SEA COAST GARDENS III CONDOMINIUM

4153 South Atlantic Avenue
New Smyrna Beach, Florida 32169

BUILDING S.B. 4-D MILESTONE INSPECTION REPORT

PROJECT NO. 23-1311

Prepared By:
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May 16, 2023

UNITED ENGINEERING CONSULTANTS, INC.
• Building Condition Surveys • Contract Administration • Corrosion Control Design
• Structural Inspection & Design • Project Planning & Management

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Sea Coast Gardens III Condominium Association
4153 South Atlantic Avenue
New Smyrna Beach, Florida 32169

Attention: Mr. Dominic Persampiere, President of the Board of Directors

Subject: **Building SB 4-D Milestone Inspection Report**
Sea Coast Gardens III Condominium, New Smyrna Beach

Dear Mr. Persampiere and Ladies and Gentlemen of the Board of Directors,

United Engineering Consultants, Inc. (UEC) is pleased to submit this report following our condition assessment of the building structure at the Sea Coast Gardens III Condominium in New Smyrna Beach, Florida. This study was requested by you to identify the condition of the structure pursuant to the legislature bill SB 4-D, "milestone inspection". This report includes our observations and recommendations.

I. EXECUTIVE SUMMARY

The buildings are in good structural condition and a waterproofing program is in-place to protect the structure from corrosion related deterioration. A small amount of concrete spalling damage was detected at 9 units and at 14 locations at the walkways and common area rooms. The spalling damage identified on the buildings is not considered substantial structural deterioration at this time; however, it should be repaired.

The primary cause of the concrete damage appears to be the corrosion of embedded reinforcing steel. The Sea Coast Gardens III Condominium is located in a highly corrosive environment. Battling the effects of corrosion is an on-going effort that will require routine maintenance. The location and size of the concrete damage observed, at this time, does not appear to be a life safety concern. However, the building should be repaired to prevent the damage from becoming more structurally significant. The key to prolonging the life of a concrete structure in a coastal environment is keeping the concrete dry to prevent moisture and salt ions from penetrating to the embedded steel.

II. BUILDING DESCRIPTION

The Sea Coast Gardens III Condominium is a five-story condominium with 85 condominium units located with direct oceanfront exposure. There are 17 vertical stacks of balconies. Each unit has a private balcony. Open air walkways and stairwells provide access to the condominium units. Exterior walls are constructed of CMU with a stucco veneer. The topside of the exterior slabs are waterproofed with a polyurethane coating.

Building plans were not available for review but based on observation and past experience working on the building, we believe the building is constructed of reinforced concrete slabs supported by load bearing CMU walls. Most slabs appear to be conventionally reinforced; however, precast slabs were observed in the laundry and storage rooms near the 015 stack units.

Our understanding is the building was constructed in the 1970's. A building repair and waterproofing project was performed around 2008-2010 and again from 2020-2022.

III. INVESTIGATION METHODOLOGY

Representatives from United Engineering Consultants performed the field inspection on April 12 and 13 and May 4 and 8, 2023. The survey was performed by two State of Florida registered Professional Engineers, Christopher Longman and Timothy Snook. The inspection process included comprehensive visual observations, pursuant to Phase I of the Milestone Inspection, of all accessible concrete and stucco surfaces. Entry to units was accompanied by a Representative from the Association to access all balconies and inspect the unit interior. All unit interiors were accessed with the exception of Unit 205. The nature and estimated quantity of the distress and other observations were recorded on field drawings which were used to determine the cumulative repair quantities. Destructive or nondestructive evaluation or testing were not conducted. This evaluation was not performed to evaluate the (original) structural design or code compliancy of the structure, but rather evaluate the condition of the existing elements.

IV. OBSERVATIONS

The following sections provide a more comprehensive description of our findings. Our observations are further depicted on the photographs in Appendix "A".

Balconies and Unit Interiors (Structural): The balcony slabs and walls are in excellent condition with very limited spalling damage detected. Small size concrete spalls were detected at the balconies as follows:

502: 1 square foot topside slab spall
509: ½ cubic foot wall spall
301: 1 cubic foot wall spall
506: 1 square foot topside slab spall
509: 3 square feet overhead slab spall

The interior slabs were inspected and spalling damage was detected on the ceiling of the master bedroom at units 106, 108, 109 and 111. The size of the spalling was between 1 and 6 square feet and was located on the ceiling above the bedroom window opening.

Walkways and Stairwells (Structural): The walkways and stairwells are in excellent condition with limited spalling damage identified. 14 locations of small size concrete spalls were detected at the walkways and within the common areas rooms, such as laundry and utility rooms. Of the 14 locations, 9 were located on the ceiling of the walkways and laundry room slabs. The remaining areas were located on the walls and the topside of the slabs.

Waterproofing: The balcony and walkway slabs are protected with a urethane waterproofing system that appears to be in good condition. No breaches or excessive wear on the coatings were observed. Perimeter sealants around sliding glass doors and windows generally appeared to be in good condition and provide a proper seal.

V. DISCUSSION/CONCLUSIONS

Concrete spalling and cracking are caused by the expansion of reinforcing steel in the concrete when it corrodes. As the steel corrodes, the cross-sectional area of the rebar expands and ultimately fractures the concrete. Corrosion of steel cannot be stopped, but it can be slowed and managed by proper protection activities and mitigation strategies. Stopping water ingress is critical to slowing the corrosion process within the concrete. The most effective actions you can take to maintain the structure is to

keep the concrete dry and isolate dissimilar metals (aluminum and steel). Concrete is a porous material which allows water and salt ions to penetrate to the embedded steel. We keep concrete dry and protected with properly sealed joints, waterproof coatings, paint and good quality sliding glass doors and windows.

VI. RECOMMENDATIONS

In our opinion, the corrosion related concrete damage identified is not substantial structural deterioration at the time of the inspection. The damage identified is small in size per location and the building structure as a whole remains safe to occupy. It is recommended that the damage identified be repaired as the damage can continue to worsen and become more structurally significant. The repairs should be completed in accordance with the Florida Building Code, International Concrete Repair Institute and ACI. Phase II exploratory work is not recommended.

VII. REPORT LIMITATIONS

The proposed study is limited to accessible areas. Hidden defects may exist that were not in accessible areas or were covered by stucco or other finishes. The Association understands and agrees that UEC is specifically not liable for the discovery of hidden defects.

VIII. CLOSURE

Attached, as enclosures, are photographs of typical conditions observed. This report is property of United Engineering Consultants and was prepared for the exclusive use of the Condominium Board of Directors as an instrument reflecting the services provided as detailed in our proposal. No other warranty is expressed or implied. The unauthorized use of this report for any purpose or by any third party is at the user's own risk.

Respectfully Submitted,
UNITED ENGINEERING CONSULTANTS, INC.

Christopher B. Longman, P.E.
Project Engineer
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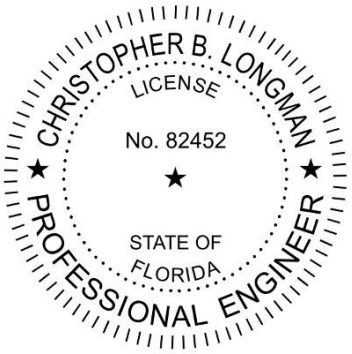

Christopher Longman
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This item has been electronically signed and sealed by Christopher B. Longman using a digital signature and date. Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies.

APPENDIX

PHOTOGRAPHS

Photograph #1 – Typical interior ceiling concrete spalling damage

Photograph #2 – Typical slab spalling damage at walkway

END OF REPORT