



Phase 1 Milestone Inspection Report

On Top of the World Clearwater

Building 30

2402 Ecuadorian Way and 2403 Finlandia, Clearwater

Florida 33763

ESi Project No: 98508



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Report Prepared For:

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Management Company to:
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Submitted by:

A handwritten signature in blue ink, appearing to read "J. Zietkiewicz", is written over a horizontal line.

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Date

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Introduction

In May of 2022 the Florida Legislature passed Senate Bill 4-D, Building Safety Law (SB 4-D), which creates a new statewide inspection program requiring condominium and housing cooperative (co-op) buildings three or more stories tall to conduct milestone structural inspections and perform structural integrity reserve studies to ensure such buildings are safe for continued use and occupation.

In response to the passage of SB 4-D, Mr. Shawn Tobias of Parkway Maintenance & Management Pinellas, LLC, the Property Management Services provider for On Top of the World Condominium Association Clearwater (OTOTW), retained Engineering Systems Inc. (ESi) to perform Phase 1 inspections of the 91 buildings in the property and provide the engineering services as required by SB 4-D and outlined in this report. The inspections did not include common buildings.

Material Reviewed

During the course of investigation and analysis in this matter, to date, ESi has reviewed the following materials:

- Photographs and Field Notes gathered during ESi's investigation.
- Construction drawings for the subject building.
- Senate Bill 4-D.

Methodology and Analysis Activities

During the course of investigation and analysis in this matter, to date, ESi has performed the following activities:

- The first part of the Phase 1 inspection entailed non-destructive and non-intrusive on-site visual inspections and documentation of the existing conditions of the exterior elevations and features, the roof covering, and common areas of the subject building. Upon completing this step, a selection of unit interiors were inspected at the subject building. The units were selected either 1) at random, 2) through volunteered owners, or 3) by selection from ESi. The inspections consisted of a visual assessment of the exposed primary structural elements of the subject building.
- The inspections were managed by a Florida Licensed Architect and/or Engineer with ESi.
- After the inspections were completed, analysis of the data gathered and the preparation of this report was performed.

Background

On Top of the World Clearwater is a self-contained retirement community for persons aged 55 and up located in Clearwater, Florida. The Community consists of 91 multifamily buildings of various sizes with a total of 4,959 units, and accessory buildings including offices, clubhouses, and recreation facilities. The community is organized as a condominium association. Units

typically are either one- or 2-bedrooms units. 71 of the 91 residential buildings are three stories tall, the remaining 20 buildings are two stories tall. The buildings in the community were originally constructed between 1969 and 1998.

With the recent passage of SB 4-D, OTOTW was required to implement inspections. The required inspections consist of a Phase 1 Milestone Structural Inspection for the 71 3-story buildings, with a Phase 2 Milestone Inspection for any portion and/or condition that is flagged as needing further investigation. Additionally, the condominium buildings will be required to undergo a Structural Integrity Reserve Study (SIRS). The SIRS is not included within the scope of ESi's work.

A map of On Top of the World Clearwater can be found in **Figure 1**.

