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ENGINEERING

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October 26, 2022

Suncoast Vacation Condos
Thomas Adams, Assistant Secretary
tda@jamaicanonthegulf.com

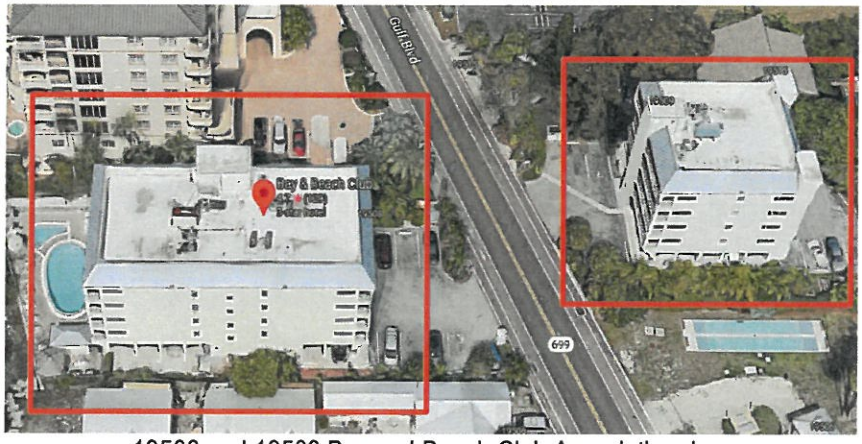
RE: Bay and Beach Club Association, Inc.
19508 and 19509 Gulf Boulevard
Indian Shores, Florida 33785
KEG File #22RP-0561: Milestone Inspection

Dear Mr. Adams:

As requested, an engineer from Karins Engineering Group, Inc. (KEG) visited the above referenced condominium on, October 25th, 2022. The purpose of our visit was to perform a milestone survey on the structure constructed on the property located at 19508 and 19509 Gulf Boulevard. The milestone survey was completed in accordance with the current Florida Statutes 553.899 for Phase 1 inspection. The inspection was performed by visually inspecting the building structure, including the load-bearing walls, primary structural members, and primary structural systems, and provide a qualitative assessment of the overall structural condition of the building. The milestone survey included habitable and non-habitable for the building envelope, roof and ground floor, as well as the balconies and stairwells. The purpose of the survey was to identify major structural issues and concerns for further testing and repair and to gather information that would enable us to make recommendations for any of the observed deficiencies. Our inspections were limited to visually identifiable concerns within all reasonably accessible areas of common concern and all units and balconies.

Neither our observations nor this report is intended to cover hidden defects, mechanical, electrical, architectural features or other areas of the building not specifically mentioned.

GENERAL INFORMATION



19508 and 19509 Bay and Beach Club Association, Inc.

KEG was provided with a set of plans for the building. The Association consisted of two structures built circa 1985, per the Pinellas County property appraiser website. The structure is primarily used as a time-share condominium (Florida Building Occupancy Class Residential, Risk Category II). The building structure consists of 4 occupied floors over a

parking garage on the ground floor. The estimated total actual building areas for Building 19508 is approximately 30,396 square feet with 21,816 square feet of living area and the estimated total actual building areas for all floors at building 19509 is 17,280 square feet with 11,840 square feet of living area per the Pinellas County property appraiser website.

Per site observations, the structure consists of precast slabs supported by concrete beams and columns with reinforced masonry walls. The property appraiser's website states that the foundation system is a special footing, however at the time of our observation the foundations were not dug up or investigated. Access to the units was provided by personnel from the management company. The flat roof systems appeared to consist of built-up roof with a modified bitumen with a silicone covering over top. The perimeter of the flat roof appeared to be made up of sloped mansard roofs with a standing seam metal roof with the back side of the mansard finished with stucco. Finishes for the building consisted primarily of stucco with a paint coating finish.

SUMMARY

KEG performed visual inspections on areas that were accessible at the time of the site visits. Due to the nature of the inspections, no evaluation was performed of the sections of the structure that were behind finishes, obscured by equipment or other items that could not be reasonably moved at the time of the site visits. During the inspections, KEG noted that the structures appeared to be in generally good condition with no signs of significant structural distress. Interior units appeared to be experiencing cracking in the ceiling finishes along the construction joints of the hollow core precast slabs. KEG noted that interior units were also experiencing potential signs of water intrusion with water stains, bubbling in ceiling and drywall damage. According to the Association, the building was last painted in 2016, the roof had work performed on it in 2013, handrails replaced in 2013 and sliding glass doors replaced in 2016.

