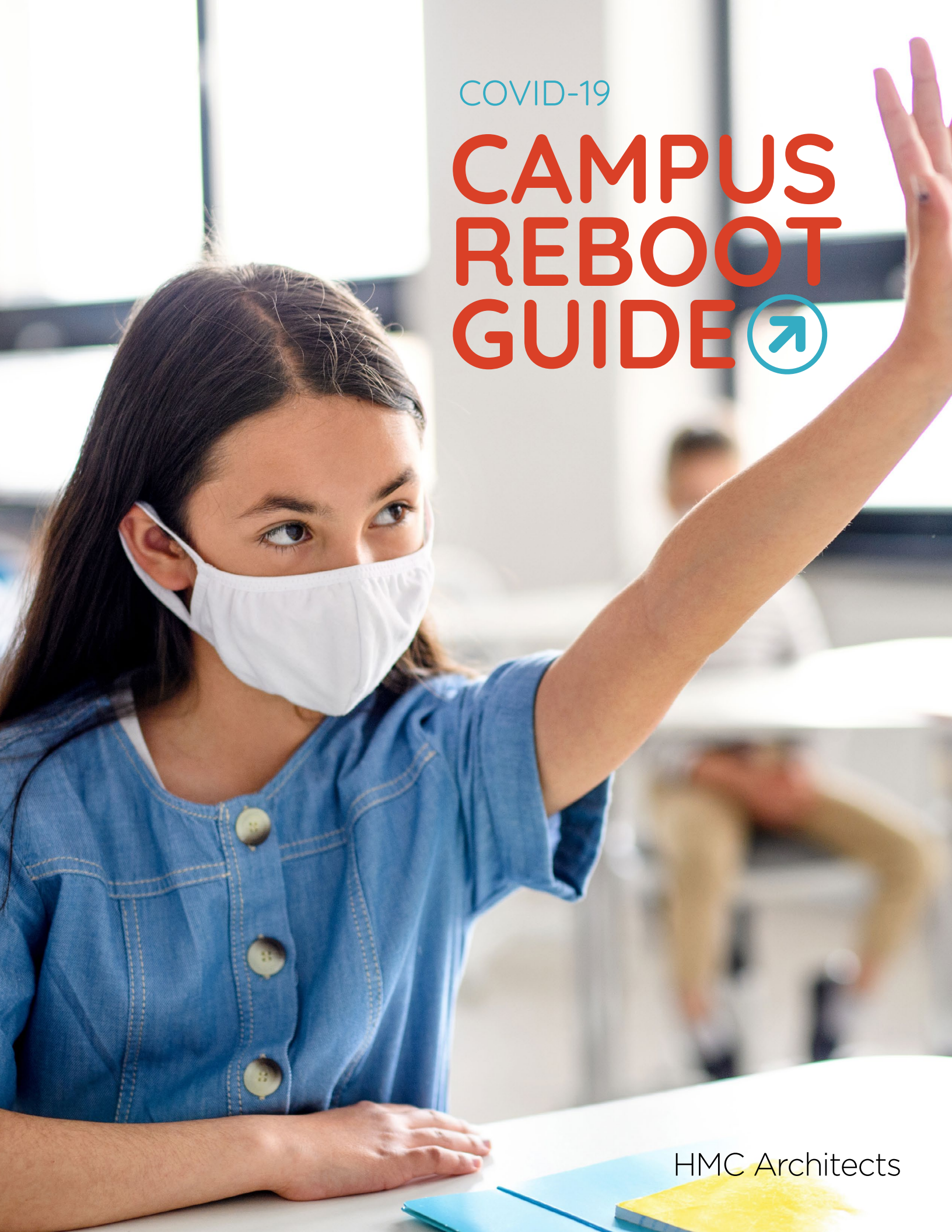


COVID-19

# CAMPUS REBOOT GUIDE



HMC Architects

# Campus Reboot Guide

Schools are faced with an unprecedented challenge in mapping out plans for the fall semester in this time of uncertainty.

Given the constantly changing conditions of the pandemic, evolving knowledge about the disease, and shifting directives from governmental agencies, HMC Architects is offering this Campus Reboot Guide to support flexible planning for re-opening, with easy-to-use tools that can be customized for your school and district.

The aim is not just to facilitate short-term solutions but to reinforce our momentum towards learning environments that enhance student success, wellness, and community. This guide is part of a larger HMC research initiative on COVID-19 that can be found on our website at [hmcarchitects.com/covid19](https://hmcarchitects.com/covid19).

