

City of Belle Isle

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

PERMIT CARD - PLEASE POST AT JOB SITE

THIS DOCUMENT BECOMES YOUR PERMIT WHEN PROPERLY VALIDATED

Per FBC 105.3.3: An enforcing authority may not issue a building permit for any building construction, erection, alteration, modification, repair or addition unless the permit either includes on its face or there is attached to the permit the following statement: "NOTICE: In addition to the requirements of this permit, there may be additional restrictions applicable to this property that may be found in the public records of this county, and there may be additional permits required from other governmental entities such as water management districts, state agencies, or federal agencies." The issuance of this permit does not grant permission to violate any applicable City, Orange County, State of Florida and/or Federal codes and/or ordinances. Separate permits are required for Signs, Roofing, Electrical, Gas, Plumbing and Mechanical services. This permit becomes VOID if the work authorized is not commenced within 6 months, or is suspended or abandoned for a period of 6 months after commencement. WORK SHALL BE CONSIDERED SUSPENDED IF AN APPROVED INSPECTION HAS NOT BEEN MADE WITHIN A 6 MONTH PERIOD. PERMISSION IS GRANTED TO DO THE FOLLOWING WORK ACCORDING TO THE CONDITIONS HEREON AND THE APPROVED PLANS AND SPECIFICATIONS, SUBJECT TO COMPILIANCE WITH THE ORDINANCES OF THE CITY OF BELL ISLE FLORIDA. COMPLIANCE WITH THE ORDINANCES OF THE CITY OF BELLE ISLE, FLORIDA

asphalt shingles	ROOF – re-roof 366 sf modified bitumen & 1466 sf
Comments: Project Information Address: Parcel ID: Property Owner: Phone Number:	7204 Seminole Drive, Belle Isle, FL 32809 29-23-30-4389-04-020 Stephenson, Heather
Company Name: Contractor Name: License Number: Address: Phone Number:	Over The Top Roofers Bovich, Gregg CCC1328358 5036 Dr. Phillips Blvd, orlando, FL 32819 407 293 4715
	BUILDING FEATL

Permit Number: 2016-04-037

Date of Application: 04/22/2016
Date Permit Issued: 04/25/2016

WARNING TO OWNER: "YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOU PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY RECORDING **BEFORE** YOUR NOTICE COMMENCEMENT." ON THE JOB INSPECTION(S) MUST BE MADE BEFORE PROCEEDING WITH SUBSEQUENT WORK. THIS CARD MUST BE DISPLAYED OUTSIDE AND BE PROTECTED FROM THE WEATHER WHILE BEING VISIBLE FROM THE STREET UNTIL THE FINAL INSPECTIONS HAVE BEEN APPROVED.

		BUILDING FEATURES
IMPACT FEES		BUILDING INSPECTOR USE ONLY
School	\$	25.22.11.0 11.01. 20.01. 002.01.21
Traffic	\$	IF APPLICABLE:
	*	Have Zoning Approval Conditions Been Met? YES NO Have Stormwater Approval Conditions
ZONING FEES		The community of the contract
Zoning Fee	\$30.00	Been Met? YES NO Silt fencing in place? YES NO Turbidity Barrier in place? YES NO
	Ψ00.00	
UNIVERSAL EN	G - BUILDING FEES	BUILDING
		1 st (Footing/Foundation)
Cert of Occ	\$	Survey specific foundation plan must be onsite before slab pour. Approved Plan on Site?
Demo	\$	
Building	\$	2 nd (Slab)
Fence	\$	
Driveway	\$	3 rd (Lintel)(Wall Reinforcing on Masonry Building)
Shed	\$	
Window(s)	\$	4 th (Exterior Framing)(Roof/Wall Sheathing)
Door(s)	\$	
PrePower	\$	5 th (Framing) (To be made after Plumbing/ Mechanical/
Electrical	\$	Electrical Rough-Ins & Windows/Doors Installed)
Temp Pole	\$	
Plumbing	\$	6 th (Insulation to be Made After Roof Installed)
Mechanical	\$	
Gas	\$	7 th (Drywall)
Roofing	\$65.00	
Boat Dock	\$	8 th (Sidewalk/Driveway)
Screen Encl	\$	
Swimming Pool	\$	9 th (Other)
Sign	\$	
CUDCUADOE E		10 th (Final – After MEP and Other Applicable Finals)
SURCHARGE FI	EES	
Curabarna Faa	¢ 2.00	ROOFING
Surcharge Fee Surcharge Fee	\$2.00	1 ST ROOFING Deck Nailing/Dry-in/Flashing
Suicharge Fee	\$2.00	
		2 nd ROOFING Covering In-Progress
<u>IOTAL F</u>	EES \$99.00	
		3 rd ROOFING Covering Final
\	-75-11	
Date Paid	100	PLUMBING (Pool-Piping, Solar, Irrigation, Water Treatment Equip, Etc)
) Jako	Let Te
CC or Check #	2070	1 ST (Underground) 2 nd (Sewer)
	00 (1)	- rd
Amount Paid	Polico	3 rd (Rough-In/Tub Set) 4 th (Final)
Th		BUFBU ABBRARIUM BOY
	pting this permit shall	CHECK APPROPRIATE BOX
conform to the te		☐ GASNaturalLP ☐ MECHANICAL ☐ ELECTRICAL ☐ LOW VOLTAGE
• •	and construction	
	the requirements of	1 st (Rough-In) 2 nd (Final)
ule Florida Bulldi	ng Code (FS 553).	

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



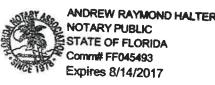
City of Belle Isle
Universal Engineering Sciences 3532 Maggie Blvd., Orlando, FL 32811
Tel 407-581-8161 * Fax 407-581-0313 * www.universalengineshra.com 2016

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.

PLEASE PRINT. The undersigned hereby applies for a permit to make installations as in	PERMIT NUMBER 016-04-03
Project Address 7204 SEMINOLE DR	
Property Owner HEATHER A. STEPHENSON	
	City BELLE ISLE
State FL Zip Code 328/2 Parcel Id Number: 29-23-3 REQUIRED To obtain this information places	0 - 4389 visit http://www.ocpafl.org/Searches/ParcelSearch.aspx
Class of Building: Old A New Type of Building: Residential Committee Committ	
REQUIRED! Florida Product Approval Screen Printout from www.floridabuilding.org sho	wing the Code Version
REQUIRED! Florida Product Approval Installation Instructions from <u>www.floridabuilding</u>	org (not the manufacturer instructions)
REQUIRED! Copies of your General Liability & Worker's Comp Insurance Certificate & S	· ·
Please indicate the nature of work by completing the information below:	astry standard +8,000,
Roof Square Footage: Number of Stories:	Job Valuation: \$ 5473
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 I agree to conform to all Florida Building Code Regulations and City Ordinances regulating same and of this permit does not grant permission to violate any applicable Town and/or State of Florida codes Republic Services is by legal contract the sole authorized provider of garbage, recycling, yard waste, collection and disposal services with the city limits of the City. Contractors, homeowners and comme 407-293-8000 to setup accounts for Commercial, Construction Roll Off, or other services needed. R Hall or from Republic Services. The City enforces the contract through its code enforcement office.	d in accordance with plans submitted. The issuance and/or ordinances. By signing below, I recognize and commercial garbage and construction debris roial businesses may contact Republic Services at
LICENSE HOLDER SIGNATURE Green Bornich	LICENSE # CCC 1328358
LICENSE HOLDER NAME GREGORY POLICE COMPANY NAM	HE Over The Top Rances UC
Street Address 5512 SAGO PALM DRIVE	•
City ORLANDO State FL Zip Code 32819	Phone Number <u>407-401-000</u>
Email Address	Zoning Fee \$_30
Building Official	Permit Fee \$
Building Official: Date 4-25-16	Review Fee \$
Verified Contractor's Licenses & Insurance are on file	3% Florida Surcharge \$ 100 00
NOTE: The Building Permit Number is required if the Roof Installation is associated with any conhas been issued.	Total Permit Fee \$

Permit Number:	
Folio/Parcel ID#: 29-23-30-4389-04-	020
Prepared by:	DUC# 20160203963
Om The Table Control	
Over The Top Roofers, LLC	Mactha O III
Return to: 5036 Dr. Phillips Blvd.	Orange County, FL
Suite 296	Orange County, FL MB - Ret To: OVER THE TOP ROOFERS LLC
Orlando, FL 32819	
Orianuo, FL 32819	
MOTION	
NOTICE OF COMMENCEMEN	VT
State of Florida, County of Orange	
The undersigned hereby gives notice that improvement will I with Chapter 713. Florida Statutes, the following information	De made to certain real property, and in apportunes
with Chapter 713, Florida Statutes, the following information 1. Description of property (legal description of the property)	is provided in this Notice of Commonsorment
	Eldul And 41 = COLLET COLLET
2. General description of improvement	- MINOS CON TO SELY FI CONTROLL BIRD
KE-DAGE I	1 ACOUNT CHICAGE
3. Owner information or Lessee Information if the Lesse	ASPHART SHINGLES
Name HEATHER A STEPHEN	e contracted for the improvement
Address The A SILIAEM	SOM
Address 72.04 SEMINOLE DR	BELLE ISLE, FL 32812
interest in Flubelly	
Name and address of fee simple titleholder (if differen	nt from Owner listed above)
rvanie	
Address	
4. Contractor	
Name OVER THE TOP ROOFERS, LLC	Telephone Number 407-293-4715
Address 5036 NR PHILLIP (RIVD (TE 10	16 ADLANDA CI BADIO
5. Surety (if applicable, a copy of the payment bond is attac	hed)
Name	
Address	Amount of Bond \$
6. Lender	Amount of Bond \$
A.1	700
NameAddress	Telephone Number
	<u> </u>
 Persons within the State of Florida designated by Ow be served as provided by §713.13(1)(a)7, Florida Stat 	ner upon whom notices or other documents may
Name	
Address	Telephone Number
	* \$6 5 <
	ne following to receive a copy of the Lienor's 🍦 📜 🧻
Notice as provided in §713.13(1)(b), Florida Statutes.	
Name	Telephone Number
Address	
9. Expiration date of notice of commencement (the expiration date of notice of commencement)	ration date may not be before the completion of
construction and final payment to the contractor, but will	be 1 year from the date of recording unless a
different date is specified)	<u>\$7</u>
	Ĉ P
WARNING TO OWNER: ANY PAYMENTS MADE BY THE OWNER AFTER	R THE EXPIRATION OF THE NOTICE OF COMMENCEMENT
ARE CURSIDERED IMPROPER PAYMENTS UNDER CHAPTER 713 PAI	RT I SECTION 742 42 ELOPIDA STATUTES AND CAN DE CANDON D
RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PRO RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSP	OPERTY. A NOTICE OF COMMENCEMENT MUST BE
WITH YOUR LENDER OR AN ATTORNEY BEFORE COMMENCING WOR	PECHON. IF YOU INTEND TO OBTAIN FINANCING, CONSULT
	AN ON NECONDING FOOR NOTICE OF COMMERCEMENT.
1	
Signature of Owner or Lessee, or Owner's or Lessee's Authorized Officer/Di	rector/Dertoer/Monegor
- 3 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	rector/Partner/Manager Signatory's Title/Office
The foregoing instrument was acknowledged before me this,	23. all lu. Henries cross
The foregoing institution was acknowledged before me this	
as OWNER for	month/year name of person
Type of authority, e.g., officer, trustee, attorney in fact	Nome of party or help II of
The state of the s	Name of party on behalf of whom instrument was executed
Huden & Steller	HWDRAW K. LIALTER
Signature of Notary Public - State of Florida	Print, type, or stamp commissioned name of Notary Public
200 200 10 10 market	
Personally KnownOR Produced ID	
Type of ID Produced 5 316 321 67 63 00	ANDREW RAYMOND HALTER