KEG noted upon visual inspections of the sliding glass doors on the balconies, the sealants appear to be aged and deteriorated. This could be from exposure to the harsh Florida environment with the sun, gulf salt water air and rainfall. Failures also could be from inferior products and size of sealants. The handrails were in observed to be to code following the *2020 Florida Building Code, 7th Edition* with a height of greater than 42" and picket spacing no more than 4". Adding onto the visual inspection of the handrails, minor cracking in the sealants at the handrail posts, no visual signs of rusting at fasteners. Visual inspections were also performed at the concrete balcony decks for every unit, KEG reported minor cracking, spalling and deterioration of deck coating. KEG visually inspected the roof at both buildings, showing no areas of concern in the silicon covering, however the generator at building 19508 and the housing for the generator needs to be removed to avoid damaging the roofing materials or becoming flying debris. The generator is out of service with exposed rust holes in the steel encasement and the generator itself, along with the door panels laying on the ground. This could potentially become a safety hazard if a major storm hits the Indian Shores area. Our understanding is the Association is in the process of replacing this mechanical equipment.

KEG also performed visual inspections at columns and supports in the parking garages for both buildings. 19509 was observed to have very minimal signs of spalling at the columns and supports. Building 19508 was observed to have cracks at the columns and beams, spalling at the columns and beams and delaminating stucco at the columns, beams, and supports as well. Spalling concrete is the breakaway of concrete surface which often extends to the top layers of reinforcing steel. The steel is exposed due to the break away for the concrete surface causing the steel to oxidize. Steel oxidizes when exposed to atmospheric moisture (saltwater air) and causes a chemical reaction to the metal surface that causes the steel to corrode inside the concrete. While inspecting the columns and supports in the parking garage, KEG noted that corrosion at the pipe supports (hangers) and rusting on the pipe itself was occurring due to the constant exposure to the salt air from the Gulf.

Based on the scope of the inspection and for the areas that were able to be assessed, within the reasonable degree of engineering certainty, we have not observed any conditions that would compromise the safety of the building for its intended use and occupancy. We reserve the right to amend our opinion should new information be brought to our

attention. KEG recommends that the Association has the building structure reviewed every ten years based on the requirements of the Florida Statues. Our statements referencing the structural integrity of the building are in reference to the original installation. Our statements are not intended to verify compliance with building codes or accepted construction techniques. This report is prepared for the sole benefit of the client. Any unauthorized use without our permission shall result in no liability or legal exposure to Karins Engineering.

OBSERVATIONS

Interior Units

KEG performed inspections for 100% of the unit interiors at Building 19508 and 19509 with the specific intent of documenting the finishes for evidence of moisture intrusion, water damage, or major cracks within the interior finishes. These types of damage can indicate a failure of the weatherproofing installed on the exterior of the building, such as roof systems, sealants and paint. The interiors unit appeared to be in generally good condition. The ceilings were observed to have a crack running parallel with the span of the hollow core precast slabs. These locations appear to be at the location of the bottom side of the construction joints of the hollow core precast slabs. Many of the cracks had no visual signs of water damage at the cracks in the ceiling or reports from the tenants or management about active water intrusion, the cracking is more than likely due to the construction joint, improperly installed finishes, older finishes, and/or normal movements within the structure.

Figure 1: Hollow Core Precast Crack in Ceiling, Unit 101

Water intrusion appeared to be occurring in some of the units upon visual inspections of the ceilings and walls. Water stains in the corners of ceilings and some drywall damage were observed in 202, 204, 303, 304, and 404 for Building 19508. Units 106 and 305 in Building 19509 were also observed to contain signs of water intrusion. Most of these areas

appeared to have been previously patched. Management stated that these areas were likely prior to the exterior of the building being sealed and the patches do not match the existing ceiling finishes.

Water intrusion is the unwanted movement of water or vapor into areas of any building where it can then cause damage. Uncontrolled water intrusion can originate from many sources including roofing, walls, sealants, doors and windows, waterproofing, decks, grade and below grade conditions. Water moves via the airflow of air through an opening or pathway from an area of higher (positive) air pressure to an area of low (negative) air pressure. The water starts from the top and works its way thru openings with the airflow making its way to the bottom of a structure, along the way causing structural damages and damages to finishes.

