Integral Preservation Systems

Building Envelope/Waterproofing/Roofing Consultants
Expert Witness/Materials Scientist
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Where structural engineers specialize in structural load and structural integrity, IPS specializes in chemical compositions of construction materials and their efficacy to prevent water intrusion. Therefore, in association with your structural engineering firm, architect and/or attorney, IPS provides a scientific overview or forensic appraisal of the condition of the building envelope.

DATE: February 21, 2013

TO: Ms. Diana Lassel, President of Board
The Fountain Condominium Hotel Association
dlassel@gmail.com

cc: Mr. Gabe Garcia, Property Manager
Le Soleil Management
g@lesoleilmanagement.com

FROM: Richard Clark, President
IPS
954.914.9510
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RE: The Fountain Condominium Hotel Association, South Beach, FL Inspection on 2/20/2013 and Forensic Water Intrusion Study

Dear Ms. Lassel,

Following is an analysis of the building envelope at The Fountain Condominium Hotel Association. There are three structures that will be noted as the Northeast Structure, Northwest Structure and South Structure. These structures date back to 1923 and the South Structure was taken down to its foundation and re-built in 2006. The complex serves as a hotel/condo association.

The redevelopment was completed by Shear Construction who we have been told has filed bankruptcy.

The windows that were installed with the redevelopment in 2006 are not leaking into any of the three structures. Water intrusion is occurring into the Northeast and South Structures for different reasons of which are noted in this report. All three structures were painted with a latex paint two years ago with the exclusion of the south wall of the South Structure which was painted upon completion of the rebuild in 2006.

Northeast Structure:

- Water intrusion is occurring from the scuppers of which are not uniform, and not flashed properly to Miami-Dade code. All of the scuppers must be made uniform and re-flashed through the scupper to avoid water intrusion into the inside of the wall structure. Birds have also found these scuppers to be a safe haven due to a lack of proper screening. Nest building and other associated activities degrade the structure and cause further damage to the roofing and/or waterproofing. If your roofing company has any questions in regard to this process and procedure, we would be more than happy to provide drawings and details for an additional fee.

- The palm tree planted next to the South Structure is leaning/touching the southwest corner of this building and needs to be removed. Trees should not be touching the structure in this fashion. Although the foliage surrounding the property is attractive, its root damage to the foundation as well as the damage from basic rubbing and friction will wear away at the thin layer of paint and ultimately provides avenues for further water intrusion.

- There are vertical and longitudinal cracks on the West face as well as corresponding parallel cracking on the structural wall interface of both the North and South walls where they meet the West wall. These cracks are structural in nature and require the review of our structural engineer. Please provide our office with a copy of any plans that may still exist for this structure. Until this can be further reviewed, we are recommending the application of silicone strip technology in the form of the DOW 123. This material incorporates the DOW 795 along with a preformed strip of silicone glued over the opening (spans the opening) and thus eliminating the water intrusion. The contractor can easily follow the geometric pattern of the cracking to produce an aesthetically pleasing application.

Northwest Structure:

- The stairs and balcony on the east side exhibit saponified cold-applied waterproofing that has failed completely. This failure exposes the protective cover of the concrete ultimately will cause the failure of the reinforcing steel in the concrete. This can be addressed by removing the tile and the remains of the existing waterproofing and replacing it with a 97% reactive urethane waterproof deck coating as manufactured by Lymtal International. This system can easily be applied with a long term warranty and help avoid the approximate $35,000 expense of replacing the entire steel reinforced stairway.

South Structure:

- New stucco was applied on the entire structure when the structure was redeveloped in 2006.

- When the south wall was painted during the redevelopment only 3-4 mils (dry film thickness) of paint product or material was applied. The proper application thickness of paint should be at least 5-7 mils (dry film thickness) in accordance with ASTM – D7091, ASTM A884/A884M (testing). Due to the stucco design and exacerbated by the lack of coating thickness, there is little to no paint in the myriad of pin holes throughout the South wall. These pin holes are allowing water to penetrate through the structure into the interior units causing deterioration of the drywall and, most assuredly, other notorious by-products of water intrusion.

- The remaining walls of the South Building, excluding the South Wall were painted 2 years ago with a latex paint of which is 5-7 mils thick and obviously the appropriate millage. The only water intrusion into the structure is caused by the South wall that was never repainted.

- There is associated cracking and movement in various locations of the stucco at the window line and above every 3-5 square feet. Filling all cracks with a urethane caulk such as Lymtal 881 before painting is an absolute necessity.

- There is an open junction box just west of the middle gutter. This needs to be filled with a non-shrink repair mortar. The appropriate repair mortar is the USCP Multi-Purpose Repair Mortar. This material is available at Hydro-Proof Industries, 954-977-7174. The distributor that will take care of you is Danielle. She also carries the Lymtal coatings and caulk.

- All of the windows need to be re-caulked with a pure white silicone, either GE or Dow. These materials are available at Coastal Supply in Miami.

- The cracks will need a stucco patch. Any stucco patch with a low water to cement (w/c) ratio is appropriate for repair.

- The windows themselves are dry. The paint and drywall above the window in the units is delaminated from water intrusion from the stucco. This takes approximately 2 hours for water to start dripping into the interior.

- It is recommended to use a hard shell acrylic for the exterior application on the South Wall or, for that matter, any exterior wall. The total millage of the thick shell acrylics is an expected 15 mils (dry film thickness). The manufacturers recommended are Thoro-Coat, Sono-Coat, etc. These materials are also available at Coastal or Florida Waterproofing / Allied.

If anyone on your team or you has any questions, please contact my office at 954.522.2775 or email at r.clarkconsult@comcast.net.

Rick Clark – President

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