



**EVALUATION REPORT**

**FLORIDA BUILDING CODE 6<sup>TH</sup> EDITION (2017)**

**Manufacturer:** L.V. THOMPSON, INC. *Issued April 3, 2020*  
 dba Thompson Architectural Metals Company (TAMCO)  
 5015 E. Hillsborough Ave  
 Tampa, FL 33610  
 (813) 248-3456  
<http://www.tamcometalroof.com>

**Manufacturing:** Tampa, FL

**Quality Assurance:** PRI Construction Materials Technologies (QUA9110)

**SCOPE**

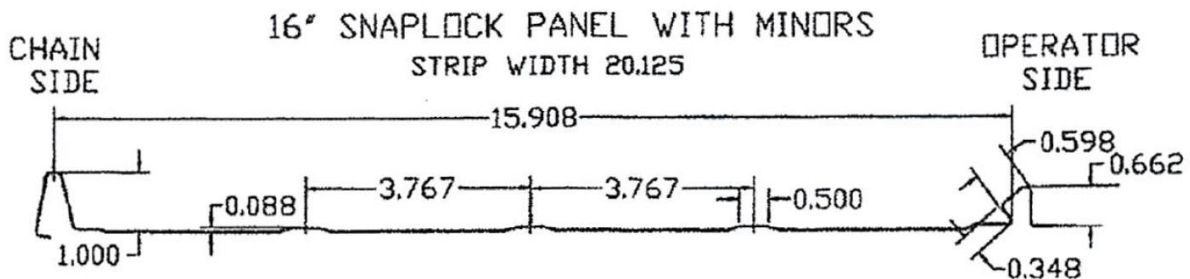
**Category:** Roofing  
**Subcategory:** Metal Roofing  
**Code Sections:** 1504.3, 1518.9.1, 1523.1.1, 1523.6.5.2.4, 1523.6.5.2.4.1  
**Properties:** Wind Resistance

**REFERENCES**

<u>Entity</u>	<u>Report No.</u>	<u>Standard</u>	<u>Year</u>
Hurricane Test Laboratory, LLC (TST1527)	0297-0602-02	TAS 125	2003
		UL 580	2006
		UL 1897	2012
PRI Construction Materials Technologies (TST5878)	LVTI-023-02-01	TAS 100	1995
PRI Construction Materials Technologies (TST5878)	LVTI-023-02-02	TAS 125	2003
		UL 580	2006
PRI Construction Materials Technologies (TST5878)	LVTI-023-02-03	UL 1897	2012
		UL 580	2006

**PRODUCT DESCRIPTION**

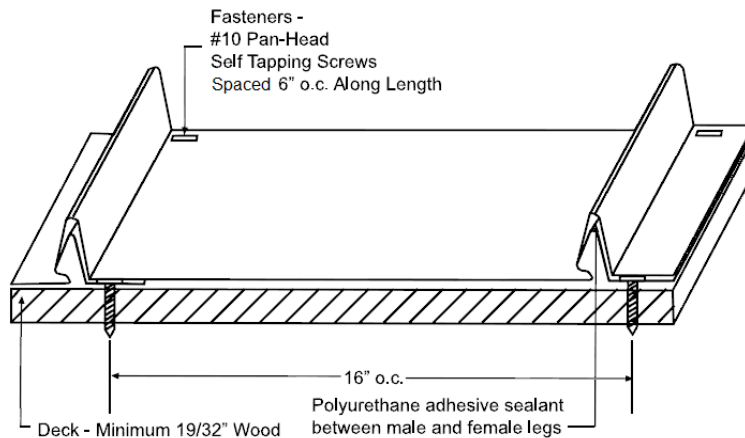
**Panel:** TM-Lock  
**Description:** Preformed, snap lock panel with integrated fastening strip; 1-inch seam; Maximum 16-inch coverage; Non-structural application  
**Material:** Min. 26 ga. ASTM A792 AZ55 (non-HVHZ only) or ASTM A653 G90 steel (F<sub>y</sub> = min. 50 ksi); Shall conform with FBC Section 1507.4.3



