The Cheval Club Condominium Association

February 2025

To: The Board of Directors

Connected Property Management

From: Ron Katz, Kipcon Great Lakes

Date of Inspection: 2/11/2025

Kipcon Great Lakes was retained to perform engineering services at the Cheval Club Condominium Association located at 1426 N. Orleans in Chicago, Illinois. The Association consists of one (1) 5-story building located at 1340 N. Dearborn Street. The roof is a flat membrane system, that has roof top decking in place. The roof is original (2001) with a second layer installed in 2005-07 and is reported to be in need of replacement.

The specific scope of work to be done was agreed as follows:

Inspection

Kipcon Great Lakes will perform a visual observation of the roof including but not limited to:

A. **The current condition of the existing roof and membrane; current damage to the roof membrane and associated roofing elements; overall installation of the existing membrane. This will include up-close inspection of the edges and corners and include safety equipment necessary to make the assessment. In addition, this phase will also include the following:**

1. Kipcon Great Lakes will review all architectural and engineering drawings of the buildings, and any other inspection reports if provided by the Association. These may include prior roof contracts, roof maintenance agreements, documentation regarding prior roof repairs or replacements performed or reports of water infiltration on the roofs to date.

2. Kipcon Great Lakes will prepare a written report which will include a description of the current condition of the roofs and recommendations and designs for repair or replacement including all ancillary items including but not limited: rigid insulation, flashings, all pipe penetration, drains, corners and edges, copings and curbs. The inspection will also include an evaluation of the parapet walls. Note: This cost does not include any invasive field testing into the roof/building structure that may be needed during the inspection process: In the event testing is deemed to be required to reach the conclusions needed to provide the recommendations for the report, the Association will be notified to approve any such request for testing and the associated costs related thereto. **Typical testing may include infra-red or other moisture mapping and/or roof coring sampling.*

3. *Additional Unrelated Inspections:*

a) *Interiors: Kipcon will make visual observation inspections of the interiors of designated units as requested by the Association with the primary focus on determining the existence of any current water infiltration and the determination of the source of any such condition. In the event additional inspections and remediation options are required, based upon this initial inspection Kipcon will submit a separate proposal for such work.*
b) *Balconies: Kipcon will make visual observation inspections of exterior balconies as requested by the Association. Access to the balconies shall be granted to Kipcon to enter the unit to be inspected and the unit beneath the balcony(s) that are suspected to have deficiencies. In the event additional inspections and remediation options are required, based upon this initial inspection Kipcon will submit a separate proposal for such work.*

THE INSPECTION

On February 11, 2025 the roof and several units were inspected. The following observation were made:

Roof: The roof was confirmed that the original membrane exists beneath a second layer of modified bitumen (BTU) membrane. Modified BTU is an asphalt based roofing system that uses membranes modified with additional polymers or fabrics to provide a durable, versatile, and weather-resistant surface for flat or low-slope roofs. The modification process enhances its flexibility, strength, and resistance to harsh environmental conditions. This is an appropriate membrane for the roof. There has been a discussion as to whether a different type of roof membrane known as Thermoplastic Polyolefin (TPO) would be a better product than the existing BTU. While there are a whole list of pros and cons regarding the material, based upon the known applications for this roof, particularly its use as an outdoor recreational space, BTU is rated as a more durable product in higher traffic areas and that coupled by a lower cost for the product, and a typically longer useful life we will be recommending that the roof membrane continue to be made of BTU. Other issues noted for the roof was a lack of active ventilation, that the decorative columns above the east side balconies are not flashed, open to the sky roof stacks, and questions regarding the existing capstone flashing.

Due to current information regarding water infiltration issues in several units, and a review of past inspection reports several concerns will need to be addressed for correction:

a) Inspect current capstone flashing more in depth to confirm flashing and its proper installation. If not up to standards include new flashing in the scope of work.
b) Include the flashing of the decorative columns in the scope of work.
c) Include the review of ventilation for the new roof with possible alternatives.
d) Review area below roof where duct work is located to ensure new roof insulation is sufficient to handle possible condensation in the area (plenum) as the interior water could well be the result of inadequate roof insulation allowing for excess condensation when the heat ducts meet the cold exterior air.
e) Include elbows to ensure no precipitation can enter into pipe stacks that are vented through the roof.

