# Back to School Facilities Tool Kit

**Investigating facility ideas that make the return to school better for ALL students and staff: focused on Brooklyn Laboratory Charter Schools with tools and insights relevant to ALL K-12 facilities.**

Version 1: May 26, 2020

BROOKLYN LAB CHARTER SCHOOL

UPC | Gensler | PBDW | PSF PROJECTS ARCHITECTURE DPC | SITU/ | WXY

# EXECUTIVE SUMMARY

Brooklyn Laboratory Charter Schools (LAB) is committed to making any return for the 2020-2021 school year as safe as possible for all students and staff. Given the current public health pandemic, LAB is exploring ways to adapt school facilities and school operations in a way that prioritizes and protects the school community's health. The initial focus is on LAB's 77 Sands Street middle and high school location.

Our goal is to develop and widely share what we are calling a "back to school facility tool kit" so that other schools can benefit from LAB's strategic reopening process, planning, and approach.

To generate the most creative and comprehensive solutions, LAB has undertaken an intensive study or "charrette" with professionals in the field of architecture and urban design. Our partners include Urban Projects Collaborative (UPC), a company that supports capital projects that improve quality of life and a better built environment, and five design firms: Gensler, PBDW, PSF Projects, SITU, and WXY.

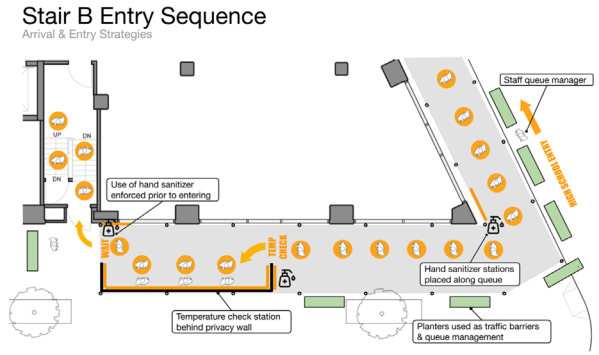
The resultant tool kit contains potential modifications to our school facilities that support our commitment to meeting the needs of all learners. The tool kit covers operational adjustments that the LAB team is developing and focuses on general education, students with special needs, and small classes.

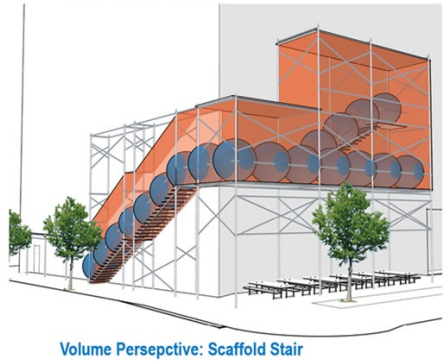
Our next step in this process will be to gather input and feedback on the ideas in this tool kit from students, faculty, and families. In parallel, we'll be studying all ideas for feasibility based on regulatory, budget, and schedule constraints. We also expect to address additional issues like air quality and hygiene protocol, as guided by the relevant authorities.

The most effective ideas will move forward through design, construction, and installation in preparation for occupancy.

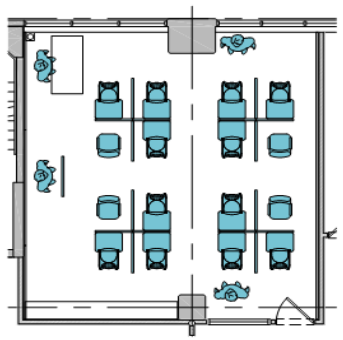
# WHAT'S IN THE TOOL KIT

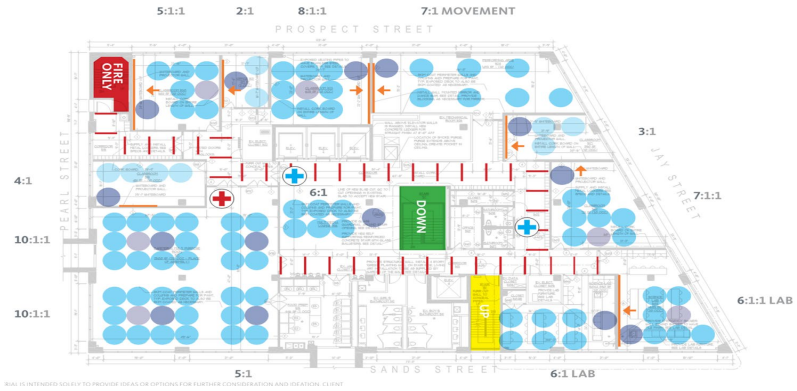
**Mapping a safeguarded journey from home to the school.** The first set of ideas focus on the arrival and entry process as students and staff transition into the building, taking into consideration the egress challenges LAB and many other schools face.


**Upgrading classrooms.** The second set of ideas focuses on practical and feasible re-mapping of classrooms, breakout rooms, and common spaces to comply with social distancing requirements.





# About the Tool Kit

# THE PROCESS

As schools move toward reopening, educators face unprecedented complexities, from new logistical challenges to emergent needs for our most vulnerable students.

At LAB, we view the current humanitarian crisis as requiring upgrades to school health and safety.

No school has the time or resources to tackle all challenges related to these upgrades alone, but as a laboratory school, we believe that advancing design solutions and sharing tools for effective adaptation is part of our mission. LAB encourages all schools to take advantage of this opportunity to upgrade and improve aspects of operations. This research and development initiative around facilities solutions is a first step in that direction.

We took the following steps during our 10-day collaborative process:

1. UPC and LAB staff held initial work sessions to identify challenges.
2. Five design firms partnered with LAB and UPC to brainstorm ideas.
3. The five firms held additional work sessions with LAB teachers, special educators, counselors, and administrators to focus on aspects of the challenges they were best equipped to address.
4. The design firms developed ideas based on the school and community's needs and best practices to address social-distancing requirements and health safety.

The result is a tool kit of ideas that can be applied by LAB and in other contexts.

## *Key Criteria For Ideas:*

- *Applicable to ALL students*
- *Practical and feasible to implement*
- *Flexible and easy to adapt as needed*
- *Accessible for use by other institutions*

# ABOUT BROOKLYN LAB & THE TEAM

Brooklyn Laboratory Charter Schools (LAB) was co-founded in 2013 by Erin Mote and Eric Tucker with the mission to eliminate the achievement gap by preparing scholars with the academic foundation, digital literacy, and leadership skills necessary to succeed in college and professional life.

LAB is dedicated to serving the highest need students, regardless of their academic level, English language proficiency, or disability. Meeting the needs of these students has continued to be our focus as we re-imagine what the return to school will look like in a post-pandemic setting.

The focus of this planning has been LAB's middle and high school located at 77 Sands Street, but the ultimate goal is to develop a strategic reopening plan that can be applied to other schools both locally and nationally. The findings from these studies will be shared with special education, technology, and educational organizations with which LAB is connected on a local, state, and national level.

UPC provides owner representation services for clients engaged in the design and construction of capital projects and facilities oversight. www.upcnyc.com

PSF Projects is an award-winning firm delivering visionary, customized designs for commercial, institutional, residential, and workplace projects. www.psfprojects.com

Gensler is a global design firm partnering with clients to make the places people live, work, learn, and play more inspiring, resilient, and impactful. www.gensler.com

SITU is an unconventional architecture practice based in New York City, using design, research and fabrication for creative and social impact. www.Situ.nyc

PBDW Architects delivers design with insight and empathy, leveraging the capabilities of architecture to connect people with places and time. www.pbdw.com

WXY is an award-winning, studio-based multidisciplinary practice focusing on innovative approaches to public space, structures and cities. www.wxystudio.com

Supporter: AKA STUDIO Architecture + Interior Design akiiru@akastudio.com

# Strategies: Home to Classroom

# Ideas from WXY

WXY

# Back to School Facility Toolkit

## WXY Studio Approach

WXY

# Project Focus

1

**Entry/Exit & Staging Area**

Develop a school entry/exit experience, including staging of entry, in response to COVID-19.

2

**Flexible Options**

Develop a set of flexible options which can respond to new information and guidelines as they are formalized.

3

**Student Feedback**

Utilize the options to prompt student feedback and collect information on key issues, such as their journey to school.

