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## **Report of Findings**

## Grand Panama Beach Resort Hurricane Michael Damage Evaluation Claim No: 4156891

Rimkus File No: 100040602

**Prepared For:** 

Young & Associates 201 St. Charles Avenue, Suite 114-268 New Orleans, LA 70170

Attention:

Mr. Luke Bowman



John M. Newell, P.E. Florida Licensed Engineer No. 86017 Consultant

This item has been digitally signed and sealed by John M. Newell, P.E., on the date adjacent to the seal.

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# Section I

Representatives of the Grand Panama Beach Resort condominium complex reported that the stucco and/or exterior insulation and finishing system (EIFS) claddings on the exterior walls of the Grand Panama Beach Resort (Grand Panama) buildings had sustained damage during the passage of Hurricane Michael on October 10, 2018. The Grand Panama property was located at 11807 Front Beach Road in Panama City Beach, Florida.

Rimkus Consulting Group, Inc. (Rimkus) was retained to determine the extent and limits of damage to the exterior stucco and/or EIFS claddings on the exterior walls of the buildings as the result of wind loads/forces and/or wind-borne debris impacts associated with Hurricane Michael. John M. Newell, P.E., conducted our inspection of the Grand Panama buildings on August 17 and 18, 2020. Also present with Rimkus during the course of our August 17 and 18, 2020, inspections of the property was Mr. James Sprader, who piloted a DPI Phantom 4 Pro drone to take high-definition aerial photographs of the exterior walls of the multi-story buildings on the Grand Panama property. This report was reviewed by Mr. Mark M. O'Connell, Property Division Manager.

This report was prepared for the exclusive use of Young & Associates, on behalf of Sedgwick Delegated Authority and/or Certain Underwriters of Lloyds, and is not intended for any other purpose. Our report was based on the information available to us at this time, as described in **Basis of Report**. Should additional information become available, we reserve the right to determine the impact, if any, that the new information may have on our opinions and conclusions and to revise our opinions and conclusions if necessary and warranted.

## Section II CONCLUSIONS

- 1. The stucco and/or EIFS claddings on the exterior walls of Tower #1, Tower #2, and the detached parking garage located north of Tower #2 sustained superficial damage in the form of punctures, chips, cracks, spalls, scars, and/or abrasions consistent with wind loads/forces and/or minor wind-borne debris impacts associated with Hurricane Michael. The damage to the exterior claddings can be repaired by re-coating (painting and/or isolated patching) the exterior walls of the buildings.
- 2. The physical evidence revealed that isolated areas of the stucco and/or EIFS claddings on the exterior walls of the buildings had also sustained damage from causes unrelated to the effects of Hurricane Michael, specifically the following:
  - a) Cracking and displacement of an isolated area of concrete and stucco cladding on the north wall of the detached parking garage consistent with a vehicle impact.
  - b) Cracking, displacement, and/or rust/water stains on the exterior stucco cladding extending from the ground surface to a height of approximately 3 feet above the ground surface on the exterior, north and west walls of Tower #1 resulting from long-term moisture intrusion through the stucco cladding coupled with blockage of the drainage plane for the wall cavity.

# Section III DISCUSSION

#### **General History**

The Grand Panama condominium complex consisted of two, multi-story, concreteframed structures with each story of the buildings separated by a concrete floor/ceiling slab. Tower #1 was 22-stories high, housed 187 separate residential units, and was located on the beachfront at the south end of the property. Tower #2 was 20-stories high and was located directly north of Tower #1. The lower 5 floors of Tower #2 were utilized as a parking garage (parking garage levels #1 through #5), and the upper 15 floors of Tower #2 housed 112 separate residential units. The exterior walls of Tower #1 and Tower #2 were clad with a combination of stucco and an EIFS. The roof coverings over the buildings consisted of standing-seam metal roofing. Additionally, a detached, two-story, concrete-framed parking garage was situated at the northwest corner of the property directly north of Tower #2 (**Attachment B – Site Layout**).

During the course of our site visits on August 17 and 18, 2020, representatives of the Grand Panama condominium complex, Mr. Kevin Kimball and Mr. Scott Snyder of Altieri Transco American Claims, reported the following regarding the property:

- Construction of Tower #1, Tower #2, and the detached parking garage was completed sometime in 2007.
- The exterior stucco and/or EIFS claddings on the exterior walls of the buildings were last painted in or around 2012.
- The guardrails around the perimeter of the pool deck of Tower #2 were displaced by wind loads/forces and/or wind-borne debris impacts during the passage of Hurricane Michael. As a result of the displacement of the guardrails, the concrete pool deck and stucco cladding around the guardrail post mounting locations were damaged. Subsequently, a cementitious mixture was installed in

the guardrail post mounting locations in order to re-secure the guardrails to the concrete pool deck.