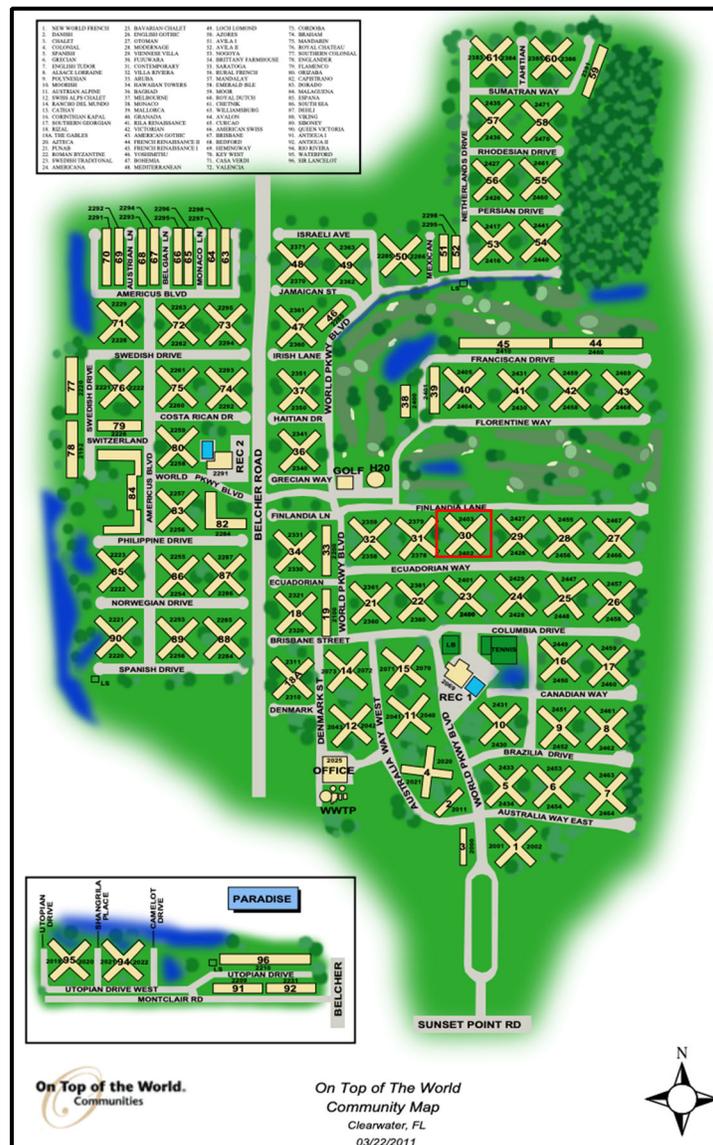


Figure 1. Overview of On Top of the World Community. Subject building in red square.

Building 30

Building 30 is named Fujiwara and the addresses are 2402 Ecuadorian Way and 2403 Finlandia Lane, Clearwater, Florida 33763 for even and odd units respectively. The records indicate that its parcel number is 31 28 16 64021 000 0001 and it was built in 1973.



Figure 2. South elevation (front elevation of even units) of subject building.

The building is a three-story building which has four structurally independent wings and a center core creating an “X” shape (**Figure 3**). The front of the building’s odd units face north and the front of the building’s even units face south.