Options

A

| | | Information | Assumptions |
|---|---|---|---|
| Queue Type | **Temperature Check** | Does this option allow extra time for screening procedures, such as a temperature checks? | Assumes thermal forehead scan temperature check. 10-30 seconds per student. |
| | **Entry Speed** Five students per minute | How many students can enter the school per minute? | Assumes hand sanitizing upon entry. 5-15 seconds per student. Conservative estimate. |
| | **One Group** Entry at 8AM | Are arrivals staggered into multiple groups? What times do those groups enter? | Assumes most students arrive at or near their designated arrival time, with some late comers. |
| | **One Entrance** | How many entrances are available to the school? | One entrance assumes existing Sands St entrance. Two entrances assumes existing Sands St entrance and Pearl St entrance. |
| Schedule | 8:00 – 8:15 – 8:30 – 8:45 – 9:00 | | |
| | 45 | How long does it take for all students to enter? | |
| | 101 | What is the maximum number of students waiting at any one time? | |

Options

A

Queue Type

**Temperature Check**

**Entry Speed**
Five students per minute

**One Group**
Entry at 8AM

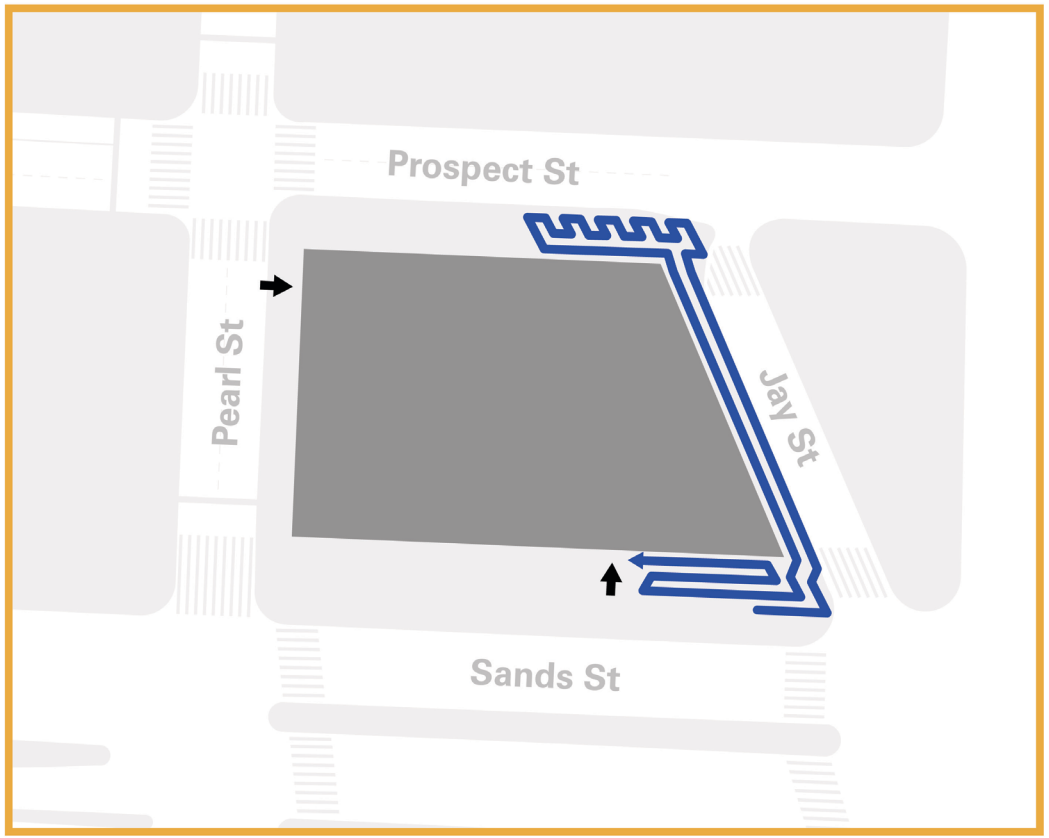
**One Entrance**

Schedule

8:00
8:15
8:30
8:45
9:00

45
101

One entrance, one group



Options

B

Queue Type

**Temperature Check**

**Entry Speed**
Five students per minute

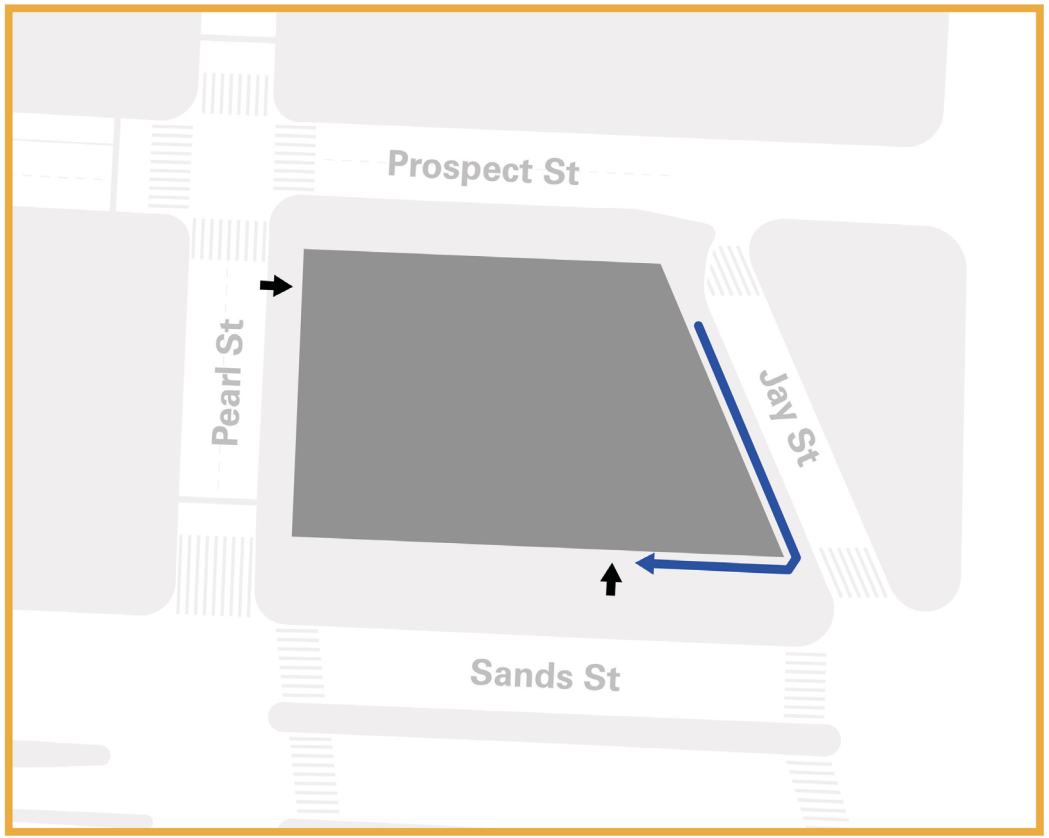
**Two Groups**
Entries at 8AM, 830AM

**One Entrance**

Schedule

| | |
|---|---|
| 8:00 | |
| | 20 |
| 8:15 | |
| | 27 |
| 8:30 | |
| | 20 |
| 8:45 | |
| | 27 |
| 9:00 | |

One entrance, two groups



Options

C

Queue Type

**Temperature Check**

**Entry Speed**
3 students per minute

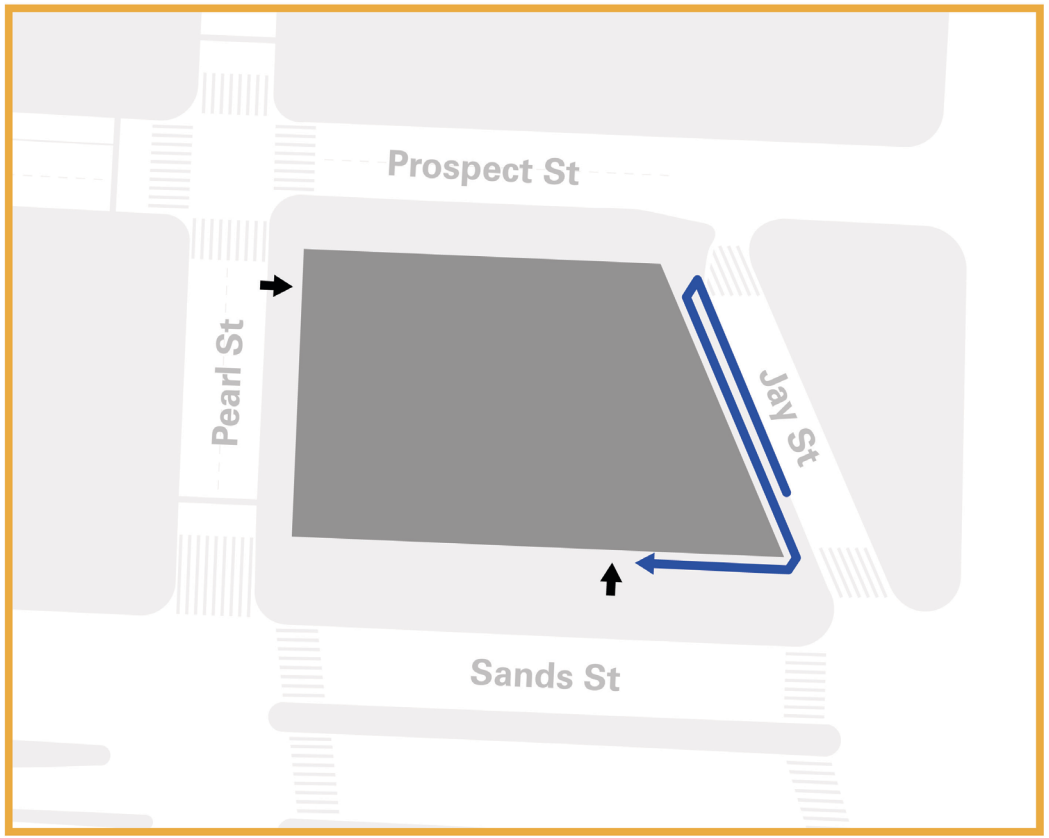
**Four Groups**
Every 15 min
8-845AM

**One Entrance**

Schedule

| | | |
|---|---|---|
| 8:00 | 75 | |
| 8:15 | 41 | |
| 8:30 | | |
| 8:45 | | |
| 9:00 | | |

