

MILESTONE PHASE 1 CONDITION SURVEY REPORT

Parkwood Square Apartments – Building B

5880 38th Avenue North, St. Petersburg, FL 33710



BillerReinhart Project No. 23 - 168

Issue Date: December 20, 2023



VIA EMAIL

December 20, 2023

Parkwood Square Apartments B
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**Subject: Milestone Phase 1 Structural Condition Survey Report
Parkwood Square Apartments B
5880 38th Avenue North
St. Petersburg, FL, 33710**

Introduction

Austin Getgen, PE, Lee Levoir, 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, staircases, and roof. The assessment was conducted on Thursday, November 30, 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, 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, Parkwood Square Apartments Building A was constructed in 1971. The structure is a 3-story structure, with residential units. The structure contains open walkways at each residential story with three stairwells at the East elevation of the building. The building appears to be constructed with shallow cast-in-place concrete foundations, concrete masonry unit (CMU) and framed exterior infill walls, cast-in-place elevated reinforced concrete floor slabs supported by concrete columns and CMU load-bearing walls. The roof deck appears to be a gypsum composite roof deck supported by open web steel joists. The building is divided into two sections by

an expansion joint that runs down the middle of the structure. The majority of the exterior walls are finished with stucco and paint. The main roof system is an Spray Polyurethane Foam (SPF) roof system which was reported to be applied over the previous roof system.

Project History

The following information was gathered during the Milestone Inspection and from a Pre-Milestone Phase 1 Owner Survey:

- The board completed a recovery roofing project in 2017.
- A recent comprehensive walkway restoration project has not been performed at this site, and no walkway waterproofing membrane is present. Limited repairs were completed in the past at the walkway concrete cracking.
- A paint project for the exterior walls was completed in 2023. Although some isolated stucco repairs were reported to have been completed, comprehensive stucco and concrete repairs were not performed during the paint project.
- Walkway guardrails are original to construction.

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. South elevation, East elevation, North elevation, and West elevation exterior wall areas are shown in *Figure A-1* through *Figure A-4*, respectively.
2. A Column supporting the Porte Cochere entry roof area at the center of the east elevation exhibited excessive stucco delamination on the south face and east face of the column.
3. Delaminated stucco was detected on the Porte Cochere beam.
4. Numerous areas of stucco delaminations were detected throughout the accessible exterior walls and exterior wall areas adjacent to the walkways.
5. Multiple cracks were noted on the exterior walls. Refer to *Figure A-5* and *A-6*.

Stairwells

1. The stairwells were generally observed to be in fair condition. Refer to *Figure A-7*.



Roof

1. The roof was generally observed to be in fair condition. An overall view of the roof can be seen in *Figure A-8* through *Figure A-10*.

Survey of the Walkways

The walkways, 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.

Walkways and Guardrails

1. The aluminum guardrails were observed to be mechanically fastened assemblies with wall connections and core mounted posts. The guardrails are original to construction of the building which is approximately 52 years old.
2. Excessive out-of-plane displacement of guardrail segments were observed when lateral load was applied to the handrail throughout the assemblies.
3. A segment of the handrail cover was observed to be detached. Refer to *Figure B-1*.
4. Sporadic slab edge delaminations were observed throughout the walkway. Refer to *Figure B-2*.
5. Corrosion of the picket fasteners was observed throughout the underside of the guardrail's toeplate. Refer to *Figure B-3*.
6. Ceiling and slab edge spalling was observed adjacent to Unit 105. Refer to *Figure B-4*.
7. Sporadic walkway slab edge spalling with exposed corroded reinforcement was observed throughout the walkway structures. Refer to *Figure B-5*.
8. Sporadic cracking was observed throughout the top surface of the walkway slabs. Refer to *Figure B-6*.
9. Delaminated stucco was detected in the stucco wall finish adjacent to the walkways.



Conclusions/Recommendations

Based on the survey of the accessible structural elements, the extent of delaminated stucco areas detected on the east Porte Cochere column was excessive. In order to rule out the presence of substantial structural deterioration, BillerReinhart requires that delaminated stucco on the column be removed in order to rule out further concealed structural damage to the column. As such, a Milestone Phase 2 is required per Senate Bill No. 154.

