City of Belle Isle Job Site Card Roof PERMIT 2018-08-054

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 2018-08-054 Issue Date 8/21/2018

Site Address: 1703 Wind Drift Rd 32809 Parcel Number: 30-23-30-0604-01-050

Class: Residential Subdivision:

Description of Work: Re-roof 3500 SQFT - Asphalt Shingles 800 SQFT Modified BItumen

Issued To: NOK ROOFING Business Phone: 407 228-9595

Name: DENAULT, TED CECIL Contractor License: CCC1326946

Payment Date & Method: 8 / 22 / 2018 ☐ Picked up by _____

☑ Visa ☐ Master Card ☐ Amex ☐ Discover ☐ Check / Money Order # 6716

Schedule Inspections via Email at: BIDscheduling@universalengineering.com
SCHEDULE INSPECTIONS BY 3:00 PM 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
NEW ROOFS ONLY Code 700 Deck Nailing, Dry-In, Flashing			
Both new & re-roof Code 710 In - Progress			
Both new & re-roof Code 720 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 3:00 p.m.

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 AUG 21 2018 BY

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: _____ ROOF PERMIT NUMBER 2018-08054

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

Project Address 1703 Wind Drift Rd, Belle Isle, FL ✓ 32809 32812

Property Owner Henry Cabrera Phone 407-929-8358

Property Owner's Mailing Address 1703 Wind Drift Rd City Belle Isle

State FL Zip Code 32809 **Parcel Id Number:** 30-23-30-0604-01-050

REQUIRED! To obtain this information, please visit http://www.ocpafl.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 Screen Printout from www.floridabuilding.org showing the Code Version**
- **REQUIRED! Florida Product Approval Installation Instructions from www.floridabuilding.org (not the manufacturer instructions)**
- **REQUIRED! Copies of your General Liability & Worker's Comp Insurance Certificate & State and Local Licenses**

Please indicate the nature of work by completing the information below: 10,500 + 8000 = 18,500 = 15

Roof Square Footage: 3500 **Number of Stories:** 1 **Job Valuation:** $ 16,000

Type: Asphalt Shingles ☑ Metal ☐ Modified Bitumen ☑ Other: 800

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 Ted C. Denault LICENSE # CCC 1326946

LICENSE HOLDER NAME Ted Denault COMPANY NAME NOK Roofing

Street Address 2750 Taylor Ave A-27 Orlando, FL. 32806

City Orlando State FL. Zip Code 32806 Phone Number 407-228-9595

Email Address SLMB3770 AOL COM

Building Official: SM **Date** 8-21-18

Verified Contractor's Licenses & Insurance are on file ✓ **Date** 8.21.2018

Zoning Fee	$ 30.00
Permit Fee	$ 115.-
Review Fee	$ 0
3% Florida Surcharge	$ 4.00
Total Permit Fee	$ 149.00

✓ NOC ✓ NOA

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. **Building Permit Number** _____

1ST 11 25
5x18 90
115

PAID 8-22-2018
VISA 6716

DOC # 20180481624
08/14/2018 08:51 AM Page 1 of 1
Rec Fee: $10.00
Deed Doc Tax: $0.00
Mortgage Doc Tax: $0.00
Intangible Tax: $0.00
Phil Diamond, Comptroller
Orange County, FL
Ret To: SIMPLIFILE LC

This instrument prepared by:
Name: Ted Denault
Address: 2750 Taylor Ave

2018081054

NOTICE OF COMMENCEMENT

STATE OF FLORIDA
COUNTY OF ORANGE

Parcel #:
PARCEL ID #: 30-23-30-0604-01-050

THE UNDERSIGNED hereby gives notice that improvements will be made to curtain 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):
1703 Wind Drift Rd Orlando FL 32809 Belle Isle
Pines Unit 2 1/2 Lot 5 Blk A

2 General Description of Improvements: Re-Roof

3 Owner: Name: HENRY & CARRIE CABRERA Phone:
Address: 1703 WIND DRIFT RD BELLE ISLE FL, 32809
Interest in property: Owner
Name & Address of fee simple titleholder (if other than owner):

4 Contractor's Name: Ted Denault Phone: 813-928-4802
Address: 2750 Taylor Ave. 27A Orlando, Florida 32806

5 Surety Name: N/A Phone:
Address:

6 Lender Name: N/A Phone:
Address:

7 Persons within the State of Florida designated by Owner upon who notice or other documents may be served as provided by Section 713.133(1)(a)Florida Statutes. Name: N/A Phone:
Address:

8 In addition to himself or herself, Owner designates the following person(s) to receive a copy of the Lienor's Notice(a) as provided in Section 713.13(1)(b) Florida Statutes: Name: Phone:
Address:

9 Expiration Date of Notice of Commencement: N/A
(the expiration date is 1 year from date of recording unless a different date is specified)

WARNING TO OWNER: ANYPAYMENTS MADE BY THE OWNER AFTER THE EXPIRATION OF THE NOTICE OF COMMENCEMENT ARE CONSIDERED IMPROPER PAYMENTS UNDER CHAPTER 713. PART 1, SECTION 713.13 FLORIDA STATUES. 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.

Verification Pursuant to Section 92.525, Florida Statutes
Under penalties of perjury I declare that I have read the foregoing and that the facts stated in it are true to the best of my knowledge and belief.

X _____ Owner
Signature of Owner/or Owner's Authorized Officer/Director/Partner/Manager — Signatory's Title/Office

The foregoing instrument was acknowledged before me this 13 day of August 2018 by Henry Cabrera
(name of person) as Himself (type of authority, ...e.g.officer, trustee,attorney in fact) for
(name of party on behalf of whom instrument was executed).

(SEAL)

SUSAN F LOMBARDO
MY COMMISSION # FF929755
EXPIRES January 28, 2020
(407) 398-0153 FloridaNotaryService.com

Signature of Notary Public, State of Florida

Print, Type or Stamp Commissioned Name of Notary Public
Personally Known ___ or Produced Identification ✓

State of FLORIDA, County of ORANGE.
Per §668.50, F.S., which defines and permits electronic signatures.
I certify that this is a true copy of the document as reflected in the Official Records.
PHIL DIAMOND, COUNTY COMPTROLLER

By Beatriz Galagarza at 8:48 am, Aug 15, 2018
Deputy Comptroller — Date

COUNTY COMPTROLLER SEAL ORANGE COUNTY, FLORIDA

City of Belle Isle

1600 Nela Avenue, Belle Isle, FL 32809
Tel 407-851-7730 * Fax 407-240-2222 * www.cityofbelleislefl.org

Product Approval Form

DATE: _____ PERMIT # 2018-08-054

PROJECT ADDRESS 1703 Wind Drift Rd [redacted], Belle Isle, FL ___32809___32812

As required by Florida Statue 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:

1. **This Product Approval Cover Sheet**
2. **Internet screen showing PA#, approval and code edition stamped**
3. **Manufacturer's *installation* details and requirements for each product stamped**

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/Dbl Hung				Asphalt Shingles	Certainteed	Landmark	FL#5444.R13
Horizontal Slider				Non Struct Metal			
Casement				Roofing Tiles			
Fixed				Single Ply Roof	Underlayment -		FL 1569.1
Mullion				Other	Certainteed	Flintastic	SA FL2533
Skylights							
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 Joel C. Denault **Date** 8-14-18

RETAIN A COPY FOR OFFICE USE AND RETURN ORIGINAL TO APPLICANT
Updated 12-2012 **FORM #PRODAPP012**

Florida dbpr

Product Approval
USER: Public User

OFFICE OF THE SECRETARY

FL #	FL5444-R13
Application Type	Revision
Code Version	2017
Application Status	Approved
Comments	
Archived	
Product Manufacturer	CertainTeed Corporation-Roofing
Address/Phone/Email	20 Moores Road Malvern, PA 19355 (610) 893-5400 mark.d.harner@saint-gobain.com
Authorized Signature	Mark Harner mark.d.harner@saint-gobain.com
Technical Representative Address/Phone/Email	Mark D. Harner 18 Moores Road Malvern, PA 19355 (610) 651-5847 Mark.D.Harner@saint-gobain.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 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	03/09/2020
Validated By	John W. Knezevich, PE ✓ Validation Checklist - Hardcopy Received
Certificate of Independence	FL5444_R13_COI_2018_01_COI_NIEMINEN.pdf

Referenced Standard and Year (of Standard)

Standard	Year
ASTM D3161	2016
ASTM D3462	2010
ASTM D7158	2011

Equivalence of Product Standards Certified By

Sections from the Code

Product Approval Method	Method 1 Option D
Date Submitted	01/24/2018
Date Validated	01/29/2018
Date Pending FBC Approval	01/30/2018
Date Approved	04/10/2018
Date Revised	05/30/2018

Summary of Products

FL #	Model, Number or Name	Description
5444.1	CertainTeed Asphalt Roof Shingles	3-tab, 4-tab, strip (no-cut-outs), laminated and architectural asphalt roof 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 for Limits of Use

Installation Instructions
FL5444_R13_II_2018_01_FINAL_ER_CERTAINTEED_ASPHALT SHINGLES_FL5444-R13.pdf
Verified By: Robert Nieminen, PE PE-59166
Created by Independent Third Party: Yes

Evaluation Reports
FL5444_R13_AE_2018_01_FINAL_ER_CERTAINTEED_ASPHALT SHINGLES_FL5444-R13.pdf
Created by Independent Third Party: Yes

Back Next

Search Criteria

Refine Search

Code Version	2017	FL#	5444
Application Type	Revision	Product Manufacturer	CertainTeed Corporation-Roofing
Category	Roofing	Subcategory	ALL
Application Status	ALL	Compliance Method	ALL
Quality Assurance Entity	ALL	Quality Assurance Entity Contract Expired	ALL
Product Model, Number or Name	ALL	Product Description	ALL
Approved for use in HVHZ	ALL	Approved for use outside HVHZ	ALL
Impact Resistant	ALL	Design Pressure	ALL
Other	ALL		

Search Results - Applications

FL#	Type	Manufacturer	Validated By	Status
FL5444-R13 History	Revision	CertainTeed Corporation-Roofing **Category:** Roofing **Subcategory:** Asphalt Shingles	John W. Knezevich, PE (954) 772-6224	Approved
FL5444-R14	Revision	CertainTeed Corporation-Roofing **Category:** Roofing **Subcategory:** Asphalt Shingles	John W. Knezevich, PE (954) 772-6224	Pending FBC Approval

*Approved by DBPR. Approvals by DBPR shall be reviewed and ratified by the POC and/or the Commission if necessary.

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

ENGINEER EVALUATE TEST CONSULT CERTIFY

EVALUATION REPORT

CertainTeed Corporation
20 Moores Road
Malvern, PA 19355
(610) 651-5847

Evaluation Report 3532.09.05-R14
FL5444-R13
Date of Issuance: 09/22/2005
Revision 14: 01/24/2018

SCOPE:
This Evaluation Report is issued under **Rule 61G20-3** and the applicable rules and regulations governing the use of construction materials in the State of Florida. The documentation submitted has been reviewed by Robert Nieminen, P.E. for use of the product under the Florida Building Code 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: CertainTeed Asphalt Roof Shingles.

LABELING: Labeling shall be in accordance with the requirements of 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. of any changes to the product(s), the Quality Assurance or the production facility location(s). NEMO|etc. requires a complete review of this Evaluation Report relative to updated Code requirements with each Code Cycle.

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

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

This Evaluation Report consists of pages 1 through 13.

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 01/24/2018. This does not serve as an electronically signed document.

CERTIFICATION OF INDEPENDENCE:

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

NEMO | etc.

ROOFING SYSTEMS EVALUATION:

1. SCOPE:

Product Category: Roofing
Sub-Category: Asphalt Shingles
Compliance Statement: **CertainTeed Asphalt Roof Shingles**, as produced by **CertainTeed Corporation**, have demonstrated compliance with the following sections of the **6th Edition (2017) Florida Building Code** and **6th Edition (2017) 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:

Section	Property	Standard	Year
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

3. REFERENCES:

Entity	Examination	Reference	Date
UL (TST 1740)	ASTM D3161	94NK9632	05/15/1998
UL (TST 1740)	ASTM D3161	99NK26506	11/23/1999
UL (TST 1740)	ASTM D3161	03CA12702	05/27/2003
UL (TST 1740)	ASTM D3161	03CA12702	06/16/2003
UL (TST 1740)	ASTM D3161	03NK29847	10/03/2003
UL (TST 1740)	ASTM D3161	04CA11329	05/24/2004
UL (TST 1740)	ASTM D3161	04CA32986	12/03/2004
UL (TST 1740)	ASTM D3161	05NK07049	04/15/2005
UL (TST 1740)	ASTM D3161	05NK16778	05/12/2005
UL (TST 1740)	ASTM D3161	05CA16778	05/12/2005
UL (TST 1740)	ASTM D3161	05NK14836	05/22/2005
UL (TST 1740)	ASTM D3161	05NK22800	06/22/2005
UL (TST 1740)	ASTM D3462	R684	09/21/2005
UL (TST 1740)	ASTM D7158	05NK08037	06/28/2006
UL (TST 1740)	ASTM D3161 & D3462	09CA28873	07/23/2009
UL (TST 1740)	ASTM D3462	10CA41303	10/07/2010
UL (TST 1740)	ASTM D3161	10CA41303	10/08/2010
UL (TST 1740)	ASTM D7158	10CA41303	10/27/2010
UL (TST 1740)	ASTM D3161 & D3462	10CA44960	11/11/2010
UL LLC (TST 9628)	ASTM D3161, D3462 & D7158	13CA32897	11/21/2013
UL LLC (TST 9628)	ASTM D3161, D3462	TFWZ.R684	04/22/2014
UL LLC (TST 9628)	ASTM D7158	TGAH.R684	04/22/2014
UL LLC (TST 9628)	ASTM D3161 & D3462	4786334434	09/16/2014
UL LLC (TST 9628)	ASTM D3161 & D3462	4786570826	02/12/2015
UL LLC (TST 9628)	ASTM D3161, D3462 & D7158	4786570717	12/16/2015
UL LLC (TST 9628)	ASTM D3161 & D3462	4787195678	02/09/2016
UL LLC (TST 9628)	ASTM D3161, D3462 & D7158	4787380356	10/26/2016
UL LLC (TST 9628)	ASTM D3462	4787380357	10/13/2016
UL LLC (TST 9628)	ASTM D7158	4787380357	11/08/2016
UL LLC (TST 9628)	ASTM D3161	4787380357	11/09/2016
UL LLC (TST 9628)	ASTM D3161, D3462 & D7158	4787586427	01/25/2017
UL LLC (TST 9628)	ASTM D3161 & D3462	4788042412	11/15/2017
UL LLC (QUA 9625)	Quality Control	Service Confirmation	Exp. 03/09/2020

4. PRODUCT DESCRIPTION:

4.1 Asphalt Shingles:

4.1.1 **CT20™, XT™ 25, XT™ 30** and **XT™ 30 IR** are fiberglass reinforced, 3-tab asphalt roof shingles.

4.1.2 **Arcadia™, Belmont®, Belmont® IR, Carriage House Shangle®, Grand Manor Shangle®, Landmark™, Landmark™ IR, Landmark™ Pro, Landmark™ Premium, Landmark™ TL, Landmark™ Solaris** and **Landmark™ Solaris IR** are fiberglass reinforced, laminated asphalt roof shingles.

4.1.3 **NorthGate™** is a fiberglass reinforced, laminated, SBS modified bitumen roof shingle.

4.1.4 **Presidential Shake™, Presidential Shake™ IR, Presidential Shake TL™** and **Presidential Solaris™** are fiberglass reinforced, architectural asphalt roof shingles.

4.1.5 **Hatteras™, Highland Slate™** and **Highland Slate™ IR** are fiberglass reinforced, 4-tab asphalt roof shingles.

4.1.6 **Patriot™** is a fiberglass reinforced asphalt roof strip-shingle (with no cut-outs) providing a laminated appearance through an intermittent shadow line with contrasting blend drops for color definition.

4.2 Hip & Ridge Shingles:

4.2.1 **Presidential Accessory, Accessory for Hatteras, Shangle Ridge™, Shadow Ridge™, Cedar Crest™, Cedar Crest™ IR, NorthGate Ridge** and **NorthGate Accessory** are fiberglass reinforced accessory shingles for hip and ridge installation.

4.3 Accessory Starter Strips:

4.3.1 **SwiftStart® Starter Shingle is** a starter strip for asphalt roof shingles. Its overall size of 15-1/4" x 38-3/4" yields two (2) 7-5/8" x 38-3/4" starter pieces per shingle.

4.4 Any of the above listed shingles may be produced in AR (algae resistant) versions.

5. LIMITATIONS:

5.1 This is a building code evaluation. Neither NEMO|etc. nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this Evaluation Report, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.

5.2 This Evaluation Report is not for use within 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 All shingles noted herein 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 us 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 **Presidential Accessory, Accessory for Hatteras, Shangle Ridge, Shadow Ridge, Cedar Crest, NorthGate Ridge** and **NorthGate Accessory hip & ridge shingles** have been evaluated in accordance with **ASTM D3161, Class F**. All except **NorthGate Ridge** and **NorthGate Accessory** require use of **BASF Sonolastic NP 1 adhesive** or **Henkel PL® Polyurethane Roof & Flashing Sealant**, applied as specified in manufacturer's application instructions, for use in 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 **SwiftStart® Starter Shingle** has been evaluated in accordance with **ASTM D3161, Class F**. Refer to Section 6 for installation requirements to meet this wind rating.

5.4.4 Classification by **ASTM D7158** applies to **exposure category B or C** and a **building 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.