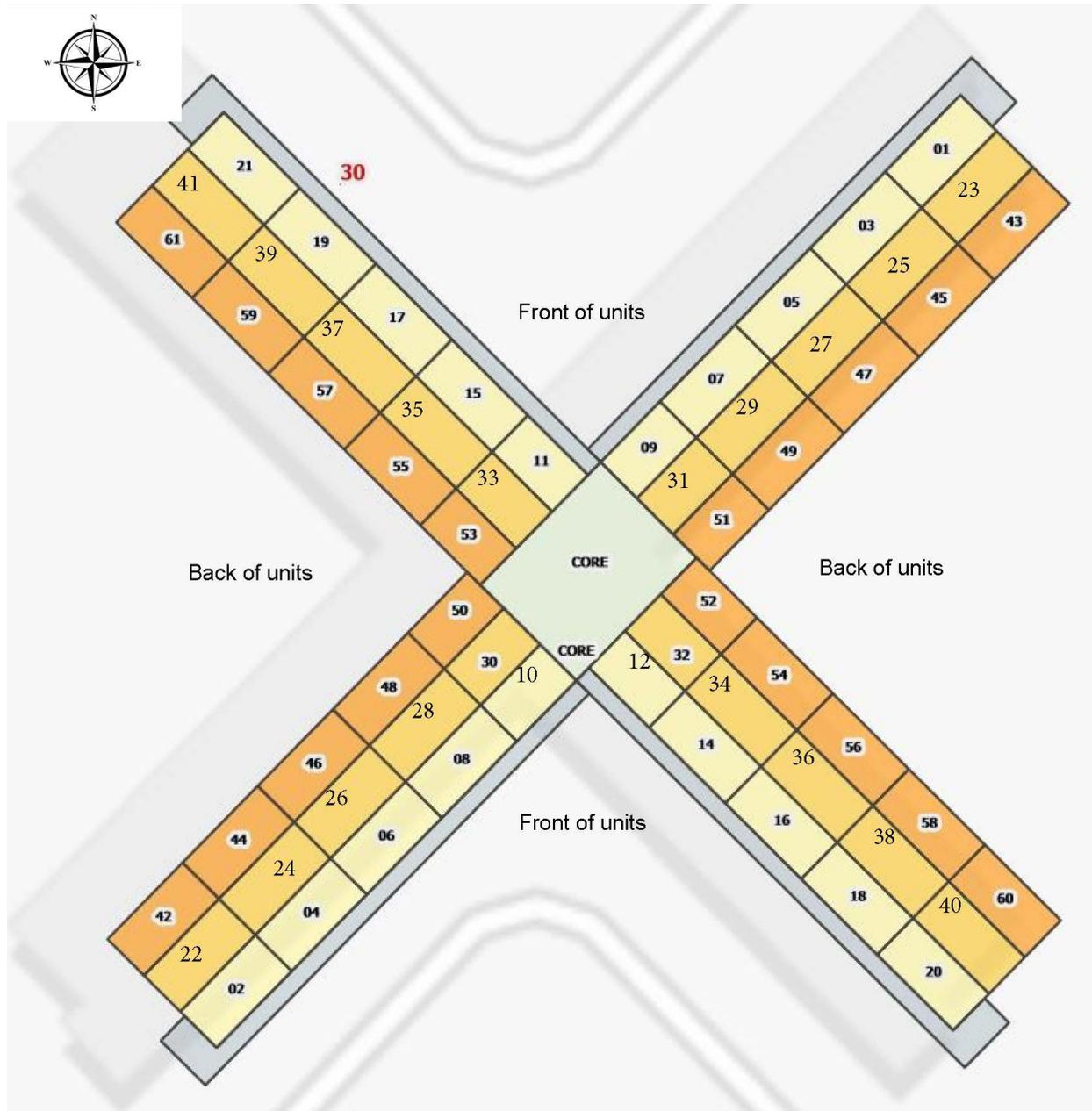


Figure 3. Plan view of subject building with unit layout.

The primary building components for the wings consist of concrete masonry unit (CMU) load-bearing exterior and demising walls, and wood stud partitions within each residential unit. The floor framing, subfloor and roof framing on the wings was not observable during ESi's inspection, however the framing material was confirmed by OTOTW. According to the provided drawings the floor framing is generally 12" deep open web steel joists spaced 24" on center with 2" poured, reinforced, concrete slab on 1/2" steel form deck. Roof framing is similar in that it is 12" open web steel joists at 4'-0" on center with 2" poured, reinforced, gypsum slab. Additionally, according to

the drawings, the foundations generally consist of concrete shallow spread footings and continuous concrete footings between the spread footing foundations. The first floor, located at grade, consists of a 4-inch concrete slab on grade with wire mesh reinforcement.

The front of the units has an exterior walkway which consists of a tapered cast-in-place concrete slab, and protective metal railings attached with the original concrete architectural railings on the exterior edge. The as-built walkway structural support is unknown. The drawings show the walkway being cantilevered from the front CMU bearing building wall. Additionally, there are columns extending from ground level to the roof level on the exterior side of the walkway on the exterior side of the railing system. Shown in **Figure 4** is a photograph of the walkway as constructed.



Figure 4. Exterior walkway as constructed.

At each wing end there is an exterior stairway that also consists of cast in place concrete, CMU walls and columns. At the center of the building, there is an independent core structure where the elevator shaft, a stairway, storage units, and electrical rooms (common rooms) are located. The core construction consists of CMU bearing walls for the interior walls and columns and grade

beams with CMU filler walls for the exterior walls of the core. The floor slabs are cast in place concrete at the common room locations and the roof framing consists of steel joists.

Above grade, the wings and core are structurally independent such that each building is separate and there is a flexible expansion/contraction joint where the structures meet (Figure 5 and Figure 6). Below grade at the foundation level, the walls of the building's wings and the core's columns share a foundation footing.



Figure 5. Representative expansion joint at wing/core intersection.



Figure 6. Representative approximate location of expansion joint at wing/core intersection in representative building.

The roof is low-slope, and the roof covering consists of a thermoplastic polyolefin (TPO), 0.60 mil thick single ply membrane and was installed during the fiscal year 2018-2019.

The back elevations of the building consist of CMU bearing walls.

Building 30 has 60 units. The units vary in layout and extend from the front to the back elevation of each wing with the entrance at the front. The interior finishes varied, yet most consisted of gypsum board (drywall) ceilings and walls, and various types of floor finishes.

Investigation and Findings

The purpose of our investigation is to perform the Phase 1 of the milestone structural integrity inspections for the OTOTW Community.