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: 4/23/16	PERMIT #
PROJECT ADDRESS 7204 SEMINOLE DR	, Belle Isle, FL3280932812

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

- 1. This Product Approval Cover Sheet
- 2. Internet screen from FloridaBuilding.org showing PA#, approval and code edition stamped
- 3. Manufacturer's <u>installation</u> details from FloridaBuilding.org and requirements for each product stamped

Product Type	Manufacturer	Model/Series	FL Product Approval #	Product Type	Manufacturer	<u>Model/Series</u>	FL Product Approval #
	EXTERIOR D	OORS			WALL PAN	IELS	Approvar P
Swinging				Sliding			
Sliding				Soffits			
Sectional/Rollup				Storefront			
Other				Glass Block			
				Other			
	WINDO	NS	上の発生とうない		ROOFING PRO	DUCTS	TO THE STATE OF TH
Single/Dbl Hung				Asphalt Shingles	CERTAINTESD		FI-SULHOR
Horizontal Slider				Non Struct Metal		7.007 1/10 10	L STIRD
Casement				Roofing Tiles			-
Fixed				Single Ply Roof			<u> </u>
Mullion		1		Other			
Skylights					MEN CERTAINTEE	· Gustillians	F1 3577 01
Other				יוטון וועט טווטו	THEN CHAMINITEE) I ZIN IZIFS/ IC	-2 25 55-KY
	STRUCTURAL CO	MPONENTS	NIVE STATE	THE LOCAL PROPERTY.	OTHER	Date of the Name o	
Wood Connectors					Unick		
Wood Anchors	- 59						
Truss Plates							
Insulation Forms							
Lintels							
Other							

with the minimum re	quired design pressures for the structure.	Specific compliance will be verified during field inspection
	Gray Borriel	Date 4-18-14

It is the applicant's responsibility to verify that specific products have been installed in accordance with their limitations and

Business & Professional Regulation

BCIS Home | Log In | User Registration | Hot Topics | Submit Surcharge | Stats & Facts | Publication Florida Departmente Business/ rotessional Regulation

Product Approval

USER: Public User

<u>Product Approval Menu > Product or Application Search > Application List > Application Detail</u>

FL# Application Type Code Version Application Status FL5444-R9 Revision 2014 Approved

Comments Archived

Product Manufacturer Address/Phone/Email

CertainTeed Corporation-Roofing 18 Moores Road Malvern, PA 19355

(610) 651-5847 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.con

Quality Assurance Representative Address/Phone/Email

Category Subcategory Roofing Asphalt Shingles

Compliance Method

Evaluation Report from a Florida Professional Engineer

Evaluation Report - Hardcopy I

Florida Engineer or Architect Name who developed the Robert Nieminen

Evaluation Report

Florida License Quality Assurance Entity

Quality Assurance Contract Expiration Date

Validated By

PE-59166 **UL LLC** 07/03/2017

John W. Knezevich, PE

Validation Checklist - Hardcopy

Certificate of Independence

FL5444 R9 COI 2016 01 COI I

Referenced Standard and Year (of Standard)

<u>Standard</u>

ASTM D3161, Class F **ASTM D3462** ASTM D7158, Class H

Equivalence of Product Standards Certified By

Sections from the Code

Method 1 Option D Product Approval Method

02/16/2016 Date Submitted 02/16/2016 Date Validated 02/17/2016 Date Pending FBC Approval 04/12/2016 Date Approved

Summary of Products

FL #	Model, Number or Name	Description		
5444.1	CertainTeed Asphalt Roofing Shingles	3-tab, 4-tab, strip (no asphalt roof shingles		
Limits of Use Approved for use in Approved for use out Impact Resistant: N/ Design Pressure: N/A Other: Refer to ER Sec	t side HVHZ: Yes A	Installation Instruct FL5444 R9 II 2016 Shingle FL5444-R9.pc Verified By: Robert Na Created by Independe Evaluation Reports FL5444 R9 AE 2016 Shingle FL5444-R9.pc Created by Independe		





Contact Us :: 1940 North Monroe Street, Tallahassee FL 32399 Phone

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Under Florida law, email addresses are public records. If you do not want your e-mail address released in electronic mail to this entity. Instead, contact the office by phone or by traditional mail. If you have any to Section 455.275(1), Florida Statutes, effective October 1, 2012, licensees licensed under Chapter 451 address if they have one. The emails provided may be used for official communication with the licensee. do not wish to supply a personal address, please provide the Department with an email address which c_{ϵ} you are a licensee under Chapter 455, F.S., please click he

Product Approval Accepts:







EXTERIOR RESEARCH & DESIGN, LLC.

Certificate of Authorization #9503 353 CHRISTIAN STREET, UNIT #13 OXFORD, CT 06478

PHONE: (203) 262-9245 FAX: (203) 262-9243

EVALUATION REPORT

CertainTeed Corporation 18 Moores Road Malvern, PA 19355 Evaluation Report 3532.09.05-R10

FL5444-R9

Date of Issuance: 09/22/2005 Revision 10: 02/16/2016

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 5th Edition (2014) Florida Building Code sections noted herein.

DESCRIPTION: CertainTeed Asphalt Roofing Shingles.

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

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

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

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

This Evaluation Report consists of pages 1 through 12.

Prepared by:

Robert J.M. Nieminen, P.E. Florida Registration No. 59166, Florida DCA ANE1983 STATE OF STA

The facsimile seal appearing was authorized by Robert Nieminen, P.E. on 02/16/2016. This does not serve as an electronically signed document. Signed, sealed hardcopies have been transmitted to the Product Approval Administrator and to the named client

CERTIFICATION OF INDEPENDENCE:

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



ROOFING SYSTEMS EVALUATION:

1. SCOPE:

Product Category:

Roofing

Sub-Category:

Asphalt Shingles

Compliance Statement: CertainTeed Asphalt Roofing Shingles, as produced by CertainTeed Corporation, have demonstrated compliance with the following sections of the Florida Building Code and Florida Building Code, Residential Volume through testing in accordance with the following Standards. Compliance is subject to the Installation Requirements and Limitations / Conditions of Use set forth herein.

2. STANDARDS:

Section	<u>Property</u>	<u>Standard</u>	<u>Year</u>
1507.2.5, R905.2.4	Physical Properties	ASTM D3462	2009
1507.2.7.1, R905.2.6.1	Wind Resistance	ASTM D3161, Class F	2009
1507.2.7.1, R905.2.6.1	Wind Resistance	ASTM D7158, Class H	2008

3. REFERENCES:

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

4. PRODUCT DESCRIPTION:

- 4.1 CT20™, XT™ 25, XT™ 30 and XT™ 30 IR are fiberglass reinforced, 3-tab asphalt roof shingles.
- 4.2 Carriage House Shangle®, Centennial Slate™, Grand Manor Shangle®, Landmark™, Landmark™ IR, Landmark™ Pro, Landmark™ Premium, Landmark™ TL, Landmark™ Solaris and Landmark™ Solaris IR are fiberglass reinforced, laminated asphalt roof shingles.
- 4.3 NorthGate™ is a fiberglass reinforced, laminated, SBS modified bitumen roof shingle.

Exterior Research and Design, LLC. Certificate of Authorization #9503 Evaluation Report 3532.09.05-R10 FL5444-R9 Revision 10: 02/16/2016 Page 2 of 12



- 4.4 Presidential Shake™, Presidential Shake™ IR, Presidential Shake TL™ and Presidential Solaris™ are fiberglass reinforced, architectural asphalt roof shingles.
- 4.5 Hatteras™, Highland Slate™ and Highland Slate™ IR are fiberglass reinforced, 4-tab asphalt roof shingles.
- 4.6 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.
- 4.7 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.
- 4.8 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 Trinity|ERD nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this Evaluation Report, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.
- 5.2 This Evaluation Report is not for use in the HVHZ
- 5.3 Fire Classification is not part of this Evaluation Report; refer to current Approved Roofing Materials Directory for fire ratings of this product.
- 5.4 Wind Classification:
- 5.4.1 All shingles noted herein are Classified in accordance with FBC Tables 1507.2.7.1 and R905.2.6.1 to ASTM D3161, Class F and/or ASTM D7158, Class H, indicating the shingles are acceptable for us in all wind zones up to $V_{asd} = 150$ mph ($V_{ult} = 194$ mph). Refer to Section 6 for installation requirements to meet this wind rating.
- 5.4.2 Presidential Accessory, Accessory for Hatteras, Shangle Ridge, Shadow Ridge, Cedar Crest, NorthGate Ridge and NorthGate Accessory hip & ridge shingles have been evaluated in accordance with ASTM D3161, Class F. All except NorthGate Ridge and NorthGate Accessory require use of BASF Sonolastic NP 1 adhesive or Henkel PL® Polyurethane Roof & Flashing Sealant, applied as specified in manufacturer's application instructions, for use in wind zones up to V_{asd} = 150 mph (V_{ult} = 194 mph).
- 5.4.3 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.
- 5.4.3.1 Analysis in accordance with ASTM D7158 indicates the measured uplift resistance (R_T) for the CertainTeed asphalt roofing shingles listed in Section 4.1 through 4.6 (except Presidential Solaris™) exceeds the calculated uplift force (F_T) at a maximum design wind speed of V_{asd} = 150 mph (V_{ult} = 194 mph) for residential buildings located in Exposure D conditions with no topographical variations (flat terrain) having a mean roof height less than or equal to 60 feet.
 - The shingles are permissible under Code for installation in these conditions using the installation procedures detailed in this Evaluation Report and CertainTeed minimum requirements, subject to minimum codified fastening requirements established within any local jurisdiction, which shall take precedence.
- 5.5 All products in the roof assembly shall have quality assurance audits in accordance with the Florida Building Code and F.A.C. 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.

