



City of Belle Isle Job Site Permit Card **ROOF** 2020-04-045

Subdivision _____

Site Address: **2205 Cross Lake Rd 32809**

Class: **Residential**

Parcel Number: **18-23-30-7160-02-011**

Description of Work: ROOF / RESIDENCE - total square footage: 2500

Number of Stories: 1

ASPHALT SHINGLES with underlayment

MODIFIED BITUMEN

Issued: Robert Batson Roofing Inc., Batson, Robert E. Jr.

License # **CCC1325487**

Contact # **407 423-7570**

Payment / Issued Date & Method: 4 / 22 / 2020

Picked up or sent by _____ Emailed

Visa Master Card Amex Discover Check / Money Order#

2351 | | | | | | | | | | | | | | | | | | | | | |

ROOF	INSPECTOR	DATE	COMMENTS
NEW ROOFS ONLY Code 700 Deck Nailing, Dry-In, Flashing			This inspection only applies for a brand new roof only!
Both new & re-roof Code 710 In - Progress			This inspection consists of all underlayment/black paper coverage and only 25% shingle coverage.
Both new & re-roof Code 720 Final			After the In Progress has been passed, then the entire roof is covered with shingles.

PLEASE NOTE: In order to schedule any inspections, the PERMIT / plans-specs. must be issued and POSTED on the JOB SITE! THIS WILL AVOID ANY FAILED INSPECTIONS & RE-INSPECTION FEES. 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 all of your inspections - ☆ 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 requirements in your request:

- Project Address
- Corresponding Permit Number
- Type of Inspection (Please reference your permit card for inspection codes)
- Date of Inspection (If no date is specified, the inspection will be scheduled for the next business day)
- Contact Name
- Contact Phone Number
- Gate / Entry code (If applicable)
- AM, PM, or Any Time (We do our best to accommodate time requests but cannot guarantee an exact arrival)

Universal Engineering Sciences - 3532 Maggie Blvd., Orlando, FL 32811407-581-8161 * Fax 407-581-0313 www.universalengineering.com

"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."



City of Belle Isle

Universal Engineering Sciences 3532 Maggie Blvd., Orlando, FL 32811
Tel 407-581-8161 * Fax 407-581-0313 * www.universaleengineering.com

House
REMOVED

APPLICATION FOR ROOFING PERMIT

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

DATE OF APPLICATION: 4-6-2020

ROOF PERMIT NUMBER 2020-04-045

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

Project Address 2205 Cross Lake Road, Belle Isle, FL 32809 32812
Property Owner Thomas E. Bouck Phone 321 231-9715
Property Owner's Mailing Address 2205 Cross Lake Road City Belle Isle
State FL Zip Code 32809 Parcel Id Number: 18 23 307160 02 011
REQUIRED! To obtain this information, please visit <http://www.ocpafll.org/Searches/ParcelSearch.aspx>

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

PAID

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

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

Roof Square Footage: 2500 Number of Stories: 1 Job Valuation: \$ 7,800.⁰⁰
Type: Asphalt Shingles Metal Modified Bitumen Other: _____

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

LICENSE HOLDER SIGNATURE Robert E. Batson Jr. LICENSE # CCC1325487
LICENSE HOLDER NAME Robert E. Batson Jr. COMPANY NAME Robert Batson Roofing
Street Address 2823 E. Jersey Ave.
City Orlando State FL Zip Code 32806 Phone Number 407-423-7570
Email Address ccwaters@cfl-rr.com

Building Official: OTC Date 4-16-20
Verified Contractor's Licenses & Insurance are on file fr Date 4-21-2020

Zoning Fee \$ 30.-
Building Fee \$ 60.-
Review Fee \$ 0
1% BCAIB Fee \$ 2 min
1.5% DCA Fee \$ 2 min
Total Permit Fee \$ 94.-

~~Pending - w/c - Version .8~~
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.
151K
5x7
25
35
60
Revised

Building Permit Number _____

Permit Number: 2020-04-045
 Folio/Parcel ID #: _____
 Prepared by: Cynthia B. Waters

Robert Batson Roofing
 Return to: 2823 E. Jersey Ave.
Orlando, FL 32806
ccwaters@cfl.rr.com

DOCH 20200204934
 03/31/2020 03:49:29 PM Page 1 of 1
 Rec Fee: \$10.00
 Phil Diamond, Comptroller
 Orange County, FL
 MB - Ret To: ROBERT BATSON ROOFING



NOTICE OF COMMENCEMENT

State of Florida, County of Orange

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

- Description of property** (legal description of the property, and street address, if available)
2205 Cross Lake Road Belle Isle, FL 32809 18 23 30 7160 02 011
- General description of improvement**
Ro-Roof
- Owner information or Lessee information if the Lessee contracted for the improvement**
 Name Thomas E. Bouck
 Address 2205 Cross Lake Road Belle Isle FL 32809
 Interest in Property _____
 Name and address of fee simple titleholder (if different from Owner listed above)
 Name _____
 Address _____
- Contractor**
 Name Robert E. Batson Jr. Telephone Number 407-423-7570
 Address 2823 E. Jersey Ave. Orlando, FL 32806
- Surety** (if applicable, a copy of the payment bond is attached)
 Name _____ Telephone Number _____
 Address _____ Amount of Bond \$ _____
- Lender**
 Name _____ Telephone Number _____
 Address _____
- Persons within the State of Florida designated by Owner upon whom notices or other documents may be served as provided by §713.13(1)(a)7, Florida Statutes.**
 Name _____ Telephone Number _____
 Address _____
- In addition to himself or herself, Owner designates the following to receive a copy of the Lienor's Notice as provided in §713.13(1)(b), Florida Statutes.**
 Name _____ Telephone Number _____
 Address _____
- Expiration date of notice of commencement** (the expiration date will be 1 year from the date of recording unless a different date is specified) _____

State of Florida, County of Orange
 I hereby certify that this is a true copy of
 the document as reflected in the Official Records
 PHIL DIAMOND, COUNTY COMPTROLLER
 BY: [Signature], D.C.
 DATED: MAR 31 2020

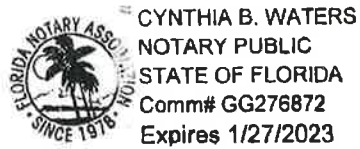
WARNING TO OWNER: ANY PAYMENTS MADE BY THE OWNER AFTER THE EXPIRATION OF THE NOTICE OF COMMENCEMENT ARE CONSIDERED IMPROPER PAYMENTS UNDER CHAPTER 713, PART I, SECTION 713.13, FLORIDA STATUTES, AND CAN RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT MUST BE RECORDED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

[Signature] _____
 Signature of Owner or Lessee, or Owner's or Lessee's Authorized Officer/Director/Partner/Manager 3: Owner
 Signatory's Title/Office

The foregoing instrument was acknowledged before me this 20 day of 3/2020 by Thomas E. Bouck
 as _____ for _____
 Type of authority, e.g., officer, trustee, attorney in fact Name of party on behalf of whom instrument was executed

Cynthia B. Waters _____
 Signature of Notary Public - State of Florida Cynthia B. Waters
 Print, type, or stamp commissioned name of Notary Public

Personally Known X OR Produced ID _____
 Type of ID Produced _____



House



City of Belle Isle

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

Product Approval Form

DATE: 4-6-2020

PERMIT # _____

PROJECT ADDRESS 2205 Cross Lake Road, Belle Isle, FL X 32809 32812

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

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

Product Type	Manufacturer	Model/Series	FL Product Approval #	Product Type	Manufacturer	Model/Series	FL Product Approval #
EXTERIOR DOORS				WALL PANELS			
Swinging				Sliding			
Sliding				Soffits			
Sectional/Rollup				Storefront			
Other				Glass Block			
				Other			
WINDOWS				ROOFING PRODUCTS			
Single/Dbi Hung				Asphalt Shingles	Certainteed	Landmark	FL5444-R15
Horizontal Slider				Non Struct Metal			
Casement				Roofing Tiles			
Fixed				Single Ply Roof			
Mullion				Underlayment	Tanko	No. 304L	FL12328-R
Skylights				Other			
Other				Modified	Certainteed	Flintlastic	FL2533-R
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 Robert E. Betts Jr.

Date 4-6-2020



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Product Approval
USER: Public User

[Product Approval Menu](#) >
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 Application Detail



FL #	FL5444-R15								
Application Type	Revision								
Code Version	2017								
Application Status	Approved								
Comments									
Archived	<input type="checkbox"/>								
Product Manufacturer Address/Phone/Email	CertainTeed Corporation-Roofing 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 <input type="checkbox"/> Evaluation Report - Hardcopy Received								
Florida Engineer or Architect Name who developed the Evaluation Report	Robert Nieminen								
Florida License	PE-59166								
Quality Assurance Entity	UL LLC								
Quality Assurance Contract Expiration Date	11/13/2022								
Validated By	John W. Knezevich, PE <input checked="" type="checkbox"/> Validation Checklist - Hardcopy Received								
Certificate of Independence	FL5444 R15 COI 2019 01 COI NIEMINEN.pdf								
Referenced Standard and Year (of Standard)	<table border="0"> <thead> <tr> <th>Standard</th> <th>Year</th> </tr> </thead> <tbody> <tr> <td>ASTM D3161</td> <td>2016</td> </tr> <tr> <td>ASTM D3462</td> <td>2010</td> </tr> <tr> <td>ASTM D7158</td> <td>2011</td> </tr> </tbody> </table>	Standard	Year	ASTM D3161	2016	ASTM D3462	2010	ASTM D7158	2011
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	08/14/2019
Date Validated	08/14/2019
Date Pending FBC Approval	08/17/2019
Date Approved	10/15/2019

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 R15 II 2019 08 FINAL ER CERTAINTEED FL5444-R15.pdf Verified By: Robert Nieminen, PE PE-59166 Created by Independent Third Party: Yes Evaluation Reports FL5444 R15 AE 2019 08 FINAL ER CERTAINTEED FL5444-R15.pdf Created by Independent Third Party: Yes

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

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

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Credit Card
Safe





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-R16

FL5444-R15

Date of Issuance: 09/22/2005

Revision 16: 08/14/2019

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 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 15.

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 08/14/2019. 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.

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:

<u>Section</u>	<u>Property</u>	<u>Standard</u>	<u>Year</u>
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:

<u>Entity</u>	<u>Examination</u>	<u>Reference</u>	<u>Date</u>
PRI (TST 5878)	ASTM D3161	256T0015	08/12/2019
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	4786821352	02/21/2015
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	4787592174	10/21/2016
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 (TST 9628)	ASTM D3161, D3462 & D7158	4788362767	03/03/2018
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 Shingle®, Grand Manor Shingle®, Landmark™, Landmark™ IR, Landmark™ Pro, Landmark™ Pro Solaris, Landmark™ Premium, Landmark™ TL, Landmark™ Solaris, Landmark™ Solaris IR and Landmark™ Solaris Gold/Platinum** 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 **High-Performance Starter** is a starter shingle, measuring 10" x 36", comprised of a fiber glass mat base and ceramic-coated mineral granules embedded in asphalt. These starter shingles are designed for use with **Grand Manor Shingle®, Hatteras™ and Highland Slate™**.
- 4.3.2 **Presidential Starter** is a starter shingle, measuring 13-1/4" x 40" (overall), comprised of a fiber glass mat base and ceramic-coated mineral granules embedded in asphalt with a reinforcement on its underside (for impact resistance considerations). These starter shingles, applied using two (2) overlapping layers, are designed for use with **Presidential Shake™ and Presidential Shake TL™**.
- 4.3.3 **Presidential Starter IR** is a starter shingle, measuring 13-1/4" x 40" (overall), comprised of a fiber glass mat base and ceramic-coated mineral granules embedded in asphalt. These starter shingles, applied using two (2) overlapping layers, are designed for use with **Presidential Shake™ IR**.
- 4.3.4 **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.
- 4.3.5 **Universal Starter** is a starter shingle, measuring 7" x 36" (overall), comprised of a fiber glass mat base and ceramic-coated mineral granules embedded in asphalt. These starter shingles are designed for use with any CertainTeed shingle measuring 12" x 36" having a weather exposure ≤ 5".
- 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 use in all wind zones up to $V_{asd} = 150$ mph ($V_{ult} = 194$ mph). Refer to Section 6 for installation requirements to meet this wind rating.
- 5.4.2 **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 Shadow Ridge (produced in Oxford, NC), 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 **High-Performance Starter, Presidential Starter, Presidential Starter IR, SwiftStart® Starter Shingle and Universal Starter** have been evaluated in accordance with **ASTM D3161, Class F**. Refer to Section 6 for installation requirements to meet this wind rating.
- 5.4.3.1 **High-Performance Starter** shingles are limited to use with **Grand Manor Shangle®, Hatteras™ and Highland Slate™** shingles.
- 5.4.3.2 **Presidential Starter** shingles must be applied using two (2) overlapping layers and are limited to use with **Presidential Shake™** and **Presidential Shake TL™** shingles.
- 5.4.3.3 **Presidential Starter IR** shingles must be applied using two (2) overlapping layers and are limited to use with **Presidential Shake™ IR** shingles.
- 5.4.3.4 **Universal Starter** shingles are limited to use with CertainTeed shingles measuring 12" x 36" having a weather exposure $\leq 5"$.
- 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 4.1.1 through 4.1.6 (*except Presidential Solaris™, Landmark™ Pro Solaris and Landmark™ Solaris Gold/Platinum*) 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:

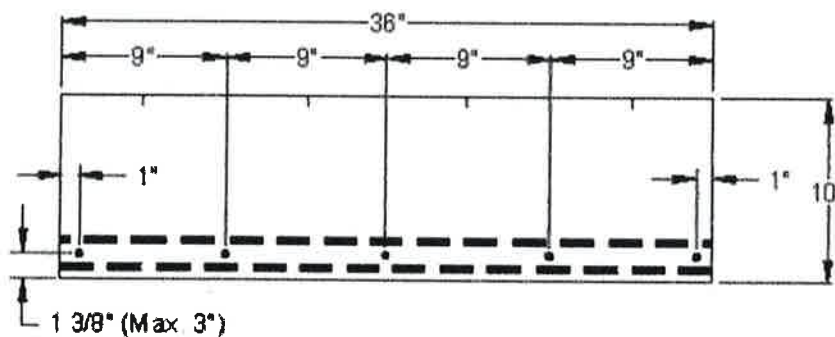
- 6.1 Roof deck, slope, underlayment and fasteners shall comply with **FBC 1507.2 / R905.2** and the shingle manufacturer's minimum requirements.
- 6.1.1 Underlayment shall be acceptable to **CertainTeed Corporation** and shall hold current Florida Statewide Product Approval, or be Locally Approved per **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 HIGH-PERFORMANCE STARTER:

- 6.4.1 Eaves: For the first starter shingle in each roof corner, use five (5) nails as shown below. All other starter shingles require four (4) nails per shingle. Nails must be of sufficient length to penetrate into the deck 3/4" or through the thickness of the decking, whichever is less. Nails are to be 11 or 12 gauge, corrosion-resistant roofing nails with 3/8" heads. Apply the 10" starter shingle with its factory-applied sealant stripes at the shingle's lower-most edge and nail firmly into the roof deck as near as possible *(maximum 3") to the eaves edge while avoiding the sealant. With the starter shingle well fastened to the deck and the sealant low on the starter shingle, it can firmly adhere to the first course shingles. *If nailing within 3" is not possible, nail as closely as possible, then lift and adhere the starter shingle to the underlayment and to the supporting structure with CertainTeed FlintBond™ Asphalt Roofing Cement-Caulk Grade, or approved equal.

Rakes: Prior to installation of the field shingles, starter shingles may be applied up the slope along the rake edge with sealant edge placed closest to the rake edge. Fasten as indicated below.

HIGH-PERFORMANCE STARTER SHINGLES



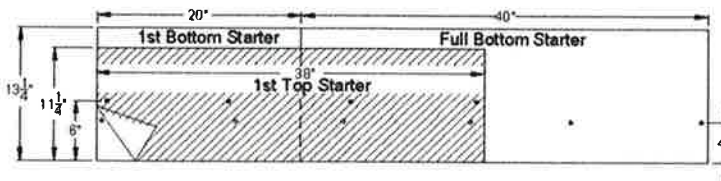
6.5 PRESIDENTIAL STARTER AND PRESIDENTIAL STARTER IR:

6.5.1 General: These shingles shall be applied by using two (2) overlapping layers. Begin application of the bottom/lower layer of starter shingles by cutting and applying a 13-3/4" x 20" piece at the lower left rake/eaves corner overhanging rakes and eaves 1/4" to 3/4". Continue along the eaves with full-size 13-1/4" x 40" starter shingles. Each top/upper starter course shingle shall have its 2" top section removed at the perforations, resulting in 11-1/4" x 40" shingles. The colored granule portion of the "top" starter shingles shall be located nearest the lowermost eave edge. Install the first top/upper starter shingle so that it is flush to the left side and bottom edges of the first bottom/lower starter shingle. This first top/upper starter shingle shall be 11-1/4" x 38". Continue along the eaves with 11-1/4" x 40" top/upper starter shingles ensuring that the lower edges are flush with the lower edges of the bottom/lower layer. Reference the product's wrapper for more specific details.

Eaves: Fasten as shown below. Rakes: After applying the starter shingles at the eaves, but prior to installing the field shingles, starter shingles may be applied up the slope at the rake edge. Fasten as shown below.

Fastening: Four nails are required per shingle. Nails shall be of sufficient length to penetrate into the deck 3/4" or through the thickness of the decking, whichever is less. Nails are to be 11 or 12 gauge, corrosion-resistant roofing nails with 3/8" heads.

Presidential Starter and Presidential IR Starter Shingles



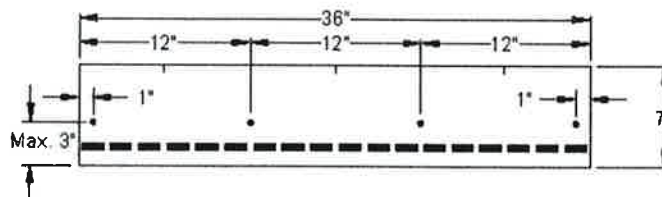
6.6 UNIVERSAL STARTER:

6.6.1 General: While Universal Starter Strip shingles are specifically designed to be used with shingles 36" length and having a weather exposure of ≤ 5", they may be installed beneath shingles of any length if special precautions are taken. **IMPORTANT:** In all cases the end joints of the starter and the first course shingles shall NEVER BE LESS THAN 3-1/2" apart.

Eaves: The sealant on starter courses should face out and lie as close as possible to the eaves edge of the roof. Fasten as described below. Rakes: After applying the starter shingles at the eaves, but prior to installing the field shingles, starter shingles may be applied up the slope at the rake edge with sealant facing out and nearest to the outer roof edge. Fasten as described below.

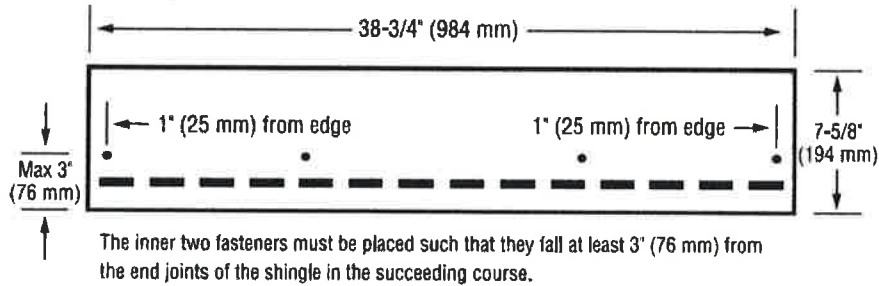
Fastening: Use four nails on these starter shingles as shown below. The sealant on starter courses shall lie as close as possible to the eaves edge of the roof. Nails shall be of sufficient length to penetrate into the deck 3/4" or through the thickness of the decking, whichever is less. Nails are to be 11 or 12 gauge, corrosion-resistant roofing nails with 3/8" heads.

