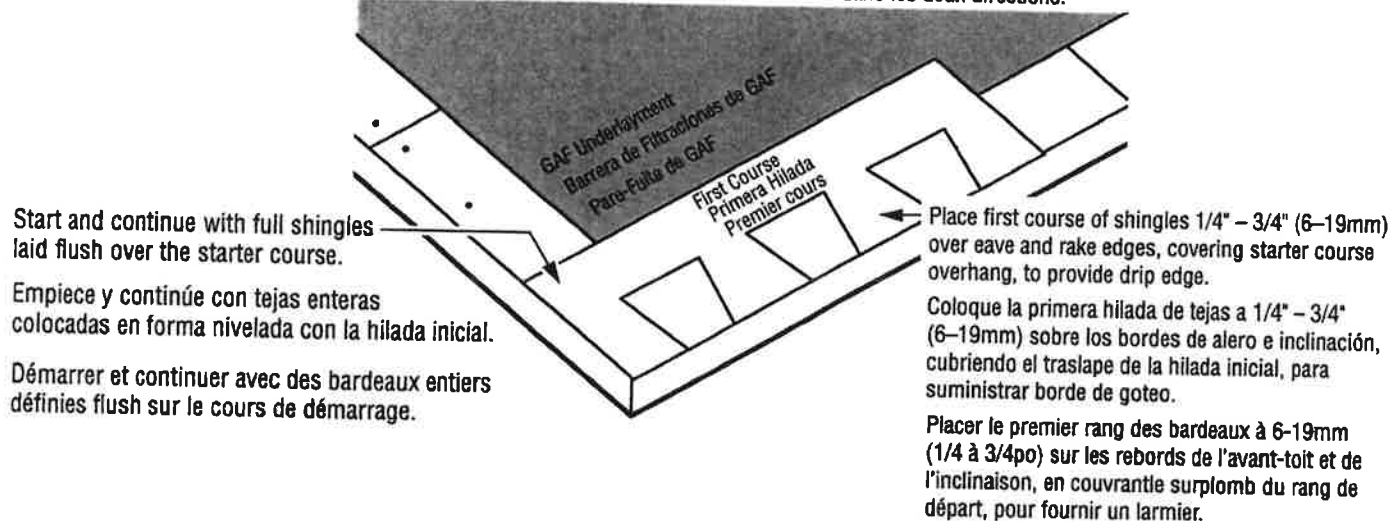
PREMIER RANG

L'exposition de bardeau devrait être 143mm (5-5/8po)

Start at either rake and lay in either direction.

Comience en cualquier inclinación y coloque en cualquier dirección.

Débuter à l'une ou l'autre des inclinaisons et étendre dans les deux directions.



Start and continue with full shingles laid flush over the starter course.

Empiece y continúe con tejas enteras colocadas en forma nivelada con la hilada inicial.

Démarrer et continuer avec des bardeaux entiers définies flush sur le cours de démarrage.

Place first course of shingles 1/4" - 3/4" (6-19mm) over eave and rake edges, covering starter course overhang, to provide drip edge.

Coloque la primera hilada de tejas a 1/4" - 3/4" (6-19mm) sobre los bordes de alero e inclinación, cubriendo el traslape de la hilada inicial, para suministrar borde de goteo.

Placer le premier rang des bardeaux à 6-19mm (1/4 à 3/4po) sur les rebords de l'avant-toit et de l'inclinaison, en couvrant le surplomb du rang de départ, pour fournir un larmier.

SECOND COURSE

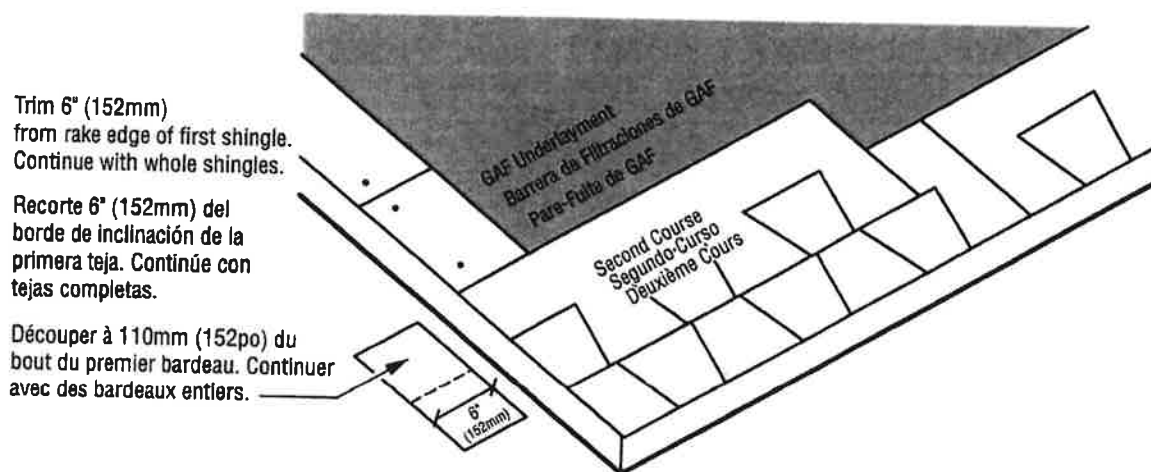
Position the shingles in the second and subsequent courses flush with the tops of the wide cut-outs. This results in a 5-5/8" (143mm) exposure.

SEGUNDA HILADA

Coloque las tejas en la segunda hilada y subsiguientes a ras con las partes superiores de los cortes amplios. Esto resulta en una exposición de 5-5/8" (143mm).

SECOND RANG

Positionner les bardeaux dans le second rang et les rangs subséquents à effleurement avec les dessus des larges découpes. Cela résulte en un pareau de 143mm (5-5/8po).



Trim 6" (152mm) from rake edge of first shingle. Continue with whole shingles.

Recorte 6" (152mm) del borde de inclinación de la primera teja. Continúe con tejas completas.

