

Milestone Inspection Report

KEG File: 21RS-0672
December 12th 2022
FINAL COPY



For:

Gulf Shores Condominium
Association, Inc.
255 The Esplanade
Venice, FL 34285

David G Karins PE #52677
Florida Certificate of Authorization Number 8371

December 12th 2022

Mr. Bill Haller
Gulf Shores Condominium Association, Inc.
255 The Esplanade
Venice, FL 34285

Via Email: wjhoh@aol.com

RE: Gulf Shores Milestone Inspection Report
255 The Esplanade, Venice, FL 34285
KEG File# 21RS-0672 REV01

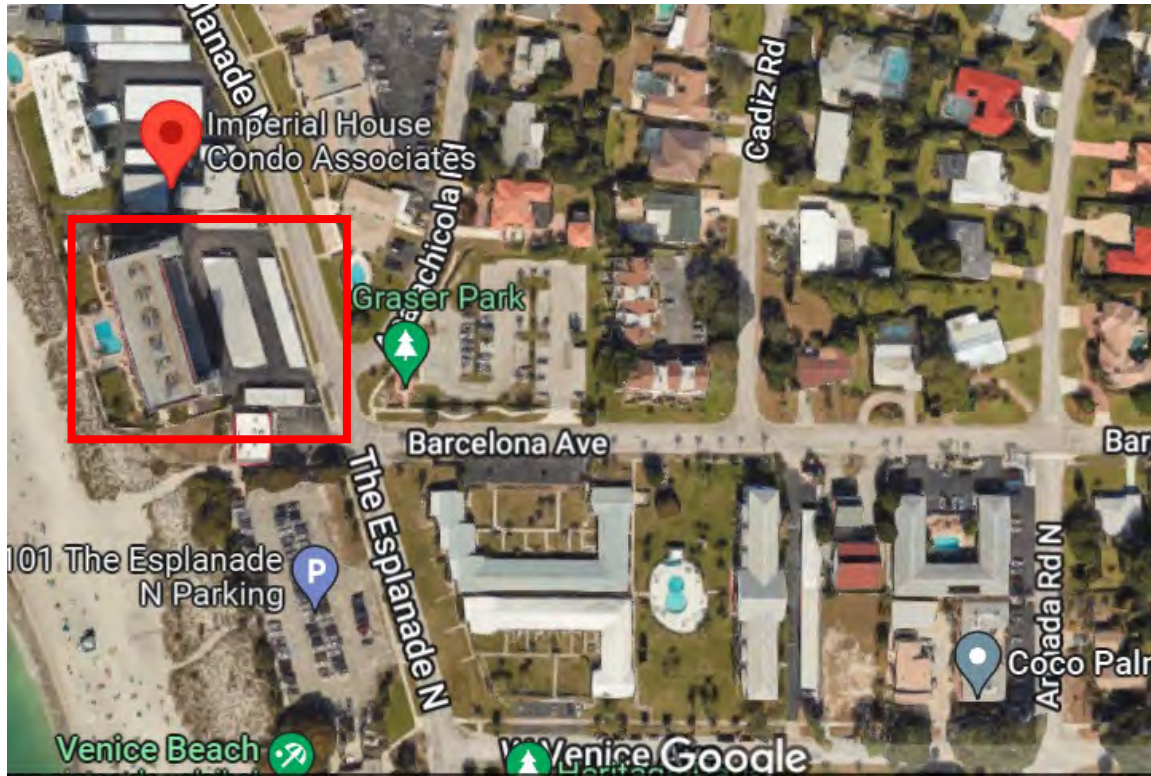
Dear Mr. Haller:

Karins Engineering Group, Inc. (KEG) agreed to render professional engineering services in connection with a Building Envelope and Structural Component Baseline Existing Condition Study at **Gulf Shores Condominium, 255 The Esplanade Venice FL 34285** (hereinafter called the “Project” and the “Client”) on July 22nd 2021. Per the signed agreement dated July 22nd 2021, KEG made multiple site visits to Gulf Shores between July and December of 2021 to complete a limited condition observation and evaluation of the building conditions and construction, as it relates to the building envelope and related structural components that are readily accessible.

Our observations are intended to identify significant deficiencies, problems, or ongoing maintenance concerns that are visible at the time of our observations; the intent of our review was to ascertain the general condition of these components and to make recommendations for appropriate repair and protection. This included an inspection from the exterior ground as well as walkways and balconies.

This structural inspection is for the sole purpose of identifying structural deficiencies of the building or structure that pose an immediate threat to life, safety, or where failure of a critical component is imminent. This structural inspection shall be for the purpose of determining the structural condition of the building or structure to the extent reasonably possible of any part, material, or assembly of a building or structure which affects the safety of such building or structure and/or which supports any dead or designed live load.

Neither our observations nor this report is intended to address hidden defects, mechanical, electrical, architectural, code compliance, or other areas of the building not specifically mentioned herein. Our investigation was not intended to be exhaustive or to detect deficiencies except as specifically mentioned herein. Due to the limited scope of this investigation, we cannot attest to the structure’s compliance with applicable building codes and/or accepted construction techniques, except as noted herein. KEG did not attempt to verify the adequacy of the original design or supplant the responsibility of the Engineer of Record.



Aerial View of Gulf Shores from Google Maps

NOTE:

The newly passed bill, CS/HB 5D creates a statewide building milestone inspection requirement for condominiums and cooperative buildings that are three (3) stories or higher in height thirty (30) years after initial occupancy and twenty-five (25) years after initial occupancy for buildings located within three (3) miles of the coast.

Gulf Shores – 10 stories.

Gulf Shores was built circa 1973

Gulf Shores – does not appear to have substantial structural deterioration. This report meets the requirements of a Phase 1 inspection. An inspection every 10 years after this initial Phase 1 inspection will be required by Gulf Shores

Gulf Shores currently does not require an additional more intensive Phase 2 inspection.

Karins is to provide this milestone Phase 1 inspection report to the local building official for Sarasota County and Gulf Shores' community association manager is to make this report part of the association's official records. Gulf Shores is also required to make this report available to all unit owners as well as any potential purchaser of a unit.

Further to this inspection report, Gulf Shores is to conduct a structural integrity reserve study every 10 years. Karins is equipped to handle this task.



EXECUTIVE SUMMARY

Gulf Shores is located at 255 The Esplanade North, Venice, FL 34285. Gulf Shores is a 68-unit condominium located on the Gulf of Mexico on Venice Island. This 10 story condo features two bedroom and two bath configurations and feature private expansive balconies. Gulf Shores amenities and configuration include elevators, covered parking, exterior facing balcony lanais, a pool, and a clubroom.

The building's structural elements appear to be built with Reinforced Concrete column floor slabs, and infill Concrete Masonry Units (CMU). The interior finishes appear to consist of conventionally built framing and drywall. The foundation for the building tower appears to be seemingly comprised of reinforced concrete piles.

The building sits within 1000 feet of a shoreline to the west and has asphalt parking to the east. Paving and sloping appear to be used for drainage.

Based on the scope of the inspection and for the areas that were able to be assessed, within a reasonable degree of engineering certainty, we have not observed any conditions that would compromise the safety of the building for its intended use and occupancy. We reserve the right to amend our opinion should new information be brought to our attention.

This report meets the requirements of a Phase 1 inspection. An inspection every 10 years after this initial Phase 1 inspection will be required by Gulf Shores

Gulf Shores currently does not require an additional more intensive Phase 2 inspection.

SCOPE OF STRUCTURAL INSPECTION:

- 1) Foundation
- 2) Concrete Systems, Structural Beams and Columns
- 3) Roofing Systems
- 4) Exterior Finishes
- 5) Windows and Doors
- 6) Life Safety
- 7) Balconies



GENERAL INFORMATION

During our visits, Karins observed the following building components with board members and maintenance staff:

- Roof and both Elevator Mechanical Rooms
 - Trash chutes
 - Mansard Roof Trusses
 - Stairway Pressurizers
 - AC stands observed
- Ground Floor and Balcony Structural Columns
- Walls and Stairwells
- Pump Pit for Fire Pump and Booster Pumps
- Carports on Ground floor
- 1 Units on all floors
 - Unit Balconies and Lanai Columns
 - Unit Windows and Sills
 - Clubroom on Ground Floor
- General Overview of the Exterior

Exploratory work was undertaken in the following capacity:

- Drone flight to capture the exterior of all levels and assess existing conditions
- Sounding of walkways on all floors was undertaken. See Exhibit A.

All Units at Gulf Shores were entered. At no time did Karins move or alter any unit configuration to view components or access items whether structural or non-structural (drywall over a structural wall was not inspected beyond a visual overview).

Karins did not take note of the following:

- Major mechanical components beyond visual inspection of readily available components
- Major electrical components beyond visual inspection of readily available components
- Major plumbing components beyond visual inspection of readily available components
- Doors and windows beyond visual inspection of sealants
- Inspection of exterior finishes beyond a ground floor level view
- Foundations or groundwork including piles which were not accessible
- Major drainage systems beyond its influence on erosion



An apparent full set of Building plans were provided to Karins. These plans were unknown to be As Built Drawings. Karins did not review every subsection of the drawings. Karins referenced these drawings on site during our visit and reviewed the drawings in our office during the making of this report. No attempts to pull public records were made. *Updates to this edition can be made if further information is provided.*

REFERENCES AND CONTACTS:

Karins had access to the following documents and discussed the making of this report with the following contacts:

Documents:

- Previous Concrete Repairs from 1997 on lanais
- Building Plans

Contacts:

- Phil Walker – Property Maintenance
- Carol Swan – Past Board President
- Bill Haller – Current Board President



OBSERVATIONS



Figure 1 Gulf Shores



Figure 2 Gulf Shores



STRUCTURAL

Other than an explanation of critical factors that affect the structural integrity of buildings - such as spalling and rebar corrosion - all expanded knowledge and background about the conditions observed at Gulf Shores can be further read and understood in Appendix B.

1. Foundations

The foundation, soils and accompanying systems were not observed or investigated at Gulf Shores. The foundations are buried under ground and soil testing at this time was not offered as part of our structural scope.

According to the plans, prestressed reinforced concrete piles were driven into the soil and the grade beams were placed atop these piles. Columns were then attached to the grade beams.

We cannot verify if this is the actual construction methodology for Gulf Shores.

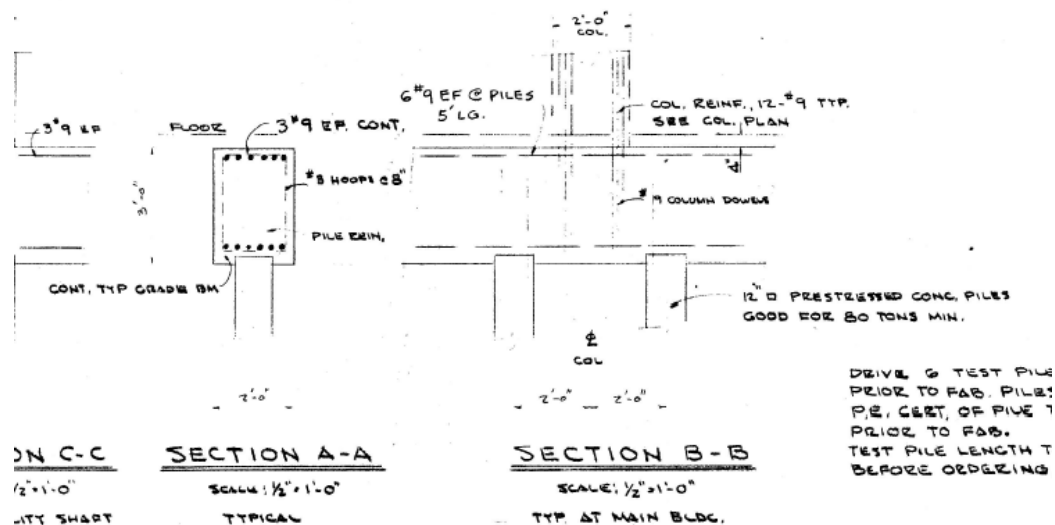


Figure 3 Foundation from drawings at Gulf Shores

The pump room and elevator pit appear per the plans to have more grade beam foundation reinforcement.



2. Concrete Systems, Structural Beams and Columns

A. Concrete Masonry Units

8” concrete masonry units (CMU block) were used as the building in fill material between the columns and flat slab floors at Gulf Shores. This means that anywhere there is a dividing or demising wall between units, it appears to be from CMU block. This includes the stairwells and the elevator equipment rooms. More than likely, corners are filled with grout and vertical rebar and any openings have vertical and horizontal rebar around the perimeter. Plans did not call out any grout or rebar in the CMU.