HMC's Campus Reboot Guide provides tools to assess and plan mitigation measures for individual sites and buildings. This assessment must be integrated into a broader framework customized for each district and/or school for their re-opening. Numerous guidelines have been developed by government agencies and industry organizations to provide the framework for re-opening schools. This framework is then tailored to the local directives provided by county health departments and offices of

education, and refined with local stakeholder input to align with long-term district goals.

## The key steps to a re-opening plan include:

- Understanding the instructional and community needs of your specific students, families, teachers, staff, and stakeholders
- Gathering stakeholder input and provide opportunity for community discussion
- Conducting facility assessments
- Planning for safe behaviors
- Planning for safe operations
- Planning for healthy facilities
- Being ready to pivot to respond to changing conditions
- Using 2020 pandemic response actions to implement your long-term vision for enhanced learning, wellness, and community

The Campus Reboot Guide is a toolkit focused on the planning for safe behaviors, operations, and facilities. It includes a kit-of-parts to be overlaid at the site, building, and classroom scale with an easy-to-use interface suitable for any PDF file. Future releases will include additional areas and systems of the school campus.

For more information on how we can support your re-opening plans, please contact:

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## Space Considerations

This guide looks at the key issues in regards to re-opening campus at different scales, starting with the big picture, and then zooming down into the individual classroom level.

We start with **#1 Distance Teaching/Learning**, and look at the specific needs of both students and staff to create a successful model. We then dive into **#2 Heading Back to School**, which explores all the big-site considerations including what to do before heading to school, things to expect when arriving/walking around campus, and specific site considerations. We then focus on **#3 Repurposing Large Spaces**, that studies some of the amazing opportunities we see in the larger gathering spaces on campuses. From converting multipurpose rooms (MPRs) into synchronous/asynchronous learning commons, to converting dining halls into safely distanced collaborative study spaces of the future, we take a look at how schools can capitalize on their large conditioned spaces on campus. Last but certainly not least, we look at **#4 The Classroom**, where we do a deep dive on different physical distancing opportunities and explore both traditional and collaborative layouts.



# 1 Distance Teaching and Learning

## Distance Teaching

Based on recent surveys conducted by HMC, we see that more than 30 percent of families are requesting to continue to engage in remote learning even when schools re-open. There are continuing concerns about potential infection in the absence of a vaccine for COVID-19, not to mention possible mutations. This reality is causing districts to look at providing space and training for their teaching staff that would be dedicated to improving online instruction. This new reality begs the following questions:

- What would an ideal space for online instruction look like?
- What kind of technology needs will the instructor have?
- How will they keep their lessons interesting enough to hold their students' attention?
- Would there be space in the room for physical demonstrations?
- What are the storage and overall space needs?
- What about lighting, acoustics, and glare control?

These instruction spaces may look more like recording studios than traditional classrooms. From the ability to change virtual backgrounds with a click, to engaging students with video content from around the world, we are seeing benefits to this model of instruction. Some other perks of this method of instruction delivery are the ability for students to go back

and watch a missed lesson due to illness or absence, and the bolstering of digital proficiency for both the student and the teacher.

## Distance Learning

For those learning from home, there are many remote-learning space considerations that need to be taken into account. The learning space should be safe and comfortable and consider the right size desk and chair with good ergonomics. Good lighting is key to maintaining focus and mental health, and access to natural daylight helps with circadian rhythms and to maintain focus. Acoustics are also a concern. Each learning space should be able to be made quiet for focused activities. A few more basic considerations include temperature control, healthy indoor air quality, and access to power and Wi-Fi. While some of these amenities seem obvious, we have seen that many students' remote-learning setups are lacking in many of these key areas. We have seen kids trying to attend class from their beds, in the backseats of cars, and in several other undesirable conditions that have a negative effect on their ability to learn and stay focused. It is imperative that all students have a space that is conducive to distance learning.



## ② Heading Back to School

There are several things that need to happen prior to heading back to school. The health of the students and staff are of utmost importance. The Centers for Disease Control and Prevention (CDC) and other agencies and organizations suggest several measures to ensure the safety of all. These guidelines should be reviewed frequently and carefully as the guidelines change over time as more scientific data becomes available. This guide takes those recommendations and illustrates graphically how the measures could be applied to each campus and building. A health screening station should be set up at the main entrance to campus and should be divided into three lines: one for staff, one for students, and one for visitors. Those who do not pass the health screening should not be permitted on campus.