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, age, 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.

Exterior Walls

Based on the detection of multiple areas of stucco delamination and cracks within the exterior walls, BillerReinhart recommends a restoration project be undertaken for the repair and maintenance of all the exterior wall surfaces including deteriorated concrete structural elements, stucco, sealants, and touch-up 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.

Walkways

The walkway structures generally appear to be in fair condition with sporadic slab delaminations on the top surfaces, ceilings and slab edges and sporadic cracking throughout. BillerReinhart recommends the board plan for a global walkway waterproofing and restoration project to be performed. This would include restoration of the structural deck and application of a urethane waterproofing membrane. Urethane waterproofing membranes can withstand the pedestrian traffic that occurs on the balconies and provide 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. BillerReinhart recommends performing the global walkway waterproofing and restoration project in conjunction with the exterior wall restoration project unless conditions warrant an earlier date.

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,



with the existing guardrails exceeding 50 years of age. The existing original guardrails are beyond their normal life expectancy. Based on observations of detached handrail segments and excessive out-of-plane displacement of the guardrails when applied with a lateral load, made during the condition survey, BillerReinhart recommends the guardrails be replaced as soon as possible. BillerReinhart recommends monitoring the conditions until the replacement project can be completed.

Stairwells

The stairwell structures appear to be in good condition. BillerReinhart recommends periodic maintenance and painting with proper surface preparation of the stairwell handrails and metal members to prevent corrosion formation. Original guardrails to be replaced along with the walkway guardrail replacement project.

Roof

The existing SPF roof system with foam over the top was generally observed to be in fair condition with no reports of water intrusion. BillerReinhart recommends continually monitoring the conditions of the roof and performing maintenance of the new roof system as the need arises and plan to replace with a new roof in approximately 15 years.

Limited Restoration Project Scope

The text below describes a general recommended scope for an exterior restoration project. The project scope addresses current conditions and 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. Necessary surface preparation.
 - ii. Sounding and marking of exterior walls, interior stairwell walls, ceilings, columns, beams, and walkway slabs 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
 - i. Delaminated areas, spalls, and exposed metal in horizontal, slab edge and overhead concrete walkway 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 (including roof level walls), 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 walkway 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. Placement of concrete slab overlays for added protection for the steel bars that were placed with inadequate concrete coverage and for positive drainage away from the exterior building walls.
6. Replacement of walkway and stairway guardrails.
7. Remove and replace joint sealants, including:
 - a. All perimeter window seals for the unit window systems, common element window system perimeters.
 - b. Horizontal/vertical surface interfaces (wall and column/slab interface, slab/guardrail interface, etc.) along the balcony top surfaces,
 - c. Perimeter seals for door frames, aluminum louvered vent frames, miscellaneous accessories penetrating wall finishes (light fixtures, etc.),
 - d. Horizontal/vertical surface interfaces (wall and column/slab interface, slab/guardrail interface, etc.),
 - e. Deteriorated metal roof flashing-to-stucco joints,
 - f. Vertical surface interfaces between adjoining exterior wall surfaces,
 - g. Vertical surface construction joint interfaces between adjoining exterior wall surfaces
8. Install a urethane waterproof deck membrane over walkway deck surfaces.
9. Touch-up painting.



Note that this project scope may require modification based on observations made during Milestone Phase 2 and project execution/construction should concealed detrimental conditions become apparent.

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 Austin J. Getgen, PE.

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

Austin Getgen, P.E.
Senior Structural Engineer
Florida P.E. No. 88546



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

Milestone Phase 1 Structural Condition Survey Report
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Figure A-1



Figure A-2



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Figure A-3



Figure A-4





Figure A-5



Figure A-6





Figure A-7



Figure A-8



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Figure A-9



Figure A-10



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Appendix B
Walkway and Guardrail
Photographic Documentation



Figure B-1



Figure B-2





Figure B-3



Figure B-4





Figure B-5



Figure B-6