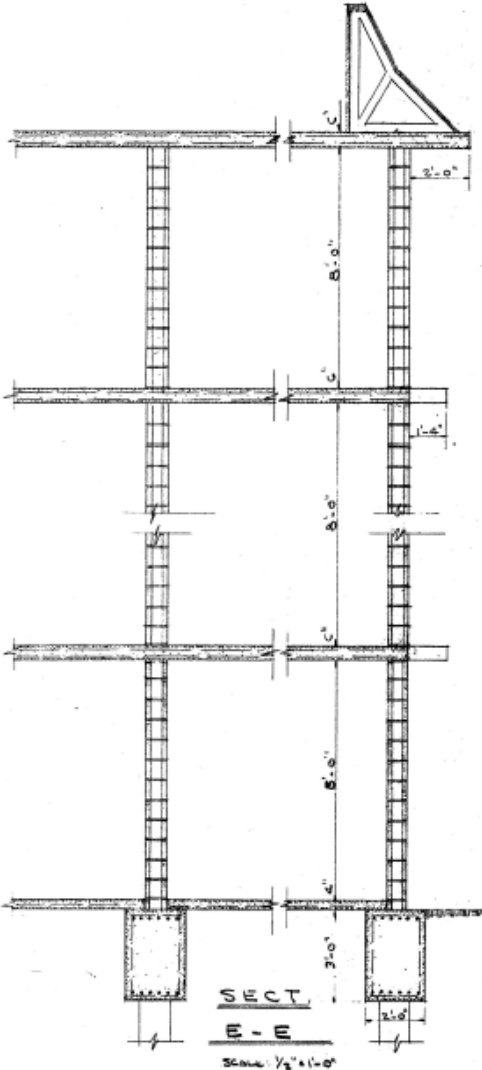


Figure 4 Typical CMU exterior wall configuration





Figure 5 CMU construction in the stairwells



Figure 6 Elevator equipment room with CMU





Figure 7 Typical Dividing CMU wall and metal framed wall in Unit 606

Corners of all buildings and openings are more than likely filled CMU.

B. Clay tile Roof

This section does not apply to Gulf Shores.

C. Reinforced concrete columns

Gulf Shores utilizes reinforced concrete columns throughout the entire building as its primary method of construction.

Gulf Shores' columns help support the floor slab and carry loads to the ground.

These columns are seemingly connected via rebar to the grade beams and pilasters at the foundation level and then connected to the floor slab all the way up to building.

These columns are fully vertical and do not change planes or offset in any way.

Gulf Shores seemingly has 99 columns supporting the building (Fig 8) . Karins confirmed that these columns appear to be built in excess of the current building code and may enhance the structural integrity of the building.



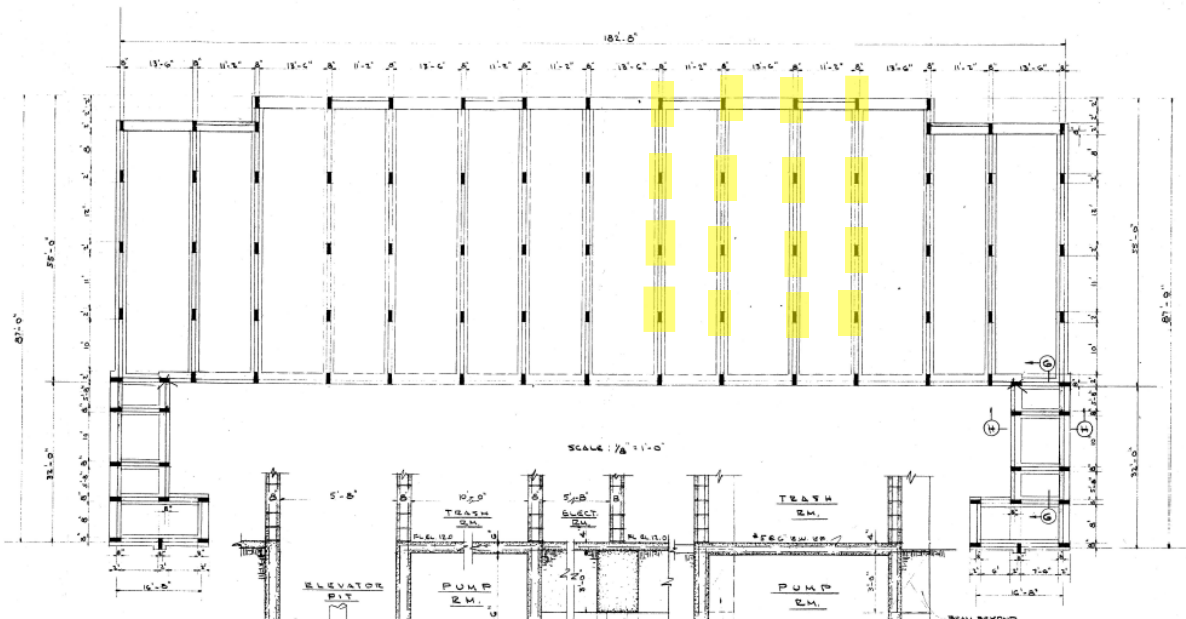


Figure 8 Plans showing columns

These columns are each filled with 12 vertical pieces of rebar that extends all the way to the roof.



Figure 9 Typical column at balcony in end unit



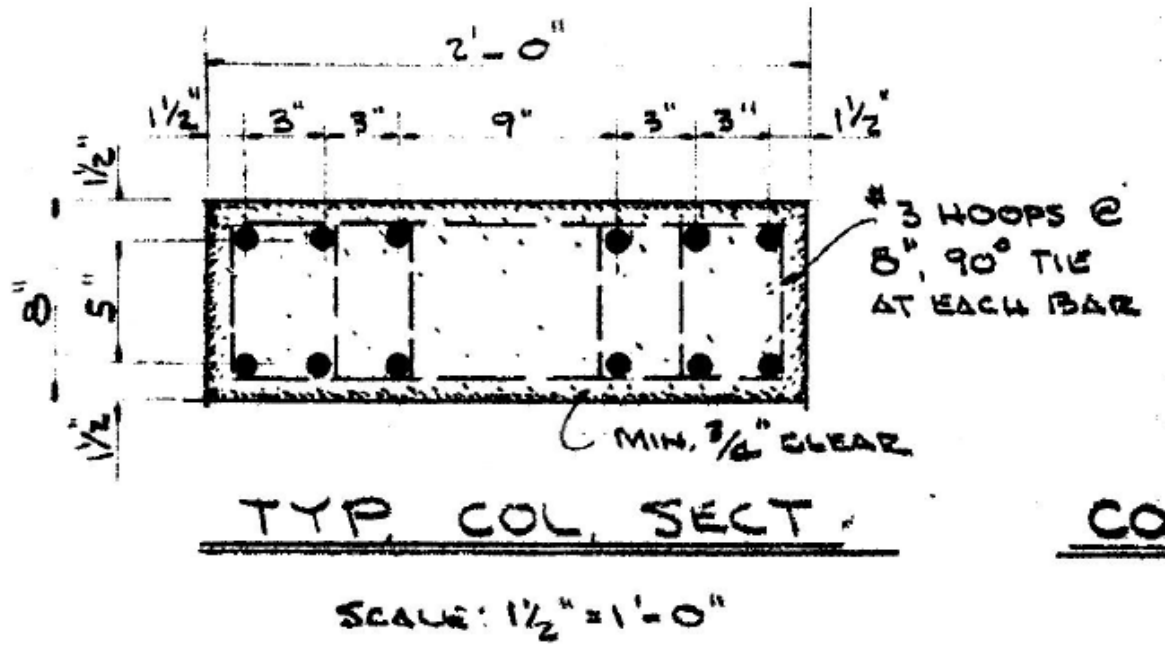


Figure 10 Column Detail from drawings

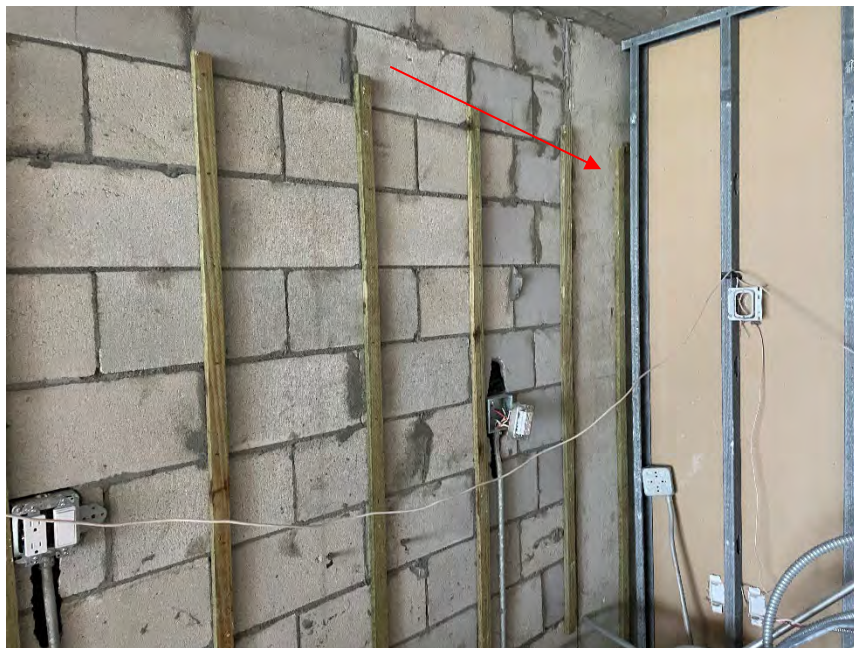


Figure 11 Column in interior of Unit 606

The stairwells are poured in placed and tied into the columns as well.



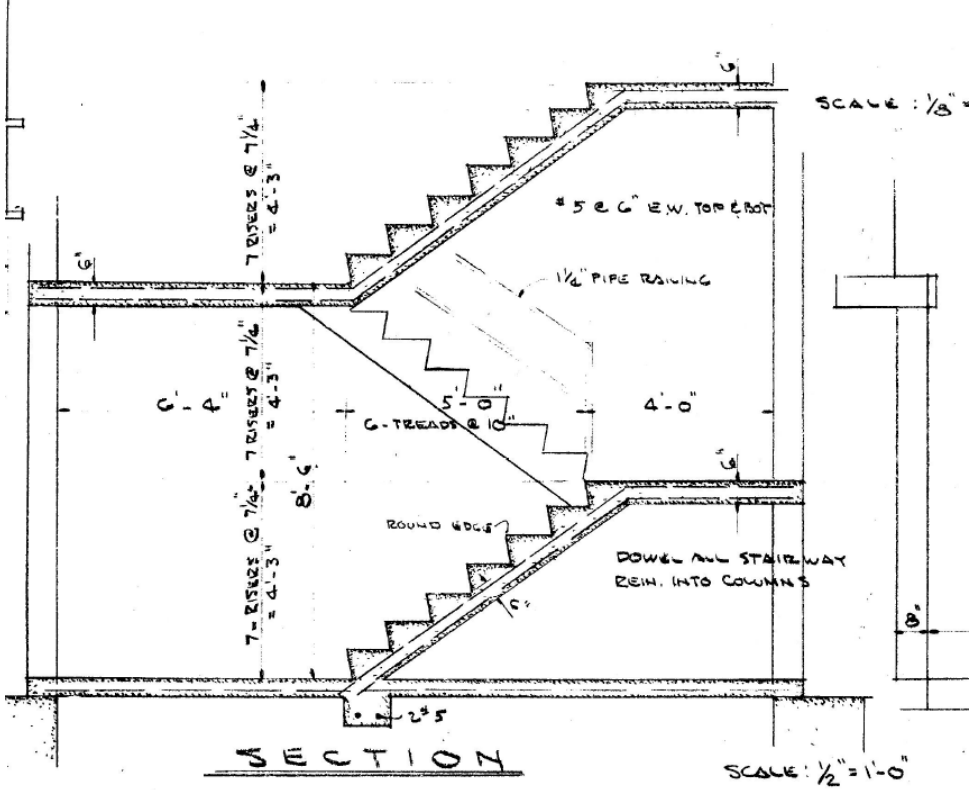


Figure 12 Stairwells per drawings



Figure 13 Stairwell ties into columns



D. Reinforced concrete beams

Gulf Shores seemingly **does not** utilize beams as the primary method of construction and structural integrity. While there are some steel elevator shaft beams at the rooftop, the plans nor our observations confirm any beams.

This is based on the Flat Plate construction methodology used at Gulf Shores condominium. See the Floor Systems Section.

E. Lintels

Lintels are employed most likely over exterior wall penetrations of the CMU like door and window openings. These masonry U-block lintels are more than likely reinforced with rebar horizontally. These lintels are designed to carry concrete block and lighter wall construction only, not to carry floor or roof loads. This however is not called out in any plans Karins reviewed.



