

June 14, 2024

Fred Arce
Manager
The Prince Condominium
176 S Collier Blvd
Marco Island, FL 34145

RE: *The Prince Condominium*
 ASCE File No. 241792
 Milestone Inspection

Dear Fred,

As requested, ***Arnold/Sanders Consulting Engineers (ASCE)*** has been asked for our professional opinion to determine the current condition of the structures.

Our site visit aimed to observe the conditions of the buildings and related elements and determine what remedial work would be required, if any.

The findings and recommendations below are based on our limited visual observations of the buildings and related elements. Original construction or other documents were available for our review. This report is not intended to consider hidden defects, mechanical, plumbing, or electrical systems, architectural features, code compliance issues, or other areas of the project not explicitly mentioned.

DEG offers the following:

General

Main Structure

Based on the drawings provided, the existing structural systems are two-way flat plate slabs over conventionally reinforced beams, columns, and shear walls over the combination pile and grade beam and conventionally reinforced concrete foundations. Based on the limited plans, the structure was designed on February 9, 1978.

The garage structure consists of a 4-inch overpour on a 12-inch Panel System, Inc. (P.S.I) Joist system over a composite pre-cast pre-stressed soffit system over conventionally reinforced columns over conventionally reinforced concrete foundation. The ground floor slab is a 4-inch concrete slab on grade.

Scope of Structural Inspection

The fundamental purpose of the required inspection and report is to confirm reasonably that the building or structure under consideration is safe for continued use under the present occupancy. As implied by the title of this document, this is a recommended procedure, and under no circumstances are these minimum recommendations intended to supplant proper professional judgment. Unless there is evident overloading or significant deterioration of critical structural elements, there is little need to verify the original design. This has been "time tested" to see if



Exterior of the structure.



Exterior of the structure



Garage Supplemental Support

it still performs satisfactorily. Instead, the effects of time concerning the deterioration of the original construction materials must be evaluated. It will rarely be possible to examine all concealed construction visually, nor should such be generally necessary. However, a sufficient number of typical structural members should be reviewed to permit reasonable conclusions to be drawn.

Visual Examination will, in most cases, be considered adequate when executed systematically. Surface imperfections such as cracks, distortion, sagging, excessive deflections, significant misalignment, signs of leakage, and peeling of finishes should be viewed critically as indications of possible difficulty.

In this marine climate, highly aggressive conditions exist year-round. For most of the year, outside relative humidity may frequently be about 90 or 95%, while within air-conditioned buildings, relative humidity will typically be about 35 to 60%. Under these conditions, moisture vapor pressures ranging from about 1/3 to 1/2 pounds per square inch will often exist. Moisture vapor will migrate to lower-pressure areas. Common building materials, such as stucco, masonry, and even concrete, are permeable even with these slight pressures. Since most of our local construction does not use vapor barriers, condensation will occur within the enclosed walls of the building. As a result, deterioration is most likely adjacent to exterior walls or wherever moisture or direct leakage has penetrated the building shell.

Structural deterioration will always require repair. The type of repair, however, will depend on the importance of the member in the structural system and the degree of deterioration. Cosmetic-type repairs may suffice in certain non-sensitive members, such as tie beams and columns, provided the remaining sound material is sufficient for the required function. For members carrying assigned gravity or other loads, cosmetic-type repairs will only be permitted if it can be demonstrated by rational analysis that the remaining material if protected from further deterioration, can still perform its assigned function at acceptable stress levels. Failing that, adequate repairs or reinforcement will be considered mandatory.

Observations

Main Structure

Representatives of ASCE observed the structure's exterior and some of its interior elements on the ground floor. We also observed the garage structure. We Examined the structure from the ground and inside. We did not observe any surface imperfections such as cracks, distortion, sagging, excessive deflections, significant misalignment, signs of leakage, or peeling finishes. In discussions with your on-site manager, there were no reports of cracking or excessive deflections.

ASCE performed repairs to the balconies about four years ago. The repairs were primarily due to the reinforcing steel being too close to the surface. These repairs are in good condition and are performing as intended.



Expansion Joint.



Garage Supplemental Support



Roof overall condition.



Peeling on the waterproofing.

Garage Structure

Representatives of ASCE performed visual observations of the structure's exterior and some of the interior elements on the ground floor. Visual Examinations were conducted from the ground and from inside the structure. We did not observe any surface imperfections such as cracks, distortion, sagging, excessive deflections, significant misalignment, signs of leakage, or peeling of finishes. We observed several locations where the top of the columns was altered with drop panels. In discussions with your manager, these were added after other engineers completed the structure. These appeared to be performing as intended.

Roof

The roof comprises two-way concrete slabs with an opening in the center covered by an arched glass roof with a metal structure.

In May 2020, a new waterproofing system was installed on the roof. It consisted of polyurethane foam spray applied to the concrete roof slab and ENDURIS 3505 silicone roof coating with a thickness of 36 mils applied to the top.

The building management has an updated warranty with the manufacturer covering 20 years starting May 2020 and a service agreement with the roofing company to maintain annual inspection and maintenance programs to fulfill the product warranty and correct any previously agreed-upon damage.

ASCE has observed minor damage, such as peeling and cuts in the roof's waterproofing layer. These must be corrected under the existing warranty to avoid future water intrusion into the roof structure.

After Hurricane Wilma in 2006, the roof and supporting structure were replaced with impact-rated glass panels. This structure appears to be in good condition; no appreciable deterioration was found during the observation.

After Hurricane Irma in 2017, the manufacturer inspected the entire glass roof and support structure, resealing every glass panel. In addition, new smoke evacuation automatic doors and windows were installed.

Recommendations and conclusions:

After inspecting the structure, ASCE recommends that corrective work be performed on the damages found in the roof waterproofing system; these repairs are included in the maintenance program agreed upon with the roofing company that conducted the roof waterproofing project to prevent water intrusion into the structure and maintain the structural integrity of the building. This minor damage does not constitute a current danger to the structure. However, they must be corrected to avoid future significant implications. This minor damage does not constitute a current danger to the structure. However, they must be corrected to prevent substantial future consequences.

Based solely on our visual observations, the conditions for phase one have been met, and we can conclude that the buildings are currently structurally safe.

As a routine matter, to avoid possible misunderstanding, nothing in this report should be construed directly or indirectly as a guarantee for any portion of the structure. To the best of ASCE's knowledge and ability, this report represents an accurate appraisal of the present condition of the building based upon careful evaluation of observed conditions to the extent reasonably possible.



Cuts on the waterproofing.



Glass roof.

Due to the limited scope of this investigation, we cannot attest to the structure's compliance with building codes or accepted construction techniques, except as noted herein. ASCE has not and is not attempting to supplant the responsibility of the Engineer of Record. 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 ASCE.

Please do not hesitate to call if you have any questions or require additional information regarding this report.

Sincerely,

Arnold/Sanders Consulting Engineers

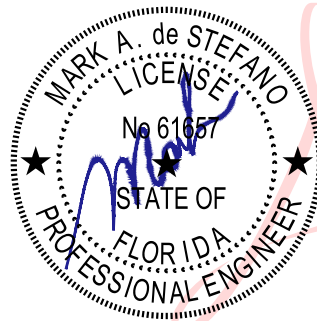
Jorge Rondon

Jorge Rondon
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Mark A. de Stefano, PE

Mark A. DeStefano, PE
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