



HEALTHY **SCHOOLS!**

Evolving trends and applications for learning environments that can promote wellness and assist in mitigating the spread of communicable diseases.

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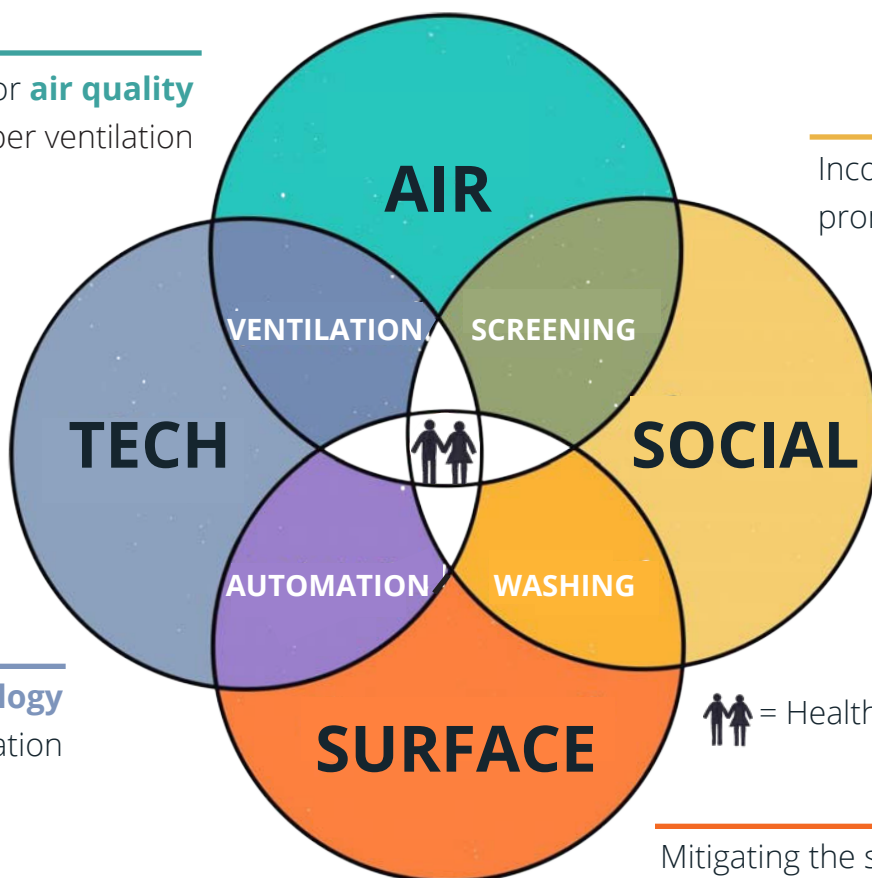
THE ROLE OF THE BUILT ENVIRONMENT IN PROMOTING **WELLNESS**

For the most part, modern infrastructure was not properly equipped to respond to the unprecedented nature of the COVID-19 pandemic. The team of experts who developed the enclosed recommendations challenged ourselves to answer the following: **What can we learn from COVID-19 and how can we better plan and design facilities that minimize the spread of communicable disease while maximizing the protection of our natural environment?**

As illustrated below, our ideas and concepts evolved into four main categories, with some overlap in between. They are: Social, Surface, Air, and Technology. As research and expertise on the nature of COVID-19 - and communicable disease in general - evolves, so will the insights and recommendations we bring forth. The observations and recommendations offered within this document are not exhaustive or prescriptive; rather, they are simple solutions to consider in preparation for returning to in-person learning.