5.4.4.1 **Analysis in accordance with ASTM D7158** indicates the measured uplift resistance (R_T) for the CertainTeed asphalt Roof shingles listed in Section 4.1 through 4.6 (*except Presidential Solaris™*) exceeds the calculated uplift force (F_T) at a maximum design wind speed of V_{asd} = **150 mph** (V_{ult} = **194 mph**) for **residential buildings** located in **Exposure D conditions** with **no topographical variations (flat terrain)** having a **mean roof height less than or equal to 60 feet.** The shingles are permissible under Code for installation in these conditions using the installation procedures detailed in this Evaluation Report and CertainTeed minimum requirements, subject to minimum codified fastening requirements established within any local jurisdiction, which shall take precedence.

5.5 All products in the roof assembly shall have quality assurance audits in accordance with **FAC Rule 61G20-3**.

6. INSTALLATION:

6.1 Roof deck, slope, underlayment and fasteners shall comply with **FBC 1507.2 / R905.2** and the shingle manufacturer's minimum requirements.

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

6.2 Installation of asphalt shingles shall comply with the **CertainTeed Corporation** current published instructions, using minimum four (4) nails per shingle in accordance with **FBC 1507.2.7** or **Section R905.2.6** and the minimum requirements herein.

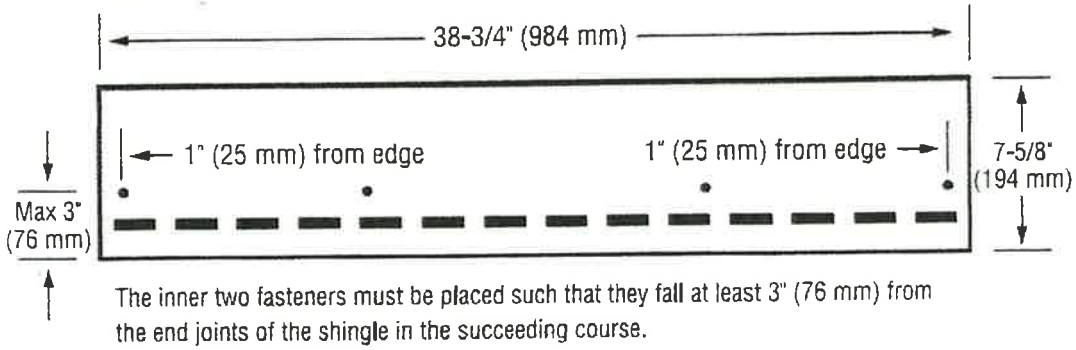
6.2.1 Fasteners shall be in accordance with manufacturer's published requirements, but not less than **FBC 1507.2.6 or R905.2.5**. Staples are not permitted.

6.2.2 Where the roof slope exceeds 21 units vertical in 12 units horizontal, use the "Steep Slope" directions.

6.3 CertainTeed asphalt shingles are acceptable for use in reroof (tear-off) or recover applications, subject to the limitations set forth in **FBC Section 1511 or R908** and CertainTeed published installation instructions.

6.4 SWIFTSTART® STARTER SHINGLE:

Fastening: Use four nails, located as shown below

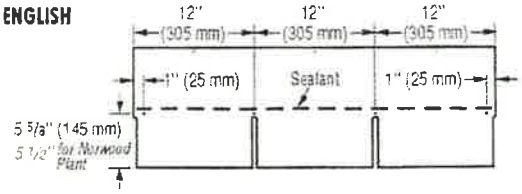


The inner two fasteners must be placed such that they fall at least 3" (76 mm) from the end joints of the shingle in the succeeding course.

6.5 CT20™, XT™ 25, XT™ 30, XT™ 30 IR:

LOW AND STANDARD SLOPE

ENGLISH



METRIC

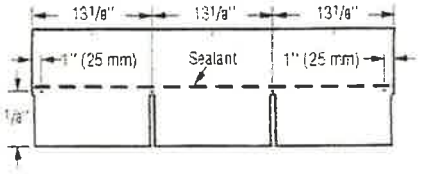
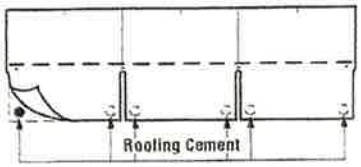


Figure 11-3: Use four nails for every full shingle.

STEEP SLOPE

Use **four** nails and six spots of asphalt roofing cement* for every full shingle (*Figure 11-4*). Asphalt roofing cement meeting ASTM D4586 Type II is suggested.



Apply 1" (25 mm) spots of asphalt roofing cement under each tab corner.

Figure 11-4: Use four nails and six spots of asphalt cement on steep slopes.

***CAUTION:** Excessive use of roofing cement can cause shingles to blister.

6.5.1 Hip & Ridge for CT20™, XT™ 25, XT™ 30, XT™ 30 IR: Cut Shingles

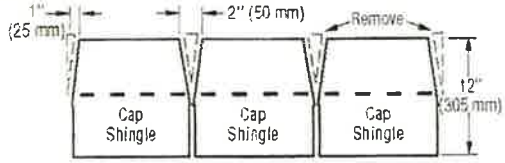


Figure 11-24: Cut tabs, then trim back to make cap shingles (English dimensions shown).

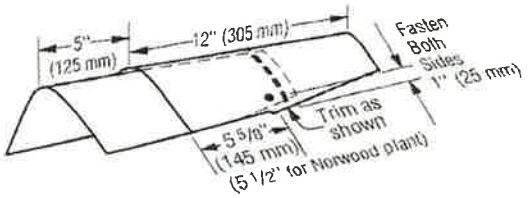


Figure 11-25: Installation of caps along the hips and ridges.

6.5.1.1 For **ASTM D3161, Class F** performance use BASF **"Sonolastic® NP1™"** adhesive or Henkel **"PL® Polyurethane Roof & Flashing Sealant"**, in accordance with CertainTeed requirements.

6.6 ARCADIA™:

LOW AND STANDARD SLOPE

Use SIX nails for every full shingle located as shown below.

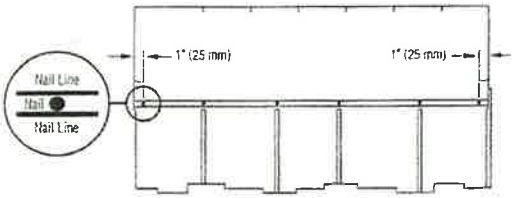


Figure 2: Use six nails for every full shingle.

STEEP SLOPE

Use SIX nails and FOUR spots of asphalt roofing cement for every full shingle as shown below. Apply asphalt roofing cement 1"(25 mm) from edge of shingle. Asphalt roofing cement meeting ASTM D 4586 Type II is suggested.

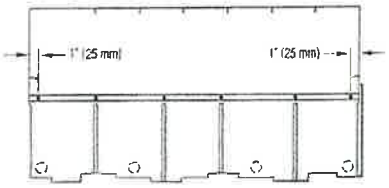
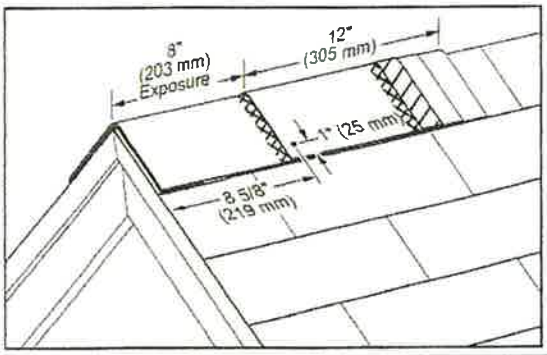


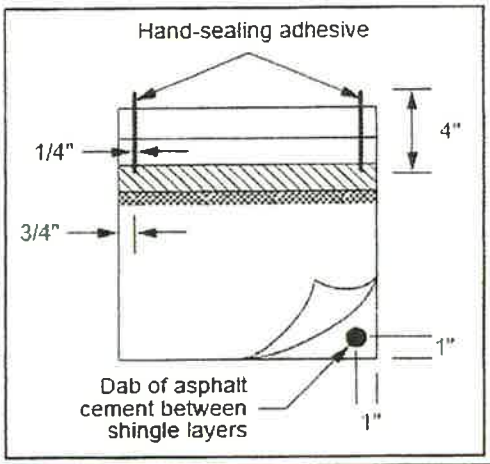
Figure 3: Use six nails and four spots of asphalt roofing cement on steep slopes.

6.6.1 **Hip & Ridge for Arcadia™: Cedar Crest™, Cedar Crest™ IR**

Use two (2), minimum 1¾-inch long fasteners per shingle. For the starter shingle, place fastener 1-inch from each side edge and about 2-inch up from the starter shingle's exposed butt edge, ensuring minimum ¾-inch embedment into the deck, or full penetration through the deck. For each full Cedar Crest shingle, place fasteners 8-5/8-inch up from its exposed butt edge and 1-inch from each side edge.

For **ASTM D3161, Class F** performance use BASF "**Sonolastic® NP1™**" adhesive or Henkel "**PL® Polyurethane Roof & Flashing Sealant**", in accordance with CertainTeed requirements, to **hand-seal Cedar Crest shingles**. Apply NP 1 or PL adhesive from the middle of the shingle's raised overlay on the top piece and extending approximately 4-inch along the sides of the headlap along a line ¾ to 1-inch from each side of the shingle's headlap. Immediately align and apply the overlying shingle, gently pressing tab sides into the adhesive, and install nails. To secure the other side, apply a 1-inch diameter spot of NP 1 or PL adhesive between the shingle layers.

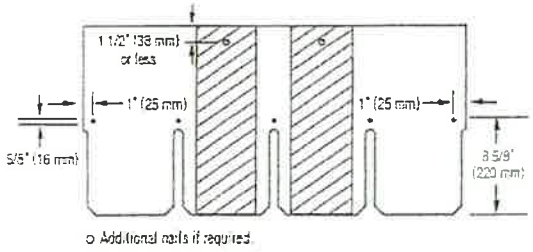




6.7 BELMONT® OR BELMONT® IR:

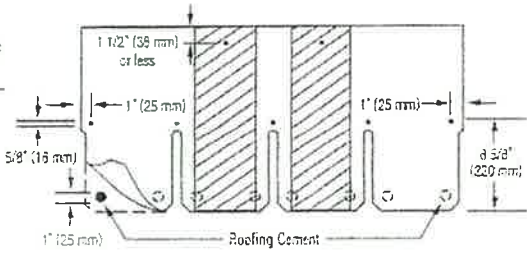
Low and Standard Slope (2:12 to 21:12):

Use FIVE nails for every full Belmont shingle, located as shown below.



Steep Slope (greater than 21:12):

Use SEVEN nails and EIGHT spots of asphalt roofing cement** for every full Belmont shingle. Apply asphalt roofing cement 1" (25mm) from edge of shingle. See below. Asphalt roofing cement meeting ASTM D4586 Type II is suggested.



6.7.1 **Hip & Ridge for Belmont® or Belmont® IR:**

6.7.1.1 **Option 1:** For Belmont®, refer to instructions herein for **Cedar Crest™** or **Cedar Crest™ IR** hip and ridge shingles. For Belmont® IR, refer to instructions herein for **Cedar Crest™ IR** hip and ridge shingles.

6.7.1.2 **Option 2:** For Belmont®: **Shangle® Ridge**

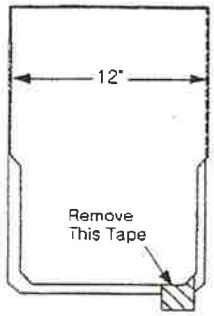


Figure 17-18: Shangle® Ridge.

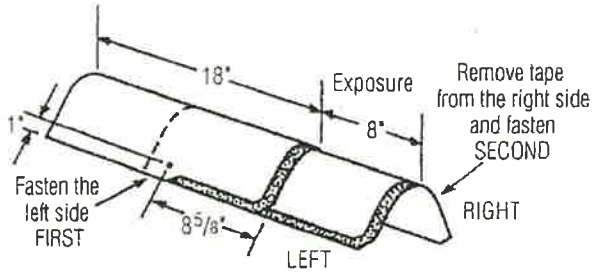


Figure 17-19: Installation of Shangle® Ridge shingles on hips and ridges.

6.7.1.3 For **ASTM D3161, Class F** performance use BASF "**Sonolastic® NP1™**" adhesive or Henkel "**PL® Polyurethane Roof & Flashing Sealant**", in accordance with CertainTeed requirements.

6.8 CARRIAGE HOUSE SHANGLE® AND GRAND MANOR SHANGLE®:

LOW AND STANDARD SLOPE

Use five nails for every full Shangle.

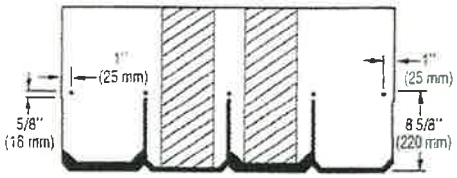


Figure 17-4: Use five nails for every full Grand Manor Shangle, Carriage House Shangle, or Centennial Slate.

STEEP SLOPE

Use **seven** nails and three spots of asphalt roofing cement for every full Grand Manor Shangle. Use **five** nails and three spots of asphalt roofing cement for every full Carriage House Shangle and Centennial Slate. Apply asphalt roofing cement 1" (25 mm) from edge of shingle (*Figure 17-5*). Asphalt roofing cement meeting ASTM D4586 Type II is suggested.

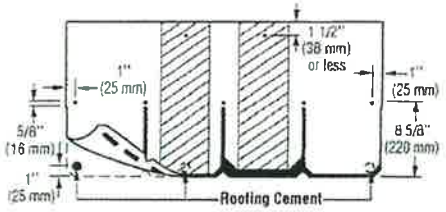


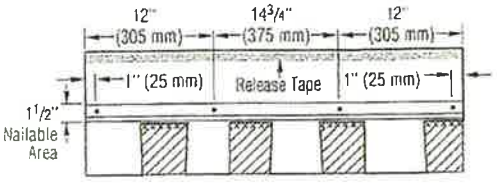
Figure 17-5: When installing Grand Manor Shangles on steep slopes, use seven nails and three spots of asphalt roofing cement.

6.8.1 **Hip & Ridge for Carriage House Shangle® and Grand Manor Shangle:** Refer to instructions herein for **Shangle® Ridge** hip and ridge shingles

6.9 LANDMARK™, LANDMARK™ IR, LANDMARK™ PRO, LANDMARK™ PREMIUM, LANDMARK™ TL, LANDMARK™ SOLARIS, LANDMARK™ SOLARIS IR, NORTHGATE:

LOW AND STANDARD SLOPE

METRIC DIMENSIONS



LANDMARK TL

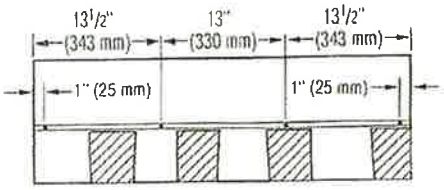
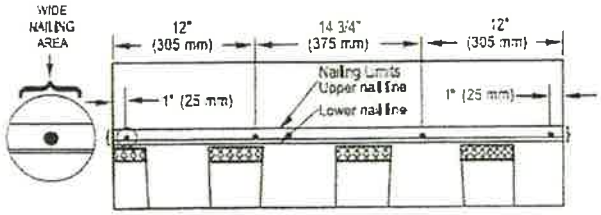


Figure 13-4: Use four nails for every full shingle.

NorthGate:

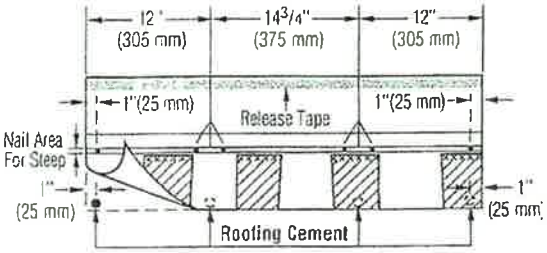


Nailing areas for low and standard slopes (from 2:12 to 21:12)
Nail between upper & lower lines as shown above.

STEEP SLOPE

Use six nails and four spots of asphalt roofing cement for every full laminated shingle. See below. Asphalt roofing cement should meet ASTM D4586 Type II. Apply 1" spots of asphalt roofing cement unde each corner and at about 12" to 13" in from each edge.

METRIC DIMENSIONS



LANDMARK TL

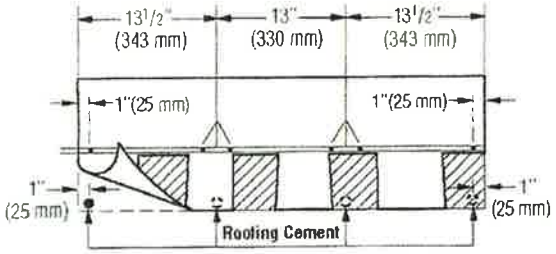
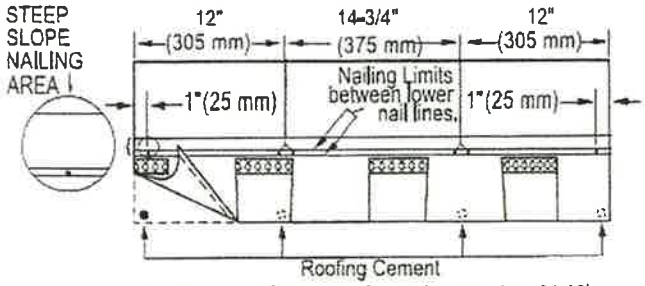


Figure 13-5: Use six nails and four spots of asphalt roofing cement on steep slopes.