 Aside from the installation of the cementitious mixture to the guardrail post mounting locations on the pool deck of Tower #2, no other spot repairs had been performed to the exterior claddings of the buildings subsequent to the passage of Hurricane Michael.

#### Observations

#### Tower #1

During the course of our site visits on August 17 and 18, 2020, we observed the following regarding Tower #1:

- As shown on Attachment B Site Layout, the front of Tower #1 was referenced to face north, towards Front Beach Road, with the rear (south) elevation of Tower #1 facing towards the Gulf of Mexico (Photograph 1).
- There was visible impact damage to the EIFS trim between the fourth and fifth floors on the exterior, north wall near the northeast corner of the building (Photograph 2). There was also visible impact damage to the top of the EIFS trim around the easternmost fourth-floor window on the north wall of the building.
- There were sporadic cracks, "bulges", and water stains on the exterior stucco cladding extending from the ground surface to a point approximately 3 feet above the ground surface on the exterior, north and west walls of Tower #1 (Photographs 3 and 4). Pine straw had been installed as landscaping on the ground surface along the north and west walls of Tower #1. The pine straw abutted against and rose above the bottom of the stucco cladding on the exterior, north and west walls of Tower #1, which restricted the drainage of incidental water that penetrated the stucco lamina (Photographs 5 and 6).

- When viewed from the ground surface and/or upper-level balconies on the north side of the building, there were visible scars and/or abrasions throughout the finish coat of the exterior stucco and/or EIFS, consistent with wind loads/forces and/or minor wind-borne debris impacts (Photographs 7 through 9). Review of the high-definition aerial photographs of the exterior, north wall of Tower #1 taken via drone flight revealed similar scars and/or abrasions throughout the finish coat of the exterior stucco and/or EIFS consistent with wind loads/forces and/or minor wind-borne debris impacts and/or abrasions throughout the finish coat of the exterior stucco and/or EIFS consistent with wind loads/forces and/or minor wind-borne debris impacts during the passage of Hurricane Michael (Photographs 10 through 12).
- There was a spalled/missing section of stucco cladding below the guardrail on the easternmost 18<sup>th</sup>-floor balcony on the north wall of the building consistent with wind-borne debris impacts and/or wind-induced movement of the guardrail post at its mounting location at the 18<sup>th</sup>-floor concrete slab (Photograph 13).
- There were hairline-width cracks in the exterior stucco cladding on the 22<sup>nd</sup> floor of the building at the interface of the roof overhangs and north wall, consistent with minor wind-induced oscillation of the roof covering over the bulding (Photograph 14).
- When viewed from the ground surface, there were visible scars and/or abrasions to the finish coat of the exterior stucco and/or EIFS on the east wall of the building consistent with wind loads/forces and/or minor wind-borne debris impacts (Photographs 15 and 16). Review of the high-definition aerial photographs of the exterior, east wall of Tower #1 taken via drone flight revealed similar scars and/or abrasions throughout the finish coat of the exterior stucco and/or EIFS, consistent with wind loads/forces and/or minor wind-borne debris impacts during the passage of Hurricane Michael (Photographs 17 and 18).
- Review of the high-definition aerial photographs of the exterior south and west walls of Tower #1 taken via drone flight revealed scars and/or abrasions throughout the finish coat of the exterior stucco and/or EIFS, consistent with wind

loads/forces and/or minor wind-borne debris impacts during the passage of Hurricane Michael (**Photographs 19 through 22**). The degree and extent of the scarring and/or abrasions to the finish coat of the exterior stucco and/or EIFS on the south and west walls of Tower #1 was less than that of the scarring and/or abrasions on the north and east walls of the building, a condition consistent with the directionality of the wind forces at the property location during the passage of Hurricane Michael, which would have been primarily from the north and east.

#### Tower #2

During the course of our site visits on August 17 and 18, 2020, we observed the following regarding Tower #2:

- As shown on Attachment B Site Layout, the front of Tower #2 was referenced to face south, towards the intersection of Front Beach Road and Grand Panama Boulevard, with the rear (north) elevation of Tower #2 facing towards the pool on the pook deck (Photograph 23). The lower 5 floors of Tower #2 were utilized as a parking garage (parking garage levels #1 through #5), and the upper 15 floors of Tower #2 housed 112 separate residential units.
- When viewed from the ground surface and/or the interior space of the lower parking garage, there were visible punctures, scars, and/or abrasions to the finish coat of the stucco and/or EIFS on the exterior walls of the lower parking garage of Tower #2 consistent with wind loads/forces and/or minor wind-borne debris impacts (Photographs 24 through 26).
- Review of the high-definition aerial photographs of the exterior walls of the lower parking garage of Tower #2 revealed similar scars and/or abrasions throughout the finish coat of the exterior stucco and/or EIFS consistent with wind loads/forces and/or minor wind-borne debris impacts during the passage of Hurricane Michael (Photographs 27 and 28).