One entrance, four groups



Options

D

Queue Type

**Temperature Check**

**Entry Speed**
3 students per minute

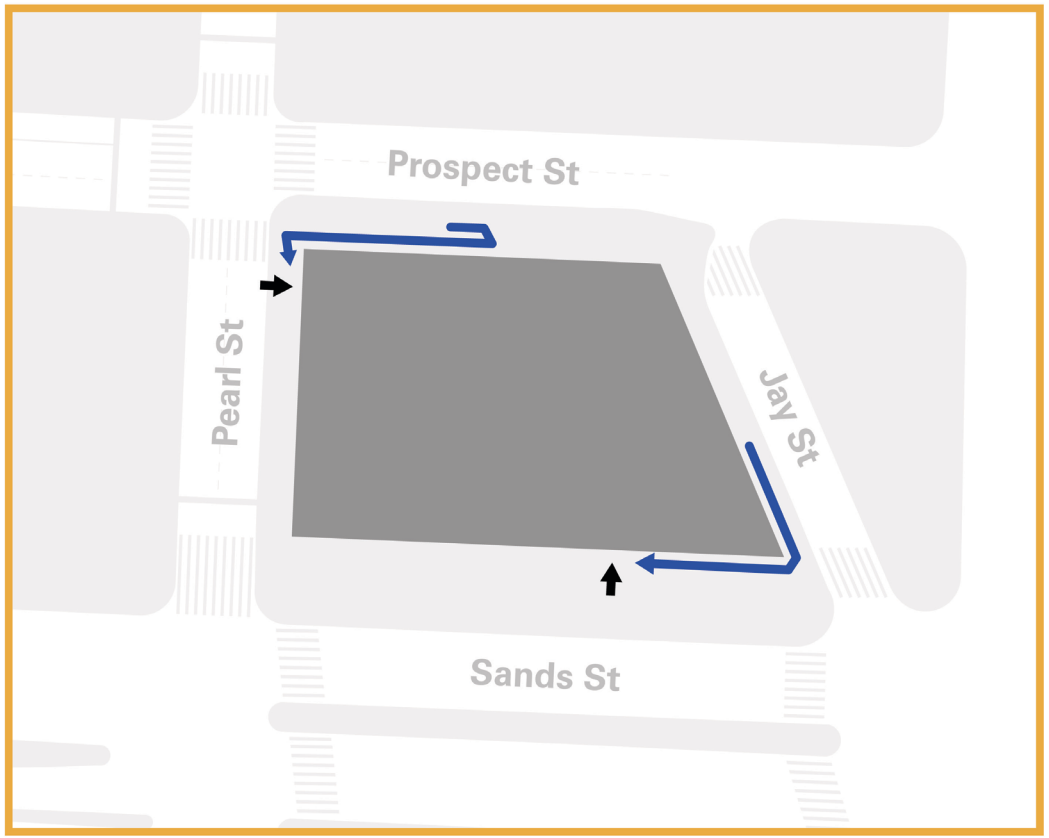
**Two Groups**
Entries at 8AM, 830AM

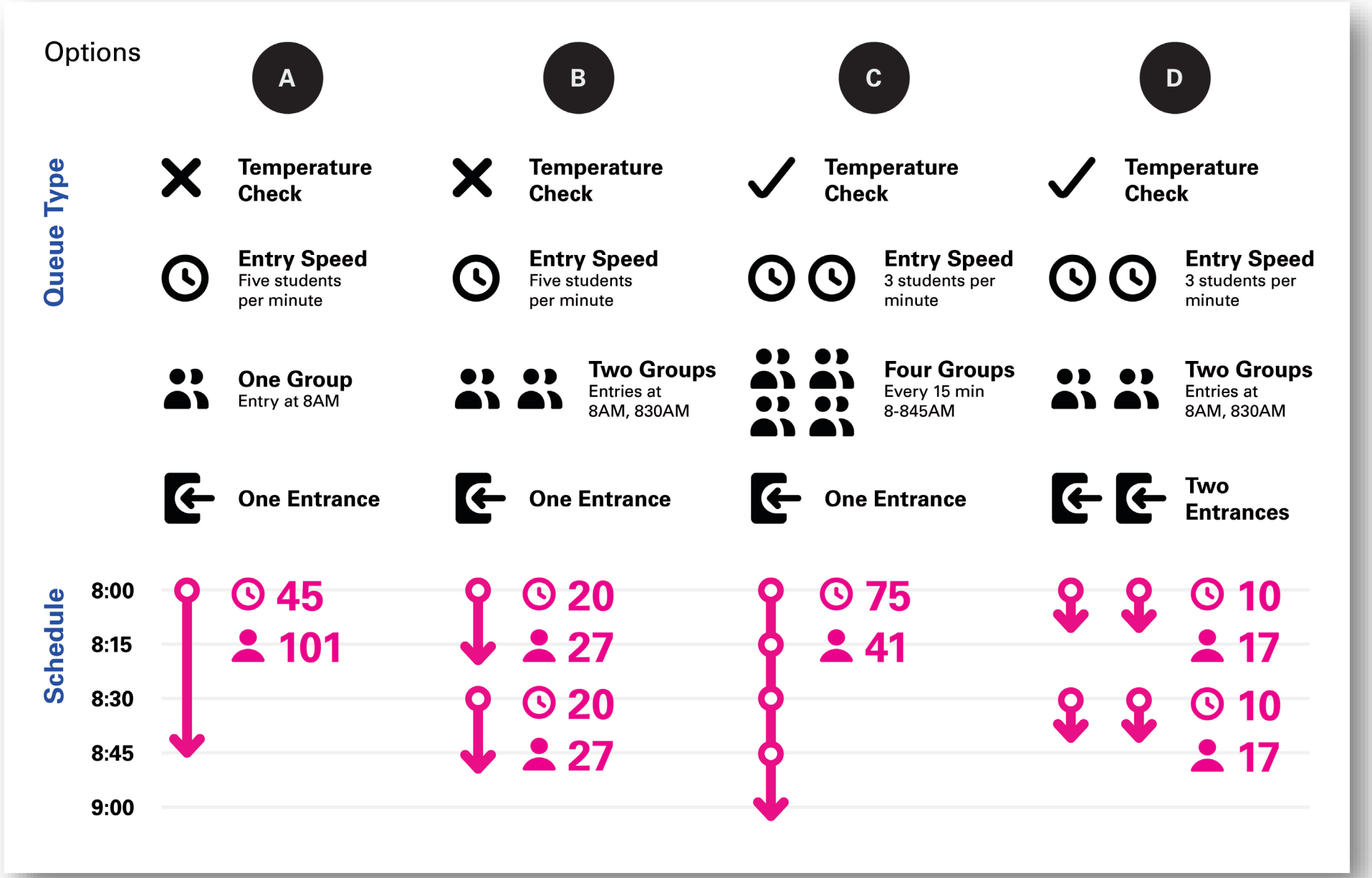
**Two Entrances**

Schedule

| | | |
|---|---|---|
| 8:00 | | 10 |
| 8:15 | | 17 |
| 8:30 | | 10 |
| 8:45 | | 17 |
| 9:00 | | |