**TM-Lock Panel Profile**

**APPROVED ASSEMBLIES**

<b>TM-Lock System 1:</b>	
Slope:	Shall be in accordance with FBC.
Roof Deck:	Solid or closely fitted min. 19/32 in. plywood sheathing for new and existing construction at max. 24 in. span; Designed by others in accordance with FBC requirements.
Underlayment:	Installed in accordance with FBC requirements. In the HVHZ, the minimum underlayment shall be ASTM D 226, Type II installed in accordance with Sections 1518.2 and 1518.4 or any approved underlayment for use in the HVHZ.
Attachment:	<b>One (1) #10-12 x minimum 1" Pan-Head Self-Tapping Screw</b> shall be applied <b>maximum 6 in. o.c.</b> along the fastening strip. Apply a continuous <b>3/8-inch bead of 3M Scotch-Seal adhesive</b> along the male rib before snapping panels together. Fasteners shall penetrate the deck a minimum 3/16-inch and shall conform to FBC Sections 1507.4.4 and 1506.6.
Maximum Design Pressures:	<b>-102.5 psf</b> <i>Pressure calculated using 2:1 margin of safety per 1504.9</i>



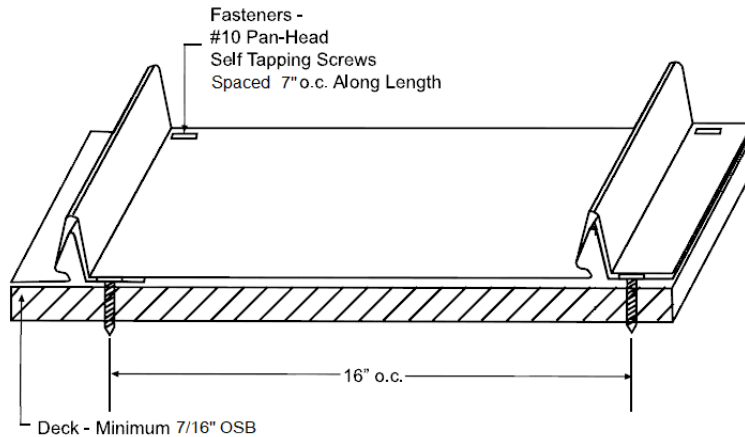
**Maximum Mean Roof Heights for Gable/Hip Roofs**  
Slopes 2:12 – 6.1:12 and >6.1 – 12:12 (Gable Roofs only)

Exposure	Basic Wind Speed (mph)								
	120	130	140	150	160	170	180	190	200
Zone 1									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
Zone 2									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	40 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	52 ft	28 ft	19 ft
Zone 3 <sup>A</sup>									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	44 ft	30 ft
C	60 ft	60 ft	60 ft	60 ft	52 ft	28 ft	19 ft	NA	NA
D	60 ft	60 ft	60 ft	46 ft	22 ft	NA	NA	NA	NA

Notes: 1) Exposure category for the structure location shall be as defined in the Florida Building Code 2) Limitations are based on an effective wind area of 10ft<sup>2</sup> or less 3) Topographic factors such as escarpments or hills are not included in the above assessment 4) Applicable for Enclosed Buildings without overhangs 5) NA = "Not Allowed" 6)  $K_d = 0.85$  7) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 8) See page 6 for details for dimensions and locales of Zone 1, 2, and 3 9)  $V_{ult}$  is shown in the tables above. Design wind loads are calculated using  $V_{asd} = V_{ult} \sqrt{0.6}$  per 1609.3.1.

<sup>A</sup>For hip roofs 2:12 to 5.6:12, Zone 3 shall be treated as Zone 2.

<b>TM-Lock System 2: (non-HVHZ only)</b>	
Slope:	Shall be in accordance with FBC.
Roof Deck:	Minimum 7/16-inch APA span rated OSB sheathing, minimum 15/32-inch APA span rated plywood sheathing or wood plank for new and existing roof deck. Deck shall be designed by others in accordance with FBC requirements.
Underlayment:	Installed in accordance with FBC requirements.
Attachment:	<b>One (1) #10 x minimum 1" Pancake Head Screw, Type 17 point</b> shall be applied <b>maximum 7 in. o.c</b> along the fastening strip. Fasteners shall penetrate the deck a minimum 3/16-inch and shall conform to FBC Sections 1507.4.4 and 1506.6.
Maximum Design Pressures:	<b>-45 psf</b> <i>Pressure calculated using 2:1 margin of safety per 1504.9</i>

