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MILESTONE PHASE 1 CONDITION SURVEY REPORT

Villas de Golf Condominium – Building 4/5 12300 Vonn Rd., Largo, FL 33774

BillerReinhart Project No. 23 - 075

Issue Date: August 25, 2023



VIA EMAIL

August 25, 2023

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Subject: Milestone Phase 1 Structural Condition Survey Report

Villas de Golf Condominium – Building 4/5

12300 Vonn Rd. Largo, FL 33774

Introduction

Lee Levoir, PE, Austin Getgen, PE, Dalton Cox, EI, and Ben Wollenslegel, EI, of Biller Reinhart Engineering Group, Inc. (BillerReinhart) performed a Milestone Phase 1 condition assessment of the readily accessible exterior wall surfaces, exterior walkways, lanais, staircases, and roof. The assessment was conducted on Monday, August 21, 2023.

The purpose of the structural review, and our site assessment, is to provide an evaluation of the existing condition of the accessible exterior wall surfaces, exterior walkways, lanais, staircases, and roof to identify structural integrity and safety concerns and provide an opinion on the presence of substantial structural deterioration at the property. Data collected during the survey will allow BillerReinhart to prepare general structural repair recommendations, and if requested, design specifications for any recommended restoration or waterproofing project. Physical sounding of the accessible elements was performed to assist in identifying areas exhibiting signs of stucco delamination and/or concrete spalling. The Milestone Phase 1 structural review is not a design review of the building. The visual assessment by BillerReinhart was of the structure's current state and did not involve any destructive activity to view inaccessible areas.

Structural Description

According to the Pinellas County Property Appraiser, the Villas de Golf Condominium – Building 4/5 was constructed in 1973. Building 4/5 is a 3-story structure, with residential units. The structure is in an L-shape with Building 4 on the North leg and Building 5 on the West leg. The structure contains two elevated walkways along the South elevation of 4 and West elevation of 5, with three composite steel and concrete staircases on the

South end, East end and in the middle of the structure. The lanais are located along the North and West elevation with the corners supported by tube steel columns. The building is constructed of cast-in-place concrete mat foundations, concrete masonry unit (CMU) exterior infill walls, elevated reinforced concrete floor and roof slabs supported by reinforced concrete columns, concrete exterior walkway slabs, and composite concrete stairs. The majority of the exterior walls are finished with stucco and paint. The main roof system is a Thermoplastic Polyolefin (TPO) roof system with a shingled mansard roof along the perimeter of the structure.

Project History

The following information was gathered:

- The main roof flat surfaces were roofed over in 2022.
- The mansard roofs are planned to be re-roofed in the following year.
- A painting project for the walkways slabs is planned to start in the following year.
- A limited painting project for the exterior walls was completed in 2013.

Survey of the Exterior Walls, Staircases, and Roof

Readily discernible structural elements of the building were visually observed. Photographs were taken during the survey and are included in *Appendix A* of this report. Note that some of the conditions listed below were observed throughout the structure and the selected photographs are representative of the respective conditions. A catalog of all our site photos is available upon request.

Exterior Walls

- 1. Building 4 South elevation, East elevation, and North elevation, exterior wall areas are shown in *Figure A-1* through *Figure A-3*, respectively.
- 2. Building 5 East elevation, South elevation, and West elevation, exterior wall areas are shown in *Figure A-4* through *Figure A-6*, respectively.
- 3. Isolated windowsills exhibited concrete spalling. Refer to Figure A-7.
- 4. A slab edge spall was detected between the metal tube columns. Refer to *Figure A-8.*
- 5. A concrete spall was observed near the door frame of the trash room. Refer to *Figure A-9*.
- 6. Isolated areas of stucco delamination were detected throughout the accessible areas of the exterior walls. Refer to *Figure A-10*.
- 7. Sporadic areas of hairline cracks were observed throughout the buildings. Refer to *Figure A-11 and Figure A-12*.
- 8. Deteriorated sealants were observed around the perimeter of windows throughout the buildings. Refer to *Figure A-13*.
- 9. Gaps were observed in the sealant around window perimeters. Refer to *Figure A-14*.