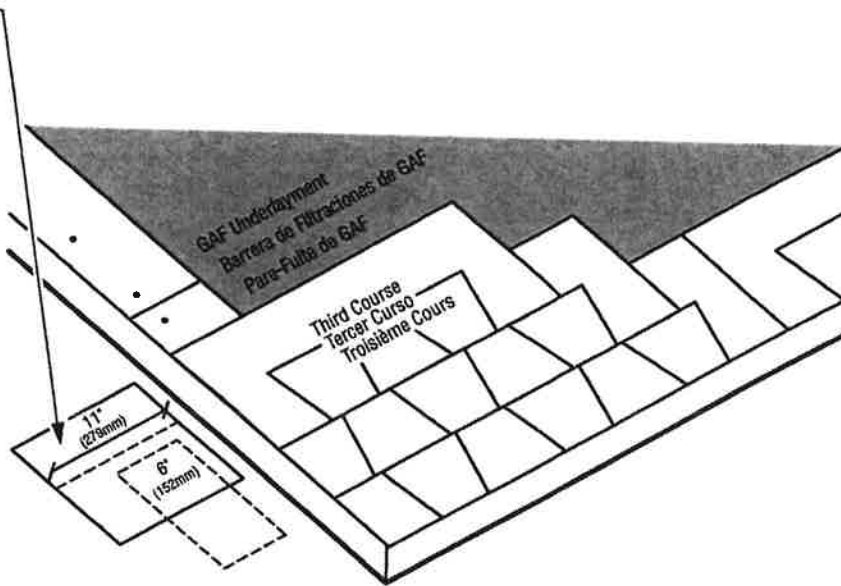
Découper à 110mm (152po) du bout du premier bardeau. Continuer avec des bardeaux entiers.

**THIRD COURSE
TERCERA HILADA
TROISIÈME RANG**

Trim 11" (279mm) from rake end of first shingle.

Recorte 11" (279mm) del borde de inclinación de la primera teja.

Découper à 279mm (11po) du bout du premier bardeau.



4TH COURSE AND REMAINING

Strike a chalk line about every 6 courses to check parallel alignment with eaves.

4TA. HILADA Y RESTANTES

Trace una línea de tiza aproximadamente cada 6 hiladas para controlar la alineación paralela con los aleros.

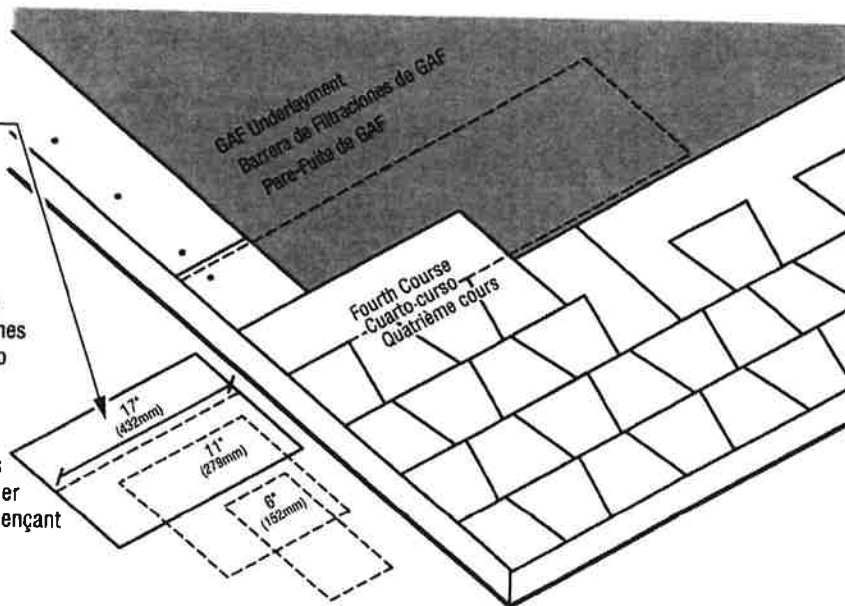
4ÈME RANG ET LES RANGS RESTANTS

Tracer une ligne de craie à environ tous les 6 rangs pour vérifier l'alignement en parallèle avec les avant-toits.

Trim 17" (432mm) from rake end of first shingle. Continue with whole shingles. Repeat the 1st - 4th course instructions on the remaining courses, starting the fifth course with a full shingle.

Recorte 17" (432mm) del lado que va al borde en la primera teja. Continúe con tejas completas. Repita de la 1ra a la 4ta instrucciones de hilada en las hiladas restantes, comenzando la quinta hilada con una teja completa.

Découper à 432mm (17po) de la fin de râteau de premier bardeau. Continuer avec des bardeaux entiers. Répéter les instructions du 1er au 4ème rang sur les rangs restants, en commençant au cinquième rang avec un bardeau entier.



INSTALACIÓN DE ACCESORIOS Y DETALLES DE TECHO

INSTALLATION DES PRODUITS ROOF ACCESSORIES ET DÉTAILS

VENTILATION

Install GAF ventilation products for optimal shingle life. See General Instructions and the "Through Ventilation" section. Follow the application instructions for the selected ventilation products.

VENTILACIÓN

Instale productos de ventilación de GAF para una óptima vida útil de la teja. Consulte las Instrucciones Generales y la sección "A Través de la Ventilación". Siga las instrucciones de aplicación de los productos de ventilación seleccionados.

VENTILATION

Installer des produits de ventilation GAF pour une durée de vie optimale. Voir les Instructions Générales dans la section «Aération de Bâtiment». Suivre les instructions d'application pour les produits de ventilation sélectionnés.

RIDGE CAP SHINGLES

Install GAF Ridge Cap Shingles following the application instructions shown on the GAF Ridge Cap Shingle wrapper. Position laps away from prevailing wind direction.

TEJAS DE CUMBRERA

Instale las Tejas de Cumbrera de GAF siguiendo las instrucciones de aplicación que figuran en el envoltorio de las Teja de Cumbrera de GAF. Coloque los solapes lejos de la dirección del viento predominante.