Exterior Research and Design, LLC.

Certificate of Authorization #9503

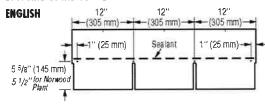
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- 6.1.1 Underlayment shall be acceptable to CertainTeed Corporation and shall hold current Florida Statewide Product Approval, or be Locally Approved per Rule 61G20-3, per FBC Sections 1507.2.3, 1507.2.4 or R905.2.3.
- 6.2 Installation of asphalt shingles shall comply with the manufacturer's 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 1510 and CertainTeed published installation instructions.

6.3.1 <u>CT20™, XT™ 25, XT™ 30, XT™ 30 IR:</u>

LOW AND STANDARD SLOPE



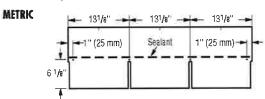


Figure 11-3: Use four nails for every full sbingle.

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.

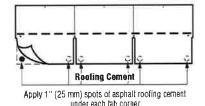


Figure 11-4: Use four nails and six spots of aspbalt cement on steep slopes. *CAUTION: Excessive use of roofing cement can cause shingles to blister.

6.3.1.1 Hip & Ridge: Cut Shingles

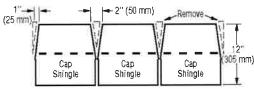


Figure 11-24: Cut tabs, then trim back to make cap shingles (English dimensions shown).

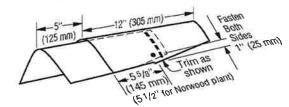


Figure 11-25: Installation of caps along the hips and ridges.

Note: For ASTM D3161 - Class F, use BASF Sonolastic NP 1 adhesive or Henkel PL® Polyurethane Roof & Flashing Sealant, in accordance with manufacturer's instructions.



6.3.2 <u>Carriage House Shangle®, Centennial Slate™ and Grand Manor Shangle®:</u>

LOW AND STANDARD SLOPE

Use five nails for every full Shangle.

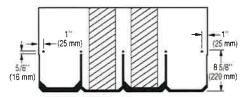


Figure 17-4: Use five nails for every full Grand Manor Sbangle. Carriage House Sbangle. or Centennial Slate.

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 State. Apply asphalt roofing cement 1° (25 mm) from edge of shingle (Figure 17-5). Asphalt roofing cement meeting ASTM D4586 Type II is suggested.

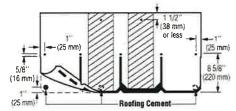


Figure 17-5: When installing Grand Manor Shangles on steep slopes. use seven nails and three spots of asphalt roofing cement.

6.3.2.1 Hip & Ridge: Shangle® Ridge

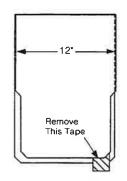


Figure 17-18: Shangle* Ridge.

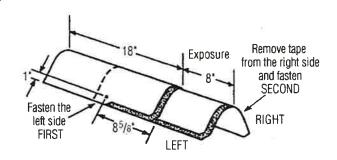


Figure 17-19: Installation of Sbangle® Ridge shingles on bips and ridges.

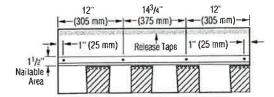
Note: For ASTM D3161 - Class F, use BASF Sonolastic NP 1 adhesive or Henkel PL® Polyurethane Roof & Flashing Sealant in accordance with manufacturer's instructions.



6.3.3 Landmark™, Landmark™ IR, Landmark™ Pro (formerly Landmark™ Plus), Landmark™ Premium, Landmark™ TL, Landmark™ Solaris, Landmark™ Solaris IR, NorthGate:

LOW AND STANDARD SLOPE

METRIC DIMENSIONS



LANDMARK TL

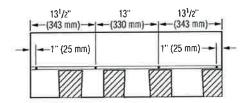
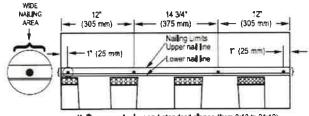


Figure 13-4: Use four nails for every full sbingle.

NorthGate:

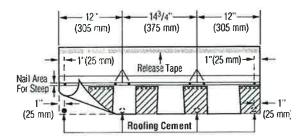


Nating areas for low and standard alopes (from 2:12 to 21:12)
Nati between upper & lower these as shown above.

STEEP SLOPE

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

METRIC DIMENSIONS



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LANDMARK TL

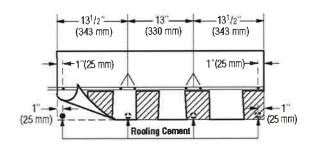
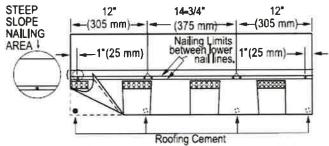


Figure 13-5: Use six nails and four spots of asphalt roofing cement on steep slopes.

NorthGate:



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

6.3.3.1 Hip & Ridge, Option 1: Shadow Ridge™ or NothGate Accessory

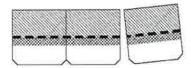
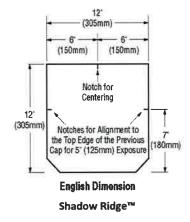
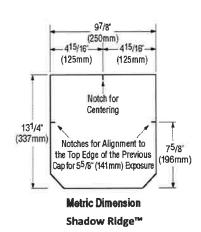


Figure 13-16: Shadow Ridge accessory shingles detach easily from three-piece units to make 72 individual cap pieces.

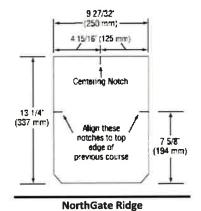


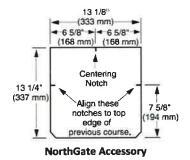


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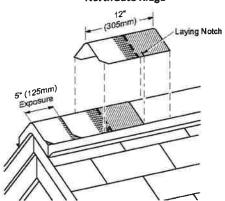
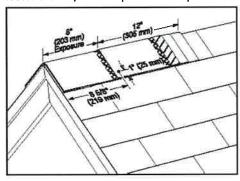


Figure 13-20: Use laying notches to center shingles on hips and ridges, and to locate the correct exposure.

Note: For ASTM D3161 - Class F of Shadow Ridge™, use BASF Sonolastic NP 1 adhesive or Henkel PL® Polyurethane Roof & Flashing Sealant in accordance with manufacturer's instructions.

6.3.3.2 Hip & Ridge, Option 2: Cedar Crest™, Cedar Crest™ IR

Use two 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. 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.

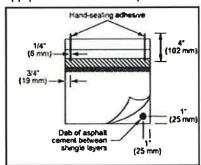


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Note: For ASTM D3161 - Class F, use BASF Sonolastic NP 1 adhesive or Henkel PL® Polyurethane Roof & Flashing Sealant to hand-seal Cedar Crest shingles. Apply NP 1 or PL adhesive from the middle of the shingle's raised overlay on the top piece and extending 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.



6.3.4 Presidential Shake™, Presidential Shake™ IR, Presidential Shake TL™, Presidential Solaris™:

LOW AND STANDARD SLOPE:

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

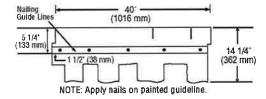


Figure 16-6: Fastening Presidential and Presidential TL Sbake sbingles on low and standard slopes.

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.

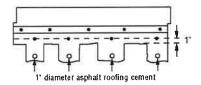


Figure 16-7: Fastening Presidential and Presidential T/L Sbake sbingles on steep slopes.

6.3.4.1 Hip & Ridge, 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.

Note: For ASTM D3161 - Class F, use BASF Sonolastic NP 1 adhesive or Henkel PL® Polyurethane Roof & Flashing Sealant in accordance with manufacturer's instructions.

6.3.4.2 Hip & Ridge, Option 2: Refer to instructions herein for Cedar Crest™, Cedar Crest™ IR hip and ridge shingles.

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6.3.5 <u>Hatteras™:</u>

LOW, STANDARD AND STEEP SLOPE:

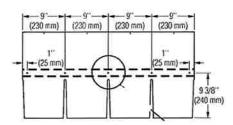


Figure 15-3: Fastening Hatteras Shingles on Low and Standard Slopes

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

Figure 15 1 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.

6.3.5.1 Hip & Ridge, Option 1: Accessory for Hatteras

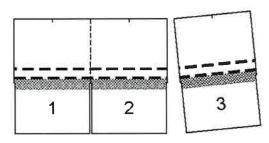
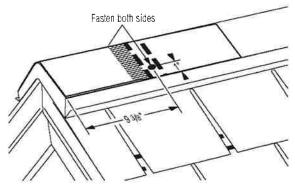


Figure 15-14: 18 three-piece units separate to make 54 Hatteras Accessory shingles.



Note: For ASTM D3161 - Class F, use BASF Sonolastic NP 1 adhesive or Henkel PL® Polyurethane Roof & Flashing Sealant in accordance with manufacturer's instructions.

6.3.5.2 Hip & Ridge, Option 2: Cut Hatteras Shingles

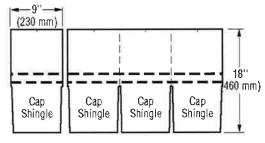


Figure 15-20: Cut Hatteras sbingles to make cover cap.

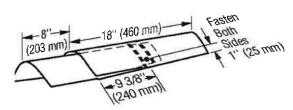


Figure 15-21: Installation of caps along bips and ridges.

Note: For ASTM D3161 - Class F, use BASF Sonolastic NP 1 adhesive or Henkel PL® Polyurethane Roof & Flashing Sealant in accordance with manufacturer's instructions.

