



**West Orange Public Schools**  
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**Acting Superintendent of Schools**

**Mrs. Eveny de Mendez**

January 25, 2019

Dear Redwood Elementary School Parents / Guardians,

Earlier this year, the West Orange Public Schools received reports from several high school students that some classrooms were "stuffy" and they were feeling "drowsy" during class. In response, the Board contracted AHERA Consultants to conduct testing throughout all schools for levels of carbon dioxide.

All classrooms, multi-purpose rooms, gym areas, teacher workspaces, and offices were evaluated for carbon dioxide, carbon monoxide, and temperature and relative humidity, including visual inspections for the presence of mold.

Air monitoring findings revealed:

- No elevations in carbon monoxide in any of the locations were found
- Temperature and humidity were within normal ranges as recommended by ASHRAE and PEOSH
- No evidence of visible mold contamination or mold like or musty odors detected

In humans, carbon dioxide (CO<sub>2</sub>) is produced by respiration. Concentrations can accumulate in a place where there is stagnant air, such as classrooms where there are a higher number of students in small spaces. In New Jersey, PEOSH standards refer to 1000 parts per million (ppm) CO<sub>2</sub> as guidance for public spaces.

- CO<sub>2</sub> levels exceeding 1000 ppm is a general indicator that fresh air needs to be introduced into the space in order to reduce the concentration. Ranges between 1000-1999 ppm can cause complaints of drowsiness and poor air. PEOSH guidelines recommend the utilization of operable windows to introduce the fresh air.
- Carbon dioxide can have adverse affects on health when it reaches a concentration of 20,000 to 40,000 ppm, a level defined by the federal Environmental Protection Agency.

Fresh air supply findings at Redwood Elementary School, as measured by carbon dioxide, revealed the following levels:

- Of the 43 areas tested, 33 contained good to excellent levels of carbon dioxide

- 10 areas contained carbon dioxide levels between 1000-1589 ppm (Rm. 121, 124, 120, 115, 111, 109B/C, 106, 102, 162, Front Guidance)
- No areas contained carbon dioxide levels above 1589

Based on these findings and PEOSH standards, health officials have assured us that the levels of carbon dioxide present at Redwood Elementary School pose "no imminent health risks" for the students or staff of Redwood Elementary School and that the present levels are not "unusually elevated".

For areas containing CO2 levels between 1000-1999 ppm, recommendations include:

- Utilizing operable windows whenever necessary to introduce fresh air into the space
- Continuing to conduct routine preventative maintenance service of unit ventilators
- Ensuring that instructional materials are not covering unit ventilators
- Ensuring all unit ventilators remain turned on throughout the day

The safety and health of our students, staff and school community continue to be the priority of the West Orange Public Schools. A formal presentation will be made to the Board on Monday, January 28th, and school reports will be sent home to parents Friday, January 25, 2018.

Eveny de Mendez  
Acting Superintendent of Schools  
West Orange School District