### Walking Around the Campus

*(see exhibits on the following pages)*

Besides wearing a face mask, and maintaining six feet of separation from others while walking around campus, there will be several new rules that need to be recognized and followed. New signage and floor markings indicating paths of travel, entry points, and markers for vertical circulation must be followed. Multi-story buildings will have one-way stairwells to prevent students and staff from crossing paths in tight spaces. Rooms with two doors should have separate clearly marked designated/dedicated entry and exits. All public drinking fountains should be turned off, and everyone should be encouraged to bring their own water to

campus. Access to playground equipment should be monitored and controlled, and all equipment should be sanitized per CDC recommendations. All balls and other high-touch sports equipment should be removed from student access to prevent possible points of transmission. Main entry points to buildings should have sanitation stations, automatic door openers, or doors held open to minimize touch points. Doors into classrooms should be held open during passing periods. While physical distancing is imperative, it is important to note that congregating with friends and teachers in a safe way is key to maintaining positive mental health. Remember, we do not want to be socially distant; we need to be physically distant.

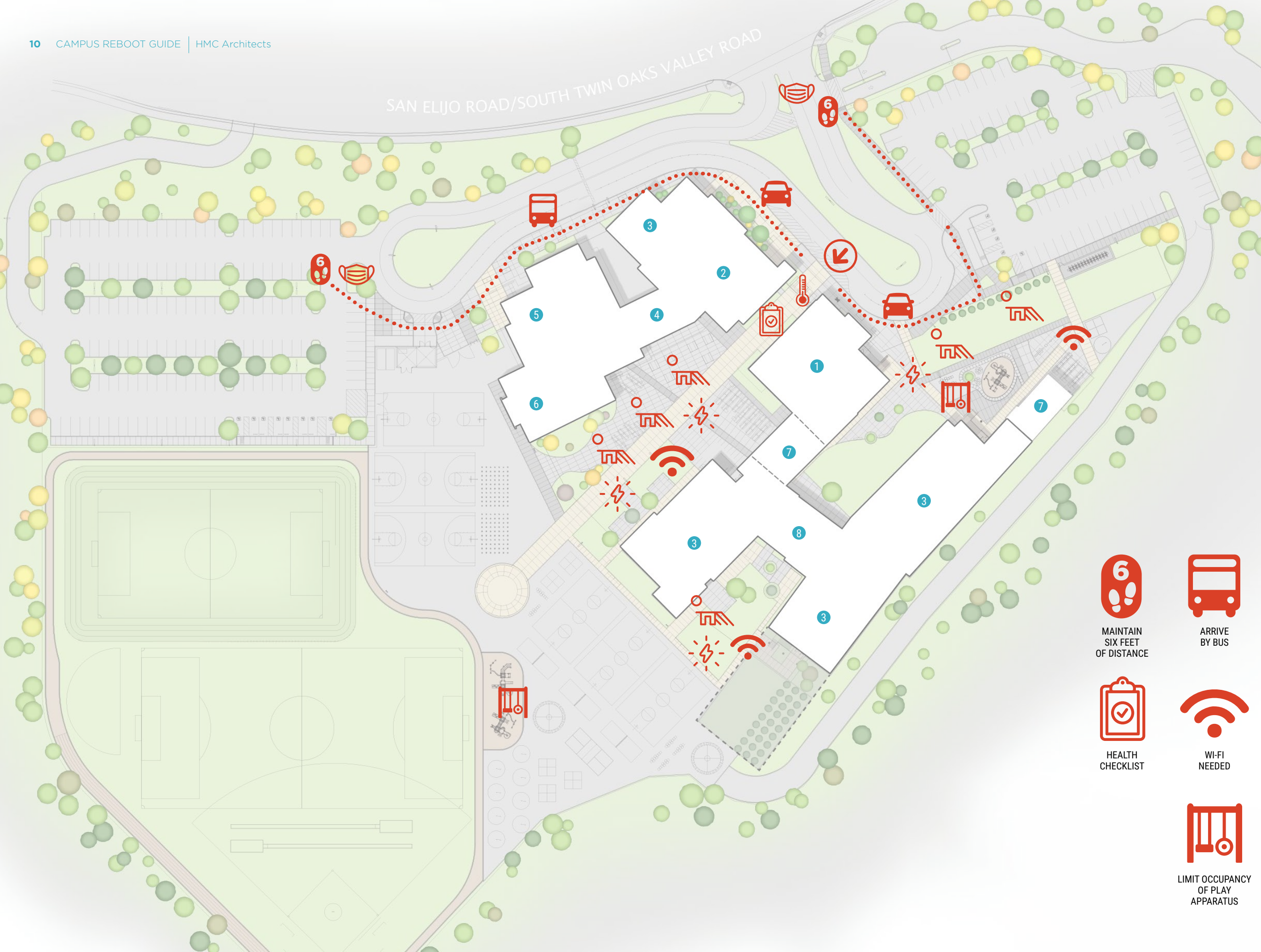
### Beyond the Walls of the Classroom

There are many opportunities on campus that can be considered for outdoor instruction. In order to be successful, these outdoor learning spaces need to be shaded, protected from wind (where necessary), easily supervised, and have access to power and Wi-Fi. We see these spaces doubling as distanced outdoor dining spaces during the lunch hour, and outdoor hangout or study zones before and after school.