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6.3.6 <u>Highland Slate™, Highland Slate™ IR:</u>

LOW AND STANDARD SLOPE:

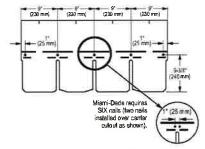


Figure 11-3: Use FIVE nails for every Highland Slate shingle

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.

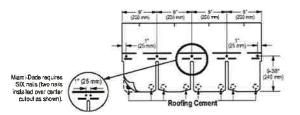


Figure 11-3A: Use FTVE nails and eight spots of asphalt roofing cement under each tab corner.

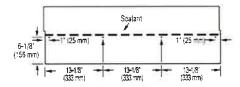
*CAUTION: Excessive use of roofing cement can cause shingles to blister

6.3.6.1 Hip & Ridge, Option 1: Refer to instructions herein for Cedar Crest™, Cedar Crest™ IR or Shangle Ridge™ hip and ridge shingles.

6.3.7 Patriot™:

LOW AND STANDARD SLOPE

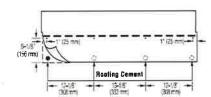
Use FOUR nails for every full shingle located as shown below.



STEEP SLOPE

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

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



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

7. LABELING:

- 7.1 Each unit shall bear a permanent label with the manufacturer's name, logo, city, state and logo of the Accredited Quality Assurance Agency noted herein.
- 7.2 Asphalt shingle wrappers shall indicate compliance with one of the required classifications detailed in FBC Table 1507.2.7.1 / R905.2.6.1.

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8. BUILDING PERMIT REQUIREMENTS:

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

9. MANUFACTURING PLANTS:

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

10. QUALITY ASSURANCE ENTITY:

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

- END OF EVALUATION REPORT -

Landmark[™] Series and Landmark[™] TL

12

YOUR OBJECTIVE:

To learn the correct procedure for installing Landmark™ shingles.

LANDMARK™ SERIES AND LANDMARK™ TL

Landmark shingles have the installer-friendly **NailTrak**^{\sim} feature, which provides $1^{1}/2$ " **wide nailing area** and specially formulated Quadra-Bond laminating adhesive (*See Figure 12-3*).

Landmark Special is impact resistant and is specially manufactured with a reinforced fiberglass scrim to meet UL 2218 Class 4 impact resistance rating.

NOTE: Landmark Special must be installed over a clean deck (no roof-overs) to obtain the UL 2218 rating. It is strongly recommended that impact resistant cap shingles made from XT 30 IR shingles be installed on all hips and ridges. Some insurance carriers may not consider the roof system as compliant to UL 2218 Class 4 without impact resistant cap shingles.

Landmark Solaris™ shingles are ENERGY STAR® qualified roof products that meet both solar reflectance and thermal emissivity requirements. Using CertainTeed's advanced roofing granules, Landmark Solaris reflects solar energy and radiates heat far better than traditional roofing shingles — it can reduce the roof's temperature by as much as 20 percent in the summer. NOTE: Use matching Landmark Solaris hip and ridge shingles which are also solar reflective.

Landmark TL is unique because its patented Tri-Laminate[™] design combines three layers of material to provide a dramatically thick shingle with a wood shake style.

With the exception of Landmark TL, closed-cut valleys are preferred by CertainTeed when applying these shingles; however, open valleys are also acceptable. Open valleys are recommended when applying Landmark TL; however closed-cut valleys are also acceptable. Woven valleys are not recommended for Landmark TL because the tri-laminated shingle can buckle and become damaged when shaped into the valley. Nails are required as fasteners for Landmark TL, staples are not allowed.

STANDARD OR STEEP SLOPES: CertainTeed recommends DiamondDeck™ Synthetic Underlayment, Roofers' Select™ High Performance Underlayment, or shingle underlayment meeting ASTM D226, D4869 or D6757. Take care to ensure sufficient deck ventilation when DiamondDeck or other synthetic underlayment is installed. Follow manufacturer's application instructions.

LOW SLOPES: One layer of CertainTeed's WinterGuard™ Waterproofing Shingle Underlayment (or equivalent, meeting ASTM D1970) or two layers of 36" wide felt shingle underlayment (Roofers' Select or underlayment product meeting ASTM D226, D4869 or D6757) lapped 19" must be applied over the entire roof; ensure sufficient deck ventilation. When DiamondDeck or other synthetic underlayment is installed, weather-lap at least 20" and ensure sufficient deck ventilation.

IMPORTANT: When installing LandMark TL on low slopes, one layer of WinterGuard or an equivalent waterproofing shingle underlayment must be applied over the entire roof. Applying two layers of felt shingle underlayment is not an acceptable alternative to WinterGuard. One layer of shingle underlayment meeting ASTM D4869 applied over the required WinterGuard is also recommended.

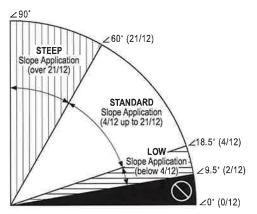


Figure 12-1: Slope definitions.

THE ROOF DECK* MUST BE AT LEAST: $\frac{3}{8}$ " (9.5 mm) thick plywood, or $\frac{7}{16}$ " (11 mm) thick non-veneer, or nominal 1" (25 mm) thick wood deck.

COLD WEATHER CLIMATES (ALL SLOPES): Application of WinterGuard or its equivalent is strongly recommended whenever there is a possibility of ice build-up. Follow manufacturer's application instructions.

FLASHING: Corrosion-resistant flashing must be used to help prevent leaks where a roof meets a wall, another roof, a chimney or other objects that penetrate a roof.

SEALING: Shingle sealing may be delayed if shingles are applied in cool weather and may be further delayed by airborne dust accumulation. If any shingles have not sealed after a reasonable time period, hand sealing may be necessary.

CAUTION: To prevent cracking, shingles must be sufficiently warm to allow proper forming for hips, ridges and valleys.

WARRANTY: These shingles are warranted against manufacturing defects and are covered by SureStart™ protection. See the warranty itself for specific details and limitations.

For technical questions, information on acceptable alternative application methods and materials, or a copy of the product warranty, contact the sources listed below:			Alternate Instructions	Technical Questions
Your supplier or roofing applicator		~		
CertainTeed Home Institute	800-782-8777	1	~	
CertainTeed-RPG Technical Services	800-345-1145	~	~	1

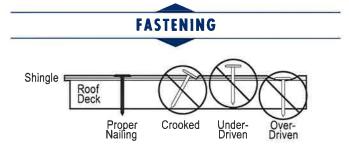


Figure 12-2: Proper and improper nailing.

IMPORTANT: For decks $^{3}/_{4}$ " (19 mm) thick or thicker, nails must go at least $^{3}/_{4}$ " (19 mm) into the deck. On thinner decks, nails must go at least $^{1}/_{8}$ " (3.2 mm) through the deck.

Nails must be 11- or 12-gauge roofing nails, corrosion-resistant, with at least $\frac{3}{8}$ " (9.5 mm) heads, and at least 1" (25 mm) long. **LandMark TL requires nails at least 1**\frac{1}{4}\text{" long.}

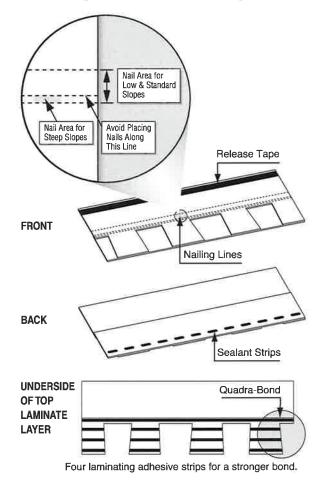
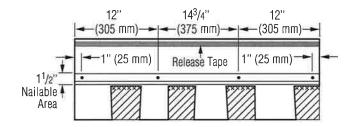


Figure 12-3: NailTrak™ features a wider nail area and extra-strong Quadra-Bond construction .

LOW AND STANDARD SLOPE

LANDMARK



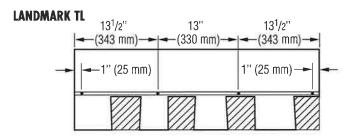
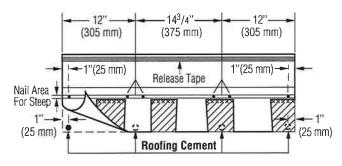


Figure 12-4: Use four nails for every full shingle.

STEEP SLOPE

Use six nails and four spots of asphalt roofing cement for every full laminated shingle. See below. Asphalt roofing cement should meet ASTM D 4586 Type II. Apply 1" spots of asphalt roofing cement under each corner and at about 12" to 13" in from each edge.

LANDMARK



LANDMARK TL

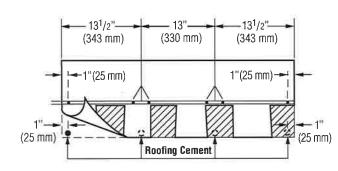


Figure 12-5: Use six nails and four spots of asphalt roofing cement on steep slopes.

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

TWO CLEAN-DECK APPLICATION METHODS FOR LANDMARK AND LANDMARK TL SHINGLES

FIVE-COURSE DIAGONAL METHOD (6" AND 11") FIVE-COURSE DIAGONAL METHOD (5 5 /8" AND 11 1 /4")

NOTE: The 6" and 11" method is shown below. The $5^5/8$ " and $11^1/4$ " method follows the same application instructions as the 6" and 11" method except the dimensions of the shingle cut-offs in the second and third courses are $5^5/8$ " and $11^1/4$ " respectively.

CAUTION: Use of other installation methods may result in an objectionable pattern.

PREPARING THE DECK:

- ◆ Apply underlayment as required. CertainTeed suggests that a layer of shingle underlayment be applied. For UL fire rating, underlayment is generally required. Apply flat and unwrinkled.
- ◆ Snap chalklines to assure shingles will be correctly aligned. Expose all shingles 5 5/8" (143 mm).

STARTER COURSE:

1. Use CertainTeed Swiftstart Starter, or three-tab self-sealing shingles with the lower tab portions removed. Be sure that the starter shingles are at least $7^{5/8}$ " in height.(*Figure 12-6*).

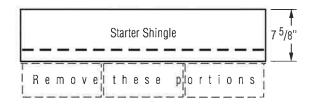


Figure 12-6: Make starter shingles that are $7^{5/8}$ " in height.