Optimizing indoor **air quality** and ensuring proper ventilation

Incorporating elements to promote **social distancing**



Implementing **technology** for hands-free operation

 = Healthy Communities

Mitigating the spread of germs on frequently touched **surfaces**

The recommendations offered within this document feature cost levels as shown below:

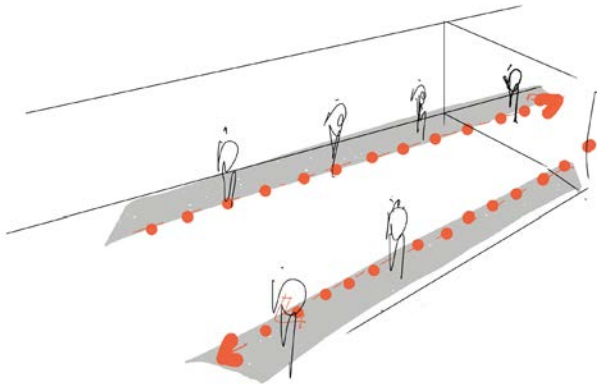
\$\$\$ = LOW COST \$\$\$ = MEDIUM COST \$\$\$ = HIGH COST

01

SOCIAL DISTANCING

SLOWING THE SPREAD THROUGH SOCIAL DISTANCING

According to the Center for Disease Control and Prevention (CDC), one of the best ways to prevent illness is to avoid being exposed to disease-causing agents by refraining from coming into close contact (within 6 feet) of others. The following are recommendations for physical and behavioral modifications, adhering to the CDC's recommendation to practice social distancing.

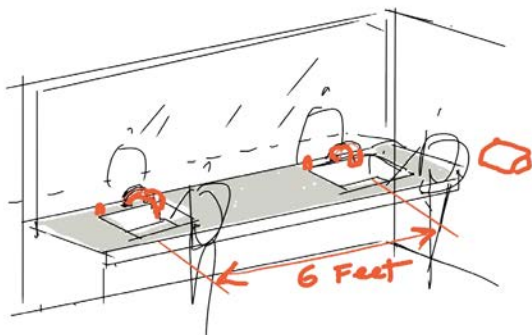


ONE-WAY CIRCULATION: \$\$\$

Separate individuals and manage distance between them. Indicate direction of traffic using signage on floors and/or walls.

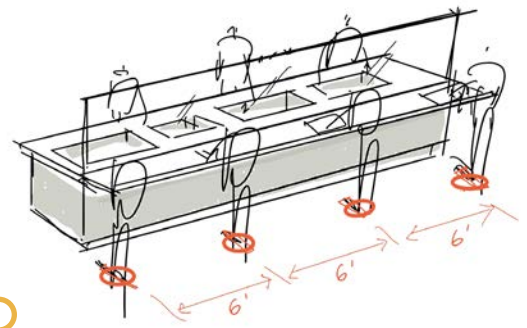
SIGNAGE & DISPLAYS: \$\$\$

Incorporate large signs and displays reminding students and staff to practice social distancing.



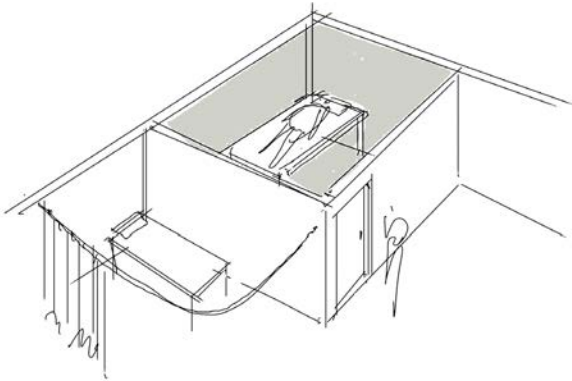
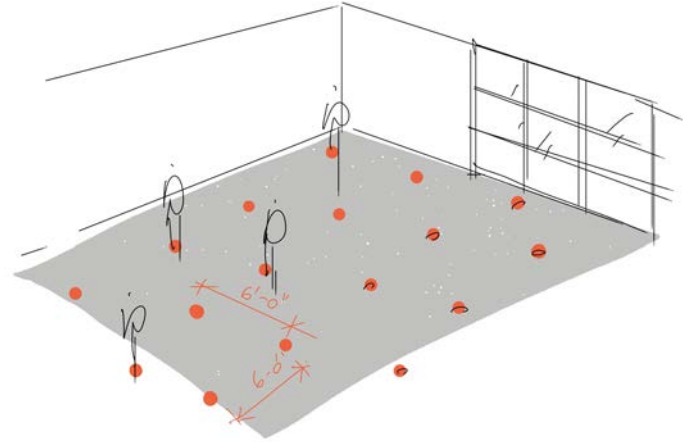
SPACE SINKS 6FT APART: \$\$\$