10. Unpainted facia boards were noted throughout the buildings. Refer to *Figure A-15 and Figure A-16*.

<u>Staircases</u>

- 1. The stair railings were made of wrought iron and the landings were mechanically attached aluminum railings.
- 2. The stair landings and stair treads were a composite concrete and steel deck.
- 3. Areas on the staircase guardrails and metal framing members were observed to have peeling and deteriorating paint.
- 4. Isolated locations of corrosion were observed on the staircase metal framing members and railings.

<u>Roof</u>

- 1. Overall general conditions of the roof are shown in *Figure A-17 and Figure* A-18.
- 2. Multiple shingle with granule loss, exposed fibers, and section loss were observed throughout the roof. Refer to Figure A-19 and Figure A-20.
- 3. Sporadic areas of replaced shingles were observed throughout the roof. Refer to Figure A-21 and Figure A-22.

Survey of the Walkways and Lanais

The walkways, lanais, guardrails, and adjacent wall surfaces were visually observed, and the concrete surfaces and stucco were sounded. Photographs were taken during the survey and are included in Appendix B of this report. Please note that some of the conditions listed below were observed throughout and the selected photographs are representative of the respective conditions. A catalog of all our site photos is available upon request. All walkways were surveyed with physical sounding performed. The following Unit lanais were reviewed; 5306, 5305, 5303, 5302, 5207, 5108, 5107, 5103, 4307, 4206, 4205, 4102.

Walkways

- 1. The walkways appear to be covered with coats of paint.
- 2. The exterior entry areas to unit doors and to the elevators appear to be finished with carpet.
- 3. The guardrails appear to be mechanically attached aluminum guardrails.
- 4. Sporadic concrete spalls were observed throughout the walkway slabs, slab edges and ceilings. Refer to *Figure B-1 through Figure B-5*.
- 5. Multiple delaminations were detected on the ceilings throughout the walkways.
- 6. Multiple cracks were observed on the walkway slabs and ceilings. Refer to *Figure B-6 through Figure B-8*.



- 7. Isolated areas of stucco delaminations were detected on the exterior walls of the walkways. Refer to *Figure B-9*.
- 8. Peeling paint was observed on isolated areas of the walkway slabs. Refer to *Figure B-10*.
- 9. Guardrail post pockets were noted to be failing. Refer to *Figure B-11 and Figure B-12*.
- 10. Supplementary connections were observed to be used to connect the guardrails to the walls. Refer to *Figure B-13 and Figure B-14*.
- 11. Corroded fasteners were observed on the guardrail picket connections. Refer to *Figure B-15*.
- 12. Areas on the guardrails were observed to have peeling and deteriorating paint. Refer to *Figure B-16 through Figure B-18*.
- 13. The guardrail height appears to be approximately 36 inches and picket spacing of approximately 5 inches.

Lanais

1. A majority of the lanais appear to be enclosed and covered with tile or carpet. Overall general conditions of the lanais are shown in *Figure B-19* and *Figure B-20*.

Conclusions/Recommendations

Based on the visual survey of the accessible structural elements described above, BillerReinhart does not believe that the subject structure exhibits signs of substantial structural deterioration. As such, a Milestone Phase 2 is not required per Senate Bill No. 154 and 2022 Supplement to the 7th Edition (2020) Florida Building Code (Supplement 2). BillerReinhart does not believe that, as of the time of our site visit, an unsafe structural condition exists at the Villas de Golf Condominium — Building 4/5 Condominium under normal conditions.

BillerReinhart believes that the observed conditions (documented above) are due to long term exposure to environmental conditions such as ultra-violet rays, moisture/humidity, temperature changes, proximity to a large body of salt water, deferred maintenance, etc. Based on the conditions observed, BillerReinhart believes that additional concealed deterioration (i.e. concrete and stucco delamination on exterior wall, column and beam surfaces) will likely become apparent upon further investigation during execution of the next restoration project.

Walkways

The walkway structures generally appear to be in fair condition, with multiple slab and ceiling concrete spalls and delaminations. BillerReinhart understands a painting project for the walkways slabs is planned to start in the following year. However, BillerReinhart recommends a restoration and waterproofing project with a urethane waterproofing



membrane be undertaken for the elevated walkways. Urethane waterproofing membranes can withstand the pedestrian traffic that occurs on the balconies and provides the flexibility to expand and contract with the building movements to better protect the concrete structure from potential moisture intrusion and any structural deterioration of underlying structural elements including the steel reinforcement. BillerReinhart recommends the board plan for a walkway restoration and waterproofing project within the next 1-2 years.