- 2. For the first starter, cut 6" from one side of the starter shingle.
- 3. Apply the remaining piece to the lower left corner of the roof. Make sure there is 1/2" overhanging the rakes and eaves if drip edge is being used. If you are not using drip edge, make the overhang 3/4".
- $4. \ \mbox{Use}$ full length starter shingles for the rest of the course.

1ST COURSE: Apply a full shingle at the lower left corner of the roof. Make the lower edge and left edge lie flush with the edges of the starter course (*Figure 12-7*).

2ND THROUGH 5TH COURSES:

CAUTION! Failure to follow instruction steps 1-5 below will bring joints too close together and may cause unattractive patterns!

- Cut 6" off the left end of the first shingle and save this piece for later use. Apply the 32³/₄" (34" for Landmark TL) long piece over and above the first-course shingle. Leave the bottom 5⁵/₈" tab portion of the first-course shingle exposed.
- 2. Cut 11" off the first shingle of the third course and save this for later. Install the $27^3/4$ " (29" for Landmark TL) long piece over and above the second-course shingle.
- 3. Apply the previously removed 11" long piece over and above the third-course shingle.
- 4. Apply the previously removed 6" long piece from the second course over and above the fourth-course shingle.
- 5. Install a full shingle against the right edge of each shingle in courses one through five.

CONTINUING UP THE ROOF:

- 1. Beginning again with a full shingle, repeat the five-course pattern up the left rake. (Figure 12-8, B).
- 2. Fill-in courses across the roof in a stepped diagonal fashion using full shingles. (Fgure 12-8, A). Do not run courses straight across.

IMPORTANT: Do not align joints of shingles closer than $3^{1/2}$ " from one another.

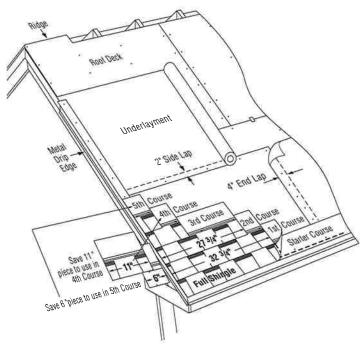
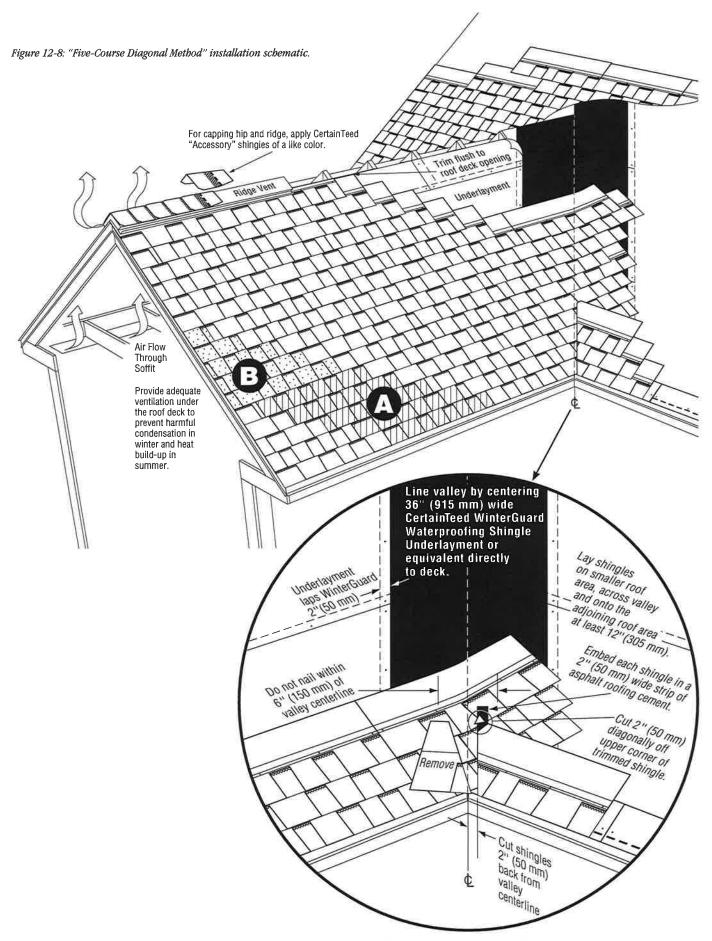


Figure 12-7: Applying the first 5 courses of Landmark.

Note: The LandMark TL dimensions differ.



 ${\it Figure~12-9: Highlight~of~closed-cut~valley~details.}$

CHIMNEY FLASHING

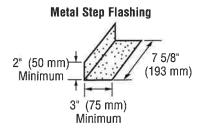


Figure 12-10: Step flashing minimum dimensions.

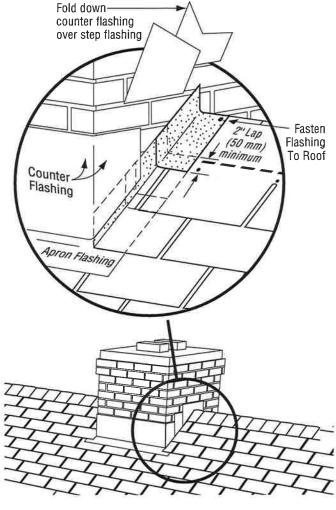


Figure 12-11: Flashing around a chimney.

TWO ROOF-OVER METHODS FOR LANDMARK AND LANDMARK TL SHINGLES

The same methods used for clean-deck application of these shingles are used for roof-overs. Application of these shingles *over* English dimension shingles is not recommended — due to the high cost of workmanship and greater risk of worker error.

HIPS AND RIDGES

SHADOW RIDGE™ ACCESSORY SHINGLES

Shadow Ridge shingles have an accented shadow line that is designed to complement these shingles. Simply fold along the pre-cut lines and detach individual cap pieces. Save valuable installation time compared to cutting 3-tab shingles.

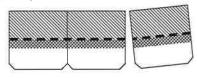


Figure 12-12: Shadow Ridge accessory shingles detach easily from three-piece units to make 72 individual cap pieces.

There are 24 three-piece units in each Shadow Ridge bundle, providing 72 individual caps that will cover 30 linear feet ($33\frac{3}{4}$ linear feet, Metric) of a hip or ridge. Each English dimension cap piece is 12" by 12" (Metric caps are $13\frac{1}{4}$ " by $9\frac{7}{8}$ ") and features clipped corners on the bottom edge of the exposed portion.

APPLICATION IS AS FOLLOWS:

1. Apply shingles up to the hip or ridge on both sides, then trim flush.

NOTE: The last course of shingles should have an exposure of 5" ($5^{5}/8"$ for metric) or less when the shingle cap or ridge vent is fastened in place. Otherwise, a potential water leak could occur at exposed shingle end joints. The figures used in this section illustrate the application of accessory shingles over a ridge vent; application directly to the roof deck is very similar.

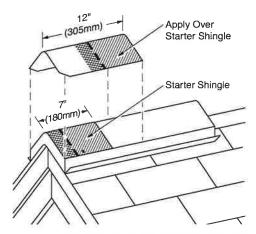


Figure 12-13: Apply a full cap shingle over the starter piece, flush with the bottom and side edges of the starter.

2. Install caps beginning at the bottom of a hip or at either end ofa ridge. Apply a starter piece that has the bottom 5" (55/8" for metric) removed (Figure 12-18). Fasten the starter with two nails located about 3" from the rake edge, and 1" in from each side edge. Make sure fasteners used to apply caps penetrate at least 3/4" into or through the decking.

NOTE: To assist in proper alignment when ridge vent is not used, snap a chalk line parallel to the hip or ridge along the line where the side edges of the cap shingles should be.

3. Apply a full cap shingle over the starter (Figure 12-18), and place fasteners at $5^5/8^\circ$ ($6^1/4^\circ$ for metric) up from the exposed bottom edge and 1" in from each side. Nails must not be exposed on the finished roof. All nail heads must be driven straight and must not cut into the shingle surface.

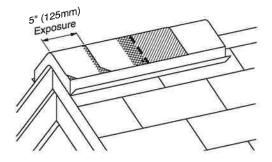
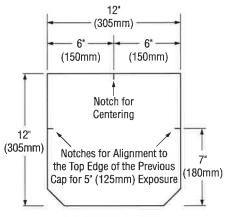


Figure 12-14: Install cap shingles at their correct exposure and cover all fasteners.

NOTE: Each cap has a laying/alignment notch at the top edge to center the piece on the ridge line, and two notches on each side to indicate the correct exposure and shadow-line placement (*Figure 12-19*). The side notches of the cap being applied should be aligned with the top edge of the previously applied cap.



English Dimension

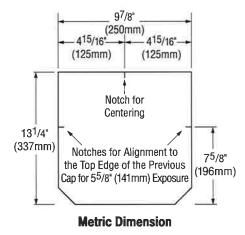


Figure 12-15: Each Shadow Ridge shingle has a centering notch and two side-alignment notches to help ensure proper placement

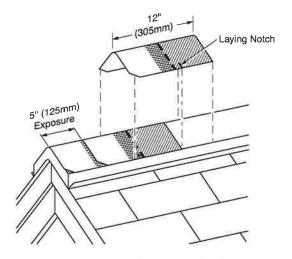


Figure 12-16: Use laying notches to center shingles on hips and ridges, and to locate the correct exposure.

MOUNTAIN RIDGE HIGH-PROFILE HIP AND RIDGE ACCESSORY

Use Mountain Ridge accessory shingles to cover hips, ridges or rake edges. One box will cover 20 linear feet. To prevent damage to shingles during application, they must be sufficiently warm to allow proper forming.

FASTENING

IMPORTANT: Use two nails to fasten each shingle. Nails must be **minimum 1^3/4" (45 mm) long.** For the 4" (100 mm) starter shingle, place fastener 1" (25 mm) in from each side edge and about 2" (50 mm) from the rake (or eave) edge, making sure the fastener goes 3/4" into the deck or all the way through. For each full Mountain Ridge shingle, place fasteners $8^5/8$ " (219 mm) up from its exposed butt edge and 1" (25 mm) in from each side edge.

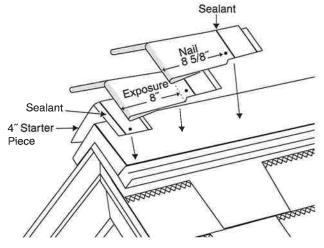


Figure 12-17: Hip and ridge application.