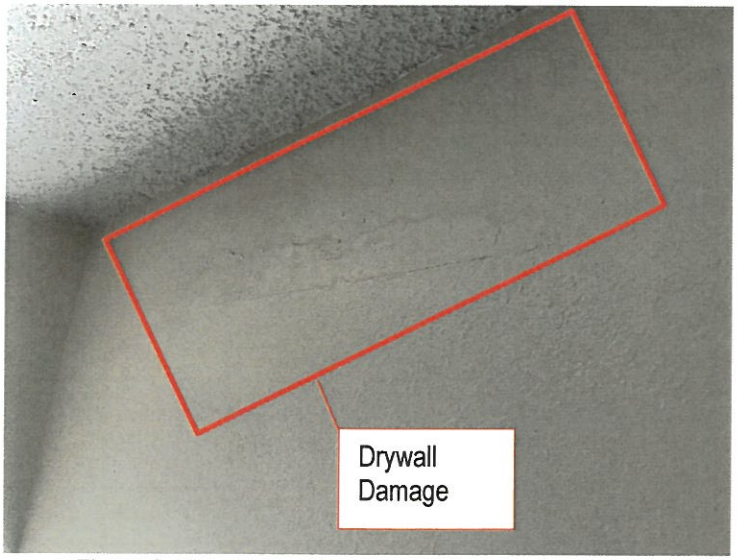


Figure 2: Visualization of Drywall Damage, Unit 204-08

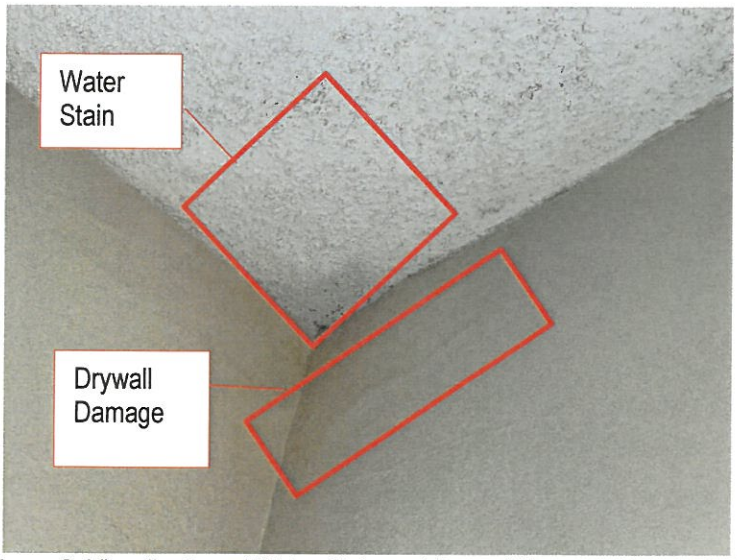


Figure 3: Visualization of Water Stain and Drywall Damage, Unit 303-08

KE was able to observe all the windows from the interior of units. Reports from the Association were that the windows were replaced around 12 years ago. Visual inspections of the windows were to be in generally good condition, KE would recommend redoing the sealants around the perimeter of the windows due to the cracking and deterioration observed. The existing sealants have likely exceeded the useful life. This replacement of the sealants with a hybrid sealant would help the windows maintain its waterproofing around the opening reducing the chance for water intrusion into the units leading to future issues and more costly repairs.