Walkway Guardrails

BillerReinhart understands the guardrails are original to the construction of the structure. Under normal conditions, the typical life expectancy of a guardrail system is 35-40 years. Based on observations made during the condition survey and their age, the guardrails have exceeded their life expectancy. BillerReinhart recommends the guardrails be replaced. BillerReinhart recommends the walkway guardrail replacement project to occur concurrently with the walkway restoration and waterproofing project. BillerReinhart recommends monitoring the conditions until the replacement project.

Exterior Walls

Based on the age of the exterior walls since the last paint project, sporadic wall delaminations at accessible locations, and the deterioration of sealants at the perimeter of windows, BillerReinhart recommends a restoration and painting project be undertaken for the repair and maintenance of all the exterior wall surfaces including deteriorated concrete structural elements, stucco, sealants, and building painting. Restoration of the exterior wall areas should mitigate potential moisture intrusion and expose any structural deterioration of underlying structural elements in need of repair. BillerReinhart recommends the exterior wall restoration and waterproofing project be undertaken within the next 1-2 years.

<u>Staircases</u>

The staircase structures appear to be in good condition, with areas of peeling paint and formation of corrosion on the metal elements. BillerReinhart recommends the repair of these items be undertaken concurrently with the walkway restoration and waterproofing project.

Staircase Guardrails

BillerReinhart understands the guardrails are original to the construction of the structure. Based on observations of corrosion and deteriorated paint on the guardrails, BillerReinhart recommends the guardrails be painted. BillerReinhart recommends the paint project to occur concurrently with the walkway restoration and waterproofing project. Under normal conditions, the typical life expectancy of a guardrail system is 35-40 years.



BillerReinhart recommends the board continually monitor the staircase guardrail conditions.

<u>Lanais</u>

The surveyed balcony structures were observed to generally be in good condition. Since majority of the lanai's have been enclosed, they will not experience exposure to external environmental conditions which can adversely affect the structural elements. Any lanai areas that are exposed to the exterior conditions should be maintained with procedures consistent with the recommendations for the exterior walkways, with periodic restoration and replacement of waterproofing membranes on the horizontal surface of the lanai slab.

Roof

The roof systems were generally observed to be in good condition with no reports of water intrusion. BillerReinhart understands, construction was completed in 2022 for the roof over with a TPO roof surface with a life expectancy of approximately 20 years and the mansard shingle roof replacement project is planned to start in the following year. BillerReinhart recommends the main TPO roof system be monitored and a replacement project be planned for approximately 2042 and recommends continuing with the planned replacement project of the mansard shingle roof with in the following year.

Limited Restoration Project Scope

The text below describes a general recommended scope for an exterior wall and walkway restoration project. The project scope addresses current conditions and also provides for preventative maintenance of the affected building components.

The project to be undertaken for the repair and maintenance and repair of the structural systems of the condominium structure listed above should include the following scope of work:

1. Concrete repairs

- a. Concrete surface preparation for areas to be repaired
 - i. Removal of walkway finishes and necessary surface preparation.
 - Sounding and marking of exterior walls, interior staircase walls, ceilings, columns, beams, to be repaired.
 - iii. Marked areas for repair shall be reviewed by the engineer prior to removal of unsound concrete to accommodate concrete repairs.
 - iv. Removal of unsound concrete to accommodate concrete repairs.