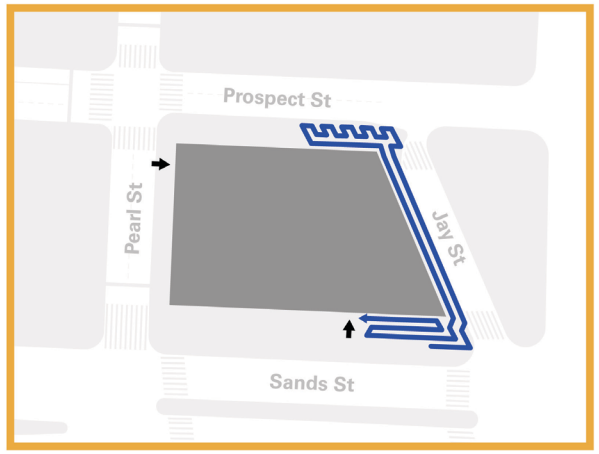
Two entrances, two groups



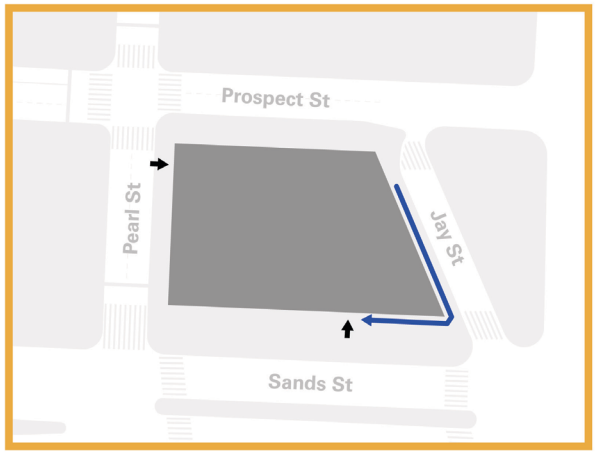


# Options

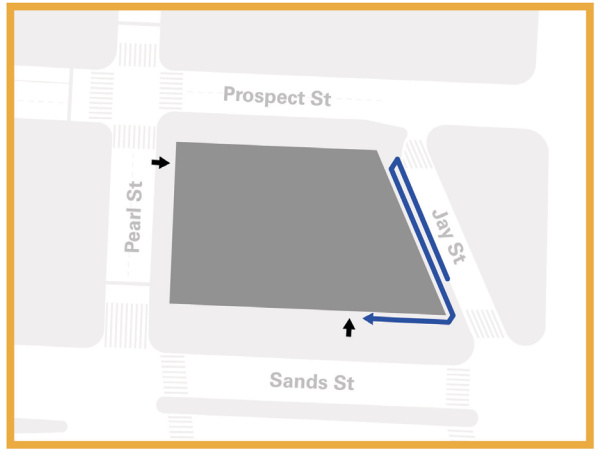
## A — One entrance, one group



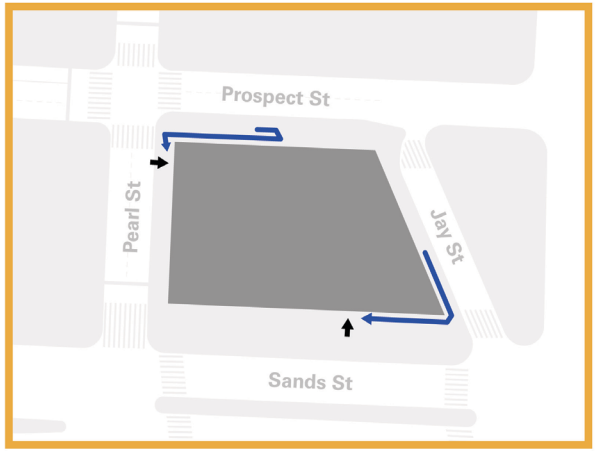

## B — One entrance, two groups



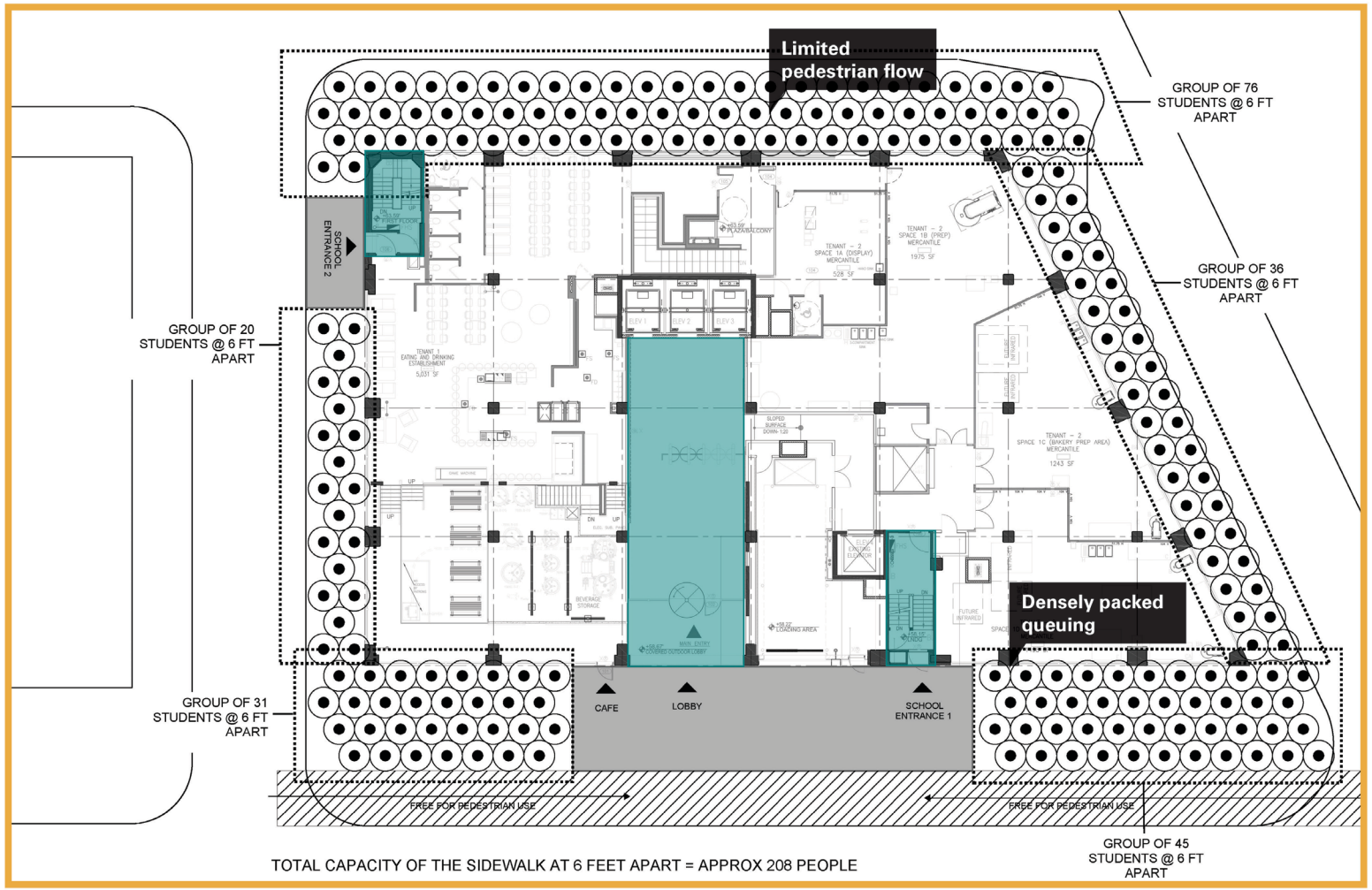

## C — One entrance, four groups



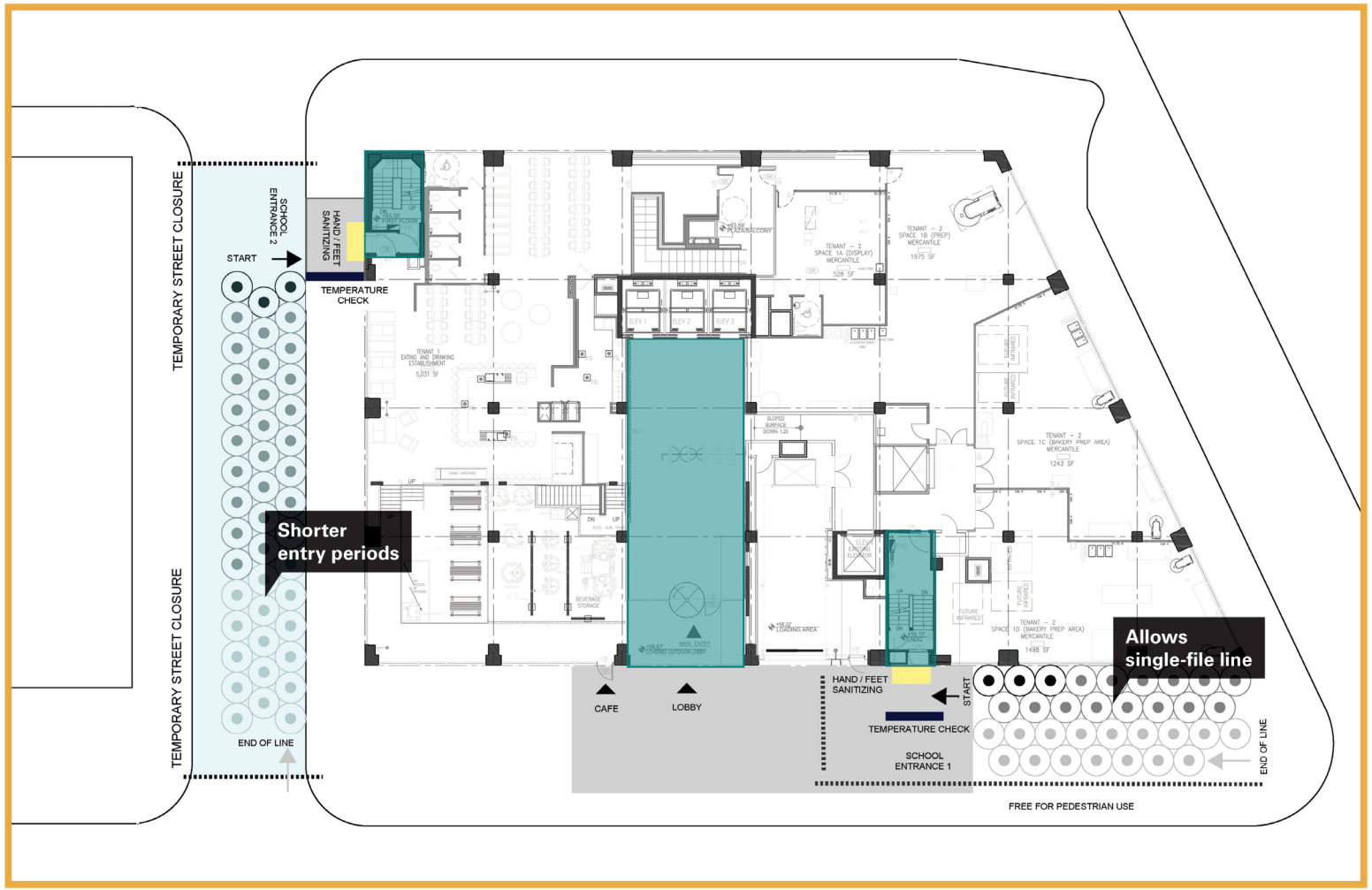

## D — Two entrances, two groups



# Entry & Exit Points: Maximum Sidewalk Capacity



# Entry & Exit Points: Preferred Queuing Method (Option D)

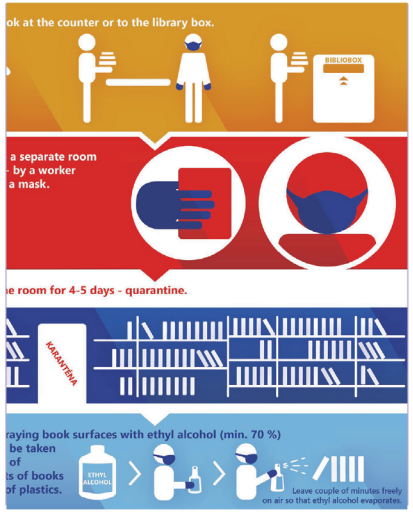


# Temporary Furniture & Design Needs

Source: SITU/


Shelter

- Shade
- Weather