- When viewed from the surface of the pool deck, which was located above the parking garage on the first residential floor of Tower #2, as well as from the upper-level balconies on the north side of the building, visible punctures, chips, scars, and/or abrasions to the finish coat of the stucco and/or EIFS on the exterior, north and east walls of Tower #2, consistent with wind loads/forces and/or minor wind-borne debris impacts, were evident (Photographs 29 through 31). Review of the high-definition aerial photographs of the exterior, north and east walls of Tower #2 taken via drone flight revealed similar punctures, scars, and/or abrasions throughout the finish coat of the exterior stucco and/or EIFS consistent with wind loads/forces and/or minor wind-borne debris throughout the finish coat of the exterior stucco and/or EIFS consistent with wind loads/forces and/or minor wind-borne debris through and/or minor wind-borne debris throughout the finish coat of the exterior stucco and/or EIFS consistent with wind loads/forces and/or minor wind-borne debris impacts during the passage of Hurricane Michael (Photographs 32 through 35).
- A guardrail existed around the perimeter of the pool deck of Tower #2 (Photograph 36). There were spalled/missing sections of stucco cladding and/or concrete around and adjacent to the guardrail post mounting locations throughout the pool deck of Tower #2 (Photographs 37 through 39). The damage was consistent with wind-borne debris impacts to the guardrails and/or wind-induced movement of the guardrail posts at their respective mounting locations on the pool deck of Tower #2. A cementitious mixture had been previously installed inside of the guardrail post mounting locations in order to resecure the guardrails to the concrete pool deck.
- Review of the high-definition aerial photographs of the exterior, south and west walls of Tower #2 taken via drone flight revealed scars and/or abrasions throughout the finish coat of the exterior stucco and/or EIFS consistent with wind loads/forces and/or minor wind-borne debris impacts during the passage of Hurricane Michael (Photographs 40 through 43). The degree and extent of the scarring and/or abrasions to the finish coat of the exterior stucco and/or EIFS on the west wall of Tower #2 was less than that of the scarring and/or abrasions on the north, south, and east walls of the building, a condition consistent with the

orientation of the building and the directionality of the wind forces at the property location during the passage of Hurricane Michael, which would have been primarily from the north and east.

#### Detached Parking Garage

During the course of our site visits on August 17 and 18, 2020, we observed the following regarding the detached two-story parking garage, which was located north of Tower #2:

- As shown on Attachment B Site Layout, the front of the detached parking garage was referenced to face east, towards Tower #2, with the right (north) elevation of the detached parking garage facing towards Grand Panama Boulevard (Photograph 44).
- When viewed from the ground surface and/or the interior space of the detached parking garage, there were visible punctures, chips, scars, and/or abrasions throughout the finish coat of the stucco and/or EIFS on the exterior walls of the building, consistent with wind loads/forces and/or minor wind-borne debris impacts during the passage of Hurricane Michael (Photographs 45 through 48).
- There was a large crack in the exterior stucco cladding, as well as outward displacement of the stucco cladding, near the approximate center of the north wall of the detached parking garage (Photograph 49). There was trash and debris inside of the displaced section of stucco cladding, as well as evidence of attempted prior repairs/patching to the lower portions of the crack (Photographs 50 and 51). There was impact damage on the lower portion of the concrete wall at the perimeter of the detached parking garage directly opposite the cracked/displaced section of stucco cladding (Photographs 52 and 53). The impact damage to the concrete wall was located within a garage parking space.

#### Weather Data

Hurricane Michael made landfall near Mexico Beach, Florida, on October 10, 2018, as a strong Category 4 hurricane on the Saffir-Simpson hurricane wind scale. Hurricane Michael then moved inland over the Florida panhandle and continued towards the northeast into Georgia, where Hurricane Michael was downgraded to a tropical storm on October 11, 2018, over south-central Georgia. Michael then continued across South Carolina, North Carolina, and Virginia before moving into the Atlantic Ocean along the Virginia coast.

According to weather data provided by CompuWeather, the following information applied to the location of the subject property in the Panama City Beach, Florida, area:

- Sustained (1-minute) wind speed from 100 miles per hour (mph) to 120 mph.
- Three-second gust wind speed from 120 mph to 140 mph.
- Rainfall totals (October 9 through October 12, 2018) from 8 inches to 10 inches.
- Maximum storm tide from 5 feet to 7 feet North American Vertical Datum (NAVD) of 1988.

The data provided above does not include CompuWeather's stated margin of error of plus or minus 20 percent.