Ensure 6 ft of space between sinks in restrooms.



FLOOR MARKERS - \$\$\$

Show appropriate spacing (6 ft) using markers on the floor at serving lines and other areas that often hold large crowds.

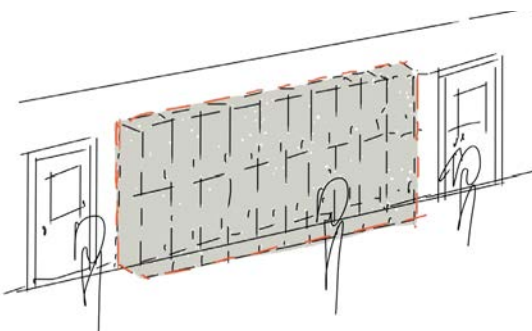
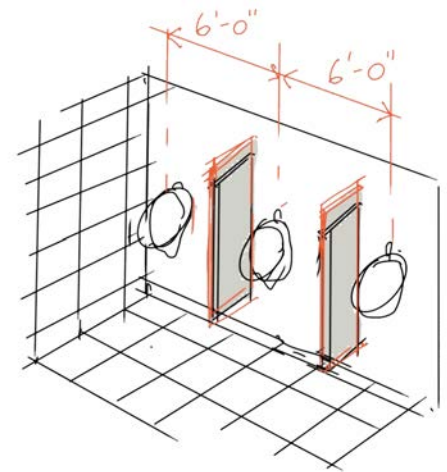


TALLER PARTITIONS: \$\$\$

Increase height of partitions in restrooms to separate individuals and prevent the spread of airborne particles.

ISOLATION ROOM: \$\$\$

Incorporate an isolation space in the clinic for individuals potentially infected with a communicable disease. This space should contain exhaust and be treated as a negative air room.



NO LOCKERS: NO COST

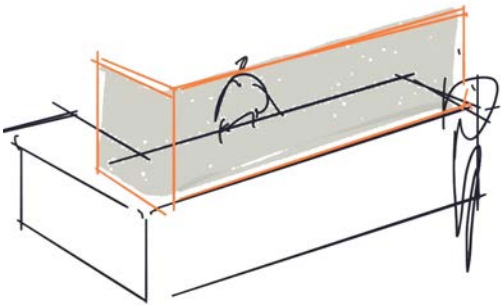
Refrain from incorporating lockers in hallways to avoid students interacting in close proximity.

02

SAFE SURFACES

MATERIALS AND TOOLS TO PREVENT THE SPREAD OF GERMS

Inevitably, public spaces and surfaces are touched by hundreds of people each day. The following solutions are recommended for mitigating and preventing the spread of germs on frequently touched surfaces.