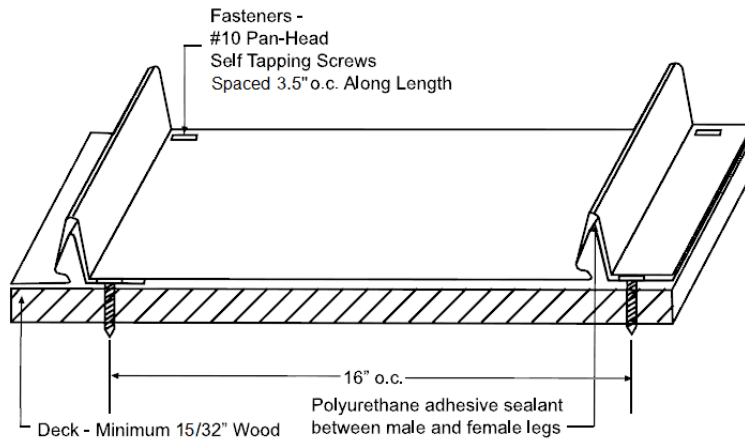


<b>Maximum Mean Roof Heights for Gable/Hip Roofs</b> Slopes 2:12 – 6.1:12 and >6.1 – 12:12 (Gable Roofs only)									
Exposure	Basic Wind Speed (mph)								
	120	130	140	150	160	170	180	190	200
<b>Zone 1</b>									
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	48 ft	35 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	35 ft	20 ft	NA	NA
D	60 ft	60 ft	60 ft	55 ft	27 ft	NA	NA	NA	NA
<b>Zone 2</b>									
B	60 ft	60 ft	60 ft	50 ft	31 ft	NA	NA	NA	NA
C	60 ft	48 ft	23 ft	NA	NA	NA	NA	NA	NA
D	50 ft	20 ft	NA	NA	NA	NA	NA	NA	NA
<b>Zone 3<sup>A</sup></b>									
B	60 ft	35 ft	NA	NA	NA	NA	NA	NA	NA
C	19 ft	NA	NA	NA	NA	NA	NA	NA	NA
D	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes: 1) Exposure category for the structure location shall be as defined in the Florida Building Code 2) Limitations are based on an effective wind area of 10ft<sup>2</sup> or less 3) Topographic factors such as escarpments or hills are not included in the above assessment 4) Applicable for Enclosed Buildings without overhangs 5) NA = "Not Allowed" 6)  $K_{cf} = 0.85$  7) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 8) See page 6 for details for dimensions and locales of Zone 1, 2, and 3 9)  $V_{ult}$  is shown in the tables above. Design wind loads are calculated using  $V_{asd} = V_{ult} \sqrt{0.6}$  per 1609.3.1.

<sup>A</sup>For hip roofs 2:12 to 5.6:12, Zone 3 shall be treated as Zone 2.

TM-Lock System 3:	
Slope:	Shall be in accordance with FBC.
Roof Deck:	Minimum 15/32-inch APA span rated plywood sheathing or wood plank for new and existing roof deck at max. 24 in. span; In the HVHZ, new construction shall be min. 19/32 in. plywood at max. 24 in. span. Deck shall be designed by others in accordance with FBC requirements.
Underlayment:	Installed in accordance with FBC requirements. In the HVHZ, the minimum underlayment shall be ASTM D 226, Type II installed in accordance with Sections 1518.2 and 1518.4 or any approved underlayment for use in the HVHZ.
Attachment:	<b>One (1) #10 x minimum 1" Pancake Head Screw, Type 17 point</b> shall be applied <b>maximum 3.5 in. o.c</b> along the fastening strip. Apply a continuous <b>3/16-inch bead of Bostik 70-05a adhesive</b> along the male rib before snapping panels together. Fasteners shall penetrate the deck a minimum 3/16-inch and shall conform to FBC Sections 1507.4.4 and 1506.6.
Maximum Design Pressures:	<b>-82.5 psf</b> <i>Pressure calculated using 2:1 margin of safety per 1504.9</i>