SAN ELIJO ROAD/SOUTH TWIN OAKS VALLEY ROAD

- 1 Administration
- 2 Multi-Purpose Room
- 3 Classrooms
- 4 Kitchen
- 5 Gymnasium
- 6 Lockers
- 7 Covered Dining
- 8 Library

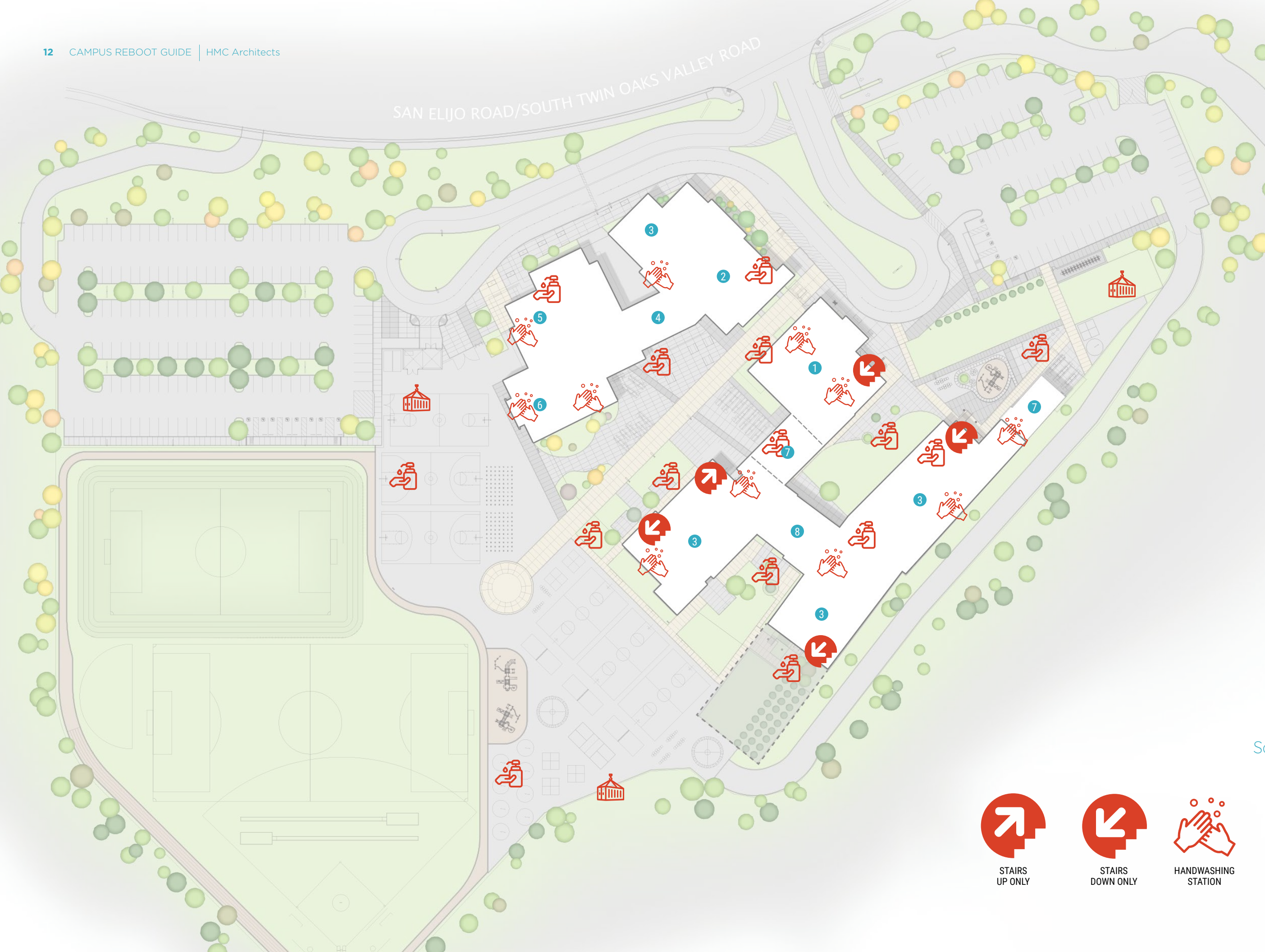


Site Analysis  
Various Considerations

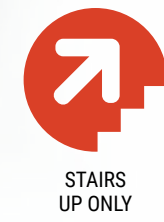
MAINTAIN SIX FEET OF DISTANCE	ARRIVE BY BUS	ARRIVE BY CAR	DEDICATED ENTRY/EXIT
HEALTH CHECKLIST	WI-FI NEEDED	OUTDOOR SHADE/LEARNING SPACE	TEMPERATURE CHECK STATION
LIMIT OCCUPANCY OF PLAY APPARATUS	WEAR A MASK	POWER NEEDED	