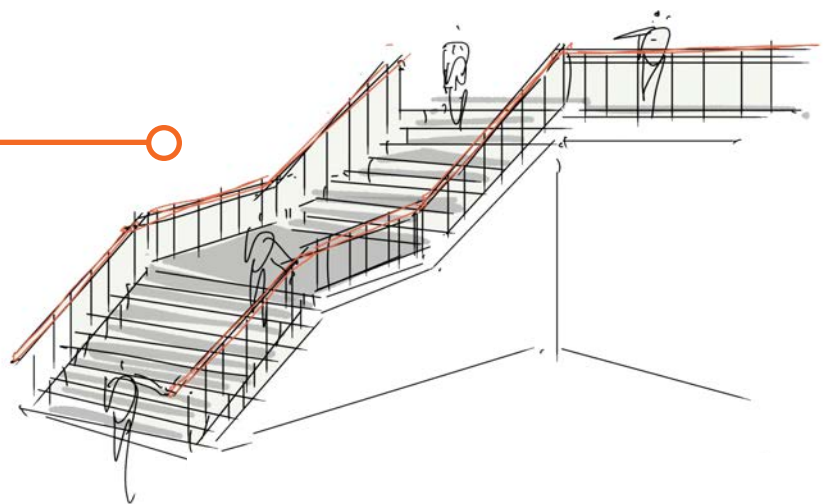


SNEEZE GUARDS: \$\$\$

Incorporate sneeze guards to separate individuals and block the spread of germs.

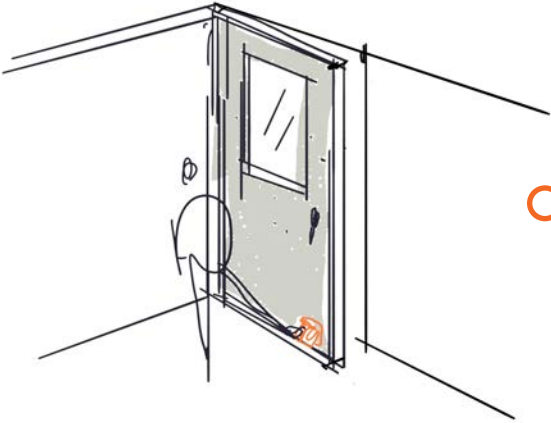
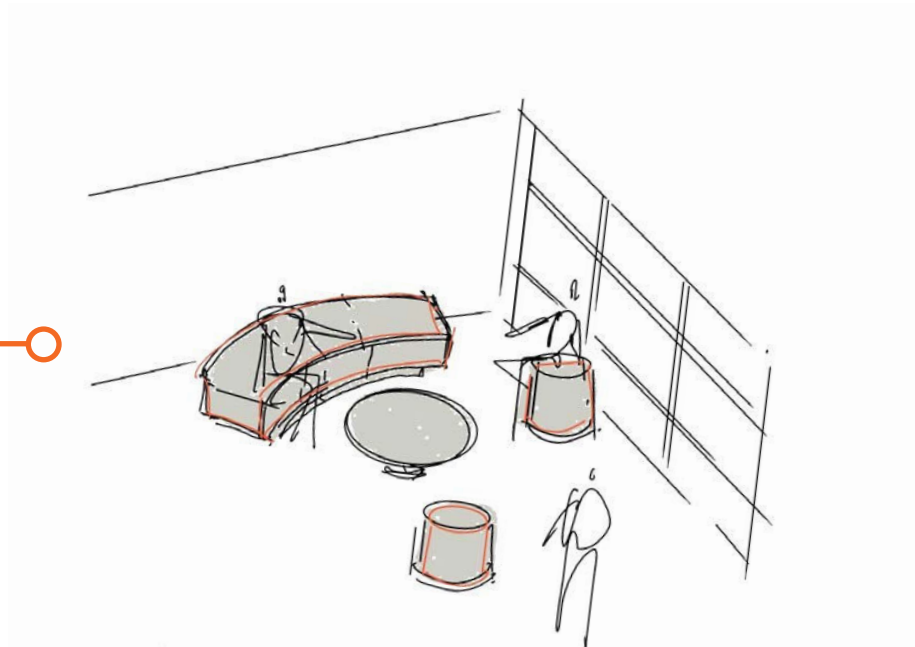
FINISHES ON HANDRAILS: \$\$\$

Select finishes with antimicrobial qualities on handrails and other frequently touched surfaces.



CLEANABLE FURNITURE: \$\$\$

Utilize furniture that features cleanable and/or nonabsorbent materials and surfaces. Clean and/or wash regularly.