Senate Bill 4-D

Below are definitions per the SB 4-D senate bill that specify the requirements of these inspections:

(a) “Milestone inspection” means a structural inspection of a building, including an inspection of load-bearing elements and the primary structural members and primary structural (...) for the purposes of attesting to the life safety and adequacy of the structural components of the building and, to the extent reasonably possible, determining the general structural condition of the building as it affects the safety of such building, including a determination of and necessary maintenance, repair, or replacement of any structural component of the building. Milestone inspections consist of 2 phases.

- Phase 1 of the inspection is to identify substantial structural deterioration for a potential phase 2 in depth inspection of these.

(b) “Substantial structural deterioration” means substantial structural distress or substantial structural weakness that negatively affects a building’s general structural condition and integrity. **The term does not include** surface imperfections such as cracks, distortion, sagging, deflections, misalignment, signs of leakage, or peeling of finishes unless the licensed engineer or architect performing the phase one or phase two inspection determines that such surface imperfections are a sign of substantial structural deterioration.

According to the Florida Building Code¹ the following definition of Dangerous is:

Any building, structure, or portion thereof that meets any of the conditions described below shall be deemed dangerous:

- 1- The building or structure has collapsed, has partially collapsed, has moved off its foundation or lacks the necessary support of the ground.
- 2- There exists a significant risk of collapse, detachment or dislodgment of any portion, member, appurtenance or ornamentation of the building or structure under permanent, routine or frequent loads; under actual loads already in effect; or under wind, rain, flood or other environmental loads when such loads are imminent.

The inspection report must, at a minimum, meet all the following criteria:

¹ Florida Building Code 2020 - Chapter 2 Definitions



- (a) Bear the seal and signature, or the electronic signature of the licensed engineer or architect who performed the inspection.
- (b) Indicate the manner and type of inspection forming the basis for the inspection report.
- (c) Identify any substantial structural deterioration, within a reasonable professional probability based on the scope of the inspection, describe the extent of such deterioration, and identify any recommended repairs for such deterioration.
- (d) State whether unsafe or dangerous conditions, as those terms are defined in the Florida Building Code, were observed.
- (e) Recommend any remedial or preventive repair for any items that are damaged but are not substantial structural deterioration.
- f) Identify and describe any items requiring further inspection.

Investigation - General

The first part of the Phase 1 inspection entailed non-destructive and non-intrusive visual On-site inspections and documentation of the existing conditions of the exterior elevations and appurtenances, the roof covering, and common areas of the subject building. Upon completing this step, a selection of units was inspected at the subject building. The units were selected either 1) at random, 2) through volunteered owners, or 3) by selection from ESi. The inspections were performed visually and were of the exposed primary structural elements of the subject building.

Investigation – Exteriors and Common Areas

Please reference Exhibit A for a summary of observations for the building exteriors, common areas, stairways, and storage and electric rooms.

Based on the type of construction of this building, during Phase 1 inspections, a visual investigation was performed to observe evidence of distress, damage or deterioration of the areas outlined above. Thus, ESi's assessment is limited to the areas that were visible and accessible at the time of ESi's inspections. Examples of visually apparent distress being inspected and documented for are below:

For CMU walls:

- Evidence of cracking.
- Spalling.
- Exposed reinforcement
- Weathering or significant deterioration of materials (efflorescence, corrosion, etc.).
- Evidence of settlement.



- Evidence of previous repairs that have reopened.
- Delamination of stucco.
- Evidence of out of plane bowing or deflection of walls.

At roof:

- Evidence of ponding or low points that create potential ponding.
- Openings or damage to roof membrane.

At Steel features:

- Corrosion.
- Excessive deflections.
- Deterioration.

Concrete hallway floors:

- Signs of cracking or deflection.
- Delamination.
- Spalling.
- Deteriorations.

The observations detailed in Exhibit A with regards to CMU wall surfaces are specific to the exterior face of the CMU walls.

Typical observations in the subject building include: stairstep cracks in CMU walls, cracking on the exterior hallway concrete slab, cracking on the concrete railing, and cracking on the CMU walls and slab at the storage rooms located in the building's core.

Stairstep cracks, both previously repaired and those appearing to be recent, on the CMU bearing walls of the wings particularly below windows and near the core were typically observed throughout the elevations of the building. Stairstep cracks are cracks in the mortar joints and form due to the movement of the structure, as mortar is a brittle material. The observed width and location of the cracks represent typical movement from a structure (commonly due to soil settlement) and do not appear to be indicative of structural damage. Recommendation for repairs and monitoring of the cracks is provided in Exhibit A. Representative photographs of this observation are shown below in **Figure 7**.