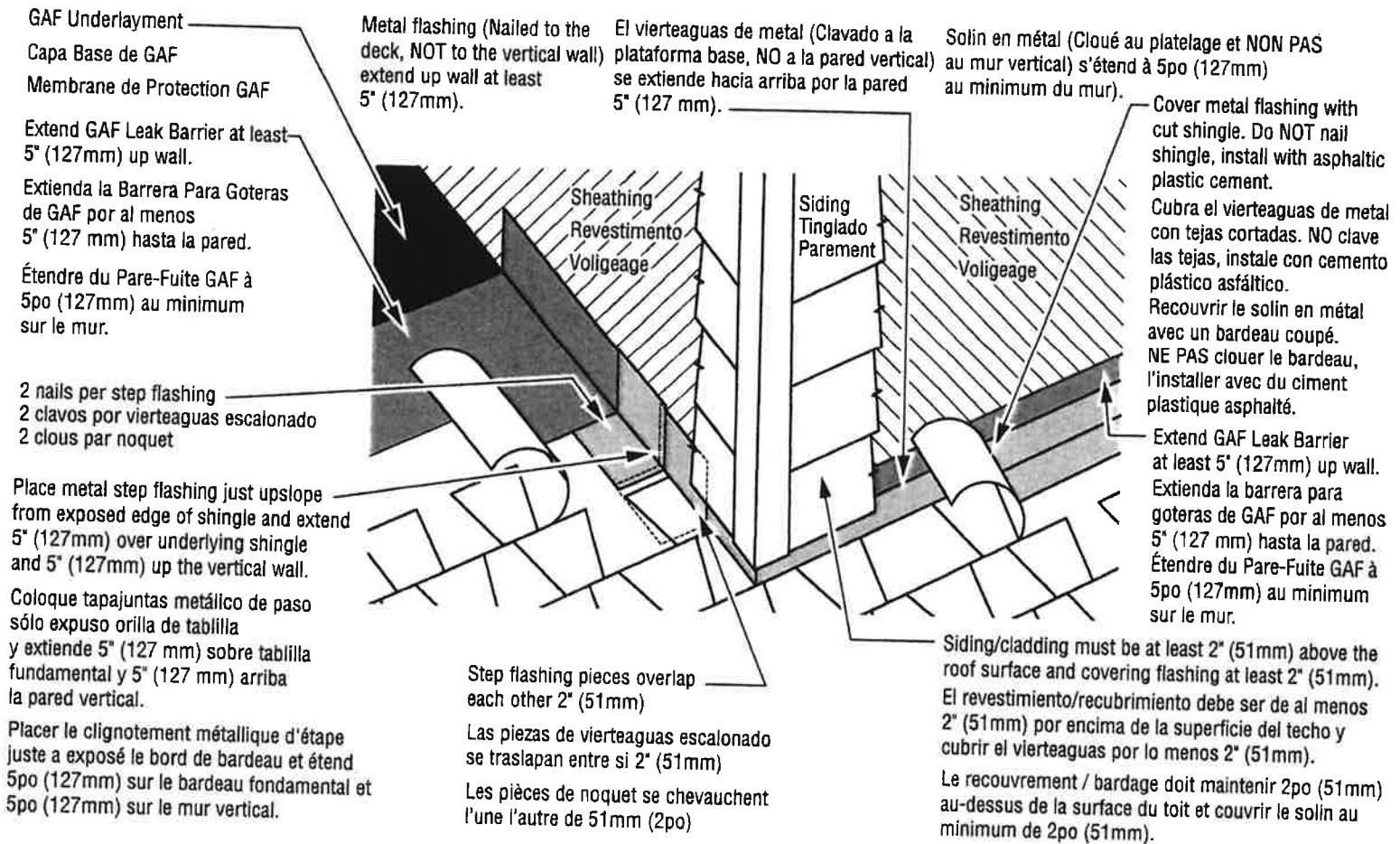
BARDEAUX DE FAÏTAGE

Installer des Bardeaux de Faïtage de GAF suivre les instructions d'installation montrées sur l'emballage des Bardeau de Faïtage de GAF. Positionner les chevauchements loin de direction des vents dominants.

WALL FLASHING (Sloped Roof to Wall)

VIERTEAGUAS DE PARED (Techo en Pendiente hacia la Pared)

SOLINS MURAUX (de Toit en Pente à Mur)



CHIMNEY FLASHING AND CRICKETS

Cover deck around chimney and over wood crickets with GAF Roof Deck Protection. DO NOT run GAF Roof Deck Protection up sides of chimney. Install leak barrier over GAF Roof Deck Protection and up sides of chimney at least 5" (127 mm). Install shop fabricated metal cricket flashings (shown) after underlayments are installed. Seal shingles to the metal flanges (see drawing below). Treat large wooden crickets like a separate roof and install valleys, shingles, hip and ridge shingles and step flashing.

VIERTEUAGAS DE CHIMENEA Y DESVIADOR

Cubra alrededor de la chimenea y sobre los desviadores en pino de madera con protección de plataforma de techos de GAF. NO coloque protección de plataforma base de techos de GAF por los laterales de la chimenea. Instale la barrera de filtraciones sobre la protección de plataforma de techos de GAF y a los costados de la chimenea a un mínimo de 5" (127mm). Instale los vierteaguas de los desviadores de metal fabricados (que se muestran) después de instalar las capas base. Selle las tejas a las bridas de metal (ver ilustración debajo). Trate los desviadores grandes de madera como un techo por separado e instale los valles, tejas, tejas de cumbreras y bordes y vierteaguas de paso.

SOLIN DE CHEMINÉE ET DOS D'ÂNE

Couvrir le platelage autour de la cheminée et sur les dos d'âne en bois avec de la protection pour platelage de toit de GAF. NE PAS faire courir de la protection de platelage de toit GAF sur les côtés de la cheminée. Installer du pare-fuite sur la protection de platelage de toit GAF et sur les côtés de la cheminée à un minimum de 5po (127mm). Installer des dos d'âne pour cheminée en métal fabriqués en usine (illustré) après que les membranes de protection soient installées. Sceller les bardeaux aux brides de métal (voir les illustrations ci-dessous). Traiter les gros dos d'âne en bois comme une toiture séparée et installer des noues, bardeaux, bardeaux de faitière et d'arêtiers et noquet.

Extend non-corroding metal counter flashing over base flashing.

