#### DRAFT

# Survey and Investigation of Corrosion of Fasteners Used to Secure Metal Ridge Vent System on Shingle and Tile Roofs

### Presented to the

Florida Building Commission
State of Florida Department of Business and Professional Regulation

by

Forrest J. Masters, Ph.D., P.E., masters@ce.ufl.edu, (352) 392-9537 x 1505 Kurtis R. Gurley, Ph.D., kgurl@ce.ufl.edu, (352) 392-9537 x 1508 David O. Prevatt, Ph.D., P.E. (MA), dprev@ce.ufl.edu, (352) 392-9537 x 1498

### 1. Issues

- Anecdotal information indicates that corrosion of fasteners used to secure metal ridge vent system on shingle and tile roofs has been observed across a range of installations, specifically for electro-galvanized fasteners.
- The problem is significantly more serious in coastal environments due to presence of chloride ions
- Increased manufacturing of these products outside the United State may be attributing to the problem

#### 2. Relevant Sections of the Code

- 1506.4 1506.7
- 1517.5.1 1517.5.2

# 3. Scope of UF Work

- Consult with the Roofing TAC on writing questions an identifying audience (see sample questions in Appendix)
- Perform literature search for relevant context on the problem
- Locate and hire a professional survey company to conduct the survey
- Interpret results, determine whether the problem requires action, and produce a report that explains the results and implications for the Code
- Develop a scope of work for the 2014-2015 fiscal year, if warranted

## 4. Points of Contact for the Project

• Mo Madani, Manager, Building Codes & Standards Office, Florida Building Commission

### **DRAFT**

# 5. Budget'!" (+ž\$\$, "&, "

## 6. Deliverables

- A report providing technical information on the problem background, results and implications to the Code submitted to the Program Manager by June 15, 2014
- A proposed scope of work for 2014-2015 funding cycle, if warranted
- A breakdown of the number of hours or partial hours, in increments of fifteen (15) minutes, of work performed and a brief description of the work performed. The Contractor agrees to provide any additional documentation requested by the Department to satisfy audit requirements

7. Appendix: Sample survey					
1)	Type of fastener (circle all that apply)				
	a. Smooth	b. Ring shank	c. Barbed	d. Screw	
2)	2) Type of corrosion resistance (circle all that apply)				
	a. Electro Galvanizeo	d b. Hot Dipped	d Galvanized	c. Nonferrous Metal	
3)	Locations of building				
4)	a. County b. Wind Bourn Debris Region (Yes) (No) Type of roofing system (circle all that apply)				
Otl	a. Asphalt Shingle b. Clay/Concrete Tile c. Architectural Metal d. ther				
5)	Approximate age of roofing system				
	a	-			
6)	frequency of findings:				
7)	Do you check for and find that fastener packages bear the manufacturer's identifying marks and approved testing agency labels for code compliance? (Yes) (No) (Sometimes)				
8)	I am a licensed:				
9)	Roofing Contractor	_ b. Inspector _	c. Building C	Official d. Other	