

PRESCOTT ENGINEERING, LLC

May 17, 2022

Buckingham Condominiums
c/o Mr. Steve Mooney
6060 Shore Blvd. S.
Gulfport, Florida

Email: codogger@aol.com

**Subject: Building Condition Survey
Buckingham Condominiums
6060 Shore Blvd. S.
Gulfport, Florida**

Dear Mr. Mooney,

Prescott Engineering, LLC (PE) has been retained to conduct a survey of the structure. Using the structural inspection guidelines provided by Miami-Dade's building recertification program, the purpose of the inspection is "of determining the general structural condition of the building or structure to the extent reasonably possible of any part, material or assembly of a building or structure which affects the safety of such building or structure and/or which supports any dead or designed live load".

Furthermore, the guidelines also state "unless there is obvious overloading, or significant deterioration of important structure elements there is little need to verify the original design. It is obvious that this has been "time tested" if still offering satisfactory performance. Rather, it is of importance that the effects of time with respect to deterioration of the original construction materials be evaluated. It will rarely be possible to visually examine all concealed construction, nor should such be generally necessary. However, a sufficient number of typical structure members should be examined to permit reasonable conclusions to be drawn."

The survey conducted by PE was completed on Tuesday, April 5, 2022. The survey included the walkways, the exterior columns, stairwells, garage, a sample of the balconies, and the accessible exterior walls of the building. The survey was visual and included mechanical sounding. No destructive testing was performed.

Restoration | Design | Roof Consulting | Forensics

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Observations

Based on the survey the following conditions were observed:

1. A total of 42 balconies were surveyed and included Units 101, 102, 103, 105, 109, 111, 200, 201, 206, 302, 304, 308, 312, 406, 409, 410, 502, 503, 505, 507, 512, 600, 604, 610, 700, 701, 703, 711, 800, 805, 806, 902, 907, 908, 911, 912, 1004, 1007, 1010, P1, P7, and P10.
2. Of the balconies that were surveyed, 33 were found to be covered with floor tile. Refer to *Figure 1*.

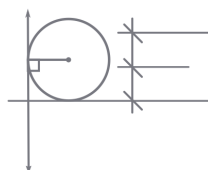


Figure 1

3. The balconies of Units 111, 304, 409, 507, 600, 610, and 908 were covered with carpeting. Refer to *Figure 2*.



Figure 2



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4. The balconies of Unit 406 and 805 were coated with paint. Refer to *Figure 3*.

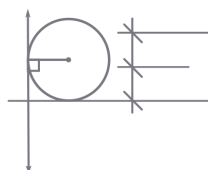


Figure 3

5. The post pockets for the guardrail system on balconies 312 and 600 were found to be improperly filled. This condition will allow water to accumulate in the pocket and drain into the balcony slab. Refer to *Figure 4*.



Figure 4



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6. Vertical spalling was observed in the walls and columns of the balconies of Units 111, 105, 206, 312, 409, 410, 610, 805, 912, and P10. Refer to *Figure 5*.

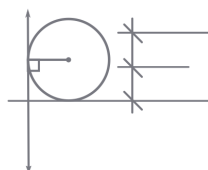


Figure 5

7. More than 20% of the floor tiles on the balconies were observed and/or detected by sounding to be delaminated on the balconies of Units 109, 201, 302, 410, 604, 703, 902, 907, 911, 912, 1004, and P10. Refer to *Figure 7*.



Figure 7



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8. Less than 20% of the floor tiles on the balconies were observed and/or detected by sounding to be delaminated on the balconies of Units 101, 102, 103, 200, 308, 312, 502, 503, 505, 512, 700, 701, 800, and 1010. Refer to *Figure 8*.

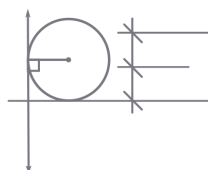


Figure 8

9. Spalling was observed and detected on the horizontal surface of the decks of Units 111, 406, 505, 512, 600, 604, 610, 711, 1010, and P10. An overhead spall was detected on Unit 800. Refer to *Figure 9*.



Figure 9



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10. Portions of the shutters on the balconies were observed to have been installed in a way that created a dam and inhibited drainage of water off of the balconies. This condition was observed on Units 101, 102, 105, 109, 302, 409, 502, 507, 512, 701, 711, 800, 806, 902, 908, 912, 1004, 1007, 1010. Refer to *Figure 10*.

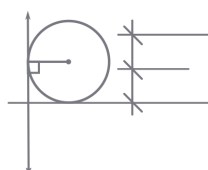


Figure 10

11. The railings of the majority of the units were observed to be original. The railings on Units 206, 505, 512, 800, 902, 907, 908, and 1007 were observed to be loose. Refer to *Figure 11*.



Figure 11



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12. Portions of the balconies were observed to have an aluminum drip edge installed along the edge of the balconies. The drip edge appeared to be original and was secured with drive pins. Corrosion was observed in the drip edge around the drive pins in many of the units. This condition would allow for moisture to migrate under the drip edge. Refer to *Figure 12*.