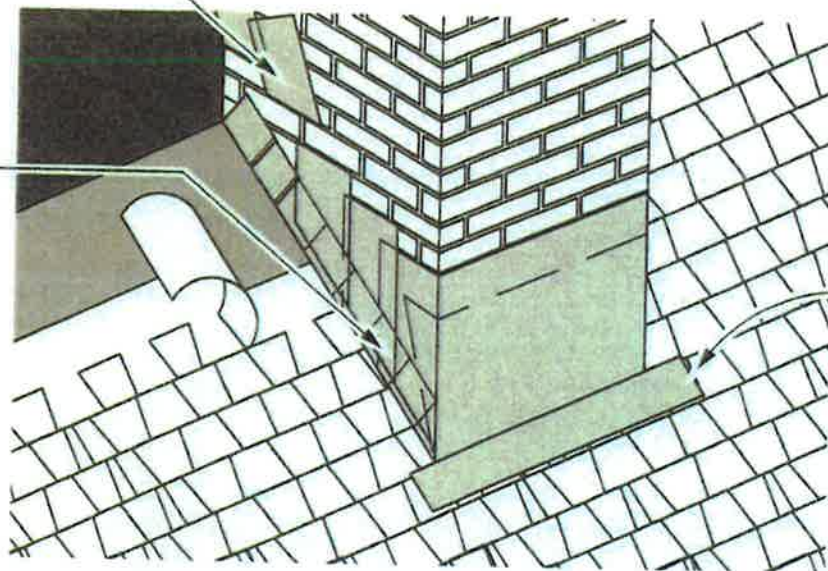
Extienda contravierteaguas de metalinoxidable sobre vierteaguas de base.

Etendre contre solin en metal inoxidable sur le solin de base.

Use one piece metal non-corroding step flashing for each course. Seal overlying shingles to step flashing with asphalt plastic cement.

Utilice un metal de pedazo tapajuntas no-corroendo de paso para cada curso. Selle tablillas que recubre para dar un paso destellar con asfalto cemento plástico.

Utiliser un métal de morceau clignotement d'étape non-corrodant pour chaque cours. Sceller des bardeaux recouvrir pour marcher clignoter avec l'asphalte ciment en plastique.

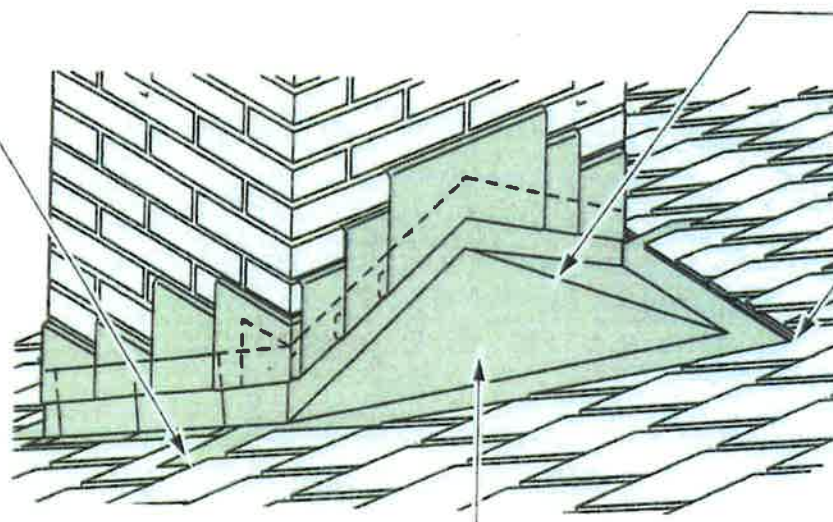


4" (102mm) min.
4" (102mm) min.
102mm (4po) min.

Seal shingles to metal flange with asphalt plastic cement.

Selle las tejas a la brida de metal con cemento del plástico del asfalto.

Sceller les bardeaux à la brida de métal avec du ciment de plastique d'asphalte.



Cricket ridge should be at least 12" (305mm).
El borde de los desviadores debe estar a por lo menos 12" (305 mm).
Le pli du dos d'âne doit être au minimum de 12po (305mm).
Cricket flange should be at least 18" (457mm) up roof deck.
La brida de los desviadores debe estar a por lo menos 18" (457mm) por la cobertura del techo.
La brida du dos d'âne doit être au minimum à 18po (457mm) sur le platelage de toit.

Crickets should extend at least 6" (152mm) up the back of the chimney and extend at least 12" (305mm) up the roof deck.

Los desviadores deben extenderse a por lo menos 6" (152mm) hasta la parte posterior de la chimenea y extenderse a por lo menos 12" (305mm) hasta la cubierta del techo.

Les dos d'âne doivent s'étendre au minimum de 6po (152mm) vers l'arrière de la cheminée et s'étendre au minimum de 12po (305mm) vers le plan du toit.

VALLEY CONSTRUCTION - OPEN

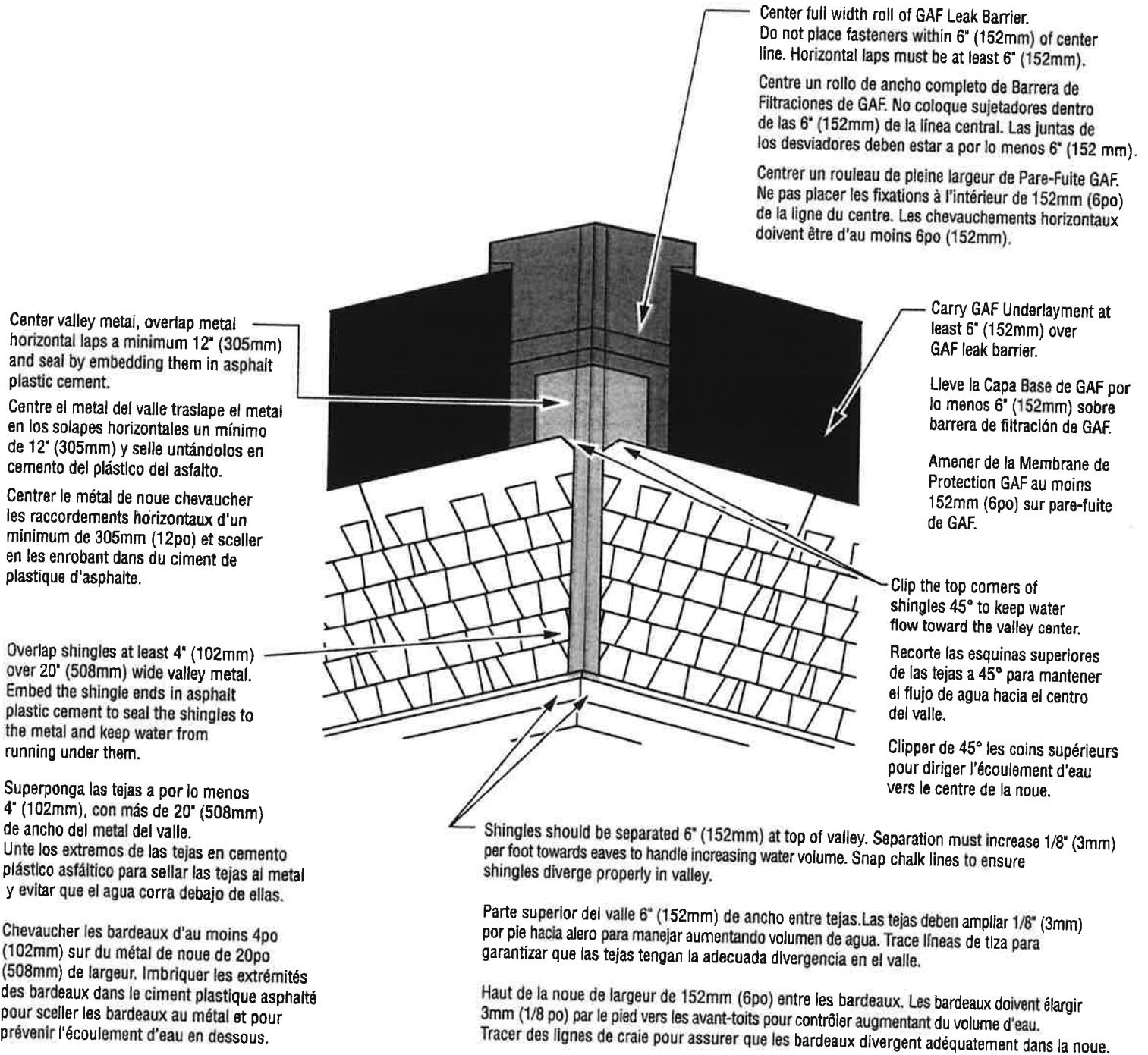
Use minimum 20" (508mm) wide aluminum, galvanized steel, copper, or other non-corroding, non-staining metals (24 gauge minimum). Long valleys or local building codes may require wider metal. Nail the metal on the edges so the nail heads hold it in place. Do not puncture the metal. Nailing through the metal may cause leaking and buckling due to movement.