- Queue control




Signage & Messaging

- Establish new rules
- Reduce anxiety
- Wayfinding

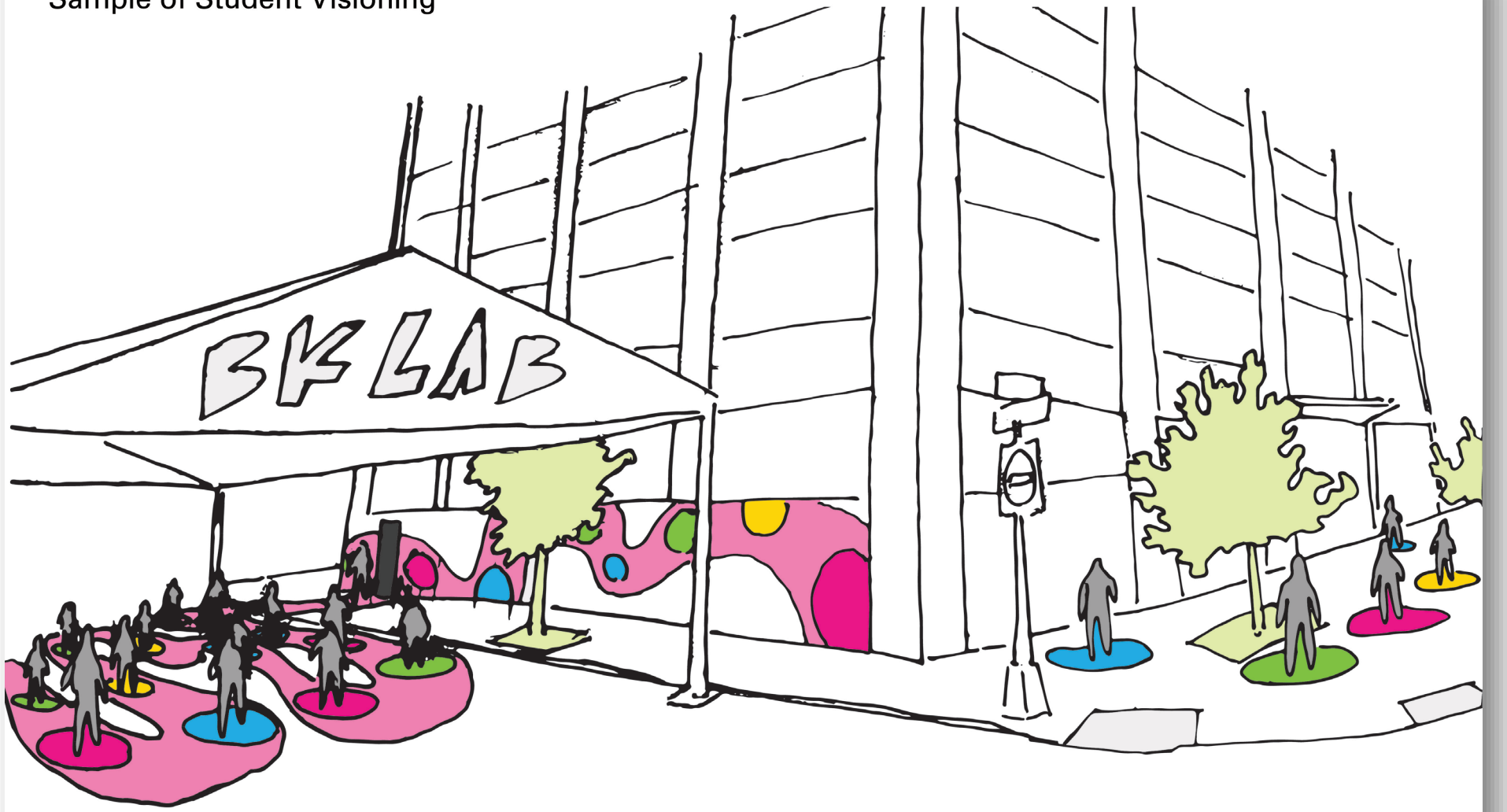
Lighting

- Daylight
- Color
- Safety at night

Acoustics

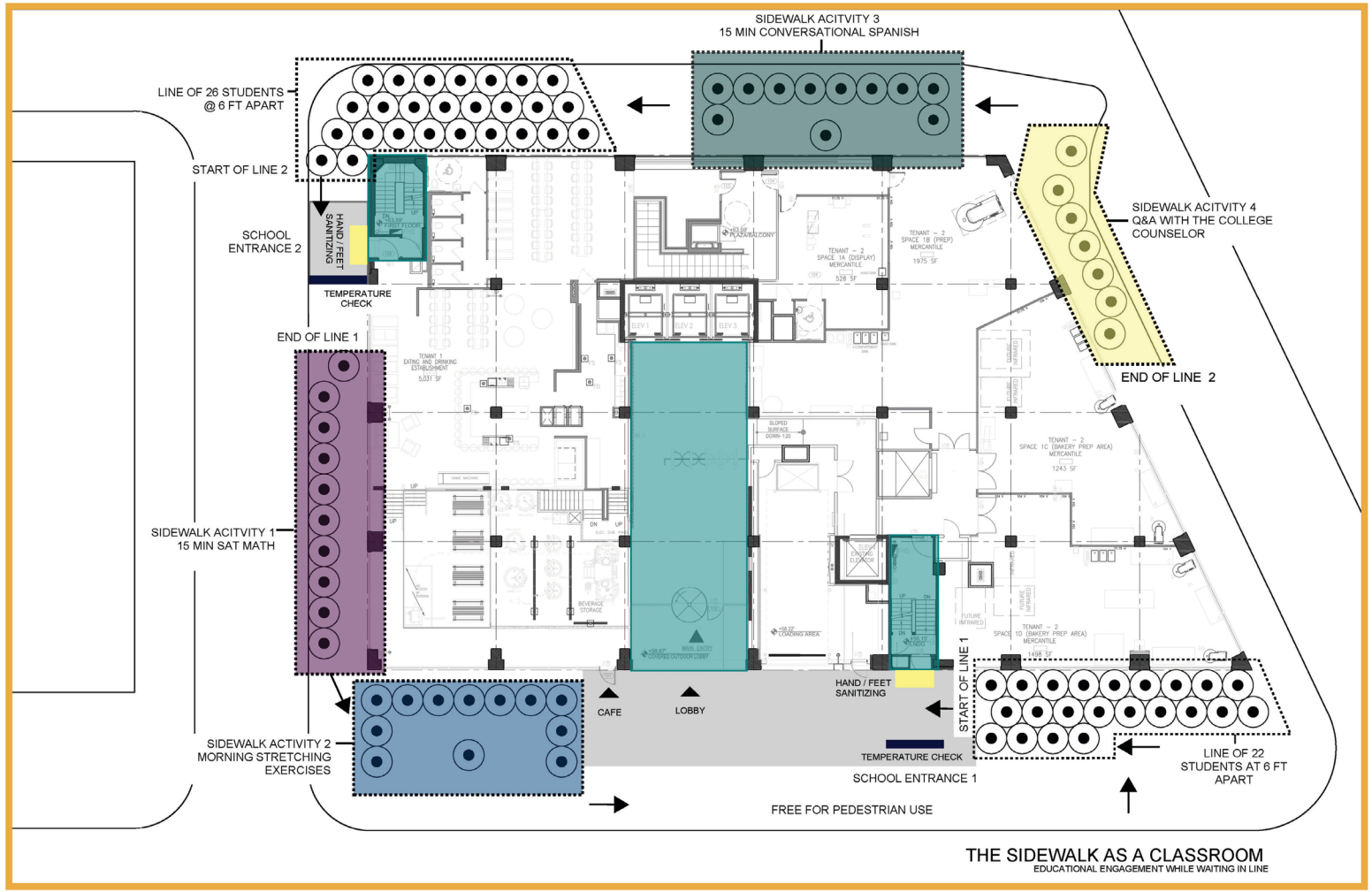
- Mitigate bridge noise
- Allow for conversation
- Create a sense of calm

## Sample of Student Visioning



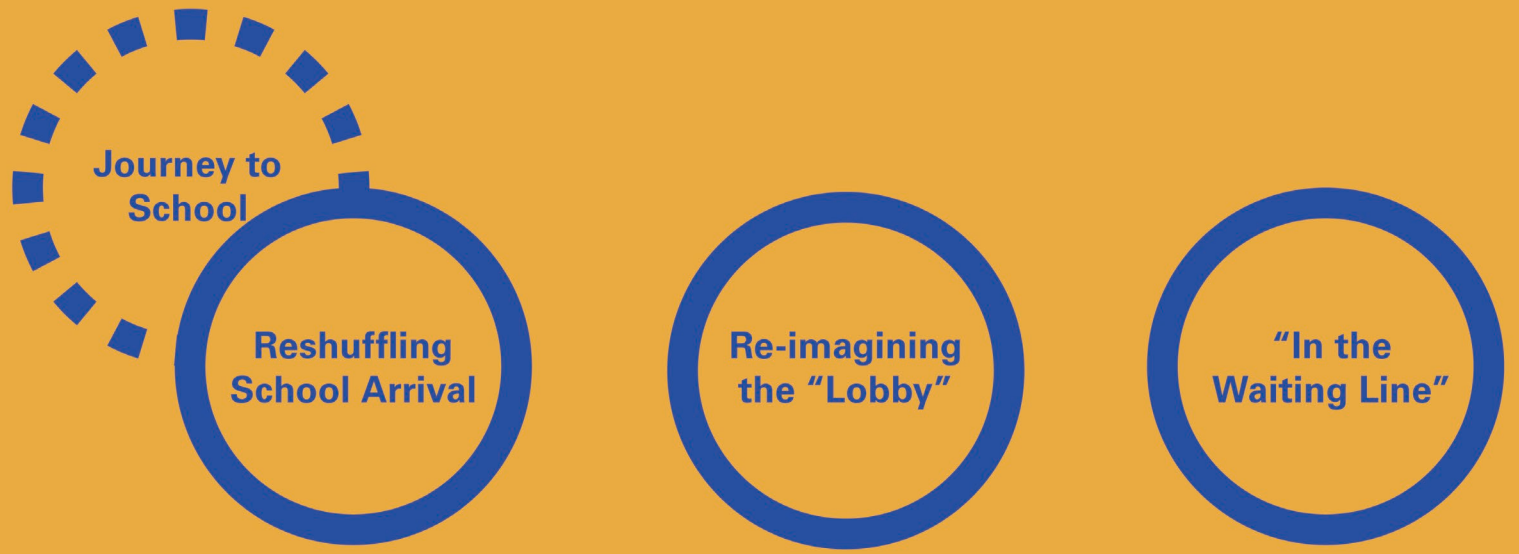
# Idea: Set-up temporary waiting pavilions in nearby parks

# Idea: Re-imagine entry areas as outdoor classrooms



# Next Steps:
## Student Engagement

## Student Feedback



## Student Feedback

Key concerns and challenges related to COVID-19:

**What will your journey to school look like?**

**Where do you need to be careful? What are your transition points from walking or biking to subway or bus?**

**Where are the entrances or exits that you are nervous about going through?**

# Reshuffling School Arrival: Journey to School

A

leave home


get out at York St

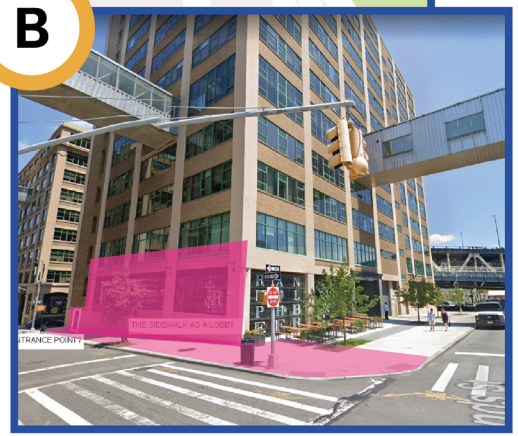

arrive at school

citibike to subway

A


Brooklyn Lab Study Area

B



Brooklyn Lab.

## Questions:

A How do you plan to travel to school in the fall? Subway? Bus? Bicycle? Walk?

B When you arrive at school, which side of the street do you come from? Do you have any public art or design ideas that can help kids know where to gather?