HIP, RIDGE AND RAKE SHINGLE APPLICATION

Apply the primary field roofing up to the hip or ridge from both sides of the roof and trim flush or lap over one side, not more than half the width of a Mountain Ridge shingle.

Assure that the installed Mountain Ridge shingles properly cover hip and ridge field shingles on both sides and the field shingles applied along rake edges. For a rake edge installation, cut the field shingles flush to the rake edge. Apply Mountain Ridge shingles ensuring they fit securely against the rake board. To assist in proper alignment, snap a chalk line parallel to the hip, ridge or rake along the line where the side edges of the Mountain Ridge shingles should fall.

Prepare a 4" **Starter shingle** by cutting off the lower 8" color granule butt portion of one Mountain Ridge shingle. Apply the 4" starter piece (with sealant nearest the outer edge) over the bottom corner of the hip or rake, or on either end of the ridge, overhanging the corner or end by approximately \$\frac{1}{2}\text{"}\$ and bending the starter shingle along its centerline to form into place (see figures below.) Install a nail on each side about 2" up from the starter shingle's exposed butt edge and 1" in from each side edge of the shingle. The 8" piece that was cut off may be used to finish the opposite end of hip, ridge or rake.

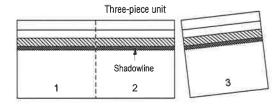
Next, apply a full Mountain Ridge shingle over the installed starter shingle, bending it along its centerline and forming into place over the hip, ridge or rake, flush with the bottom and side edges of the starter shingle. Install a nail on each side of the shingle $8^{5}/8$ " up from the bottom edge and 1" in from each side edge.

Continue application of the Mountain Ridge shingles along the hip, ridge or rake as shown. Expose Mountain Ridge shingles 8", covering all fasteners.

CEDAR CREST MEDIUM-PROFILE HIP AND RIDGE ACCESSORY SHINGLES

Use Cedar Crest accessory shingles to cover hips and ridges. Carefully separate the three-piece units prior to application, by first folding along the pre-cut lines and then detatching the pieces (see Figure 12-18). No cutting is necessary. There are 30 individual shingles (10 three-piece units) in each bundle. One bundle will cover 20 linear feet. Each 12" x 12" shingle has a shadowline that is a design feature which is visible when applied properly. To prevent shingle damage during application, they must be sufficiently warm to allow proper forming.

Figure 12-18: Separate to make 3 cap shingles.



FASTENING

IMPORTANT: Use TWO nails to fasten each shingle. Fasteners must be minimum 1-3/4" (45 mm) long.

For the starter shingle, place fastener 1" in from each side edge and about 2" up from the starter shingle's exposed butt edge, making sure fastener goes 3/4" into the deck or all the way through the deck. (see Figure 12-19). For each full Cedar Crest shingle, place fasteners 8-5/8" up from its exposed butt edge and 1" in from each side edge (see Figure 12-20).

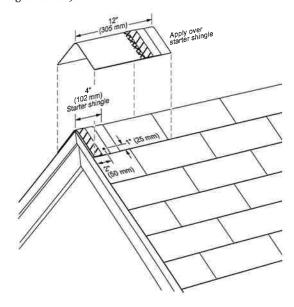


Figure 12-19: Apply a full cap shingle over the starter shingle.

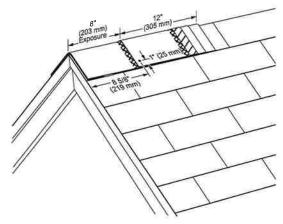


Figure 12-20: Install cap shingles at an 8" exposure and fasten with one nail on each side as shown.

IMPORTANT: High Wind Instructions. In order to achieve the ASTM D3161 Class "F" Wind Resistance Classification each "hip and ridge" shingle must be both 1) fastened with nails as shown and 2) hand-sealed with two 1/4" wide beads of either BASF "Sonolastic® NP1™ Adhesive" or Henkel "PL® Polyurethane Roof & Flashing Cement" applied from the middle of the shingle's raised overlay on the top

piece and extending approximately 4" along the sides of the headlap along a line 3/4"-1" in from each side edge of the shingle's headlap as shown. Immediately align and apply the next overlying shingle, gently pressing tab sides into adhesive. Only one side of the double thickness tab is laminated together; to secure the other side, after folding the shingle over the

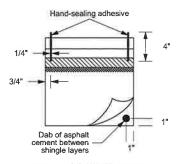


Figure 12-21: Hand seal caps as shown.

ridge and nailing into position, a 1" diameter spot of either NP1 or PL adhesive must be applied between the shingle layers as shown. Immediately align and apply the next overlying shingle, gently pressing tab sides into adhesive.

CEDAR CREST APPLICATION

Apply primary roofing up to hip or ridge on both sides of roof and trim flush. Ensure that the Cedar Crest shingles will adequately cover the top course of the shingles on both sides of the hip or ridge. Prepare a 4" "starter" shingle by cutting off the lower 8" color granule portion of one Cedar Crest shingle. Apply the 4" starter piece with raised overlay edge over the bottom corner of the hip or to either end of the ridge, overhanging the corner or end by approximately 1/2" and bending the starter shingle along its centerline to form into place (see Figure 12-19). Install a nail on each side about 2" up from the starter shingle's exposed butt edge and 1" in from each side edge of the shingle.

Then apply a full 12" x 12" piece over the starter, bending the shingle along its centerline and forming it into place over the hip or ridge, flush with the bottom and side edges of the starter shingle. Fasten with two nails minimum 1-3/4" long with one nail on each side of shingle 8 5/8" up from the butt edge and 1" in from each side edge (see Figure 12-20).

Continue application of Cedar Crest shingles up the hip or along the ridge, forming each shingle over the hip or ridge, and fasten as shown in Fastening. Expose Cedar Crest shingles 8", covering all fasteners.

To assist in proper alignment, snap a chalk line parallel to the hip or ridge applying along the line where the side edges of the Cedar Crest shingles should be.

Here's a Tip... In the winter put hip and ridge cap shingles in your truck with the heater blasting for 20 minutes so the caps don't crack when formed. (Thanks to Mark Dulz, Richmond, MI.)

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Product Approval USER: Public User

<u>Product Approval Menu > Product or Application Search > Application List > Application Detail</u>

FL# Application Type Code Version Application Status FL2533-R16 Revision 2014 Approved

Comments Archived

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Quality Assurance Representative Address/Phone/Email

Category Subcategory Roofing

Modified Bitumen Roof System

Compliance Method

Evaluation Report from a Florida

Evaluation Report - Hardcopy I

Florida Engineer or Architect Name who developed the Robert Nieminen

Evaluation Report

Florida License Quality Assurance Entity Quality Assurance Contract Expiration Date

Validated By

PE-59166 **UL LLC** 07/03/2017

John W. Knezevich, PE

Professional Engineer

Validation Checklist - Hardcopy

Certificate of Independence

FL2533 R16 COI 2016 01 COI

Referenced Standard and Year (of Standard)

StandardASTM D6162
ASTM D6163
ASTM D6164
ASTM D6222
ASTM D6509
FM 4470
FM 4474

Equivalence of Product Standards Certified By

Sections from the Code

Product Approval Method	Method 1 Option D
Date Submitted	02/04/2016
Date Validated	02/15/2016
Date Pending FBC Approval	02/16/2016
Date Approved	04/12/2016

Summary of Products

FL #	Model, Number or Name	Description
2533.1	Flintlastic Modified Bitumen Roof Systems	Modified Bitumen Roof Systems
Impact Resistan Design Pressure	e outside HVHZ: Yes nt: N/A	Installation Instructions FL2533 R16 II 2016 02 FINAL R16.pdf Verified By: Robert Nieminen, P. Created by Independent Third P Evaluation Reports
2.) The design pre relates to one spec	ssure noted in this application cific system. Refer to the ER stems and max design pressures.	FL2533 R16 AE 2016 02 FINA R16.pdf Created by Independent Third P





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Product Approval Accepts:







			n		
R-64	R-63	R-62	No.	System	
Existing fully bonded, mineral surface BUR or modified bitumen	Existing fully bonded, smooth- or granule-surface BUR or modified bitumen	Existing fully bonded, mineral surface BUR or modified bitumen	Substrate (See Notes 1 & 11)	Cubstrate (See Notes 1 8, 11)	
Min. 0.5-inch ACFoam II, FlintBoard ISO, H-Shield, FlintBoard ISO _H	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Min. 0.5-inch ACFoam II, FlintBoard ISO, H-Shield, FlintBoard ISO _H	Туре	Base Insulation Layer	SYSTEM TYF
3M CR- 20	3M CR- 20	ОВ500	Attach		TABLE 7, E A-1: BON
Min. 0.25-inch SECUROCK Gypsum- Fiber Roof Board	None	Min. 0.25-inch SECUROCK Gypsum- Fiber Roof Board	Туре	Top Insulation Layer	TABLE 7A: RECOVER APPLICATIONS SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF CO
3M CR-20	N/A	ОВ500	Attach		OVER
SBS-CA1	SBS-CA1	SBS-CA1	Base		
None	None	None	Ply	Roof Cover	
SBS-CA1	SBS-CA1	SBS-CA1	Cap		
-105.0	-105.0	-105.0	(psf)	MDP	

R-65	COLD-APPLIED SYSTEMS:	No.	System		
Existing fully bonded BUR over concrete deck	SYSTEMS:	(See Notes 1 & 11)	Substrate		
(Optional) FlintPrime (ASTM D41)			Drimor	SI	TABLE 7B: RE
SBS-CA1		Base		SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER	TABLE 7B: RECOVER APPLICATIONS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)
None		Ply	Roof Cover	DED ROOF COVER	LUCTION OR REROOF (TEAR-OFF)
SBS-CA1		Cap			
-187.5		The Man	MDP (nef)		

Basic Application: Flintlastic SA Modified Bitumen

Important Application Considerations

- Do not attempt application if ice, snow, moisture or dew are present.
 Bonding substrates must be clean, dry and free of dust or other inhibitors of proper adhesion. Ambient temperature must be 50°F or above.
- Store Flintlastic SA rolls indoors on pallets, protected from the elements.
 Rolls that are improperly stored or have been warehoused for prolonged periods of time may lose their tack.
- Do not apply membrane that has been improperly stored, exposed to moisture, or has lost its tack. If the material isn't bonding, STOP the application!
- Always remember to put safety first and follow all OSHA safety guidelines with any roofing installation.
- Substrates must be free of dust, dirt, oil, debris and moisture.
- Primer, if used, must be applied at the specified rate and must be allowed to thoroughly dry.
- Work with manageable lengths of MidPly and Cap for the particular job. Where appropriate, cut rolls into 1/3- or 1/2-roll lengths and allow material to relax prior to installation.
- In cooler weather, a hand-held hot air welding gun can be used to warm the sidelap areas and improve adhesion (prior to application of the FlintBond SBS Modified Bitumen Adhesive).
- Use caution with the weighted roller at endlap areas. Don't squeeze out too much adhesive.
- When applying MidPly (or PlyBase) directly to substrate, design adequate roof ventilation into the system through the use of roof relief vents.
- Do not mix Flintlastic SA membranes with other types of roof membranes,
 Flintlastic SA membranes are specifically designed to be applied together.
 The permanent top film of the MidPly, PlyBase and NailBase cannot
 receive torching, hot asphalt or other non selfadhering application
 methods. The Flintlastic SA Cap (or SA Cap FR), PlyBase and MidPly
 cannot be applied to any surfaces other than as described herein.
- Do not use cold adhesives with Flintlastic SA membranes other than for flashing details and cap sheet overlaps as described herein.
- Refer to the CertainTeed Commercial Roof Systems Manual for complete requirements.
- All plies of the assembly should be installed in one day. If blue film must be exposed for longer periods of time, cover with tarp or suitable alternate protection.