CONSTRUCCIÓN DEL VALLE - DE CORTE ABIERTO

Use un ancho mínimo de 20" (508mm) de aluminio, acero galvanizado, cobre y otro metal inoxidable que no manche (calibre 24 como mínimo). Los valles largos o los códigos locales de construcción pueden requerir un metal más ancho. Clave el metal en los bordes de modo tal que las cabezas de los clavos sostengan el metal en su lugar. No perforo el metal. Clavar a través del metal puede causar filtraciones y ampollamiento debidos al movimiento.

CONSTRUCTION DE NOUE - NOUE OUVERTE

Utiliser de l'aluminium de largeur de 20po (508mm), de l'acier galvanisé, du cuivre ou autres métaux qui ne tachent pas et ne rouillent pas, (de calibre 24 au minimum). Des noues plus longues ou les codes locaux peuvent nécessiter un métal plus large. Clouer le métal sur les rebords afin que les têtes de clous le tiennent en place. Ne pas percer le métal. Clouer au travers du métal peut causer des fuites et des bombements dus au mouvement.



CONSTRUCCIÓN DEL VALLE - CORTE CERRADO

CONSTRUCTION DE NOUE FERMÉE - COUPE FERMÉE

Extend end of shingle at least 12" (305mm) beyond valley center line. Before nailing, firmly press shingles down at valley center to conform to valley shape. Nail, putting extra fastener in top corner of shingle. Due to the extreme water volume in valleys, nails near the center can leak.

Extienda la teja del extremo por los menos 12" (305mm) más allá de la línea del centro del valle. Antes de clavar, presione firmemente las tejas sobre el centro del valle para ajustarse a la forma del valle. Clavo, poniendo un sujetador adicional en la esquina superior de la teja. Debido al volumen extremo de agua en los valles, los clavos cercanos al centro pueden tener filtraciones.

Étendre le bout du bardeau d'au moins 305mm (12po) dépassé la ligne centrale de la noue. Avant de clouer, appuyer fermement sur le bardeau au centre de la noue pour appairer la forme de la noue. Clouer, en plaçant une fixation additionnelle sur le coin supérieur du bardeau. En raison du volume important d'eau dans les noues, les clous près du centre peuvent causer une fuite.

Carry GAF Underlayment at least 6" (152mm) over GAF Leak Barrier.

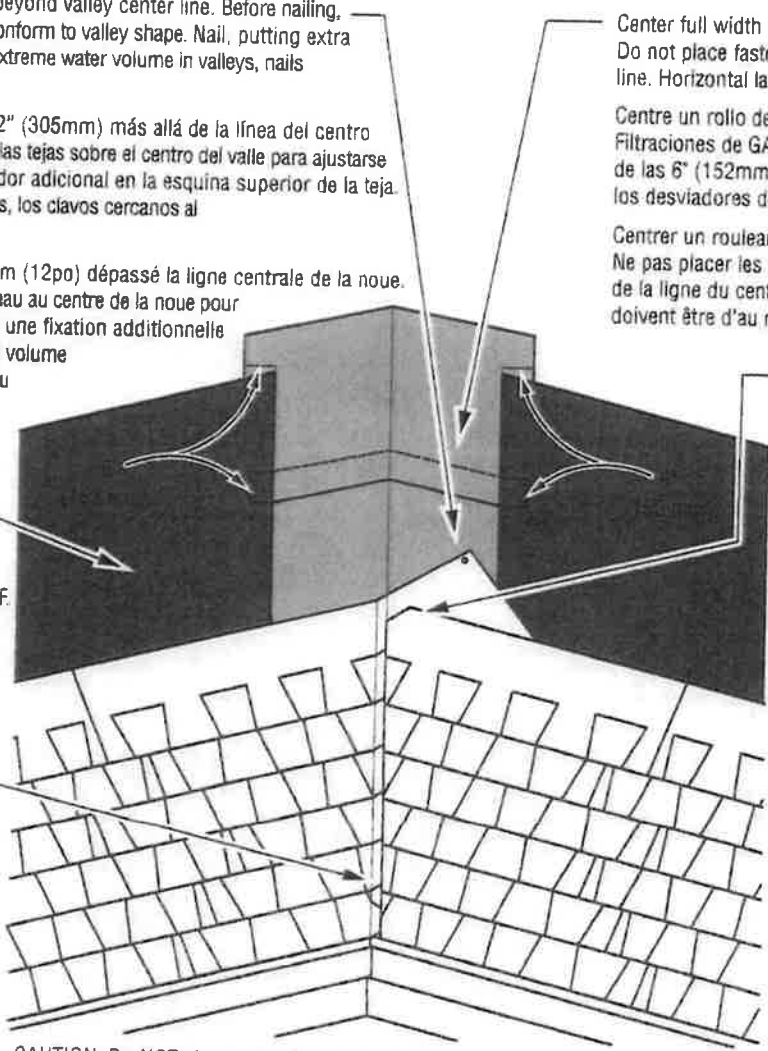
Lleve la Capa Base de GAF por lo menos 6" (152mm) sobre barrera de filtración de GAF.

