

2500 Lakeview Association

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Window and Sleeve Replacement Discussions

UPDATE: March 31, 2008

To: All Unit Owners

From: 2500 Lakeview Association Board of Directors

Meeting: The date for a meeting with building owners will be announced shortly.

Overview:

The most recent window/leak survey of unit owners conducted in August and September of 2007 indicated that at least 66 percent of 158 units currently experience water leakage and damage. (11 units did not answer the survey) The problem is getting worse and every unit is vulnerable.

In addition to problems with the window system itself, there are several other material contributors to the leakage problem, including leakage through cracks in the concrete and slab edges and leakage through the package terminal air conditioning (PTAC) units and sleeves that contain our heaters and air conditioners. (Note: the outside shell of the heater/air conditioner unit is called a "sleeve," and the "chassis" is the mechanical heart of the unit.)

The experts have told us that even though a particular owner's unit may have no apparent leakage, it may actually be causing or contributing to the leakage in other units. The experts have also told us that our window system has reached the end of its useful life (about 30 years) and that it is time to replace it.

We want all unit owners to be fully apprised of the problem(s), the possible solutions and the likely costs so that, when a plan of action is ultimately implemented, residents will have had time to plan accordingly.

Problems and Possible Solutions:

The leakage problem is multifaceted, although design weaknesses with our current window system are the primary factors contributing to the leakage problems.

The current system is unable to properly drain water away from the window system, especially when the winds are strong.

This trapped water then finds its way into residents' units. The current window system also suffers from exaggerated twisting of the window frame, which occurs as the building sways in

the wind. Over time, the twisting loosens the caulking around the frame, also contributing to the leakage.

A new window system could be designed to look the same in terms of the existing low profile frame but would be thicker from the inside outward to provide greater rigidity to the frame, thus less twisting. The thicker window would not have any impact on current window treatments, because the interior plane of the new window system would essentially be the same as that of the existing window system.

Water also finds its way into the interior of the building through the naturally occurring hairline cracks in the horizontal building slabs (the floors) between each story's windows. A new window system could also deal with this problem by incorporating a covering of these slab ends in such a way that they became one with the window frame. Water would then have no opportunity to find these cracks.

Useful Life:

The useful life of a window system (the glass and the frame) is generally in the range of 30 years. Our building's window system is nearing 35 years of age and experienced failures even when new.

A new window system would be designed to address the various leakage issues we experience and could also provide much improved thermal efficiency and UV protection. In addition, quieter, more energy efficient PTAC units are available with improved features, such as dehumidification.

Individual insulating glass units naturally fail with age and that failure rate is accelerating at 2500, as many residents have already experienced. It makes financial and engineering sense to engage in wholesale rather than piecemeal replacement.

Replacement Design:

As the Board has researched the window/leakage issue over the years, the cost of window replacement has increased enormously. We are told that cost increases are likely to continue for the foreseeable future. As a result, we have contracted with Horvath Reich CDC, Inc. (HR CDC) to design a recommended replacement for our window system. Assisting HR CDC will be the CTL Group (concrete-related engineering) and ELARA Energy Services (PTAC units).

Part of the new design will include a recommended replacement for the PTAC units and sleeves. As our window engineering expert, Jesse Horvath of HR CDC, said, "The primary reason for all unit owners to replace the PTAC units is that, even if one PTAC sleeve has no perceptible leakage, concealed leakage may be migrating to the unit below. Additionally, once the upgraded windowpanes fill substantial areas of the building, the older, lesser-performing windows may tend to admit greater amounts of air and water. Re-use of existing (even relatively new) PTAC units is not feasible, because (a) the sleeve design performance will not match that of the windows, and (b) if a new sleeve is used, the existing chassis will not mate properly with the new sleeve."

Designing replacements of the (PTAC) units is the first step of the window design replacement

process, which is being overseen by ELARA. The second step is the actual window design, which is being overseen by HR CDC. Concurrent with the window design effort, CTL will be evaluating methods of repair to existing cracks in concrete at the areas currently concealed by the window frames.

Well before the window design is finalized, there will be physical mock-ups of the recommended prototype PTAC unit, and they will be subjected to testing for air infiltration, water penetration, thermal performance, and noise.

We have asked HR CDC to provide us with monthly updates, and we will continue to update everyone as pertinent, new information becomes available.

Impact on Floors, Window Treatments and Thermostatic Controls:

One of the goals of the replacement design is to minimize the impact on the existing features of the building.

The engineers expect to match the footprint of the base under the new sleeve to the existing footprint of the sleeve so there should be no gaps between the sleeve and the adjacent flooring material-- carpet or wood flooring.

Horvath said, "The interior size of the new sleeve will be such that it will accommodate a standard-sized chassis, which will allow competition between several different manufacturers of PTAC units."

The engineers do not expect impact on window treatments, walls, paint, etc. The new windows will be the same size as the existing windows. The glass would be thicker in the new windows, which would lower energy costs, but the additional thickness would extend outward-- not inward.

Finally, ELARA expects the new PTAC units will be compatible with the existing wall mounted thermostats. However, upgrades to the thermostatic controls will be presented, as well as solutions provided in the event that a thermostat is incompatible.

Cost and Payment:

Under any foreseeable scenario, a project of this magnitude will be expensive and will require at least a substantial portion of the project cost to be financed with borrowed funds for some considerable period of time. The Board will explore various financing options, but anticipates that some unit owners may desire an option that permits them to finance their share of the project cost (as opposed to writing one big check).

Although it is impossible to get specific numbers until a project has been competitively bid, which ours has not, the latest preliminary estimate from our consultant is in the range of \$10.5 million. We will update you on cost estimates as we get more information. The exact cost to each unit owner would be based on the actual total project cost as it related to each owner's proportionate share.

Time Line:

The engineers expect to have a recommendation on a final PTAC sleeve design within a few months. At that time, they will also be in a better position to advise us as to a reasonable time line from the date of decision to completion. We will update everyone as more information becomes available. We expect this project to be completed by the 2010-2011 timeframe.

Experts:

- Jesse D. Horvath, AIA, is Principal of Horvath Reich CDC, Inc. and has been working with our building since 1988. Horvath Reich CDC is an architectural firm that specializes in exterior wall matters, particularly window and curtain wall design.
- David L. Byrd, P.E. – Structural Evaluation Department. The CTL Group has been associated with 2500 since 1988, and David has performed engineering services for 2500 since 2002. He has been involved in numerous project associated with the property including the City of Chicago Critical Facade Examinations and associated repairs during 2002 and 2006, masonry repointing project of the parking garage and lower level highrise areas, coping stone replacement at the pool deck, etc. Additionally, David has worked jointly with Jesse Horvath on various leakage issues since 2002, participating in the window replacement mockup in Units 1705 and 1605, leakage testing, sealant repairs, and similar condition assessments.
- ELARA Engineering Services, Inc. is a full service Mechanical, Electrical, Plumbing, Fire Protection, and Information Technologies engineering firm specializing in the development, design, and construction oversight of building systems projects. ELARA's principal engineers on this project are Steve Maze, principal of ELARA, and Brian Malone.

Additional information regarding the above individuals and their organizations is available at the Management Office.