SAN ELIJO ROAD/SOUTH TWIN OAKS VALLEY ROAD

- 1 Administration
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### Site Analysis Sanitation and Storage



STAIRS  
UP ONLY



STAIRS  
DOWN ONLY



HANDWASHING  
STATION



SANITATION  
STATION



ONSITE PPE  
AND FUTURE  
STORAGE

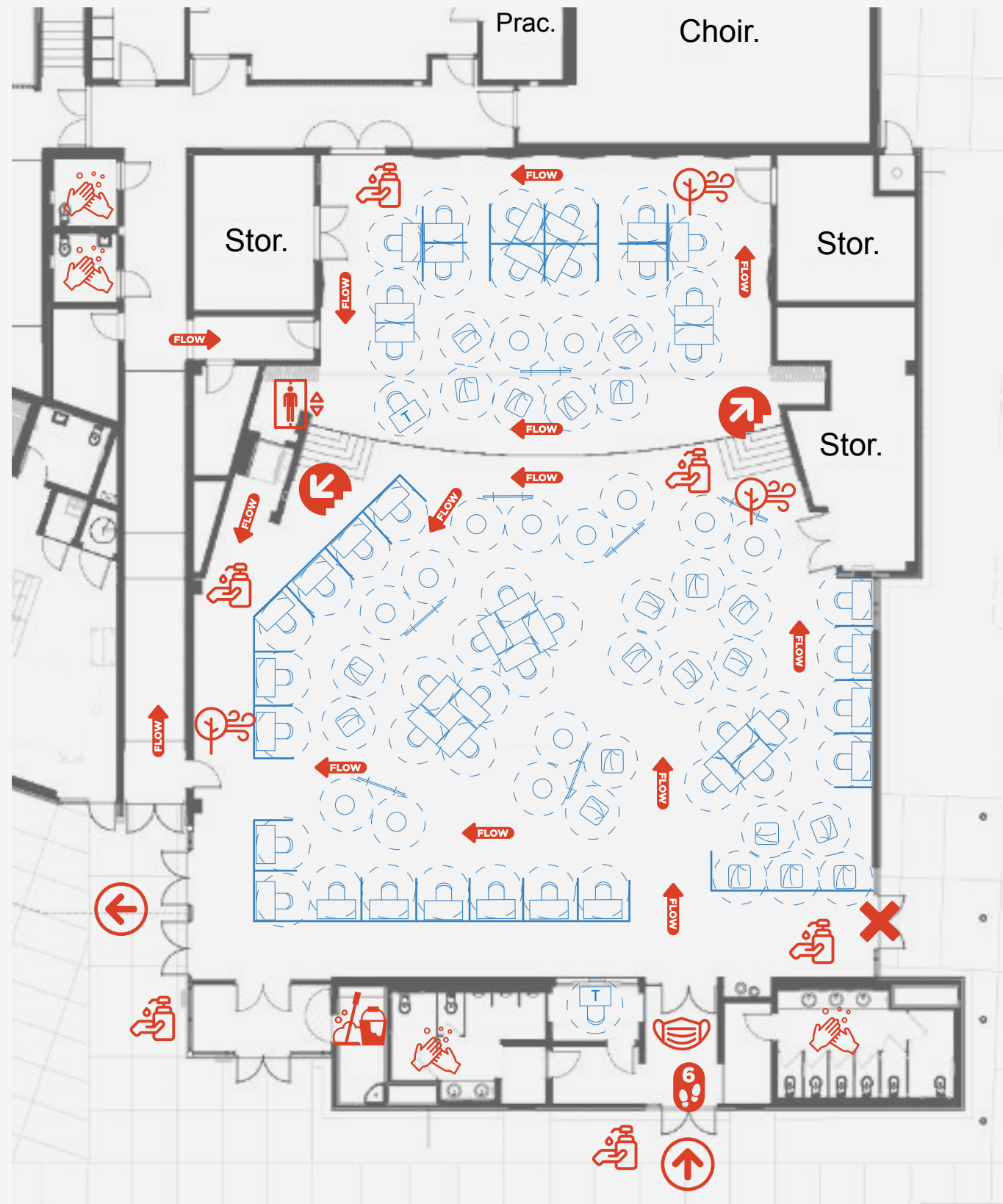
## Administration Building Changes

Changes are also coming to administration buildings on campuses. There will be a new focus on health screenings, campus security, spaces to separate unhealthy students prior to getting picked up, and caring for the health of students and staff. Visitors will be limited, and lobby waiting areas will become health screening stations. We see our hospital clients moving to a “wait outside/in your car” model using text messages to invite people in to prevent crowds from gathering, and we see some school districts moving towards a similar model. Isolation rooms will need to be created that have negative pressure HVAC systems allowing supervisable waiting spaces for students who fall ill at school and are waiting to be picked up.

There are some silver linings that will come from this crisis. We see a new focus on campus hygiene, and an establishment of cleaning protocols and schedules that will help to prevent spread of all illnesses. There will also be a newfound awareness and sense of importance around personal hygiene, and its impact on health and wellness. The fall of 2020 will likely expose an increase in mental health issues as these important support services haven't been as readily available without access to the physical school setting. We see this as an opportunity to look at spaces that promote overall student wellness. We may see health offices reimagined into wellness centers that care for the physical and mental health of students and staff, with a focus on overall wellbeing. We have seen this change coming for some time now, and with the new conditions presented to students with the recent lack of social interaction, there will undoubtedly be a surge in need for in-person and distanced counseling for the foreseeable future.







### 3 Repurposing Large Spaces

We see an incredible opportunity to repurpose large spaces like libraries, MPRs, and cafeterias into future focused learning spaces. Think of these spaces as being transformed into “study halls of the future” where synchronous and asynchronous learning can take place in a safe school setting. This would allow students who may not have an ideal

distance learning setup at home to have a safe and collaborative space to learn and access school resources. This space also offers working parents a more flexible and safe learning setup for their child and would offer varied spaces for individual instruction as well as distanced collaborative learning opportunities.

				