• When applying Flintlastic SA on slopes exceeding 1" in 12", membranes shall be back nailed. When applied parallel to the slope, Flintlastic SA shall be blind-nailed at end laps 2" in from top edge, 6" o.c. through tin discs and to wood nailers. See General Requirements Section of the CertainTeed Commercial Roof Systems Manual for details.

Deck Preparation

CertainTeed recommends the use of Flintlastic SA NailBase base sheet in conjunction with all self-adhering membrane roof installations. Flintlastic SA NailBase can be mechanically attached to nailable substrates or applied using hot asphalt (non-nailable substrates). For non-nailable substrates where use of hot asphalt to adhere the base sheet may not be appropriate, Flintlastic SA MidPly or Flintlastic SA PlyBase may be used in lieu of Flintlastic SA NailBase on surfaces properly primed with FlintPrime SA. However, note that without the use of a base sheet, the membrane may be difficult to later remove (if necessary) and certain UL and FM listings for the products may not apply. Prior to application of Flintlastic SA products, ensure roofs have positive drainage. Consult the local building official for minimum slope and drainage requirements.

Application of Flintlastic SA NailBase

Beginning at the low point of the roof, mechanically fasten Flintlastic SA NailBase to nailable deck using appropriate fasteners. Start with an

appropriate roll width (1/3 or 1/2 roll) to accommodate offsetting of sidelaps of subsequent layers of MidPly and/or Cap sheet. Install so that no sidelaps are against the flow of water. A minimum fastening pattern is every 9" on center on sidelaps and every 18" on center in two staggered rows in the field of the sheet.

Prime non-nailable substrates such as concrete using FlintPrime SA polymer-based primer. Allow to dry thoroughly, but not more than 4 hours to retain tack-enhancing properties. Apply SA NailBase using ASTM Type III or IV hot asphalt* at the rate of 25 lbs. per 100ft² (Spot mopping – 15 lbs. per 100ft²) or self-adhere SA PlyBase (or MidPly).





Overlap base sheet sidelaps 2" and endlaps 4". Offset endlaps a minimum of 3'. Turn base sheet over fascia. Do not leave installed base exposed. Cover in the same day with Flintlastic SA MidPly and/or Flintlastic SA Cap (or SA Cap FR).

Don't leave the installed Flintlastic SA NailBase exposed to the weather; cover with Flintlastic SA Cap the same day.

Application of Flintlastic SA Mid Ply or PlyBase to insulate decks

SA MidPly or PlyBase may be adhered directly to mechanically fastened FlintBoard ISO or adhered to FlintBoard ISO Cold.

Before installing, sweep the surface of the insulation boards to remove any dust, dirt or sand particles that could interfere with adhesion.

Start application at the low point of the roof. Install flush to roof edge. Design layout so that no sidelaps are against the flow of water.

Application of Interply

Note: Proceed to "Before Installing Flintlastic SA Cap (or SA Cap FR)" if installing a 2-ply system.

Before installing Flintlastic SA MidPly (or PlyBase), sweep the underlying base sheet or primed surface to remove any dust, dirt or sand particles that could interfere with adhesion.

Apply MidPly (or PlyBase) over installed Flintlastic SA NailBase or, for non-nailable decks such as concrete, properly primed substrates. Surface must be dry and free from dust or dirt.

Start MidPly (or PlyBase) application at the low point of the roof with appropriate roll width to offset sidelaps 18" from sidelaps of base sheet. Install flush to roof edge if over base sheet, otherwise turn the MidPly (or PlyBase) over the fascia minimum 2" and secure. Design layout so that no sidelaps are against the flow of water.

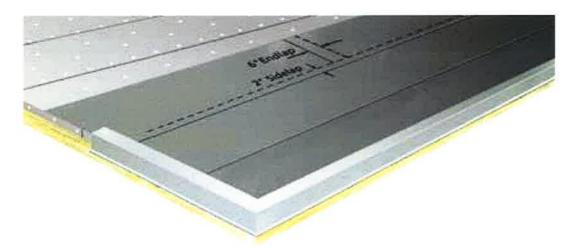
Cut rolls into manageable lengths. Fold the membrane back halfway lengthwise to remove the split release film. Press membrane securely into place, and repeat with the opposite half of the membrane. Use a heavy, weighted roller over the entire surface of the Flintlastic SA MidPly (or PlyBase) membrane to secure the membrane. Work outwards to eliminate voids.



Overlap sidelaps of subsequent MidPly (or PlyBase) membrane lengths 2" and endlaps 6". Offset (stagger) endlaps minimum 3'. Cut endlaps at opposing diagonal corners at an angle approximately 5-1/2" long by the selvage dimension from the corners to minimize "T"-seams. Apply a bead or small trowel dab (quarter size) of FlintBond" SBS Modified Bitumen Adhesive, trowel or caulk grade, at the edge of the angled cut to avoid a capillary. Use of a hand-held hot air gun at the joint area prior to rolling the membrane will maximize adhesion. In areas prone to cold temperatures, snow and freeze-thaw cycles, it may be more effective to use the hot air gun to form joints, and to completely fill all mole holes with asphalt that has been slightly melted using the gun. It is recommended to apply a bead of FlintBond SBS Modified Bitumen Adhesive, caulk grade, at all MidPly (or PlyBase) side and endlaps to eliminate a capillary.

Don't leave the installed Flintlastic SA MidPly (or PlyBase) exposed to the weather; cover with Flintlastic SA Cap the same day.

Before Installing Flintlastic SA Cap (or SA Cap FR)

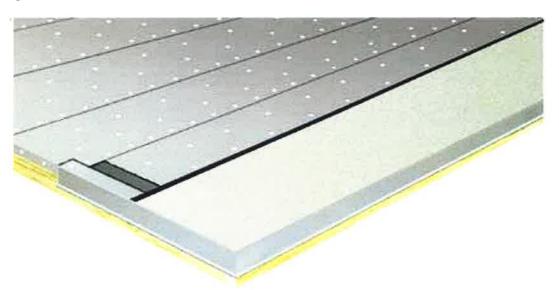


If roof edge detail utilizes edge metal, proceed as follows. If MidPly has been applied, install minimum 26 gauge edge metal using appropriate fasteners, and set entirely in a uniform 1/8"-1/4" thick troweling of FlintBond SBS Modified Bitumen Adhesive, trowel grade. Remove any oil from the metal surface using a vinegar and water solution. Prime the horizontal surface of the metal with FlintPrime SA and allow primer to dry. Apply a bead of caulk grade FlintBond adhesive to the edge of the metal where it meets the MidPly. Proceed with Flintlastic SA Cap (or SA Cap FR) installation.

If MidPly is not specified: Over the Flintlastic SA NailBase, install a 9" wide strip of MidPly onto the field of the roof and flush to the roof edge, self-adhered. Install minimum 26 gauge edge metal using appropriate fasteners, set entirely in a uniform 1/8"-1/4" thick troweling of FlintBond SBS

Modified Bitumen Adhesive, trowel grade. Remove any oil from the metal surface using a vinegar and water solution. Prime the horizontal surface of the metal with FlintPrime or FlintPrime SA and allow primer to dry. Apply a bead of caulk grade FlintBond SBS Modified Bitumen Adhesive at the roof side edge of the metal where it meets the MidPly strip. Proceed with cap sheet installation.

Similarly, complete your sheet metal flashing installation using cut MidPly flashing collars at all flashing details prior to flashing application. Seal edges of MidPly flashing collars with a bead of FlintBond. See "Typical Construction Details," starting on page 41 for examples. If MidPly has been installed as part of the system, set flanges in trowel grade FlintBond and properly fasten. All cap sheet flashings installed to transitions that overlap onto mineral surface must be set in a uniform troweling of FlintBond trowel grade adhesive.



Application of Flintlastic SA Cap (or SA Cap FR)

Before installing Flintlastic SA Cap (or SA Cap FR), sweep the surface of the installed SA NailBase (or PlyBase) or MidPly clean. To install Flintlastic SA

Cap (or SA Cap FR), start at the low point of the roof with an appropriate roll width to offset sidelaps from the underlying membrane a minimum of 18". Work with manageable lengths for proper handling.

Position SA Cap (or SA Cap FR) with selvage edge release strip at high side of roof. Install in weather-lapped fashion, with no laps against the flow of water.



Once positioned, lift and fold back (lengthwise) the lower half of the membrane. Remove the split release film and press firmly into place.

Then repeat with the other (high side of the roof) half of the membrane.

Follow the same layout and split release film procedures as for MidPly (or PlyBase), but overlap sidelaps 3" and endlaps 6". Use a weighted roller over the entire surface of Flintlastic SA Cap (or SA Cap FR) to secure it in place and prevent voids, working outward from the center of the sheet.

As subsequent membrane lengths are installed, remove the selvage edge release strip just prior to overlapping to keep the adhesive area protected and clean. Cut endlaps at opposing diagonal corners at an angle approx. 3" by





5-1/2" from the corners to minimize T-seams.