Figure 7. Representative photographs of step stair cracks at CMU walls.

Cracks on the exterior hallway floor slabs were observed perpendicular to the length of the slab and the supporting wall. The observed cracks were typically hairline cracks and shallow. The cracks had weathered edges and dirt on the inside, representing they are historical in nature. The frequency and spacing of these cracks were not uniform. The observed cracks in the subject building are likely due to the expansion and contraction of the materials where control joints were not observed or due to the deflection of the slab at support locations and do not represent a structural damage or substantial deterioration. Recommendation for repairs and monitoring of the cracks is provided in Exhibit A. Representative photographs of this observation are shown below in **Figure 8**.



Figure 8. Representative photographs of shallow cracks at top surface of the exterior hallway.

Vertical and stair step cracking was observed on the building's core on the CMU walls of the storage rooms. CMU and mortar are brittle materials and are likely to crack when subjected to expansion and contraction and differential movement. The observed cracks are due to the movement of the core throughout its life. Similarly observed, were cracks on the concrete slab on grade on the first-floor electrical and storage rooms. The observed cracks are due to the expansion and contraction of the slab and typical settlement of the soils below the structure. Recommendations for repairs and monitoring of the cracks is provided in Exhibit A. Representative photographs of this observation are shown below in **Figure 9**.



Figure 9. Representative photographs of cracks on CMU walls and concrete slabs at common rooms in Core building.

The building's exterior architectural features consisted of a decorative railing with exposed columns which extended from the roof to the slab. The railings and columns were constructed of a painted cementitious material. A secondary metal railing was installed in the interior of the decorative railing, which was in good condition. Evidence of deterioration of the decorative railings in the form of cracking was observed throughout the building (Figure 10). This is not structural damage, yet it is recommended that the decorative railing be repaired to prevent spalled pieces from detaching and falling.



Figure 10. Representative photograph of cracking of decorative railing

Investigation – Interiors

For the subject building ESi inspected the interior of 7 units. During our interior investigation the following was checked for evidence of damage:

- Water stains, water intrusion and damage to ceilings.
- Difficulty in operating doors or windows.
- Cracking of plaster or gypsum wall board.
- Cracking in floor finishes.
- Excessive deflection of ceilings.
- Distress or displacement of facade elements.
- Excessive deflection of floors.
- Deflection of floors towards the exterior hallway slabs.



- Cracking of interior face of exterior CMU walls.
- Weathering or deterioration of materials (efflorescence, corrosion, dusting, missing mortar joints).

A list of the units inspected, and a summary of their findings are shown in Exhibit B. Typical observations in the units of the subject building include hairline cracks and separation of the drywall finishes of the walls and ceilings. Hairline cracking in the drywall finishes is not uncommon and result from typical movement of the building likely due to the expansion and contraction of the materials, natural settlement and movement of the structure and do not represent a structural issue. Recommendation for repairs and monitoring of the cracks is provided in Exhibit B.

Conclusions

The following conclusions are based on the analysis to date, as well as on prior education, training, testing, engineering analysis, and experience.

1. Reference Exhibit A for a summary of observations, recommended additional investigations and repairs for the exteriors, common areas, and storage and electrical rooms.
2. Reference Exhibit B for a summary of observations, recommended additional investigations and repairs for the interior units inspected.
3. Reference Exhibit C for representative photographs of the observations.

ESi reserves the right to supplement or amend these findings and conclusions if additional information becomes available or based upon additional work or analysis in this matter.