Figure 14 Lintel over opening probable

F. Floor Systems - Flat Slab

Gulf Shore uses reinforced floors slab as the other main structural component to its construction.

Gulf Shores appears to have a conventional slab which means that the floor is not post tensioned.



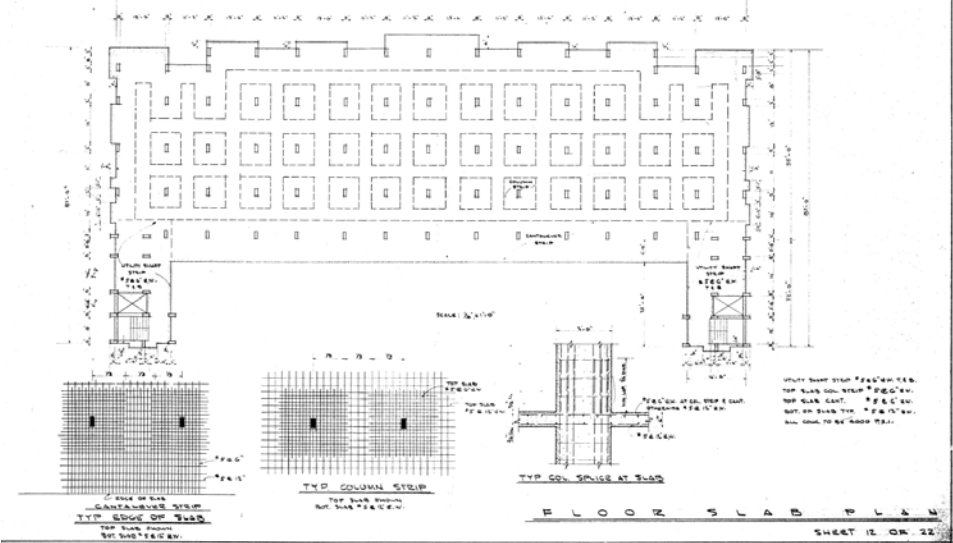


Figure 15 Flat Slab Floor Construction

Flat plate systems are solid concrete slabs of uniform depths that transfer loads directly to the supporting columns **without the aid of beams**. Flat plates are probably the most used slab system today for multi-story reinforced concrete hotels, motels, apartment houses, hospitals, and dormitories.

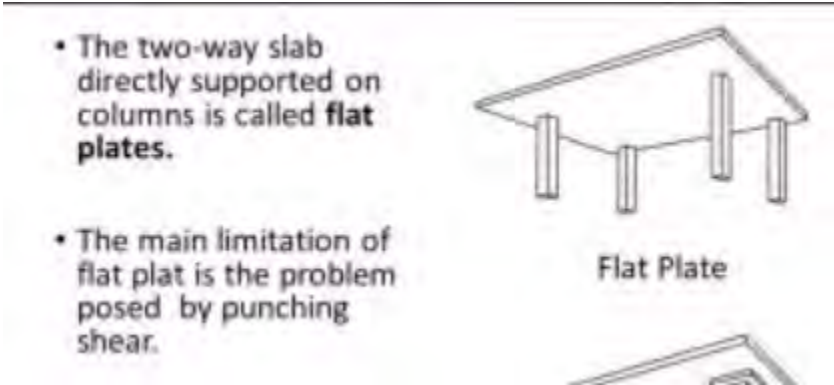


Figure 16 Example of Flat Plate





Figure 17 Floor at Gulf Shores

In flat plate structure the loads directly taking by supporting columns. It requires the simple formwork and flat plates will usually result in such economical construction. Concrete slabs are often used to carry vertical loads directly to walls and columns without the use of beams.

Shear walls do not appear at Gulf Shores. Karins has the opinion that the stairwell and elevator shafts are designed in such a way as to take some of the lateral load. Further investigation would need to occur to validate our opinion.



Figure 18 Floor terminating in staircase



G. Structural Observations

Gulf Shores uses a flat plate and column construction methodology of columns and floor slabs and in-filled CMU block. Due to its location in a high wind zone, along with characteristics inherent in any type of concrete, cracking will and has occurred.

Cracks – Karins identified crack sizes as such:

- HAIRLINE if barely discernible.
- FINE if less than 1mm in width.
- MEDIUM if between 1 and 2 mm in width.
- WIDE if over 2 mm.

Hairline and Fine Cracks

Hairline and fine cracks are visible in many places at Gulf Shores, particularly in the exterior stucco and window sill to exterior stucco transitions.

These hairline and fine cracks are of no structural concern and are considered shrinkage or temperature cracks. Some cracks may be exterior finish or sealant related. See Appendix C.

However, chlorides in the water migrating through the structural concrete slab results in corrosion of the reinforcing steel. This corrosion will eventually lead to structural failure of the concrete slabs, beams and columns if waterproofing measures are not taken.





Figure 19 fine cracking at balcony ceiling



Figure 20 fine cracking at window sill





Figure 21 fine cracking at CMU at all elevations of walkways

Medium and Wide Cracks

Medium cracks were observed during our review of all columns in the lanais. These cracks presented at the slab edges of the balcony floors and on window sills.



Figure 22 Balcony slab cracks observed at Unit 204





Figure 23 Balcony ceiling cracks observed at Unit 406

H. Spalling

Overview of Structural Spalling

Evidence of cracking and deterioration generally becomes visible at beams, slabs, columns and slab edges at the onset of spalling and exposed reinforcement. Concrete deterioration occurs due to nature's universal characteristic that all things tend toward a more stable state. Reinforcing steel as installed in concrete structures is a refined product whereby iron alloys are made to exhibit favorable strength characteristics. Unfortunately, these metal alloys are not chemically inert; i.e. outer electron valences are not full. Under favorable conditions, the metal reacts with available oxygen to create iron oxides, which are more stable than the original metal.

When reinforced concrete is first placed, the surrounding concrete protects the reinforcing steel. Chemical characteristics of the concrete affect the oxidation reaction, creating a protective layer of non-expansive iron oxide around the reinforcing steel. This protective layer is known as a "passivating layer."



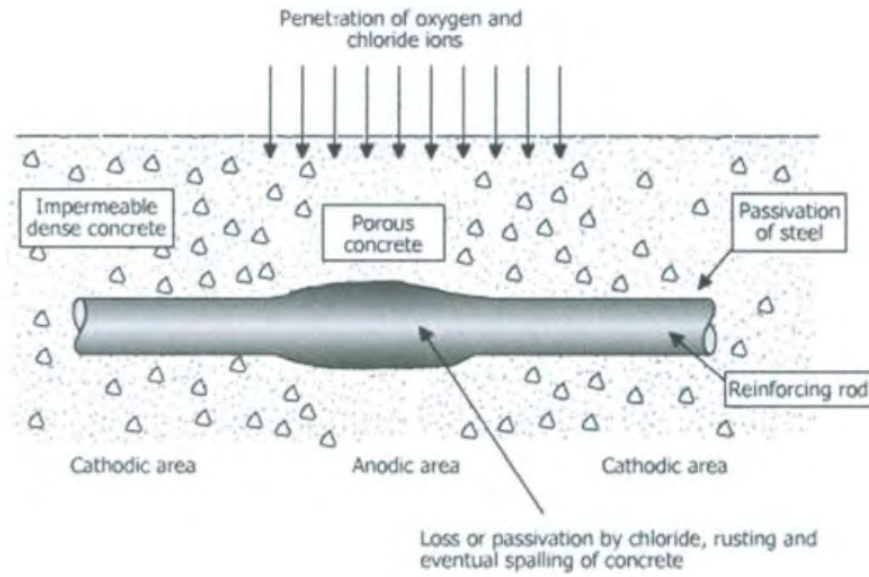


Figure 24 Corrosion of rebar

Following formation of the passivating layer, further oxidation does not occur if the characteristics of the concrete remain unchanged. However, as concrete is exposed to the elements, the chemical characteristics of the concrete change, resulting in an environment conducive to corrosive oxidation of the metal. The oxides formed by this reaction are considerably more voluminous than the base metal (up to eight times greater) and are commonly known as rust. Unlike the passivating layer, corrosive oxidation continues until all the base metal has been converted to iron oxides. In reinforced concrete, the results of this corrosion are a loss of strength and, eventually, collapse.

The corrosion of reinforcing steel in the concrete of coastal buildings is further affected by the presence of airborne salts. The salts are highly chemically reactive, accelerating the above-mentioned change in the chemical characteristics of the concrete. When in contact with the reinforcing steel, the salts react directly with the passivating layer and the metal, also accelerating the corrosion process. The corrosion of reinforcing steel is not only a chemical process, but an electrical one as well. The above-described reactions take place through the exchange of electrons. Consequently, electrical currents are generated within the reinforced concrete.

As corrosive oxidation takes place, the volume increase in the reinforcing exerts large tensile forces on the surrounding concrete, easily overcoming the concrete's relatively low tensile strength. To relieve these tensile forces, cracks and failure planes form in the concrete. As the corrosion continues, the concrete continues to crack (or delaminate) and eventually breaks off. Cracks that have propagated to the extent where concrete has broken off are known as spalls. To reduce this problem of corrosion, the American Concrete Institute (ACI) has established minimum requirements for concrete cover. ACI currently prescribes a cover of 1-1/2" for smaller bar sizes in structural elements that are not protected from the elements. In normal environments, this cover should provide protection adequate to extend the life of a structure to its anticipated useful life, generally 50 years.



Prior to the 1970's, the requirement was 3/4" but was increased to its current level following studies of concrete porosity and resistance to chloride penetration by the U.S. Army Corps of Engineers, ACI, the International Concrete Repair Institute (ICRI), and others.

These minimum concrete cover requirements recognize that the chemical changes in the concrete as described above take time to occur, and, in general, protect the reinforcing for the anticipated life of the structure. However, corrosion frequently occurs before the design life of the structure is reached. Premature corrosion occurs due to concrete cover that is less than prescribed (generally due to construction errors in steel or concrete placement), poor quality concrete, cracks (which allow reactive chlorides a direct path to reinforcing steel), or exposure to corrosive environments.

Removing chloride-contaminated concrete and replacing it with fresh concrete is more likely to produce a durable repair rather than simply repairing what appears to be wrong. However, there is still no guarantee that the procedure will be 100% successful. **This is because it is extremely difficult to identify precisely how much concrete needs to be removed to ensure that future corrosion sites are eliminated. It is also very difficult to remove all chloride contamination from the reinforcement; particularly where pitting corrosion has occurred. And, most of all, a repair of this nature may, in many situations, accentuate corrosion in the reinforcing steel adjacent to the repair area. This phenomenon is often called ring anode corrosion or halo effect.**

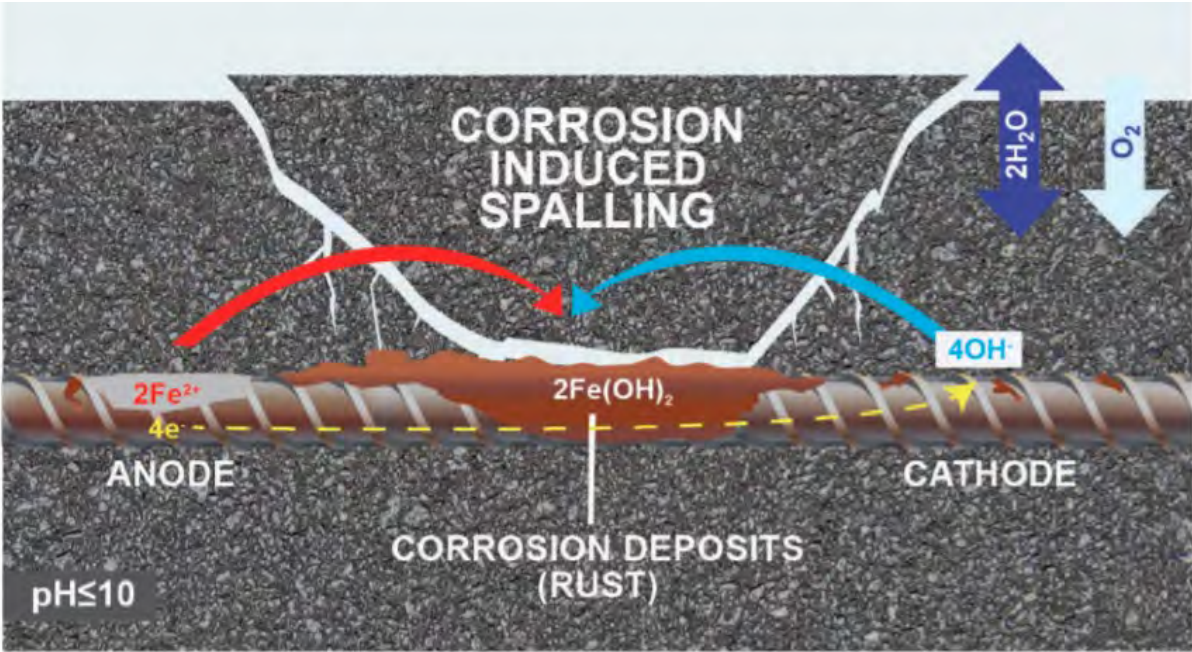


Figure 25 Before Halo Effect



Ring anode corrosion results from electro-chemical incompatibilities between the repair and the substrate concrete. Differences between the base concrete and the repair can create differences in electrical potentials that drive new corrosion cells across the interface between the patch and the substrate concrete.