Use FlintBond SBS Modified Bitumen Adhesive, trowel grade, on the entire 6" width of each endlap prior to overlapping. Apply a uniform 1/8"-1/4" troweling of the FlintBond on the entire width of the endlaps to the underlying membrane. Install the overlapping sheet. Always apply FlintBond (extend beyond underlying lap minimum 1/4") on the entire width of any overlap when applying SA Cap (or SA Cap FR) over another mineral surface such as the SA Cap (or SA Cap FR) endlap.

At all vertical and other flashing points, apply FlintBond SBS Modified

Bitumen Adhesive, trowel grade, wherever there is an overlap onto mineral surfacing.

Once the membrane has had a chance to bond, check all laps and joints for full adhesion. If the membrane can be lifted at any area it is not properly adhered. A seam probing tool can be helpful to check for small voids at laps.



If necessary, use appropriate hand-held hot air welding tool and seam roller or an application of FlintBond to seal small unbonded areas if they exist.

Included in this manual are a few common construction details. Please refer to CertainTeed's standard details or the NRCA for details not found within this manual. Important to note with all details, all metal must be primed and set in FlintBond Trowel Grade adhesive and all overlaps over mineral surfacing must utilize FlintBond Trowel Grade adhesive.

The Proper T-Seam Detail

- Before adhering Flintlastic SA MidPly or Cap (or SA Cap FR) endlaps, trim the underlying sheet's lower corner at the end of the roll.
- Follow with the overlapping sheet, trimming the upper outside corner.
- Corners should be trimmed on a diagonal angle 5½" long from end of roll to outside edge.
- Width of trim should be equal in width to the sidelap specified (3" for Flintlastic SA Cap [or SA Cap FR] and 2" for Flintlastic SA MidPly [or PlyBase]).
- Trimmed corners should be completely covered by application of succeeding courses.
- Note: If using Flintlastic SA MidPly (or PlyBase), apply quarter-size dab

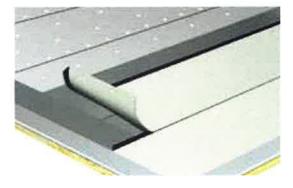
Apply FlintBond S&B Modified
Bitumen Adhesive trowel grade
to the full 8" endlap width including
the endlap out area

Overlapping
Sheet 8" Past
Underlying Sheet
Underlying Sheet
Sheet Sheet
Sheet
Sheet
Sheet
Sheet
Sheet

of FlintBond at T-seam area. If using Flintlastic SA Cap (or SA Cap FR), the endlap should be completely set in trowel grade FlintBond along the entire 6" lap width.

Rake Edge Detail

- Cut selvage area at an angle at all rake edges.
- Apply a bead of FlintBond caulk along cut edge to eliminate mole holes.





CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 1/5/2016

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 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).

CONTINUENCE HONGET IN HEA OF SUC	ii citaoracinicitaji.							
PRODUCER		CONTACT NAME: Tanya Russo	Russo					
Lykes Insurance, Inc.		PHONE (A/C, No. Ext):813-470-5022	A/C, No):813-221-1857					
P. O. Box 2879 Tampa FL 33601-2879		E-MAIL ADDRESS:trusso@lykesinsurance.com						
· ·		INSURER(S) AFFORDING COVERAGE	NAIC#					
		INSURER A :Southern-Owners Insurance Co.	10190					
INSURED	OVERT-1	INSURER B : Auto-Owners Insurance	18988					
Over The Top Roofers, LLC		INSURER C ;						
Mr Jim Braddy 5036 Dr. Phillips Blvd. #296		INSURER D :						
Orlando FL 32819-3310		INSURER E :						
		INSURER F:						
COVERAGES	CERTIFICATE NUMBER: 133367859	REVISION NUM	BER:					

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. ADDL SUBR POLICY EFF POLICY EXP (MM/DD/YYYY) TYPE OF INSURANCE POLICY NUMBER 20738691 EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) GENERAL LIABILITY 1/20/2016 1/20/2017 \$1,000,000 COMMERCIAL GENERAL LIABILITY \$300,000 CLAIMS-MADE X OCCUR MED EXP (Any one person) \$10,000 PERSONAL & ADV INJURY \$1,000,000 GENERAL AGGREGATE \$2,000,000 GEN'L AGGREGATE LIMIT APPLIES PER: PRODUCTS - COMP/OP AGG \$2,000,000 POLICY PRO-Hired/Non-Owned \$1,000,000 COMBINED SINGLE LIMIT (Ea accident) AUTOMOBILE LIABILITY 7/23/2015 7/23/2016 4808669400 \$300,000 BODILY INJURY (Per person) ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS NON-OWNED AUTOS BODILY INJURY (Per accident) X \$ PROPERTY DAMAGE (Per accident) \$ HIRED AUTOS \$ UMBRELLA LIAB EACH OCCURRENCE \$ OCCUR EXCESS LIAB CLAIMS-MADE AGGREGATE \$ RETENTION \$ DED WORKERS COMPENSATION AND EMPLOYERS' LIABILITY TORY LIMITS ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE \$ ryes, describe under DESCRIPTION OF OPERATIONS belo E.L. DISEASE - POLICY LIMIT \$

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

CERTIFICATE HOLDER

City of Belle Isle 1600 Nela Avenue Belle Isle FL 32809 CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Rilad P. Rose fr.

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ACORD 25 (2010/05)

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		CERTIFICAT	E OF LIA	BIL	ITY INS	SURANCE				Т	Date 1/4/2016
Pro	ducer:	Plymouth Insurance Agency 2739 U.S. Highway 19 N. Holiday, FL 34691	This Certificate is issued as a matter of information rights upon the Certificate Holder. This Certificate or alter the coverage afforded by the policies below							fers no	
(727) 938-5562						Insurers Affording Cov	erag	e		\neg	NAIC #
Inc	rod:	· · ·	Inc. 9 Cubaidir	orica	Insurer A:	Lion Insurance Company	,			+	11075
Insured: South East Personnel Leasing, Inc. & S 2739 U.S. Highway 19 N. Holiday, FL 34691			inc. & Subsidia	anes	Insurer B:					\top	
					Insurer C:				\top		
					Insurer D:						
					Insurer E:					ᆫ	
	erage										
vith re	spect to wi	surance listed below have been issued to the insured high this certificate may be issued or may pertain, the have been reduced by paid claims.									
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		L					Pe	rsonal Adv Inji	ıry		\$
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-		AUTOMORIU E LIARIU ITV	_		F4		+	mbined Single Li		_	
		AUTOMOBILE LIABILITY						Accident)			s
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		All Owned Autos					(Pe	r Person)			\$
		Scheduled Autos Hired Autos					Вос	dily Injury			
		Non-Owned Autos					(Pe	r Accident)			ş
		H					Pro	perty Damage			
			1				(Pe	r Accident)			s
7		EXCESS/UMBRELLA LIABILITY	ì				Ead	ch Occurrence			
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abla	Worke	rs Compensation and	WC 71949	01	/01/2016	01/01/2017	х	WC Statu-		ОТН-	
		yers' Liability					Н	tory Limits	Ш	ER	
Any proprietor/partner/executive officer/member		∍mber			1	E.L. Each Accident			\$1,000,000		
excluded? NO						E.L. Disease - Ea Employee		oloyee	\$1,000,000		
If Yes, describe under special provisions below.							E.L. Disease - Policy Limits		imits	\$1,000,000	
_	Other					.M. Best Company r	ated	A- (Excelle	ent)	АМВ	# 12616
	•	s of Operations/Locations/Vehicles/E applies to active employee(s) of South East P		•		-	"Clien		nt ID:	26-65	-019
	- 3 - 51119				p Roofers, LLC						
over	age only	applies to injuries incurred by South East Pers	sonnel Leasing, Inc. 8	& Subsid	diaries active en	nployee(s), while working	in: FL				
	-	not apply to statutory employee(s) or indepe									
		tive employee(s) leased to the Client Company	can be obtained by	faxing	a request to (72	7) 937-2138 or by calling	(727)	938-5562.			
_	ct Name										
,3U	E 11-06-1	5 (12 <i>0)</i>									
									Be	gin Date	10/12/2015
CEF	TIFICATE	CITY OF BELLE ISLE		_	NCELLATION uld any of the abo	ve described policies be cand	elled b	efore the expira	tion da	ate thereo	f, the issuing
OH I OF BELLE IDLE			insu	insurer will endeavor to mail 30 days written notice to the certificate holder named to the left, but failure to do so shall impose no obligation or liability of any kind upon the insurer, its agents or representatives.							
		1600 NELA AVE.									
BELLE ISLE, FL 32809				0/10							

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 or awful authorities. This receipt is valid from October 1 through September 30 of receipt year. Delinquent penalty is added October 1.

2015

EXPIRES

EMPLOYEE :

\$30.00

9/30/2016

5000-1048108

TOTAL TAX PREVIOUSLY PAID

TOTAL DUE

5000 BUSINESS OFFICE

\$30.00 \$30.00

BOVICH GREGG BRADDY JAMES

OVER THE TOP ROOFERS LLC 5036 DR PHILLIPS BLVD #296 ORLANDO FL 32819

5036 DR PHILLIPS BLVD #296 U - ORLANDO, 32819

5000 BUSINESS OFFICE

Scott Randolph, Tax Collector Local Business Tax Receipt

Orange County, Florid

his 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 of awful authorities. This receipt is valid from October 1 through September 30 of receipt year. Delinquent penalty is added October 1.

2015

\$30.00

5000-1048108

TOTAL TAX
PREVIOUSLY PAID TOTAL DUE

\$30.00 \$30.00 \$0.00

5036 DR PHILLIPS BLVD #296 U - ORLANDO, 32819

PAID: \$30.00 0099-00674169 7/13/2015

EXPIRES 9/3
EMPLOYEE PH, TAX COLUMN 000 80 VICH GREGG SPANGE COUNT BRADDY JAMES VER THE TOP ROOFERS LLC 5036 DR PHILLIPS BLVD #296 ORLANDO FL 32819

This receipt is official when validated by the Tax Collector.

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

LICENSE NUMBER

CCC1328358

The ROOFING CONTRACTOR
Named below IS CERTIFIED
Under the provisions of Chapter 489 FS.
Expiration date: AUG 31, 2016



BOVICH, GREGORY CHARLES OVER 'THE' TOP ROOFERS LLC 5512 SAGO PALM DRIVE ORLANDO FL 32819



ISSUED: 07/20/2014

DISPLAY AS REQUIRED BY LAW

SEQ # L1407200001433