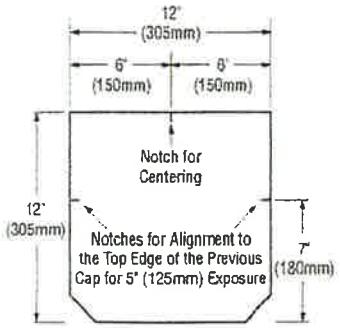
NorthGate:



Nailing areas for steep slopes (greater than 21:12) **and "Storm-Nailing"**
Nail between lower 2 nail lines as shown above.

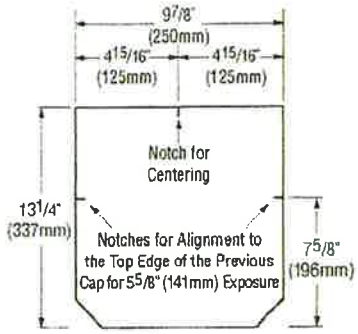
6.9.1 **Hip & Ridge for Landmark™, Landmark™ IR, Landmark™ Pro, Landmark™ Premium, Landmark™ TL, Landmark™ Solaris, Landmark™ Solaris IR, NorthGate:**

6.9.1.1 **Option 1:** Shadow Ridge™ or NothGate Accessory



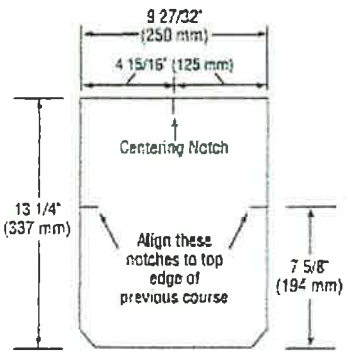
English Dimension

Shadow Ridge™

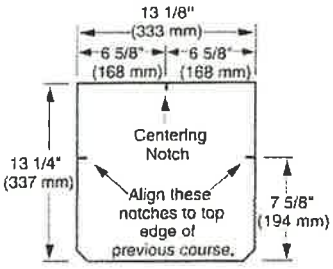


Metric Dimension

Shadow Ridge™



NorthGate Ridge



NorthGate Accessory

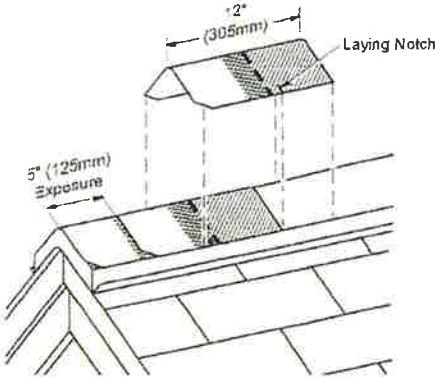


Figure 13-20: Use laying notches to center shingles on hips and ridges, and to locate the correct exposure.

6.9.1.2 For **ASTM D3161, Class F** performance use BASF **"Sonolastic® NP1™"** adhesive or Henkel **"PL® Polyurethane Roof & Flashing Sealant"**, in accordance with CertainTeed requirements.

6.9.1.3 **Option 2:** Refer to instructions herein for **Cedar Crest™, Cedar Crest™ IR** hip and ridge shingles.

6.10 PRESIDENTIAL SHAKE™, PRESIDENTIAL SHAKE™ IR, PRESIDENTIAL SHAKE TL™, PRESIDENTIAL SOLARIS™:

LOW AND STANDARD SLOPE:

For low and standard slopes, use five nails for each full Presidential shingle as shown below.

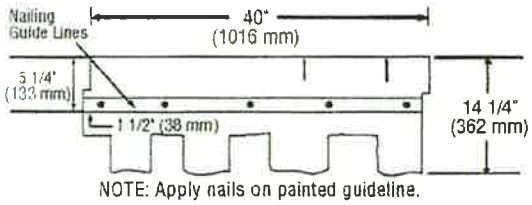


Figure 16-6: Fastening Presidential and Presidential TL Shake shingles on low and standard slopes.

STEEP SLOPE:

For steep slopes, use nine nails for each full Presidential shingle and apply 1" diameter spots of asphalt roofing cement under each shingle tab. After applying 5 nails in between the nailing guide lines, apply 4 nails 1" above tab cutouts making certain tabs of overlying shingle cover nails.

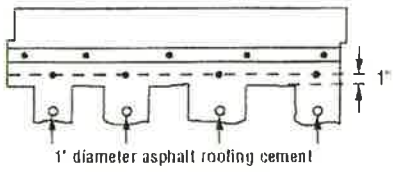


Figure 16-7: Fastening Presidential and Presidential TL Shake shingles on steep slopes.

6.10.1 **Hip & Ridge for Presidential Shake™, Presidential Shake™ IR, Presidential Shake TL™, Presidential Solaris™:**

6.10.1.1 **Option 1:** Presidential Accessory

PRESIDENTIAL ACCESSORY

Presidential accessory shingles can be used for covering hips and ridges. Apply shingles up to the ridge (expose no more than 7" from the bottom edge of the "tooth." Fasten each accessory with two fasteners. The fasteners must be 1¾" long or longer, so they penetrate either ¾" into the deck or completely through the deck. Presidential accessory comes in two different sizes: Accessory produced in Birmingham, AL is 12" x 12"; Portland, OR produces 9⅞" x 13¼" accessory.

6.10.1.2 For **ASTM D3161, Class F** performance use BASF **"Sonolastic® NP1™"** adhesive or Henkel **"PL® Polyurethane Roof & Flashing Sealant"**, in accordance with CertainTeed requirements.

6.10.1.3 **Option 2:** Refer to instructions herein for **Cedar Crest™, Cedar Crest™ IR** hip and ridge shingles.

6.11 HATTERAS™:

LOW, STANDARD AND STEEP SLOPE:

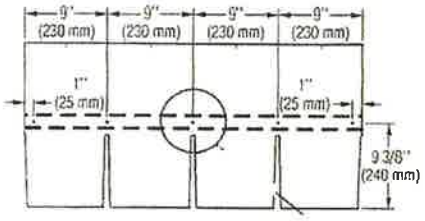


Figure 15-3: Fastening Hatteras Shingles on Low and Standard Slopes

For low and standard slopes, use five nails for each full Hatteras shingle as shown above.

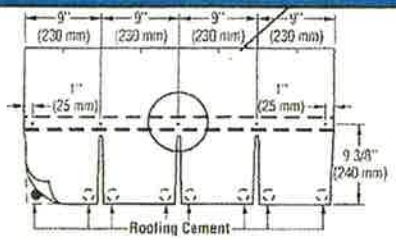


Figure 15-4: Fastening Hatteras Shingles on Steep Slopes

For steep slopes, use five nails and eight spots of asphalt roofing cement for each full Hatteras shingle as shown above. Apply 1" (25mm) diameter spots of roofing cement (ASTM D 4586 Type II suggested) under each tab corner. Press shingle into place; do not expose cement.

CAUTION: Too much roofing cement can cause shingles to blister.

6.11.1 **Hip & Ridge for Hatteras™:**

6.11.1.1 **Option 1:** Accessory for Hatteras

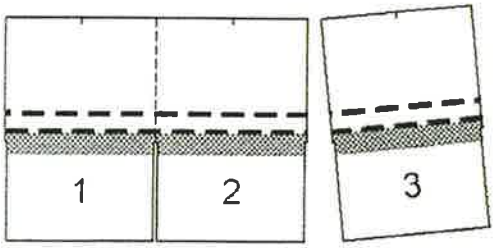
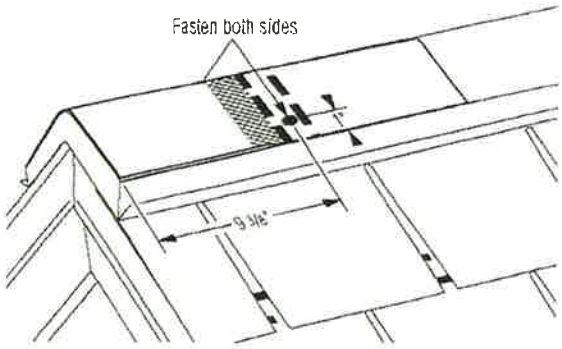


Figure 15-14: 18 three-piece units separate to make 54 Hatteras Accessory shingles.



6.11.1.2 **Option 2:** Cut Hatteras Shingles

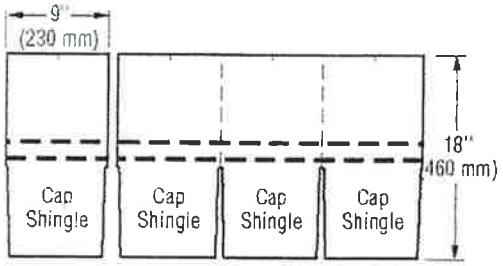


Figure 15-20: Cut Hatteras shingles to make cover cap.

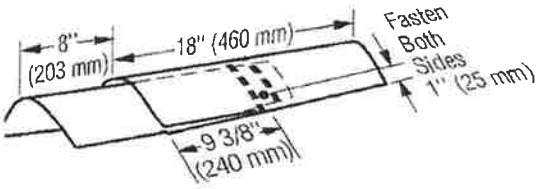


Figure 15-21: Installation of caps along hips and ridges.

6.11.1.3 For **ASTM D3161, Class F** performance use BASF "**Sonolastic® NP1™**" adhesive or Henkel "**PL® Polyurethane Roof & Flashing Sealant**", in accordance with CertainTeed requirements.

6.12 HIGHLAND SLATE™, HIGHLAND SLATE™ IR:

LOW AND STANDARD SLOPE:

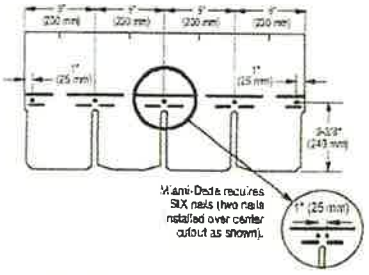


Figure 11-3: Use FIVE nails for every Highland Slate shingle.

STEEP SLOPE:

Use **FIVE** nails and **EIGHT** spots of asphalt roofing cement* for each full Highland Slate shingle. For Miami-Dade, **SIX nails** are required. Apply 1" diameter spots of asphalt roofing cement under each tab corner. Asphalt roofing cement meeting ASTM D4586 Type II is suggested.

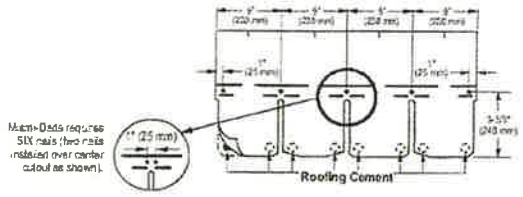


Figure 11-3A: Use FIVE nails and eight spots of asphalt roofing cement under each tab corner.

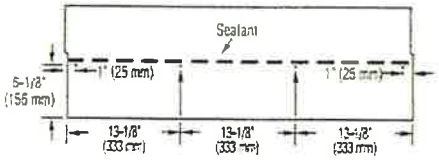
*CAUTION: Excessive use of roofing cement can cause shingles to blister.

6.12.1 Hip & Ridge for Highland Slate™, Highland Slate™ IR: Refer to instructions herein for **Cedar Crest™**, **Cedar Crest™ IR** or **Shangle Ridge™** hip and ridge shingles.

6.13 PATRIOT™:

LOW AND STANDARD SLOPE

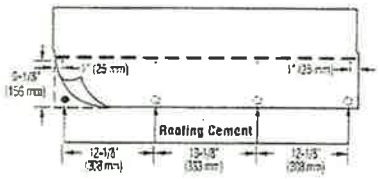
Use FOUR nails for every full shingle located as shown below.



STEEP SLOPE

Use FOUR nails and four spots of asphalt roofing cement for every full shingle as shown below. Asphalt roofing cement meeting ASTM D4586 Type II is suggested. Apply 1"(25 mm) spots of asphalt roofing cement as shown.

CAUTION: Excessive use of roofing cement can cause shingles to blister.



6.13.1 Hip & Ridge for Patriot™: Refer to instructions herein for **Cedar Crest™**, **Cedar Crest™ IR**, **Shadow Ridge™**, **NorthGate** or **Shangle Ridge™** hip and ridge shingles.

7. LABELING:

7.1 Each unit shall bear a permanent label with the manufacturer's name, logo, city, state and logo of 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; (414) 248-6409; karen.buchmann@us.ul.com

- END OF EVALUATION REPORT -

FL #	FL2533-R20
Application Type	Revision
Code Version	2017
Application Status	Approved
Comments	
Archived	
Product Manufacturer	CertainTeed Corporation Roofing
Address/Phone/Email	20 Moores Road Malvern, PA 19355 (610) 893-5400 mark.d.harner@saint-gobain.com
Authorized Signature	Mark Harner mark.d.harner@saint-gobain.com
Technical Representative Address/Phone/Email	Mark D. Harner 18 Moores Road Malvern, PA 19355 (610) 651-5847 Mark.D.Harner@saint-gobain.com
Quality Assurance Representative Address/Phone/Email	
Category	Roofing
Subcategory	Modified Bitumen Roof System
Compliance Method	Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer 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	03/09/2020
Validated by	John W. Kraczevich, PE Validation Checklist - Hardcopy Received
Certificate of Independence	FL2533_R20_COI_2018_01_COI_NIEMINEN.pdf

Referenced Standard and Year (of Standard)

Standard	Year
ASTM D6162	2008
ASTM D6163	2008
ASTM D6164	2011
ASTM D6222	2011
ASTM D6509	2009
FM 4470	2012
FM 4474	2011

Equivalence of Product Standards Certified By

Sections from the Code

Product Approval Method	Method 1 Option D
Date Submitted	06/20/2018
Date Validated	06/20/2018
Date Pending FBC Approval	06/27/2018
Date Approved	08/15/2018

Summary of Products

FL #	Model, Number or Name	Description
2533.1	FlintLastic Modified Bitumen Roof Systems	Modified Bitumen Roof Systems
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** N/A **Design Pressure:** +N/A/-635 **Other:** 1.) Refer to ER Section 5 for Limits of Use. 2.) The design pressure noted in this application relates to one specific system. Refer to the ER Appendix for all systems and max design pressures.		**Installation Instructions** FL2533 R20 II 2018 06 FINAL A1 ER CERTAINTEED MODBIT FL2533-R20.pdf Verified By: Robert Nieminen, PE PE-59166 Created by Independent Third Party: Yes **Evaluation Reports** FL2533 R20 AE 2018 06 FINAL ER CERTAINTEED MODBIT FL2533 R20.pdf Created by Independent Third Party: Yes

Back Next

NEMO | etc.

TABLE 3A: STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

Sys. No.	Deck (Note 1)	Primer	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 14)			MDP (psf)
			Type	Attach	Type	Attach	Base	Ply	Cap	
C-47.	Structural concrete	FlintPrime (ASTM D41)	Min. 2.5 inch ACFoam II or FlintBoard ISO	HA	Min. 0.5-inch DuraBoard (homogeneous)	HA	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-430.0
C-48.	Structural concrete	FlintPrime (ASTM D41)	0.5-inch Structodek High Density Fiberboard or min. 0.75-inch Tesco Board (homogeneous)	HA	None	N/A	BP-AA	(Optional) BP-AA or SBS-AA	SBS-AA	-487.5
C-49.	Structural concrete	FlintPrime (ASTM D41)	0.25-inch Dens Deck, Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board	HA	None	N/A	SBS-TA	(Optional) SBS-AA or SBS-TA	SBS-AA or SBS-TA	-302.5
C-50.	Structural concrete	FlintPrime (ASTM D41)	Min. 0.25 inch SECUROCK Gypsum-Fiber Roof Board	HA	None	N/A	FlintLastic Ultra Poly SMS Base, torched	(Optional) FlintLastic Ultra Poly SMS Base, torched	SBS-TA	-487.5
C-51.	Structural concrete	FlintPrime (ASTM D41)	0.25-inch Dens Deck, Dens Deck Prime or SECUROCK Gypsum Fiber Roof Board	HA	None	N/A	BP-AA	(Optional) BP-AA or SBS-AA	SBS-AA	-537.5
C-52.	Structural concrete	None	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	A-PD	Min. 0.5-inch Structodek High Density Fiberboard or Min. 0.25-inch Dens Deck	A-PD	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-105.0
C-53.	Structural concrete	None	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	A-PD 6-inch o.c.	Min. 0.5-inch Structodek High Density Fiberboard or Min. 0.25-inch Dens Deck	A-PD 6-inch o.c.	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	217.5
C-54.	Structural concrete	None	Min. 1.5 inch ACFoam II, FlintBoard ISO, H-Shield, FlintBoard ISO+	A-PD	Min. 0.25 inch SECUROCK Gypsum-Fiber Roof Board	A-PD	BP AA, SBS-AA, SBS TA or APP TA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS TA or APP-TA	-117.5
C-55.	Structural concrete	None	Min. 1.5 inch ACFoam II, FlintBoard ISO, H-Shield, FlintBoard ISO+	A-PD, 6-inch o.c.	Min. 0.25 inch SECUROCK Gypsum-Fiber Roof Board	A-PD, 6-inch o.c.	BP AA, SBS AA, SBS TA or APP-TA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS TA or APP-TA	217.5
C-56.	Structural concrete	None	0.5-inch Structodek High Density Fiberboard	A-PD, 6-inch o.c.	None	N/A	BP-AA, SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-195.0
C-57.	Structural concrete	None	Min. 0.25-inch Dens Deck, Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board	A-PD, 6-inch o.c.	None	N/A	BP-AA, SBS-AA, SBS-TA or APP-TA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-195.0
C-58.	Structural concrete	None	Min. 1.5-inch ACFoam II or FlintBoard ISO	O-IS	Min. 0.25-inch Dens Deck	O-IS	SBS-TA	(Optional) SBS-TA	SBS-TA	-112.5
C-59.	Structural concrete	None	Min. 1.5-inch ACFoam II, FlintBoard ISO, H-Shield, FlintBoard ISO+	O-IS	Min. 0.25-inch Dens Deck Prime	O-IS	BP-AA, SBS-AA	(Optional) BP-AA, SBS-AA or SBS-TA	SBS-AA or SBS-TA	297.5
C-60.	Structural concrete	None	Min. 1.5-inch ACFoam II, FlintBoard ISO, H-Shield, FlintBoard ISO+	O-IS	Min. 0.25-inch Dens Deck Prime	O-IS	SBS-TA	(Optional) SBS-TA	SBS-TA	-302.5

NEMO | etc.