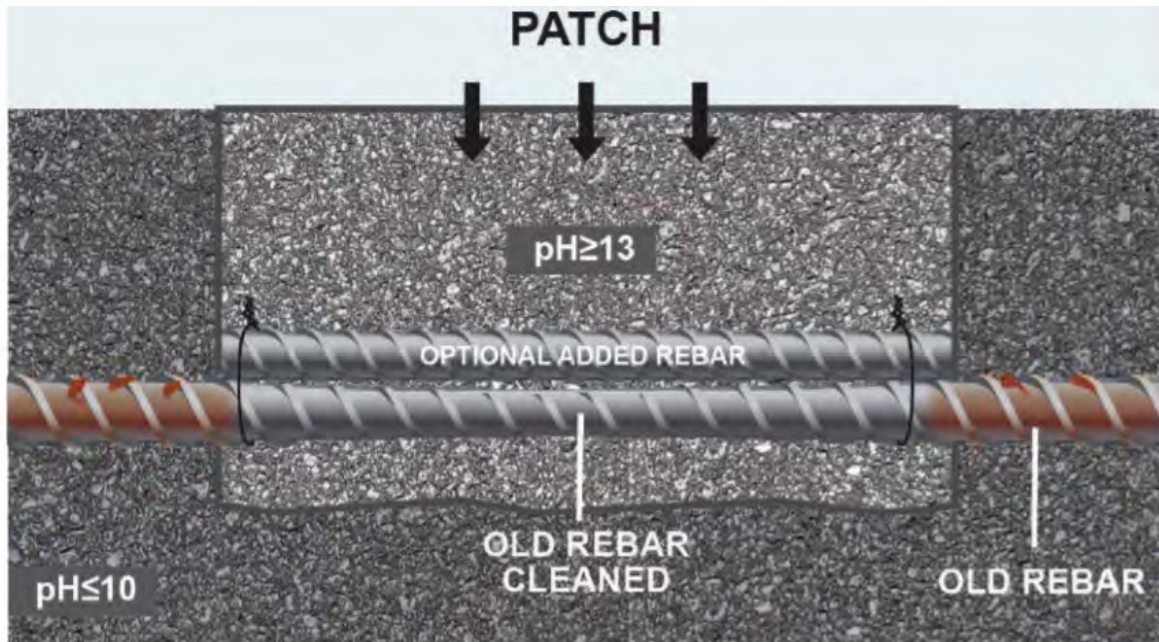


Figure 26 Ring anode corrosion

Factors that can lead to corrosion problems include differences in chloride ion content, pH, permeability, or even different types of reinforcing steel that are coupled together. These factors may accelerate corrosion in the repair itself, but more often results in deterioration of the concrete adjacent to the repair. The rate of deterioration due to ring anode corrosion is dependent upon the same factors that control the overall rate of corrosion. These include the amount and difference in chloride content, moisture availability, temperature, and permeability of the concrete.

Spalling at Gulf Shores

At Gulf Shores, spalling at balcony slab edges, windowsills and columns was observed.

At the time of this writing, KEG File 18RS-0080 Gulf Shores Balcony Repair project was completed with the contractor, CGC. **Gulf Shores has remediated all major structural spalling locations at major structural elements like columns and floor slabs.**

Other areas, such as windowsills and balcony slab edges are still outstanding and need to be addressed. Gulf Shores plans to address these matters during the upcoming 2023 work under KEG File 22RS-0833.





Figure 27 Typical Window Sill spalling



Figure 28 Spalling at slab edge



I. Rebar Corrosion and Corrosion

Any spalling or delamination is evidence of connection metal corrosion; in circular fashion, the locations where concrete spalling has occurred exposes the connections to the detrimental environmental conditions that exist in close proximities with salt water and high winds. Without a full-scale overview of every rebar splice and column connection at Gulf Shores, it is assumed that there is evidence of connection corrosion when rust stains are seen on concrete or once a connection is exposed.

Other corrosion observed in the Pump Room with regards to the fasteners of the water pump to the concrete. The concrete has deteriorated from chemicals leaching or draining into this lower pit as well.

Karins had a Product Rep with Creto DPS meet Gulf Shores on site and offer their product suggestions for remediation. The maintenance team at Gulf Shores is also working on the recommendations to address these issues. This is not a structural concern but could compromise the continuous operation of the water pumps supplying water to the upper floors.



Figure 29 Pump room with corrosion on fasteners



3. Roofing Systems

A. Flat Roofing Systems

Gulf Shores employs a flat roofing system seemingly consisting of a modified bitumen membrane with a roof coating applied; this sits over the concrete roof slab. At each end of the roof, an elevator roof exists that holds the traction elevator equipment.

A review of the existing membrane roof shows evidence of poor removal of the last roofing coating if there was one applied beforehand. Gatoring, a term used to describe the condition of a roofing membrane due to the effect of UV rays (sunlight), can be seen in the current roofing system. This gatoring may lead to future cracking, but **an inspection in the spring of 2022 by Tropical Roofing Products states that the inspected membrane is in good condition.**

A 15-year Labor and Material warranty has been provided by Advanced Roofing and Sheet Metal in 2017 for the installation of Tropical 914 P Silicone System and they are also in agreement with Gulf Shores for a 5 year maintenance agreement.

If repairs are needed, Tropical 924 and components can be used to repair any area needed.

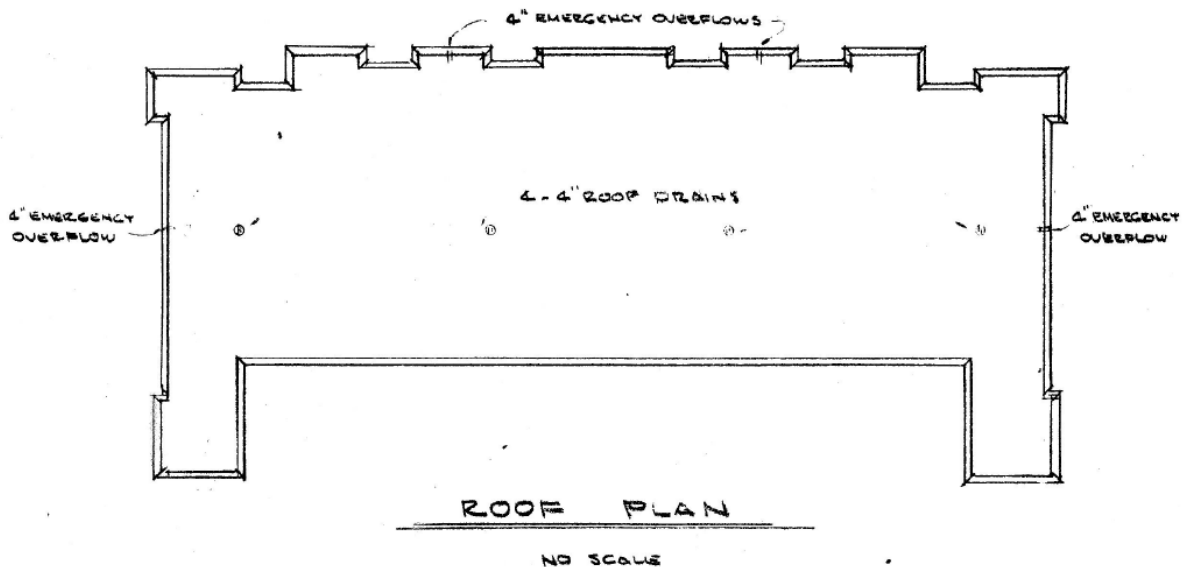


Figure 30 Roofing Plan at Gulf Shores

Flashings, clamps, lighting cables and terminations appear adequate but rusted in many locations. The insulation of the line sets have been eaten by birds and are deteriorated. Walkway pads were not observed.



Karins was able to open an access hatch to view the mansard parapet trusses and concrete roof slab.



Figure 31 Roof at Gulf Shores with a recoat applied



Figure 32 Elevator shaft roof with a recoating applied





Figure 33 Modified Bitumen roof system with a roof coating applied



Figure 34 AC brackets appear corroded - owners responsibility to address as told to Karins by Gulf Shores





Figure 35 Roof Coating appears to be gatoring - roof membrane does not appear to be cracked



Figure 36 Loose fasteners are letting in water at coping flashing





Figure 37 Roof appears dirty with residue from standing water

The elevator mechanical rooms exist at the rooftop level with rooftop access to the controls and gears.



Figure 38 Traction elevator equipment room



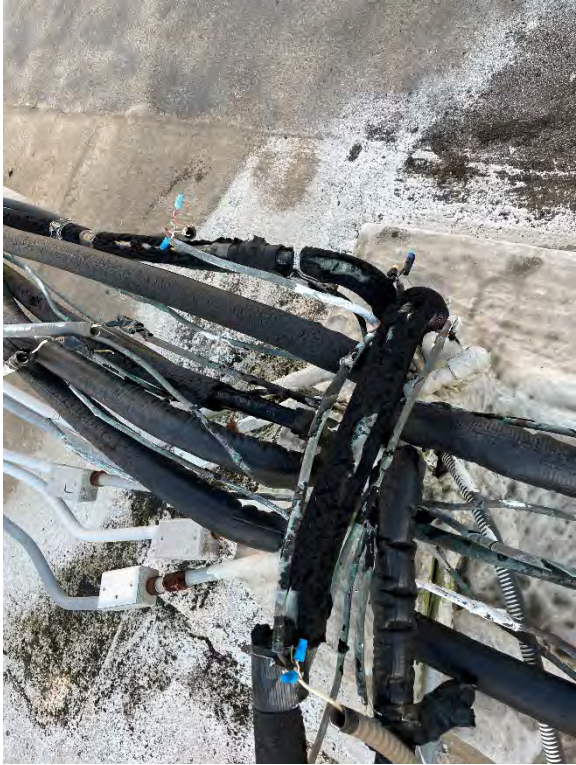


Figure 39 AC Line sets appear deteriorates



Figure 40 Open area at penetration to be sealed to prevent water intrusion





Figure 41 Previous repair made to roof



Figure 42 A/C mechanical equipment insulation showing deterioration





Figure 43 Recommend sealing coping seams

B. Sloped Roofing Systems

Sloped roofing systems at Gulf Shores are categorized as the Mansard Roof that surrounds the perimeter of the flat roof section. Carports were also observed to have Insulated roof panels.

- Mansards – These sit atop the concrete roof slab and appear to be decorative.





Figure 44 Mansard roof



Figure 45 Organic growth on shingles



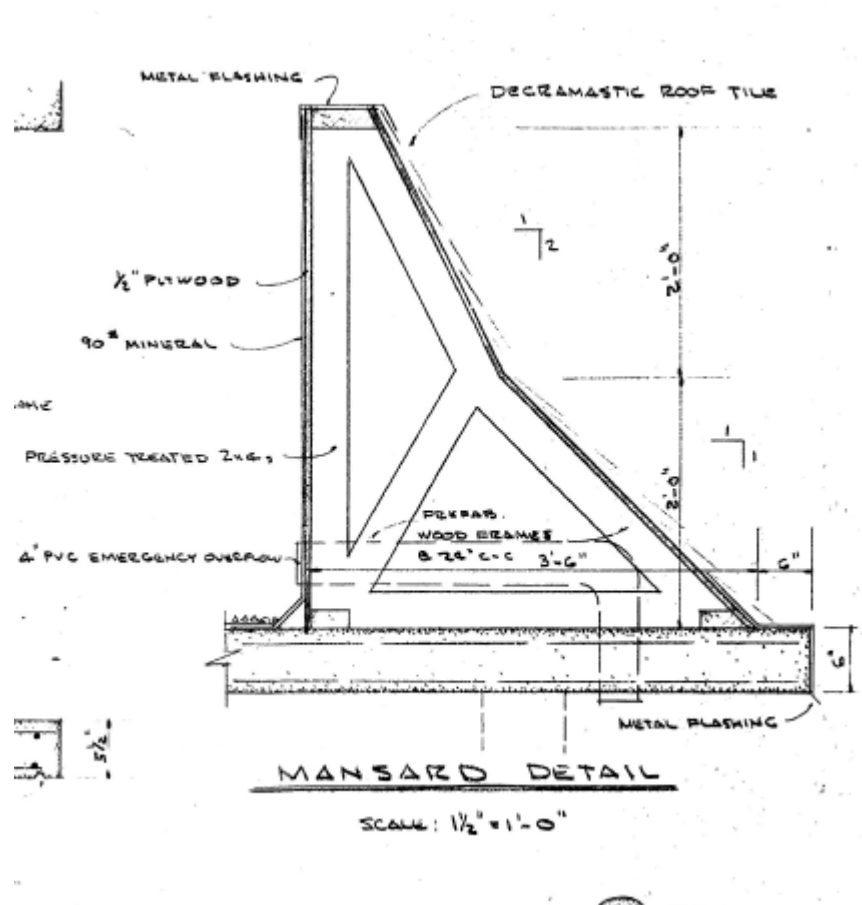


Figure 46 Plans call out construction of mansards



Figure 47 Access hatch confirming construction atop modified bitumen roofing



4. Exterior Finishes

A. Stucco & Paint

A stucco veneer is used as the exterior finish of Gulf Shores. Stucco delamination, stucco cracking, paint failures, and sealant failures are infrequent but do appear on every floor and unit in small amounts within the building. The lifespan of paint is usually around 6 to 7 years. Karins was told this paint is past that life. Gulf Shores is currently under contract with Karins for a full painting and restoration repair project to address paint and stucco cracking within the next 6-12 months. KE File #22RS-0833. Items from Hurricane Ian will be addressed here as well.