CLEANING STATION	MAINTAIN SIX FEET OF DISTANCE	NO ENTRY	DEDICATED ENTRY/EXIT	STUDENT DESK 6' TO CENTER OF SEAT
				
PATH OF TRAVEL	HAND WASHING STATION	SANITATION STATION	ELEVATOR OCCUPANCY	STUDENT DESK 6' BETWEEN STUDENTS
				
STAIRS UP ONLY	STAIRS DOWN ONLY	MAXIMIZE OUTSIDE AIR	WEAR A MASK	TEACHER'S DESK

# 4 The Classroom

## Classroom Buildings

Sanitation stations should be placed at all entry points and in high-traffic areas. Floor markings should follow CDC guidelines, and high-traffic areas should have directional paths of travel that are well marked. Buildings with stairs should assign one as “up only,” and the other as “down only” to prevent kids from passing each other in tight stairwells. Elevator travel should be limited to only those who need to use it, and the six-foot distancing rule must be adhered to. If existing corridors are tight, then only one-way traffic should be considered, even if it causes a temporary inconvenience. This may equate to slightly longer travel time between classes.

## Restrooms

No-touch faucets and soap dispensers should be installed where possible. Markings for six-foot separation on the floor should be provided. Ensure sinks have adequate separation, and if needed restrict access to sinks that would violate the six-foot rule. Dividers between urinals need to be tall enough to prevent transmission. Extensions can be added if needed to protect up to six-feet high. Any aerated hand dryers should be disconnected, and only paper towel dispensers should be used.

Operate restroom exhausts 24 hours a day on school days and make sure that the exhaust rates meet design rates. Upgrade restroom exhaust to reduce transmission.



# Classroom Building First Floor

## Circulation, Furniture and Sanitation Considerations Option 1



MAXIMIZE OUTSIDE AIR	MAINTAIN SIX FEET OF DISTANCE	KEEP DOOR OPEN	DEDICATED ENTRY/EXIT	STUDENT DESK 6' TO CENTER OF SEAT	STUDENT DESK 6' BETWEEN STUDENTS
STAIRS DOWN ONLY	HAND WASHING STATION	SANITATION STATION	PATH OF TRAVEL	WEAR A MASK	TEACHER'S DESK

### Inside the Classroom

As students approach the classroom, the entry door should be held open to minimize touching of door handles. Once inside the room they will see a sanitation station, floor markings reminding them to stay six-feet apart, and directional signage indicating the path of travel within the room. While we realize that many will not follow the path of travel in the room at all times, it is encouraged to prevent students from passing each other in tight spaces. Classrooms that have two doors should have dedicated entry and exit doors assigned and clearly labeled.