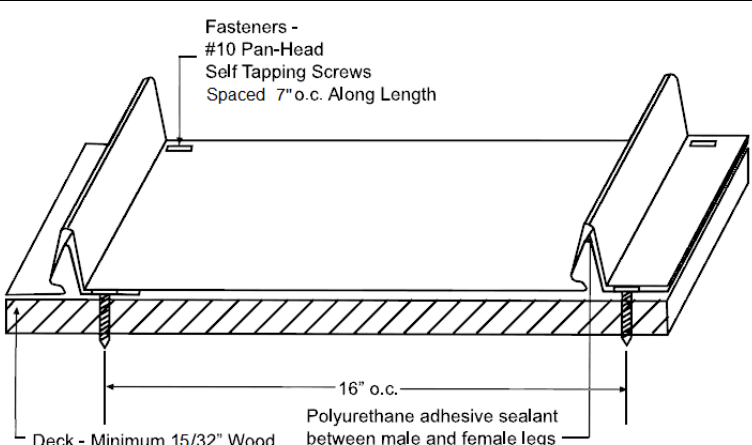


**Maximum Mean Roof Heights for Gable/Hip Roofs**  
Slopes 2:12 – 6.1:12 and >6.1 – 12:12 (Gable Roofs only)

Exposure	Basic Wind Speed (mph)									
	120	130	140	150	160	170	180	190	200	
Zone 1										
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
Zone 2										
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	57 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	38 ft	23 ft	NA	NA
D	60 ft	60 ft	60 ft	60 ft	60 ft	30 ft	19 ft	NA	NA	NA
Zone 3 <sup>A</sup>										
B	60 ft	60 ft	60 ft	60 ft	60 ft	44 ft	30 ft	NA	NA	NA
C	60 ft	60 ft	60 ft	35 ft	19 ft	NA	NA	NA	NA	NA
D	60 ft	60 ft	30 ft	NA	NA	NA	NA	NA	NA	NA

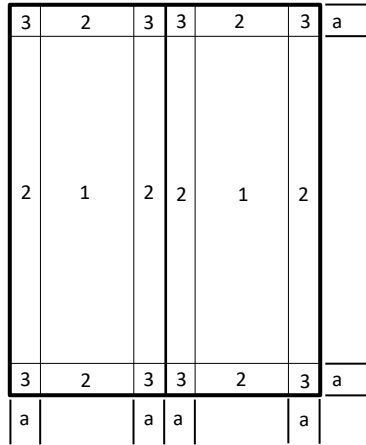
Notes: 1) Exposure category for the structure location shall be as defined in the Florida Building Code 2) Limitations are based on an effective wind area of 10ft<sup>2</sup> or less 3) Topographic factors such as escarpments or hills are not included in the above assessment 4) Applicable for Enclosed Buildings without overhangs 5) NA = "Not Allowed" 6)  $K_d = 0.85$  7) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 8) See page 6 for details for dimensions and locales of Zone 1, 2, and 3 9)  $V_{ult}$  is shown in the tables above. Design wind loads are calculated using  $V_{asd} = V_{ult} \sqrt{0.6}$  per 1609.3.1.

<sup>A</sup>For hip roofs 2:12 to 5.6:12, Zone 3 shall be treated as Zone 2.