Karins observed plants that are rubbing close to the ground level exteriors. This severely decreases the paint coatings lifespan and should be remediated.

Karins observed the elevator shafts have decorative fiberglass plates attached to the building exterior. It was discovered after Hurricane Ian that the surface behind has not been painted. These repairs are being addressed as part of the upcoming painting project.



Figure 48. General View of Stucco and Paint





Figure 49A. Previous repairs with mismatched colors



Figure 50B. Hurricane Ian stucco damage on 10th floor





Figure 51. Protrusions lacking sealant



Figure 52. Plants close to exterior of building on north side





Figure 53A. Fiberglass decorative plates on front face



Figure 54B. Fiberglass decorative plates damaged from Hurricane Ian



5. Windows and Doors

The windows at Gulf Shores are seemingly incorporated into the CMU with lintels at the exterior on the north, south and east side, the windows are incorporate into the CMU dividing walls. The south elevation and north elevation have windows that sit atop panel board and framing.

Entry doors exist as unit entry doors into each unit.

The condition of the windows and doors at Gulf Shores varies; from newly installed to original. Original doors refer to all existing sliders, which do not meet Hurricane Codes. Newly installed refers to all existing windows, which were upgraded to hurricane impact standard in 2004. The front doors at Gulf Shores were upgraded to hurricane impact standard in 2014. Karins observed the exterior on many windows at the walkways to be adequate.

Karins did not physically inspect any windows above the ground floor level.



Figure 55. Windows and Window Sills at Gulf Shores





Figure 56 Exterior Sealants appear adequate on walkways.

Balcony/Lanai Windows were inspected and reviewed. Karins and Gulf Shores have had multiple lengthy discussions about the windows leaking water into the balconies. It is unclear if the 2019 lanai sealant work included refreshing sealant at windows. However, questions around sealants will be resolved when the 22RS-0833 2023 painting/sealing project is undertaken. Lanai windows will fall under this tentative 2023 painting/sealing project. A previous KEG project under the same file 18RS-0080 had Artistry sealing all exterior seams.



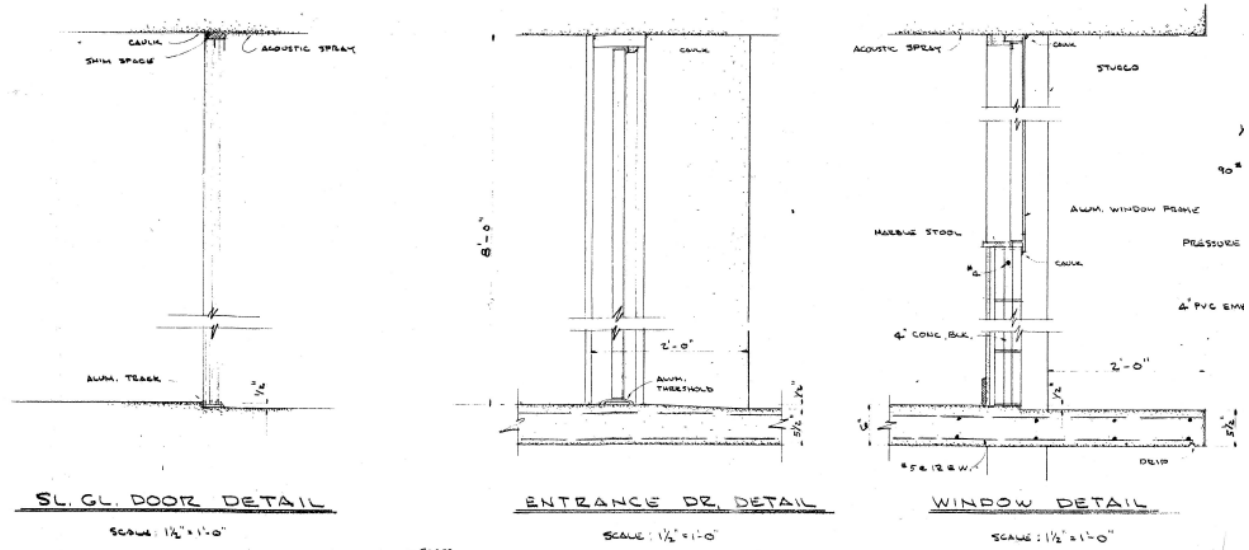


Figure 57 Windows on Balconies go floor to ceiling



Figure 58 Areas lacking sealant may allow water into interiors





Figure 59 Interior Sealant at Lanai windows



Figure 60 Windows resealed in 2019





Figure 61 Photo from 2019 project

6. Life Safety

Stairwell pressurizers are common practice of installation on high rise building construction over 75 ft. Karins did not observe a stairwell pressurizer on either stairwell shaft. As it related to existing building being retrofitted with these pressurizers is an item that Gulf Shores can research. As this is not directly related to structural deficiencies, this statement is for informational purposes only.

7. Balconies and Walkways

KEG inspected the tiles, grout, sealant, weep systems, railings, and any potentially damaging furniture on all balconies and walkways. With balconies that have concrete tile, there is a chance of concrete spalling of the prestressed slab or concrete topping slab under these tiles as the water intrusion may have reached the rebar, causing expansion in the concrete. Balconies/walkways that have cementitious coatings should be thoroughly cleaned of stains. However, it has been reported that pressure cleaning has not corrected the issue of stained coatings. Gulf Shores has discussed renewing cementitious coatings. All weep systems appear to be in good condition but were not water tested.

As it relates to column cracking, see Exhibit A.

The tiles and grout are in fair condition with minor signs of cracked tiles and efflorescence on grout. Stains on tiles indicate ponding of water and should be remediated by thorough cleaning.



Efflorescence should be cleaned but does not compromise the integrity of the tiles.

Any tiles removed for the Balcony Repair project were replaced.

Walkways were sounded with chains and rollers to determine areas of hollow waterproofing membrane, cracking concrete or loose railings. See Exhibit B.

Drawings show that a CMU railing was once installed. This has been replaced with metal railings and base plates.

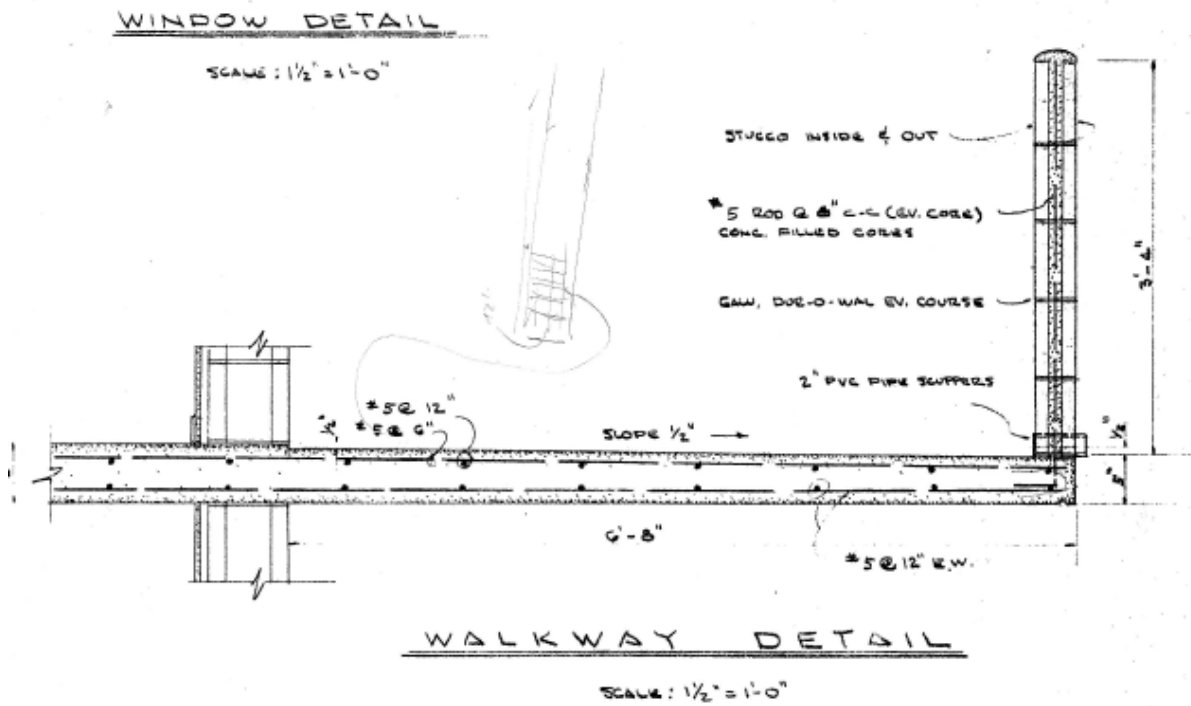


Figure 62 Original walkway configuration





Figure 63 Current walkway configuration



OPINIONS AND RECOMMENDATIONS

Based upon our visual observations of the above listed systems at Gulf Shores, Karins has provided a list of opinioned recommendations below. These recommendations are further broken down by priority. The first items are the most important to address for the prudent implementation and scheduling by Gulf Shores Club.

It is our professional opinion that the following course of action should be taken to protect the building in the future:

1. The existing windows on the lanai balconied should be replaced with a new system, unless that leaks can be stopped.

During heavy, wind driven rains from the west, extensive water is entering the interior of some units through failed seals/ faulty window configurations along all the lanai enclosures on the West side of Gulf Shores. Water intrusion into the lanais risks continuing damage to the underlying balcony concrete thus undermining the value of any previous lanai enclosure projects.

- *At the time of this report, Gulf Shores was in process to remedy this recommendation through a repair or replacement project 22RS-0833.*

2. The existing deteriorated concrete should be repaired in accord with International Concrete Restoration Institute (ICRI) industry standards. The majority of these areas of concern are on the precast window sills and slab edges at the lanai balconies where cracking is evident. *A record of all observed deficiencies within the lanai balconies was undertaken during the current concrete repair project. See Exhibit B.*

- *Project 22RS-0833 will address this item.*

3. KEG recommends the following for the roofs:
 - Roof drains should be cleaned and reset below the roof line to allow for drainage
 - All corroded fasteners holding conduit along coping flashing should be replaced and embedded in sealant to mitigate water intrusion
 - AC line set insulation to be redone.
 - Recoat the roof with elastomeric coating per installers and manufacturers timeline.
 - Consider a full roof replacement after the next coating application. Monitor truss sheathing conditions and flat roof water intrusion in the interim.
 - Consider a lightning protection system for installation at the building.
4. The pit housing the Fire Pump and Booster Pumps should be cleaned, concrete repaired and treated with a negative side waterproofing treatment. *This is being actively addressed.*
5. Investigate if/where the stairwell pressurizer exists/is located. Karins could not determine their location during our visits.



6. Remove plants and vegetation around the perimeter that are prematurely decreasing the paint coatings. 12 inches is our recommendation.
7. Repair the framework of the Generator.
8. KEG recommends the following for the balconies:
 - Clean the grout and tiles of all balconies.
 - Keep at a distance of at least one foot between planters and any wall to avoid premature paint damage.
 - Remove and replace areas of hollow tiles.
 - Reconcile any installed shutters against the NOA and manufacturers installation.
 - In the case the tile is removed, KEG does not recommend putting tiles back on top of the bare concrete balcony without a waterproofing membrane at minimum. There is no guarantee that once the tile is replaced, water will not start making its way to the slab concrete rebar under the tile if not protected. Consider at minimum a waterproofing membrane and a deep penetrating sealer for the concrete. Also, it is also easier to maintain a waterproofing membrane on a concrete balcony if it is not covered. If tile is ultimately used, consider sealing the tile as well after being installed above a waterproofing membrane.

