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Date of Report: January 9, 2023 Report No: 01
IVY FLATS – ROOF ASSESSMENT
Project No: F22131

Date of Visit: 12/20/2022
Time: 12:30pm – 2:00pm
Weather: 34º F Cloudy – 64% Humidity – Wind SW 7mph

On Site: J.D. Sitton (MR), Ryan Keim (Director of Faciltities - LPCSC)

Progress:

- We understand that a complete renovation of this building will occur after new ownership assumes occupancy. That said, we believe the installed roofs have reached the end of their serviceable life. The observations below are merely to attempt to extend the life of the roof approximately 12 months before a renovation will begin that shall include full replacement of the roof(s) down to existing tongue and groove wood plank decking.
- This Roof Assessment has a Roof Key Plan that will assist in identifying locations of photographs taken and included within this assessment. Photographs are identified by [ ] where their locations are discussed.

Observations:

- There is evidence of vegetation growth located on the roof near the northwest corner of the building. It is unclear if this vegetation is near a roof drain. [1]
    - Clear out/remove vegetation. Review roof for any rips or tears in top PVC roofing membrane and patch holes with manufacturer (Durolast) recommended patching materials.
- There is evidence of ponding at a clogged roof drain at the southwest corner of the building. [2,3,4]
    - Unclog the roof drain and drain line from drain bowl down to where it exits the wall near grade.
    - Assess roof after roof drain has drained water out. Remove any vegetation that exists.
- There are reports of leaks coming in at a Flue located where a suspected abandoned skylight used to be. The rain collar installed over top of the flue is too small and likely the cause for moisture intrusion. [5,6]
    - Fabricate a new rain collar to prevent wind driven moisture intrusion. Fasten over top of existing rain collar
- There are 6 other known leak locations that occur within the building. Their leaks appear to occur from rain events and they all exist at low spots in the roof. This building appears to have more than one roof system. The PVC roof installed is typically installed as a recover roof that extends the life of the previously installed roof. Because ponding exists above several of the known leak locations, it can be determined that the leaks start up slope at tears/rips in the PVC membrane that migrate/shed on top of the lower roof system toward the low spots in the roof that then leak into the building. For that, we believe repairs to the top PVC membrane directly above the leak locations may help but it is very likely that other unknown rips/tears exist up slope and are the main cause for leaks.
    - Two of the locations involve scuppers at the south perimeter of the building that drain to conductor heads and downspouts. Evidence of moisture intrusion can be seen from inside. Provide PVC patches over top of scupper flashing where rips/tears exist utilizing manufacturer (Durolast) recommended patching materials. [7,8,9]
    - Two of the locations involve scuppers that drain to nearby roof drains. The scuppers and roof drains are separated by a load bearing wall and leaks occur on both sides of that wall. Provide PVC patches at both scuppers and roof drains. Clear out clogs in roof drain and remove any vegetation that exists. [7,10,11,12,13]

- The remaining two locations occur at the northwest and southwest corners of the main roof area that align with the walls that the roof system sheds water to. Each location appears to have ponding with leaks that exists directly beneath. These corner locations of the roof area do not shed toward scuppers and appears to exists because of poor roof drainage design. Remove ponding water by brooming toward scupper conditions. Clean membrane free of debris and review for rips/tears in and around the area of ponding. Review membrane up slope of leak locations for rips/tears in the membrane. Provide PVC patches over top of rips/tears in membrane utilizing manufacturer (Durolast) recommended patching materials. [14,15,16] [17,18,19]

Recommendations:

- Since the PVC Durolast roof is a recover over (likely a BUR) and old roof system, it can be difficult to track down the source of roof leaks, because water can travel between the two-roof systems until it finds a point of entry at roof penetrations (i.e. roof drains, pipes, scuppers, flues, etc). It will likely take a services crew multiple visits before they are able to track down the source of all the leaks and make the appropriate repair.
  - MartinRiley would recommend a budget of $5,000 to $10,000 for a 2-person service crew to make +/-5 visits over the next 12 months to find and patch miscellaneous repairs. These repairs would include the bulleted repair requests as noted within the observations above.