#### Analysis

During a high-wind event, such as a hurricane, a structure can sustain damage from wind loads/forces, as well as wind-borne debris impacts. Wind flowing over and around a structure creates positive and negative pressures. Generally, windward wall surfaces are subjected to positive air pressure, and leeward wall surfaces are subjected to negative air pressure. The combined effect of windward and leeward air pressures results in lateral loads against the structure. Light components, such as exterior

claddings on roofs and walls, can be displaced or blown off of the structure completely due to the lateral loads imposed by strong wind forces. Structures can also sustain damage resulting from wind-borne debris impact. Wind-borne debris can originate from the surrounding area of a structure, as well as from the structure itself. Damage to stucco and/or EIFS claddings resulting from wind-borne debris impacts is evidenced by impact marks that result in a localized area where the stucco and/or EIFS is punctured, crushed, indented, or spalled, as well as abrasions and/or scarring to the finish coat of the stucco and/or EIFS claddings. The buildings within the Grand Panama condominium complex were located in close proximity to the Gulf of Mexico and were subjected to sustained wind speeds of approximately 100 to 120 mph and wind gust speeds of approximately 120 to 140 mph during the passage of Hurricane Michael. The orientation of the Grand Panama buildings, as well as the location of the property with respect to the landfall location of the eyewall of Hurricane Michael, subjected the Grand Panama buildings to winds primarily from the north and east.

During the course of our inspection of the properties, we observed damage to the stucco and/or EIFS claddings throughout the exterior walls of Tower #1, Tower #2, and the detached parking garage of the Grand Panama property in the form of punctures, chips, cracks, spalls, scars, and/or abrasions consistent with wind loads/forces and/or minor wind-borne debris impacts associated with Hurricane Michael. Specific to Tower #1, our observations indicated that there was impact damage to the EIFS trim between the fourth and fifth floors on the exterior, north wall near the northeast corner of the building, as well as to the top of the EIFS trim around the easternmost fourth-floor Our observations indicated further that there was a window of the building. spalled/missing section of stucco cladding below the guardrail on the easternmost 18<sup>th</sup>floor balcony on the north wall of the building, which was consistent with wind-borne debris impacts and/or wind-induced movement of the guardrail post at its mounting location at the 18<sup>th</sup>-floor concrete slab. We observed hairline-width cracks in the exterior stucco cladding on the 22<sup>nd</sup> floor at the interface of the roof overhangs and north wall of the building. The cracks were consistent with minor wind-induced oscillation of the roof covering over the building, which was transferred to the stuccoclad exterior walls and resulted in the cracks. Viewing from the ground surface and/or upper-level balconies on the north side of Tower #1, we observed scars and/or abrasions throughout the finish coat of the exterior stucco and/or EIFS consistent with wind loads/forces and/or minor wind-borne debris impacts. Review of the high-definition aerial photographs of the exterior walls of Tower #1 taken via drone flight revealed similar scars and/or abrasions throughout the finish coat of the exterior stucco and/or EIFS consistent with wind loads/forces and/or minor wind-borne debris impacts of the exterior stucco and/or EIFS consistent with wind loads/forces and/or minor wind-borne debris impacts during the passage of Hurricane Michael. The degree and extent of the scarring and/or abrasions to the finish coat of the exterior stucco and/or EIFS on the south and west walls of Tower #1 was less than that of the scarring and/or abrasions on the north and east walls of the building, a condition consistent with the directionality of the wind forces at the property location during the passage of Hurricane Michael, which would have been primarily from the north and east as discussed above.

Our inspection of Tower #2 and the detached parking garage located north of Tower #2 revealed similar damages to the exterior claddings as those observed at Tower #1. Specifically, when viewed from the ground surface, the interior space of the lower parking garage of Tower #2, the interior space of the detached parking garage, the upper-level balconies on the north side of Tower #2, and/or the surface of the pool deck, which was located above the parking garage on the first residential floor of Tower #2, we observed punctures, scars and/or abrasions to the finish coat of the stucco and/or EIFS throughout the exterior walls of the buildings consistent with wind loads/forces Review of the high-definition aerial and/or minor wind-borne debris impacts. photographs of the exterior walls of Tower #2 taken via drone flight revealed similar scars and/or abrasions throughout the finish coat of the exterior stucco and/or EIFS consistent with wind loads/forces and/or minor wind-borne debris impacts during the passage of Hurricane Michael. The degree and extent of the scarring and/or abrasions to the finish coat of the exterior stucco and/or EIFS on the west wall of Tower #2 was less than that of the scarring and/or abrasions on the north, south, and east walls of the building, a condition consistent with the orientation of the building and the directionality of the wind forces at the property location during the passage of Hurricane Michael as discussed above. During the course of our inspection, we noted that a guardrail protected the free edge around the perimeter of the pool deck of Tower #2. There were spalled/missing sections of stucco cladding and/or concrete around and adjacent to the guardrail post mounting locations throughout the pool deck of Tower #2. The damage was consistent with wind-borne debris impacts to the guardrails and/or wind-induced movement of the guardrail posts at their respective mounting locations on the pool deck of Tower #2. A cementitious mixture had been previously installed inside of the guardrail post mounting locations. As reported by representatives of the Grand Panama condominium complex, Mr. Kimball and Mr. Snyder of Altieri Transco American Claims, the cementitious mixture had been installed subsequent to the passage of Hurricane Michael in order to re-secure the guardrails to the concrete pool deck.

