

STATE BOARD FOR COMMUNITY COLLEGES AND OCCUPATIONAL EDUCATION

May 11, 2022

TOPIC: Front Range Community College Spending Authority for Science Lab Ventilation Renovations – Westminster Campus

PRESENTED BY: Andrew R. Dorsey, President

RELATIONSHIP TO THE STRATEGIC PLAN: Goal 4: Refine our value proposition through accessibility, affordability, quality, accountability, resource development, and operational excellence.

EXPLANATION:

Front Range Community College (FRCC) seeks approval for spending authority of \$3,600,000 of Higher Education Emergency Relief Funds (HEERF) to remedy design and code deficiencies and ensure proper ventilation of ten science labs at the Westminster Campus. The proposed project will address health and safety concerns and reduce the transmission of COVID and other viruses in our science labs. Since science classes are particularly difficult to hold remotely, ensuring adequate ventilation in these labs will be critical if we have another COVID outbreak.

In 2017 FRCC contracted with a vendor to conduct one of our periodic facility condition assessments. The assessment identified deficiencies in the exhaust air systems for the ten science labs at the Westminster Campus.

FRCC then hired Cator Ruma and Associates (CRA), an engineering firm, to verify and detail the deficiencies in the current system and propose a design solution. CRA found that the problems stem from the original HVAC design when the building was constructed in 1977. While there have been HVAC upgrades since then to address several other problems with the original design, none has addressed these specific exhaust issues.

Current standards and building codes for science labs are that no exhaust air should be recirculated into the building. At the Westminster Campus, the lab exhaust goes into a plenum above the classrooms and then is mostly recirculated into that section of the building. This has caused students and staff to complain of chemical smells in hallways and adjacent labs.

There are also issues with the fume hoods in several labs. All the lab fume hoods are enabled manually and chemical work could happen without air flow. Current code and guidelines recommend fume hoods always be enabled. Existing fume hood face velocity monitors are also not functional.

Based on these findings and the college's increased focus on ensuring proper ventilation and filtering to limit the spread of the COVID virus, FRCC proposes to renovate the exhaust system

and replace the lab fume hoods to ensure safe operation and uninterrupted instruction for the Science program staff and students.

The renovation of the science lab HVAC system will:

- Install a new 24,000 +/- cfm exhaust unit with three exhaust fans
- Install a new 24,000 +/- cfm air handling unit rated for 100% outside air with energy recovery coil, heating and cooling coils
- Ensure that the new system is designed to accommodate MERV 13 filters, acknowledged as the most effective filter to mitigate the spread of the COVID virus
- Provide fume hoods for all of the labs
- Modify duct systems for new exhaust manifold
- Integrate equipment into the building automation system with new controls
- Install associated ceiling replacement and electrical upgrades
- Enable the HVAC system to completely exhaust the lab air and introduce 100% fresh air, which the Centers for Disease Control and Prevention (CDC) recommends to reduce the spread of disease and lower the risk of exposure

FRCC will advertise for a Construction Manager / General Contractor (CMGC) to complete the work by May of 2023. The budget will accommodate the accelerated schedule, designed to meet the HEERF spending deadline and remedy the current design deficiencies by next summer.

RECOMMENDATION:

Staff recommends the Board approve FRCC's request for spending authority in the amount of \$3,600,000 for the Westminster Campus Science Lab ventilation renovation and delegate the signature authority of the Board to the FRCC President on the condition that all State and Board required processes are met.