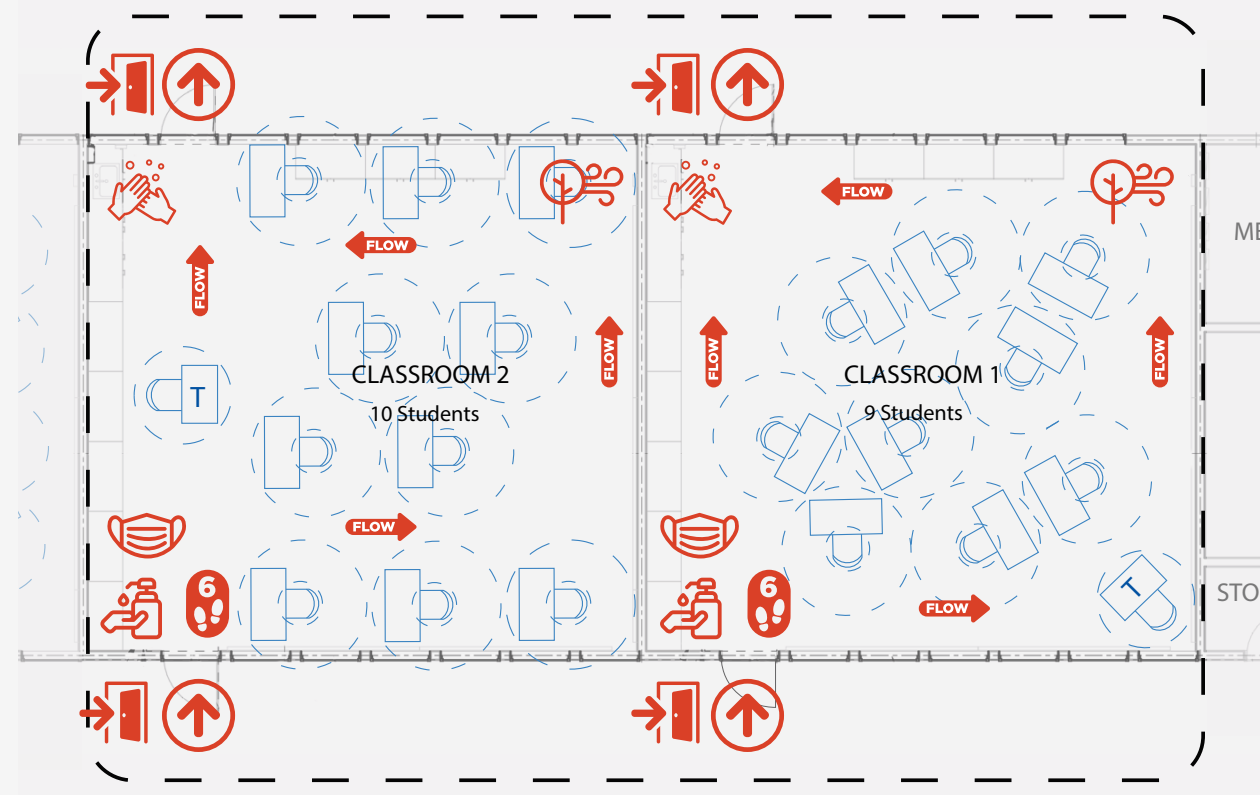
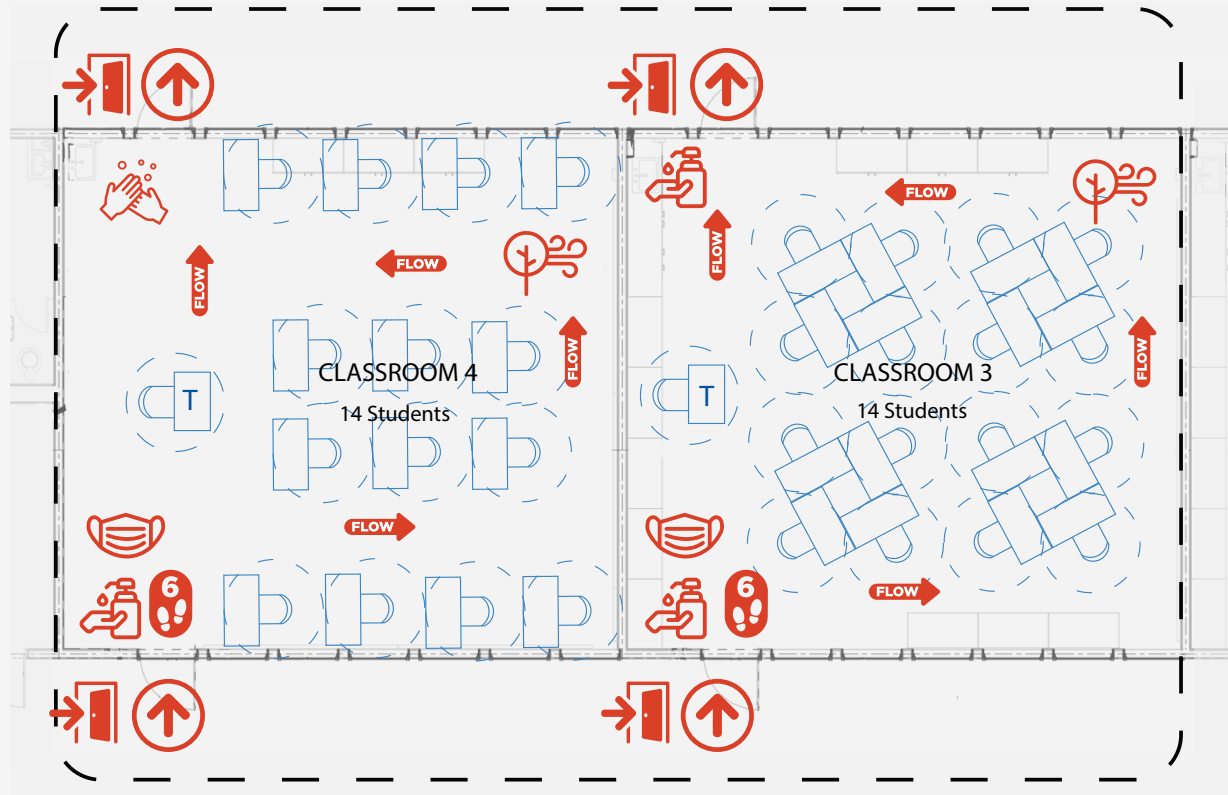
### Air Quality Inside the Classroom