SUMMARY

This structural inspection is for the sole purpose of identifying structural deficiencies of the building or structure that poses an immediate threat to life, safety, or where failure of a critical component is imminent. This structural inspection was for the purpose of determining the structural condition of the building to the reasonable extent possible that any part, material, or assembly of a building which affects the safety of such building or structure and/or which supports any dead or designed live load may be affected by internal or external elements, components or forces.

The deficiencies that require immediate attention are:

1. Repairing all stair stepping of CMU block and deteriorated concrete
2. Remediate any components condensing or leaking water into the interior.
3. Investigate the pump pit for water ingress and water expulsion.

Based on the scope of the inspection and for the areas that were able to be assessed, within a reasonable degree of engineering certainty, we have not observed any conditions that would compromise the safety of the building for its intended use and occupancy. We reserve the right to amend our opinion should new information be brought to our attention.

This report meets the requirements of a Phase 1 inspection. An inspection every 10 years after this initial Phase 1 inspection will be required by Gulf Shores

Gulf Shores currently does not require an additional more intensive Phase 2 inspection.



CONCLUSION

Our statements referencing the structural integrity of the building at Gulf Shores are in reference to the original installation. Our statements are not intended to verify compliance with building codes or accepted.

Our opinion is that the existing conditions of Gulf Shores are due to the age of the building and the proximity to the saline coastline environment - not a lack of maintenance; this is highly probably wherein evidenced with previous reports and our observations.

We believe that the most prudent action to be taken would be an aggressive maintenance schedule while planning to implement our above listed recommendations based on urgency and incidence. This would allow time for Gulf Shores to appropriately exhaust insurance avenues and build up balances to pay for the recommended actionables.

Special Assessments may be required to fully and completely institute our recommendations. Our office would be more than happy to review these avenues and provide you with appropriate services.

We trust this information is helpful. Should questions arise, please do not hesitate to call.

Sincerely,
Karins Engineering

David G Karins, PE

FL #52677

Index: Appendix A – General Considerations

Appendix B – Inspection Checklist

Appendix C – Cracking in Concrete

Exhibit A – Lanai Inspections 2021

Exhibit B – Balcony Sounding

THIS ITEM HAS BEEN DIGITALLY SIGNED
& SEALED BY DAVID G. KARINS, PE ON
THE DATE ADJACENT TO THE SEAL

PRINTED COPIES OF THIS DOCUMENT
ARE NOT CONSIDERED SIGNED AND
SEALED AND THE SIGNATURE MUST BE
VERIFIED ON ANY ELECTRONIC COPIES



GENERAL CONSIDERATIONS

SCOPE OF STRUCTURAL INSPECTION

The fundamental purpose of the required inspection and report is to confirm in reasonable fashion that the building or structure under consideration is safe for continued use under the present occupancy. As implied by the title of this document, this is a recommended procedure, and under no circumstances are these minimum recommendations intended to supplant proper professional judgment.

Such inspection shall be for the purpose of determining the general structural condition of the building or structure to the extent reasonably possible of any part, material or assembly of a building or structure which affects the safety of such building or structure and/or which supports any dead or designed live load, and the general condition of its electrical systems pursuant to the Building Code.

In general, unless there is obvious overloading, or significant deterioration of important structure elements there is little need to verify the original design. It is obvious that this has been "time tested" if still offering satisfactory performance. Rather, it is of importance that the effects of time with respect to deterioration of the original construction materials be evaluated. It will rarely be possible to visually examine all concealed construction, nor should such be generally necessary. However, a sufficient number of typical structure members should be examined to permit reasonable conclusions to be drawn.

Visual Examination will, in most cases, be considered adequate when executed systematically. The visual examination must be conducted throughout all habitable and non-habitable areas of the building, as deemed necessary by the inspecting professional to establish compliance. Surface imperfections such as cracks, distortion, sagging, excessive deflections, significant misalignment, signs of leakage, and peeling of finishes should be viewed critically as indications of possible difficulty.

Testing Procedures and quantitative analysis will not generally be required for structural members or systems except for such cases where visual examination has revealed such need, or where apparent loading conditions may be critical.

Manual Procedures such as chipping small areas of concrete and surface finishes for closer examinations are encouraged in preference to sampling and/or testing where visual examination alone is deemed insufficient. Generally, unfinished areas of buildings such as utility spaces, maintenance areas, stairwells and elevator shafts should be utilized for such purposes. In some cases, to be held to a minimum, ceilings or other construction finishes may have to be opened for selective examination of critical structural elements. In that event, such locations should be carefully located to be least disruptive, most easily repaired and held to a minimum. In an event, a sufficient number of structural members must be examined to afford reasonable assurance that such are representative of the total structure.

Evaluating an existing structure for the effect of time, must take into account two, basic considerations; movement of structural components with respect to each other, and deterioration of materials.

With respect to the former, volume change considerations, principally from ambient temperature changes, and possible long-time deflections, are likely to be most significant. Foundation movements will frequently be of importance, usually settlement, although upward movement due to expansive soils actually may occur. However, it is infrequent in this area. Older buildings on spread footings may exhibit continual, even recent settlements if founded on deep unconsolidated fine grained or cohesive soils or from subterranean losses or movements from several possible causes.

With very little qualification, such as rather rare chemically reactive conditions, deterioration of building materials can only occur in the presence of moisture, largely to metals and their natural tendency to return to the oxide state in the corrosive process.

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

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

Written Reports shall be required attesting to each required inspection. Each such report shall note the location of the structure, description of type of construction, and general magnitude of the structure, the existence of drawings and location thereof, history of the structure to the extent reasonably known, and description of the type and manner of the inspection, noting problem areas and recommending repairs, if required to maintain structural integrity.

FOUNDATION:

If all of the supporting subterranean materials were completely uniform beneath a structure, with no significant variations in grain size, density, moisture content or other mechanical properties; and if dead load pressures were completely uniform, settlements would probably be uniform and of little practical consequence. In the real world, however, neither is likely. Significant deviations from either of these two idealisms are likely to result in unequal vertical movements.

Monolithic masonry, generally incapable of accepting such movements will crack. Such cracks are most likely to occur at corners, and large openings. Since, in most cases, differential shears are involved, cracks will typically be diagonal.

Small movements, in themselves, are most likely to be structurally important only if long term leakage through fine cracks may have resulted in deterioration. In the event of large movements, continuous structural elements such as floor and roof systems must be evaluated for possible fracture or loss of bearing.

Pile foundations are, in general, less likely to exhibit such difficulties. Where such does occur, special investigation will be required.

ROOFING SYSTEMS:

Sloping roofs, usually having clay or cement tiles, are of concern in the event that the covered membrane may have deteriorated, or that the tiles may have become loose. Large deflections, if merely resulting from deteriorated rafters or joists will be of greater importance. Valley Flashing, and Base Flashing at roof penetration will also be matters of concern.

Flat roofs with built up membrane roofs will be similarly critical with respect to deflection considerations. Additionally, since they will generally be approaching expected life limits at the age when building recertification is required, careful examination is important. Blisters, wrinkling, alligatoring, and loss of gravel are usually signs of difficulty. Punctures or loss of adhesion of base flashing, coupled with loose counterflashing will also signify possible problems. Wind-blown gravel, if excessive, and the possibility of other debris, may result in pounding, which if permitted, may become critical.

MASONRY BEARING WALLS

Random cracking, or if discernible, definitive patterns of cracking, will of course, be of interest. Bulging, sagging, or other signs of misalignment may also indicate related problems in other structural elements. Masonry walls where commonly constructed of either concrete masonry units or scored clay tile, may have been constructed with either reinforced concrete columns tie beams, or lintels.

Steel bar joists are, of course, sensitive to corrosion. Most critical locations will be web member welds, especially near supports, where shear stresses are high possible failure may be sudden, and without warning.

Cold formed steel joists, usually of relatively light gage steel, are likely to be critically sensitive to corrosion, and are highly dependent upon at least normal lateral support to carry designed loads. Bridging and the floor or roof system itself, if in good condition, will serve the purpose.

Wood joists and rafters are most often in difficult from "dry rot", or the presence of termites. The former (a misnomer) is most often prevalent in the presence of sustained moisture or lack of adequate ventilation. A member may usually be deemed in acceptable condition if a sharp pointed tool will penetrate no more than about one eighth of an inch under moderate hand pressure. Sagging floors will most often indicate problem areas. Gypsum roof decks will usually perform satisfactorily except in the presence of moisture. Disintegration of the material and the foam-board may result from sustained leakage. Anchorage of the supporting bulb tees against uplift may also be of importance, with significant deterioration. Floor and roof systems of cast in place concrete with self-centering reinforcing, such as paper backed mesh and rib-lath, may be critical with respect to corrosion of the unprotected reinforcing. Loss of uplift anchorage on roof decks will also be important if significant deterioration has taken place, in the event that dead loads are otherwise inadequate for that purpose.

STEEL FRAMING SYSTEM

Corrosion, obviously enough, will be the determining factor in the deterioration of structural steel. Most likely suspect areas will be fasteners, welds, and the interface area where bearings are embedded in masonry. Column bases may often be suspect in areas where flooding has been experienced, especially if salt water has been involved.

Thin cracks may indicate only minor corrosion, requiring minor patching. Extensive spalling may indicate a much more serious condition requiring further investigation.

Of most probable importance will be the vertical and horizontal cracks where masonry units abut tie columns, or other frame elements such as floor slabs. Of interest here is the observation that although the raw materials of which these masonry materials are made may have much the same mechanical properties as the reinforced concrete framing, their actual behavior in the structure, however, is likely to differ with respect to volume change resulting from moisture content, and variations in ambient thermal conditions.

Moisture vapor penetration, sometimes abetted by salt laden aggregate and corroding rebars, will usually be the most common cause of deterioration. Tie columns are rarely structurally sensitive, and a fair amount of deterioration may be tolerated before structural impairment becomes important. Usually, if rebar loss is such that the remaining steel area is still about 0.0075 of the concrete area, structural repair will not be necessary. Cosmetic type repair involving cleaning, and patching to effectively seal the member, may often suffice. A similar approach may not be unreasonable for tie beams, provided they are not also serving as lintels. In that event, a rudimentary analysis of load capability using the remaining actual rebar area, may be required.

FLOOR AND ROOF SYSTEMS

Cast in place reinforced concrete slabs and/or beams and joists may often show problems due to corroding rebars resulting from cracks or merely inadequate protecting cover of concrete. Patching procedures will usually suffice where such damage has not been extensive. Where corrosion and spalling has been extensive in structurally critical areas, competent analysis with respect to remaining structural capacity, relative to actual supported loads, will be necessary. Type and extent of repair will be dependent upon the results of such investigation.

Precast members may present similar deterioration conditions. End support conditions may be important. Adequacy of bearing, indications of end shear problems, and restraint conditions are important, and should be evaluated in at least a few typical locations.

CONCRETE FRAMING SYSTEMS

Concrete deterioration will, in most cases be similarly related to rebar corrosion possibly abetted by the presence of salt-water aggregate or excessively permeable concrete. In this respect, honeycomb areas may contribute adversely to the rate of deterioration. Columns are frequently most suspect. Extensive honeycomb is most prevalent at the base of columns, where fresh concrete was permitted to segregate, dropping into form boxes. This type of problem has been known to be compounded in areas where flooding has occurred, especially involving salt water.

In spall areas, chipping away a few small loose samples of concrete may be very revealing. Especially, since loose material will have to be removed even for cosmetic type repairs, anyway. Fairly reliable

quantitative conclusions may be drawn with respect to the quality of the concrete. Even though our cement and local aggregate are essentially derived from the same sources, cement will have a characteristically dark grayish brown color in contrast to the almost white aggregate. A typically white, almost alabaster like coloration will usually indicate reasonably good overall strength. The original gradation of aggregate can be seen through a magnifying glass. Depending upon the structural importance of the specific location, this type of examination may obviate the need for further testing if a value of 2000 psi to 2500 psi is sufficient for required strength, in the event that visual inspection indicates good quality for the factors mentioned.

WINDOWS

Window condition is of considerable importance with respect to two considerations. Continued leakage may have resulted in other adjacent damage and deteriorating anchorage may result in loss of the entire unit in the event of severe windstorms short of hurricane velocity. Perimeter sealant, glazing, seals, and latches should be examined with a view toward deterioration of materials and anchorage of units for inward as well as outward (section) pressures, most importantly in high buildings.