Note: The roof drains were not visible as they are beneath the roof deck. If water is pooling on the roof this may be a source of the water entering the structure. The new roof specification will include a review of the drainage, sufficiency of the current drains and their locations.

Current Recommendations: Conduct further inspection of the capstones to ensure proper flashing. Remainder of issues to be included in roof specifications. These will include proper ISO board insulation with proper sloping for drainage and thickness to address condensation in the HVAC plenum area, installation of an amount of TBD vents, (as the roof currently has no roof vents), and protection for any open kitchen or bath vent pipe stacks so that they are not open to the sky.

Unit 502: Water infiltration was observed in this unit at several areas. Including the wall area beneath the 602 balcony; the kitchen ceiling above the sink; and their was discoloration and rust noted at the bathroom vent. The wall studs could be observed behind the drywall and were exhibiting dark staining. This may be indicative of a more serious issue that requires further testing for confirmation. It is probable that the main issue is related to flashings at or around the unit 602 balcony including the decorative columns. The other areas involved seem to indicate an overall lack of ventilation around the building, open roof stacks or condensation issues that is yet to be definitively determined.

Recommendation: Include flashing balcony areas particularly the decorative columns in the scope of work along with the roof project. Open up wall where darkened studs are observable and remediate any areas as needed. Further action to be based upon final findings and roof project that corrects the possible source of the moisture.

Unit 601: This unit was observed to have potential water pooling on the balcony area most probably from poor pitch of the deck towards the building. There were also noted water infiltration above the windows in the bedroom and that water may have infiltrated and affected insulation above the ceiling areas.

Recommendation: Include a review and possible adjustment to the balcony deck (grinding or adding material depending on existing conditions) to have storm water drain off the open deck area away from the structure. Check the windows and balcony door sealants and ensure that they have not been caulked closed. It was noted that a prior repair may have included caulking and sealants. While, caulking and sealing the windows and door openings is a recommended procedure the caulking cannot be below the lintel. Water that enters in the lintel area from above must be allowed to escape, via proper flashings which include vapor barrier, end dams and weeps to discharge any water outside the area. As to the ceiling this may be from a few different sources such as poor insulation causing condensation in the space between the roof and the ceiling, or water may be getting into open vent stacks that do not have elbows to deflect the rain, or it may be something else but we will not know that until the roof is removed, as much of it is unable to be observed. The new roof project should correct the issues in the ceiling.

Unit 602: Similar to 601 water is infiltrating into the bedroom and living room ceiling areas. The same sources are suspected as described above, poor insulation or open stack vents, or an issue that is unable to be viewed due to the roof top decks. A review of the balcony door revealed that the balcony lintels were caulked closed, no flashing was visible and no weeps were observable. New water was reported post inspection from the roof area onto the ceiling. This would indicate the poor roof insulation has created a great disparity in temperature in the warmed plenum between the roof and the unit's ceiling where heat duct work is present, which in turn creates moisture which would of course fall onto the ceiling.

Recommendation: Properly flash balcony door. If this condition is prevalent throughout the building have the scope of work include each balcony door as an option. The ceiling issue would be addressed with the roof specification. Currently contemplating 2 layers of ISO board insulation beneath the new membrane to correct insulation issue to keep the condensation from occurring in the future, and adding vents to the roof specification, to improve conditions.

Unit 603: Similar to 601 and 602 ceiling water infiltration is present in several areas, including the bedroom, living room and foyer. The sources as hypothesized are described above. In addition the units bathroom shower does not have adequate ventilation as there is rust present at the vent plate.

Recommendation: The ceiling issues are to be resolved with the roof replacement. The owner may investigate a stronger bathroom vent for the steam, and new roof vents may be helpful in this regard.

PHOTOS AVAILABLE: UPON REQUEST

Respectfully Submitted,

Ronald W. Katz

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Managing Director Kipcon Great Lakes LLC