Before students come back to school, a campuswide HVAC analysis should be performed to ensure that mechanical units meet or exceed the CDC's recommendations. This includes filtering at the MERV-13 level or higher and maximizing outside air intake to bolster air exchange within the room. The importance of fresh air in the classroom environment cannot be overstated as several recent studies have shown the positive impact these measures have on controlling spread of the virus. Use natural ventilation (if conditions permit) where mechanical ventilation is not sufficient. Maintain humidity levels between 40 and 60 percent. Monitor humidity and temperature, as well as CO2 levels as a proxy of ventilation rate. Use air disinfecting and cleaning technologies.

-   
MAXIMIZE OUTSIDE AIR
-   
MAINTAIN SIX FEET OF DISTANCE
-   
KEEP DOOR OPEN
-   
DEDICATED ENTRY/EXIT
-   
STUDENT DESK 6' TO CENTER OF SEAT
-   
STUDENT DESK 6' BETWEEN STUDENTS
-   
STAIRS DOWN ONLY
-   
HAND WASHING STATION
-   
SANITATION STATION
-   
PATH OF TRAVEL
-   
WEAR A MASK
-   
TEACHER'S DESK

Option 1: Six Feet to Center of Seat = Less Restrictive

Option 2: Six Feet to Between Students = More Restrictive



MAXIMIZE OUTSIDE AIR	MAINTAIN SIX FEET OF DISTANCE	KEEP DOOR OPEN	DEDICATED ENTRY/EXIT	STUDENT DESK 6' TO CENTER OF SEAT	STUDENT DESK 6' BETWEEN STUDENTS
STAIRS DOWN ONLY	HAND WASHING STATION	SANITATION STATION	PATH OF TRAVEL	WEAR A MASK	TEACHER'S DESK

### Adapting as Conditions Change

These floor plan diagrams illustrate different approaches to the six-foot rule—one measuring six feet to the center of each seat (less restrictive), and the other measuring six feet between students (more restrictive). Notice how the student count drops with the more restrictive approach. This guide is intended to show some flexibility so that the classroom can flex and adapt as the conditions change in regards to virus risk.

It is worth noting that the current CDC recommendations call for students to face the front of the room. As the threat of infection drops, the goal is to return to a student-centered learning model as soon as possible. Student collaboration is a key component to this future-focused, pedagogical approach, so the sooner we can get the students interacting and sharing ideas, the better.

When multi-layered strategies are used taking into account the full range of measures, including safe behaviors, safe operations, and safe facilities, they will lead us to safer and higher performing learning environments where true collaboration can occur.



## Want to learn more?

For more information on how we can support your re-opening plans, please contact:

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