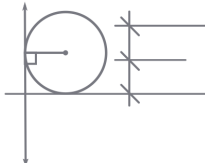


Figure 12

13. The walkways were observed to be coated with a urethane paint flake system. Refer to *Figure 13*.



Figure 13



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14. Widespread delamination of the coating membrane was observed throughout the walkways with heavy concentrations of delamination along the balcony slab edges. Refer to *Figure 14*.

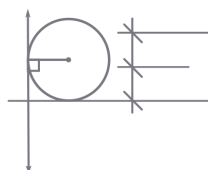


Figure 14

15. The membrane on the walkways was observed to have a fabric installed along the slab edge. The delaminated membrane along the slab edge was observed to be collecting water throughout the walkways. Refer to *Figure 15*.



Figure 15



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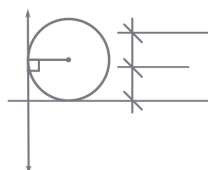
16. Based on sounding, approximately 53 areas of spalling were detected in the surface and along the slab edges of the walkways. The spalling sizes varied from less than 1 square foot up to 18 square feet.
17. The columns and overhead slab in the lower-level parking garage was surveyed and mechanically sounded. Based on the conditions observed 19 columns were observed to have vertical spalling present and two areas of overhead spalling were detected. Refer to *Figure 16* and *Figure 17*.



Figure 17



Figure 18



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18. The stairs in the tower were observed to consist of steel framed stairs with concrete toppings. No areas of corrosion or spalling were observed on the stairs. Refer to *Figure 19*.



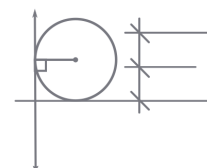
Figure 19

Conclusions and Recommendations

Based on the conditions observed it appears that the structure is generally in fair condition. Portions of the concrete components (walkways, balconies, columns, overhead slab) of the building require repairs due to observed and detected spalling. Based on the conditions observed PE does not believe that an immediate unsafe condition exists at the structure. However, if repairs are not made to the structure the spalling conditions will worsen and may develop into unsafe conditions.

Spalling occurs when moisture and chlorides from the ocean are able to penetrate the deck and reach the reinforcing bars. When exposed to moisture and chlorides the reinforcing bars will corrode. The corrosion causes the reinforcing bars to expand which in turn creates internal stresses in the concrete. These internal stresses cause areas of the concrete to break loose and expose the reinforcing bars. The breaking loose of the concrete is what is referred to as "spalling". Spalling generally affects older buildings near the water more than it affects newer construction that is inland. Periodic maintenance and application of a quality waterproofing membrane on the walkway, balconies, and parking deck can significantly reduce the amount of repairs that are needed in the future.

Based on the conditions observed, PE recommends the following scope of work to the structural components:



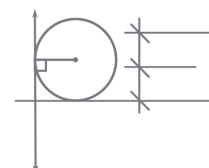
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1. The spalling in the columns, balconies, and walkways should be repaired in accordance with guidelines prepared by the International Concrete Repair Institute (ICRI). This includes the following:
 - a. Square cutting repair areas
 - b. In areas where post-tensioned cables are present (i.e. the elevated parking deck) care must be taken to ensure that cables are not damaged when excavating the concrete.
 - c. Removal of concrete back to uncorroded reinforcing bars
 - d. Supplementation of deteriorated reinforcing bars exhibiting significant section loss
 - e. Proper surface preparation of the repair area
 - f. Installation of sacrificial anodes
 - g. Application of corrosion inhibitors to the exposed portions of reinforcing steel
 - h. Application of an appropriate concrete repair material
 - i. Application of a waterproofing membrane in these areas
 - j. It is recommended that the tiles on the balconies be removed so that the balconies can be properly waterproofed. Various floor finish options can be applied overtop the urethane coating.

It is important to note that this report is intended to outline the current state of the structure and cannot be used to evaluate future conditions of the structure that may develop. Additionally, PE does not guarantee that this report will satisfy any future reporting requirements that may be issued by the State of Florida, Pinellas County, the Authority Having Jurisdiction, or any insurance company.

Neither the survey nor this report is intended to cover hidden defects, mechanical, electrical, or architectural features, nor environmental concerns. Unauthorized use of this report, without the permission of PE, shall not result in any liability or legal exposure to Prescott Engineering, LLC.

Prescott Engineering, LLC reserves the right to update the information contained in this report if deemed necessary due to modified site conditions or the availability of new/additional information.



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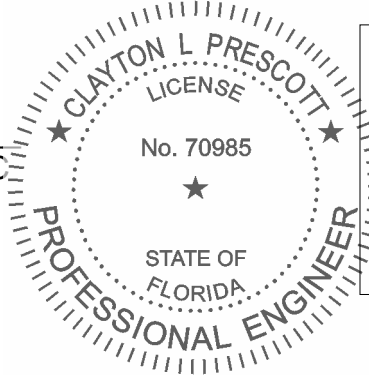
Thank you for offering us the opportunity to provide our services for this project. Please contact our office if you have any questions regarding this report.

Sincerely,

Prescott Engineering, LLC

State of Florida Certificate of Authorization No. 31922

Clayton Prescott PE, SE, RRC
Principal Engineer
Florida P.E. No. 70985



This item has been digitally signed and sealed by Clayton L Prescott, PE on May 17, 2022 using a digital signature.

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