TABLE 3A: STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

Sys. No.	Deck (Note 1)	Primer	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 14)			MDP (psf)
			Type	Attach	Type	Attach	Base	Ply	Cap	
C-61.	Structural concrete	None	Min. 2-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	D-IS	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	D-HS	BP AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS AA, SBS-TA or APP-TA	-225.0
C-62.	Structural concrete	None	Min. 2-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	D-IS	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	D-HS	SBS-TA or APP-TA	(Optional) SBS-TA or APP-TA	SBS-TA or APP-TA	-233.5
C-63.	Structural concrete	None	Min. 1.5-inch ACFoam II, FlintBoard ISO, H-Shield, FlintBoard ISOn	D-HS	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	D-HS	APP-TA	(Optional) APP-TA	APP-TA	-252.5
C-64.	Structural concrete	None	Min. 1.5-inch ACFoam II, FlintBoard ISO, H-Shield, FlintBoard ISOn	D-HS	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	D-HS	BP-AA, SBS-AA or SBS-TA	(Optional) BP-AA, SBS-AA or SBS-TA	SBS-AA or SBS-TA	-707.5
C-65.	Structural concrete	None	0.5-inch Structodek High Density Fiberboard	D-HS	None	N/A	BP AA, SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS AA, SBS-TA or APP-TA	105.0
C-66.	Structural concrete	None	Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board	D-IS	None	N/A	BP AA, SBS-AA, SBS-TA or APP-TA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	+105.0
C-67.	Structural concrete	None	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	M-OSFA	Min. 0.5-inch Structodek High Density Fiberboard	M-OSFA	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	+127.5
C-68.	Structural concrete	None	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	M-PG1	Min. 0.5-inch Structodek High Density Fiberboard	M-PG1	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	190.0
C-69.	Structural concrete	None	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	M-OSFA	Min. 0.25-inch Dens Deck	M-OSFA	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-292.5
C-70.	Structural concrete	None	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	M-PG1	Min. 0.25-inch Dens Deck	M-PG1	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-740.0
C-71.	Structural concrete	None	Min. 1.5-inch ACFoam II, FlintBoard ISO, H-Shield, FlintBoard ISOn	M-PG1	Min. 0.25-inch Dens Deck Prime	M-PG1	BP-AA, SBS-AA	(Optional) BP-AA, SBS-AA or SBS-TA	SBS-AA or SBS-TA	-297.5
C-72.	Structural concrete	None	Min. 1.5-inch ACFoam II, FlintBoard ISO, H-Shield, FlintBoard ISOn	M-PG1	Min. 0.25-inch Dens Deck Prime	M-PG1	SBS-TA	(Optional) SBS-TA	SBS-TA	-302.5
C-73.	Structural concrete	None	Min. 2-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	M-OSFA or M-PG1	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	M-OSFA or M-PG1	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-225.0
C-74.	Structural concrete	None	Min. 2-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	M-OSFA or M-PG1	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	M-OSFA or M-PG1	SBS-TA or APP-TA	(Optional) SBS-TA or APP-TA	SBS-TA or APP-TA	-232.5

NEMO|etc.

TABLE 3A: STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION or REROOF (TEAR-OFF)
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

Sys. No.	Deck (Note 1)	Primer	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 14)			MDP (psf)
			Type	Attach	Type	Attach	Base	Ply	Cap	
C-75.	Structural concrete	None	Min. 1.5-inch ACFoam II, FlintBoard ISO, H-Shield, FlintBoard ISO$_H$	M-OSFA or M-PG1	Min. 0.25 inch SECUROCK Gypsum-Fiber Roof Board	M-OSFA or M-PG1	APP-TA	(Optional) APP-TA	APP-TA	-252.5
C-76.	Structural concrete	None	Min. 1.5 inch ACFoam II, FlintBoard ISO, H-Shield, FlintBoard ISO$_H$	M-OSFA or M-PG1	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	M-OSFA or M-PG1	BP-AA, SBS-AA or SBS-TA	(Optional) BP-AA, SBS-AA or SBS-TA	SBS-AA or SBS-TA	-307.5
C-77.	Structural concrete	None	0.5-inch Structodek High Density Fiberboard	M-PG1	None	N/A	BP-AA, SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	195.0
C-78.	Structural concrete	None	Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board	M-PG1	None	N/A	BP-AA, SBS-AA, SBS-TA or APP-TA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	195.0
C-79.	Structural concrete	None	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	OB500	Min. 0.5 inch Structodek High Density Fiberboard	OB500	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-120.0
C-80.	Structural concrete	None	Min. 1.5 inch ACFoam II or FlintBoard ISO.	OB500	Min. 0.25-inch Dens Deck or Dens Deck Prime	OB500	BP-AA, SBS-AA, SBS-TA or APP-TA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-150.0
C-81.	Structural concrete	None	Min. 1.5-inch ACFoam II, FlintBoard ISO, H-Shield, FlintBoard ISO$_H$	OB500	Min. 0.25-inch Dens Deck Prime	OB500	BP-AA, SBS-AA or SBS-TA	(Optional) BP-AA, SBS-AA or SBS-TA	SBS-AA or SBS-TA	-287.5
C-82.	Structural concrete	None	Min. 2 inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	OB500	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-275.0
C-83.	Structural concrete	None	Min. 2-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	OB500	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	SBS-TA or APP-TA	(Optional) SBS-TA or APP-TA	SBS-TA or APP-TA	-252.5
C-84.	Structural concrete	None	Min. 1.5-inch ACFoam II, FlintBoard ISO, H-Shield, FlintBoard ISO$_H$	OB500	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	APP-TA	(Optional) APP-TA	APP-TA	-252.5
C-85.	Structural concrete	None	Min. 1.5-inch ACFoam II, FlintBoard ISO, H-Shield, FlintBoard ISO$_H$	OB500	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	BP-AA, SBS-AA or SBS TA	(Optional) BP-AA, SBS-AA or SBS-TA	SBS-AA or SBS-TA	297.5
C-86.	Structural concrete	None	0.5-inch Structodek High Density Fiberboard	OB500	None	N/A	BP-AA, SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-105.0
C-87.	Structural concrete	None	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	None	N/A	BP-AA, SBS-AA, SBS-TA or APP-TA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	195.0

NEMO | etc.

TABLE 3A: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

Sys. No.	Deck (Note 1)	Primer	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 14)			MDP (psf)
			Type	Attach	Type	Attach	Base	Ply	Cap	
C-88.	Structural concrete	None	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5-inch Multi-Max FA3 or Ultra-Max	CR-20	Min. 0.5-inch Structodek High Density Fiberboard or DuraBoard (heterogeneous) or min. 2.5-inch FiberBoard (laminated)	CR-20	BP-AA or SBS-AA	(Optional) BP-AA, SBS AA, SBS-TA or APP-TA	SBS-AA, SBS TA or APP-TA	-190.0
C-89.	Structural concrete	None	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5 inch Multi-Max FA3 or Ultra-	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-225.0
C-90.	Structural concrete	None	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5 inch Multi-Max FA3 or Ultra-Max	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	SBS-TA or APP-TA	(Optional) SBS-TA or APP-TA	SBS TA or APP-TA	-232.5
C-91.	Structural concrete	None	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5-inch Multi-Max FA3 or Ultra-Max	CR-20	Min. 0.25-inch Dens Deck	CR-20	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-240.0
C-92.	Structural concrete	None	0.5-inch Structodek High Density Fiberboard	CR-20	None	N/A	BP-AA, SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS TA or APP-TA	195.0
C-93.	Structural concrete	None	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	None	N/A	BP-AA, SBS-AA, SBS-TA or APP-TA	(Optional) BP-AA, SBS AA, SBS-TA or APP-TA	SBS AA, SBS TA or APP-TA	195.0
COLD-APPLIED SYSTEMS:										
C-94.	Structural concrete	None	(Optional) Min. 0.5-inch ACFoam II, FlintBoard ISO, H-Shield, FlintBoard ISOII	OB500 or CR-20	Min. 2.5-inch ACFoam III, FlintBoard Iso Cold, H-Shield CG or FlintBoard Iso Cold+	OB500 or CR-20	SBS-CA1	None	SBS-CA1	82.5
C-95.	Structural concrete	None	Min. 0.5-inch ACFoam II, FlintBoard ISO, H-Shield, FlintBoard ISOII	A-PD, D-IS, M-OSFA, M-PG1, OB500 or CR-20	Min. 0.75-inch SECUROCK Gypsum-Fiber Roof Board	A-PD, D-IS, M-OSFA, M-PG1, OB500 or CR-20	SBS-CA1	None	SBS-CA1	105.0

NEMO | etc.

TABLE 3B - STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION or REROOF (TEAR-OFF)
SYSTEM TYPE A-3: BONDED TEMP ROOF, BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (Note 1)	Primer / Temp Roof		Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 14)			MDP (psf)
				Type	Attach	Type	Attach	Base	Ply	Cap	
Cold Applied Systems:											
C-90	Structural concrete	FlintPrime (ASTM D41)	Flintlastic SA PlyBase, self-adhered	(Optional) Min. 0.5-inch ACFoam II, FlintBoard ISO, H-Shield, FlintBoard ISO+	OB500	Min. 1.5-inch ACFoam II, FlintBoard Iso Cold, H-Shield CG or FlintBoard Iso Cold+	OB500	SBS-CA1	None	SBS-CA1	-82.5
C-97	Structural concrete	FlintPrime (ASTM D41)	Flintlastic SA PlyBase, self-adhered	Min. 0.5-inch ACFoam II, FlintBoard ISO, H-Shield, FlintBoard ISO+	OB500	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	SBS-CA1	None	SBS CA1	-82.5

NEMO | etc.

TABLE 3C: STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER

System No.	Deck (Note 1)	Primer	Roof Cover (Note 14)			MDP (psf)
			Base	Ply	Cap	
SELF-ADHERING SYSTEMS:						
C-98.	Structural concrete	FlintPrime SA	SBS-SA	(Optional) SBS-SA	SBS-SA	-555.0
C 99.	Structural concrete	FlintPrime (ASTM D41)	SBS-SA	(Optional) SBS-SA	SBS-SA	-630.0
HYBRID SYSTEMS:						
C-100.	Structural concrete	FlintPrime SA	Flintastic Ultra Glass SA	(Optional) SBS-AA, SBS-TA, APP-TA	SBS-AA, SBS-TA, APP-TA	52.5
C 101.	Structural concrete	FlintPrime (ASTM D41)	Flintastic Ultra Glass SA	(Optional) SBS-AA	SBS-AA	-135.0
C-102.	Structural concrete	FlintPrime (ASTM D41)	Black Diamond Base Sheet	(Optional) SBS-TA, APP-TA	SBS-TA, APP-TA	150.0
C-103.	Structural concrete	FlintPrime (ASTM D41)	Flintastic Ultra Glass SA	(Optional) SBS-TA, APP-TA	SBS-TA, APP-TA	-322.5
C 104.	Structural concrete	FlintPrime (ASTM D41)	Black Diamond Base Sheet	(Optional) BP-AA, SBS-AA	SBS-AA	-240.0
C 105.	Structural concrete	FlintPrime (ASTM D41)	BP-AA, SBS-AA	SBS-SA-H	SBS-AA, SBS-TA, APP-TA	-630.0
CONVENTIONAL SYSTEMS:						
C-106.	Structural concrete	FlintPrime (ASTM D41)	APP-TA	(Optional) APP-TA	APP-TA	-420.0
C 107.	Structural concrete	FlintPrime (ASTM D41)	SBS-TA	(Optional) SBS-TA	SBS-TA	-542.5
C 108.	Structural concrete	FlintPrime (ASTM D41)	BP-AA, SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-635.0
COLD-APPLIED SYSTEMS:						
C-109.	Structural concrete	FlintPrime (ASTM D41)	SBS-CA1	(Optional) SBS-CA1	SBS-CA1	262.5

NEMO | etc.

TABLE 4A: LIGHTWEIGHT CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (Note 1)	Lightweight Concrete (Note 13)	Base Insulation Layer		Coverboard		Roof Cover (Note 14)			MDP (psf)
			Type	Attach	Type	Attach	Base	Ply	Cap	
SELF-ADHERING SYSTEMS:										
LWC-1	Concrete	Min. 200 psi, min. 2-inch Elastizell	Min. 1.5-inch ACFoam II, FlintBoard, ENRGY 3 or H-Shield	A-PD, 6-inch o.c.	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	A-PD, 6-inch o.c.	SBS SA	(Optional) SBS SA	SBS-SA	-172.5
LWC-2	Concrete	Min. 200 psi, min. 2-inch Elastizell	Min. 1.5-inch ACFoam II, FlintBoard, ENRGY 3 or Multi-Max FA3	A-PD, 6-inch o.c.	Min. 0.25-inch Dens Deck primed with FlintPrime or FlintPrime SA	A-PD, 6-inch o.c.	SBS-SA	(Optional) SBS SA	SBS-SA	-187.5
LWC-3	Concrete	Min. 200 psi, min. 2-inch Elastizell	Min. 1.5-inch ACFoam II, FlintBoard ISO or ENRGY 3	OR500	Min. 0.25-inch Dens Deck primed with FlintPrime or FlintPrime SA	OR500	SBS-SA	(Optional) SBS-SA	SBS-SA	-150.0
LWC-4	Concrete	Min. 200 psi, min. 2-inch Elastizell	Min. 1.5-inch ACFoam II, FlintBoard, ENRGY 3 or H-Shield	OR500	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OR500	SBS-SA	(Optional) SBS-SA	SBS-SA	-172.5
LWC-5	Concrete	Min. 200 psi, min. 2-inch Celcore, Elastizell or Celcore	Min. 1.0 inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.0-inch ACFoam II, Min. 1.5-inch Multi-Max FA3 or Ultra-Max	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	SBS-SA	(Optional) SBS-SA	SBS-SA	-172.5
LWC-6	Concrete	Min. 200 psi, min. 2-inch Celcore, Elastizell or Celcore	Min. 1.0 inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.0-inch ACFoam II, Min. 1.5-inch Multi-Max FA3 or Ultra-Max	CR-20	Min. 0.25-inch Dens Deck primed with FlintPrime or FlintPrime SA	CR-20	SBS SA	(Optional) SBS-SA	SBS SA	-180.0
CONVENTIONAL SYSTEMS:										
LWC-7	Concrete	Min. 200 psi, min. 2-inch Elastizell	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	A-PD, 6-inch o.c.	Min. 0.5 inch Structodek High Density Fiberboard or Min. 0.25-inch Dens Deck	A-PD, 6-inch o.c.	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-187.5
LWC-8	Concrete	Min. 200 psi, min. 2-inch Elastizell	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	A-PD, 6-inch o.c.	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	A-PD, 6-inch o.c.	BP-AA or SBS-AA, SBS-TA or APP-TA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-217.5
LWC-9	Concrete	Min. 200 psi, min. 2-inch Elastizell	Min. 1.5-inch ACFoam II or FlintBoard ISO.	OR500	Min. 0.25-inch Dens Deck or Dens Deck Prime	OR500	BP-AA, SBS-AA, SBS-TA or APP-TA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-150.0
LWC-10	Concrete	Min. 200 psi, min. 2-inch Elastizell	Min. 1.5-inch ACFoam II or FlintBoard ISO.	OR500	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OR500	SBS-TA	(Optional) SBS-TA	SBS-TA	-280.0
LWC-11	Concrete	Min. 200 psi, min. 2-inch Elastizell	Min. 2-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	OR500	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OR500	BP-AA, SBS-AA, SBS-TA or APP-TA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-225.0

NEMO | etc.

TABLE 4A: LIGHTWEIGHT CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (Note 1)	Lightweight Concrete (Note 13)	Base Insulation Layer		Coverboard		Roof Cover (Note 14)			MDP (psf)
			Type	Attach	Type	Attach	Base	Ply	Cap	
LWC-12	Concrete	Min. 200 psi, min. 2 inch Celcore, Elastiboil or Celcore	Min. 1.0 inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3 inch ACFoam III, Min. 1.5-inch Multi-Max FA3 or Ultra-Max	CR-20	Min. 0.5-inch Structodek High Density Fiberboard or DuraBoard (homogeneous) or min. 1.5 inch FesscoBoard (laminated)	CR-20	BP AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-180.0
LWC-13	Concrete	Min. 200 psi, min. 2-inch Celcore, Elastiboil or Celcore	Min. 1.0 inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5-inch Multi-Max FA3 or Ultra-Max	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board or Dens Deck or Dens Deck Prime	CR-20	BP-AA, SBS-AA, SBS-TA or APP-TA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-180.0
COLD APPLIED SYSTEMS:										
LWC-14	Min. 22 ga. steel at max 5 ft spans or structural concrete	Min. 350 psi, min 2-inch Range II Elastiboil Lightweight Insulating Concrete with Zell Fibers.	Min. 1.5-inch H-Shield CG	OR500, 6-inch o.c.	(Optional) Additional layers of base insulation	OR500, 6-inch o.c.	BP-CA3 or SBS-CA3	(Optional) BP-CA3 or SBS-CA3	SBS-CA3	-60.0
LWC-15	Min. 22 ga. steel at max 5 ft spans or structural concrete	Min. 350 psi, min 2-inch Range II Elastiboil Lightweight Insulating Concrete with Zell Fibers. When walkable, attach LWC with Hilti-fast #14 and Filtrast 3" Round Plates at 1 per 3 ft² through to the structural deck.	Min. 1.5-inch H-Shield CG	OR500, 6-inch o.c.	(Optional) Additional layers of base insulation	OR500, 6-inch o.c.	BP-CA3 or SBS-CA3	(Optional) BP-CA3 or SBS-CA3	SBS-CA3	-67.5

NEMO | etc.