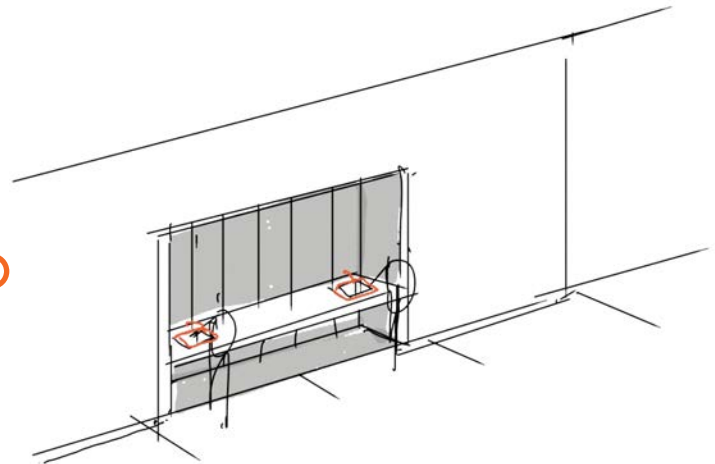


FOOT-PULL DOOR OPENER: \$\$\$

Install foot-pull door openers to eliminate frequent touching on a common surface.

ADDITIONAL HAND-WASHING STATIONS: \$\$\$

Incorporate hand-washing stations in commons, gymnasiums, and other areas where large groups congregate.



03

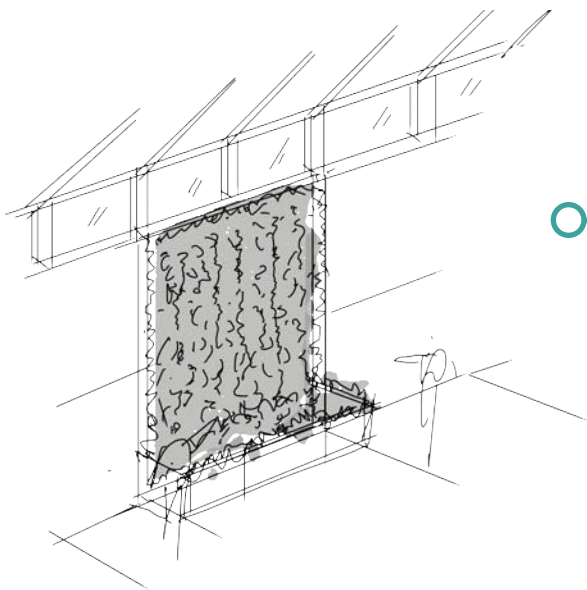
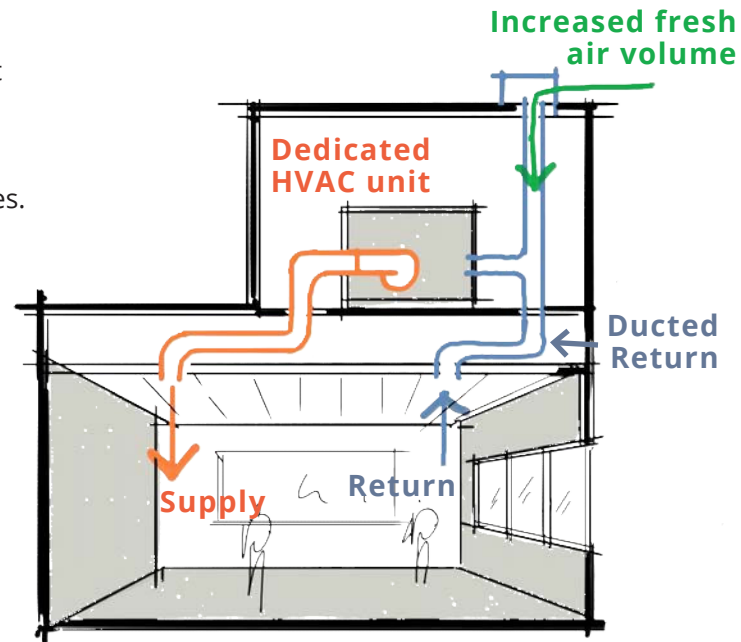
CLEAN AIR & NATURAL LIGHT

OPTIMIZING AIR QUALITY

When particles that lead to respiratory infections are present in a space, all airborne contaminants may ultimately be recirculated through the mechanical ventilation systems and be spread from one location to others within the building. Consider implementing measures to remove harmful particles.