WOOD FRAMING

Older wood framed structures, especially of the industrial type, are of concern in that long term deflections may have opened important joints, even in the absence of deterioration. Corrosion of ferrous fasteners will in most cases be obvious enough. Dry rot must be considered suspect in all sealed areas where ventilation has been inhibited, and at bearings and at fasteners. Here too, penetration with a pointed tool greater than about one eighth inch with moderate hand pressure, will indicate the possibility of further difficulty.

LOADING

It is of importance to note that even in the absence of any observable deterioration, loading conditions must be viewed with caution. Recognizing that there will generally be no need to verify the original design, since it will have already been "time tested", this premise has validity only if loading patterns and conditions remain **unchanged**. Any material change in type and/or magnitude or loading in older buildings should be viewed as sufficient jurisdiction to examine load carrying capability of the affected structural system.

APPENDIX B

MINIMUM INSPECTION GUIDELINES
FOR BUILDING SAFETY INSPECTION
STRUCTURAL

I. Masonry Walls**A. General Description**

1. Concrete masonry units
2. Clay tile or terra cotta units
3. Reinforced concrete tie columns
4. Reinforced concrete tie beams
5. Lintels
6. Other type bond beams

B. Cracks: Identify crack size as **HAIRLINE** if barely discernible; **FINE** if less than 1 mm in Width; **MEDIUM** if between 1 and 2 mm in width; **WIDE** if over 2 mm

1. Location - note beams, columns, other
2. Description

C. Spalling:

1. Location - note beams, columns, other
2. Description

D. Rebar corrosion

1. None visible
2. Minor
3. Significant - structural repairs required (describe)

II. Floor and Roof Systems:**A. Roof:**

1. Describe type of framing system (flat, slope, type roofing, type roof deck, condition)
2. Note water tanks, cooling towers, air conditioning equipment, signs, other heavy equipment and condition of supports.
3. Note types of drains and scuppers and condition.

B. Floor system(s):

1. Describe (type of system framing, material, condition)
2. Heavy equipment and conditions of support

C. Inspection - note exposed areas available for inspection, and where it was found necessary to open ceilings, etc. for inspection of typical framing members.**III. Steel Framing Systems:**

- A. Description
- B. Exposed Steel - describe condition of paint & degree of corrosion.
- C. Concrete or other fireproofing - note any cracking or spalling, and note where any covering was removed for inspection.
- D. Elevator sheaves beams & connections, and machine floor beams - note Condition.

IV. Concrete Framing Systems:

- A. Full description of structural system.
- B. Cracking:
 1. Not significant.
 2. Location and description of members affected and type cracking.
- C. General condition.
- D. Rebar corrosion
 1. None visible
 2. Minor
 3. Significant - structural repairs required (describe)

V. Windows:

- A. Type (Wood, steel, aluminum, jalousie, single hung, double hung, casement, awning, pivoted, fixed, other)
- B. Anchorage - type & condition of fasteners and latches.
- C. Sealants - type & condition of perimeter sealants & at mullions.
- D. Interior seals - type & condition at operable vents.
- E. General condition.

VI. Wood Framing:

- A. Describe floor system
- B. Note condition connector or stress
- C. Note rotting or termite damage
- D. Note alignment problems
- E. Note bearing deficiencies
- F. Note any significant damage that might affect safety and stability of building structure.

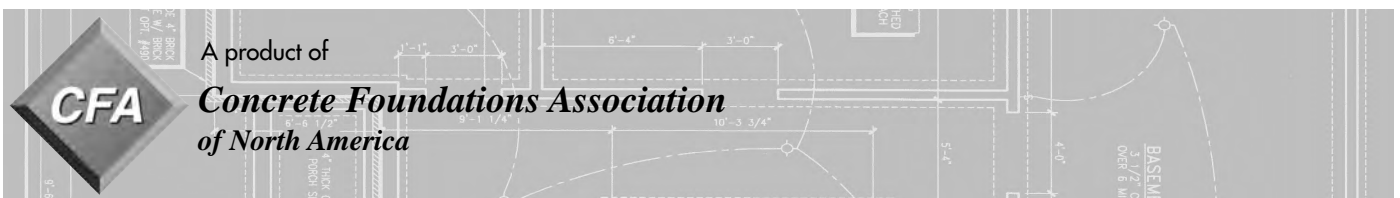
VII. Exterior Finishes / Note any structural deficiencies in the following.

- A. Stucco
- B. Veneer
- C. Soffits
- D. Ceiling
- E. Other

TECH NOTES

APPENDIX C

Cracking In Concrete Walls



TECH NOTES



Cracking In Concrete Walls

NOTES:

GOAL AND PURPOSE

This edition of *Tech Notes* answers common questions about cracking in concrete walls: What Causes Them? How Can They Be Reduced? When Should You Be Concerned?

Cracks in concrete walls and slabs are a common occurrence. They appear in floors, driveways, walks, structural beams, and walls. Cracking can not be prevented but it can be significantly reduced or controlled when the causes are taken into account and preventive steps are taken. Most cracks should not be a cause for alarm.

• Causes of Cracks

Cracking can be the result of one or a combination of factors, all of which involve some form of restraint. Some examples include:

- Drying Shrinkage—This occurs as water used in the mix design evaporates.
- Thermal Contraction/Expansion—Due to temperature changes.
- Subgrade Settlement (or Expansion) - Resulting from poor soil conditions or changes in soil moisture content.
- Differential Bearing Capacity— Harder soils under part of the foundation can cause stresses as the building “settles in.”
- Applied Stresses—Forces such as building load, earth load, hydrostatic pressure, or heavy equipment operated too close to the wall.

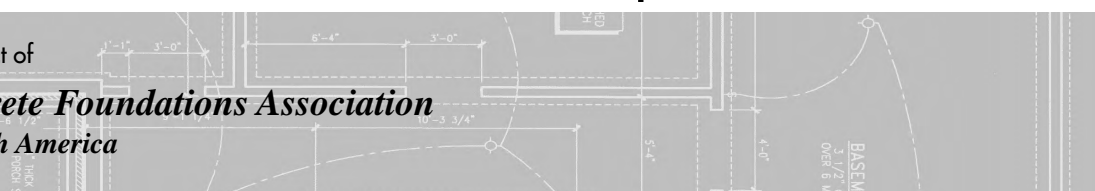
• Types of Cracks

Tremendous forces can build up inside the wall due to any of these causes. When the forces exceed the strength of the material, cracks will develop. Each of these causes normally leave a “signature” in the type of crack it creates. The vast majority of cracks are of little concern by themselves.



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Concrete Foundations Association
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Shrinkage and Temperature cracks are most often vertical to diagonal. They typically emanate from a corner of a window, beam pocket, or other opening. Cracks of this type are called reentrant cracks. These are very common and, unless they leak or show significant lateral displacement, are of no structural concern.



Cracks which are horizontal are most likely caused by an applied load. Vertical cracks which are significantly wider at the top or bottom could indicate heaving or settlement. With these cracks it is very likely that the crack itself is not the problem, but rather the result of an external problem such as poor drainage, overloading, etc.



• Minimizing the Problem

Contractors can employ several methods of reducing the occurrence and width of cracks.

- The first is the use of proper concrete mix designs. A mix with sufficient strength using the minimum amount of water necessary to distribute the concrete throughout the wall without voids should be used. The type and amount of cement, as well as coarse and fine aggregates, can also have a large effect on the amount of shrinkage.

NOTES:

- A small amount of temperature steel reinforcement will reduce the width of cracks that do occur.
- Control joints are intentional weak spots designed to induce shrinkage or thermal cracks in pre-determined locations. These can be very effective if waterproofed carefully.
- Rapid water loss and extreme temperature swings while the concrete is in the early stages of curing should be avoided where possible.
- Careful backfilling is mandatory. Typical basement walls are not designed to act as retaining walls. They must be secured with the basement floor at the bottom and the floor deck at the top, or be braced adequately, before being backfilled. The use of heavy equipment near the wall should be restricted and carefully considered.
- Anchoring the deck in accordance with local building codes, including the use of anchor bolts/straps and blocking, is very important. Improper anchoring has been the cause of a number of failures.

• When Should You Be Concerned

Temperature and shrinkage cracks in walls or slabs are likely to occur in nearly all structures. When the width of a crack exceeds 1/4" in width; when they show 1/4" in lateral displacement; when water leaks through the cracks; or you find long horizontal cracks, it is probably time to seek professional assistance. The contractor that built the wall, or your local CFA member should be able to help you.

NOTES:



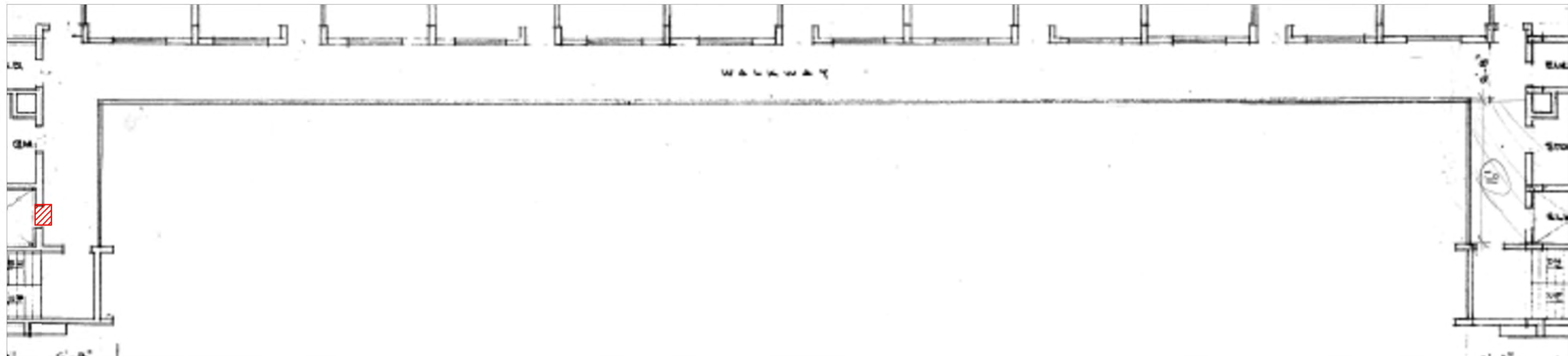
Concrete Foundations Association
of North America

www.cfawalls.org PO Box 204, Mount Vernon, IA 52314
Phone 319-895-6940 Fax: 320-213-5556 Toll Free 866-232-9255

	A	B	C
1	GULF SHORES CONDOMINIUM ASSOCIATION		
2	Lanai Inspections 2021		
3	UNIT	Findings	Recommendations
4	101	No Spalling or Cracking at Columns	
5	102	No Spalling or Cracking at Columns	
6	103	SPALLING AT COLUMN	REPAIRED
7	104	SPALLING AT COLUMN	REPAIRED
8	105	Leaking onto Ceiling	Monitor
9	106	Crack at Ceiling	To Be Repaired at Future Project
10	107	SPALLING AT COLUMN	REPAIRED
11	201	SPALLING AT COLUMN	REPAIRED
12	202	No Spalling or Cracking at Columns	
13	203	SPALLING AT COLUMN	To Be Repaired at Future Project
14	204	SPALLING AT SLAB EDGE	To Be Repaired at Future Project
15	205	No Spalling or Cracking at Columns	
16	206	No Spalling or Cracking at Columns	
17	207	SPALLING AT COLUMN	REPAIRED
18	301	SPALLING AT COLUMN	REPAIRED
19	302	No Spalling or Cracking at Columns	
20	303	Previous Repair@ at Columns	Monitor
21	304	Previous Repair on floor	Monitor
22	305	SPALLING AT SLAB EDGE	To Be Repaired at Future Project
23	306	No Spalling or Cracking at Columns	
24	307	SPALLING AT COLUMN	REPAIRED
25	401	No Spalling or Cracking at Columns	
26	402	Balcony Ceiling Cracks	Monitor
27	403	SPALLING AT COLUMN	To Be Repaired at Future Project
28	404	SPALLING AT COLUMN	To Be Repaired at Future Project
29	405	Cracks on Floor	To Be Repaired at Future Project
30	406	Cracks on Floor	To Be Repaired at Future Project
31	407	No Spalling or Cracking at Columns	
32	501	No Spalling or Cracking at Columns	
33	502	Previous Repair@ at Columns	Monitor
34	503	No Spalling or Cracking at Columns	
35	504	Previous Repair@ at Columns	Monitor
36	505	Leaking onto Ceiling	Monitor
37	506	Previous Repair@ at Columns Paint Peeling at Column and Ceiling	Monitor
38	507	No Spalling or Cracking at Columns	
39	601	No Spalling or Cracking at Columns	
40	602	No Spalling or Cracking at Columns	
41	603	Previous Repair@ at Columns	Monitor
42	604	No Spalling or Cracking at Columns	
43	605	CRACKING AT CEILING	To Be Repaired at Future Project
44	606	No Spalling or Cracking at Columns	
45	607	No Spalling or Cracking at Columns	
46	701	No Spalling or Cracking at Columns	
47	702	No Spalling or Cracking at Columns	
48	703	CRACKING AT CEILING	To Be Repaired at Future Project
49	704	CRACKING AT CEILING	To Be Repaired at Future Project
50	705	SPALLING AT COLUMN	REPAIRED
51	706	No Spalling or Cracking at Columns	
52	707	No Spalling or Cracking at Columns	
53	801	No Spalling or Cracking at Columns	
54	802	No Spalling or Cracking at Columns	
55	803	No Spalling or Cracking at Columns	
56	804	SPALLING AT COLUMN	REPAIRED
57	805	No Spalling or Cracking at Columns	
58	806	SPALLING AT COLUMN	To Be Repaired at Future Project
59	807	No Spalling or Cracking at Columns	
60	901	No Spalling or Cracking at Columns	
61	902	No Spalling or Cracking at Columns	
62	903	No Spalling or Cracking at Columns	
63	904	No Spalling or Cracking at Columns	
64	905	Marble on walls - can't check	
65	906	No Spalling or Cracking at Columns	
66	907	No Spalling or Cracking at Columns	
67	1001	No Spalling or Cracking at Columns	
68	1002	No Spalling or Cracking at Columns	
69	1003	SPALLING AT COLUMN OUTSIDE	Need to verify
70	1004	SPALLING AT COLUMN	To Be Repaired at Future Project
71	1005	SPALLING AT COLUMN	To Be Repaired at Future Project
72	1006	No Spalling or Cracking at Columns	