≡ **End of Report Text** ≡

Appendices

Appendix A: Summary of Observations Exteriors and Common Areas

Appendix B: Summary of Observations Interiors

Appendix C: Representative Photographs

APPENDIX A

Building Number	Observation	Location	Structural damage (Y/N) If yes - extent	Substantial Structural Damage (Y/N) If yes - extent	Surface imperfection* (Y/N) If yes - extent	Dangerous as defined by the Florida Building Code? (Y/N)	Recommendations (maintenance, repair, replace, or monitor)	Further (Phase 2) inspection required? (Y/N)
30	Widespread water ponding and/or water stains on the membrane sporadically throughout the TPO roof.	Water ponding noted sporadically in northwest wing roof, southwest wing roof, southeast wing roof, northeast wing roof and core roof.	N	N	Y - Sporadically throughout the roof.	N	Monitor if not causing any leaks in the units below.	N
30	Surface patch (previous repair) to stair step crack in CMU wall.	Front elevation of units: 3rd story - 46 and 44. 2nd story - 32, 34, 28 and 38. 1st story - 12, 14, 16, 20, 11 and 21. Side elevation of units: 3rd story - 60 and 61. 2nd story - 42 and 40. 1st story - 22 and 20. Rear elevation of units: 3rd story - 58, 56, 54, 52, 49, 47, 45, 43, 55, 50 and 46. 2nd story - 38, 36, 32 and 23.	N	N	Y - Localized as noted in the location column.	N	Monitor.	N
30	Re-opened mortar shallow hairline crack at previous repair to stair step mortar crack in exterior face of CMU wall.	Front elevation of units: 3rd story - 54, 56, 58, 60, 50, 48, 42, 55, 59, 61, 49 and 43. 2nd story - 25, 27, 29, 35, 41, 38, 40, 30, 26, 24 and 22. 1st story - 18, 1 and 19.	N	N	Y - Localized as noted in the location column.	N	Repair - Seal hairline cracks with high-strength epoxy or mortar.	N

* Surface imperfections include shallow cracks, distortion, sagging, deflections, misalignment, signs of leakage or peeling of finishes.

Building Number	Observation	Location	Structural damage (Y/N) If yes - extent	Substantial Structural Damage (Y/N) If yes - extent	Surface imperfection* (Y/N) If yes - extent	Dangerous as defined by the Florida Building Code? (Y/N)	Recommendations (maintenance, repair, replace, or monitor)	Further (Phase 2) inspection required? (Y/N)
30	Stair step mortar shallow hairline crack in CMU wall.	Front elevation of units: 3rd story - 52 and 47. 2nd story - 23, 33 and 39. 1st story - 4, 3 and 7.	N	N	Y - Localized as noted in the location column.	N	Monitor or Repair - Seal hairline cracks with high-strength epoxy or mortar, if possible.	N
30	Shallow line cracks at the top face of the concrete slab of the exterior walkway perpendicular to the wall, consistently throughout all walkways. In some locations hairline cracks perpendicular to the walkway observed on the bottom face of the concrete slab..	Exterior walkways in 2nd and 3rd story.	N	N	Y - Perpendicular single cracks throughout the walkways in 2nd and 3rd story.	N	Repair - Seal hairline cracks with high-strength epoxy.	N
30	Surface patch (previous repair) to vertical and horizontal cracks on the concrete railing, with evidence of re-opened cracks in few areas of the concrete railing..	Front elevation of units in 2nd and 3rd story.	N	N	Y - Sporadically throughout the 2nd and 3rd story.	Y	Repair - Seal cracks with high-strength epoxy.	N
30	Surface patch (previous repair) to ceiling finish above stairways.	Stairways located near Unit 60.	N	N	Y - Localized as noted in the location column.	N	Monitor.	N

* Surface imperfections include shallow cracks, distortion, sagging, deflections, misalignment, signs of leakage or peeling of finishes.

Building Number	Observation	Location	Structural damage (Y/N) If yes - extent	Substantial Structural Damage (Y/N) If yes - extent	Surface imperfection* (Y/N) If yes - extent	Dangerous as defined by the Florida Building Code? (Y/N)	Recommendations (maintenance, repair, replace, or monitor)	Further (Phase 2) inspection required? (Y/N)
30	Bubbled, delaminated and/or cracked ceiling finish.	Near unit 60, 59 and 50.	N	N	Y - Localized as noted in the location column.	N	Repair - Seal cracks with high-strength epoxy and repaint ceiling finish.	N
30	Surface patch (previous repair) to ceiling finish throughout the 1st story.	Front elevation of units in 1st story.	N	N	Y - Sporadically throughout the 1st story.	N	Monitor.	N
30	Crack on the slab.	1st story elevator machine room, crack measuring hairline width. 1st story electrical room, 2 locations, cracks measuring approx. 0.02 inch. 1st story storage room, crack measuring approx. 0.03 inch. 2nd story big storage, 2 locations, cracks measuring hairline width. 3rd story storage and 3rd story roof access storage, cracks measuring approx. 0.02 inch.	N	N	Y - Localized as noted in the location column.	N	Monitor or Repair - Seal crack with high-strength epoxy, if possible.	N

* Surface imperfections include shallow cracks, distortion, sagging, deflections, misalignment, signs of leakage or peeling of finishes.