The above conditions and observations support the conclusion that the stucco and/or EIFS claddings on the exterior walls of Tower #1, Tower #2, and the detached parking garage located north of Tower #2 sustained superficial damage in the form of punctures, chips, cracks, spalls, scars, and/or abrasions consistent with wind loads/forces and/or minor wind-borne debris impacts associated with Hurricane Michael. The damage to the exterior claddings can be repaired by re-coating (painting and/or isolated patching) the exterior walls of the buildings.

During the course of our inspection of the property, we also observed damages to the exterior wall claddings which were not caused or affected by Hurricane Michael. Specifically, our observations revealed sporadic cracks, "bulges", and water stains on the exterior stucco cladding that extended from the ground surface to a point approximately 3 feet above the ground surface on the exterior, north and west walls of Tower #1. Further, we observed that pine straw had been installed as landscaping on the ground surface along the north and west walls of Tower #1. The pine straw abutted against and rose above the lower edge of the stucco cladding on the exterior, north and west walls of Tower #1. According to Chapter 25 ("Gypsum Board and Plaster") of the 2001 edition of the Florida Building Code (the building code reportedly in effect when Tower #1 was designed and constructed), the lower edge of a stucco wall system is

required to terminate a minimum of 4 inches above the earth or 2 inches above a paved surface. Water and moisture can penetrate an exterior stucco and/or EIFS wall covering for a variety of reasons, including wind-driven rain intrusion. It is expected that incidental moisture will penetrate the exterior wall assembly and, for this reason, stuccoclad wall assemblies require a water-resistive barrier (WRB) and weep screed along the lower edge of the wall in order to provide a means for moisture to exit the wall cavity. The installation of the pine straw against and above the lower edge of the stucco cladding on the exterior, north and west walls of Tower #1 restricted the weep screed drainage of any water that penetrated the stucco wall assembly. As a result, the metal lathe and/or fasteners for the stucco cladding were caused to corrode and expand, which resulted in the cracks, "bulges", and rust/water stains on the exterior stucco cladding extending from the ground surface to a height approximately 3 feet above the ground surface on the exterior, north and west walls of Tower #1.

During our inspection of the detached parking garage located north of Tower #2, we observed a large crack in the exterior stucco cladding, as well as outward displacement of the stucco cladding, near the approximate center of the north wall of the garage building. There were trash and debris inside of the displaced section of stucco cladding, as well as evidence of attempted prior repairs/patching to the lower portions of the crack; indications that the crack had existed for some time. Upon inspection of the opposite side of the crack, we observed that there was visible impact damage on the lower portion of the concrete wall at the perimeter of the detached parking garage directly opposite the cracked/displaced section of stucco cladding. The impact damage to the concrete wall was located within a parking space for the detached parking garage and was consistent with impact from a vehicle attempting to enter the parking space at this location.

The above observations and conditions support our conclusion that isolated areas of the stucco and/or EIFS claddings on the exterior walls of the buildings had also sustained damage from causes unrelated to the effects of Hurricane Michael, specifically the following:

- Cracking and displacement of an isolated area of stucco cladding on the north wall of the detached parking garage consistent with a vehicle impact.
- Cracking, displacement, and/or rust/water stains on the exterior stucco cladding extending from the ground surface to a height of approximately 3 feet above the ground surface on the exterior, north and west walls of Tower #1 resulting from long-term moisture intrusion through the stucco cladding coupled with blockage of the drainage plane for the wall cavity.

## Section IV BASIS OF REPORT

- 1. Observations made by John M. Newell, P.E., on August 17 and 18, 2020.
- 2. Photographs taken by John M. Newell, P.E., on August 17 and 18, 2020.
- 3. Drone flight and high-definition aerial photographs taken by Mr. James Sprader on August 17 and 18, 2020, with a DJI Phantom 4 Pro drone.
- Interview of representatives of the Grand Panama condominium complex, Mr. Kevin Kimball and Mr. Scott Snyder of Altieri Transco American Claims, by John M. Newell, P.E., on August 17 and 18, 2020.
- 5. We reviewed the requirements of the 2001 Edition of the Florida Building Code.
- 6. We reviewed the construction plans and specifications for the buildings.
- 7. We reviewed weather data for Hurricane Michael from CompuWeather Forensic Services Division.
- 8. We reviewed historical aerial and street-view imagery of the Grand Panama condominium complex.

## Section V ATTACHMENTS

- A. Photographs
- B. Site Layout
- C. Curriculum Vitae

## Section V ATTACHMENT A

## Photographs

Photographs taken during our inspection, which were not included in this report, were retained in our files and are available to you upon request.

View of the north (front) elevation of Tower #1 of the Grand Panama property located at 11807 Front Beach Road in Panama City Beach, Florida.