Figure 4: Exterior of Window at Unit 404-08

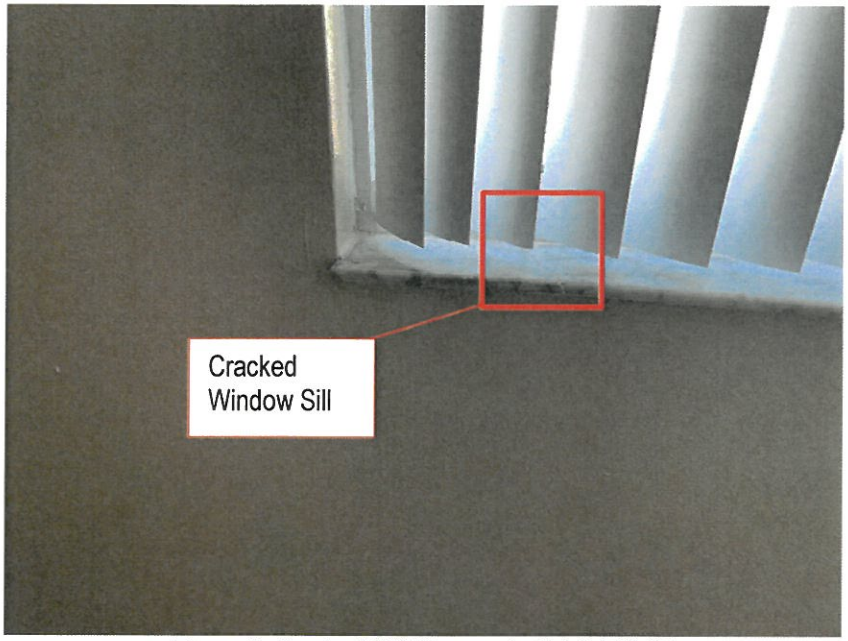


Figure 5: Cracked Sill Observed at Unit 305-09

Balconies and Sliding Glass Doors

KEG observed 100% of the concrete balconies at Buildings 19508 and 19509. Upon visual inspections of the balconies, it appears most of the balconies were experiencing a combination of cracking, delaminating stucco and paint, or spalls at the slab and supports. The deficiencies noted currently appear not to be significant deterioration to the structure, however if left unrepaired could become worse leading to more significant deterioration and possibly effect the integrity of the structure.

The management personnel mentioned that the last paint coating applied was in 2016, the typical life cycle for an exterior building paint coating is 7 years. Delaminating paint could be signs of the life cycle of the paint coating coming to its end as it has been almost 7 years since the last paint coating. An exterior paint coating serves as more than an aesthetic for the building, but also a method of water proofing and protection from the environment the building is exposed to daily.

Delamination of stucco is when stucco is installed, it is applied in separate layers. Each layer must completely cure, or dry, before the next layer can be applied. Delamination is the separation of the layers, or separation within a single layer, and can lead to major problems like cracking, crumbling, delamination or spalling. Repairs to stucco would be completed while doing the repairs to the concrete and reinforcement followed by the paint coating.

KEG observed Unit 306 at Building 19509, front balcony was observed to have significant spalling and exposed reinforcement occurring at the concrete slab edge, in front of the glass wall. Significant spalling like this could lead to future structural issues or possible failures, unless properly repaired per the ICRI and ACI guidelines.

Spalling concrete is the breakaway of concrete surface which often extends to the top layers of reinforcing steel. The steel is exposed due to the break away for the concrete surface causing the steel to oxidize. Steel oxidizes when exposed to atmospheric moisture (saltwater air) and causes a chemical reaction to the metal surface that causes the steel to corrode inside the concrete.

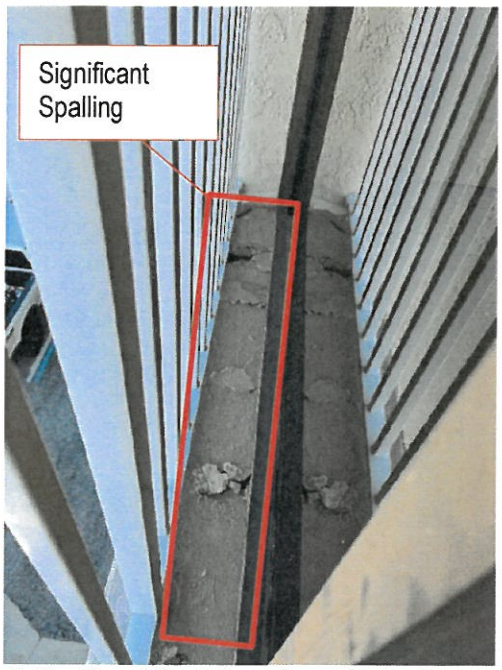


Figure 6: Significant Spall Occurring at Slab Edge, Unit 306

KEG observed every balcony contained one or more sliding glass doors. According to management personnel the sliding glass doors were replaced back in 2016. After visual inspection of the sliding glass doors it appears that the sealants around the perimeter of the sliders are experiencing major cracking and deterioration due to the age and exposure of the harsh Florida environment. Sealants are not only the most widely used waterproofing materials, but also the most incorrectly used. Although sealants are a relatively minor cost item, they constitute a major factor in moisture control during a building's life cycle. Applied from below grade to roof areas and used as components of complete waterproofing systems as well as for detailing junctures and terminations, sealants act as direct waterproofing barriers. As such, sealants are important in constructing successful watertight building envelopes. Sealants are also used to prevent air from infiltrating into and out of a building. Sealants thus have a dual weatherproofing role, the primary role of waterproofing and the secondary role of environment controls.