UNIVERSAL STARTER SHINGLES



6.7 SWIFTSTART® STARTER SHINGLE:

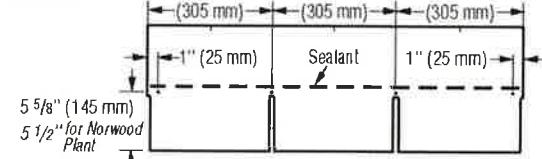
Fastening: Use four nails, located as shown below



6.8 CT20™, XT™ 25, XT™ 30, XT™ 30 IR:

LOW AND STANDARD SLOPE

ENGLISH



METRIC

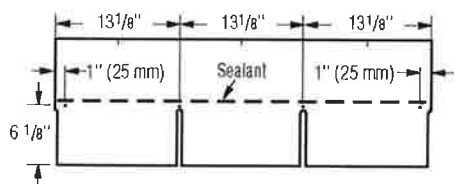


Figure 11-3: Use four nails for every full shingle.

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.

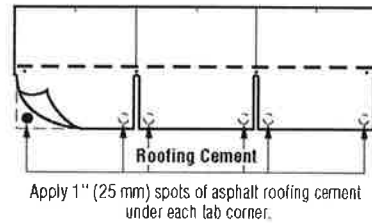


Figure 11-4: Use four nails and six spots of asphalt cement on steep slopes.

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

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

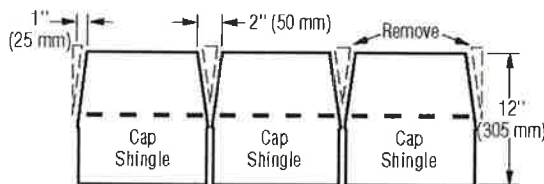


Figure 11-24: Cut tabs, then trim back to make cap shingles (English dimensions shown).

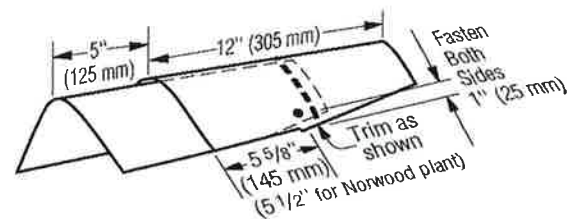


Figure 11-25: Installation of caps along the hips and ridges.

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

6.9 ARCADIA™:

LOW AND STANDARD SLOPE

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

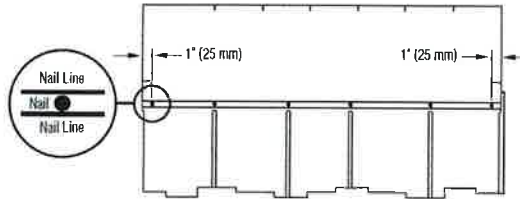


Figure 2: Use six nails for every full shingle.

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.

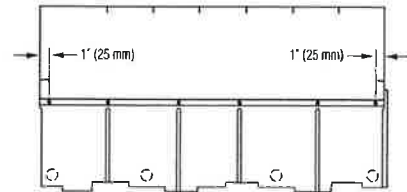
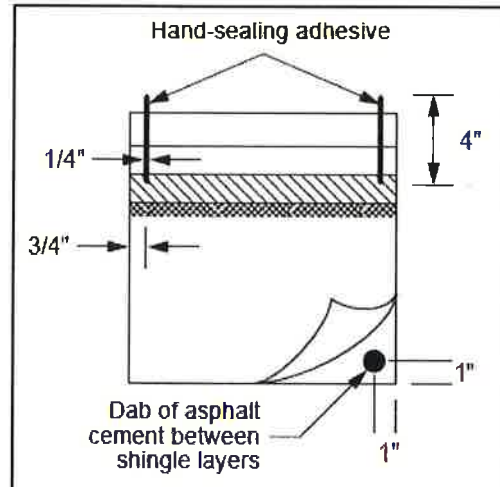
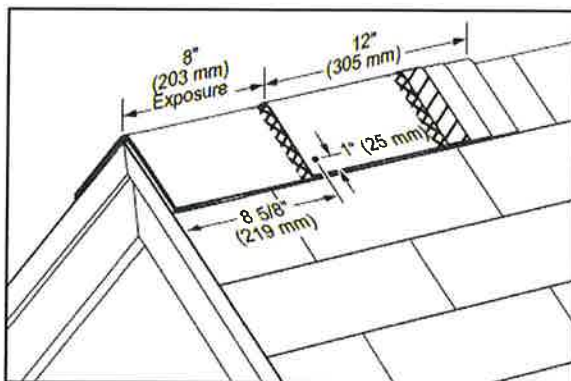


Figure 3: Use six nails and four spots of asphalt roofing cement on steep slopes.

6.9.1 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.

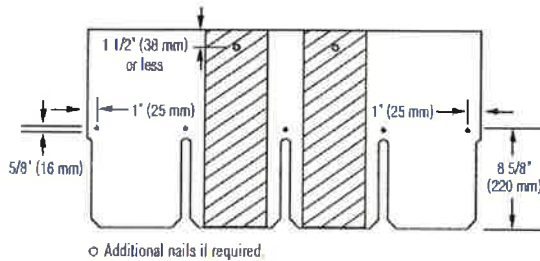
For **ASTM D3161, Class F** performance use BASF "Sonolastic® NP1™" adhesive or Henkel "PL® Polyurethane Roof & Flashing Sealant", in accordance with CertainTeed requirements, to **hand-seal Cedar Crest shingles**. Apply NP 1 or PL adhesive from the middle of the shingle's raised overlay on the top piece 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.



6.10 BELMONT® OR BELMONT® IR:

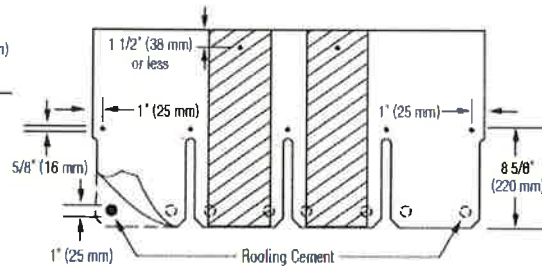
**Low and Standard Slope
(2:12 to 21:12):**

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.



6.10.1 Hip & Ridge for Belmont® or Belmont® IR:

6.10.1.1 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.

6.10.1.2 Option 2: For Belmont®: Shangle® Ridge

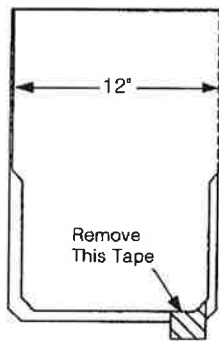


Figure 17-18: Shangle® Ridge.

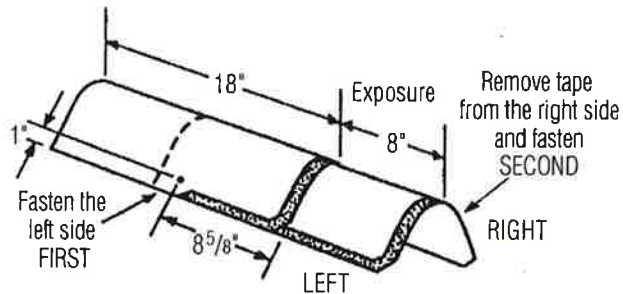


Figure 17-19: Installation of Shangle® Ridge shingles on hips and ridges.

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

6.11 CARRIAGE HOUSE SHANGLE® AND GRAND MANOR SHANGLE®:

LOW AND STANDARD SLOPE

Use **five** nails for every full Shangle.

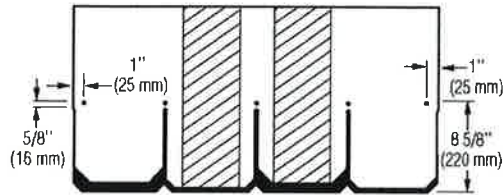


Figure 17-4: Use five nails for every full Grand Manor Shangle, Carriage House Shangle, or Centennial Slate.

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.

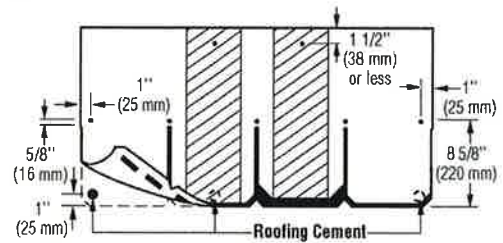
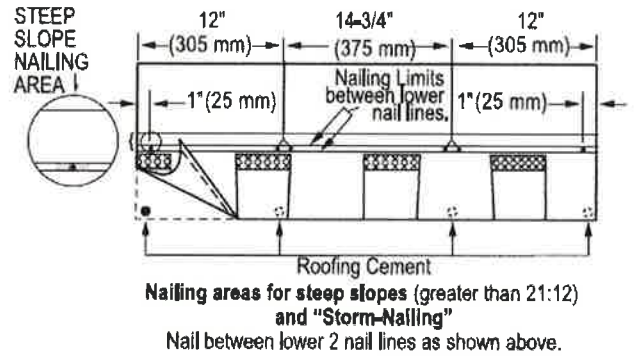
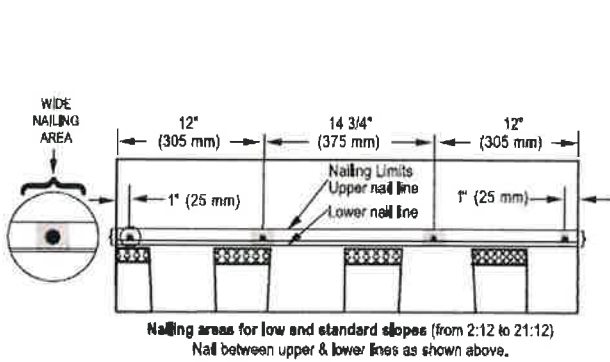


Figure 17-5: When installing Grand Manor Shangles on steep slopes, use seven nails and three spots of asphalt roofing cement.

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

6.12 LANDMARK™, LANDMARK™ IR, LANDMARK™ PRO, LANDMARK™ PRO SOLARIS, LANDMARK™ PREMIUM, LANDMARK™ SOLARIS, LANDMARK™ SOLARIS IR, LANDMARK™ SOLARIS GOLD/PLATINUM OR NORTHGATE:



6.12.1 **Hip & Ridge for Landmark™, Landmark™ IR, Landmark™ Pro, Landmark™ Pro Solaris, Landmark™ Premium, Landmark™ Solaris, Landmark™ Solaris IR, Landmark™ Solaris Gold/Platinum or NorthGate:**

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

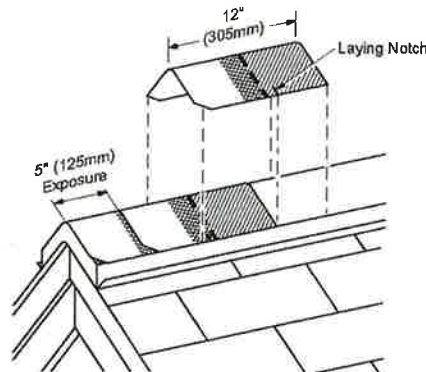
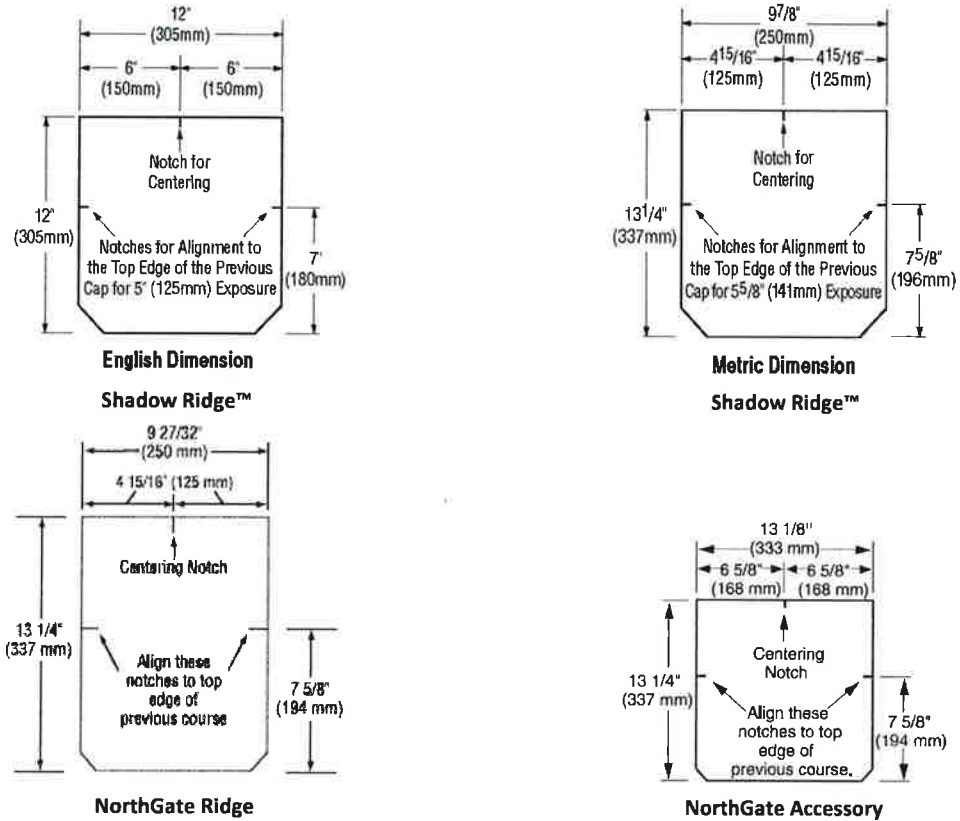


Figure 13-20: Use laying notches to center shingles on hips and ridges, and to locate the correct exposure.

6.12.1.2 Optional for Shadow Ridge™ produced in Oxford, NC: For ASTM D3161, Class F performance use BASF "Sonolastic® NP1™" adhesive or Henkel "PL® Polyurethane Roof & Flashing Sealant", in accordance with CertainTeed requirements.

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

6.13 LANDMARK™ TL:

LANDMARK TL

LANDMARK TL

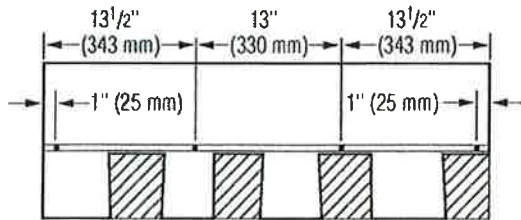


Figure 13-4: Use four nails for every full shingle.

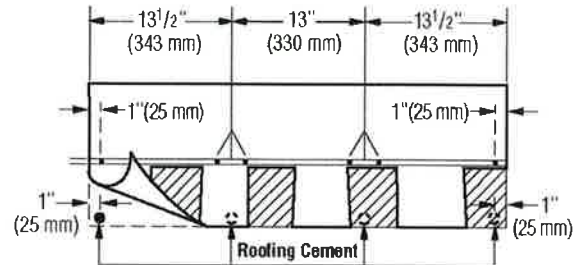


Figure 13-5: Use six nails and four spots of asphalt roofing cement on steep slopes.

6.13.1 Hip & Ridge for Landmark™ TL: Refer to Option 1 or 2 for Landmark™.

6.14 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.

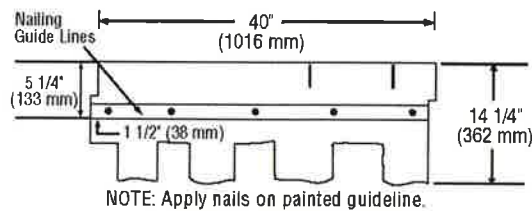


Figure 16-6: Fastening Presidential and Presidential TL Shake shingles on low and standard slopes.

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.

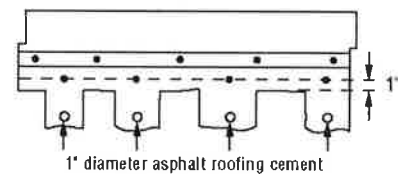


Figure 16-7: Fastening Presidential and Presidential TL Shake shingles on steep slopes.

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

6.14.1.1 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 1 3/4" long or longer, so they penetrate either 3/4" 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 9 7/8" x 13 1/4" accessory.

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

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

6.15 HATTERAS™:

LOW, STANDARD AND STEEP SLOPE:

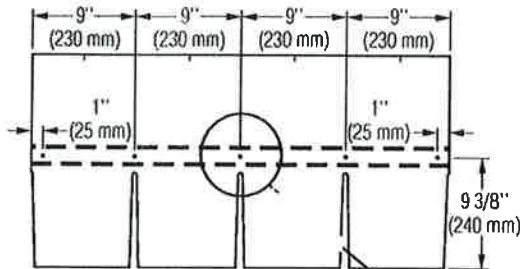


Figure 15-3: Fastening Hatteras Shingles on Low and Standard Slopes

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

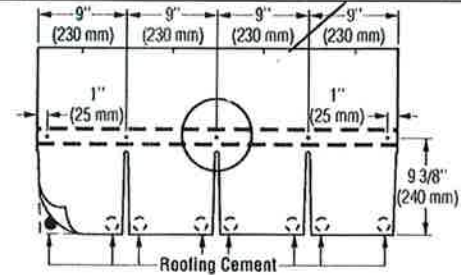


Figure 15-4: Fastening Hatteras Shingles on Steep Slopes

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.

6.15.1 Hip & Ridge for Hatteras™:

6.15.1.1 Option 1: Accessory for Hatteras

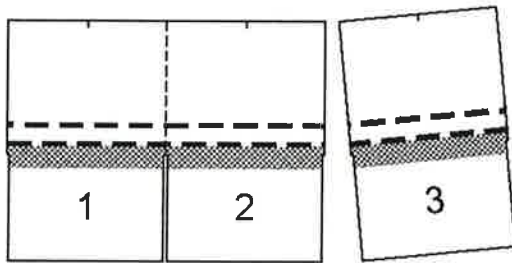
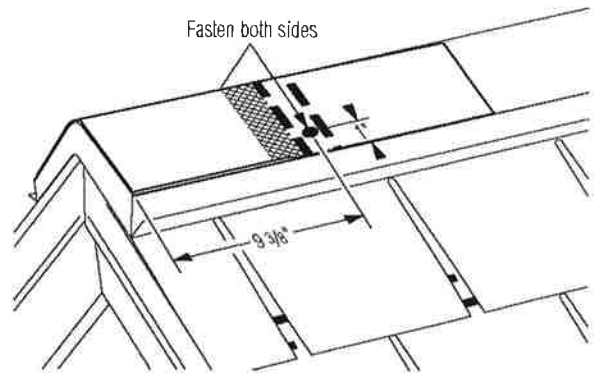


Figure 15-14: 18 three-piece units separate to make 54 Hatteras Accessory shingles.



6.15.1.2 Option 2: Cut Hatteras Shingles

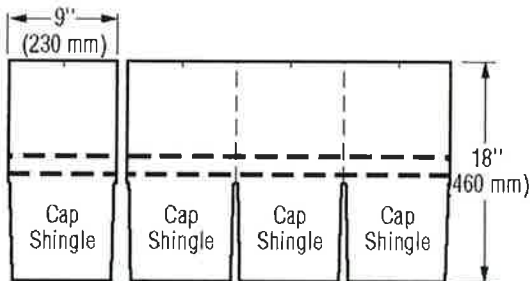


Figure 15-20: Cut Hatteras shingles to make cover cap.