TABLE 3B: LIGHTWEIGHT CONCRETE DECKS – NEW CONSTRUCTION or REROOF (Tear-Off)
SYSTEM TYPE A-2: MECHANICALLY ATTACHED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (Note 1)	LWC (Note 13)	Anchor Sheet			Insulation			Roof Cover (Note 14)			MDP (psf)
			Type	Fasteners	Attach	Base	Top	Attach	Base	Ply	Cap	
LWC-16	Min. 22 ga. steel or structural concrete deck.	Minimum 350 psi, minimum 2-inch Gasified cellular LWIC	Yosemite Venting Base	ES TM-90 Base Ply Fasteners	7-inch o.c. at the 4-inch side lap and 7-inch o.c. at two, equally spaced, staggered rows in the center of the sheet	Min. 1.5-inch ACFoam II	(Optional) Additional layers base insulation	Hot asphalt	RP-AAU, 18-inch grid	(Optional) RP-AA, SBS-AA	SBS-AA	-37.5[4]
LWC-17	Min. 22 ga. steel or structural concrete deck	Minimum 350 psi, minimum 2-inch Approved or existing cellular LWIC. Note: *To qualify the LWIC under this assembly, the subject fastener shall achieve an average withdrawal of 88 lbf when tested per TAS 105 or ANSI/SPRI FX-1.*	Yosemite Venting Base	ES Twist-on Nails	9-inch o.c. at the 4-inch side lap and 9-inch o.c. at two, equally spaced, staggered rows in the center of the sheet	Min. 1.5-inch ACFoam II	(Optional) Additional layers base insulation	Hot asphalt	RP-AAA, 18 inch o.c.	(Optional) ISP-AA, SBS-AA	SBS-AA	-60.0

System No.	Deck (Note 1)	Lightweight Concrete (Note 13)	Base Sheet: Type	Base Sheet: Fasteners	Base Sheet: Attach	Roof Cover (Note 14): Ply	Roof Cover (Note 14): Cap	MDP (psf)
SELF-ADHERING SYSTEMS:								
LWC-18	Min. 22 ga. steel at max 5 ft spans or structural concrete	Min. 300 psi, min. 2-inch Approved cellular lightweight insulating concrete. *Note: To qualify the LWIC under this assembly, a 1.8-inch Trufast Twin Loc-Nail Assembled Fastener shall achieve an average withdrawal of 73 lbf when tested per TAS 105 or ANSI/SPRI FX-1*	Flintlastic SA NailBase	Trufast Twin Loc-Nail Assembled Fastener (min. 1.8")	7-inch o.c. at the min. 2-inch lap and 7-inch o.c. in two (2), equally spaced, staggered center rows; Stress plates shall be primed with FlintPrime (ASTM D41) primer or FlintPrime SA	SBS-SA	SBS-SA	-60.0
LWC-19	Min. 22 ga. steel at max 5 ft spans or structural concrete	Min. 300 psi, min. 2-inch Approved cellular lightweight insulating concrete. *Note: To qualify the LWIC under this assembly, a 1.8-inch Trufast Twin Loc-Nail Assembled Fastener shall achieve an average withdrawal of 93 lbf when tested per TAS 105 or ANSI/SPRI FX-1*	Flintlastic SA NailBase	Trufast Twin Loc-Nail Assembled Fastener (min. 1.8")	9-inch o.c. at the min. 2-inch lap and 9-inch o.c. in two (2), equally spaced, staggered center rows; Stress plates shall be primed with FlintPrime (ASTM D41) primer or FlintPrime SA	SBS-SA	SBS-SA	-60.0
HYBRID SYSTEMS:								
LWC-20	Min. 26 ga. steel at max 5 ft spans or structural concrete	Min. 200 psi, min 2-inch Range II Elastizell Lightweight Insulating Concrete.	Glasbase; Flexiglas Base; Flintlastic Base 20; All Weather / Empire Base or Poly SMS Base	Trufast FM-90 Base Sheet Fasteners or Trufast Twin Loc-Nail Assembled Fasteners (1.8 inch)	7½-inch o.c. at the 4-inch lap and 7½-inch o.c. in two (2), equally spaced, staggered center rows	SBS-SA-H	SBS-AA, SBS-TA or APP-TA	-90.0
LWC-21	Min. 22 ga. steel at max 5 ft spans or structural concrete	Min. 200 psi, min 2-inch Range II Elastizell Lightweight Insulating Concrete.	Glasbase; Flexiglas Base; Flintlastic Base 20; All Weather / Empire Base or Poly SMS Base	Trufast FM-90 Base Sheet Fasteners or Trufast Twin Loc-Nail Assembled Fasteners (1.8 inch)	7-inch o.c. at the 4-inch lap and 7-inch o.c. in two (2), equally spaced, staggered center rows	SBS-SA-H	SBS-AA, SBS-TA or APP-TA	45.0
LWC-22	Min. 22 ga. steel at max 5 ft spans or structural concrete	Min. 300 psi, min. 2-inch Approved cellular lightweight insulating concrete. *Note: To qualify the LWIC under this assembly, a 1.8-inch Trufast Twin Loc-Nail Assembled Fastener shall achieve an average withdrawal of 88 lbf when tested per TAS 105 or ANSI/SPRI FX-1*	Glasbase; Flexiglas Base; Flintlastic Base 20; All Weather / Empire Base	Trufast Twin Loc-Nail Assembled Fastener (min. 1.8")	9-inch o.c. at the 4-inch lap and 9-inch o.c. in two (2), equally spaced, staggered center rows	SBS-SA-H	SBS-AA, SBS-TA or APP-TA	-60.0
LWC-23	Min. 22 ga. steel at max 5 ft spans or structural concrete	Min. 350 psi, min. 3-inch Approved cellular lightweight insulating concrete. *Note: To qualify the LWIC under this assembly, a 1.8-inch Trufast Twin Loc-Nail Assembled Fastener shall achieve an average withdrawal of 57 lbf when tested per TAS 105 or ANSI/SPRI FX-1*	Flexiglas Base; Flintlastic Base 20 or Poly SMS Base	Trufast FM-90 Base Sheet Fasteners	7-inch o.c. at the 4-inch lap and 10-inch o.c. in two (2), equally spaced, staggered center rows	SBS-SA-H	SBS-AA, SBS-TA or APP-TA	-67.5

NEMO | etc.

TABLE 4C: LIGHTWEIGHT CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE E: MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER

System No.	Deck (Note 1)	Lightweight Concrete (Note 13)	Base Sheet			Roof Cover (Note 14)		MDP (psf)
			Type	Fasteners	Attach	Ply	Cap	
LWC-24	Min. 22 ga steel at max 5 ft spans or structural concrete	Min. 300 psi, min. 2-inch Approved cellular lightweight insulating concrete. *Note: To qualify for I/WC under this assembly, a 1.9-inch Trufast Twin Loc-Nail Assembled Fastener shall achieve an average withdrawal of 110 lbf when tested per TAS 105 or ANSI/SPRI FX-1*	Poly SMS Base; Ultra Poly SMS Base	Trufast Twin Loc-Nail Assembled Fastener (min. 1.9")	9 inch o.c. at the 4-inch lap and 9-inch o.c. in two (2), equally spaced, staggered center rows	SBS SA-II	SBS-AA, SBS-TA or APP-TA	-75.0
CONVENTIONAL SYSTEMS:								
LWC-25	Min. 26 ga. steel at max 5 ft spans or structural concrete	Min. 200 psi, min 2-inch Range II Elastizell Lightweight Insulating Concrete.	Glasbase; Flexiglas Base; Flintlastic Base 20; All Weather / Empire Base; Poly SMS Base; Yosemite	Trufast FM-90 Base Sheet Fasteners or Trufast Twin Loc-Nail Assembled Fasteners (1.3 inch)	7½-inch o.c. at the 4-inch lap and 7½-inch o.c. in two (2), equally spaced, staggered center rows	(Optional) (SP-AA, SBS-AA, SBS-TA or APP-TA	SBS AA, SBS TA or APP TA	-30.0
LWC-26	Min. 26 ga. steel at max 5 ft spans or structural concrete	Min. 200 psi, min 2-inch Range II Elastizell Lightweight Insulating Concrete.	Flintlastic APP Base T	Trufast FM-90 Base Sheet Fasteners	7½-inch o.c. at the 4-inch lap and 7½ inch o.c. in two (2), equally spaced, staggered center rows	(Optional) APP TA	APP-TA	-30.0
LWC-27	Min. 22 ga. steel at max 5 ft spans or structural concrete	Min. 200 psi, min 2-inch Range II Elastizell Lightweight Insulating Concrete.	Glasbase; Flexiglas Base; Flintlastic Base 20; All Weather / Empire Base; Poly SMS Base; Yosemite	Trufast FM-90 Base Sheet Fasteners or Trufast Twin Loc-Nail Assembled Fasteners (1.3 inch)	7-inch o.c. at the 4-inch lap and 7 inch o.c. in two (2), equally spaced, staggered center rows	(Optional) SP-AA, SBS-AA, SBS-TA or APP-TA	SBS AA, SBS-TA or APP-TA	-45.0
LWC-28	Min. 22 ga. steel at max 5 ft spans or structural concrete	Min. 200 psi, min 2-inch Range II Elastizell Lightweight Insulating Concrete.	Flintlastic APP Base T	Trufast FM-90 Base Sheet Fasteners	7-inch o.c. at the 4-inch lap and 7-inch o.c. in two (2), equally spaced, staggered center rows	(Optional) APP-TA	APP TA	-45.0
LWC-29	Min. 22 ga steel at max 5 ft spans or structural concrete	Min. 250 psi, min 2-inch Mearkrete.	Glasbase; Flexiglas Base; Flintlastic Base 20; All Weather / Empire Base; Poly SMS Base; Yosemite	OMG CR Base Ply Fasteners (1.7)	7-inch o.c. at the 4-inch lap and 7-inch o.c. in two (2), equally spaced, staggered center rows	(Optional) SP AA or SBS-AA	SBS AA, SBS-TA or APP TA	-45.0
LWC-30	Min. 22 ga. steel at max 5 ft spans or structural concrete	Min. 250 psi, min 2-inch Mearkrete.	Poly SMS Base	OMG CR Base Ply Fasteners (1.7)	7-inch o.c. at the 4-inch lap and 7-inch o.c. in two (2), equally spaced, staggered center rows	(Optional) SP-AA or SBS-AA	SBS-AA, SBS TA or APP-TA	-52.5

NEMO | etc.

TABLE 4C: LIGHTWEIGHT CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE E: MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER

System No.	Deck (Note 1)	Lightweight Concrete (Note 13)	Base Sheet			Roof Cover (Note 14)		MDP (psf)
			Type	Fasteners	Attach	Ply	Cap	
LWC-31	Min. 22 ga. steel at max 5 ft spans or structural concrete	Min. 300 psi, min 2 inch Mearlcrete	Glasbase; Fiberglas Base, Flintlastic Base 20; All Weather / Empire Base; Poly SMS Base, Yosemite	OMG CR Base Ply Fasteners (1,7)	7-inch o.c. at the 4-inch lap and 7-inch o.c. in two (2), equally spaced, staggered center rows	(Optional) BP-AA or SBS-AA	SBS-AA, SBS TA or APP TA	-52.5
LWC-32	Min. 22 ga. steel at max 5 ft spans or structural concrete	Concreal Bonding Agent on deck; Min. 300 psi, min 2½-inch Concreal Concrete.	Glasbase; Fiberglas Base; Flintlastic Base 20; All Weather / Empire Base; Poly SMS Base; Yosemite	OMG CR Base Ply Fasteners (1,7)	7-inch o.c. at the 3-inch lap and 7-inch o.c. in two (2), equally spaced, staggered center rows	(Optional) BP-AA or SBS-AA	SBS-AA, SBS TA or APP TA	-52.5
LWC-33	Min. 22 ga. steel at max 5 ft spans or structural concrete	Min. 300 psi, min. 2-inch Approved cellular lightweight insulating concrete. *Note: To qualify the LWIC under this assembly, a 1.8-inch Trufast Twin Loc-Nail Assembled Fastener shall achieve an average withdrawal of 89 lbf when tested per TAS 105 or ANSI/SPRI FX-1*	Glasbase; Fiberglas Base; Flintlastic Base 20; All Weather / Empire Base; Yosemite	Trufast Twin Loc-Nail Assembled Fastener (min. 1.8")	9-inch o.c. at the 4 inch lap and 9-inch o.c. in two (2), equally spaced, staggered center rows	(Optional) BP-AA, SBS AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-60.0
LWC-34	Min. 22 ga. Type B steel at max. 5 ft spans structural concrete	Min. 300 psi, min 2-inch Celcore MF Cellular Concrete with Celcore FS Rheology Modifying Admixture. After setting to support foot traffic, Celcore PVA Curing Compound is applied.	All Weather / Empire Base; Flintlastic Base 20, Poly SMS Base	Trufast FM 90 Base Sheet Fasteners	9-inch o.c. at 4 inch laps and 12-inch o.c. in two (2), equally spaced, staggered center rows	(Optional) BP-AA, SBS-AA or SBS-TA-F	SBS-AA or SBS-TA-F	-60.0
LWC-35	Min. 22 ga. steel at max 5 ft spans or structural concrete	Min. 300 psi, min. 2-inch Approved cellular lightweight insulating concrete. *Note: To qualify the LWIC under this assembly, a 1.8-inch Trufast Twin Loc-Nail Assembled Fastener shall achieve an average withdrawal of 77 lbf when tested per TAS 105 or ANSI/SPRI FX-1*	Glasbase; Fiberglas Base; Flintlastic Base 20; All Weather / Empire Base; Yosemite	Trufast Twin Loc-Nail Assembled Fastener (min. 1.8")	7-inch o.c. at the 4-inch lap and 7-inch o.c. in two (2), equally spaced, staggered center rows	BP-AA or SBS-AA	SBS-AA, SBS-TA or APP-TA	-67.5
LWC-36	Min. 22 ga. steel at max 5 ft spans or structural concrete	Min. 250 psi, min. 3-inch Approved cellular lightweight insulating concrete. *Note: To qualify the LWIC under this assembly, a 1.8-inch Trufast Twin Loc-Nail Assembled Fastener shall achieve an average withdrawal of 97 lbf when tested per TAS 105 or ANSI/SPRI FX-1*	Fiberglas Base; Flintlastic Base 20; Poly SMS Base; Yosemite	Trufast FM 90 Base Sheet Fasteners	7-inch o.c. at the 4 inch lap and 10-inch o.c. in two (2), equally spaced, staggered center rows	BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS TA or APP-TA	-67.5
LWC-37	Min. 22 ga. steel at max 5 ft spans or structural concrete	Min. 300 psi, min. 2-inch Approved cellular lightweight insulating concrete. *Note: To qualify the LWIC under this assembly, a 1.8-inch Trufast Twin Loc-Nail Assembled Fastener shall achieve an average withdrawal of 110 lbf when tested per TAS 105 or ANSI/SPRI FX-1*	Poly SMS Base; Ultra Poly SMS Base	Trufast Twin Loc-Nail Assembled Fastener (min. 1.8")	9-inch o.c. at the 4-inch lap and 9 inch o.c. in two (2), equally spaced, staggered center rows	BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-75.0

TABLE 4C - LIGHTWEIGHT CONCRETE DECKS – NEW CONSTRUCTION or REROOF (TEAR-OFF)
SYSTEM TYPE E: MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER

System No.	Deck (Note 1)	Lightweight Concrete (Note 13)	Base Sheet			Roof Cover (Note 14)		MDP (psf)
			Type	Fasteners	Attach	Ply	Cap	
LWC-38	Min. 22 ga. steel at max 5 ft spans or structural concrete	Min. 300 psi, min 2-inch Celcore Cellular Concrete. After setting to support foot traffic, Celcure PVA Curing Compound is applied.	Glasbase; Flexglas Base; Flintastic Base 20; All Weather / Empire Base; Poly SMS Base; Yosemite	Trufast FM-90 Base Sheet Fasteners	7-inch o.c. at the 3-inch lap and 7 inch o.c. in two (2), equally spaced, staggered center rows	BP-AA or SBS-AA	SBS-AA, SBS-TA or APP-TA	75.0
COLD APPLIED SYSTEMS:								
LWC-39	Min. 22 ga. steel at max 5 ft spans or structural concrete	Min. 350 psi, min 2-inch Range II Elastizell Lightweight Insulating Concrete with Zell Fibers.	Flintastic Base 20; Poly SMS Base	Trufast FM-90 Base Sheet Fasteners	7-inch o.c. at the 4 inch lap and 7-inch o.c. in two (2), equally spaced, staggered center rows	(Optional) BP-CA2 or SBS-CA2	SBS-CA2	45.0
LWC-40	Min. 22 ga. steel at max 5 ft spans	Min. 350 psi, min 2-inch Range II Elastizell Lightweight Insulating Concrete with Zell Fibers.	Glasbase; Flexglas Base; Poly SMS Base	Trufast FM-90 Base Sheet Fasteners	7-inch o.c. at the 4-inch lap and 7 inch o.c. in two (2), equally spaced, staggered center rows	(Optional) BP-CA3 or SBS-CA3	SBS-CA3	52.5
LWC-41	Structural concrete	Min. 350 psi, min 2-inch Range II Elastizell Lightweight Insulating Concrete with Zell Fibers.	Glasbase; Flexglas Base; Poly SMS Base	Trufast FM-90 Base Sheet Fasteners	7-inch o.c. at the 4-inch lap and 7 inch o.c. in two (2), equally spaced, staggered center rows	(Optional) BP-CA3 or SBS-CA3	SBS-CA3	60.0

NEMO|etc.