Figure 7: Visualization of Sliding Glass Door

Figure 8: Sliding Glass Door Sealant Deteriorating

Upon KEG's visual inspection of the concrete balconies, the deck coatings were to be in generally good condition. There appeared to be minimal cracks, spalls and deterioration of the current deck coating occurring. However, the cracking and deterioration of deck coatings could potentially lead to spalling and future structural issues if not repaired in a timely matter. KE would recommend patching the cracks and installing a new waterproofing system at all concrete balcony decks to help protect them from water intrusion into the structure of the building after any necessary repairs to be made at the concrete balcony decks. The use of metal chairs, rugs and carpets should be prohibited.

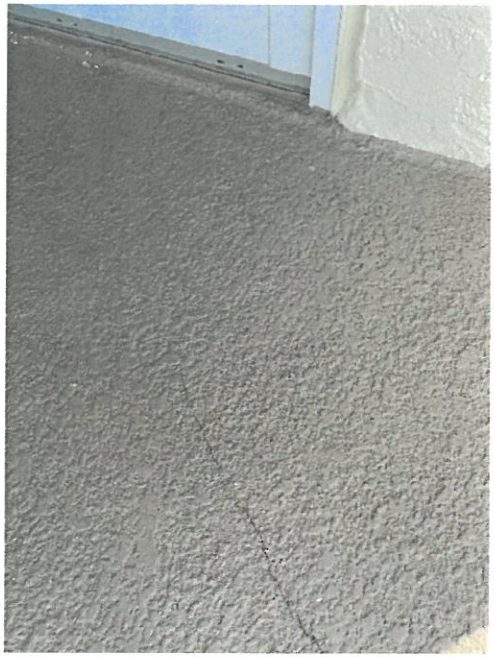


Figure 9: Visualization of Cracking at Balcony Deck

Figure 10: Visualization of Deteriorating Balcony Deck Coating

KEG observed guard rails installed for all balconies at Building 19508 and 19509. The guard rail appeared to be in generally good condition. After taking measurements of the guard rails, it was determined that they are indeed within code for the *Florida Building Code 2020, 7th Edition*. According to Section 1015 of the *Florida Building Code 2020, 7th Edition*, the height of the guardrail shall not be less than 42 inches measured vertically and shall not have openings that allow passage of a sphere 4 inches in diameter. The guard rail on the balcony measured greater than 42 inches vertically and less than 4 inches between the openings. The guard rails were observed to be sturdy in place and the fasteners were also in good condition for being exposed to the harsh Florida environment.

Figure 11: Visualization of Guard Rail Being to Code Vertically

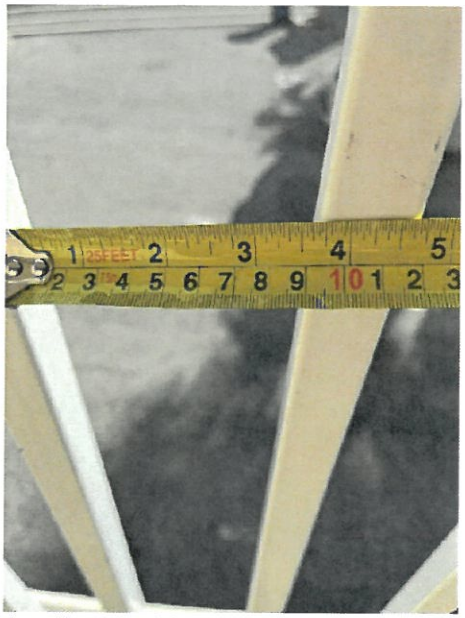


Figure 12: Visualization of Guard Rail Being to Code for Openings

Roof System

The roofs at Building 19508 and 19509 consisted of one main flat roof with a perimeter reinforced concrete wall with a parapet coping cap topping and a metal mansard slope. The roof appeared to be a built-up modified bitumen system sealed with a silicone cover as the primary roofing system. This system appeared to have been installed over the pre-cast slabs with likely a lightweight topping, however KEG did not conduct a roof core.

