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Leslie Barnes Pasadena Unified School District 351 S Hudson Ave Pasadena, CA 91109

April 12,2021

## **RE: JACKSON ELEMENTARY -- HVAC & VENTILATION ASSESSMENTS**

EMCOR Services Mesa Energy Systems, and our team of experts (engineers, technicians, directors, managers and other building systems professionals) have provided assessment and improvement services in order to verify and improve HVAC systems, which includes ventilation systems, as part of PUSD's preparation for safe reopening of schools next week.

## Results

The overall result was that systems are in acceptable order for reopening next week, under reduced occupancy. For reduced occupancy and this first phase of reopening, is recommended that, as long as temperatures remain comfortable and as long as there are no security concerns, that the windows may be opened to increase or supplement the amount of ventilation air to each space.

In preparation for the next phase, we have recommendations for repairs that are required to reach higher levels of ventilation required for full occupancy (planned for Fall). PUSD and EMCOR will work to ensure that repairs are made, and outside air requirements reached and verified as spaces are more and more occupied to full capacity.

The detailed results for **Jackson Elementary** are as follows:

Air Quality: 23 classrooms and offices assessed on Mar 26, 2021 and Mar 29,2021.

- Findings:
  - Number of classrooms/areas that passed: 20
  - Number of classrooms that passed with modifications: 3
    - Modifications necessary
      - Utilize windows and doors (for immediate/reduced occupancy) (2 units)
      - Repair outside air ductwork/intake (2 units)

Mechanical – 51 units assessed on Mar 20-21, 2021.

- Findings: **8** units required short-term repairs. All repairs completed on April 10 and 11, 2021. Recommendations
  - o Long-term
    - Replace window units (3 units)
    - Replace packaged units (2 units)

Thank you,

Jason Rivadeneyra, General Foreman EMCOR Services Mesa Energy Systems Team