EXHIBIT A

EXHIBIT B



KEY:

- HOLLOW AREAS



- CRACKS



- LOOSE RAILINGS



SECOND FLOOR WALKWAY

Project Name:
Gulf Shores Condominium Association, Inc
255 The Esplanade
Venice, FL 34285

Sheet Title:
Balconies

Drawn: ECS
Checked: ACS
KEG File#: 21RS-0672
Scale: NTS
Date: 11/26/2021



FL. Cert. of Auth. # 8371
1626 Ringling Blvd, Ste 400
Sarasota, FL 34236
(941) 927-8525
Arthur C. Schoenewaldt, III, PE
FL. Registration # 60401

SKL

TO THE BEST OF MY KNOWLEDGE
AND ABILITY, THE COMPLETED
STRUCTURE DEPICTED ON THESE
PLANS COMPLIES WITH APPLICABLE
MINIMUM BUILDING CODES.

Sheet No.:
SK-01



KEY:

- HOLLOW AREAS



- CRACKS



- LOOSE RAILINGS



THIRD FLOOR WALKWAY

Project Name:
Gulf Shores Condominium Association, Inc
 255 The Esplanade
 Venice, FL 34285

Sheet Title:
Balconies

Drawn: ECS
 Checked: ACS
 KEG File#: 21RS-0672
 Scale: NTS
 Date: 11/26/2021



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 Arthur C. Schoenewaldt, III, PE
 FL. Registration # 60401

SSL

TO THE BEST OF MY KNOWLEDGE
 AND ABILITY, THE COMPLETED
 STRUCTURE DEPICTED ON THESE
 PLANS COMPLIES WITH APPLICABLE
 MINIMUM BUILDING CODES.

Sheet No.:
SK-02



KEY:

- HOLLOW AREAS



- CRACKS



- LOOSE RAILINGS



FOURTH FLOOR WALKWAY

Project Name:
Gulf Shores Condominium Association, Inc
 255 The Esplanade
 Venice, FL 34285

Sheet Title:
Balconies

Drawn: ECS
 Checked: ACS
 KEG File#: 21RS-0672
 Scale: NTS
 Date: 11/26/2021



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 AND ABILITY, THE COMPLETED
 STRUCTURE DEPICTED ON THESE
 PLANS COMPLIES WITH APPLICABLE
 MINIMUM BUILDING CODES.

Sheet No.:
SK-03



KEY:

- HOLLOW AREAS



- CRACKS



- LOOSE RAILINGS



FIFTH FLOOR WALKWAY

Project Name:
Gulf Shores Condominium Association, Inc
 255 The Esplanade
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Sheet Title:
Balconies

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SKL

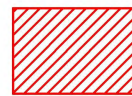
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Sheet No.:
SK-04



KEY:

- HOLLOW AREAS



- CRACKS



- LOOSE RAILINGS



SIXTH FLOOR WALKWAY

Project Name:
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Sheet Title:
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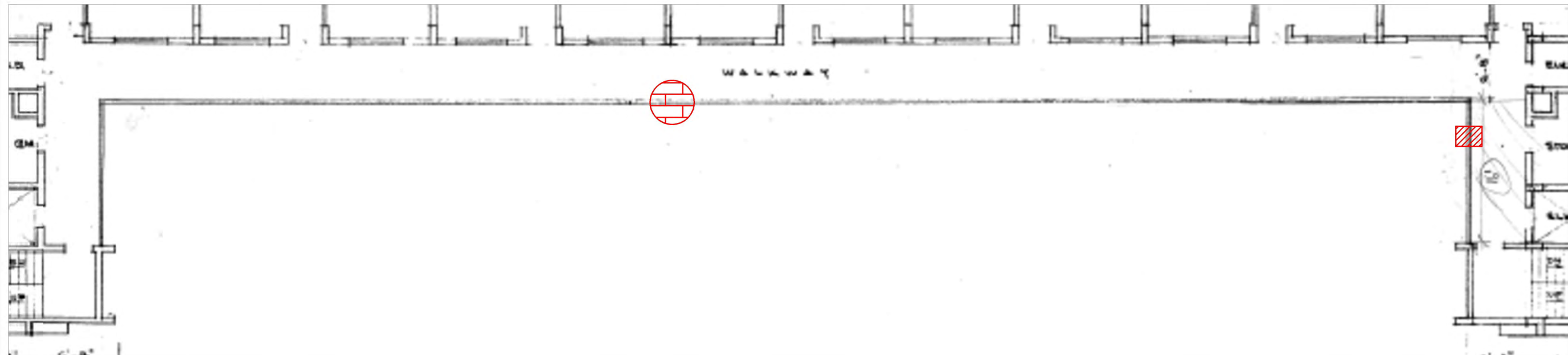


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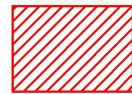
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Sheet No.:
SK-05



KEY:

- HOLLOW AREAS



- CRACKS



- LOOSE RAILINGS



SEVENTH FLOOR WALKWAY

Project Name:
Gulf Shores Condominium Association, Inc
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Sheet Title:
Balconies

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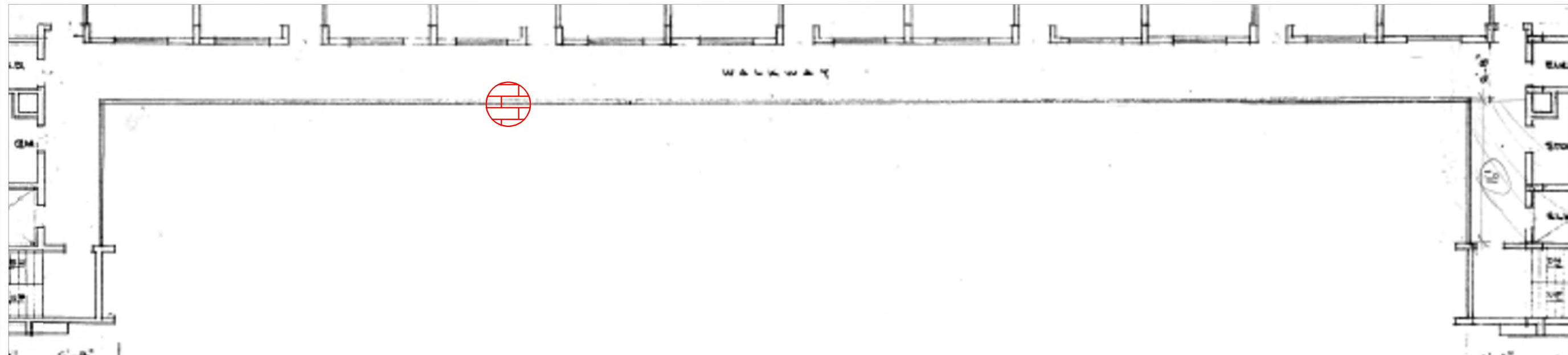


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Sheet No.:
SK-06



KEY:

- HOLLOW AREAS



- CRACKS



- LOOSE RAILINGS



EIGHTH FLOOR WALKWAY

Project Name:
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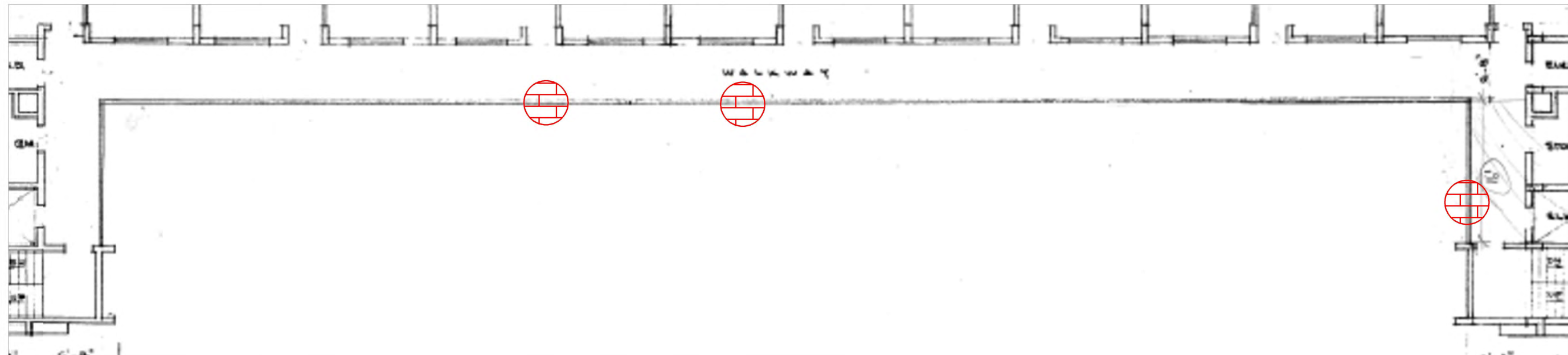


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Sheet No.:
SK-07



KEY:

- HOLLOW AREAS



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- LOOSE RAILINGS



NINTH FLOOR WALKWAY

Project Name:
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Sheet Title:
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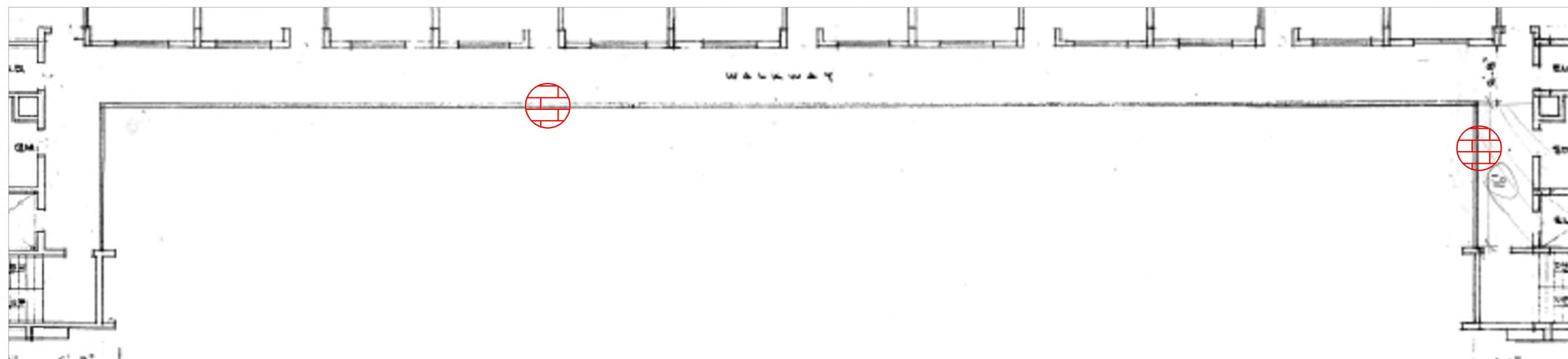


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Sheet No.:
SK-08



KEY:

- HOLLOW AREAS



- CRACKS



- LOOSE RAILINGS



TENTH FLOOR WALKWAY

Project Name:
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SK-09