Building Number	Observation	Location	Structural damage (Y/N) If yes - extent	Substantial Structural Damage (Y/N) If yes - extent	Surface imperfection* (Y/N) If yes - extent	Dangerous as defined by the Florida Building Code? (Y/N)	Recommendations (maintenance, repair, replace, or monitor)	Further (Phase 2) inspection required? (Y/N)
30	Vertical crack through CMU wall above the door header.	1st story elevator machine room, crack measuring approx. 0.012 inch.	N	N	Y - Localized as noted in the location column.	N	Repair - Seal crack with high-strength epoxy.	N
30	Stair step mortar shallow crack in CMU wall with missing mortar in 1 block.	1st story electrical room, crack measuring approx. 0.04 inch.	N	N	Y - Localized as noted in the location column.	N	Repair - Seal crack with high-strength epoxy.	N
30	Hairline width vertical crack through CMU wall on the back wall, when standing at the entry door.	2nd story big storage.	N	N	Y - Localized as noted in the location column.	N	Monitor or Repair - Seal crack with high-strength epoxy, if possible.	N
30	Water stains on the roof framing and/or deck.	Roof tower on the northwest wing roof, northeast wing roof, southeast wing roof and southwest wing roof.	N	N	Y - Localized as noted in the location column.	N	Monitor - no evidence of significant moisture damage at this time.	N

* Surface imperfections include shallow cracks, distortion, sagging, deflections, misalignment, signs of leakage or peeling of finishes.

APPENDIX B

Building:Unit	Observations	Substantial Structural Damage (Y/N) If yes - extent	Surface imperfection* (Y/N) If yes - extent	Further (Phase 2) inspection required? (Y/N)	Recommendations (maintenance, repair, replace, or monitor)
B30:14	Ongoing repainting and remodeling of the unit by owner, crack/separation noted at the ceiling to molding interface in Florida room and dining room.	No	As noted in observation.	No	Monitor cracks.
B30:32	No evidence of structural damage or surface imperfections observed.	No	No	No	No action.
B30:4	No evidence of structural damage or surface imperfections observed.	No	No	No	No action.
B30:47	No evidence of structural damage or surface imperfections observed.	No	No	No	No action.
B30:48	Cracks observed along the arch wall located between the kitchen and florida room.	No	As noted in observation.	No	Monitor cracks.
B30:5	No evidence of structural damage or surface imperfections observed.	No	No	No	No action.
B30:57	In living room, two drywall nail pop above door. In back room, four prior repairs with sealant (nail hole type repair) and prior repair below window corners. In hall, cut in closet ceiling drywall (~1" length).	No	As noted in observation.	No	Monitor repairs.

* Surface imperfections include shallow cracks, distortion, sagging, misalignment, signs of leakage, or peeling of finishes.

APPENDIX C

Appendix C1 - Referenced Photographs



Photograph 01 - View of the front elevation of the subject building.



Photograph 02 - View of the rear elevation of the subject building.



Photograph 03 - Overall view of the TPO roof covering.



Photograph 04 - View of water stains on the membrane in southwest wing roof.



Photograph 05 - View of a crack in the elevated walkway surface perpendicular to the building near Unit 23.



Photograph 06 - View of concrete railing crack near Unit 54, crack measuring approx. 0.04 inch.



Photograph 07 - View of previous repair to stair step crack near Unit 60.



Photograph 08 - View of stair step mortar crack near Unit 23.



Photograph 09 - View of previous repair to stair step crack with a hairline re-opening near Unit 29.



Photograph 10 - View of cracked ceiling finish near Unit 60.



Photograph 11 - View of vertical crack through CMU above door header in 1st story elevator machine room.



Photograph 12 - View of stair step mortar crack with missing portion of mortar in 1st story electrical room.



Photograph 13 - View of slab crack in 1st story storage room.



Photograph 14 - View of water stains on roof framing within the northeast wing roof hatch.



Photograph 15 - Hairline cracks on wall in Unit 48.



Photograph 16 - Hole in ceiling of Unit 57.



Photograph 17 - View of ceiling in Unit 14.