Amener de la Membrane de Protection GAF au moins 152mm (6po) sur Pare-Fuite de GAF.

Run starter strip across valley at least 12" (305mm) and weave with opposite side starter strip and shingle.

Haga correr la hilada inicial por todo el valle 12" (305mm) como mínimo y entrelace con la hilada inicial y teja de hilada inicial del lado opuesto.

Courir une bande de départ au travers de la noue d'un minimum de 12po (305mm) et joindre avec la bande de départ et le bardeau du côté opposé.



Center full width roll of GAF Leak Barrier. Do not place fasteners within 6" (152mm) of center line. Horizontal laps must be at least 6" (152mm).

Centre un rouleau de ancho completo de Barrera de Filtraciones de GAF. No coloque sujetadores dentro de las 6" (152mm) de la línea central. Las juntas de los desviadores deben estar a por lo menos 6" (152 mm).

Centrer un rouleau de pleine largeur de Pare-Fuite GAF. Ne pas placer les fixations à l'intérieur de 152mm (6po) de la ligne du centre. Les chevauchements horizontaux doivent être d'au moins 6po (152mm).

Overlying shingles must be cut so they are 2" (52mm) away from valley center line. Clip shingle corners 45° to keep water flow in the valley center. Seal the valley shingles to each other using plastic roof cement.

Las tejas superpuestas deben ser cortadas para tener 2" (52 mm) de distancia de la línea central del valle. Recorte las esquinas de las tejas a 45° para mantener el flujo de agua en el centro del valle. Selle las tejas de valle entre sí utilizando cemento plástico para techo.

Les bardeaux qui chevauchent doivent être coupés de sorte qu'ils sont éloignés de 2po (52mm) de la ligne du centre de noue. Clipper les coins de bardeau à 45° pour garder l'écoulement d'eau dans le centre de la noue. Sceller les bardeaux de noue l'un à l'autre avec du ciment plastique asphalté.

CAUTION: Do NOT place nails closer than 6" (152 mm) to the valley center line.

El CUIDADO: NO coloque clavos más cerca que 6" (152mm) al valle la línea central.

PRUDENCE : NE pas placer des clous plus près que 152mm (6po) à la ligne de centre de vallée.

PRECAUTIONARY NOTES

1. These shingles are fiberglass, self-sealing asphalt shingles. Because of the natural characteristics of the high-quality waterproofing material used, these shingles will be stiff in cold weather and flexible in hot weather.
2. These shingles are particularly tough and may require additional effort to trim to fit on the roof. Curved blade utility knives are more effective than straight blade utility knives in cutting these shingles. Using a circular saw equipped with carbide-tipped blades is also effective.
3. When using FeltBuster™ High-Traction Synthetic Roofing Felt as underlayment, it MUST be installed over one layer of VersaShield® Fire-Resistant Roof Deck Protection in order to maintain a Class A fire rating for GAF asphalt shingles.
4. Regardless of the tool used, always wear proper protective gear such as gloves, eye protection, etc. In situations where dust or fumes are generated, e.g., cutting shingles with a power saw, appropriate respiratory protection is recommended. Please refer to the SDS for further information and follow all safety procedures. Use tools carefully to prevent personal injury when working with these products.
5. Handle carefully. Shingles can easily be broken in cold weather or their edges damaged in hot weather. Do not drop bundles on edge or on other bundles to separate shingles. Do not load bundles across a hip or ridge. Do not bend bundles over shoulder for carrying. Premium shingles with heavier weight may cause cracks at sharp bend points.
6. Store on flat surface in a covered, ventilated area-maximum temperature 110°F (43°C). Do not store near steam pipes, radiators, etc., or in sunlight.
7. Do not store double stacked pallets on a long-term basis. If double stacking is required for short periods, use slip sheets of 1/2" (13mm) plywood cut to the pallet size to minimize damage. Long-term double stacked storage, especially in hot weather, can result in possible sticking, staining, and distortion of the shingles.

IMPORTANT: Repair leaks promptly to avoid adverse effects, including mold growth.

RE-ROOFING

If old asphalt shingles are to remain in place, nail down or cut away all loose, curled or lifted shingles and replace with new, and just before applying the new roofing, sweep the surface clean of all loose debris. Since any irregularities may show through the new shingles, be sure the underlying shingles provide a smooth surface. Fasteners must be long enough to penetrate the wood deck at least 3/4" (19mm) or just through plywood. Follow above instructions for application.

NOTE: Shingles can be applied over wood shingles if the surface can be made smooth enough. This may include cutting back old shingles at eaves and rakes, installing new wood edging strips as needed, and the use of beveled wood strips. Install #30 underlayment to maintain Class A rating.

For technical support, call 1-800-766-3411 or visit our website at gaf.com.