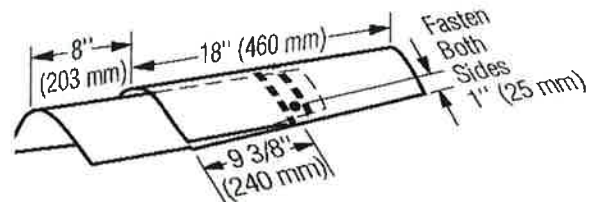


Figure 15-21: Installation of caps along hips and ridges.

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

6.16 HIGHLAND SLATE™, HIGHLAND SLATE™ IR:

LOW AND STANDARD SLOPE:

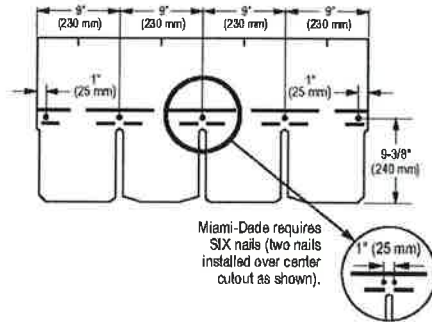


Figure 11-3: Use FIVE nails for every Highland Slate shingle.

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.

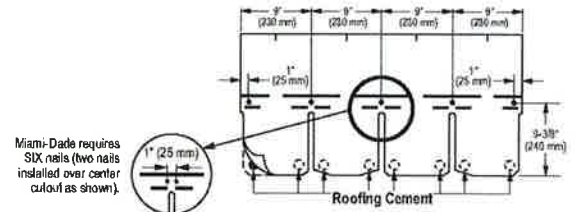


Figure 11-3A: Use FIVE nails and eight spots of asphalt roofing cement under each tab corner.

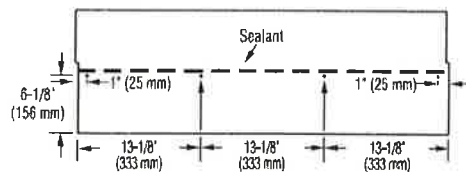
***CAUTION:** Excessive use of roofing cement can cause shingles to blister.

6.16.1 **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.

6.17 PATRIOT™:

LOW AND STANDARD SLOPE

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

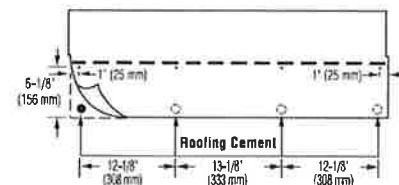


6.17.1 **Hip & Ridge for Patriot™:** Refer to instructions herein for Cedar Crest™, Cedar Crest™ IR, Shadow Ridge™, NorthGate or Shangle Ridge™ hip and ridge shingles.

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.



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 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

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Product Approval
USER: Public User

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OFFICE OF THE SECRETARY

FL #	FL12328-R8												
Application Type	Revision												
Code Version	2017												
Application Status	Approved												
Comments													
Archived	<input type="checkbox"/>												
Product Manufacturer	TAMKO Building Products LLC												
Address/Phone/Email	PO Box 97 Galena, KS 66739 (417) 624-6644 Ext 2305 kerri_eden@tamko.com												
Authorized Signature	Kerri Eden kerri_eden@tamko.com												
Technical Representative	Kerri Eden												
Address/Phone/Email	PO Box 1404 Joplin, MO 64802 (417) 624-6644 Ext 2305 kerri_eden@tamko.com												
Quality Assurance Representative													
Address/Phone/Email													
Category	Roofing												
Subcategory	Underlayments												
Compliance Method	Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer <input type="checkbox"/> Evaluation Report - Hardcopy Received												
Florida Engineer or Architect Name who developed the Evaluation Report	Zachary R. Priest												
Florida License	PE-74021												
Quality Assurance Entity	UL LLC												
Quality Assurance Contract Expiration Date	10/18/2021												
Validated By	Locke Bowden P.E. <input checked="" type="checkbox"/> Validation Checklist - Hardcopy Received												
Certificate of Independence	FL12328 R8 COI TBP14001.4 2017 FBC Eval Report TAMKO Underlayments final.pdf												
Referenced Standard and Year (of Standard)	<table border="0"> <thead> <tr> <th>Standard</th> <th>Year</th> </tr> </thead> <tbody> <tr> <td>ASTM D1970</td> <td>2015</td> </tr> <tr> <td>ASTM D226</td> <td>2009</td> </tr> <tr> <td>ASTM D4869</td> <td>2016</td> </tr> <tr> <td>ASTM D6380</td> <td>2003</td> </tr> <tr> <td>TAS 103</td> <td>1995</td> </tr> </tbody> </table>	Standard	Year	ASTM D1970	2015	ASTM D226	2009	ASTM D4869	2016	ASTM D6380	2003	TAS 103	1995
Standard	Year												
ASTM D1970	2015												
ASTM D226	2009												
ASTM D4869	2016												
ASTM D6380	2003												
TAS 103	1995												
Equivalence of Product Standards Certified By													
Sections from the Code													

8

Pending Version Under Lay A Cat rec'd

Product Approval Method	Method 1 Option D
Date Submitted	10/05/2017
Date Validated	10/19/2017
Date Pending FBC Approval	10/20/2017
Date Approved	12/12/2017

Summary of Products

FL #	Model, Number or Name	Description
12328.1	ASTM Slate Surfaced Roll Roofing	Roll roofing surfaced with mineral granules
	Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: N/A Design Pressure: N/A Other: See evaluation report for limits of use.	Installation Instructions FL12328 R8 II TBP14001.4 2017 FBC Eval Report TAMKO Underlayments final.pdf Verified By: Zachary R. Priest 74021 Created by Independent Third Party: Yes Evaluation Reports FL12328 R8 AE TBP14001.4 2017 FBC Eval Report TAMKO Underlayments final.pdf Created by Independent Third Party: Yes
12328.2	ASTM Tile Underlayment	Coated organic underlayment
	Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: N/A Design Pressure: N/A Other: See evaluation report for limits of use.	Installation Instructions FL12328 R8 II TBP14001.4 2017 FBC Eval Report TAMKO Underlayments final.pdf Verified By: Zachary R. Priest 74021 Created by Independent Third Party: Yes Evaluation Reports FL12328 R8 AE TBP14001.4 2017 FBC Eval Report TAMKO Underlayments final.pdf Created by Independent Third Party: Yes
12328.3	Master Smooth	Asphalt saturated organic 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: See evaluation report for limits of use.	Installation Instructions FL12328 R8 II TBP14001.4 2017 FBC Eval Report TAMKO Underlayments final.pdf Verified By: Zachary R. Priest 74021 Created by Independent Third Party: Yes Evaluation Reports FL12328 R8 AE TBP14001.4 2017 FBC Eval Report TAMKO Underlayments final.pdf Created by Independent Third Party: Yes
12328.4	Moisture Guard	A self-adhering modified bitumen underlayment.
	Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: N/A Design Pressure: N/A Other: See evaluation report for limits of use.	Installation Instructions FL12328 R8 II TBP14001.4 2017 FBC Eval Report TAMKO Underlayments final.pdf Verified By: Zachary R. Priest 74021 Created by Independent Third Party: Yes Evaluation Reports FL12328 R8 AE TBP14001.4 2017 FBC Eval Report TAMKO Underlayments final.pdf Created by Independent Third Party: Yes
12328.5	No. 15 ASTM	Asphalt saturated organic felt
	Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: N/A Design Pressure: N/A Other: See evaluation report for limits of use.	Installation Instructions FL12328 R8 II TBP14001.4 2017 FBC Eval Report TAMKO Underlayments final.pdf Verified By: Zachary R. Priest 74021 Created by Independent Third Party: Yes Evaluation Reports FL12328 R8 AE TBP14001.4 2017 FBC Eval Report TAMKO Underlayments final.pdf Created by Independent Third Party: Yes
12328.6	No. 15 UL	Asphalt saturated organic felt
	Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: N/A Design Pressure: N/A Other: See evaluation report for limits of use.	Installation Instructions FL12328 R8 II TBP14001.4 2017 FBC Eval Report TAMKO Underlayments final.pdf Verified By: Zachary R. Priest 74021 Created by Independent Third Party: Yes Evaluation Reports FL12328 R8 AE TBP14001.4 2017 FBC Eval Report TAMKO Underlayments final.pdf Created by Independent Third Party: Yes

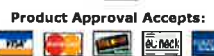
		Underlayments final.pdf Created by Independent Third Party: Yes
12328.7	No. 30 ASTM	Asphalt saturated organic felt
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: N/A Design Pressure: N/A Other: See evaluation report for limits of use.		Installation Instructions FL12328 R8 II TBP14001.4 2017 FBC Eval Report TAMKO Underlayments final.pdf Verified By: Zachary R. Priest 74021 Created by Independent Third Party: Yes Evaluation Reports FL12328 R8 AE TBP14001.4 2017 FBC Eval Report TAMKO Underlayments final.pdf Created by Independent Third Party: Yes
12328.8	No. 30 UL	Asphalt saturated organic felt
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: N/A Design Pressure: N/A Other: See evaluation report for limits of use.		Installation Instructions FL12328 R8 II TBP14001.4 2017 FBC Eval Report TAMKO Underlayments final.pdf Verified By: Zachary R. Priest 74021 Created by Independent Third Party: Yes Evaluation Reports FL12328 R8 AE TBP14001.4 2017 FBC Eval Report TAMKO Underlayments final.pdf Created by Independent Third Party: Yes
12328.9	TAM-FELT	Alternate to ASTM D 226, Type II underlayment
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: N/A Design Pressure: N/A Other: See evaluation report for limits of use.		Installation Instructions FL12328 R8 II TBP14001.4 2017 FBC Eval Report TAMKO Underlayments final.pdf Verified By: Zachary R. Priest PE-74021 Created by Independent Third Party: Yes Evaluation Reports FL12328 R8 AE TBP14001.4 2017 FBC Eval Report TAMKO Underlayments final.pdf Created by Independent Third Party: Yes
12328.10	TW Metal and Tile Underlayment	self-adhering modified bitumen underlayment
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: N/A Design Pressure: N/A Other: See evaluation report for limits of use.		Installation Instructions FL12328 R8 II TBP14001.4 2017 FBC Eval Report TAMKO Underlayments final.pdf Verified By: Zachary R. Priest 74021 Created by Independent Third Party: Yes Evaluation Reports FL12328 R8 AE TBP14001.4 2017 FBC Eval Report TAMKO Underlayments final.pdf Created by Independent Third Party: Yes
12328.11	TW Underlayment	self-adhering modified bitumen underlayment
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: N/A Design Pressure: N/A Other: See evaluation report for limits of use.		Installation Instructions FL12328 R8 II TBP14001.4 2017 FBC Eval Report TAMKO Underlayments final.pdf Verified By: Zachary R. Priest 74021 Created by Independent Third Party: Yes Evaluation Reports FL12328 R8 AE TBP14001.4 2017 FBC Eval Report TAMKO Underlayments final.pdf Created by Independent Third Party: Yes

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EVALUATION REPORT

FLORIDA BUILDING CODE, 6TH EDITION (2017)

Manufacturer: TAMKO BUILDING PRODUCTS, INC. *Issued October 19, 2017*
 P.O. Box 1404
 Joplin, MO 64802
 (417) 624-6644
<http://www.tamko.com>

Quality Assurance: UL LLC (QUA9625)

SCOPE

Category: Roofing
Subcategory: Underlayments
Code Sections: 1507.1.1
Properties: Physical properties

PRODUCT DESCRIPTION

TAMKO® ASTM Slate Surfaced Roll Roofing	ASTM D 6380, Class M, Type II underlayment constructed from organic felt saturated with asphalt and coated on both sides with asphalt and surfaced with granules.
TAMKO® ASTM Tile Underlayment	ASTM D 6380, Class M, Type II underlayment constructed from an organic felt saturated with asphalt then coated on both sides with asphalt and surfaced with granules.
TAMKO® Master Smooth	ASTM D 6380, Class S, Type IV underlayment constructed from an organic felt saturated with asphalt then coated on both sides with asphalt and surfaced with a fine mineral. <u>For use in non-HVHZ only.</u>
TAMKO® Moisture Guard®	Self-adhered, ASTM D 1970, fiberglass reinforced, modified bitumen sheet membrane with a mineral surfacing and a removable release film on the adhesive side and removable seldge release tape.
TAMKO® No. 15 ASTM Asphalt Saturated Organic Felt	ASTM D 226, Type I underlayment constructed from a non-perforated organic felt that is saturated with asphalt.
TAMKO® No. 15 UL Asphalt Saturated Organic Felt	ASTM D 226, Type I underlayment constructed from a non-perforated organic felt that is saturated with asphalt.
TAMKO® No. 30 ASTM Asphalt Saturated Organic Felt	ASTM D 226, Type II underlayment constructed from a non-perforated organic felt that is saturated with asphalt.
TAMKO® No. 30 UL Asphalt Saturated Organic Felt	ASTM D 226, Type II underlayment constructed from a non-perforated organic felt that is saturated with asphalt.
TAMKO® TW Metal and Tile Underlayment	Self-adhered, flexible, ASTM D 1970 and TAS 103, rubberized asphalt sheet membrane with a polymer film on the surface and a removable release film on the adhesive side.
TAMKO® TW Underlayment	Self-adhered, flexible, ASTM D 1970, rubberized asphalt sheet membrane with a polymer film on the surface and a removable release film on the adhesive side.

TAMKO® TAM-FELT Alternate to ASTM D 226, Type I and Type II underlayment constructed from a non-perforated organic felt that is saturated with asphalt.

APPLICATION METHOD

Installation shall be in accordance with the published manufacturer's installation instructions, the FBC, and the requirements below.

Deck substrates shall be clean, dry, and free from any irregularities and debris. All fasteners in the deck shall be checked for protrusion and corrected prior to underlayment application.

The roof deck shall be constructed of closely fitted plywood sheathing for new or existing construction. Plywood deck shall be installed in accordance with FBC requirements. Roof decks shall have no more than 1/8" gap at abutting joints.

The minimum application temperature shall be 50°F except as follows:

- a) The minimum application temperature of TAMKO® TW Metal and Tile Underlayment and TAMKO® TW Underlayment shall be 40°F.
- b) The minimum application temperature of TAMKO® Moisture Guard® shall be 35°F.

The minimum roof slope shall be in accordance with FBC requirements except as follows:

- a) The minimum slope of TAMKO® ASTM Slate Surfaced Roll Roofing shall be 2:12.

Underlayments shall be exposed in accordance with the manufacturer's recommendations, but in no case shall exposure exceed 30 days.

Exception: TAMKO® TW Metal and Tile Underlayment may be exposed for a maximum 90 days.

Self-adhering underlayments may be adhered to primed or unprimed plywood substrates in the non-HVHZ.

All roof coverings shall be mechanically fastened through the underlayment to the roof deck.

Allowable Roof Coverings:

Underlayment	Asphalt Shingles	Metal Roof Panels and Shingles	Mineral Surfaced Roll Roofing	Wood Shingles and Shakes	Slate Shingles	Clay and Concrete Tile
TAMKO® ASTM Slate Surfaced Roll Roofing	Y ¹	N	N	N	N	Y
TAMKO® ASTM Tile Underlayment	N	N	N	N	N	Y
TAMKO® Master Smooth	Y ¹	N	N	N	N	N
TAMKO® Moisture Guard®	Y	N	N	N	N	N
TAMKO® No. 15 ASTM Asphalt Saturated Organic Felt	Y	Y	Y	Y ²	N	N
TAMKO® No. 15 UL Asphalt Saturated Organic Felt	Y	Y	Y	Y ²	Y	N
TAMKO® No. 30 ASTM Asphalt Saturated Organic Felt	Y	Y	Y	Y	Y	Y
TAMKO® No. 30 UL Asphalt Saturated Organic Felt	Y	Y	Y	N	Y	N
TAMKO® TW Metal and Tile Underlayment	Y	Y	N	N	N	Y
TAMKO® TW Underlayment	Y	Y	N	N	N	N
TAMKO® TAM-FELT	Y	N	N	N	N	N

Notes: 1) Open valley applications per 1507.2.9.2
2) Wood shingles only

LIMITATIONS

- 1) Fire Classification is not within the scope of this evaluation.
- 2) Wind uplift resistance in not within scope of this evaluation.
- 3) Installation of the evaluated product shall comply with this report, the FBC, and the manufacturer's published application instructions. Where discrepancies exist between these sources, the more restrictive and FBC compliant installation detail shall prevail.
- 4) Contact the manufacturer when installing at temperatures below the minimum application temperature.
- 5) Unless otherwise stated, the minimum roof slope shall be in accordance with FBC requirements.
- 6) All underlayments shall be installed with the roll length parallel to the eave, starting at the eave, and lapped in successive courses installed up the deck in a manner that effectively sheds water from the deck. End laps shall be staggered between courses in accordance with the manufacturer's application instructions.
- 7) The underlayment may be used as described in other current FBC product approval documents.
- 8) The underlayment shall not be installed over existing roof coverings.
- 9) Contact the manufacturer regarding specific exposure limits for each underlayment.
- 10) All products listed in this report shall be manufactured under a quality assurance program in compliance with Rule 61G20-3.

REFERENCES

<u>Entity</u>	<u>Report No.</u>	<u>Standard</u>	<u>Year</u>
PRI Construction Materials Technologies (TST6049)	TAP-192-02-01	ASTM D 1970	2015a
PRI Construction Materials Technologies (TST6049)	TAP-193-02-01	ASTM D 1970	2015a
PRI Construction Materials Technologies (TST6049)	TAP-214-02-01	ASTM D 4869	2016
PRI Construction Materials Technologies (TST6049)	TAP-215-02-01	ASTM D 226	2009
PRI Construction Materials Technologies (TST6049)	TAP-216-02-03	ASTM D 6380	2003(2013)
PRI Construction Materials Technologies (TST6049)	TAP-217-02-01REV	ASTM D 6380	2003(2013)
PRI Construction Materials Technologies (TST6049)	TAP-218-02-01	ASTM D 226	2009
PRI Construction Materials Technologies (TST6049)	TAP-219-02-01	ASTM D 226	2009
PRI Construction Materials Technologies (TST6049)	TAP-220-02-01	ASTM D 6380	2003(2013)
PRI Construction Materials Technologies (TST6049)	TAP-222-02-01	ASTM D 4869	2016
PRI Construction Materials Technologies (TST6049)	TAP-245-02-01	TAS 103	1995
		ASTM D 4798	2011
PRI Construction Materials Technologies (TST6049)	TAP-311-02-01	ASTM D 1970	2015a
PRI Construction Materials Technologies (TST6049)	TAP-319-02-01.1	ACC 188	2012
PRI Construction Materials Technologies (TST6049)	TAP-387-02-01	ASTM D 1970	2015a
PRI Construction Materials Technologies (TST6049)	TAP-388-02-01	ASTM D 1970	2015a
UL LLC (TST9628)	13CA12269	ASTM D 226	2009

COMPLIANCE STATEMENT

The products evaluated herein by Zachary R. Priest, P.E. have demonstrated compliance with the Florida Building Code, 6th Edition (2017) as evidenced in the referenced documents submitted by the named manufacturer.

A handwritten signature in black ink, appearing to read "ZRP". Below the signature is a small, faint text "Digitally signed by Zachary R. Priest".