Attachments: 19 Photos
Cc: File F22131 - IvyFlats

Roof Key plan

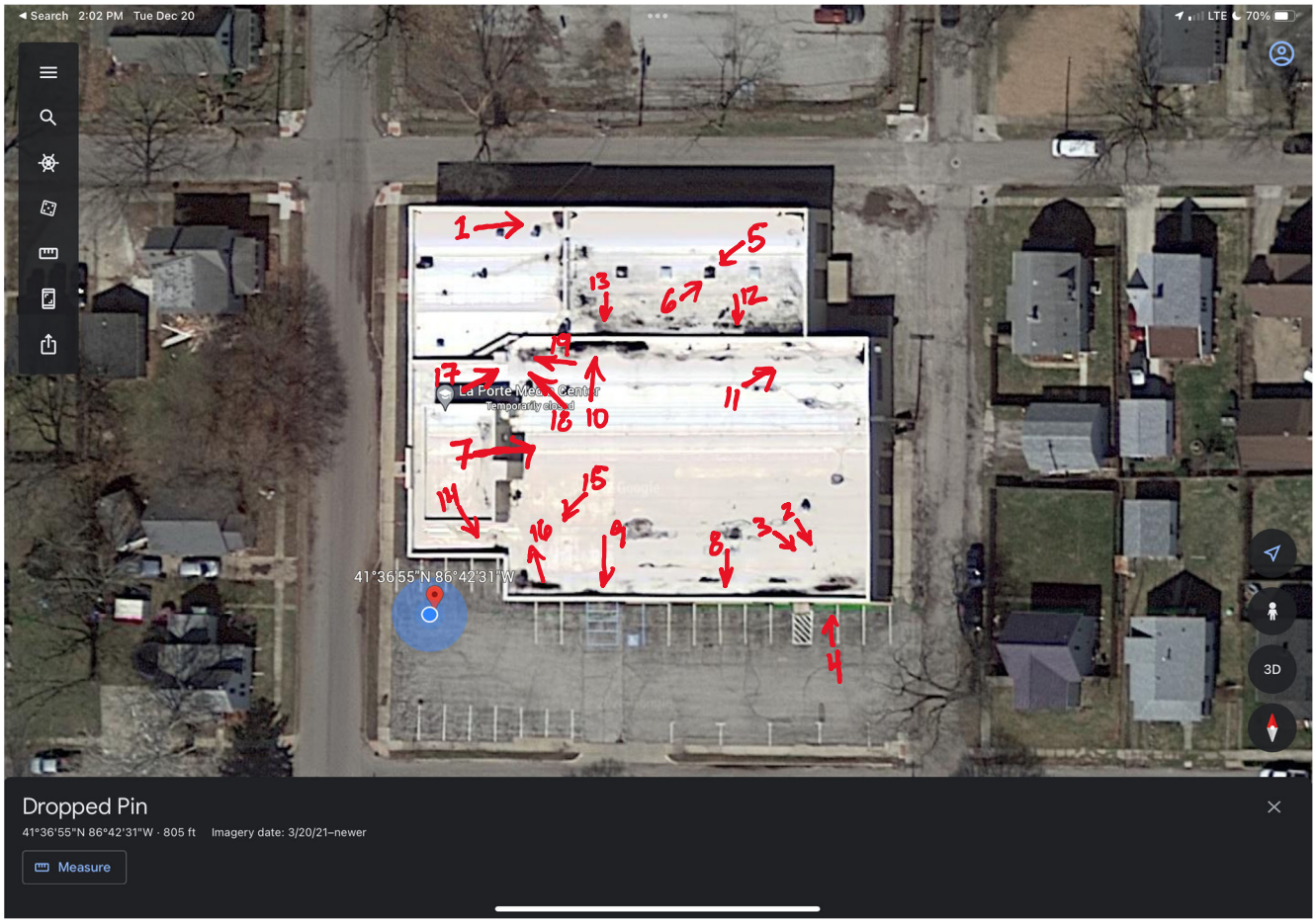

Photo #1

Photo #2

Photo #3

Photo #4

Photo #5

Photo #6

Photo #7

Photo #8

Photo #9

Photo #10

Photo #11

Photo #12

Photo #13

Photo #14

Photo #15

Photo #16

Photo #17

Photo #18

Photo #19