TABLE 5A: CEMENTITIOUS WOOD FIBER DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (Note 1)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 14)			MDP (psf)
		Type	Attach	Type	Attach	Base	Ply	Cap	
SELF-ADHERING SYSTEMS:									
CWF-1	Tectum	Min. 1.5-inch FlintBoard ISO, ACFoam II, ENRGY 3 or Multi Max FA3	OB500	Min. 0.25-inch Dens Deck primed with FlintPrime or FlintPrime SA; or SECUROCK Gypsum-Fiber Roof Board	OB500	SBS SA	(Optional) SBS SA	SBS SA	-45.0*
CWF-2	Tectum	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3 inch ACFoam III, Min. 1.5-inch Multi Max FA3 or Ultra-Max	CR-20	Min. 0.25 inch Dens Deck primed with FlintPrime or FlintPrime SA; or SECUROCK Gypsum-Fiber Roof Board	CR-20	SBS-SA	(Optional) SBS-SA	SBS-SA	-52.5
CONVENTIONAL SYSTEMS:									
CWF-3	Tectum	Min. 1.5-inch FlintBoard ISO, ACFoam II, ENRGY 3 or Multi-Max FA3	OB500	Min. 0.5-inch Structodek High Density Fiberboard	OB500	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-45.0*
CWF-4	Tectum	Min. 1.5-inch FlintBoard ISO, ACFoam II, ENRGY 3 or Multi-Max FA3	OB500	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board or Dens Deck or Dens Deck Prime	OB500	BP AA, SBS-AA, SBS-TA or APP-TA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-45.0*
CWF-5	Tectum	Min. 1.0 inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3 inch ACFoam III, Min. 1.5-inch Multi-Max FA3 or Ultra-	CR-20	Min. 0.5-inch Structodek High Density Fiberboard or DuraBoard (homogeneous) or min. 1.5-inch FesraBoard (laminated)	CR-20	BP AA or SBS AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-52.5
CWF-6	Tectum	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5-inch Multi Max FA3 or Ultra-Max	CR-20	Min. 0.25 inch SECUROCK Gypsum-Fiber Roof Board or Dens Deck or Dens Deck Prime	CR-20	BP-AA, SBS-AA, SBS-TA or APP-TA	(Optional) BP-AA, SBS AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-52.5

NEMO | etc.

TABLE 5B: CEMENTITIOUS WOOD FIBER DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-2: MECHANICALLY ATTACHED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (Note 1)	Anchor Sheet			Base Insulation		Top Insulation		Roof Cover (Note 14)			MDP (psf)
		Type	Fasteners	Attach	Type	Attach	Type	Attach	Base	Ply	Cap	
HYBRID SYSTEMS:												
CWF-7.	Tectum	Glasbase; Fiberglas Base; Flintlastic Base 20; All Weather / Empire Base, Yosemite	Trufast Twin Loc-Nail Assembled Fastener (min. 1.8")	7-inch o.c. at the 4-inch lap and 7-inch o.c. in two (2), equally spaced, staggered center rows	Min. 1.5-inch ACfoam II, FlintBoard ISO, ENRGY 3 or Multi-Max FA3	HA	(Optional) Min. 0.25 inch SECUROCK Gypsum-Fiber Roof Board	HA	SBS-AA-II	(Optional) SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-60.0
CONVENTIONAL SYSTEMS:												
CWF-8.	Tectum	Glasbase; Fiberglas Base; Flintlastic Base 20; All Weather / Empire Base, Yosemite	Trufast Twin Loc-Nail Assembled Fastener (min. 1.8")	7-inch o.c. at the 4-inch lap and 7-inch o.c. in two (2), equally spaced, staggered center rows	Min. 1.5-inch ACfoam II, FlintBoard ISO, ENRGY 3 or Multi-Max FA3	HA	Min. 0.75-inch FescoBoard (homogeneous) or min. 0.5-inch Structodek High Density Fiberboard	HA	BP-AA or SBS-AA	(Optional) BP-AA or SBS-AA	SBS-AA, SBS-TA or APP-TA	-60.0

TABLE 5C: CEMENTITIOUS WOOD FIBER DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE C: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Deck (Note 1)	Base Insulation Layer(s)	Top Insulation Layer			Roof Cover (Note 14)			MDP (psf)
			Type	Fasteners	Attach	Base	Ply	Cap	
CWF-9.	Tectum	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation	OMG Polymer GypTec with 3" GypTec Plate	1 per 2 ft²	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-45.0*
CWF-10.	Tectum	(Optional) One or more layers, any combination, loose laid	Min. 0.25 inch Dens Deck or Dens Deck Prime	OMG Polymer GypTec with 3" GypTec Plate	1 per 1.78 ft²	BP-AA, SBS-AA, SBS-TA or APP-TA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-45.0*
CWF-11.	Tectum	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation	Trufast Twin Loc-Nail Assembled Fasteners (minimum 1-inch embedment into deck)	1 per 2 ft²	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-45.0*
CWF-12.	Tectum	(Optional) One or more layers, any combination, loose laid	Min. 0.25-inch Dens Deck or Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board	Trufast Twin Loc-Nail Assembled Fasteners (minimum 1-inch embedment into deck)	1 per 2 ft²	BP-AA, SBS-AA, SBS-TA or APP-TA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-45.0*

NEMO | etc.

TABLE 5D: CEMENTITOUS WOOD FIBER DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE E: MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER

System No.	Deck (Note 1)	Base Sheet			Roof Cover (Note 14)		MDP (psf)
		Base	Fasteners	Attach	Ply	Cap	
SELF-ADHERING SYSTEMS:							
CWF-13	Tectum	Flintastic SA NailBase	Trufast Twin Loc-Nail Assembled Fastener (min. 1.8")	7-inch o.c. at the 4-inch lap and 7-inch o.c. in two (2), equally spaced, staggered center rows	SBS SA	SBS-SA	-60.0
CONVENTIONAL SYSTEMS:							
CWF-14	Tectum	All Weather / Empire Base; Yosemite	Trufast InsulDeck Loc-Nail Base Sheet Fastener	9-inch o.c. at the 4-inch lap and 12-inch o.c. in two (2), equally spaced, staggered center rows	BP AA or SBS-AA	SBS-AA	-30.0*
CWF-15	Tectum	All Weather / Empire Base; Yosemite	Trufast InsulDeck Loc-Nail Base Sheet Fastener	7½-inch o.c. at the 4-inch lap and 7½-inch o.c. in two (2), equally spaced, staggered center rows	BP-AA or SBS-AA	SBS-AA	-45.0*
CWF-16	Tectum	Glasbase; Hexglas Base; All Weather / Empire Base, Yosemite	Simplex Turbo Tube Lok	9-inch o.c. at the 4-inch lap and 12-inch o.c. in two (2), equally spaced, staggered center rows	SBS-AA, SBS TA or APP TA	SBS-AA, SBS-TA or APP-TA	-15.0*
CWF-17	Tectum	Glasbase; Hexglas Base; Flintastic Base 20 or All Weather / Empire Base; Yosemite	Trufast Twin Loc-Nail Assembled Fastener (min. 1.8")	7-inch o.c. at the 4-inch lap and 7-inch o.c. in two (2), equally spaced, staggered center rows	BP-AA or SBS-AA	SBS-AA, SBS TA or APP-TA	-67.5

NEMO | etc.

TABLE 6A: GYPSUM DECKS – REROOF (TEAR-OFF)
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Deck	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 14)			MDP (psf)
		Type	Attach	Type	Attach	Base	Ply	Cap	
SELF-ADHERING SYSTEMS:									
G-1.	Existing sound gypsum or gypsum plank	Min. 1.5-inch ACFoam II, FlintBoard, ENRGY 3 or H-Shield	M-OSFA	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	M-OSFA	SBS-SA	(Optional) SBS-SA	SBS-SA	-172.5
G-2.	Existing sound gypsum or gypsum plank	Min. 1.5-inch ACFoam II, FlintBoard, ENRGY 3 or Multi-Max FA	M-OSFA	Min. 0.25-inch Dens Deck primed with FlintPrime or FastPrime SA	M-OSFA	SBS SA	(Optional) SBS-SA	SBS SA	-192.5
G-3.	Existing sound gypsum or gypsum plank	Min. 1.5-inch ACFoam II, FlintBoard ISO or ENRGY 3	OR500	Min. 0.25-inch Dens Deck primed with FlintPrime or FastPrime SA or SECUROCK Gypsum-Fiber Roof Board	OR500	SBS-SA	(Optional) SBS SA	SBS-SA	-135.0
G-4.	Existing sound gypsum or gypsum plank	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5-inch Multi-Max FA2 or Ultra-Max	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	SBS SA	(Optional) SBS-SA	SBS SA	-172.5
G-5.	Existing sound gypsum or gypsum plank	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5-inch Multi-Max FA2 or Ultra-Max	CR-20	Min. 0.25-inch Dens Deck primed with FlintPrime or FlintPrime SA	CR-20	SBS-SA	(Optional) SBS-SA	SBS-SA	-192.5
CONVENTIONAL SYSTEMS:									
G-6.	Existing sound gypsum or gypsum plank	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	M-OSFA	Min. 3.0 inch Structodek High Density Fiberboard	M-OSFA	BP AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-127.5
G-7.	Existing sound gypsum or gypsum plank	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	M-OSFA	Min. 0.25-inch Dens Deck	M-OSFA	BP AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-232.5
G-8.	Existing sound gypsum or gypsum plank	Min. 3-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	M-OSFA	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	M-OSFA	BP-AA or SBS-AA, SBS-TA or APP-TA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-202.5
G-9.	Existing sound gypsum or gypsum plank	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	OR500	Min. 0.5-inch Structodek High Density Fiberboard	OR500	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-120.0
G-10.	Existing sound gypsum or gypsum plank	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	OR500	Min. 0.25-inch Dens Deck, Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board	OR500	BP-AA, SBS-AA, SBS-TA or APP-TA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-135.0
G-11.	Existing sound gypsum or gypsum plank	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5-inch Multi-Max FA2 or Ultra-Max	CR-20	Min. 0.25-inch Dens Deck or Dens Deck Prime	CR-20	SBS-TA	(Optional) SBS-TA	SBS-TA	180.0

NEMO | etc.

TABLE 6A: GYPSUM DECKS – REROOF (TEAR-OFF)
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Deck	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 14)			MDP (psf)
		Type	Attach	Type	Attach	Base	Ply	Cap	
G-12.	Existing sound gypsum or gypsum plank	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5-inch Multi Max FA3 or Ultra Max	CR-20	Min. 0.5-inch Structodek High Density Fiberboard or DuraBoard (homogeneous) or min. 1.5-inch Hescoboard (laminated)	CR-20	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-100.0
G-13.	Existing sound gypsum or gypsum plank	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5-inch Multi Max FA3 or Ultra Max	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-225.0
G-14.	Existing sound gypsum or gypsum plank	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5-inch Multi Max FA3 or Ultra Max	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	SBS-TA or APP-TA	(Optional) SBS-TA or APP-TA	SBS-TA or APP-TA	-232.5
G-15.	Existing sound gypsum or gypsum plank	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5-inch Multi-Max FA3 or Ultra-Max	CR-20	Min. 0.25-inch Dens-Deck	CR-20	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-240.0

NEMO | etc.

TABLE 6B: GYPSUM DECKS – REROOF (Tear-Off)
SYSTEM TYPE A-2: MECHANICALLY ATTACHED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (Note 1)	Anchor Sheet			Base Insulation		Top Insulation		Roof Cover (Note 14)			MDP (psf)
		Type	Fasteners	Attach	Type	Attach	Type	Attach	Base	Ply	Lap	
HYBRID SYSTEMS:												
G-19	Existing sound gypsum or gypsum plank	Glasbase; Flexiglas Base; Flintlastic Base 20; All Weather / Empire Base; Yosemite	Trufast Twin Loc Nail Assembled Fastener (min. 1.8")	7-inch o.c. at the 4-inch lap and 7-inch o.c. in two (2), equally spaced, staggered center rows	Min. 2.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or Multi-Max FA3	HA	None	N/A	SBS-SA-II	(Optional) SBS AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-60.0
CONVENTIONAL SYSTEMS:												
G-17	Existing sound gypsum or gypsum plank	All Weather / Empire Base; Yosemite	Trufast FM-75 or FM-90 Base Sheet Fastener	9 inch o.c. at the 4-inch lap and 18-inch o.c. in two (2), equally spaced, staggered center rows	(Optional) Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or Multi-Max FA3	HA	Min. 0.75 inch FesoBoard (homogeneous) or min. 0.5-inch Structodek High Density Fiberboard	HA	SP-AA or SBS-AA	(Optional) SP-AA or SBS-AA	SBS-AA, SBS-TA or APP-TA	-45.0*
G-18	Existing sound gypsum or gypsum plank	Glasbase; Flexiglas Base; Flintlastic Base 20; All Weather / Empire Base; Yosemite	Trufast Twin Loc Nail Assembled Fastener (min. 1.8")	7-inch o.c. at the 4-inch lap and 7-inch o.c. in two (2), equally spaced, staggered center rows	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or Multi-Max FA3	HA	Min. 0.75-inch FesoBoard (homogeneous) or min. 0.5-inch Structodek High Density Fiberboard	HA	SP-AA or SBS-AA	(Optional) SP-AA or SBS-AA	SBS-AA, SBS-TA or APP-TA	-60.0

NEMO|etc.

TABLE 6C: GYPSUM DECKS – REROOF (TEAR-OFF)
SYSTEM TYPE C: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Deck [Note 1]	Base Insulation Layer[s]	Top Insulation Layer			Roof Cover [Note 14]			MDP (psf)
			Type	Fasteners	Attach	Base	Ply	Cap	
G-19.	Existing sound gypsum or gypsum plank	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation	OMG Polymer GypTec with 3" GypTec Plate	1 per 2 ft²	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-45.0*
G-20.	Existing sound gypsum or gypsum plank	(Optional) One or more layers, any combination, loose laid	Min. 0.25-inch Dens Deck or Dens Deck Prime	OMG Polymer GypTec with 3" GypTec Plate	1 per 1.78 ft²	BP-AA, SBS-AA, SBS-TA or APP-TA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-45.0*
G-21.	Existing sound gypsum or gypsum plank	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation	Trufast Twin Loc-Nail Assembled Fasteners (minimum 1-inch embedment into deck)	1 per 2 ft²	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-45.0*
G-22.	Existing sound gypsum or gypsum plank	(Optional) One or more layers, any combination, loose laid	Min. 0.25-inch Dens Deck or Dens Deck Prime or SECUROCK Gypsum Fiber Roof Board	Trufast Twin Loc-Nail Assembled Fasteners (minimum 1-inch embedment into deck)	1 per 7 ft²	BP-AA, SBS-AA, SBS-TA or APP-TA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-45.0*

TABLE 6D: GYPSUM DECKS – REROOF (TEAR-OFF)
SYSTEM TYPE E: MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER

System No.	Deck [Note 1]	Base Sheet			Roof Cover (Note 14)		MDP (psf)
		Base	Fasteners	Attach	Ply	Cap	
SELF-ADHERED SYSTEMS:							
G-23.	Existing sound gypsum or gypsum plank	Flintlastic SA NailBase	Trufast Twin Loc-Nail Assembled Fastener (min. 1.8")	9-inch o.c. at the 4-inch lap and 9-inch o.c. in two (2), equally spaced, staggered center rows	SBS-SA	SBS-SA	-60.0
CONVENTIONAL SYSTEMS:							
G-24.	Existing sound gypsum or gypsum plank	All Weather / Empire Base; Yosemite	Trufast PM-75 or PM-90 Base Sheet Fastener	9-inch o.c. at the 4-inch lap and 18-inch o.c. in two (2), equally spaced, staggered center rows	BP-AA or SBS-AA	SBS-AA	-45.0*
G-25.	Existing sound gypsum or gypsum plank	Glasbase; Flexglas Base; All Weather / Empire Base; Yosemite	Simplex Turbo Tube-Lok	9-inch o.c. at the 4-inch lap and 12-inch o.c. in two (2), equally spaced, staggered center rows	SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-45.0*
G-26.	Existing sound gypsum or gypsum plank	Glasbase; Flexglas Base; Flintlastic Base 30; All Weather / Empire Base; Yosemite	Trufast Twin Loc-Nail Assembled Fastener (min. 1.9")	9-inch o.c. at the 4-inch lap and 9-inch o.c. in two (2), equally spaced, staggered center rows	BP-AA or SBS-AA	SBS-AA, SBS-TA or APP-TA	-67.5

NEMO|etc.