IMPROVE VENTILATION: \$\$\$

Designs that achieve higher ventilation rates will reduce risk. Dedicated units with ducted return lower airborne disease transmission. Increased fresh air quantities lowers CO₂ levels in classrooms.

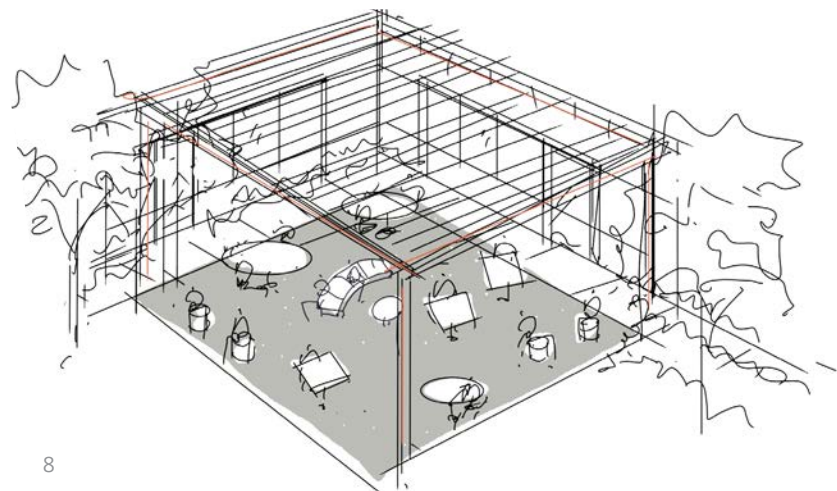


GREEN WALL TO PURIFY AIR: \$\$\$

Interior features like green walls and sky lit planters can improve indoor air quality by removing harmful substances and replenishing oxygen.

OUTDOOR LEARNING: \$\$\$

Provide spaces for outdoor learning and dining, which promotes wellness through fresh air and the natural disinfecting properties of sunlight, as well as encouraging social distancing.

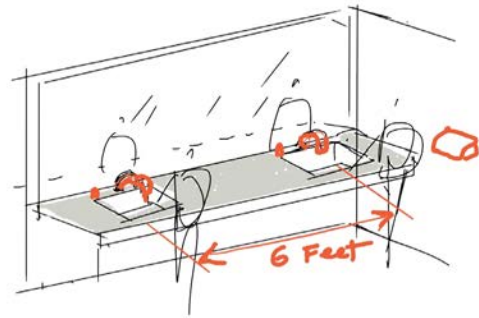


04

TOUCHLESS TECHNOLOGY

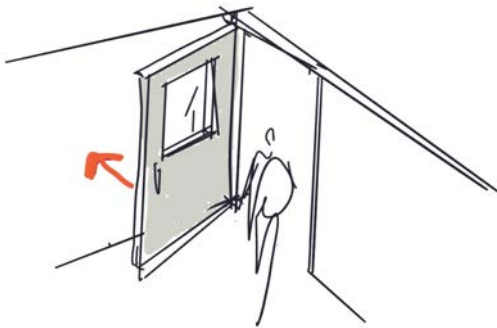
HANDS-FREE TECH

Utilize technology that allows for hands-free operation and minimizes the number of commonly touched surfaces.



TOUCHLESS RESTROOM FEATURES: \$\$\$

Install touchless faucets, soap dispensers, and hand dryers to mitigate spread of germs on frequently touched surfaces.