The HVAC systems installed directly on what appeared to be installed on HVAC stands. These systems primarily consisted of the condensers for the individual condo unit air conditioning equipment. KEG observed that the hurricane straps appeared to be in fair to poor condition as oxidation of the fasteners and straps were observed. Over time, the oxidation may become an issue that will affect performance of holding down the units during high wind events. These items should be replaced as necessary or new straps added.

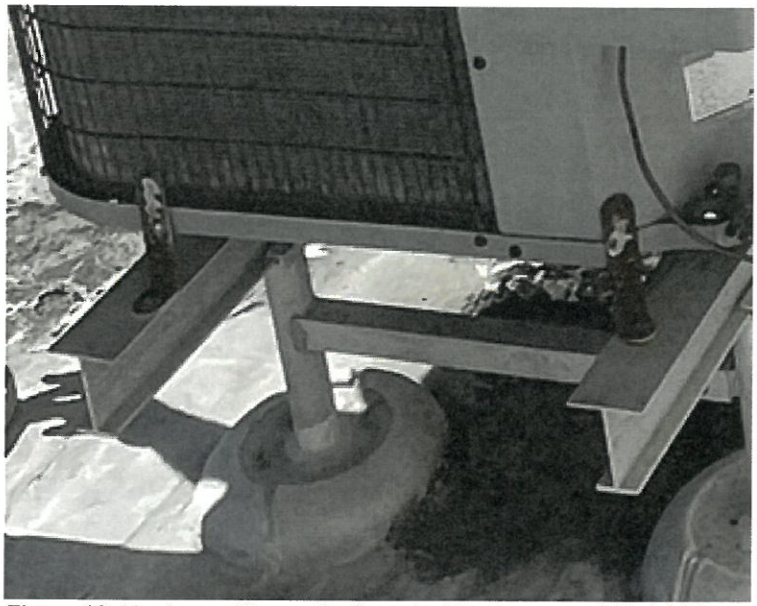


Figure 13: Hurricane Strap with Corroded Fasteners and Metal Straps

Drainage for the roofs consisted of scuppers and roof drains. Based on the observed condition of the roof, the current design appears to be performing moderately well as KEG did not note any major signs of ponding water on the main flat roof, as there appeared to be no signs of clogging happening around the roof drains.

Figure 14: Visualization of Roof Drain

Overall, the roofs of both the standing seam metal roof at the mansard and modified bitumen with silicone coating at the flat roof appeared to be in relatively good condition for the age of the systems and generally well adhered to the substrate. The Association made repairs in 2013 and should continue to maintenance the roof systems annually with a roofing contractor to maintain the coating system installed.

In addition to the roof systems, KEG noted a corroded generator at Building 19508. The generator itself appeared to be out of commission with rust holes in the generator itself. The metal encasement for the generator is rusted out and panel doors laying on the roof top. KEG would recommends disposing of the generator and replacing, this could turn into a safety hazard if a wind event occurs.

Figure 15: Rusted out Generator at Roof of Building 19508

Parking Garage and Stairwells

KEG's visual observation included the columns, beams and supports at the parking garage for Building 19508 and 19509. The parking garages appeared to be made up of a hollow core precast ceiling, reinforced concrete columns and reinforced concrete beams. Building 19509 appeared to have very minimal to no issues with cracks, spalling, stucco and delamination of paint, however Building 19508 was observed to have multiple spalling spots, cracking or bubbling stucco and delamination of paint. KEG believes this is because Building 19508 is closer to the water of the Gulf of Mexico with a direct path for wind driven salt laden rain.

KEG also noted the corroded hanger and pipes in the garage, corrosion at the pipe supports is one of the leading causes of piping failures. Rusting at the supports could lead to water being trapped or held in contact with the paint coating on the pipe as well as the paint coating on the support element. Once the paint system fails it causes the pipe to be exposed directly to water, leading to softening or pitting on the pipe, which would eventually lead to a pipe failure. KE would recommend replacing steel pipes with a non-corrosive pipe, where applicable and cutting the corroded hangers out of the hollow core precast slabs then patching over the exposed voids. Hangers should be replaced with stainless steel hangers.

Figure 16: Visualization of Parking Garage at Building 19508

KEG's visual inspections spent a significant time observing and documenting the structural elements of the building. During this process, KEG observations were focused on identifying signs of significant structural distress within the columns, beams, and walls of the structure.

Significant distress in the structure can be identified using visual means by examining the structural elements of the building to see if the elements are in general alignment. This means evidence of settling, bulging, deflections, expansion or contraction of the members. Each of these behaviors would point to stresses in the structural members that may cause a failure in the future.