2017.10.19
12:15:58
-04'00'

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

CERTIFICATION OF INDEPENDENCE

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

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

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

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

END OF REPORT



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Product Approval
USER: Public User

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



FL #	FL2533-R23																
Application Type	Revision																
Code Version	2017																
Application Status	Approved																
Comments																	
Archived	<input type="checkbox"/>																
Product Manufacturer Address/Phone/Email	CertainTeed Corporation-Roofing 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 <input type="checkbox"/> Evaluation Report - Hardcopy Received																
Florida Engineer or Architect Name who developed the Evaluation Report	Robert Nieminen																
Florida License	PE-59166																
Quality Assurance Entity	UL LLC																
Quality Assurance Contract Expiration Date	11/13/2022																
Validated By	John W. Knezevich, PE <input checked="" type="checkbox"/> Validation Checklist - Hardcopy Received																
Certificate of Independence	FL2533 R23 COI 2019 01 COI NIEMINEN.pdf																
Referenced Standard and Year (of Standard)	<table border="0"> <thead> <tr> <th>Standard</th> <th>Year</th> </tr> </thead> <tbody> <tr> <td>ASTM D6162</td> <td>2008</td> </tr> <tr> <td>ASTM D6163</td> <td>2008</td> </tr> <tr> <td>ASTM D6164</td> <td>2011</td> </tr> <tr> <td>ASTM D6222</td> <td>2011</td> </tr> <tr> <td>ASTM D6509</td> <td>2009</td> </tr> <tr> <td>FM 4470</td> <td>2012</td> </tr> <tr> <td>FM 4474</td> <td>2011</td> </tr> </tbody> </table>	Standard	Year	ASTM D6162	2008	ASTM D6163	2008	ASTM D6164	2011	ASTM D6222	2011	ASTM D6509	2009	FM 4470	2012	FM 4474	2011
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	06/20/2019
Date Validated	06/20/2019
Date Pending FBC Approval	06/22/2019
Date Approved	08/13/2019

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 R23 II 2019 06 FINAL A1 ER CERTAINTTEED MODBIT FL2533-R23.pdf Verified By: Robert Nieminen, PE PE-59166 Created by Independent Third Party: Yes Evaluation Reports FL2533 R23 AE 2019 06 FINAL ER CERTAINTTEED MODBIT FL2533-R23.pdf Created by Independent Third Party: Yes

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APPENDIX 1: ATTACHMENT REQUIREMENTS FOR WIND UPLIFT RESISTANCE

TABLE	DECK	APPLICATION	TYPE	DESCRIPTION	PAGE
1A	Wood	New or Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	5
1B	Wood	New or Reroof (Tear-Off)	A-2	Mech. Attached Anchor Sheet, Bonded Insulation, Bonded Roof Cover	6-8
1C	Wood	New, Reroof (Tear-Off) or Recover	B	Mech. Attached Base Insulation, Bonded Top Insulation, Bonded Roof Cover	9
1D	Wood	New, Reroof (Tear-Off) or Recover	C	Mech. Attached Insulation, Bonded Roof Cover	10-11
1E	Wood	New, Reroof (Tear-Off) or Recover	D	Insulated, Mech. Attached Base Sheet, Bonded Roof Cover	12-14
1F-1	Wood	New, Reroof (Tear-Off)	E	Non-Insulated, Mech. Attached Base Sheet, Bonded Roof Cover	15-17
1F-2	Wood	New, Reroof (Tear-Off) or Recover	E	Non-Insulated, Mech. Attached Base Sheet, Bonded Roof Cover	18-19
1G	Wood	New or Reroof (Tear-Off)	F	Non-Insulated, Bonded Roof Cover	19
2A	Steel or Structural concrete	New, Reroof (Tear-Off) or Recover	B	Mech. Attached Base Insulation, Bonded Top Insulation, Bonded Roof Cover	20-22
2B	Steel or Structural concrete	New, Reroof (Tear-Off) or Recover	C	Mech. Attached Insulation, Bonded Roof Cover	23-27
2C	Steel or Structural concrete	New, Reroof (Tear-Off) or Recover	D	Insulated, Mech. Attached Base Sheet, Bonded Roof Cover	28-30
3A	Structural concrete	New or Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	31-38
3B	Structural concrete	New or Reroof (Tear-Off)	A-3	Bonded Temp Roof/Vapor Barrier, Bonded Insulation, Bonded Roof Cover	38
3C	Structural concrete	New or Reroof (Tear-Off)	F	Non-Insulated, Bonded Roof Cover	39
4A	Lightweight concrete	New or Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	40-43
4B	Lightweight concrete	New or Reroof (Tear-Off)	A-2	Mech. Attached Anchor Sheet, Bonded Insulation, Bonded Roof Cover	44-46
4C	Lightweight concrete	New, Reroof (Tear-Off)	E	Non-Insulated, Mech. Attached Base Sheet, Bonded Roof Cover	47-52
4D	Lightweight concrete	Reroof (Tear-Off) or Recover	E	Non-Insulated, Mech. Attached Base Sheet, Bonded Roof Cover	52
5A	Cementitious wood fiber	New or Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	53
5B	Cementitious wood fiber	New or Reroof (Tear-Off)	A-2	Mech. Attached Anchor Sheet, Bonded Insulation, Bonded Roof Cover	54
5C	Cementitious wood fiber	New, Reroof (Tear-Off) or Recover	C	Mech. Attached Insulation, Bonded Roof Cover	55
5D	Cementitious wood fiber	New, Reroof (Tear-Off)	E	Non-Insulated, Mech. Attached Base Sheet, Bonded Roof Cover	55
6A	Existing gypsum	Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	56-58
6B	Existing gypsum	Reroof (Tear-Off)	A-2	Mech. Attached Anchor Sheet, Bonded Insulation, Bonded Roof Cover	58-59
6C	Existing gypsum	Reroof (Tear-Off)	C	Mech. Attached Insulation, Bonded Roof Cover	59
6D	Existing gypsum	Reroof (Tear-Off)	E	Non-Insulated, Mech. Attached Base Sheet, Bonded Roof Cover	60
7A	Various	Recover	A-1	Bonded Insulation, Bonded Roof Cover	61-67
7B	Various	Recover	F	Non-Insulated, Bonded Roof Cover	67



The following notes apply to the systems outlined herein:

1. The roof system evaluation herein pertains to above-deck roof components. Roof decks shall be in accordance with FBC requirements to the satisfaction of the Authority Having Jurisdiction. Load resistance of the roof deck shall be documented through proper codified and/or FBC Approval documentation.
2. Unless otherwise noted, fasteners and stress plates for insulation attachment shall be as follows. Fasteners shall be of sufficient length for the following engagements:
 - Wood Deck:
 - OMG #14 Roofgrip with Flat Bottom Plate (Accutrac), OMG HD with Hex Plate or 3" Round Insulation Plate, DekFast #14 with Hex Plate or 3" Round Insulation Plate, Trufast HD with Trufast 3" Metal Insulation Plates or FlintFast #14 Fastener with FlintFast 3" Insulation Plates. Minimum 0.75-inch plywood penetration or minimum 1-inch wood plank embedment.
 - OMG #12 or #14 Roofgrip with Recessed or Flat Bottom Plate (Accutrac), OMG #12 Standard or HD with OMG 3 in. Galvalume Steel Plate, DekFast #12 or #14 with Hex Plate or 3" Round Insulation Plate, Trufast DP or HD with Trufast 3" Metal Insulation Plates or FlintFast #12 or #14 Fastener with FlintFast 3" Insulation Plates. Minimum 0.75-inch steel penetration and engage the top flute of the steel deck.
 - Steel Deck:
 - OMG #14 Roofgrip with Recessed or Flat Bottom Plate (Accutrac), OMG HD or CD-10 with OMG 3 in. Galvalume Steel Plate, DekFast #14 or DekSpike with Hex Plate or 3" Round Insulation Plate, Trufast HD or CF with Trufast 3" Metal Insulation Plates or FlintFast #14 Fastener with FlintFast 3" Insulation Plates. Minimum 1-inch embedment. Fasteners installed with a pilot hole in accordance with the fastener manufacturer's published installation instructions.
3. Unless otherwise noted, insulation may be any one layer or combination of polyisocyanurate, polystyrene, wood fiberboard, perlite, GlasRoc Roof Board or gypsum-based roof board that meets the QA requirements of F.A.C. Rule 61G20-3 and is documented as meeting FBC 1505.1 and, for foam plastic, FBC Chapter 26, when installed with the roof cover.
4. Minimum 200 psi, minimum 2-inch thick lightweight insulating concrete may be substituted for, or installed beneath rigid insulation board for System Type D (mechanically attached base sheet, bonded roof cover), whereby the base sheet screws and plates are installed through the LWIC to engage the structural steel or concrete deck. The structural deck shall be of equal or greater configuration to the steel and concrete deck listings. Roof decks and structural members shall be in accordance with FBC requirements to the satisfaction of the Authority Having Jurisdiction. Load resistance of the roof deck shall be documented through proper codified and/or FBC Approval documentation.
5. Preliminary insulation attachment for System Type D: Unless otherwise noted, refer to Section 2.2.10.1.3 of FM Loss Prevention Data Sheet 1-29 (January 2016).
6. Unless otherwise noted, insulation adhesive application rates are as follows. Ribbon or bead width is at the time of application; the ribbons/beads shall expand as noted in the manufacturer's published instructions.
 - Hot asphalt (HA):
 - Full coverage at 25-30 lbs/square
 - Ashland Pliodeck (A-PD):
 - Continuous 0.75 inch wide ribbons, 12-inch o.c. Ribbons of subsequent layers shall be perpendicular to those in the layer below.
 - Dow INSTA-STIK Quik Set Insulation Adhesive (D-IS):
 - Continuous 0.75 to 1 inch wide ribbons, 12-inch o.c.
 - ICP Adhesives Polyset BOARD-MAX:
 - Continuous 3-inch ribbons, 12-inch o.c.
 - ICP Adhesives Polyset CR-20:
 - Continuous 2.5 to 3-inch wide ribbons, 12-inch o.c.
 - Millennium One Step Foamable Adhesive (M-OSFA):
 - Continuous 0.25 to 0.5-inch wide ribbons, 12-inch o.c.
 - Millennium PG-1 Pump Grade Adhesive (M-PG1):
 - Continuous 0.5 to 0.75-inch wide ribbons, 12-inch o.c.
 - OMG OlyBond 500 or OlyBond Green (OB500):
 - Continuous 0.75-inch wide ribbons, 12-inch o.c. (PaceCart or SpotShot)
 - Note: When multiple layers(s) of insulation and/or coverboard are installed in ribbon-applied adhesive, boards shall be staggered from layer-to-layer.
 - Note: The maximum edge distance from the adhesive ribbon to the edge of the insulation board shall be not less than one-half the specified ribbons spacing.
7. Unless otherwise noted, all insulations are flat-stock or taper board of the minimum thickness noted. Tapered polyisocyanurate at the following thickness limitations may be substituted with the following Maximum Design Pressure (MDP) limitations. In no case shall these values be used to 'increase' the MDP listings in the tables; rather if MDP listing below meets or exceeds that listed for a particular system in the tables, then the thinner board listed below may be used as a drop-in for the equivalent thicker material listed in the table:

➢ Ashland Pliodeck (A-PD) @ 12-inch o.c.	MDP -105.0 psf (Min. 1.0-inch)
➢ Ashland Pliodeck (A-PD) @ 6-inch o.c.	MDP -277.5 psf (Min. 1.0-inch)
➢ Dow INSTA-STIK Quik Set Insulation Adhesive (D-IS):	MDP -120.0 psf (Min. 1.0-inch)
➢ ICP Adhesives Polyset CR-20:	MDP -117.5 psf (Min. 1.0-inch)
➢ Millennium One Step Foamable Adhesive (M-OSFA):	MDP -157.5 psf (Min. 1.0-inch)
➢ Millennium PG-1 Pump Grade Adhesive (M-PG1):	MDP -157.5 psf (Min. 1.0-inch)
➢ OMG OlyBond 500 (OB500):	MDP -45.0 psf (Min. 0.5-inch Multi-Max FA3)
➢ OMG OlyBond 500 (OB500):	MDP -187.5 psf (Min. 0.5-inch ISO 95+ GL)
➢ OMG OlyBond 500 (OB500):	MDP -315.0 psf (Min. 0.5-inch ENRGY 3)
➢ OMG OlyBond 500 (OB500):	MDP -487.5 psf (Min. 0.5-inch AC Foam II)



8. Bonded polyisocyanurate insulation boards shall be maximum 4 x 4 ft.
9. For mechanically attached components or partially bonded insulation, the maximum design pressure for the selected assembly shall meet or exceed the Zone 1 design pressure determined in accordance with FBC Chapter 16, and Zones 2 and 3 shall employ an attachment density designed by a qualified design professional to resist the elevated pressure criteria. Commonly used methods are ANSI/SPRI WD1, FM Loss Prevention Data Sheet 1-29 and Roofing Application Standard RAS 117. Assemblies marked with an asterisk* carry the limitations set forth in Section 2.2.10.1 of FM Loss Prevention Data Sheet 1-29 (January 2016) for Zone 2/3 enhancements.
10. For assemblies with all components fully bonded in place, the maximum design pressure for the selected assembly shall meet or exceed critical design pressure determined in accordance with FBC Chapter 16, and no rational analysis is permitted.
11. For mechanically attached components over existing decks, fasteners shall be tested in the existing deck for withdrawal resistance. A qualified design professional shall review the data for comparison to the minimum requirements for the system. Testing and analysis shall be in accordance with ANSI/SPRI FX-1 or Testing Application Standard TAS 105.
12. For existing substrates in a bonded recover or re-roof installation, the existing roof surface or existing roof deck shall be examined for compatibility and bond performance with the selected adhesive, and the existing roof system (for recover) shall be capable of resisting project design pressures on its own merit to the satisfaction of the Authority Having Jurisdiction, as documented through field uplift testing in accordance with ANSI/SPRI IA-1, ASTM E907, FM Loss Prevention Data Sheet 1-52 or Testing Application Standard TAS 124.
13. For Concrete Deck or Recover Applications using System Type D, the insulation is optional.
14. Lightweight Insulating Concrete (LWC) shall be cast in accordance with FBC Section 1917 to the satisfaction of the Authority Having Jurisdiction. For systems where specific LWC is referenced, refer to current LWC Product Approval for specific deck construction and limitations. For systems where specific LWC is not referenced, the minimum design mix shall be 300 psi. In all cases, the minimum top-coat thickness is 2-inches. For LWC over structural concrete, reference is made to FBC Section 1917.4.1. Point 1. For "pre-existent" LWC references, listings were established through testing over lightweight concrete cast using only foaming agent (ASTM C896), water and Portland cement (ASTM C150), with no proprietary additives, in accordance with procedures adopted by Miami-Dade BCCO (FBC CER1592). Unless otherwise noted, use of these listings in new construction or re-roof (tear-off) applications is at the discretion of the Designer of Record and Authority Having Jurisdiction.
15. Unless otherwise noted, refer to the following references for bonded base, ply or cap sheet applications.

CERTAINTEED FLINTLASTIC® MODIFIED BITUMEN COMPONENTS & APPLICATION METHODS			
REFERENCE	LAYER	MATERIAL	APPLICATION
BP-AA (Base and Ply sheets, Asphalt-Applied)	Base	Glasbase; All Weather/Empire Base; Flexiglas Base; Flintlastic Base 20	Hot asphalt at 20-40 lbs/square
	Ply	One or more Flintglas Ply 4; Flintglas Premium Ply 6	
BP-AA2 (Base, Spot-Asphalt-Applied)	Base	Yosemite Venting Base	Hot asphalt in 24-inch diameter spots in 30-inch grid pattern
BP-AA3 (Base, Spot-Asphalt-Applied)	Base	Yosemite Venting Base	Hot asphalt in 9-inch diameter spots in grid pattern noted herein.
BP-AA4 (Base, Strip-Asphalt-Applied)	Base	Yosemite Venting Base	Hot asphalt in 9-inch wide ribbons spaced as noted herein.
BP-CA2	Base/Ply	Glasbase; All Weather/Empire Base; Flexiglas Base; Flintlastic Base 20	Henry #903 Adhesive at 1.5 gal/square
	Base/Ply	Glasbase; All Weather/Empire Base; Flexiglas Base; Flintlastic Base 20	
SBS-AA (SBS, Asphalt-Applied)	Base	Flintlastic Base 20; Flintlastic Poly SMS Base; Flintlastic Ultra Poly SMS Base	Hot asphalt at 20-40 lbs/square
	Ply	One or more Flintlastic Base 20; Flintlastic Poly SMS Base; Flintlastic Ultra Poly SMS Base	
	Cap	Flintlastic FR Cap 30; Flintlastic FR Cap 30 CoolStar; Flintlastic FR Dual Cap; Flintlastic FR-P; Flintlastic FR-P CoolStar; Flintlastic Premium FR-P; Flintlastic Premium FR-P CoolStar; Flintlastic GMS; Flintlastic GMS CoolStar	



REFERENCE		LAYER	MATERIAL	APPLICATION
SBS-CA1 (SBS, Cold-Applied)	Base	Flintlastic Base 20; Flintlastic Poly SMS Base; Flintlastic Ultra Poly SMS Base	FlintBond Brush or Karnak No. 81 Cold Process Modified Bitumen Adhesive Brush Grade at 1 gal/square	
	Note:	Base ply cures overnight, prior to application of the ply or cap ply.		
	Ply	Flintlastic Base 20; Flintlastic Poly SMS Base; Flintlastic Ultra Poly SMS Base		
SBS-CA2 (SBS, Cold-Applied)	Cap	Flintlastic FR Cap 30; Flintlastic FR Cap 30 CoolStar; Flintlastic FR Dual Cap; Flintlastic FR-P; Flintlastic FR-P CoolStar; Flintlastic Premium FR-P; Flintlastic Premium FR-P CoolStar; Flintlastic GMS; Flintlastic GMS CoolStar	Henry #903 Adhesive at 1.5 gal/square.	
	Base	Flintlastic Base 20; Flintlastic Poly SMS Base; Flintlastic Ultra Poly SMS Base		
	Ply	Flintlastic Base 20; Flintlastic Poly SMS Base; Flintlastic Ultra Poly SMS Base		
SBS-CA3 (SBS, Cold-Applied)	Base	Flintlastic Base 20; Flintlastic Poly SMS Base; Flintlastic Ultra Poly SMS Base	Millennium Hurricane Force Membrane Adhesive, beads spaced 6-inch o.c.	
	Ply	Flintlastic Base 20; Flintlastic Poly SMS Base; Flintlastic Ultra Poly SMS Base		
	Cap	Flintlastic FR Cap 30; Flintlastic FR Cap 30 CoolStar; Flintlastic FR Dual Cap; Flintlastic FR-P; Flintlastic FR-P CoolStar; Flintlastic Premium FR-P; Flintlastic Premium FR-P CoolStar; Flintlastic GMS; Flintlastic GMS CoolStar		
SBS-TA (SBS, Torch-Applied)	Base	Flintlastic Ultra Poly SMS Base; Flintlastic Base 20 T	Torch-Applied	
	Ply	One or more Flintlastic Ultra Poly SMS Base; Flintlastic Base 20 T		
	Cap	Flintlastic FR Cap 30 T; Flintlastic FR Cap 30 T CoolStar; Flintlastic GTS-FR; Flintlastic GTS-FR CoolStar		
APP-TA (APP, Torch-Applied)	Base	One or more Flintlastic APP Base T; Flintlastic STA; Flintlastic STA Plus	Torch-Applied	
	Cap	Flintlastic STA; Flintlastic STA Plus; Flintlastic GTA; Flintlastic GTA CoolStar; Flintlastic GTA-FR; Flintlastic GTA-FR CoolStar		
	Base/Ply	Black Diamond Base Sheet; Flintlastic Ultra Glass SA		
SBS-SA-H (SBS, Self-Adhering, Hybrid Systems)	Base	Flintlastic SA PlyBase; Flintlastic SA Mid Ply	Self-Adhering	
	Ply	Flintlastic SA PlyBase; Flintlastic SA Mid Ply		
	Cap	Flintlastic SA Cap; Flintlastic SA Cap FR CoolStar; Flintlastic SA Cap FR; Flintlastic SA Cap FR CoolStar		

16. Vapor barrier options for use over structural concrete deck followed by adhered insulation carry the following MDP limitations. The lesser of the MDP listings below vs. those in Table 3A applies:

OPTION #	PRIMER	VAPOR BARRIER		INSULATION ADHESIVE	MDP (PSF)
		TYPE	ATTACH		
VB-1.	FlintPrime	Flintlastic SA PlyBase	Self-adhering	OB500, 12-inch o.c.	-82.5
VB-2.	FlintPrime	Flintlastic GTA	Torch-applied	M-OSFA or M-PG1, 12-inch o.c.	-420.0
VB-3.	FlintPrime	Flintlastic Base 20 T, Flintlastic FR Cap 30 T or Flintlastic GTS	Torch-applied	M-OSFA or M-PG1, 12-inch o.c.	-495.0

17. "MDP" = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads. Refer to FBC 1609 for determination of design wind loads.