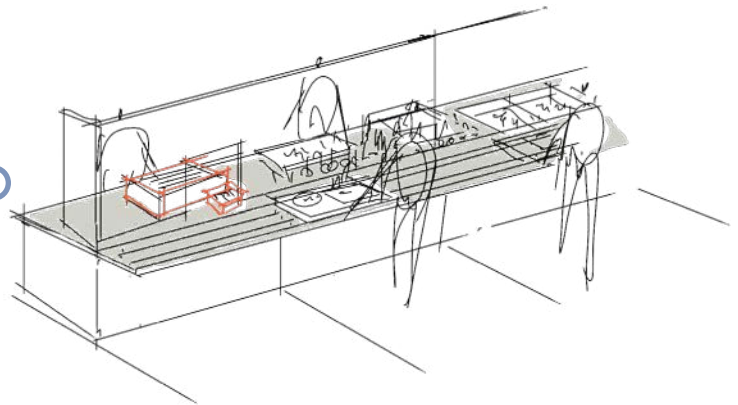


AUTOMATED DOORS: \$\$\$

Incorporate automated doors that will not require touching a handle to open.

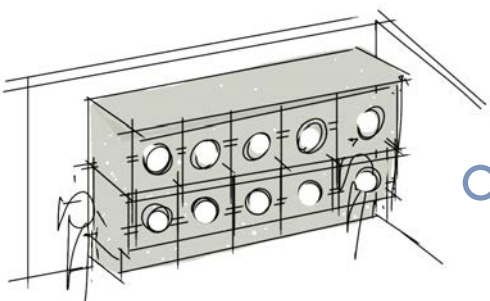
TOUCHLESS POINT OF SALE: \$\$\$

Utilize touchless point of sale systems in food service areas.