NOTAS DE PRECAUCIÓN

1. Estas tejas son tejas asfálticas autosellantes de fibra de vidrio. Debido a las características naturales del material impermeable de alta calidad utilizado, estas tejas serán duras en climas fríos y flexibles en climas cálidos.
2. Estas tejas son particularmente duras y pueden requerir un esfuerzo adicional en el recorte para encajarlas al techo. Los cuchillos utilitarios de hoja curva son más efectivos que los cuchillos utilitarios de hoja recta para cortar estas tejas. También es efectivo usar una sierra circular equipada con hojas con puntas de carburo.
3. Cuando utilice el Feltro Sintético De Alta Tracción FeltBuster™ Para Techos como capa base, DEBE instalarse sobre una capa de Protección de la Cubierta del Techo Ignífuga VersaShield® con el fin de mantener una clasificación Clase A contra incendios para las tejas asfálticas GAF.
4. Independientemente de la herramienta utilizada, siempre use la vestimenta apropiada, por ejemplo, guantes, protección para los ojos, etc. En situaciones donde se genere polvo o humo, por ejemplo, al cortar las tejas con una sierra eléctrica, se recomienda utilizar la protección respiratoria apropiada. Consulte las SDS para obtener más información y siga todos los procedimientos de seguridad. Utilice las herramientas cuidadosamente para prevenir las lesiones personales cuando trabaje con estos productos.
5. Manipule con cuidado. Las tejas pueden romperse fácilmente en climas fríos o sus bordes pueden dañarse en climas cálidos. No arroje los manojos sobre el borde o encima de otros manojos para separar las tejas. No cargue los manojos sobre un caballete o borde. No doble los manojos sobre los hombros para transportarlos. El peso superior puede causar grietas en los puntos de pliegue afilados.
6. Almacene en un área cubierta y ventilada - temperatura máxima 110°F (43°C). No almacene cerca de tuberías de vapor, radiadores, etc., o a la luz del sol.
7. No almacene palets de apilado doble en períodos largos de tiempo. Si se requiere apilado doble durante períodos breves, es preciso utilizar láminas deslizantes de 1/2" (13mm) de madera terciada cortadas al tamaño del palet para minimizar los daños. El almacenamiento de apilado doble a largo plazo, especialmente en climas cálidos, puede resultar en posible pegado, manchado y distorsión de las tejas.

IMPORTANTE: Repare las filtraciones rápidamente para evitar efectos adversos, incluyendo el crecimiento de moho.

RE-TECHADO

Si es preciso que las viejas tejas asfálticas permanezcan en su lugar, clave o corte cualquier teja suelta, curvada o levantada y reemplácela con una nueva, y justo antes de aplicar el nuevo techo, barra la superficie hasta dejarla libre de cualesquiera residuos sueltos. Dado que cualquier irregularidad podría notarse a través de las nuevas tejas, asegúrese que las tejas subyacentes tengan una superficie lisa. Los sujetadores deben tener el largo suficiente como para penetrar la plataforma base de madera por lo menos 3/4" (19mm) o a través de la madera terciada. Siga el resto de las instrucciones detalladas arriba para la aplicación.

NOTA: Las tejas pueden ser aplicadas sobre tejas de madera si la superficie puede ser suficientemente alisada. Esto puede incluir cortar las tejas viejas en los aleros e inclinaciones e instalar nuevos bordes de madera según sea necesario y el uso de hiladas de madera biseladas. Instale capa base #30 para mantener la calificación de Clase A.

Para soporte técnico, llame al 1-800-766-3411 o visite nuestro sitio Web en es.gaf.com.

REMARQUES DE PRÉCAUTION

1. Ces bardeaux sont en fibre de verre et sont des bardeaux auto-scillants. En raison des caractéristiques naturelles du matériau imperméabilisant de haute qualité utilisé, ces bardeaux seront rigides en température froide et flexibles en température élevée.
2. Ces bardeaux sont particulièrement résistants et ils pourraient nécessiter des efforts additionnels pour les découper pour ajuster au toit. Des couteaux utilitaires à lame incurvée sont plus efficaces que des couteaux utilitaires à lame droite pour la découpe de ces bardeaux. Il peut aussi être très efficace d'utiliser une scie circulaire munie d'une lame à pointe au carbure.
3. Lors de l'utilisation de Feutre À Toiture Synthétique Adhérent FeltBuster™ comme membrane de protection, DOIT être installé sur une couche de Protection de Plafond Résistant au Feu VersaShield® afin de maintenir une cote de résistance au feu de Classe A pour les bardeaux d'asphalte GAF.
4. Sans égard à l'outil utilisé, toujours porter des vêtements de protection appropriés, c'est à dire des gants, des protections oculaires, etc. Dans des situations où des émanations ou de la poussière sont produites, comme de couper des bardeaux avec une scie électrique, une protection respiratoire appropriée est recommandée. Veuillez vous référer à la fiche signalétique de données de produit pour plus d'information et conformez-vous à toutes les procédures de données. Utilisez vos outils de manière sécuritaire pour prévenir toute blessure personnelle lors de travaux avec ces produits.
5. Manipule avec soin. Les tejas peuvent rompre facilement en climas froids ou leurs bords peuvent se détacher en climas chauds. Ne jetez pas les manojos sur le bord ou au-dessus d'autres manojos pour séparer les tejas. Ne chargez pas les manojos sur un échafaudage ou bord. Ne doublez pas les manojos sur les épaules pour les transporter. Le poids supérieur peut causer des fissures aux points de pliure aigües.
6. Entreposer sur une surface plane, dans un endroit couvert et ventilé - à une température maximale de 43°C (110°F). Ne pas entreposer près de conduites de vapeur, du chauffage, etc., ou au soleil.
7. Ne pas ranger des palettes empilées en double pour une longue période. Si un empilage en double est requis pour de courtes périodes, il est nécessaire de glisser un contreplaqué de 13mm (1/2po) découpé à la taille des palettes entre les palettes pour minimiser les dommages. Le rangement à long terme en empilage en double, spécialement en température chaude, peut résulter possiblement en collage, distorsion ou en tache sur les bardeaux.

IMPORTANT: Réparez les fuites prestement afin d'éviter les effets néfastes tels que la formation de moisissure.

RÉFÉCTION DE TOITURE

Si des vieux bardeaux d'asphalte doivent demeurer en place, clouer ou couper tout bardeau lâche, incurvé ou soulevé et remplacer avec du neuf, et juste avant d'appliquer le nouveau recouvrement, balayer la surface pour qu'elle soit libre de tout débris. Puisque toute irrégularité va paraître au travers des nouveaux bardeaux, assurez-vous que les bardeaux sous-jacents offrent une surface lisse. Les fixations doivent être suffisamment longues pour pénétrer le plateau de toit d'au moins 19mm (3/4po) ou juste au travers du contreplaqué. Suivre les instructions ci-dessous pour l'application.

REMARQUE: Les bardeaux peuvent être installés sur des bardeaux de bois si la surface peut être suffisamment aplaniée. Ceci peut nécessiter la taille des vieux bardeaux aux avant-toits et aux inclinaisons ainsi que l'installation de nouvelles plates-bandes en bois, au besoin, et l'utilisation de bandes en bois biseautéés. Installez une membrane de protection #30 pour maintenir une cote de Classe A.