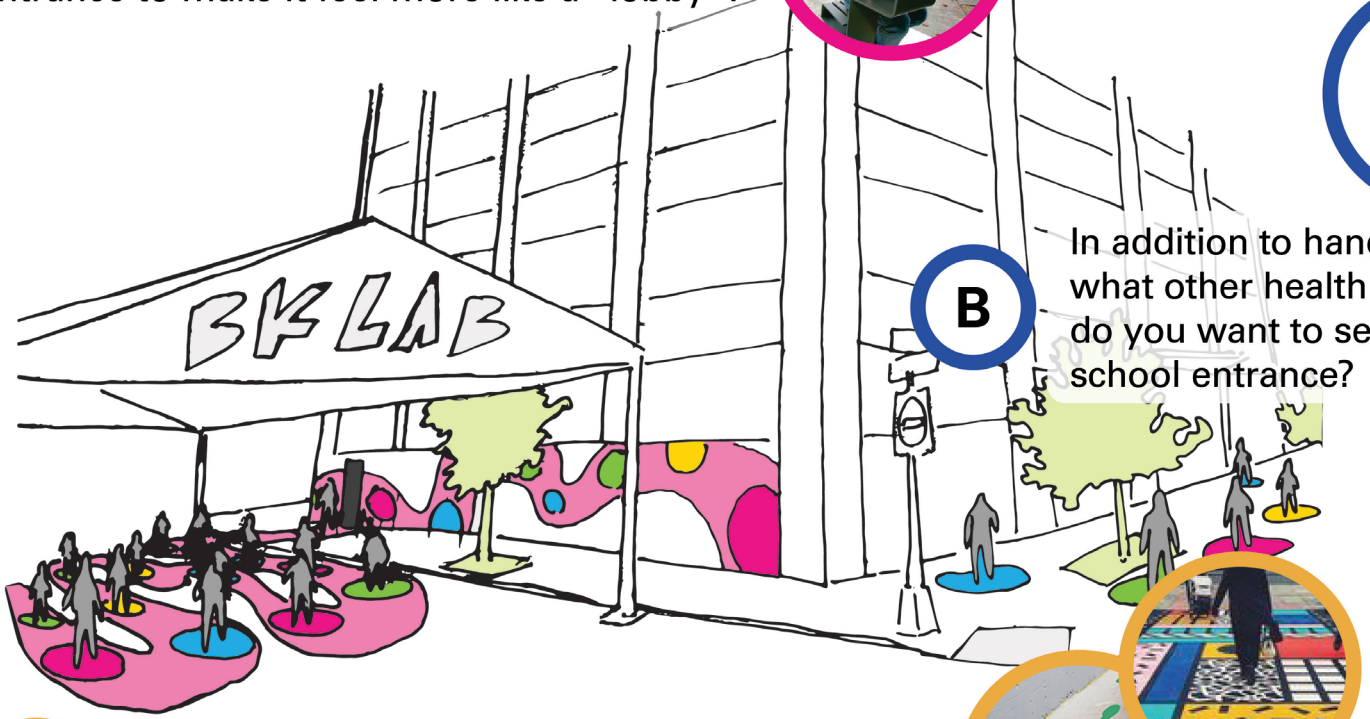
C How often do you arrive early or late for school? Do you have ideas for where to wait outside (or inside) the school on arrival? Do you think that waiting inside of temporary structures or furniture would work for you? If not, what are your concerns?

C

Trial Glass Booths. Amsterdam, Netherlands.

# Re-imagining “The Lobby”

**A** What types of temporary structures or furniture should be outside of the school entrance to make it feel more like a “lobby”?

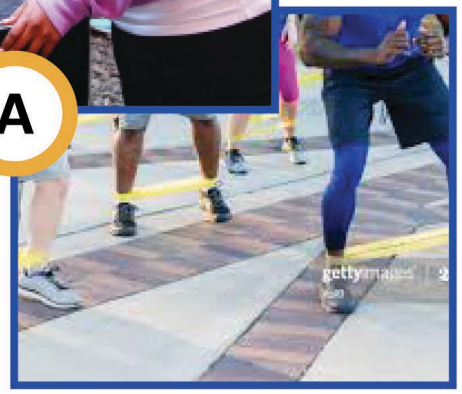



**B** In addition to hand sanitizer, what other health precautions do you want to see at your school entrance?

**C** Do you have ideas for what types of designs can most successfully help your peers stay 6 feet apart?

The Hive NYC

A



Outside Gym Class

## Questions:

A What types of academic or physical activities would you like to participate in while lining up to enter school?

B If BLS were able to install a TV monitor outside, what type of school or health-related programming would be useful for you? Would you be interested in working on a weekly student broadcast for this?

B

Educational School Announcement / TV Monitor

# Ideas from SITU

SITU

# Re-imagining Arrival in Urban Schools

May 2020


About
This document was created by SITU, a design, research and fabrication firm based in the Brooklyn Navy Yard.

Assistance was provided by
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Internal Medicine and Pediatrics

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# 01 The Challenge

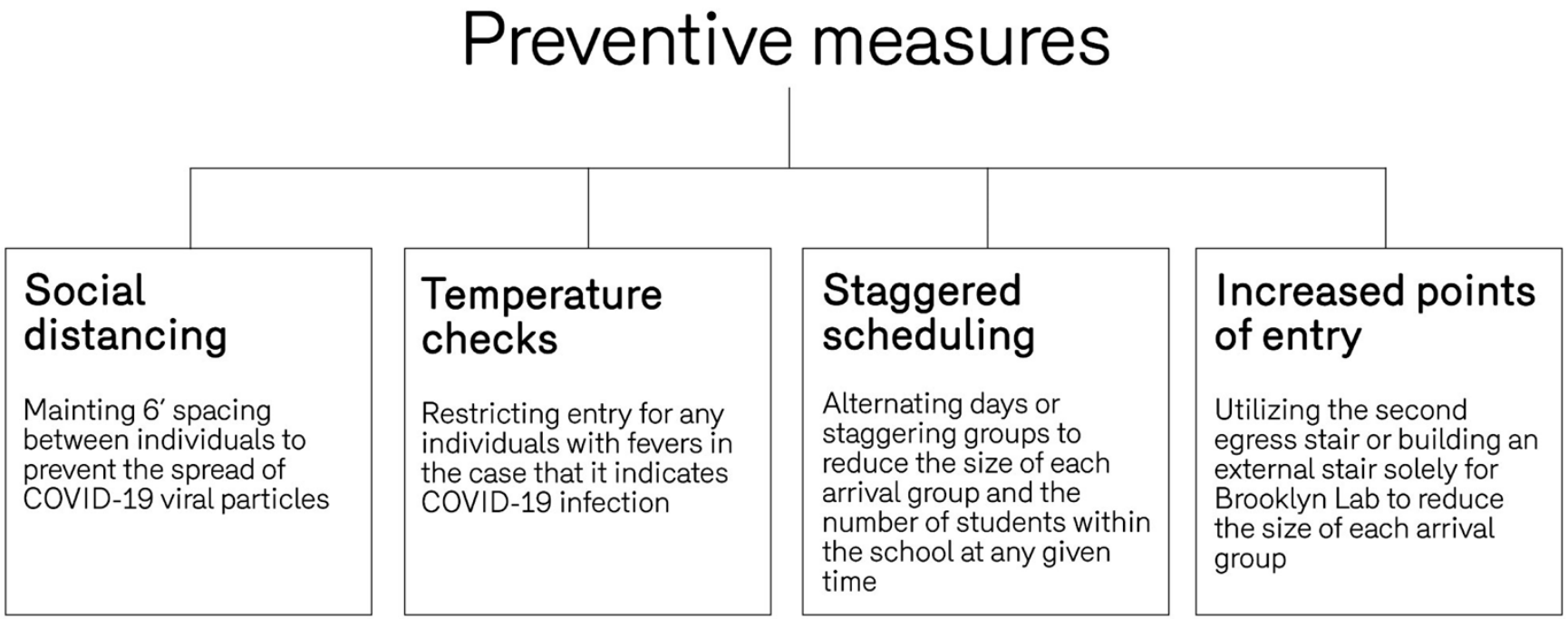
# Problem-set

Urban schools located in multistory buildings typically face challenges of limited points of entry, shortage of space and overcrowding of classrooms.