VAPOR BARRIER OPTIONS; STRUCTURAL CONCRETE DECK; ADHERED INSULATION PER TABLE 3A; (The lesser of the MDP listings below vs. those in Table 3A applies)



Nemo|etc.

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

Sys. No.	Deck (Note 1)	Base Insulation		Top Insulation		Roof Cover (Note 15)			MDP (psf)
		Type	Attach	Type	Attach	Base	Ply	Cap	
SELF-ADHERING SYSTEMS:									
W-1	Min. 15/32-inch APA rated CDX plywood at max. 24-inch spans	Min. 1.5-inch FlintBoard ISO, AC Foam II, FlintBoard ISO H, H-Shield	M-OSFA or M-PG1	(Optional) Additional layer(s) of base insulation and/or min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board. Top surface shall be primed with FlintPrime or FlintPrime SA.	M-OSFA or M-PG1	SBS-SA	(Optional) SBS-SA	SBS-SA	-60.0
W-2	Min. 15/32-inch APA rated CDX plywood at max. 24-inch spans; blocked 48-inch o.c.	Min. 1.5-inch FlintBoard ISO, AC Foam II, FlintBoard ISO H, H-Shield	M-OSFA or M-PG1, 6-inch o.c.	(Optional) Additional layer(s) of base insulation and/or min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board. Top surface shall be primed with FlintPrime or FlintPrime SA.	M-OSFA or M-PG1, 6-inch o.c.	SBS-SA	(Optional) SBS-SA	SBS-SA	-97.5
HYBRID SYSTEMS:									
W-3	Min. 15/32-inch APA rated CDX plywood at max. 24-inch spans	Min. 1.5-inch FlintBoard ISO, AC Foam II, FlintBoard ISO H, H-Shield	M-OSFA or M-PG1	(Optional) Additional layer(s) of base insulation and/or min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board.	M-OSFA or M-PG1	SBS-SA-H	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-60.0
W-4	Min. 15/32-inch APA rated CDX plywood at max. 24-inch spans; blocked 48-inch o.c.	Min. 1.5-inch FlintBoard ISO, AC Foam II, FlintBoard ISO H, H-Shield	M-OSFA or M-PG1, 6-inch o.c.	(Optional) Additional layer(s) of base insulation and/or min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board.	M-OSFA or M-PG1, 6-inch o.c.	SBS-SA-H	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-97.5
CONVENTIONAL SYSTEMS:									
W-5	Min. 15/32-inch APA rated CDX plywood at max. 24-inch spans	Min. 1.5-inch FlintBoard ISO, AC Foam II, FlintBoard ISO H, H-Shield	M-OSFA or M-PG1	Optional additional layers of base insulation, followed by min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	M-OSFA or M-PG1	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	-60.0
W-6	Min. 15/32-inch APA rated CDX plywood at max. 24-inch spans; blocked 48-inch o.c.	Min. 1.5-inch FlintBoard ISO, AC Foam II, FlintBoard ISO H, H-Shield	M-OSFA or M-PG1, 6-inch o.c.	Optional additional layers of base insulation, followed by min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board.	M-OSFA or M-PG1, 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	-97.5



NEMO | etc.

**TABLE 1B: WOOD DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-2: MECHANICALLY ATTACHED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER**

Sys. No.	Deck (Note 1)	Anchor Sheet		Base Insulation		Top Insulation		Roof Cover (Note 15)			MDP (psf)	
		Type	Fasteners	Attach	Type	Attach	Type	Attach	Base	Ply		Cap
W-7	Min. 19/32-inch plywood at max. 24-inch spans	Glasbase, All Weather Empire, Flexiglas Base, Flintlastic Base 20; Poly SMS; Ultra Poly SMS; Yosemite Venting Base	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	9-inch o.c. in 4-inch lap and 12-inch o.c. in two (2), equally spaced, staggered center rows	Min. 1.5-inch AC Foam II, FlintBoard ISO, ENRGY-3, H-Shield or Multi-Max FA3	HA	Min. 0.25-inch Dens Deck primed with FlintPrime or FlintPrime SA	HA	SBS-SA	(Optional) SBS-SA	SBS-SA	-45.0*
W-8	Min. 19/32-inch plywood at max. 24-inch spans	Glasbase, All Weather Empire, Flexiglas Base, Poly SMS or Ultra Poly SMS	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	8-inch o.c. in 3-inch lap and 8-inch o.c. in three (3), equally spaced, staggered center rows	Min. 1.5-inch AC Foam II, FlintBoard ISO, ENRGY-3, H-Shield or Multi-Max FA3	HA full coverage or OSFA, A-PD, D-IS, ICP BOARD-MAX or CR-20, 4-inch o.c.	Min. 0.25-inch Dens Deck primed with FlintPrime or FlintPrime SA	HA full coverage or OSFA, A-PD, D-IS, ICP BOARD-MAX or CR-20, 6-inch o.c.	SBS-SA	(Optional) SBS-SA	SBS-SA	-52.5
W-9	Min. 19/32-inch plywood at max. 24-inch spans	Yosemite Venting Base Sheet	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	8-inch o.c. in 3-inch lap and 8-inch o.c. in three (3), equally spaced, staggered center rows	Min. 1.5-inch AC Foam II, FlintBoard ISO, ENRGY-3, H-Shield or Multi-Max FA3	HA	Min. 0.25-inch Dens Deck primed with FlintPrime or FlintPrime SA	HA	SBS-SA	(Optional) SBS-SA	SBS-SA	-52.5
W-10	Min. 19/32-inch plywood at max. 24-inch spans	Glasbase, All Weather Empire, Flexiglas Base, Poly SMS or Ultra Poly SMS	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	8-inch o.c. in 3-inch lap and 8-inch o.c. in three (3), equally spaced, staggered center rows	(Optional) Min. 1.5-inch AC Foam II, FlintBoard ISO, ENRGY-3, H-Shield or Multi-Max FA3	HA full coverage or OSFA, A-PD, D-IS, ICP BOARD-MAX or CR-20, 4-inch o.c.	Min. 0.25-inch SECURROCK Gypsum-Fiber Roof Board primed with FlintPrime or FlintPrime SA	HA full coverage or OSFA, A-PD, D-IS, ICP BOARD-MAX or CR-20, 6-inch o.c.	SBS-SA	(Optional) SBS-SA	SBS-SA	-60.0
W-11	Min. 19/32-inch plywood at max. 24-inch spans	Yosemite Venting Base Sheet	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	8-inch o.c. in 3-inch lap and 8-inch o.c. in three (3), equally spaced, staggered center rows	(Optional) Min. 1.5-inch AC Foam II, FlintBoard ISO, ENRGY-3, H-Shield or Multi-Max FA3	HA	Min. 0.25-inch SECURROCK Gypsum-Fiber Roof Board primed with FlintPrime or FlintPrime SA	HA	SBS-SA	(Optional) SBS-SA	SBS-SA	-60.0

HYBRID SYSTEMS:



NEMO|etc.

TABLE 1B: WOOD DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-2: MECHANICALLY ATTACHED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER

Sys. No.	Deck (Note 1)	Anchor Sheet			Base Insulation			Top Insulation			Roof Cover (Note 15)			MDP (psf)
		Type	Fasteners	Attach	Type	Attach	Type	Attach	Type	Attach	Base	Ply	Cap	
W-12	Min. 19/32-inch plywood at max. 24-inch spans	Glasbase, All Weather Empire, Flexiglas Base, Flintlastic Base 20; Poly SMS; Ultra Poly SMS; Yosemite Venting Base	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	9-inch o.c. in 4-inch lap and 12-inch o.c. in two (2), equally spaced, staggered center rows	Min. 1.5-inch AC Foam II, FlintBoard ISO, ENRGY-3, H-Shield or Multi-Max FA3	HA	None	N/A	SBS-SA-H	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-45.0*		
W-13	Min. 19/32-inch plywood at max. 24-inch spans	Glasbase, Flintglas Premium Ply 6; Yosemite Venting Base	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	8-inch o.c. in 3-inch lap and 8-inch o.c. in three (3), equally spaced, staggered center rows	Min. 1.5-inch AC Foam II, FlintBoard ISO, ENRGY-3, H-Shield or Multi-Max FA3	HA	None	N/A	SBS-SA-H	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-60.0		
CONVENTIONAL SYSTEMS:														
W-14	Min. 19/32-inch plywood at max. 24-inch spans	Glasbase, All Weather Empire, Flexiglas Base, Flintlastic Base 20; Poly SMS; Ultra Poly SMS; Yosemite Venting Base	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	9-inch o.c. in 4-inch lap and 12-inch o.c. in two (2), equally spaced, staggered center rows	Min. 1.5-inch AC Foam II, FlintBoard ISO, ENRGY-3, H-Shield or Multi-Max FA3	HA	Min. 0.25-inch Dens Deck primed with FlintPrime (ASTM D41) primer	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	-45.0*		
W-15	Min. 19/32-inch plywood at max. 24-inch spans	Glasbase, All Weather Empire, Flexiglas Base, Poly SMS or Ultra Poly SMS	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	8-inch o.c. in 3-inch lap and 8-inch o.c. in three (3), equally spaced, staggered center rows	Min. 1.5-inch AC Foam II, FlintBoard ISO, ENRGY-3, H-Shield or Multi-Max FA3	HA full coverage or OBS500, M-OSFA, A-PD, D-IS, ICP BOARD-MAX or CR-20, 4-inch o.c.	Min. 0.25-inch Dens Deck primed with FlintPrime (ASTM D41) primer	HA full coverage or OBS500, M-OSFA, A-PD, D-IS, ICP BOARD-MAX or CR-20, 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	-52.5		
W-16	Min. 19/32-inch plywood at max. 24-inch spans	Yosemite Venting Base Sheet	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	8-inch o.c. in 3-inch lap and 8-inch o.c. in three (3), equally spaced, staggered center rows	Min. 1.5-inch AC Foam II, FlintBoard ISO, ENRGY-3, H-Shield or Multi-Max FA3	HA	Min. 0.25-inch Dens Deck primed with FlintPrime (ASTM D41) primer	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	-52.5		



NEMO | etc.

TABLE 1B: WOOD DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-2: MECHANICALLY ATTACHED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER

Sys. No.	Deck (Note 1)	Anchor Sheet		Base Insulation		Top Insulation		Roof Cover (Note 15)			MDP (psf)	
		Type	Fasteners	Attach	Type	Attach	Type	Attach	Base	Ply		Cap
W-17	Min. 19/32-inch plywood at max. 24-inch spans	Glasbase, All Weather Empire, Flexiglas Base, Poly SMS or Ultra Poly SMS	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	8-inch o.c. in 3-inch lap and 8-inch o.c. in three (3), equally spaced, staggered center rows	(Optional) Min. 1.5-inch AC Foam II, FlintBoard ISO, ENRGY-3, H-Shield or Multi-Max FA3	HA full coverage or OB500, M-OSFA, A-PD, D-IS, ICP BOARD-MAX or CR-20, 4-inch o.c.	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	HA full coverage or OB500, M-OSFA, A-PD, D-IS, ICP BOARD-MAX or CR-20, 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	-60.0
W-18	Min. 19/32-inch plywood at max. 24-inch spans	Yosemite Venting Base Sheet	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	8-inch o.c. in 3-inch lap and 8-inch o.c. in three (3), equally spaced, staggered center rows	(Optional) Min. 1.5-inch AC Foam II, FlintBoard ISO, ENRGY-3, H-Shield or Multi-Max FA3	HA	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	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	-60.0



NEMO | etc.

TABLE 1C: WOOD DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE B: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER

System No.	Deck (Note 1)	Base Insulation Layer			Top Insulation Layer			Roof Cover (Note 15)			MDP (psf)
		Type	Fasteners	Attach	Type	Attach	Base	Ply	Cap		
HYBRID SYSTEMS:											
W-19	Min. 15/32-inch exterior grade plywood at max. 24-inch spans	Min. 1.5-inch AC Foam II, FlintBoard ISO, H-Shield or FlintBoard ISO ^h .	FlintFast #12 or #14 with FlintFast 3" Insulation Plates	1 per 1.33 ft ²	Min. 1.5-inch AC Foam II, FlintBoard ISO, H-Shield or FlintBoard ISO ^h .	HA, D-IS, M-OSFA, M-PG1 or OB500	SBS-SA-H	(Optional) APP-TA	APP-TA	-67.5	
CONVENTIONAL SYSTEMS:											
W-20	Min. 23/32-inch exterior grade plywood at max. 24-inch spans	Min. 1.5-inch AC Foam II, FlintBoard ISO, ENRGY 3, H-Shield	Note 2	1 per 2 ft ²	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation, min. 0.75-inch FescoBoard (homogeneous)	HA	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-45.0*	
W-21	Min. 23/32-inch exterior grade plywood at max. 24-inch spans	Min. 1.5-inch AC Foam II, FlintBoard ISO, ENRGY 3, H-Shield	Note 2	1 per 2 ft ²	Min. 0.25-inch SECURROCK Gypsum-Fiber Roof Board, Dens Deck or 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	-45.0*	
W-22	Min. 15/32-inch exterior grade plywood at max. 24-inch spans	Min. 1.5-inch AC Foam II, FlintBoard ISO, H-Shield or FlintBoard ISO ^h .	FlintFast #12 or #14 with FlintFast 3" Insulation Plates	1 per 1.33 ft ²	Optional additional layer(s) of base insulation followed by Min. 0.25-inch SECURROCK Gypsum-Fiber Roof board	HA, D-IS, M-OSFA, M-PG1 or OB500	APP-TA	(Optional) APP-TA	APP-TA	-90.0	



NEMO | etc.

TABLE 1D: WOOD 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		Top Insulation Layer		Roof Cover (Note 15)			MDP (psf)
		Type	Fasteners	Attach	Base	Ply	Cap		
SELF-ADHERING SYSTEMS:									
W-23	Min. 15/32-inch plywood at max. 24-inch spans	(Optional) One or more layers, any combination, loose laid	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Flintfast 3 in. Insulation Plates with FlintFast #12 or #14	1 per 3.2 ft ²	SBS-SA	(Optional) SBS-SA	SBS-SA	-30.0*
W-24	Min. 19/32-inch exterior grade plywood at max. 24-inch spans	(Optional) One or more layers, any combination, loose laid	Min. 0.25-inch Dens Deck	Note 2	1 per 1.33 ft ²	Apply FlintPrime or FlintPrime SA to board & plates, followed by SBS-SA	(Optional) SBS-SA	SBS-SA	-45.0
W-25	Min. 19/32-inch exterior grade plywood at max. 24-inch spans	(Optional) One or more layers, any combination, loose laid	Min. 3/8-inch SECUROCK Gypsum-Fiber Roof Board	Flintfast 3 in. Insulation Plates with FlintFast #12 or #14	1 per 2.7 ft ²	SBS-SA	(Optional) SBS-SA	SBS-SA	-45.0*
W-26	Min. 19/32-inch plywood at max. 24-inch spans	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch ACFoam II, ENRGY 3, H-Shield, Multi-Max FA3 or FlintBoard ISO	Flintfast 3 in. Insulation Plates with FlintFast #12 or #14	1 per 2 ft ²	Apply FlintPrime or FlintPrime SA to board & plates, followed by SBS-SA	(Optional) SBS-SA	SBS-SA	-45.0*
W-27	Min. 15/32-inch plywood at max. 24-inch spans	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch FlintBoard ISO	FlintFast #14 HD with FlintFast 3" Insulation Plates or Trufast HD with Trufast 3" Metal Insulation Plates	1 per 1.6 ft ²	Apply FlintPrime to board & plates, followed by SBS-SA	(Optional) SBS-SA	SBS-SA	-52.5
W-28	Min. 19/32-inch plywood at max. 24-inch spans	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch ACFoam II, ENRGY 3, H-Shield, Multi-Max FA3 or FlintBoard ISO	Note 2	1 per 1.45 ft ²	Apply FlintPrime or FlintPrime SA to board & plates, followed by SBS-SA	(Optional) SBS-SA	SBS-SA	-60.0
HYBRID SYSTEMS:									
W-29	Min. 15/32-inch plywood at max. 24-inch spans	(Optional) One or more layers, any combination, loose laid	Min. 0.25-inch Dens Deck; Dens Deck Prime	Flintfast 3 in. Insulation Plates with FlintFast #12 or #14	1 per 2 ft ²	SBS-SA-H	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-30.0*
W-30	Min. 15/32-inch plywood at max. 24-inch spans	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch FlintBoard ISO	FlintFast #14 HD with FlintFast 3" Insulation Plates or Trufast HD with Trufast 3" Metal Insulation Plates	1 per 1.6 ft ²	SBS-SA-H	(Optional) SBS-TA or APP-TA	SBS-TA or APP-TA	-52.5
W-31	Min. 15/32-inch plywood at max. 24-inch spans	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or Multi-Max FA3	Note 2	1 per 1.33 ft ²	SBS-SA-H	(Optional) BP-AA or SBS-AA	SBS-AA	-52.5
W-32	Min. 19/32-inch plywood at max. 24-inch spans	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch ACFoam II, FlintBoard ISO, H-Shield, FlintBoard ISO _H	Note 2	1 per 1.45 ft ²	SBS-SA-H	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-60.0



