

Preston Falls Villas
Book of resolutions Part 2., Item e.
Specification for Chimney Caps and Chimney Chase Cover (CCC)
Replacement and Repair
Approved: 12/01/2012

1. Background

Chimney Chase Covers, (these are the large flat metal inverse pans that cover the chase or opening at the top of the chimney and support the flue cover or Chimney Cap) periodically need of replacement and the Chimney Caps need repair. Most of the Chimney Chase Covers (CCC's) for the units in the first three Buildings on the West Side have been recently coated and are already showing signs of rust through. The CCC's were originally nailed around the perimeter of the top surface and the Chimney Caps (CC's) were screwed to the CCC. These inappropriate fastening techniques created stress points for corrosion. The presence of stress points coupled with the pooling of water due to the flattening of the CCC's have created conditions for continued corrosion. The CCC's tend to flatten and go concave due to the lack of structural support for the CCC (even though they were creased (cross broke) to allow for elevation of the center). Without structural support the weight of the CC's and the weight and force of snow and rain cause the CCC's to flatten and actually create a concave surface which tends to capture and hold water. This condition rapidly caused re-rusting of the coated surfaces. This is evident on many of the CCC's in the first Building. The solution is to replace the CCC with a new galvanized or stainless steel cover without any penetration of the CCC top surface and provide structural support near the center of the CCC to prevent flattening.

Our fireplace inserts, chimney flues and CC's were manufactured by "Marco Fireplaces" over twenty years ago. The models of fireplace flues and CC's installed in our units are no longer manufactured by Marco. However, 17 new CC's have been located and can be purchased if needed. Based on removal and inspection of the two CC's for Unit 749, they were found to have minor rust but are still structurally sound. The CC's can be preserved by removal, disassembly, bead blasting to remove any corrosion and prepare critical surfaces for powder coating (this very durable coating technique is used by manufacturers like Trane Air Conditioning to preserve the AC/Heat Pump outdoor equipment cabinets/covers). Comparative costs are provided later.

Maintaining these critical components and preserving the look and architectural style is as important as preserving the stucco and the roofs. Modifications to some of the units have required a replacement of the fireplace inserts and flues. This requires a new CC. While the CC's for the new equipment may have different fitments, similar CC's can be located and used as was the case for Unit 751. There is no basis for deviating from the architectural structure we have in place.

2. Specification

These specifications for Chimney Chase Covers (CCC) are based on input from chimney sweeps Scott Davis and Chimney Plus Inc, Lennox Hearth Products, Inc., manufacturer for Marco Fireplace Equipment, technical support and parts personnel, and Stainless Steel Specialties.

Material: 20 gauge 300 series stainless steel or 18gauge galvanized steel.

Fabrication:

- CCC to have “breaks” running from each corner to center
- The collar (center band that prevents water entry into chimney around the flue) will be 3 inches high and $\frac{1}{4}$ inch greater diameter than the outside flue diameter (13 $\frac{1}{4}$ inches for original Marco flues) and welded to the CCC.
- The skirt (sides that come down around chimney) will be three inches with the final $\frac{1}{2}$ inch “doubled” for strength and flared 5 degrees to serve as a drip deflector.
- Measurements of the CCC will be taken by the installer. Must verify that measurements include at least $\frac{1}{4}$ inch of “play for the longest dimension and that all four sides are measured. Collar placement must be measured.
- $\frac{3}{16}$ inch holes are to be drilled in each corner (four total) 2 inches down from the top (must get below the Stucco Styrofoam layer for EFIS type stucco) and two inches from the corner.
- The CC will be fastened to the CCC using special cement provided by the installer. No holes will be drilled into the top surface of the CCC.
- The CC will be the original design provided by Marco or a reasonable facsimile if the flue has to be replaced. CCC design will be rectangular with breaks creating a slight crown to shed water.
- Structural members will be added to the chimney chase in the center and on either side of the flue to provide support for the center of the CCC. These will be either aluminum or wood. Combustible material must be a minimum of 1 inch from the outside of the flue.

Chimney Caps for Marco Fireplace Equipment are essentially unavailable for purchase and must be preserved by removal, bead blasting and powder coating. Carolina Powder Coating has performed this restoration a number of times for PFV Homeowners.

3. Cost Comparisons (as of 2010)

Capable Chimney Sweeps contacted (total job):

- F. Scott Davis, Chimney Sweep, Inc. Raleigh, NC 919-562-6952, “yourashismine.com”, 30 years serving the Triangle
- Sam Quaile, Chimneys Plus and Gutter Solutions, 1250 Sanford Road, Pittsboro NC, 27312 919-542-1631, “chimneysplusgutters.com” 22 years serving the Triangle

<u>Item</u>	<u>Chimney Sweep</u>	<u>Chimneys Plus</u>
CCC (gal)	\$320	\$300
(SS)	\$400	\$360
Measurement trip	\$150	included
And remove CC		
Install	\$264	\$265
Cost Comparison (continued)		
Total (gal)	\$734	\$565
Total (SS)	\$814	\$625

No repair of Chimney Cap included in either Quote.

Chimney Chase Cover Fabrication Costs (large size 36 x 66 inches) (CCC purchased separately)

<u>Fabricator</u>	<u>Galvanized</u>	<u>Stainless Steel</u>
Chimney Sweeps	\$320	\$400
Chimneys Plus	\$300	\$360
Comfort Engineering Durham, NC	\$320	\$400
Woodland Direct.com	\$346*	\$545* *Includes Shipping, collar is "pop riveted" not welded, 22 ga
Stainless Steel Specialties 2025 Carr-Purr Drive Raleigh, NC 27603 919-779-4290 Kenny Young	\$200	\$256 - Does not include delivery collar and corners are welded 20-gauge SS

Powder Coating Chimney Caps (performed separately)

Raleigh Powder Coating, 2100 Garner Road Raleigh, NC 27610 919-673-4195	Powder Coat and blast CC Cage inside and outside and top of fire stop - \$90
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Conclusion

The overall best value (at time of review 2016) would be to use the combined team of Chimney Plus and Raleigh Powder Coating. SSS has greatly increased pricing.