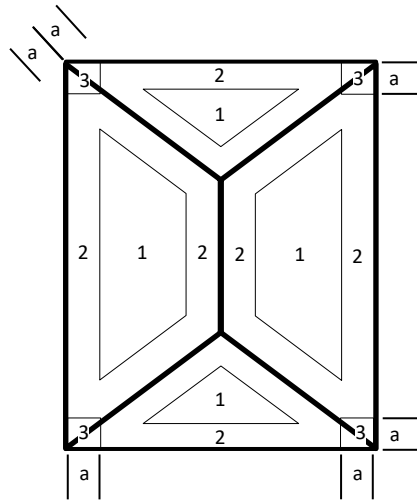
TM-Lock System 4:										
Slope:	Shall be in accordance with FBC.									
Roof Deck:	Minimum 15/32-inch APA span rated plywood sheathing or wood plank for new and existing roof deck at max. 24 in. span; In the HVHZ, new construction shall be min. 19/32 in. plywood at max. 24 in. span. Deck shall be designed by others in accordance with FBC requirements.									
Underlayment:	Installed in accordance with FBC requirements. In the HVHZ, the minimum underlayment shall be ASTM D 226, Type II installed in accordance with Sections 1518.2 and 1518.4 or any approved underlayment for use in the HVHZ.									
Attachment:	<b>One (1) #10 x minimum 1" Pancake Head Screw, Type 17 point</b> shall be applied <b>maximum 7 in. o.c</b> along the fastening strip. Apply a continuous <b>3/16-inch bead of Bostik 70-05a adhesive</b> along the male rib before snapping panels together. Fasteners shall penetrate the deck a minimum 3/16-inch and shall conform to FBC Sections 1507.4.4 and 1506.6.									
Maximum Design Pressures:	<b>-75 psf</b> <i>Pressure calculated using 2:1 margin of safety per 1504.9</i>									
 <p>Fasteners - #10 Pan-Head Self Tapping Screws Spaced 7" o.c. Along Length</p> <p>16" o.c.</p> <p>Polyurethane adhesive sealant between male and female legs</p> <p>Deck - Minimum 15/32" Wood</p>										
Maximum Mean Roof Heights for Gable/Hip Roofs Slopes 2:12 – 6.1:12 and >6.1 – 12:12 (Gable Roofs only)										
Exposure	Basic Wind Speed (mph)									
	120	130	140	150	160	170	180	190	200	
Zone 1										
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
D	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	38 ft
Zone 2										
B	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	57 ft	40 ft
C	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft	42 ft	25 ft	NA	NA
D	60 ft	60 ft	60 ft	60 ft	60 ft	35 ft	19 ft	NA	NA	NA
Zone 3 <sup>A</sup>										
B	60 ft	60 ft	60 ft	60 ft	48 ft	31 ft	NA	NA	NA	NA
C	60 ft	60 ft	42 ft	21 ft	NA	NA	NA	NA	NA	NA
D	60 ft	40 ft	19 ft	NA	NA	NA	NA	NA	NA	NA
Notes: 1) Exposure category for the structure location shall be as defined in the Florida Building Code 2) Limitations are based on an effective wind area of 10ft <sup>2</sup> or less 3) Topographic factors such as escarpments or hills are not included in the above assessment 4) Applicable for Enclosed Buildings without overhangs 5) NA = "Not Allowed" 6) $K_z = 0.85$ 7) Projects with mean roof heights of greater than 60 ft shall be evaluated by a licensed design professional 8) See page 6 for details for dimensions and locales of Zone 1, 2, and 3 9) $V_{ult}$ is shown in the tables above. Design wind loads are calculated using $V_{asd} = V_{ult} \sqrt{0.6}$ per 1609.3.1.										

<sup>A</sup>For hip roofs 2:12 to 5.6:12, Zone 3 shall be treated as Zone 2.

**Gable**



**Hip**



Dimension “a” shall be 10% of the least horizontal dimension or (0.4 x Mean Roof Height), whichever is smaller, but not less than either 4% of the least horizontal dimension or 3ft.

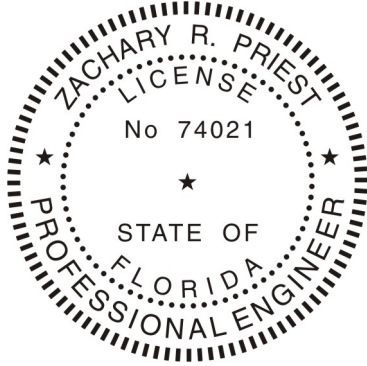
**LIMITATIONS**

1. Fire classification is not within the scope of this evaluation.
2. The roof deck and the roof deck attachment shall be designed by others to meet the minimum design loads established for components and cladding and in accordance with FBC requirements.
3. Reroofing shall be in accordance with FBC Section 1511 outside the HVHZ or Section 1521 within the HVHZ.
4. Installation of the evaluated products shall comply with this report, the FBC and RAS 133 within the HVHZ, and the manufacturer’s published application instructions. Where discrepancies exist between these sources, the more restrictive and FBC compliant installation detail shall prevail.
5. All products listed in this report shall be manufactured under a quality assurance program in compliance with Rule 61G20-3.

**COMPLIANCE STATEMENT**

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



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

**CERTIFICATION OF INDEPENDENCE**

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

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

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

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

**END OF REPORT**