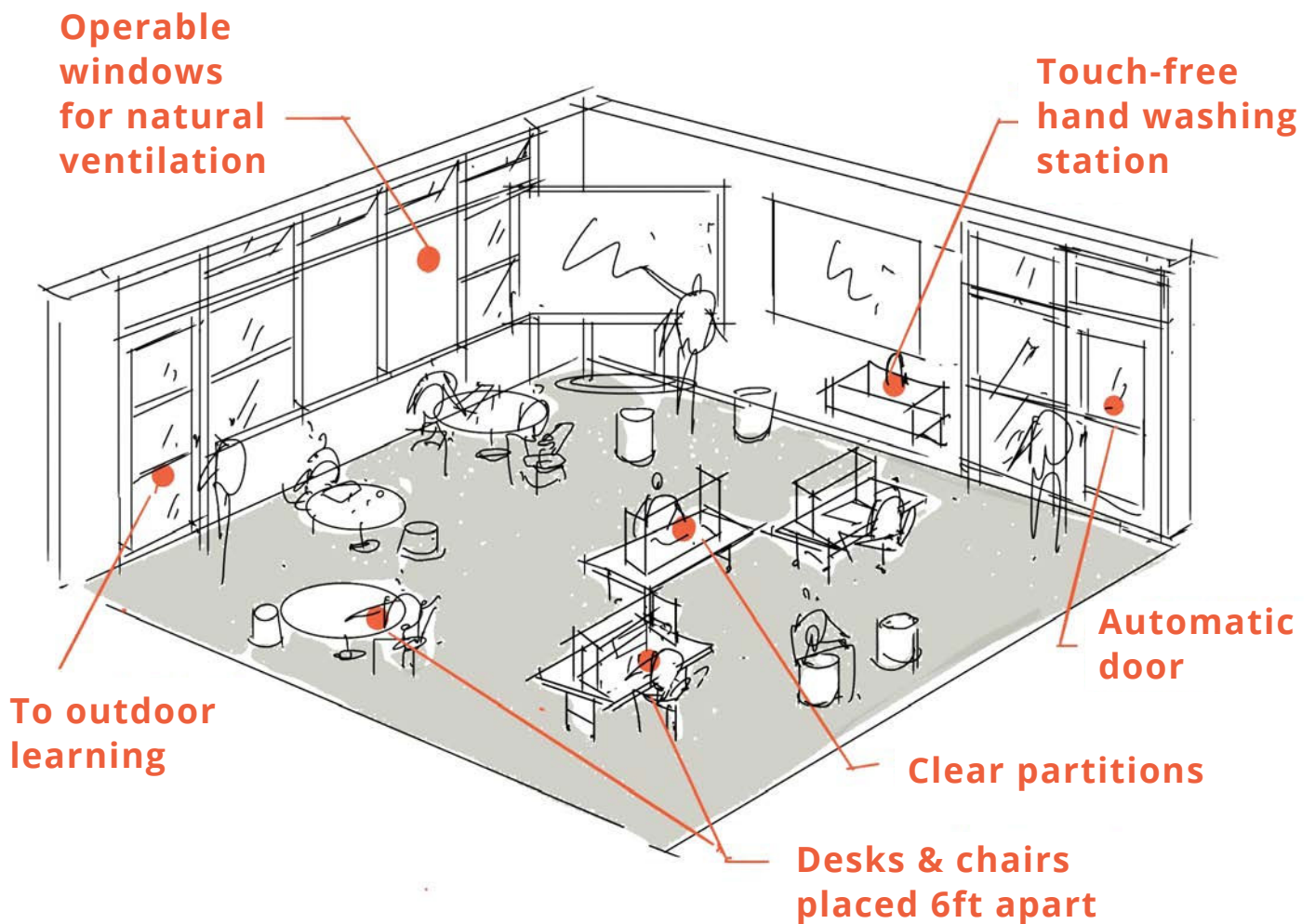
LAUNDRY ROOM & CUSTODIAL SPACE: \$\$\$

Include a laundry room for sanitizing washable furniture and other materials. Incorporate square footage for additional custodial space and storage.



A COMPREHENSIVE CLASSROOM

Using the recommendations from the previous section, the following image displays an example of how a classroom can be designed to promote the health and wellness of the student and teacher occupants.



FUNDING

COVID-19 RELIEF

There are two major Federal funding sources available: FEMA and the CARES Act. It is recommended that CARES Act funding be used first, followed by FEMA.

FEMA ○

- FEMA funding covers 75% of eligible costs, after all other sources have been applied (no double dipping)
- FEMA has very rigorous audit requirements

The CARES Act ○

- CARES Act funding allocated based on Title 1 formula, but does not have to be spent on Title 1 schools or follow other Title 1 requirements
- CARES Act funding covers 100% of eligible expenditures up to the amount of the grant received

Gives states \$13 billion to support school districts

This funding covers a wide range of activities, including cleaning and sanitizing schools, purchasing educational technology, training educators to use online learning tools, ensuring access to education for students with disabilities, and providing students emergency funding for basic essentials.

Provides \$14 billion in emergency financial relief and additional flexibility to support institutions of higher education

Gives direct financial relief to institutions of higher education struggling to make up for lost revenue following school closures and requires that institutions spend some of that funding on emergency financial aid grants to students. This includes \$1 billion to support HBCUs, Tribal Colleges and Universities, other Minority-Serving Institutions, and other under-resourced institutions.

○ [CLICK HERE](#) TO READ MORE ABOUT THE CARES ACT

IN CONCLUSION

COVID-19 has been one of the most significant and devastating pandemics in the history of the world. Consequently, mitigating the spread of disease will be a high priority for all industries and communities in the future. The recommendations brought forth in this document are not exhaustive, nor operating under the assumption that research and technology will remain static. Rather, they are based on what is known at this time and what has been proven effective thus far. PBK has been a leader in the public education industry and will continue to pioneer solutions for the design of learning environments. As new solutions are developed, this dynamic document will continue to be updated and can be referenced on our website at pbk.com.



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