TABLE 7A: RECOVER APPLICATIONS
SYSTEM TYPE A-2: BONDED INSULATION, BONDED ROOF COVER

System No.	Substrate (Notes 1 & 11)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 14)			MDP (psf)
		Type	Attach	Type	Attach	Base	Ply	Cap	
SELF-ADHERING SYSTEMS:									
R-1	Existing fully bonded BUR or modified bitumen roof cover	Min. 0.25-inch Dens Deck primed with FlintPrime or FlintPrime SA; or SECUROCK Gypsum-Fiber Roof Board	HA	None	N/A	SBS SA	(Optional) SBS-SA	SBS-SA	-105.0
R-2	Existing fully bonded BUR or modified bitumen roof cover	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3, H-Shield or Multi-Max FA3	HA	Min. 0.25-inch Dens Deck primed with FlintPrime or FlintPrime SA; or SECUROCK Gypsum-Fiber Roof Board.	HA	SBS SA	(Optional) SBS-SA	SBS-SA	-105.0
R-3	Existing fully bonded, smooth surface BUR or modified bitumen	Min. 0.25-inch Dens Deck primed with FlintPrime or FlintPrime SA or SECUROCK Gypsum-Fiber Roof Board	A-PD, 8 inch o.c.	None	N/A	SBS-SA	(Optional) SBS SA	SBS-SA	-105.0
R-4	Existing fully bonded, mineral surface modified bitumen	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	A-PD, 6-inch o.c.	None	N/A	SBS-SA	(Optional) SBS SA	SBS-SA	-172.5
R-5	Existing fully bonded, mineral surface modified bitumen	Min. 0.25-inch Dens Deck primed with FlintPrime or FlintPrime SA	A-PD, 6-inch o.c.	None	N/A	SBS-SA	(Optional) SBS-SA	SBS-SA	-180.0
R-6	Existing fully bonded, smooth surface BUR or modified bitumen	Min. 1.5-inch ACFoam II, FlintBoard, ENRGY 3 or Multi-Max FA3	A-PD, 6-inch o.c.	Min. 0.25-inch Dens Deck primed with FlintPrime or FlintPrime SA or SECUROCK Gypsum-Fiber Roof Board	A-PD, 6-inch o.c.	SBS-SA	(Optional) SBS SA	SBS-SA	-52.5
R-7	Existing fully bonded, mineral surface BUR or modified bitumen	Min. 1.5-inch ACFoam II, FlintBoard, ENRGY 3 or Multi-Max FA3	A-PD, 6-inch o.c.	Min. 0.25-inch Dens Deck primed with FlintPrime or FlintPrime SA or SECUROCK Gypsum-Fiber Roof Board	A-PD, 6-inch o.c.	SBS-SA	(Optional) SBS-SA	SBS-SA	-172.5
R-8	Existing fully bonded BUR or modified bitumen roof cover	Min. 1.5-inch ACFoam II, FlintBoard, ENRGY 3 or H Shield	M-OSFA	Min. 0.25-inch Dens Deck primed with FlintPrime or FlintPrime SA or SECUROCK Gypsum-Fiber Roof Board	M-OSFA	SBS-SA	(Optional) SBS-SA	SBS-SA	-157.5
R-9	Existing fully bonded, smooth- or granule-surface BUR or modified bitumen	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	M-PG1	None	N/A	SBS SA	(Optional) SBS-SA	SBS-SA	172.5
R-10	Existing fully bonded, smooth- or granule-surface BUR or modified bitumen	Min. 0.25-inch Dens Deck primed with FlintPrime or FlintPrime SA	M-PG1	None	N/A	SBS-SA	(Optional) SBS-SA	SBS-SA	-180.0
R-11	Existing fully bonded BUR or modified bitumen roof cover	Min. 1.5-inch ACFoam II, FlintBoard, ENRGY 3 or H Shield	M-PG1	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	M-PG1	SBS-SA	(Optional) SBS SA	SBS-SA	-172.5

TABLE 7A: RECOVER APPLICATIONS SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER										
System No.	Substrate (Notes 1 & 11)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 14)			MDP (psf)
		Type	Attach	Type	Attach	Base	Ply	Cap	
R-12	Existing fully bonded BUR or modified bitumen roof cover	Min. 1.5-inch ACFoam II, FlintBoard, ENRGY 3 or Multi-Max FA	M-PG1	Min. 0.25-inch Dens Deck primed with FlintPrime or FlintPrime SA	M-PG1	SBS-SA	(Optional) SBS-SA	SBS-SA	-180.0
R-13	Existing fully bonded, smooth- or granule-surface BUR or modified bitumen	Min. 0.25-inch Dens Deck primed with FlintPrime or FlintPrime SA or SECUROCK Gypsum-Fiber Roof Board	OB500	None	N/A	SBS-SA	(Optional) SBS-SA	SBS-SA	-120.0
R-14	Existing fully bonded BUR or modified bitumen roof cover	Min. 1.5-inch ACFoam II, FlintBoard ISO or ENRGY 3	OB500	Min. 0.25-inch Dens Deck primed with FlintPrime or FlintPrime SA or SECUROCK Gypsum-Fiber Roof Board	OB500	SBS-SA	(Optional) SBS-SA	SBS-SA	120.0
R-15	Existing fully bonded, smooth- or granule-surface BUR or modified bitumen	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	None	N/A	SBS-SA	(Optional) SBS-SA	SBS-SA	-172.5
R-16	Existing fully bonded, smooth- or granule-surface BUR or modified bitumen	Min. 0.25-inch Dens Deck primed with FlintPrime or FlintPrime SA	CR-20	None	N/A	SBS-SA	(Optional) SBS-SA	SBS-SA	-192.5
R-17	Existing fully bonded BUR or modified bitumen roof cover	Min. 1.3-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5-inch Multi-Max FA3 or Ultra-Max	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	SBS-SA	(Optional) SBS-SA	SBS-SA	-172.5
R-18	Existing fully bonded BUR or modified bitumen roof cover	Min. 1.3-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5-inch Multi-Max FA3 or Ultra-Max	CR-20	Min. 0.25-inch Dens Deck primed with FlintPrime or FlintPrime SA	CR-20	SBS-SA	(Optional) SBS-SA	SBS-SA	-192.5
HYBRID SYSTEMS:									
R-19	Existing fully bonded BUR or modified bitumen roof cover	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	HA	None	N/A	SBS-SA-H	(Optional) SBS-AA, SBS-TA, APP-TA	SBS-AA, SBS-TA, APP-TA	-105.0
R-20	Existing fully bonded, smooth surface BUR or modified bitumen	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	A-PD, 6-inch o.c.	None	N/A	SBS-SA-H	(Optional) SBS-AA, SBS-TA, APP-TA	SBS-AA, SBS-TA, APP-TA	105.0
R-21	Existing fully bonded, mineral surface modified bitumen	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	A-PD, 6-inch o.c.	None	N/A	SBS-SA-H	(Optional) SBS-AA, SBS-TA, APP-TA	SBS-AA, SBS-TA, APP-TA	-180.0
R-22	Existing fully bonded, smooth- or granule surface BUR or modified bitumen	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	M-PG1	None	N/A	SBS-SA-H	(Optional) SBS-AA, SBS-TA, APP-TA	SBS-AA, SBS-TA, APP-TA	-180.0
R-23	Existing fully bonded, smooth- or granule surface BUR or modified bitumen	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	None	N/A	SBS-SA-H	(Optional) SBS-AA, SBS-TA, APP-TA	SBS-AA, SBS-TA, APP-TA	-120.0

NEMO|etc.

TABLE 7A: RECOVER APPLICATIONS
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Substrate (Notes 1 & 11)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 14)			MDP (psf)
		Type	Attach	Type	Attach	Base	Ply	Cap	
R-24	Existing fully bonded, smooth- or granule surface BUR or modified bitumen	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	None	N/A	SBS-SA-FR	(Optional) SBS-AA, SBS-TA, APP-TA	SBS-AA, SBS-TA, APP-TA	-135.0
CONVENTIONAL SYSTEMS:									
R-25	Existing fully bonded BUR or modified bitumen roof cover	0.5 inch Structodek High Density Fiberboard or min. 0.75-inch Fesco Board (homogeneous)	HA	None	N/A	BP-AA, SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-105.0
R-26	Existing fully bonded BUR or modified bitumen roof cover	0.25-inch Dens Deck, Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board	HA	None	N/A	BP-AA, SBS-AA, SBS-TA or APP-TA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-105.0
R-27	Existing fully bonded BUR or modified bitumen roof cover	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3, H Shield or Multi-Max FAS	HA	Min. 0.5 inch Structodek High Density Fiberboard, Min. 0.75-inch FescoBoard (homogeneous) or Min. 0.5-inch DuraBoard (homogeneous)	HA	BP-AA or SBS AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-105.0
R-28	Existing fully bonded BUR or modified bitumen roof cover	Min. 2.5-inch ACFoam II, FlintBoard ISO, ENRGY 3, H Shield or Multi-Max FAS	HA	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board, Dens Deck, Dens Deck Prime	HA	BP-AA, SBS-AA, SBS TA or APP-TA	(Optional) BP-AA, SBS AA, SBS TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-105.0
R-29	Existing fully bonded, smooth surface BUR or modified bitumen	Min. 0.5-inch Structodek High Density Fiberboard	A-PD, 6-inch o.c.	None	N/A	BP-AA, SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-105.0
R-30	Existing fully bonded, mineral surface modified bitumen	Min. 0.5-inch Structodek High Density Fiberboard	A-PD, 6-inch o.c.	None	N/A	BP-AA, SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS TA or APP-TA	-190.0
R-31	Existing fully bonded, smooth surface BUR or modified bitumen	Min. 0.25-inch Dens Deck, Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board	A-PD, 6-inch o.c.	None	N/A	BP-AA, SBS-AA, SBS-TA or APP-TA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-105.0
R-32	Existing fully bonded, mineral surface modified bitumen	Min. 0.25-inch Dens Deck, Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board	A-PD, 6-inch o.c.	None	N/A	BP-AA, SBS-AA, SBS-TA or APP-TA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-180.0
R-33	Existing fully bonded, smooth surface BUR or modified bitumen	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H Shield	A-PD, 6-inch o.c.	Min. 0.5-inch Structodek High Density Fiberboard	A-PD, 6-inch o.c.	BP-AA or SBS AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-52.5
R-34	Existing fully bonded, smooth surface BUR or modified bitumen	Min. 2-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	A-PD, 6-inch o.c.	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board or Dens Deck	A-PD, 6-inch o.c.	BP-AA or SBS-AA, SBS-TA or APP-TA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-52.5

NEMO|etc.

TABLE 7A: RECOVER APPLICATIONS
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Substrate (Notes 1 & 11)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 14)			MDP (psf)
		Type	Attach	Type	Attach	Base	Ply	Cap	
R-35	Existing fully bonded, mineral surface BUR or modified bitumen	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	A-PD, 6-inch o.c.	Min. 0.5-inch Structodek High Density Fiberboard	A-PD, 6-inch o.c.	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-172.5
R-36	Existing fully bonded, mineral surface BUR or modified bitumen	Min. 2-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	A-PD, 6-inch o.c.	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board or Dens Deck	A-PD, 6-inch o.c.	BP-AA or SBS-AA, SBS-TA or APP-TA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-172.5
R-37	Existing fully bonded BUR or modified bitumen roof cover	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	M-OSFA	Min. 0.5-inch Structodek High Density Fiberboard	M-OSFA	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-122.5
R-38	Existing fully bonded BUR or modified bitumen roof cover	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	M-OSFA	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board or Dens Deck	M-OSFA	BP-AA or SBS-AA, SBS-TA or APP-TA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-257.5
R-39	Existing fully bonded, smooth- or granule-surface BUR or modified bitumen	Min. 3.0-inch Structodek High Density Fiberboard	M-PG1	None	N/A	BP-AA, SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-280.0
R-40	Existing fully bonded, smooth- or granule-surface BUR or modified bitumen	Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board	M-PG1	None	N/A	BP-AA, SBS-AA, SBS-TA or APP-TA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-180.0
R-41	Existing fully bonded BUR or modified bitumen roof cover	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	M-PG1	Min. 0.5-inch Structodek High Density Fiberboard	M-PG1	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-180.0
R-42	Existing fully bonded BUR or modified bitumen roof cover	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	M-PG1	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board or Dens Deck	M-PG1	BP-AA or SBS-AA, SBS-TA or APP-TA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-180.0
R-43	Existing fully bonded, smooth- or granule surface BUR or modified bitumen	Min. 0.5-inch Structodek High Density Fiberboard	OB500	None	N/A	BP-AA, SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-120.0
R-44	Existing fully bonded, smooth- or granule surface BUR or modified bitumen	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	None	N/A	BP-AA, SBS-AA, SBS-TA or APP-TA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-120.0
R-45	Existing fully bonded BUR or modified bitumen roof cover	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	OB500	Min. 0.5-inch Structodek High Density Fiberboard	OB500	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-120.0
R-46	Existing fully bonded BUR or modified bitumen roof cover	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	OB500	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board, Dens Deck or Dens Deck Prime	OB500	BP-AA, SBS-AA, SBS-TA or APP-TA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-120.0

NEMO | etc.

TABLE 7A: RECOVER APPLICATIONS
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Substrate (Notes 1 & 11)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 14)			MDP (psf)
		Type	Attach	Type	Attach	Base	Ply	Cap	
R-47	Existing fully bonded, smooth or granule-surface BUR or modified bitumen	Min. 0.5-inch Structodek High Density Fiberboard	CR-20	None	N/A	BP-AA, SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-195.0
R-48	Existing fully bonded, smooth or granule surface BUR or modified bitumen	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	None	N/A	BP-AA, SBS-AA, SBS-TA or APP-TA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-195.0
R-49	Existing fully bonded BUR or modified bitumen roof cover	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3 inch ACFoam III, Min. 1.5 inch Multi-Max FA3 or Ultra-Max	CR-20	Min. 0.25-inch Dens Deck or Dens Deck Prime	CR-20	SBS-TA	(Optional) SBS-TA	SBS-TA	-180.0
R-50	Existing fully bonded BUR or modified bitumen roof cover	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3 inch ACFoam III, Min. 1.5 inch Multi-Max FA3 or Ultra-Max	CR-20	Min. 0.5-inch Structodek High Density Fiberboard or DuraBoard (homogeneous) or min. 1.5-inch FesoBoard (laminated)	CR-20	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-180.0
R-51	Existing fully bonded BUR or modified bitumen roof cover	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5 inch Multi-Max FA3 or Ultra-Max	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-225.0
R-52	Existing fully bonded BUR or modified bitumen roof cover	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5-inch Multi-Max FA3 or Ultra-Max	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	SBS-TA or APP-TA	(Optional) SBS-TA or APP-TA	SBS-TA or APP-TA	-232.5
R-53	Existing fully bonded BUR or modified bitumen roof cover	Min. 1.0 inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5-inch Multi-Max FA3 or Ultra-Max	CR-20	Min. 0.25-inch Dens Deck	CR-20	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-240.0
COLD-APPLIED SYSTEMS:									
R-54	Existing fully bonded BUR or modified bitumen roof cover	(Optional) Min. 0.5 inch ACFoam II, FlintBoard ISO, H-Shield, FlintBoard ISO$_{II}$	OB500	Min. 1.5-inch ACFoam III, FlintBoard Iso Cold, H-Shield CG or FlintBoard Iso Cold$_{II}$	OB500	SBS CA1	None	SBS-CA1	-82.5
R-55	Existing fully bonded BUR or modified bitumen roof cover	(Optional) Min. 0.5 inch ACFoam II, FlintBoard ISO, H-Shield, FlintBoard ISO$_{II}$	CR-20	Min. 1.5-inch ACFoam III, FlintBoard Iso Cold, H-Shield CG or FlintBoard Iso Cold$_{II}$	CR-20	SBS CA1	None	SBS-CA1	-82.5
R-56	Existing fully bonded, smooth- or granule surface BUR or modified bitumen	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	A-PD, 6-inch o.c.	None	N/A	SBS-CA1	None	SBS-CA1	-205.0
R-57	Existing fully bonded, smooth surface BUR or modified bitumen	Min. 1.5 inch ACFoam II, FlintBoard ISO, H-Shield, FlintBoard ISO$_{II}$	A-PD, 6-inch o.c.	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	A-PD, 6-inch o.c.	SBS-CA1	None	SBS-CA1	-52.5

NEMO | etc.