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TABLE 1D: WOOD 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	Top Insulation Layer			Roof Cover (Note 15)			MDP (psf)
			Type	Fasteners	Attach	Base	Ply	Cap	
W-33	Min. 15/32-inch plywood at max. 24-inch spans	(Optional) Min. 1.5-inch, One or more layers, any combination, loose laid	Min. 1.5-inch AC Foam II, FlintBoard ISO, H-Shield, FlintBoard ISO _H	FlintFast 3 in. Insulation Plates with FlintFast #12 or #14	1 per 1.33 ft ²	SBS-SA-H	(Optional) SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-75.0
W-34	Min. 19/32-inch exterior grade plywood at max. 24-inch spans	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch AC Foam II, FlintBoard ISO, ENRGY 3 or Multi-Max FA3	Note 2	1 per 1.33 ft ²	SBS-SA-H	(Optional) SBS-TA or APP-TA	SBS-TA or APP-TA	-82.5
CONVENTIONAL SYSTEMS:									
W-35	Min. 23/32-inch exterior grade plywood at max. 24-inch spans	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation, min. 0.75-inch FescoBoard (homogeneous)	Note 2	1 per 2 ft ²	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-45.0*
W-36	Min. 15/32-inch plywood at max. 24-inch spans	(Optional) One or more layers, any combination, loose laid	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board, Dens Deck or Dens Deck Prime	FlintFast #12 or #14 HD with FlintFast 3" Insulation Plates	1 per 2 ft ²	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*
W-37	Min. 15/32-inch plywood at max. 24-inch spans	(Optional for Recover) Min. 1.5-inch, One or more layers, any combination, loose laid	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	FlintFast #12 or #14 HD with FlintFast 3" Insulation Plates	1 per 1.45 ft ²	APP-TA	(Optional) APP-TA	APP-TA	-60.0
W-38	Min. 19/32-inch exterior grade plywood at max. 24-inch spans	(Optional for Concrete or Recover) Min. 2-inch AC Foam II, FlintBoard, H-Shield or ENRGY 3, loose laid.	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	FlintFast #12 or #14 HD with FlintFast 3" Insulation Plates	1 per 1.78 ft ²	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	-60.0
W-39	Min. 15/32-inch plywood at max. 24-inch spans	(Optional for Recover) Min. 1.5-inch, One or more layers, any combination, loose laid	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	FlintFast #12 or #14 HD with FlintFast 3" Insulation Plates	1 per 1.33 ft ²	APP-TA	(Optional) APP-TA	APP-TA	-67.5



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TABLE 1E: WOOD DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE D: INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER

System No.	Deck (Note 1)	Insulation Layer(s) (Note 13)		Base or Anchor Sheet		Attach	Fasteners	Attach	Roof Cover (Note 15)		MDP (psf)	
		Type	Attach	Base	Ply				Cap			
SELF-ADHERING SYSTEMS:												
W-40	Min. 19/32-inch plywood at max 24-inch spans	Min. 1.5-inch, One or more layers, any combination	Prelim. Attach	Flintlastic SA NailBase	Note 2	8-inch o.c. at min. 3-inch lap and 8-inch o.c. in two (2), equally spaced, staggered center rows; Stress plates shall be primed with FlintPrime (ASTM D41) primer or FlintPrime SA	(Optional) SBS-SA	SBS-SA	-82.5*			
W-41	Min. 15/32-inch plywood at max 24-inch spans	Min. 1.5-inch, One or more layers, any combination	Prelim. Attach	Flintlastic SA NailBase	Flintfast 3 in. Insulation Plates with FlintFast #12 or #14; Trufast 3" Metal Insulation Plates with DP or HD; OMG 3 in. Round Metal Plates with OMG #14 HD	6-inch o.c. at min. 2-inch lap and 6-inch o.c. in three (3), equally spaced, staggered center rows; Stress plates shall be primed with FlintPrime (ASTM D41) primer or FlintPrime SA.	(Optional) SBS-SA	SBS-SA	-97.5*			
W-42	Min. 15/32-inch plywood at max 24-inch spans	Min. 1.5-inch, One or more layers, any combination	Prelim. Attach	Flintlastic SA NailBase	Flintfast 3 in. Insulation Plates with FlintFast #12 or #14; Trufast 3" Metal Insulation Plates with DP or HD; OMG 3 in. Round Metal Plates with OMG #14 HD	6-inch o.c. at min. 2-inch lap and 6-inch o.c. in four (4), equally spaced, staggered center rows; Stress plates shall be primed with FlintPrime (ASTM D41) primer or FlintPrime SA.	(Optional) SBS-SA	SBS-SA	-127.5*			
HYBRID SYSTEMS:												
W-43	Min. 15/32-inch plywood at max 24-inch spans	Min. 1.5-inch, One or more layers, any combination	Prelim. Attach	Glasbase; Flexiglas; Flintlastic Base 20; Poly SMS Base; Ultra Poly SMS Base	Flintfast 3 in. Insulation Plates with FlintFast #12 or #14; Trufast 3" Metal Insulation Plates with DP or HD; OMG 3 in. Round Metal Plates with OMG #14 HD	6-inch o.c. at 4-inch lap and 6-inch o.c. in three (3), equally spaced, staggered center rows; Stress plates shall be primed with FlintPrime (ASTM D41) primer or FlintPrime SA.	SBS-SA-H	SBS-AA, SBS-TA or APP-TA	-97.5			
W-44	Min. 19/32-inch plywood at max 24-inch spans	Min. 1.5-inch, One or more layers, any combination	Prelim. Attach	Glasbase; Flexiglas; Flintlastic Base 20; Poly SMS Base; Ultra Poly SMS Base	Note 2	7-inch o.c. at 3-inch lap and 7-inch o.c. in three (3), equally spaced, staggered center rows	SBS-SA-H	SBS-AA, SBS-TA or APP-TA	-105.0			
W-45	Min. 15/32-inch plywood at max 24-inch spans	Min. 1.5-inch, One or more layers, any combination	Prelim. Attach	Glasbase; Flexiglas; Flintlastic Base 20; Poly SMS Base; Ultra Poly SMS Base	Flintfast 3 in. Insulation Plates with FlintFast #12 or #14; Trufast 3" Metal Insulation Plates with DP or HD; OMG 3 in. Round Metal Plates with OMG #14 HD	6-inch o.c. at 4-inch lap and 6-inch o.c. in four (4), equally spaced, staggered center rows; Stress plates shall be primed with FlintPrime (ASTM D41) primer or FlintPrime SA.	SBS-SA-H	SBS-AA, SBS-TA or APP-TA	-127.5			
CONVENTIONAL SYSTEMS:												



NEMO | etc.

**TABLE 1E: WOOD DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE D: INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER**

System No.	Deck (Note 1)	Insulation Layer(s) (Note 13)		Base or Anchor Sheet			Roof Cover (Note 15)		MDP (psf)
		Type	Attach	Base	Fasteners	Attach	Ply	Cap	
W-46	Min. 23/32-inch exterior grade plywood at max. 24-inch spans	Min. 1.5-inch, One or more layers, any combination	Prelim. Attach	Glasbase; All Weather/Empire Base; Flexiglas Base; Flintlastic Base 20; Yosemite Venting Base	Note 2	12-inch o.c. at 4-inch lap and 36-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	-30.0*
W-47	Min. 23/32-inch exterior grade plywood at max. 24-inch spans	Min. 1.5-inch, One or more layers, any combination	Prelim. Attach	Glasbase; All Weather/Empire Base; Flexiglas Base; Flintlastic Base 20; Yosemite Venting Base	Note 2	12-inch o.c. at 4-inch lap and 24-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	-45.0*
W-48	Min. 23/32-inch exterior grade plywood at max. 24-inch spans	Min. 1.5-inch, One or more layers, any combination	Prelim. Attach	Poly SMS Base; Ultra Poly SMS Base	Note 2	12-inch o.c. at 4-inch lap and 36-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	-45.0*
W-49	Min. 15/32-inch plywood at max 24-inch spans	Min. 1.5-inch, One or more layers, any combination	Prelim. Attach	Glasbase; Flexiglas; Flintlastic Base 20; All Weather / Empire Base; Poly SMS Base; Ultra Poly SMS Base; Yosemite Venting Base	Flintfast 3 in. Insulation Plates with FlintFast #12 or #14; Trufast 3" Metal Insulation Plates with DP or HD; OMG 3 in. Round Metal Plates with OMG #14 HD	6-inch o.c. at 4-inch lap and 6-inch o.c. in three (3), equally spaced, staggered center rows.	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-97.5
W-50	Min. 15/32-inch plywood at max 24-inch spans	Min. 1.5-inch, One or more layers, any combination	Prelim. Attach	Flintlastic APP Base T	OMG 3 in. Round Metal Plates with OMG #14 HD	6-inch o.c. at 4-inch lap and 6-inch o.c. in three (3), equally spaced, staggered center rows.	APP-TA	APP-TA	-97.5
W-51	Min. 15/32-inch plywood at max 24-inch spans	One or more layers, any thickness or combination	Prelim. Attach	Glasbase; Flexiglas; Flintlastic Base 20; All Weather / Empire Base; Poly SMS Base; Ultra Poly SMS Base; Yosemite Venting Base	Flintfast 3 in. Insulation Plates with FlintFast #14; Trufast 3" Metal Insulation Plates with Trufast HD	8-inch o.c. at 4-inch lap and 8-inch o.c. at three (3) equally spaced, staggered center rows	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-97.5
W-52	Min. 19/32-inch plywood at max 24-inch spans	Min. 1.5-inch, One or more layers, any combination	Prelim. Attach	Glasbase; Flexiglas; Flintlastic Base 20; Poly SMS Base; Ultra Poly SMS Base; Yosemite Venting Base	Note 2	7-inch o.c. at 3-inch lap and 7-inch o.c. in three (3), equally spaced, staggered center rows	BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-105.0
W-53	Min. 19/32-inch plywood at max 24-inch spans	Min. 1.5-inch, One or more layers, any combination	Prelim. Attach	Flintlastic APP Base T	OMG 3 in. Round Metal Plates with OMG #14 HD or Dekfast Hex Plate with Dekfast #14	7-inch o.c. at 3-inch lap and 7-inch o.c. in three (3), equally spaced, staggered center rows	APP-TA	APP-TA	-105.0



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System No.	Deck (Note 1)	Insulation Layer(s) (Note 13)		Base or Anchor Sheet			Roof Cover (Note 15)		MDP (psf)	
		Type	Attach	Base	Fasteners	Attach	Ply	Cap		
W-54	Min. 15/32-inch plywood at max 24-inch spans	Min. 1.5-inch, One or more layers, any combination	Prelim. Attach	Glasbase; Flexiglas; Flintlastic Base 20; Poly SMS Base; Ultra Poly SMS Base; Yosemite Venting Base	Flintfast 3 in. Insulation Plates with FlintFast #12 or #14; Trufast 3" Metal Insulation Plates with DP or HD; OMG 3 in. Round Metal Plates with OMG #14 HD	6-inch o.c. at 4-inch lap and 6-inch o.c. in four (4), equally spaced, staggered center rows.	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-127.5	
W-55	Min. 15/32-inch plywood at max 24-inch spans	Min. 1.5-inch, One or more layers, any combination	Prelim. Attach	Flintlastic APP Base T	OMG 3 in. Round Metal Plates with OMG #14 HD	6-inch o.c. at 4-inch lap and 6-inch o.c. in four (4), equally spaced, staggered center rows.	APP-TA	APP-TA	-127.5	
COLD-APPLIED SYSTEMS:										
W-56	Min. 15/32-inch plywood at max 24-inch spans	Min. 1-inch, One or more layers, any combination	Loose-laid	Glasbase; Flexiglas Base; Flintlastic Base 20; All Weather / Empire Base; Yosemite Venting Base; Flintlastic Poly SMS Base; Flintlastic Ultra Poly SMS Base	Flintfast 3 in. Insulation Plates with FlintFast #12 or #14; Trufast 3" Metal Insulation Plates with DP or HD	8-inch o.c. at 4-inch lap and 8-inch o.c. in three (3), equally spaced, staggered center rows	(Optional) SBS-CA1	SBS-CA1	-52.5	



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TABLE 1F-1: WOOD DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER

System No.	Deck (Note 1)	Base Sheet			Attach	Roof Cover (Note 1)		MDP (psf)
		Base	Fasteners			Ply	Cap	
SELF-ADHERING SYSTEMS:								
W-57	Min. 15/32-inch plywood at max 24-inch spans	Flintlastic SA NailBase	Simplex MAXX Cap Metal Cap Nails	9-inch o.c. at min. 3-inch lap and 12-inch o.c. in two (2), equally spaced, staggered center rows; Stress plates shall be primed with FlintPrime (ASTM D41) primer.	(Optional) SBS-SA	SBS-SA	-45.0*	
W-58	Min. 15/32-inch plywood at max 24-inch spans	Flintlastic SA NailBase	Min. 1-inch long, 12 ga. Simplex Metal Cap Nails	6-inch o.c. at min. 2-inch lap and 6-inch o.c. in four (4), equally spaced, staggered center rows	(Optional) SBS-SA	SBS-SA	-52.5	
W-59	Min. 19/32-inch plywood at max 24-inch spans	Flintlastic SA NailBase	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	8-inch o.c. at min. 2-inch lap and 8-inch o.c. in three (3), equally spaced, staggered center rows	(Optional) SBS-SA	SBS-SA	-52.5	
W-60	Min. 19/32-inch plywood at max 24-inch spans	Flintlastic SA NailBase	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	8-inch o.c. at min. 2-inch lap and 8-inch o.c. in three (3), equally spaced, staggered center rows	(Optional) SBS-SA	SBS-SA	-60.0	
W-61	Min. 15/32-inch plywood at max 24-inch spans	Flintlastic SA NailBase	Simplex MAXX Cap	8-inch o.c. at min. 3-inch lap and 8-inch o.c. in three (3), equally spaced, staggered center rows; Stress plates shall be primed with FlintPrime (ASTM D41) primer.	(Optional) SBS-SA	SBS-SA	-67.5	
W-62	Min. 19/32-inch plywood at max 24-inch spans	Flintlastic SA NailBase	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	6-inch o.c. at min. 2-inch lap and 6-inch o.c. in four (4), equally spaced, staggered center rows	(Optional) SBS-SA	SBS-SA	-75.0	
W-63	Min. 15/32-inch plywood at max 24-inch spans	Flintlastic SA NailBase	Cap nails: 1-inch diameter, 0.032-inch thick metal cap with 0.120" shank diameter, annular ring shank nails	7-inch o.c. at min. 4-inch laps and 7-inch o.c. in five (5), equally spaced, staggered center rows	(Optional) SBS-SA	SBS-SA	-75.0	
W-64	Min. 19/32-inch plywood at max 24-inch spans	Flintlastic SA NailBase	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	4-inch o.c. at min. 2-inch lap and 4-inch o.c. in four (4), equally spaced, staggered center rows	(Optional) SBS-SA	SBS-SA	-105.0	
HYBRID SYSTEMS:								
W-65	Min. 19/32-inch exterior grade plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; All Weather / Empire Base; Poly SMS Base; Ultra Poly SMS Base	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	9-inch o.c. at 4-inch lap and 12-inch o.c. in two (2), equally spaced, staggered center rows	SBS-SA-H	SBS-AA, SBS-TA or APP-TA	-45.0*	
W-66	Min. 15/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; All Weather / Empire Base; Poly SMS Base; Ultra Poly SMS Base	Min. 1-inch long, 12 ga. Simplex Metal Cap Nails	6-inch o.c. at 3-inch lap and 6-inch o.c. in four (4), equally spaced, staggered center rows	SBS-SA-H	SBS-AA, SBS-TA or APP-TA	-52.5	



NEMO | etc.

**TABLE 1F-1: WOOD DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE E: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER**

System No.	Deck (Note 1)	Base Sheet			Attach	Roof Cover (Note 15)		MDP (psf)
		Base	Fasteners	Ply		Cap		
W-67	Min. 19/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; Poly SMS Base; Ultra Poly SMS Base	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	8-inch o.c. at 4-inch lap and 8-inch o.c. in three (3), equally spaced, staggered center rows	SBS-SA-H	SBS-AA, SBS-TA or APP-TA	-52.5	
W-68	Min. 19/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; Poly SMS Base; Ultra Poly SMS Base	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	8-inch o.c. at 4-inch lap and 8-inch o.c. in three (3), equally spaced, staggered center rows	SBS-SA-H	SBS-AA, SBS-TA or APP-TA	-60.0	
W-69	Min. 19/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; Poly SMS Base; Ultra Poly SMS Base	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	6-inch o.c. at 4-inch lap and 6-inch o.c. in four (4), equally spaced, staggered center rows	SBS-SA-H	SBS-AA, SBS-TA or APP-TA	-82.5	
W-70	Min. 19/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; Poly SMS Base; Ultra Poly SMS Base	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	4-inch o.c. at 3-inch lap and 4-inch o.c. in four (4), equally spaced, staggered center rows	SBS-SA-H	SBS-AA, SBS-TA or APP-TA	-105.0	
CONVENTIONAL SYSTEMS:								
W-71	Min. 19/32-inch exterior grade plywood at max. 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; All Weather / Empire Base; Poly SMS Base; Ultra Poly SMS Base; Yosemite Venting Base	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	9-inch o.c. at 4-inch lap and 12-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	-45.0*	
W-72	Min. 15/32-inch exterior grade plywood at max. 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; All Weather / Empire Base; Poly SMS Base; Yosemite Venting Base	Simplex MAXX Cap	9-inch o.c. at 2-inch lap and 18-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	-45.0*	
W-73	Min. 15/32-inch exterior grade plywood at max. 24-inch spans	Flintlastic APP Base T	Simplex MAXX Cap	9-inch o.c. at 2-inch lap and 18-inch o.c. in two (2), equally spaced, staggered center rows	(Optional) APP-TA	APP-TA	-45.0*	
W-74	Min. 15/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; All Weather / Empire Base; Poly SMS Base; Ultra Poly SMS Base; Yosemite Venting Base	Min. 1-inch long, 12 ga. Simplex Metal Cap Nails	6-inch o.c. at 3-inch lap and 6-inch o.c. in four (4), equally spaced, staggered center rows	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-52.5	
W-75	Min. 19/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; All Weather / Empire Base; Poly SMS Base; Ultra Poly SMS Base; Yosemite Venting Base	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	8-inch o.c. at 4-inch lap and 8-inch o.c. in three (3), equally spaced, staggered center rows	BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-52.5	
W-76	Min. 15/32-inch exterior grade plywood at max. 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; All Weather / Empire Base; Poly SMS Base; Yosemite Venting Base	Simplex MAXX Cap	9-inch o.c. at 2-inch lap and 12-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	-52.5	
W-77	Min. 15/32-inch exterior grade plywood at max. 24-inch spans	Flintlastic APP Base T	Simplex MAXX Cap	9-inch o.c. at 2-inch lap and 12-inch o.c. in two (2), equally spaced, staggered center rows	(Optional) APP-TA	APP-TA	-52.5	



NEMO | etc.

**TABLE 1F-1: WOOD DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE E: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER**

System No.	Deck (Note 1)	Base Sheet			Attach	Roof Cover (Note 15)		MDP (psf)
		Base	Fasteners	Base		Ply	Cap	
W-78	Min. 19/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; All Weather / Empire Base; Poly SMS Base; Ultra Poly SMS Base; Yosemite Venting Base	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	8-inch o.c. at 4-inch lap and 8-inch o.c. in three (3), equally spaced, staggered center rows	BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-60.0	
W-79	Min. 15/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; All Weather / Empire Base; Poly SMS Base; Ultra Poly SMS Base; Yosemite Venting Base	Cap nails: 1-inch diameter, 0.032-inch thick metal cap with 0.120-inch shank diameter, annular ring shank nails.	6-inch o.c. at 4-inch lap and 6-inch o.c. at five (5) equally spaced, staggered center rows	(Optional) BP-AA, SBS-AA or SBS-TA	SBS-AA or SBS-TA	-67.5	
W-80	Min. 19/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; All Weather / Empire Base; Poly SMS Base; Ultra Poly SMS Base; Yosemite Venting Base	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	6-inch o.c. at 4-inch lap and 6-inch o.c. in four (4), equally spaced, staggered center rows	BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-82.5	
W-81	Min. 15/32-inch exterior grade plywood at max. 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; All Weather / Empire Base; Poly SMS Base; Yosemite Venting Base	Simplex MAXX Cap	6-inch o.c. at 2-inch lap and 6-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	-90.0	
W-82	Min. 15/32-inch exterior grade plywood at max. 24-inch spans	Flintlastic APP Base T	Simplex MAXX Cap	6-inch o.c. at 2-inch lap and 6-inch o.c. in two (2), equally spaced, staggered center rows	(Optional) APP-TA	APP-TA	-90.0	
W-83	Min. 19/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; All Weather / Empire Base; Poly SMS Base; Ultra Poly SMS Base; Yosemite Venting Base	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	4-inch o.c. at 3-inch lap and 4-inch o.c. in four (4), equally spaced, staggered center rows	BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-105.0	
W-84	Min. 15/32-inch exterior grade plywood at max. 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; All Weather / Empire Base; Poly SMS Base; Yosemite Venting Base	Simplex MAXX Cap	6-inch o.c. at 2-inch lap and 6-inch o.c. in three (3), equally spaced, staggered center rows	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-105.0	
W-85	Min. 15/32-inch exterior grade plywood at max. 24-inch spans	Flintlastic APP Base T	Simplex MAXX Cap	6-inch o.c. at 2-inch lap and 6-inch o.c. in three (3), equally spaced, staggered center rows	(Optional) APP-TA	APP-TA	-105.0	



NEMO | etc.