b. Concrete repair

- Delaminated areas, spalls, and exposed metal in beams, slab edges and overhead concrete ceiling surfaces.
- ii. Delaminated areas, spalls, and exposed metal in vertical concrete column surfaces.
- iii. Delaminated areas, spalls, and exposed metal in vertical concrete wall surfaces.
- iv. Concrete crack repair via epoxy injection cracks in wall surfaces having widths equal to or greater than approximately 1/16".
- v. Concrete crack repair via routing and sealing with sealant for cracks in concrete wall surfaces having widths less than 1/16" (non-structural cracking).
- 2. Masonry repair and restoration shall include the repointing of mortar joints and the replacement of damaged masonry as needed.
- 3. Repair of stucco finishes.
 - a. Sounding and marking of exterior wall areas, and interior stairwell wall surface areas to be repaired.
 - b. Marked areas for repair shall be reviewed by the engineer prior to removal of unsound stucco to accommodate stucco repairs.
 - c. Removal and replacement of deteriorated stucco areas, clearing or replacement of deteriorated corner bead, cleaning or replacement of deteriorated balcony ceiling trim and/or removal and replacement deteriorated metal lathe (if necessary) of stucco surfaced walls.
- 4. Application of a surface applied migratory corrosion inhibitor to horizontal deck surfaces and slab edges.
- 5. Remove and replace joint sealants, including:
 - a. All perimeter window seals for the unit window systems, common element window system perimeters.
 - b. Perimeter seals for door frames, aluminum louvered vent frames, miscellaneous accessories penetrating wall finishes (light fixtures, etc.).
 - c. Horizontal/vertical surface interfaces (wall and column/slab interface, slab/guardrail interface, etc.),
 - d. Deteriorated metal roof flashing-to-stucco joints,
 - e. Vertical surface interfaces between adjoining exterior wall surfaces,
 - f. Vertical surface construction joint interfaces between adjoining exterior wall surfaces
- 6. Replacement of walkway guardrails
- 7. Install a urethane waterproof deck membrane over walkway deck surfaces.
- 8. Re-coat all previously painted exterior walls including walkway and lanai walls after proper surface and substrate preparation.
- 9. Re-coat staircase metal guardrails after proper surface and substrate preparation.

Closing

Neither the survey nor this report is intended to cover hidden conditions and defects nor environmental concerns. Unauthorized use of this report, without the permission of BillerReinhart shall not result in any liability or legal exposure to Biller Reinhart Engineering Group, Inc.

BillerReinhart Engineering Group, Inc. 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.

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,

Biller Reinhart Engineering Group, Inc.

State of Florida Certificate of Authorization No. 9149

This item has been digitally signed and sealed by Lee Levoir, PE.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Lee Levoir, P.E.
Principal Structural Engineer

Florida P.E. No. 69204



Appendix A Building Exterior Walls, Roof, and Staircases Photographic Documentation



Figure A-1



Figure A-2





Figure A-3



Figure A-4





Figure A-5



Figure A-6





Figure A-7



Figure A-8





Figure A-9



Figure A-10





Figure A-11



Figure A-12





Figure A-13





Figure A-14





Figure A-15



Figure A-16





Figure A-17



Figure A-18





Figure A-19



Figure A-20





Figure A-21



Figure A-22



Appendix B Walkway and Lanai Areas Photographic Documentation



Figure B-1



Figure B-2





Figure B-3



Figure B-4





Figure B-5



Figure B-6





Figure B-7



Figure B-8





Figure B-9



Figure B-10





Figure B-11



Figure B-12



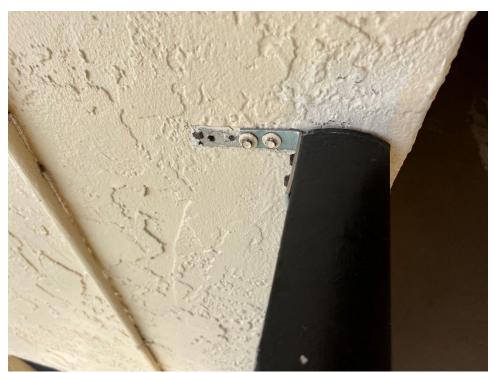


Figure B-13



Figure B-14





Figure B-15



Figure B-16



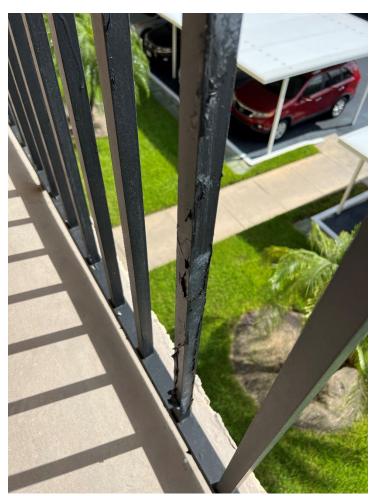


Figure B-17





Figure B-18



Figure B-19





Figure B-20