Pour du soutien technique, appeler au 1-800-766-3411 ou visiter notre site Web au fr.gaf.com

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD



LICENSE NUMBER	
CCC1331478	

The ROOFING CONTRACTOR
Named below IS CERTIFIED
Under the provisions of Chapter 489 FS.
Expiration date: AUG 31, 2018

SCHAFFNIT, HANS
FIDDLER'S ROOFING, INC.
8008 SPRING CREEK DR
KISSIMMEE FL 34747



ISSUED: 03/25/2018

DISPLAY AS REQUIRED BY LAW

SEQ # L1803250000753



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

04/11/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Pontell Insurance and Financial Group, Inc. 1484 Tuskawilla Road Oviedo, FL 32765 License #: D051255	CONTACT NAME: Erin Conclin
	PHONE (A/C, No, Ext): 407-696-1333 FAX (A/C, No): 407-696-1380
	E-MAIL ADDRESS: erin@pontellinsurance.com
INSURER(S) AFFORDING COVERAGE	
INSURER A: Colony Insurance Insurance Company	NAIC #
INSURER B:	
INSURER C:	
INSURER D:	
INSURER E:	
INSURER F:	

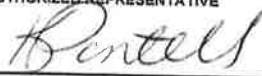
INSURED Fiddler's Roofing, Inc. 8008 Spring Creek Dr. Kissimmee, FL 34747

COVERAGES CERTIFICATE NUMBER: 00000000-0 REVISION NUMBER: 19

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:		101GL008438200	10/03/2017	10/03/2018	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COM/PROP AGG \$ 2,000,000 \$
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY					COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
	<input type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$					EACH OCCURRENCE \$ AGGREGATE \$ \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A			PER STATUTE OTH-ER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER City of Belle Isle 1600 Nela Ave Belle Isle, FL 32809	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE 
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(EMC)



JIMMY PATRONIS
CHIEF FINANCIAL OFFICER

STATE OF FLORIDA
DEPARTMENT OF FINANCIAL SERVICES
DIVISION OF WORKERS' COMPENSATION

**** CERTIFICATE OF ELECTION TO BE EXEMPT FROM FLORIDA WORKERS' COMPENSATION LAW ****

CONSTRUCTION INDUSTRY EXEMPTION

This certifies that the individual listed below has elected to be exempt from Florida Workers' Compensation law.

EFFECTIVE DATE: 3/28/2018

EXPIRATION DATE: 3/27/2020

PERSON: HANS SCHAFFNIT

EMAIL: HSCHAFFNIT@GMAIL.COM

FEIN: 200433926

BUSINESS NAME AND ADDRESS:

FIDDLER'S ROOFING INC

8008 SPRING CREEK DR

KISSIMMEE, FL 34747

SCOPE OF BUSINESS OR TRADE:

Roofing - All Kinds and
Drivers

IMPORTANT: Pursuant to Chapter 440.05(14), F.S., an officer of a corporation who elects exemption from this chapter by filing a certificate of election under this section may not recover benefits or compensation under this chapter. Pursuant to Chapter 440.05(12), F.S., Certificates of election to be exempt... apply only within the scope of the business or trade listed on the notice of election to be exempt. Pursuant to Chapter 440.05(13), F.S., Notices of election to be exempt and certificates of election to be exempt shall be subject to revocation if, at any time after the filing of the notice or the issuance of the certificate, the person named on the notice or certificate no longer meets the requirements of this section for issuance of a certificate. The department shall revoke a certificate at any time for failure of the person named on the certificate to meet the requirements of this section.

EXPIRATION

SEPTEMBER 30, 2018

BRUCE VICKERS, TAX COLLECTOR
OSCEOLA COUNTY, STATE OF FLORIDA
LOCAL BUSINESS TAX RECEIPT**ACCOUNT NO.**

165185

2018**BUSINESS TYPE:**
6420 ROOFING CONTR (DBPR/CMPCRD)10/09/2017
Oper BC
Till 15
Paid 30.00
Rcpt.#1500682175941
TRANSFER 0.00
ORIGINAL TAX 30.00
AMOUNT 0.00**BUSINESS:**Fiddler's Roofing, Inc.
8008 Spring Creek Dr.
Kissimmee, FL 34747Location:
OSCEOLA COUNTYPENALTY 0.00
COLLECTION COST 0.00
TOTAL 30.00

CCC1331478


BRUCE VICKERS CFC, TAX COLLECTOR
P.O. BOX 422105, KISSIMMEE FL 34742-2105
407-742-4000

THIS RECEIPT IS IN ADDITION AND NOT IN LIEU OF ANY OTHER LICENSE REQUIRED BY LAW OR MUNICIPAL ORDINANCE AND IS SUBJECT TO REGULATIONS OF ZONING, HEALTH, AND ANY OTHER LAWFUL AUTHORITY.

THIS LOCAL BUSINESS TAX RECEIPT IS FURNISHED PURSUANT TO CHAPTER 205 LAWS OF FLORIDA AND OSCEOLA COUNTY ORDINANCE 95-10, AS AMENDED

The law requires this Local Business Tax Receipt to be displayed conspicuously at the place of business in such manner that it can be open to the view of the public and subject to inspection by all duly authorized officers of the County.

Pursuant to State Law, all Local Business Tax Receipts shall expire on September 30th of the succeeding year. Those Local Business Tax Receipts renewed beginning October 1st shall be delinquent and subject to a delinquency penalty of 10% for the month of October, plus an additional 5% penalty for each month of delinquency thereafter until paid; provided that the total delinquency penalty shall not exceed 25% of the Local Business Tax Receipt for the delinquent establishment. A 25% penalty shall be imposed on any person engaged in any new business, occupation or profession without first obtaining an Osceola County Local Business Tax Receipt. PLUS: if delinquent more than 150 days, subject to civil actions and penalties, and a penalty of up to \$250.

This receipt is a Local Business Tax only. It does not permit the Local Business Taxpayer to violate any existing regulatory or zoning laws of the state, county, or cities, nor does it exempt the licensee from any other license or permits that may be required by law.

This form becomes a receipt when validated by the Tax Collector. Note: Display in accordance with the county ordinance. Local Business Tax Receipts are subject to change according to law.

Fiddler's Roofing, Inc.
8008 Spring Creek Dr.
Kissimmee, FL 34747