TABLE 1F-2: WOOD DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE E: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER

System No.	Deck (Note 1)	Base Sheet		Attach	Roof Cover (Note 15)		MDP (psf)
		Base	Fasteners		Ply	Cap	
SELF-ADHERING SYSTEMS:							
W-86	Min. 19/32-inch plywood at max 24-inch spans	Flintlastic SA NailBase	Note 2	8-inch o.c. at min. 3-inch lap and 8-inch o.c. in two (2), equally spaced, staggered center rows. Stress plates shall be primed with FlintPrime (ASTM D41) primer or FlintPrime SA	(Optional) SBS-SA	SBS-SA	-82.5*
W-87	Min. 15/32-inch plywood at max 24-inch spans	Flintlastic SA NailBase	Flintfast 3 in. Insulation Plates with FlintFast #12 or #14; Trufast 3" Metal Insulation Plates with DP or HD; OMG 3 in. Round Metal Plates with OMG #14 HD	6-inch o.c. at min. 2-inch lap and 6-inch o.c. in three (3), equally spaced, staggered center rows. Stress plates shall be primed with FlintPrime (ASTM D41) primer or FlintPrime SA.	(Optional) SBS-SA	SBS-SA	-97.5*
W-88	Min. 15/32-inch plywood at max 24-inch spans	Flintlastic SA NailBase	Flintfast 3 in. Insulation Plates with FlintFast #12 or #14; Trufast 3" Metal Insulation Plates with DP or HD; OMG 3 in. Round Metal Plates with OMG #14 HD	6-inch o.c. at min. 2-inch lap and 6-inch o.c. in four (4), equally spaced, staggered center rows. Stress plates shall be primed with FlintPrime (ASTM D41) primer or FlintPrime SA.	(Optional) SBS-SA	SBS-SA	-127.5*
HYBRID SYSTEMS:							
W-89	Min. 15/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; Poly SMS Base; Ultra Poly SMS Base	Flintfast 3 in. Insulation Plates with FlintFast #12 or #14; Trufast 3" Metal Insulation Plates with DP or HD; OMG 3 in. Round Metal Plates with OMG #14 HD	6-inch o.c. at 4-inch lap and 6-inch o.c. in three (3), equally spaced, staggered center rows. Stress plates shall be primed with FlintPrime (ASTM D41) primer or FlintPrime SA.	SBS-SA-H	SBS-AA, SBS-TA or APP-TA	-97.5
W-90	Min. 19/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; Poly SMS Base; Ultra Poly SMS Base	Note 2	7-inch o.c. at 3-inch lap and 7-inch o.c. in three (3), equally spaced, staggered center rows	SBS-SA-H	SBS-AA, SBS-TA or APP-TA	-105.0
W-91	Min. 15/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; Poly SMS Base; Ultra Poly SMS Base	Flintfast 3 in. Insulation Plates with FlintFast #12 or #14; Trufast 3" Metal Insulation Plates with DP or HD; OMG 3 in. Round Metal Plates with OMG #14 HD	6-inch o.c. at 4-inch lap and 6-inch o.c. in four (4), equally spaced, staggered center rows. Stress plates shall be primed with FlintPrime (ASTM D41) primer or FlintPrime SA.	SBS-SA-H	SBS-AA, SBS-TA or APP-TA	-127.5
CONVENTIONAL SYSTEMS:							
W-92	Min. 23/32-inch exterior grade plywood at max. 24-inch spans	Glasbase; All Weather/Empire Base; Flexiglas Base; Flintlastic Base 20; Yosemite Venting Base	Note 2	12-inch o.c. at 4-inch lap and 36-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	-30.0*
W-93	Min. 23/32-inch exterior grade plywood at max. 24-inch spans	Glasbase; All Weather/Empire Base; Flexiglas Base; Flintlastic Base 20; Yosemite Venting Base	Note 2	12-inch o.c. at 4-inch lap and 24-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	-45.0*
W-94	Min. 23/32-inch exterior grade plywood at max. 24-inch spans	Poly SMS Base; Ultra Poly SMS Base	Note 2	12-inch o.c. at 4-inch lap and 36-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	-45.0*



NEMO | etc.

TABLE 1F-2: WOOD DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE E: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER							
System No.	Deck (Note 1)	Base Sheet			Roof Cover (Note 15)		MDP (psf)
		Base	Fasteners	Attach	Ply	Cap	
W-95	Min. 15/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; Poly SMS Base; Ultra Poly SMS Base; Yosemite Venting Base	Flintfast 3 in. Insulation Plates with FlintFast #12 or #14; Trufast 3" Metal Insulation Plates with DP or HD; OMG 3 in. Round Metal Plates with OMG #14 HD	6-inch o.c. at 4-inch lap and 6-inch o.c. in three (3), equally spaced, staggered center rows	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-97.5
W-96	Min. 15/32-inch plywood at max 24-inch spans	Flintlastic APP Base T	OMG 3 in. Round Metal Plates with OMG #14 HD	6-inch o.c. at 4-inch lap and 6-inch o.c. in three (3), equally spaced, staggered center rows.	APP-TA	APP-TA	-97.5
W-97	Min. 15/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; All Weather / Empire Base; Poly SMS Base; Ultra Poly SMS Base; Yosemite Venting Base	Flintfast 3 in. Insulation Plates with FlintFast #14; Trufast 3" Metal Insulation Plates with Trufast HD	8-inch o.c. at 4-inch lap and 8-inch o.c. at three (3) equally spaced, staggered center rows	(Optional) BP-AA, SBS-AA or SBS-TA	SBS-AA or SBS-TA	-97.5
W-98	Min. 19/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; Poly SMS Base; Ultra Poly SMS Base; Yosemite Venting Base	Note 2	7-inch o.c. at 3-inch lap and 7-inch o.c. in three (3), equally spaced, staggered center rows	BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-105.0
W-99	Min. 19/32-inch plywood at max 24-inch spans	Flintlastic APP Base T	OMG 3 in. Round Metal Plates with OMG #14 HD or Dekfast Hex Plate with Dekfast #14	7-inch o.c. at 3-inch lap and 7-inch o.c. in three (3), equally spaced, staggered center rows	APP-TA	APP-TA	-105.0
W-100	Min. 15/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; Poly SMS Base; Ultra Poly SMS Base; Yosemite Venting Base	Flintfast 3 in. Insulation Plates with FlintFast #12 or #14; Trufast 3" Metal Insulation Plates with DP or HD; OMG 3 in. Round Metal Plates with OMG #14 HD	6-inch o.c. at 4-inch lap and 6-inch o.c. in four (4), equally spaced, staggered center rows	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-127.5
W-101	Min. 15/32-inch plywood at max 24-inch spans	Flintlastic APP Base T	OMG 3 in. Round Metal Plates with OMG #14 HD	6-inch o.c. at 4-inch lap and 6-inch o.c. in four (4), equally spaced, staggered center rows.	APP-TA	APP-TA	-127.5
COLD-APPLIED SYSTEMS:							
W-102	Min. 15/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas Base; Flintlastic Base 20; All Weather / Empire Base; Yosemite Venting Base; Flintlastic Poly SMS Base; Flintlastic Ultra Poly SMS Base	Flintfast 3 in. Insulation Plates with FlintFast #12 or #14; Trufast 3" Metal Insulation Plates with DP or HD	8-inch o.c. at 4-inch lap and 8-inch o.c. in three (3), equally spaced, staggered center rows	(Optional) SBS-CA1	SBS-CA1	-52.5

TABLE 1G: WOOD DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER						
System No.	Deck (Note 1)	Primer	Roof Cover (Note 15)			MDP (psf)
			Base	Ply	Cap	
W-103	Min. 15/32-inch plywood at max 24-inch spans	FlintPrime or FlintPrime SA	SBS-SA-H	(Optional) SBS-TA, APP-TA	SBS-TA, APP-TA	-112.5
W-104	Min. 15/32-inch plywood at max 24-inch spans	FlintPrime or FlintPrime SA	SBS-SA	(Optional) SBS-SA	SBS-SA	-127.5



NEMO | etc.

TABLE 2A: STEEL OR STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE B: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER

System No.	Deck (Note 1)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)			MDP (psf)	
		Type	Fasteners	Attach	Type	Attach	Base	Ply		Cap
SELF-ADHERING SYSTEMS:										
S-1	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch ACFoam II, FlintBoard, ENRGY 3 or H-Shield	Note 2	1 per 4 ft ²	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	HA, D-IS, M-OSFA, OB500, ICP BOARD-MAX or CR-20	SBS-SA	(Optional) SBS-SA	SBS-SA	-37.5*
S-2	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ACFoam II, FlintBoard, ENRGY 3 or H-Shield	Note 2	1 per 2 ft ²	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	HA, D-IS, M-OSFA, OB500, ICP BOARD-MAX or CR-20	SBS-SA	(Optional) SBS-SA	SBS-SA	-45.0*
HYBRID SYSTEMS:										
S-3	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ACFoam II, FlintBoard, ENRGY 3 or H-Shield	Note 2	1 per 1.45 ft ²	Additional layer(s) base insulation	HA, D-IS, M-OSFA, OB500, ICP BOARD-MAX or CR-20	Flintlastic Ultra Glass SA	(Optional) SBS-AA, SBS-TA, APP-TA	SBS-AA, SBS-TA, APP-TA	-37.5
S-4	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ACFoam II, FlintBoard, ENRGY 3 or H-Shield	Note 2	1 per 1.45 ft ²	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	HA, D-IS, M-OSFA, OB500, ICP BOARD-MAX or CR-20	Flintlastic Ultra Glass SA	(Optional) SBS-AA, SBS-TA, APP-TA	SBS-AA, SBS-TA, APP-TA	-52.5
S-5	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ACFoam II, FlintBoard ISO, H-Shield or FlintBoard ISO _H	FlintFast #12 or #14 with FlintFast 3" Insulation Plates	1 per 1.45 ft ²	Min. 1.5-inch ACFoam II, FlintBoard ISO, H-Shield or FlintBoard ISO _H	HA, D-IS, M-OSFA, M-PG1 or OB500	SBS-SA-H	(Optional) APP-TA	APP-TA	-67.5
S-6	Min. 22 ga., type B, Grade 40 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ACFoam II, FlintBoard ISO, H-Shield or FlintBoard ISO _H	FlintFast #12 (steel only) or #14 HD with FlintFast 3" Insulation Plates or Trufast #12 (steel only) or HD with Trufast 3" Metal Insulation Plates	1 per 1.6 ft ²	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	D-IS, M-OSFA, M-PG1 or OB500	SBS-SA-H	(Optional) SBS-TA or APP-TA	SBS-TA or APP-TA	-75.0
S-7	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ENRGY 3	FlintFast #12 (steel only) or #14 HD with FlintFast 3" Insulation Plates or Trufast #12 (steel only) or HD with Trufast 3" Metal Insulation Plates	1 per 1 ft ²	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	OB500, 4-inch o.c.	SBS-SA-H	(Optional) SBS-TA or APP-TA	SBS-TA or APP-TA	-90.0*
CONVENTIONAL SYSTEMS:										



NEMO | etc.

TABLE 2A: STEEL OR STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE B: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER

System No.	Deck (Note 1)	Base Insulation Layer			Top Insulation Layer		Roof Cover (Note 15)			MDP (psf)
		Type	Fasteners	Attach	Type	Attach	Base	Ply	Cap	
S-8	Min. 22 g _s , type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch AC Foam II, FlintBoard, ENRGY 3 or H-Shield	Note 2	1 per 4 ft ²	Min. 0.25-inch SECURROCK Gypsum-Fiber Roof Board	HA, D-IS, M-OSFA, OBS500, ICP BOARD-MAX or 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	-37.5*
S-9	Min. 22 g _s , type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch AC Foam II, FlintBoard, ENRGY 3 or H-Shield	Note 2	1 per 2 ft ²	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation, min. 0.75-inch FescoBoard (homogeneous).	HA	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-45.0*
S-10	Min. 22 g _s , type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch AC Foam II, FlintBoard, ENRGY 3 or H-Shield	Note 2	1 per 2 ft ²	Min. 0.25-inch Dens Deck or 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	-45.0*
S-11	Min. 22 g _s , type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch AC Foam II, FlintBoard, ENRGY 3 or H-Shield	Note 2	1 per 2 ft ²	Min. 0.25-inch SECURROCK Gypsum-Fiber Roof Board	HA, D-IS, M-OSFA, OBS500, ICP BOARD-MAX or 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	-45.0*
S-12	Min. 22 g _s , type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch AC Foam II, FlintBoard, ENRGY 3 or H-Shield	Note 2	1 per 3.2 ft ²	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation, min. 0.75-inch FescoBoard (homogeneous).	HA	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-45.0*
S-13	Min. 22 g _s , type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch AC Foam II, FlintBoard, ENRGY 3 or H-Shield	Note 2	1 per 3.2 ft ²	Min. 0.25-inch Dens Deck or 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	-45.0*
S-14	Min. 22 g _s , type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch AC Foam II, FlintBoard, ENRGY 3 or Mult-Max FA3	Note 2	1 per 1.33 ft ²	Min. 0.75-inch FescoBoard (homogeneous)	HA	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-52.5
S-15	Min. 22 g _s , type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch AC Foam II, FlintBoard, ENRGY 3 or H-Shield	Note 2	1 per 1.6 ft ²	Min. 0.25-inch SECURROCK Gypsum-Fiber Roof Board	HA, D-IS, M-OSFA, OBS500, ICP BOARD-MAX or 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	-60.0
S-16	Min. 22 g _s , type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch AC Foam II, FlintBoard, ENRGY 3 or Mult-Max FA3	Note 2	1 per 1.33 ft ²	Min. 0.5-inch Structodek High Density Fiberboard	HA	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-67.5



NEMO | etc.

TABLE 2A: STEEL OR STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE B: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER

System No.	Deck (Note 1)	Base Insulation Layer			Top Insulation Layer		Roof Cover (Note 15)			MDP (psf)
		Type	Fasteners	Attach	Type	Attach	Base	Ply	Cap	
S-17	Min. 22 ga., type B, Grade 40 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ACFoam II, FlintBoard ISO, H- Shield or FlintBoard ISO _H	FlintFast #12 (steel only) or #14 HD with FlintFast 3" insulation Plates or Trufast #12 (steel only) or HD with Trufast 3" Metal Insulation Plates	1 per 1.6 ft ²	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	D-15, M- OSFA, M- PG1 or 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	-75.0
S-18	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ENRGY 3	FlintFast #12 (steel only) or #14 HD with FlintFast 3" insulation Plates or HD with Trufast 3" Metal Insulation Plates	1 per 1 ft ²	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	OB500, 4-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	-90.0*
COLD-APPLIED SYSTEMS										
S-19	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch ACFoam II, FlintBoard ISO, H- Shield or FlintBoard ISO _H	FlintFast #12 (steel only) or #14 HD with FlintFast 3" insulation Plates or HD with Trufast 3" Metal Insulation Plates	1 per 2 ft ²	Min. 1.5-inch ACFoam II, FlintBoard Iso Cold, H- Shield CG or FlintBoard Iso Cold _H	OB500, ICP BOARD-MAX or CR-20	SBS-CA1	None	SBS-CA1	-45.0*
S-20	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch ACFoam II, FlintBoard ISO, H- Shield or FlintBoard ISO _H	FlintFast #12 (steel only) or #14 HD with FlintFast 3" insulation Plates or HD with Trufast 3" Metal Insulation Plates	1 per 2 ft ²	Optional min. 1.5-inch additional layer(s) base insulation, followed by min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	D-15, M- OSFA, M- PG1, OB500, ICP BOARD-MAX or CR-20	SBS-CA1	None	SBS-CA1	-45.0*
S-21	Min. 22 ga., type B, Grade 40 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ACFoam II, FlintBoard ISO, H- Shield or FlintBoard ISO _H	FlintFast #12 (steel only) or #14 HD with FlintFast 3" insulation Plates or HD with Trufast 3" Metal Insulation Plates	1 per 1.6 ft ²	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	D-15, M- OSFA, M- PG1 or OB500	SBS-CA1	None	SBS-CA1	-75.0
S-22	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ENRGY 3	FlintFast #12 (steel only) or #14 HD with FlintFast 3" insulation Plates or HD with Trufast 3" Metal Insulation Plates	1 per 1 ft ²	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	OB500, 4-inch o.c.	SBS-CA1	None	SBS-CA1	-90.0*



NEMO | etc.

TABLE 2B: STEEL OR STRUCTURAL CONCRETE 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		Attach	Base	Roof Cover (Note 15)		MDP (psf)
			Type	Fasteners			Ply	Cap	
SELF-ADHERING SYSTEMS:									
S-23	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 3.2 ft ²	SBS-SA	(Optional) SBS-SA	SBS-SA	-30.0*
S-24	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	FlintFast #12 (steel only) or #14 HD with FlintFast 3" Insulation Plates or Trufast #12 (steel only) or HD with Trufast 3" Metal Insulation Plates	1 per 2.7 ft ²	SBS-SA	(Optional) SBS-SA	SBS-SA	-37.5*
S-25	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 3/8-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 2.7 ft ²	SBS-SA	(Optional) SBS-SA	SBS-SA	-45.0*
S-26	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 0.25-inch Dens Deck	Note 2	1 per 1.33 ft ²	Apply FlintPrime or FlintPrime SA to board & plates, followed by SBS-SA	(Optional) SBS-SA	SBS-SA	-45.0
S-27	Min. 22 ga., type B, Grade 40 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch FlintBoard ISO	FlintFast #14 HD with FlintFast 3" Insulation Plates or Trufast HD with Trufast 3" Metal Insulation Plates	1 per 1.78 ft ²	Apply FlintPrime to board & plates, followed by SBS-SA	(Optional) SBS-SA	SBS-SA	-67.5
S-28	Min. 22 ga., type B, Grade 40 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	FlintFast #14 HD with FlintFast 3" Insulation Plates or Trufast HD with Trufast 3" Metal Insulation Plates	1 per 1.6 ft ²	Apply FlintPrime to board & plates, followed by SBS-SA	(Optional) SBS-SA	SBS-SA	-82.5
S-29	Min. 22 ga., type B, Grade 40 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch FlintBoard ISO, FlintBoard ISO H, AC Foam II or H-Shield	FlintFast #15 EHD (steel only) or FlintFast #14 HD (concrete only) with FlintFast 3" Insulation Plates or Trufast EHD (steel only) or Trufast HD (concrete only) with Trufast 3" Metal Insulation Plates	1 per 1 ft ²	Apply FlintPrime to board & plates, followed by SBS-SA	(Optional) SBS-SA	SBS-SA	-97.5
HYBRID SYSTEMS:									
S-30	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 0.25-inch Dens Deck; Dens Deck Prime	Note 2	1 per 2 ft ²	SBS-SA-H	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-30.0*



NEMO | etc.