#### Photograph 2

View of the impact damage to the EIFS trim between the fourth and fifth floors on the exterior, north wall of Tower #1 (arrow). Also note impact damage to the EIFS trim above the fourth-floor window.



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View of typical cracks, "bulges", and water/rust stains on the lower portion of the stucco cladding along the north wall of Tower #1. Note pine straw that abutted against and rose above the bottom of the stucco cladding.



#### Photograph 4

View of typical cracks, "bulges", and water stains on the lower portion of the stucco cladding along the west wall of Tower #1. Note pine straw that abutted against and rose above the bottom of the stucco cladding.



View of the pine straw that abutted against and rose above the bottom of the stucco cladding along the west wall of Tower #1. Also note stucco crack (arrow).



#### Photograph 6

View of the pine straw that abutted against and rose above the bottom of the stucco cladding along the north wall of Tower #1. Also note stucco crack and water/rust stains.



Close-up view of typical scars/abrasions to the finish coat of the stucco on the north wall of Tower #1.



#### Photograph 8

Close-up view of typical scars/abrasions to the finish coat of the stucco on the north wall of Tower #1.



Close-up view of typical scars/abrasions to the stucco finish coat on the north wall of Tower #1.



#### Photograph 10

Drone photograph of the north wall on the 22<sup>nd</sup> floor of Tower #1. Note chips/spalls to stucco cladding below railing (arrow), as well as typical abrasions to the stucco.



September 2, 2020 Rimkus File No. 100040602

Drone photograph of the north wall on the 13<sup>th</sup> floor of Tower #1. Note chips/spalls to the EIFS trim, as well as typical abrasions to the stucco.



#### Photograph 12

Drone photograph of the north wall on the fifth floor of Tower #1. Note typical abrasions, chips, and scars on the stucco.



View of spalled/missing section of stucco cladding below the guardrail on the easternmost 18<sup>th</sup>-floor balcony on the north wall of Tower #1.



#### Photograph 14

View of a typical stucco crack on the 22<sup>nd</sup> floor of Tower #1 at the interface of a roof overhang and the north wall of the building.



Close-up view of typical scars/abrasions to the finish coat of the stucco on the east wall of Tower #1.



#### Photograph 16

Close-up view of typical scars/abrasions to the stucco finish coat at the southeast corner of Tower #1.



Drone photograph of the east wall on the fourth floor of Tower #1. Note typical abrasions, chips, and scars on the stucco.



#### Photograph 18

Drone photograph of the east wall on the eighth floor of Tower #1. Note typical abrasions, chips, and scars on the stucco.



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Drone photograph of the west wall on the 14<sup>th</sup> floor of Tower #1. Note typical abrasions, chips, and scars on the stucco.



#### Photograph 20

Drone photograph of the west wall on the fifth floor of Tower #1. Note typical abrasions, chips, and scars on the stucco.



Drone photograph of the south wall on the 10<sup>th</sup> floor of Tower #1. Note typical abrasions, chips, and scars on the stucco, as well as chips/spalls to stucco cladding below railing (arrows).



#### Photograph 22

Drone photograph of the south wall on the sixth floor of Tower #1. Note typical abrasions, chips, and scars on the stucco.



September 2, 2020 Rimkus File No. 100040602

View of the south (front) elevation of Tower #2 of the Grand Panama property.



#### Photograph 24

View of a typical impact mark to the EIFS cladding on the exterior south wall of the fourth floor of the lower parking garage of Tower #2.



Close-up view of typical scars/abrasions to the finish coat of the stucco on the exterior, north wall of the third floor of the lower parking garage of Tower #2.



#### Photograph 26

Close-up view of typical scars/abrasions to the finish coat of the stucco on the exterior east wall of the second floor of the lower parking garage of Tower #2.



Drone photograph of the exterior, north wall of the pool deck of Tower #2. Note typical abrasions, chips, and scars on the stucco.



#### Photograph 28

Drone photograph of the exterior west wall of the pool deck of Tower #2. Note typical abrasions, chips, and scars on the stucco.



September 2, 2020 Rimkus File No. 100040602

Close-up view of typical scars/abrasions to the finish coat of the stucco on the north wall of the third floor of Tower #2.



#### Photograph 30

Close-up view of typical scars/abrasions to the finish coat of the stucco on the east wall of the first floor of Tower #1.



Close-up view of typical scars/abrasions to the finish coat of the stucco on the north wall of the sixth floor of Tower #2.



#### Photograph 32

Drone photograph of the exterior east wall of Tower #2. Note typical abrasions, chips, and scars on the stucco, as well as typical impact marks to the EIFS trim around the 14<sup>th</sup> and 15<sup>th</sup> floor windows (arrows).



September 2, 2020 Rimkus File No. 100040602

Drone photograph of the exterior east wall of the 15<sup>th</sup> floor of Tower #2. Note typical abrasions, chips, and scars on the stucco, as well as typical impact marks to the EIFS trim (arrow).