TABLE 7A: RECOVER APPLICATIONS
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Substrate (Notes 1 & 11)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 14)			MDP (psf)
		Type	Attach	Type	Attach	Base	Ply	Cap	
R-58	Existing fully bonded, mineral surface BUR or modified bitumen	Min. 0.5 inch ACFoam II, FlintBoard ISO, H-Shield, FlintBoard ISO$_H$	A-PD, 6-inch o.c.	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	A-PD, 6-inch o.c.	SBS-CA1	None	SBS-CA1	105.0
R-59	Existing fully bonded, smooth- or granule-surface BUR or modified bitumen	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	M-PG1	None	N/A	SBS-CA1	None	SBS-CA1	105.0
R-60	Existing fully bonded, mineral surface BUR or modified bitumen	Min. 0.5 inch ACFoam II, FlintBoard ISO, H-Shield, FlintBoard ISO$_H$	M-DSFA, M-PG1	Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board	M-DSFA, M-PG1	SBS-CA1	None	SBS-CA1	-105.0
R-61	Existing fully bonded, smooth- or granule-surface BUR or modified bitumen	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	DBS60	None	N/A	SBS-CA1	None	SBS CA1	-105.0
R-62	Existing fully bonded, mineral surface BUR or modified bitumen	Min. 0.5 inch ACFoam II, FlintBoard ISO, H-Shield, FlintBoard ISO$_H$	DBS60	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	DBS60	SBS-CA1	None	SBS-CA1	-105.0
R-63	Existing fully bonded, smooth- or granule-surface BUR or modified bitumen	Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board	CR-20	None	N/A	SBS-CA1	None	SBS CA1	-105.0
R-64	Existing fully bonded, mineral surface BUR or modified bitumen	Min. 0.5-inch ACFoam II, FlintBoard ISO, H-Shield, FlintBoard ISO$_H$	CR-20	Min. 0.25 inch SECUROCK Gypsum-Fiber Roof Board	CR-20	SBS-CA1	None	SBS CA1	-105.0

TABLE 7B: RECOVER APPLICATIONS – NEW CONSTRUCTION OR REROOF (Cont'd)
SYSTEM TYPE E: NON-INSULATED, BONDED ROOF COVER

System No.	Substrate (Notes 1 & 11)	Primer	Roof Cover (Note 14)			MDP (psf)
			Base	Ply	Cap	
R-65	Existing fully bonded BUR over structural concrete deck	(Optional) FlintPrime (ASTM D41)	SBS-CA1	None	SBS-CA1	-187.5

FL #	FL15692-R3
Application Type	Revision
Code Version	2017
Application Status	Approved
Comments	
Archived	
Product Manufacturer	CertainTeed Corporation-Roofing
Address/Phone/Email	20 Moores Road Malvern, PA 19355 (610) 893-5400 mark.d.harner@saint-gobain.com
Authorized Signature	Mark Harner mark.d.harner@saint-gobain.com
Technical Representative	Mark D. Harner
Address/Phone/Email	18 Moores Road Malvern, PA 19355 (610) 651-5847 Mark.D.Harner@saint-gobain.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 ☐ 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	03/09/2020
Validated By	John W. Knezevich, PE ☑ Validation Checklist - Hardcopy Received
Certificate of Independence	FL15692_R3_COI_2018_01_COI_NIEMINEN.pdf

Referenced Standard and Year (of Standard)

Standard	Year
ASTM D1970 (tear)	2015
ASTM D226 (physicals)	2009
ASTM D4798	2011

Equivalence of Product Standards Certified By

Sections from the Code

Product Approval Method	Method 1 Option D
Date Submitted	03/19/2018
Date Validated	03/22/2018
Date Pending FBC Approval	03/27/2018
Date Approved	06/12/2018

Summary of Products

FL #	Model, Number or Name	Description
15692.1	DiamondDeck	Scrim-reinforced, polymer-based roof underlayment
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 for Limits of Use.		**Installation Instructions** FL15692_R3_II_2018_03_FINAL_ER_CERTAINTEED_DIAMOND DECK_1_FL15692-R3.pdf Verified By: Robert Nieminen PE-59166 Created by Independent Third Party: Yes **Evaluation Reports** FL15692_R3_AE_2018_03_FINAL_ER_CERTAINTEED_DIAMOND DECK_1_FL15692-R3.pdf Created by Independent Third Party: Yes

Back Next

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

ENGINEER | EVALUATE | TEST | CONSULT | CERTIFY

EVALUATION REPORT

CertainTeed Corporation
20 Moores Road
Malvern, PA 19355
(610) 651-5847

Evaluation Report C40710.06.12-R3
FL15692-R3
Date of Issuance: 06/16/2012
Revision 3: 03/19/2018

SCOPE:
This Evaluation Report is issued under **Rule 61G20-3** and the applicable rules and regulations governing the use of construction materials in the State of Florida. The documentation submitted has been reviewed by Robert Nieminen, P.E. for use of the product under the Florida Building Code 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: CertainTeed DiamondDeck® High Performance Synthetic Underlayment

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

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

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

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

This Evaluation Report consists of pages 1 through 4.

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 03/19/2018. This does not serve as an electronically signed document.

CERTIFICATION OF INDEPENDENCE:

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

ROOFING COMPONENT EVALUATION:

1. SCOPE:

Product Category: Roofing
Sub-Category: Underlayment
Compliance Statement: **CertainTeed DiamondDeck® High Performance Synthetic Underlayment**, as produced by **CertainTeed Corporation**, has demonstrated compliance with the following sections of the **6th Edition (2017) Florida Building Code** through testing in accordance with applicable sections the following Standards. Compliance is subject to the Installation Requirements and Limitations / Conditions of Use set forth herein.

2. STANDARDS:

Section	Property	Standard	Year
1507.1.1, R905.1.1 Exception	Unrolling, Breaking Strength, Pliability	ASTM D226	2009
1507.1.1, R905.1.1 Exception	Tear strength	ASTM D1970	2015
TAS 110	Accelerated Weathering	ASTM D4798	2011

3. REFERENCES:

Entity	Examination	Reference	Date
ERD (TST6049)	Physical Properties	C30280.12.09	12/11/2009
ERD (TST6049)	Physical Properties	C30280.12.09-R2	08/20/2010
ERD (TST6049)	Tear strength	CTR-SC16080.17	07/31/2017
UL, LLC. (QUA9625)	Quality Control	Service Confirmation	Exp. 03/09/2020

4. PRODUCT DESCRIPTION:

4.1 **DiamondDeck®** is a scrim-reinforced, polymer-based roof underlayment; meets FBC 1507.1.1 & R905.1.1 (Exception).

5. LIMITATIONS:

5.1 This is a building code evaluation. Neither NEMO ETC, LLC nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this 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 report; refer to current Approved Roofing Materials Directory or test report from accredited testing agency for fire ratings of this product.

5.4 **DiamondDeck®** 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
DiamondDeck®	Yes	No	No	Yes	Yes	Yes

5.6 Exposure Limitations:

DiamondDeck® shall not be left exposed for longer than 180-days after installation. Refer to installation instructions specific to anticipated exposure in **Section 6**.

6. INSTALLATION:

6.1 **DiamondDeck®** shall be installed in accordance with **CertainTeed Corporation** published installation requirements subject to the Limitations set forth in Section 5 herein and the specifics noted below.

6.2 Shall be installed in compliance with the requirements for **ASTM D226, Type I or II** underlayment in **FBC Table 1507.1.1 or R905.1.1** for the type of prepared roof covering to be installed, taking into account the wider sheet-width for double-layer applications.

6.3 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.

6.4 Consult **CertainTeed** published recommendations for the installation of a leak barrier of ASTM D1970, such as **CertainTeed WinterGuard (FL11288)**, or equal holding Florida Statewide Product Approval at vulnerable leak areas.

6.5 Single Layer; Roof Slope > 4:12:

For slopes 4:12 (18.4°) or greater: **DiamondDeck®** shall be laid horizontally, parallel to the eave with the printed side up, flat and unwrinked and have minimum 3-inch side (horizontal) laps and minimum 6-inch end (vertical) laps. Side (horizontal) laps shall run with the flow of water in a shingling manner. End (vertical) laps shall be offset from course to course not less than 3 feet.

6.6 Double Layer; 2:12 < Roof Slope < 4:12:

For slopes 2:12 (9.4°) to <4:12 (18.4°): **DiamondDeck®** shall be applied in a double coverage method, flat and unwrinkled. Begin by applying a 24-inch wide starter-strip of **DiamondDeck®** along the eaves. Then place a full-width sheet over the starter, with the lower edge flush to the starter's lower edge. Apply succeeding 48-inch wide courses up the roof slope, overlapping each previous course a minimum of 20-inches in a "shingle fashion" with minimum 12-inch end (vertical) laps. End (vertical) laps shall be offset from course to course not less than 3 feet.

6.7 Where laps or joints require sealant or adhesive, use high quality asphalt roofing cement meeting ASTM D4586, Type II or cements/caulks based on butyl rubber or urethane. CertainTeed recommends sealing all laps and joints where the underlayment will be exposed to wind-driven rain.

6.8 Attachment:

Code Reference: The Exception statement in FBC 1507.1.1 and FBC R905.1.1 requires use of metal cap nails where the ultimate design wind speed, Vult, equals or exceeds 150 mph.

Do not use staples. Ensure fasteners are installed at 90 degree angle to the deck with flush contact between the cap and the upper surface of the underlayment. Fasteners shall be of sufficient length to penetrate through the underside of plywood or OSB decks, or minimum ¾-inch embedment into dimensional lumber / tongue-and-grove wood decks.

Short-term exposure (< 2 days): When the finished roofing will be installed within two days of underlayment application and high winds are not forecast, corrosion-resistant or stainless steel roofing nails with 3/8-inch diameter heads may be used. Attach the underlayment by nailing a fastener through each diamond printed on the underlayment and tight to the surface. Proper fastener spacing is 15-inch o.c. vertically and 12-inch o.c. horizontally (parallel to eaves). On vertical side/end laps install 8 fasteners equally spaced at 6-inch o.c. centered in the lap to hold the underlayment in place. If wind or rain is expected prior to finish roofing application, use 1-inch diameter plastic or steel cap nails, as below.

Long-term exposure (> 2 days to max. 180-days): When anticipated exposure time may exceed two days, use low-profile plastic or steel cap nails with 1-inch diameter heads to fasten in place. Attach the underlayment by nailing a fastener through each diamond printed on the underlayment and tight to the surface, as described above.

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)
Hangzhou, China	FBC 1507.1.1 (Exception)	DiamondDeck®

9. QUALITY ASSURANCE ENTITY:

UL, LLC. – QUA9625; (414) 248-6409; karen.buchmann@ul.com

- END OF EVALUATION REPORT -

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

CONSTRUCTION INDUSTRY LICENSING BOARD
2601 BLAIR STONE ROAD
TALLAHASSEE FL 32399-0783

(850) 487-1395

DENAULT, TED CECIL
NOK ROOFING
6432 PINECASTLE BLVD
STE A
ORLANDO FL 32809

Congratulations! With this license you become one of the nearly one million Floridians licensed by the Department of Business and Professional Regulation. Our professionals and businesses range from architects to yacht brokers, from boxers to barbeque restaurants, and they keep Florida's economy strong.

Every day we work to improve the way we do business in order to serve you better. For information about our services, please log onto **www.myfloridalicense.com**. There you can find more information about our divisions and the regulations that impact you, subscribe to department newsletters and learn more about the Department's initiatives.

Our mission at the Department is: License Efficiently, Regulate Fairly. We constantly strive to serve you better so that you can serve your customers. Thank you for doing business in Florida, and congratulations on your new license!

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

CCC1326946 ISSUED: 02/15/2017

CERTIFIED ROOFING CONTRACTOR
DENAULT, TED CECIL
NOK ROOFING

IS CERTIFIED under the provisions of Ch.489 FS.
Expiration date : AUG 31, 2018 L1702150001053

DETACH HERE

RICK SCOTT, GOVERNOR

MATILDE MILLER, INTERIM SECRETARY

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

LICENSE NUMBER	
CCC1326946	

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

DENAULT, TED CECIL
NOK ROOFING
121 S ORANGE AVE
STE 1549
ORLANDO FL 32801

ISSUED: 02/15/2017 DISPLAY AS REQUIRED BY LAW SEQ # L1702150001053

2017 - 2018

CITY OF ORLANDO
PERMITTING SERVICES

Local Business Tax Receipt

(Formerly known as "Business License" changed per state law HB1269-2006)

NOTICE-THIS TAX RECEIPT ONLY EVIDENCES PAYMENT OF THE LOCAL BUSINESS TAX PURSUANT TO CH.205, FLORIDA STATUTES. IT DOES NOT PERMIT THE HOLDER TO OPERATE IN VIOLATION OF ANY CITY, STATE, OR FEDERAL LAW. CITY PERMITTING MUST BE NOTIFIED OF ANY MATERIAL CHANGE TO THE INFORMATION FOUND HEREIN BELOW. THIS RECEIPT DOES NOT CONSTITUTE AN ENDORSEMENT OR APPROVAL OF THE HOLDER'S SKILL OR COMPETENTCY.

Business Name:
NOK ROOFING TED CECIL DENAULT
CCC1326946
2750 TAYLOR AVE
A27
ORLANDO, FL 32806

Case Number: BUS-1000071

Issued Date: 08/18/2017

Expiration Date: 9/30/2018

Business Owner
ROOFING ASSOCIATES LLC

Business Location
2750 TAYLOR AVE SUITE A27

Business type(s):

Description	Year
CONTRA 1524 CONTRACTOR DBPR	2018

JEFF ATWATER
CHIEF FINANICAL 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: 4/13/2017 **EXPIRATION DATE:** 4/13/2019

PERSON: DENAULT TED

FEIN: 814752636

BUSINESS NAME AND ADDRESS:

ROOFING ASSOCIATES INC

NOK ROOFING

2750 TAYLOR AVE #A27

ORLANDO FL 32806

SCOPE OF BUSINESS OR TRADE:

Licensed Roofing Contractor 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.

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 8/20/2018

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	CONTACT NAME:	Jeff Lampert	
Presidential Insurance Services, Inc. 2665 South Bayshore Drive # 707 Miami, FL. 33133,	PHONE (A/C, No, Ext):	305-423-0350	FAX (A/C, No): 305-423-0351
	E-MAIL ADDRESS:	jeff@insurancequotelive.com	
	INSURER(S) AFFORDING COVERAGE		NAIC #
	INSURER A :	United Specialty Insurance Company	
INSURED	INSURER B :		
NOK Roofing 6432 Pinecastle Blvd Suite #A Orlando, FL. 32809	INSURER C :		
	INSURER D :		
	INSURER E :		
	INSURER F :		

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

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 INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [X] POLICY [ ] PRO-JECT [ ] LOC OTHER:			SII-1013E226851	5/15/2018	5/15/2019	EACH OCCURRENCE	$ 1.000.000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 50,000
							MED EXP (Any one person)	$ 5,000
							PERSONAL & ADV INJURY	$ 1,000,000
							GENERAL AGGREGATE	$ 2,000,000
							PRODUCTS - COMP/OP AGG	$ 1,000,000
								$
	AUTOMOBILE LIABILITY ANY AUTO OWNED AUTOS ONLY HIRED AUTOS ONLY SCHEDULED AUTOS NON-OWNED AUTOS ONLY						COMBINED SINGLE LIMIT (Ea accident)	$
							BODILY INJURY (Per person)	$
							BODILY INJURY (Per accident)	$
							PROPERTY DAMAGE (Per accident)	$
								$
	UMBRELLA LIAB [ ] OCCUR EXCESS LIAB [ ] CLAIMS-MADE DED RETENTION $						EACH OCCURRENCE	$
							AGGREGATE	$
								$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y / N [ ] (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	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)

ROOFING CONTRACTOR, LICENSE #CCC1326946

CERTIFICATE HOLDER

City of Belle Isle
1600 Nela Avenue,
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

RICK SINGH, CFA - ORANGE COUNTY PROPERTY APPRAISER

Searches | Sales Search | Results | **Property Record Card** | My Favorites | Sign up for e-Notify...

1703 Wind Drift Rd < 30-23-30-0604-01-050 >

Name(s)
Cabrera Henry
Cabrera Carrie

Mailing Address On File
1703 Wind Drift Rd
Belle Isle, FL 32809-6840
Incorrect Mailing Address?

Physical Street Address
1703 Wind Drift Rd

Postal City and Zipcode
Orlando, Fl 32809

Property Use
0103 - Single Fam Class III

Municipality
Belle Isle

View 2017 Property Record Card

Property Features | Values, Exemptions and Taxes | **Sales Analysis** | **Location Info** | **Market Stats** | Update Information

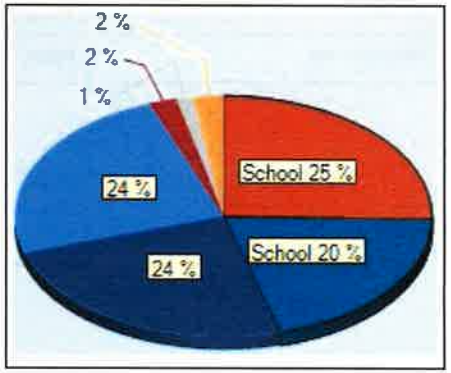
Historical Value and Tax Benefits

Has Homestead in 2018

Tax Year Values		Land		Building(s)		Feature(s)		Market Value		Portability		Assessed Value	
2018	W MKT	$65,000	+	$188,051	+	$23,500	=	$276,551	(7.3%)			**$238,592**	(2.1%)
2017	✓ MKT	$55,000	+	$178,816	+	$24,000	=	$257,816	(1.8%)			**$233,685**	(2.1%)
2016	✓ MKT	$55,000	+	$173,649	+	$24,500	=	$253,149	(11%)			**$228,879**	(.70%)
2015	✓ MKT	$55,000	+	$147,288	+	$25,000	=	$227,288		-	$0 =	**$227,288**	

Tax Year Benefits		Original Homestead	Additional Hx	Other Exemptions	Portability	SOH Cap	Tax Savings
2018	W $ HX CAP	$25,000	$25,000	$0	n/a	$37,959	**$1,328**
2017	✓ $ HX CAP	$25,000	$25,000	$0	n/a	$24,131	**$1,100**
2016	✓ $ HX CAP	$25,000	$25,000	$0	n/a	$24,270	**$1,121**
2015	✓ $ HX P	$25,000	$25,000	$0	$0	$0	**$702**

2018 Tax Breakdown



2018 Taxable Value and Estimate of Proposed Taxes

TAX YEAR | 2018 • 2017 • 2016 • 2015