



2 CROMWELL IRVINE, CA 92618 • PHONE (949) 460-0460 • FAX (949) 460-8833
LICENSE #611215 (B, C-4, C7, C10, C20, C36, C38, C46)

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

April 12, 2021

RE: WILLARD 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 **Willard Elementary** are as follows:

Air Quality: 33 classrooms and offices assessed on Mar 24-29, 2021.

- Findings:
 - Number of classrooms/areas that passed: **28**
 - Number of classrooms that passed with modifications: **5**
 - Modifications necessary
 - Remove window restrictions; make operable (**5 classrooms**)
 - Repair/replace outside air/units (Where windows cannot be made operable)

Mechanical – 48 units assessed on Mar 21, 2021.

- Findings: **17 units** required short-term repairs
- Recommendations. All necessary repairs involve normal, routine maintenance to be conducted by the district. All units were operational and functional at time of inspection.
 - Long-term recommendations
 - Repair/replace heating ignition (**1 unit**).
 - Replace units (**10 units**).

Thank You,
Jason Rivadeneyra, General Foreman
EMCOR Services Mesa Energy Systems Team