#### Photograph 34

Drone photograph of the exterior, north wall of the 13<sup>th</sup> floor of Tower #2. Note typical abrasions, chips, and scars on the stucco.



Drone photograph of the exterior, north wall of the seventh floor of Tower #2. Note typical abrasions, chips, and scars on the stucco.



#### Photograph 36

General view of the guardrail around the perimeter of the pool deck of Tower #2.



View of a typical guardrail post mounting location on the pool deck of Tower #2. Note spalled stucco around the guardrail post mounting location.



#### Photograph 38

View of a typical guardrail post mounting location on the pool deck of Tower #2. Note spalled stucco around the guardrail post mounting location.



View of a typical guardrail post mounting location on the pool deck of Tower #2. Note spalled stucco around the guardrail post mounting location.



#### Photograph 40

Drone photograph of the exterior west wall of the sixth floor of Tower #2. Note typical abrasions, chips, and scars on the stucco.



September 2, 2020 Rimkus File No. 100040602

Drone photograph of the exterior west wall of the third floor of Tower #2. Note typical abrasions, chips, and scars on the stucco.



#### Photograph 42

Drone photograph of the exterior south wall of the eight floor of Tower #2. Note typical abrasions, chips, and scars on the stucco.



September 2, 2020 Rimkus File No. 100040602

Drone photograph of the exterior south wall of the 12<sup>th</sup> floor of Tower #2. Note typical abrasions, chips, and scars on the stucco.



#### Photograph 44

View of the front (east) elevation of the detached parking garage located north of Tower #2.



Close-up view of typical scars/abrasions to the stucco finish coat on the east wall of the second floor of the detached parking garage.



#### Photograph 46

Close-up view of a typical scar/abrasion to the stucco finish coat at the southwest corner of the first floor of the detached parking garage.



Close-up view of typical scars/abrasions to the stucco finish coat on the south wall of the first floor of the detached parking garage.



#### Photograph 48

Close-up view of typical scars/abrasions to the stucco finish coat on the east wall of the second floor of the detached parking garage.



View of the cracked/displaced section of stucco cladding near the approximate center of the north wall of the detached parking garage.



#### Photograph 50

View inside of the displaced section of stucco cladding shown in **Photograph 49**. Note trash inside of the displaced section of stucco cladding.



View of the bottom of the cracked/displaced section of stucco cladding shown in **Photograph 49**. Note prior patch/repair to the bottom of the crack.



#### Photograph 52

View of the north wall of the detached parking garage directly opposite the cracked/displaced section of stucco cladding shown in **Photograph 49**. Note impact mark to the concrete wall within the parking space (arrow).



Close-up view of the impact damage to the north wall of the detached parking garage shown in **Photograph 52**.



## Section V ATTACHMENT B

## Site Layout

## **GRAND PANAMA BEACH RESORT SITE LAYOUT**



## **GRAND PANAMA TOWER #1 SITE LAYOUT**



## **GRAND PANAMA TOWER #2 SITE LAYOUT**



## **GRAND PANAMA DETACHED PARKING GARAGE SITE LAYOUT**



## Section V ATTACHMENT C

## **Curriculum Vitae**



## John M. Newell, P.E.

Consultant Property

### Background

A graduate of Louisiana State University, Mr. Newell holds a Bachelor of Science degree in Civil Engineering and is a registered professional engineer in Louisiana, Texas, Florida, North Carolina, South Carolina, Alabama, and Mississippi.

Mr. Newell has in-depth knowledge and experience spanning multiple industries, including oil & gas, construction, and forensics. Mr. Newell has managed, inspected, investigated, and analyzed

numerous simultaneous damage claims, engineering failures, and consulting projects for the legal industry, insurance carriers and independent adjusters, contractors, large-scale civil municipal projects, government organizations, and other private parties and institutions. He has performed forensic investigations and analyses within specialized areas including, but not limited to, single- and multifamily dwellings, warehouses, office buildings, shopping centers, and schools, as well as apartment and condominium complexes.

Mr. Newell has investigated damages to residential and commercial properties resulting from various causes, including catastrophic weather events such as floods, hail, hurricanes, and tornadoes, construction defects, engineering design defects, construction projects, construction-induced ground vibrations, failure of sewerage and drainage structures, slope failures and deflection of temporary retaining structures, and other geotechnical phenomena, as well as the analysis of residential and commercial building structures and their relative compliance with the local governing building code(s). He has performed cause and origin investigations of water/moisture intrusion, rot and decay to structural framing members, differential foundation movement, and structural collapses. Mr. Newell has determined the structural salvageability of residential and commercial properties damaged by the aforementioned causes, determined the requisite scope of repair and restoration, and managed subcontractors of varying disciplines in the preparation of line-item cost estimates for the remediation of those damages.