TABLE 2B: STEEL OR STRUCTURAL CONCRETE 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 15)			MDP (psf)
			Type	Fasteners	Attach	Base	Ply	Cap	
S-31	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 0.25-inch SECURROCK Gypsum-Fiber Roof Board	FlintFast #12 (steel only) or #14 HD with FlintFast 3" Insulation Plates or Trufast #12 (steel only) or HD with Trufast 3" Metal Insulation Plates	1 per 2.7 ft ²	SBS-SA-H	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-37.5*
S-32	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 3/8-inch SECURROCK Gypsum-Fiber Roof Board	FlintFast #12 (steel only) or #14 HD with FlintFast 3" Insulation Plates or Trufast #12 (steel only) or HD with Trufast 3" Metal Insulation Plates	1 per 2.7 ft ²	SBS-SA-H	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-45.0*
S-33	Min. 22 ga., type B, Grade 40 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch FlintBoard ISO	FlintFast #14 HD with FlintFast 3" Insulation Plates or Trufast HD with Trufast 3" Metal Insulation Plates	1 per 1.78 ft ²	SBS-SA-H	(Optional) SBS-TA or APP-TA	SBS-TA or APP-TA	-67.5
S-34	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch ACFoam II, FlintBoard ISO, H-Shield or FlintBoard ISO-H.	FlintFast #12 (steel only) or #14 HD with FlintFast 3" Insulation Plates	1 per 1.45 ft ²	SBS-SA-H	(Optional) SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-75.0
S-35	Min. 22 ga., type B, Grade 40 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch SECURROCK Gypsum-Fiber Roof Board	FlintFast #14 HD with FlintFast 3" Insulation Plates or Trufast HD with Trufast 3" Metal Insulation Plates	1 per 1.6 ft ²	SBS-SA-H	(Optional) SBS-TA or APP-TA	SBS-TA or APP-TA	-82.5
S-36	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch SECURROCK Gypsum-Fiber Roof Board	FlintFast #12 (steel only) or #14 HD with FlintFast 3" Insulation Plates	1 per 1.45 ft ²	SBS-SA-H	(Optional) SBS-TA or APP-TA	SBS-TA or APP-TA	-82.5
S-37	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or Multi-Max FA3	Note 2	1 per 1.33 ft ²	SBS-SA-H	(Optional) SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-82.5
S-38	Min. 22 ga., type B, Grade 40 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch FlintBoard ISO, FlintBoard ISO H, ACFoam II or H-Shield	FlintFast #15 EHD (steel only) or FlintFast #14 HD (concrete only) with FlintFast 3" Insulation Plates or Trufast EHD (steel only) or Trufast HD (concrete only) with Trufast 3" Metal Insulation Plates	1 per 1 ft ²	SBS-SA-H	(Optional) SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-97.5



NEMO | etc.

TABLE 2B: STEEL OR STRUCTURAL CONCRETE 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 15)			MDP (psf)
			Type	Fasteners	Attach	Base	Ply	Cap	
S-39	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	FlintFast #12 (steel only) or #14 HD with FlintFast 3" (steel only) or HD with Trufast 3" Metal Insulation Plates	1 per 1 ft ²	SBS-SA-H	(Optional) SBS-TA or APP-TA	SBS-TA or APP-TA	-135.0
CONVENTIONAL SYSTEMS:									
S-40	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 0.75-inch FescoBoard (homogeneous)	Note 2	1 per 2.67 ft ²	BP-AA, SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-30.0*
S-41	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation	Note 2	1 per 4 ft ²	BP-AA, SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-37.5*
S-42	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 4 ft ²	BP-AA, SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-37.5*
S-43	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 2-inch AC Foam II, FlintBoard or ENRGY 3	Note 2	1 per 1.6 ft ²	BP-AA2	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-37.5*
S-44	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 4 ft ²	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*
S-45	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation, min. 0.75-inch FescoBoard (homogeneous)	Note 2	1 per 2 ft ²	BP-AA or SBS-AA	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-45.0*
S-46	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 0.25-inch Dens Deck or Dens Deck Prime	Note 2	1 per 2 ft ²	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*
S-47	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 1-inch FescoBoard (homogeneous) or min. 1.5-inch FescoBoard (laminated)	Note 2	1 per 1.6 ft ²	BP-AA2	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-45.0*



NEMO | etc.

TABLE 2B: STEEL OR STRUCTURAL CONCRETE 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 15)			MDP (psf)
			Type	Fasteners	Attach	Base	Ply	Cap	
S-48	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch Structodek, GP HD Roof Fiberboard or Temple HD1 or HD6	Note 2	1 per 2 ft ²	BP-AA2	(Optional) BP-AA, SBS-AA, SBS-TA or APP-TA	SBS-AA, SBS-TA or APP-TA	-45.0*
S-49	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch AC Foam II, FlintBoard	Note 2	1 per 1.45 ft ²	BP-AA3, 24-inch grid	(Optional) BP-AA or SBS-AA	SBS-AA	-52.5
S-50	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch AC Foam II, FlintBoard	Note 2	1 per 1.45 ft ²	BP-AA3, 24-inch grid	BP-AA or SBS-AA	SBS-TA	-52.5
S-51	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional for Concrete or Recover) Min. 1.5-inch, One or more layers, any combination, loose laid	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	FlintFast #12 (steel only) or #14 HD with FlintFast 3" Insulation Plates	1 per 1.45 ft ²	APP-TA	(Optional) APP-TA	APP-TA	-60.0
S-52	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional for Concrete or Recover) Min. 2-inch AC Foam II, FlintBoard, H-Shield or ENRGY 3, loose laid.	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 1.78 ft ²	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	-60.0
S-53	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	FlintFast #12 (steel only) or #14 HD with FlintFast 3" Insulation Plates or Trufast #12 (steel only) or HD with Trufast 3" Metal Insulation Plates	1 per 1.45 ft ²	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	-82.5
S-54	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional for Concrete or Recover) Min. 1.5-inch AC Foam II, FlintBoard, H-Shield	Min. 0.5-inch Dens Deck Prime	Trufast HD with Trufast 3" Metal Insulation Plates or FlintFast #14 with FlintFast 3" Insulation Plates	1 per 1.33 ft ²	BP-AA, SBS-AA	(Optional) BP-AA, SBS-AA	SBS-AA	-112.5
S-55	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	FlintFast #12 (steel only) or #14 HD with FlintFast 3" Insulation Plates or Trufast #12 (steel only) or HD with Trufast 3" Metal Insulation Plates	1 per 1 ft ²	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
S-56	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional for Concrete or Recover) Min. 1.5-inch AC Foam II, FlintBoard, H-Shield	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Trufast HD with Trufast 3" Metal Insulation Plates or FlintFast #14 with FlintFast 3" Insulation Plates	1 per 1.33 ft ²	BP-AA, SBS-AA	(Optional) BP-AA, SBS-AA	SBS-AA	-157.5



NEMO | etc.

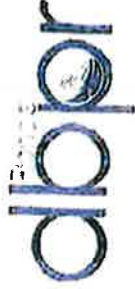
TABLE 2B: STEEL OR STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE C: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Deck (Note 1)	Base Insulation Layer(s)	Top Insulation Layer		Attach	Roof Cover (Note 15)			MDP (psf)	
			Type	Fasteners		Base	Ply	Cap		
S-57	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) for Concrete or Recover) Min. 1.5-inch ACFoam II, FlintBoard, H-Shield	Min. 0.5-inch Dens Deck Prime	TruFast HD with TruFast 3" Metal Insulation Plates or FlintFast #14 with FlintFast 3" Insulation Plates	1 per 1 ft ²	BP-AA, SBS-AA	(Optional) BP-AA, SBS-AA	SBS-AA	-157.5	
S-58	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) for Concrete or Recover) Min. 1.5-inch ACFoam II, FlintBoard, H-Shield	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	TruFast HD with TruFast 3" Metal Insulation Plates or FlintFast #14 with FlintFast 3" Insulation Plates	1 per 1 ft ²	BP-AA, SBS-AA	(Optional) BP-AA, SBS-AA	SBS-AA	-172.5	
COLD-APPLIED SYSTEMS:										
S-59	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	FlintFast #12 (steel only) or #14 HD with FlintFast 3" Insulation Plates or TruFast #12 (steel only) or HD with TruFast 3" Metal Insulation Plates	1 per 2.7 ft ²	SBS-CA1	None	SBS-CA1	-37.5*	
S-60	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch ACFoam II, FlintBoard Iso Cold, H-Shield CG or FlintBoard Iso Cold ^H	FlintFast #12 (steel only) or #14 HD with FlintFast 3" Insulation Plates or TruFast #12 (steel only) or HD with TruFast 3" Metal Insulation Plates	1 per 2 ft ²	SBS-CA1	None	SBS-CA1	-45.0*	
S-61	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 3/8-inch SECUROCK Gypsum-Fiber Roof Board	FlintFast #12 (steel only) or #14 HD with FlintFast 3" Insulation Plates or TruFast #12 (steel only) or HD with TruFast 3" Metal Insulation Plates	1 per 2.7 ft ²	SBS-CA1	None	SBS-CA1	-45.0*	
S-62	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	FlintFast #12 (steel only) or #14 HD with FlintFast 3" Insulation Plates or TruFast #12 (steel only) or HD with TruFast 3" Metal Insulation Plates	1 per 1.45 ft ²	SBS-CA1	None	SBS-CA1	-82.5*	



RICK SCOTT, GOVERNOR

JONATHAN ZACHEM, SECRETARY



**STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION**

CONSTRUCTION INDUSTRY LICENSING BOARD

THE ROOFING CONTRACTOR HEREIN IS CERTIFIED UNDER THE
PROVISIONS OF CHAPTER 489, FLORIDA STATUTES

BATSON, ROBERT E JR

ROBERT BATSON ROOFING INC
2823 E JERSEY AVE
ORLANDO FL 32806

LICENSE NUMBER: CCC1325487

EXPIRATION DATE: AUGUST 31, 2020

Always verify licenses online at MyFloridaLicense.com



Do not alter this document in any form.

This is your license. It is unlawful for anyone other than the licensee to use this document.

Tax Collector Scott Randolph

Local Business Tax Receipt

Orange County, Florida

	2019		EXPIRES 9/30/2020			1806-0002405
1806 CERT ROOFING CONTR	\$30.00	1 EMPLOYEE	5000 BUSINESS OFFICE	\$30.00		1 EMPLOYEE

TOTAL TAX	\$60.00
PREVIOUSLY PAID	\$60.00
TOTAL DUE	\$0.00

BATSON ROBERT E JR - QUALIFIER

ROBERT BATSON ROOFING INC
 BATSON CAROLYN
 BATSON ROBERT E JR - QUALIFIER
 2823 JERSEY ST
 ORLANDO FL 32806-5029

1414 S DIVISION AV
A - ORLANDO, 32805

PAID: \$60.00 0099-00881344 7/8/2019

Tax Collector Scott Randolph

Local Business Tax Receipt

Orange County, Florida

This local Business Tax Receipt is in addition to and not in lieu of any other tax required by law or municipal ordinance. Businesses are subject to regulation of zoning, health and other lawful authorities. This receipt is valid from October 1 through September 30 of receipt year. Delinquent penalty is added October 1.

	2019		EXPIRES 9/30/2020			1806-0002405
1806 CERT ROOFING CONTR	\$30.00	1 EMPLOYEE	5000 BUSINESS OFFICE	\$30.00		1 EMPLOYEE

TOTAL TAX	\$60.00
PREVIOUSLY PAID	\$60.00
TOTAL DUE	\$0.00

BATSON ROBERT E JR - QUALIFIER

ROBERT BATSON ROOFING INC
 BATSON CAROLYN
 BATSON ROBERT E JR - QUALIFIER
 2823 JERSEY ST
 ORLANDO FL 32806-5020

1414 S DIVISION AV
A - ORLANDO, 32805

PAID: \$60.00 0099-00881344 7/8/2019



This receipt is official when validated by the Tax Collector.

Orange County Code requires this local Business Tax Receipt to be displayed conspicuously at the place of business in public view. It is subject to inspection by all duty authorized officers of the County.



ROBB001

OP ID: KO

CERTIFICATE OF LIABILITY INSURANCEDATE (MM/DD/YYYY)
05/14/2019

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 J.W. Edens & Company Commercial Ins of Brevard, Inc 325 Fifth Avenue, Suite 108 Indialantic, FL 32903 Scott M. Steele, AAI	321-725-7000	CONTACT NAME: Scott M. Steele, AAI PHONE (A/C, No, Ext): 321-725-7000 FAX (A/C, No): 321-725-7856 E-MAIL ADDRESS:
INSURED Robert Batson Roofing, Inc. Attn: Cynthia Batson 2823 E. Jersey Ave. Orlando, FL 32806		INSURER(S) AFFORDING COVERAGE
		INSURER A: Lloyds Of London
		INSURER B:
		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 INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR			WCIS-CGL-0003586-01	05/19/2019	05/19/2020	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMPI/OP AGG \$ 2,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC OTHER:						
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS ONLY						COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in FL) If yes, describe under DESCRIPTION OF OPERATIONS below						PER STATUTE OTH-ER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$

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

CERTIFICATE HOLDER

CITYBE1

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

Scott M. Steele



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
12/19/2018

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PRODUCER FRSA Self Insurers Fund, Inc. 4099 Metric Drive Winter Park, FL 32792	CONTACT NAME: Debra Guidry, CPCU PHONE (A/C, No, Ext): (800) 767-3772 E-MAIL ADDRESS: cert@frsasif.com	FAX (A/C, No): (407) 671-2520
	INSURER(S) AFFORDING COVERAGE	
INSURED Robert Batson Roofing, Inc. 2823 E. Jersey St. Orlando, FL 32806	INSURER A : FRSA Self Insurers Fund / Evanston Insurance Co.	NAIC # 35378
	INSURER B :	
	INSURER C :	
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

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INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:			N/A			EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$ \$	
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS			N/A			COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$	
	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$			N/A			EACH OCCURRENCE \$ AGGREGATE \$ \$	
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A	N	870-009884 / 3DY3150	01/01/2019	12/31/2019	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 100,000 E.L. DISEASE - EA EMPLOYEE \$ 100,000 E.L. DISEASE - POLICY LIMIT \$ 500,000

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

REMARKS: Non-cancelable, without 30 days prior written notice, except for non-payment of premium which will be a 10 day written notice.

CERTIFICATE HOLDER Attn: City of Belle Isle 1600 Nela Ave. Belle Isle, FL 32809	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE Debra Guidry CPCU Underwriting Manager
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EXPIRED

w/c



RICK SCOTT, GOVERNOR

JONATHAN ZACHEM, SECRETARY



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

THE ROOFING CONTRACTOR HEREIN IS CERTIFIED UNDER THE
PROVISIONS OF CHAPTER 489, FLORIDA STATUTES

BATSON, ROBERT E JR

ROBERT BATSON ROOFING INC
2823 E JERSEY AVE
ORLANDO FL 32806

LICENSE NUMBER: CCC1325487

EXPIRATION DATE: AUGUST 31, 2020

Always verify licenses online at MyFloridaLicense.com

Do not alter this document in any form.

This is your license. It is unlawful for anyone other than the licensee to use this document.





ROBB001

OP ID: KO

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

05/14/2019

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PRODUCER J.W. Edens & Company Commercial Ins of Brevard, Inc 325 Fifth Avenue, Suite 108 Indialantic, FL 32903 Scott M. Steele, AAI	321-725-7000	CONTACT NAME: Scott M. Steele, AAI PHONE (A/C, No, Ext): 321-725-7000 FAX (A/C, No): 321-725-7856 E-MAIL ADDRESS:
	INSURER(S) AFFORDING COVERAGE	
INSURER A : Lloyds Of London		NAIC #
INSURER B :		
INSURER C :		
INSURER D :		
INSURER E :		
INSURER F :		

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

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	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY						COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N N/A If yes, describe under DESCRIPTION OF OPERATIONS below						PER STATUTE OTH-ER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$

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

CERTIFICATE HOLDER CITYBE1 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 
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CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

12/06/2019

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PRODUCER FRSA Self Insurers Fund, Inc. 4099 Metric Drive Winter Park, FL 32792		CONTACT NAME: Debra Guidry, CPCU PHONE (A/C, No, Ext): (800) 767-3772 FAX (A/C, No): (407) 671-2520 E-MAIL ADDRESS: cert@frsasif.com	
INSURED		INSURER(S) AFFORDING COVERAGE	
Robert Batson Roofing, Inc. 2823 E. Jersey St. Orlando, FL 32806		INSURER A : FRSA Self Insurers Fund / Evanston Insurance Co. NAIC # 35378	
		INSURER B :	
		INSURER C :	
		INSURER D :	
		INSURER E :	
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	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$		N/A			EACH OCCURRENCE \$ AGGREGATE \$ \$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N <input checked="checked" type="checkbox"/> N	N/A	N	870-009884 / 3EN8747	01/01/2020 01/01/2021 <input checked="checked" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L EACH ACCIDENT \$ 100,000 E.L DISEASE - EA EMPLOYEE \$ 100,000 E.L DISEASE - POLICY LIMIT \$ 500,000

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

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CERTIFICATE HOLDER**CANCELLATION**

Attn: City of Belle Isle 1600 Nela Ave. Belle Isle, FL 32809	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 Debra Guidry CPCU Underwriting Manager 
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Tax Collector Scott Randolph

Local Business Tax Receipt

Orange County, Florida

	2019		EXPIRES 9/30/2020				1806-0002405
1806 CERT ROOFING CONTR	\$30.00	1 EMPLOYEE	5000 BUSINESS OFFICE	\$30.00	1 EMPLOYEE		

TOTAL TAX	\$60.00
PREVIOUSLY PAID	\$60.00
TOTAL DUE	\$0.00

BATSON ROBERT E JR - QUALIFIER

ROBERT BATSON ROOFING INC
 BATSON CAROLYN
 BATSON ROBERT E JR - QUALIFIER
 2823 JERSEY ST
 ORLANDO FL 32806-5029

1414 S DIVISION AV
A - ORLANDO, 32805

PAID: \$60.00 0099-00881344 7/8/2019

Tax Collector Scott Randolph

Local Business Tax Receipt

Orange County, Florida

This local Business Tax Receipt is in addition to and not in lieu of any other tax required by law or municipal ordinance. Businesses are subject to regulation of zoning, health and other lawful authorities. This receipt is valid from October 1 through September 30 of receipt year. Delinquent penalty is added October 1.

	2019		EXPIRES 9/30/2020				1806-0002405
1808 CERT ROOFING CONTR	\$30.00	1 EMPLOYEE	5000 BUSINESS OFFICE	\$30.00	1 EMPLOYEE		

TOTAL TAX	\$60.00
PREVIOUSLY PAID	\$60.00
TOTAL DUE	\$0.00



BATSON ROBERT E JR - QUALIFIER

ROBERT BATSON ROOFING INC
 BATSON CAROLYN
 BATSON ROBERT E JR - QUALIFIER
 2823 JERSEY ST
 ORLANDO FL 32806-5029

1414 S DIVISION AV
A - ORLANDO, 32805

PAID: \$60.00 0099-00881344 7/8/2019

This receipt is official when validated by the Tax Collector.

Orange County Code requires this local Business Tax Receipt to be displayed conspicuously at the place of business in public view. It is subject to inspection by all duly authorized officers of the County.