Settling is the term used to describe the movement of the foundation under loading. Settling foundations means that the structural elements supported by the foundations will move with them. While settling of the building as a whole can cause significant problems with utilities and exterior elements such as slabs, the most concerning item with regards to building stresses is differential settlement, which is when two sections of the building settle at different rates. This type of settlement causes additional stresses to the members which may lead to failures.

Bulging is the term used to describe when a vertical member is loaded in compression and not properly secured to the adjacent joints or flooring systems, which would limit the out of plane movement of the vertical member. This type of behavior leads to reduced load capacities as the load becomes eccentric and causes buckling failure of the element.

Deflections are similar to buckling in behavior but are for horizontal members instead of vertical ones. Excessive deflection is often the result of large loads or wide spans between supporting columns. Both bulging and deflection can affect the performance of windows and doors, making them difficult to open and close as the member's displacement changes the opening dimensions.

Expansion and contraction of the members are essentially terms that describe the same behavior but in different directions. These terms refer to the loss or gain of dimensional size in the members. This behavior can be the result of moisture absorption or evaporation and thermal heating and cooling. Depending on construction and environmental factors, the members may expand or contract in such a way as to stress the surrounding members and cause failures

KEG inspected both stairwells at Buildings 19508 and 19509, it appeared to be in generally good condition, however visual spalling was observed above the door jambs at the roof access doors.

Figure 17: Visual of Spalling at Roof Access Door Lintel 19508

Figure 18: Visual of Spalling / Crack of 4th Floor Landing South Stairwell of 19509

Elevator Pit and Shaft

KEG sounded and visually inspected the elevator pits for both buildings as well as visually inspecting the elevator shaft. During the inspection, KEG was provided access to the elevator pit to closely observe the walls of the elevator pit and determine the current state of the equipment. The elevator pit appears to be clean and KEG did not observe any areas that showed signs of spalling concrete.

Figure 19: Elevator Pit 19509

SUMMARY & RECOMMENDATIONS

In our professional opinion, Building 19508 and Building 19509 of Bay and Beach Club as a whole are in good condition for the age of the structure, however has areas of concern. The structures do not appear to have any substantial structural deterioration but will require remedial and preventative repair to maintain the condition of the building. KEG observed several areas where repairs should be performed as part of the scope of work for the next maintenance project. This would include the repairing of concrete and stucco spalling and cracking, replacement of sealants and paint coatings, and disposing of the generator on the roof of Building 19508. KEG recommends the sealants shall be removed and replaced at all existing sealant locations of windows, sliding glass doors, and building transitions.

The association may wish to consider new waterproofing of the concrete surfaces be included for the balcony decks with the scope of work for painting, sealants and concrete repair. This process must include removal of the existing systems down to the concrete substrate and addressing any cracks and spalling prior to the installation of new coating systems. KEG also recommends that the balconies be water tested in order to confirm the slope testing observed on site. The manufacturer for the coating systems should be contacted to provide specifications for the proper preparation of the existing surfaces. This addition to the scope of work helps to extend the lifespan of the concrete elements and to reduce the exposure to the concrete elements to the airborne salts and moisture that can penetrate the concrete if not properly protected.

The roof appears to be generally in good condition. Routine maintenance of clearing roof drains shall be performed daily or weekly and annual inspections to repair any deficiencies shall be conducted to maintain the condition of the building. Corroded components on the roof and anywhere else on the building should be replaced with stainless steel metals.

KEG recommends that the Association review the report with KEG to discuss, which maintenance/deficiency issues should be incorporated into the next restoration project. Once a clear understanding of the selected work is provided by the Association, KEG can provide a project manual with specifications, contract, and design drawings to bid out to multiple restoration contractors.

Our statements referencing the structural integrity of the building are in reference to the original installation. Our statements are not intended to verify compliance with building codes or accepted construction techniques, except as noted herein. This report is prepared for the sole benefit of the client. Any unauthorized use without our permission shall result in no liability or legal exposure to Karins Engineering.

We trust this information is helpful. Should questions arise, please do not hesitate to call.

Sincerely,

THOMAS M. BUFFINGTON LICENSE No 67546 STATE OF FLORIDA PROFESSIONAL ENGINEER

12/30/22

Thomas Buffington, PE
Florida Registration #67546
St. Petersburg Area Manager
Karins Engineering Group, Inc.