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## Professional Engagements

• Pressure Safety Valve Investigation – Evans City, PA (May 2015 – February 2016)

Performed investigation, calculation, and analysis of more than 150 pressure safety valves for a large-scale cryogenic natural gas processing facility to determine if they were appropriately sized for a variety of worst-case scenarios.

Enhanced Oil Recovery Project – Russell County, KS (June 2014 – May 2015)
 Sized, designed, and performed head loss calculations for approximately 120 total miles of crude oil production pipelines and 50 total miles of CO2 injection pipelines for mature oil wells.

## Forensic Engagements

- Claimed Construction-Induced Damage Analyses
  - Perform pre-construction and post-construction inspections to address claimed property damage from large-scale civil municipal drainage projects
  - Analyses of daily QAR/QCR reports
  - Analyses of vibration-monitoring reports and calculation of peak-particle velocities
  - Develop scope of repair for properties damaged by construction projects
  - Manage subcontractors in the preparation of estimates to repair damaged structures

#### • Structural Evaluations and Investigations

- Perform cause and origin investigations of moisture/water intrusion
- Perform cause and origin investigations of rot and decay to structural framing members
- Structural assessments for properties damaged by tornados
- Investigate damage resulting from differential foundation movement
- Structural assessments for properties damaged by fallen trees and wind-borne debris impact
- Structural assessments for commercial and residential structures damaged by vehicular impacts
- Structural assessments of concrete foundation slabs and timber foundation piles damaged by fire
- Assessment of damage to structures resulting from storm surge flooding and/or flood-borne debris impact
- Assessment of damage to residential structures resulting from inadequate crawlspace ventilation
- Perform cause and origin investigations of excessive structural deflections and partial collapse to residential and commercial properties
- Evaluation of wind and/or wind-borne debris impact damage to a variety of roof coverings, including three-tab asphalt composition shingles, architectural asphalt shingles, slate and clay tile, modified bitumen, standing-seam metal panels, and metal R-panels
- Assessment of damage to concrete foundations slabs and driveways resulting from differential foundation movement, drying shrinkage, and thermal expansion and contraction
- Assessment of damage to floor coverings, including ceramic and marble tile, linoleum, laminate, and wood floor coverings
- Assessment of lamellar corrosion to reinforcing steel within concrete columns

 Assessment of damage to structures resulting from construction-induced ground vibrations and/or deflection of steel sheet piles

- Assessment of structures and their relative compliance with the local governing building code(s) at the time of their construction
- Evaluation of hail damage to a variety of roof coverings, including three-tab asphalt composition shingles, architectural asphalt shingles, slate and clay tile, modified bitumen, standing-seam metal panels, and asbestos cement shingles
- Disaster Investigations

FORENSIC ENGINEERS AND CONSULTANTS

- Southern Mississippi Tornados Mississippi (2019 and 2020)
- Dallas Tornados Texas (2019)
- Hurricane Michael Florida (2018 and 2019)
- Hurricane Florence North Carolina and South Carolina (2018 and 2019)
- Hurricane Irma Florida (2017 and 2018)
- Hurricane Harvey Texas and Louisiana (2017 and 2018)
- Baton Rouge Flooding Louisiana (2016)

### **Professional Experience**

#### • Rimkus Consulting Group, Inc.

Consultant – Property Division
 Investigate and evaluate commercial and residential structures to determine the cause and origin of
 structural concerns and/or defects.

- Leonard C. Quick & Associates, Inc.
  - Senior Engineer

Manage, inspect, investigate, and analyze numerous simultaneous damage claims and engineering failures for the legal industry, insurance carriers, contractors, and other private parties and institutions. Draft comprehensive technical reports to present the findings of each investigation to the client.

- Pelican Energy Consultants, LLC
  - Engineer II

Designed, sized, and procured major separation vessels, heat exchangers, compressors, pumps, safety valves, and storage tanks for onshore and offshore oil & gas processing facilities. Perform head loss calculations for pipeline design and sizing. Design flow-metering stations for oil and gas storage facilities.

2019 – Present

2016 - 2019

2014 - 2016



## Education and Certifications

- Civil Engineering, B.S.: Louisiana State University (2014)
- Registered Professional Engineer:

Louisiana (License No. 42855) Texas (License No. 132050) Florida (License No. 86017) North Carolina (License No. 047470) South Carolina (License No. 36053) Alabama (License No. 38566) Mississippi (License No. 30332)

### **Continuing Education**

- Roofing Technology, Maintenance, & Inspection: Cindott, Inc. (2020) Five-day hands-on roof training course in Toronto, ON
- International Building Code & More, Means of Egress: RedVector (2019)
- Ethics for Professionals: RedVector (2019)
- Soils and Foundations, The Lowdown on Dirt: RedVector (2019)
- Anatomy of Construction Defects: RedVector (2019)
- Climate Change: U.S. Army Corps of Engineers (2019)