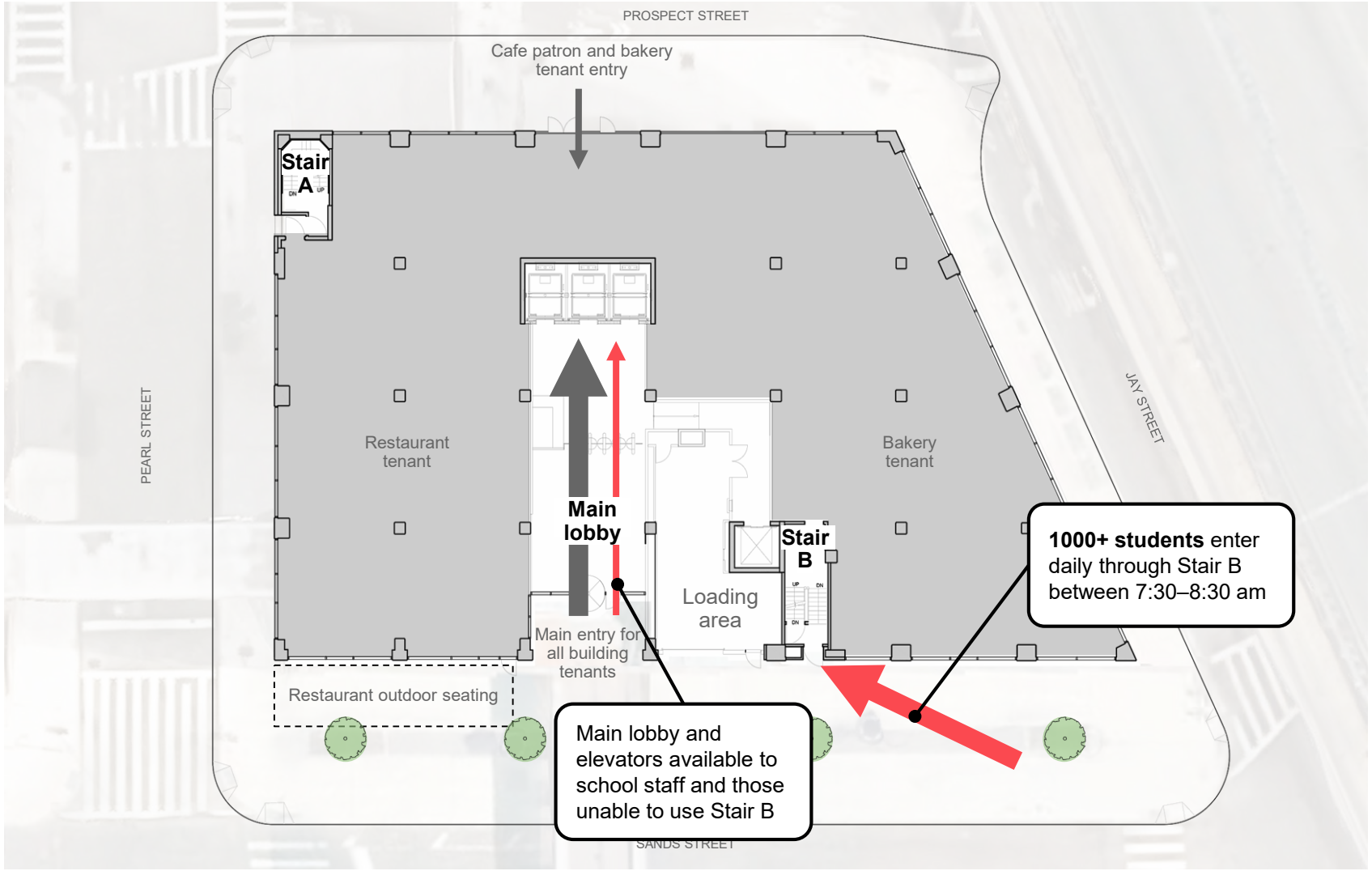
In order to accommodate social distancing and daily temperature checks prior to entry, many schools will have to extend deeper into public space during the arrival and dismissal periods.

The long term nature of such measures demand well-designed ideas that respect the surrounding public space and community.

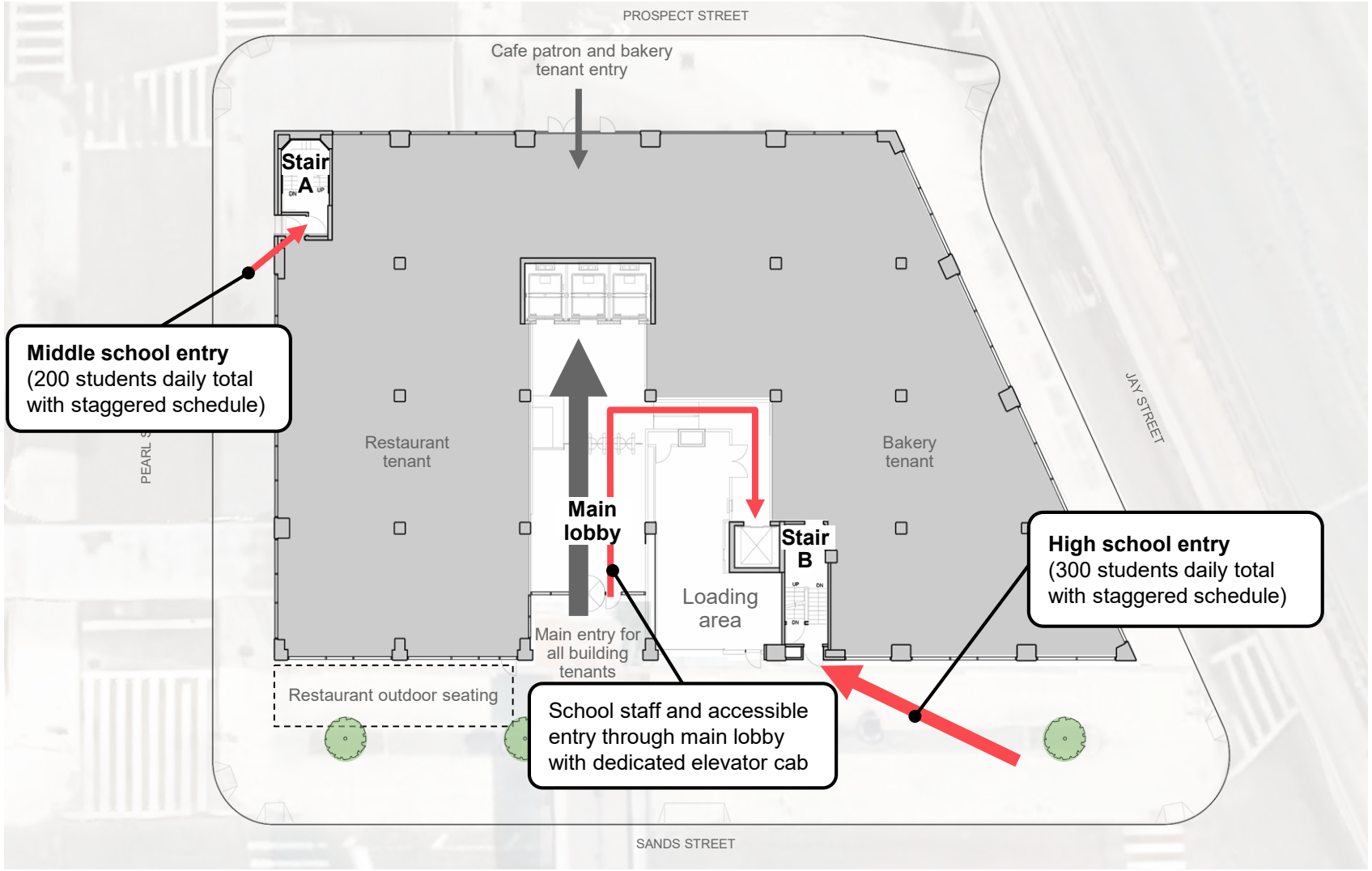
# A four-pronged strategy for safe arrival



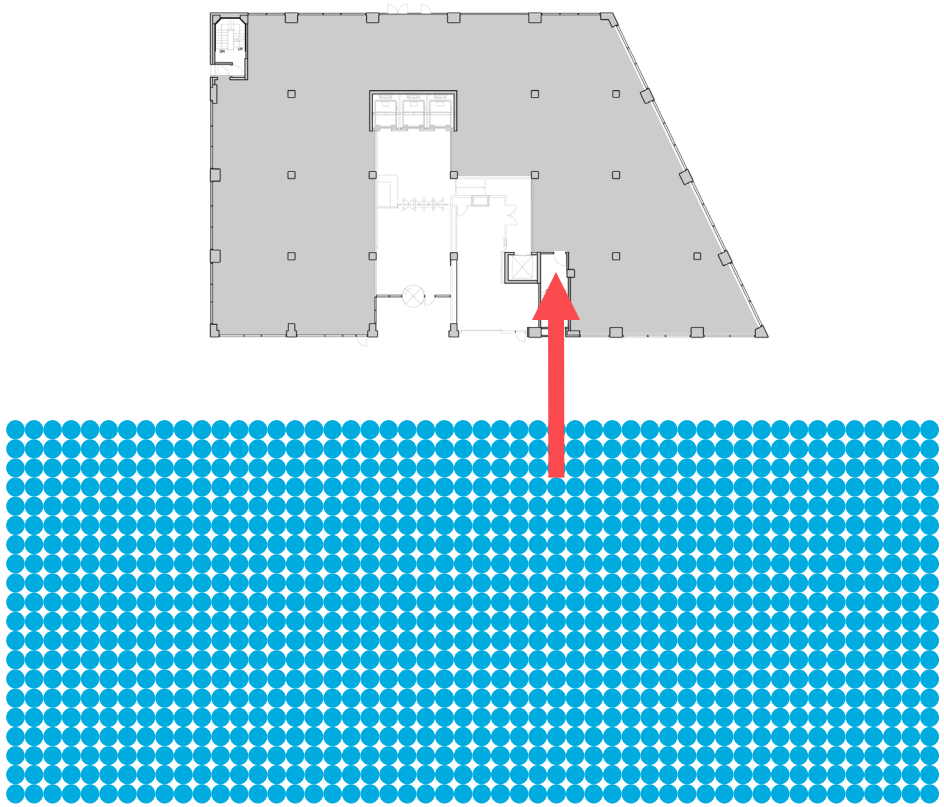
# Before COVID-19



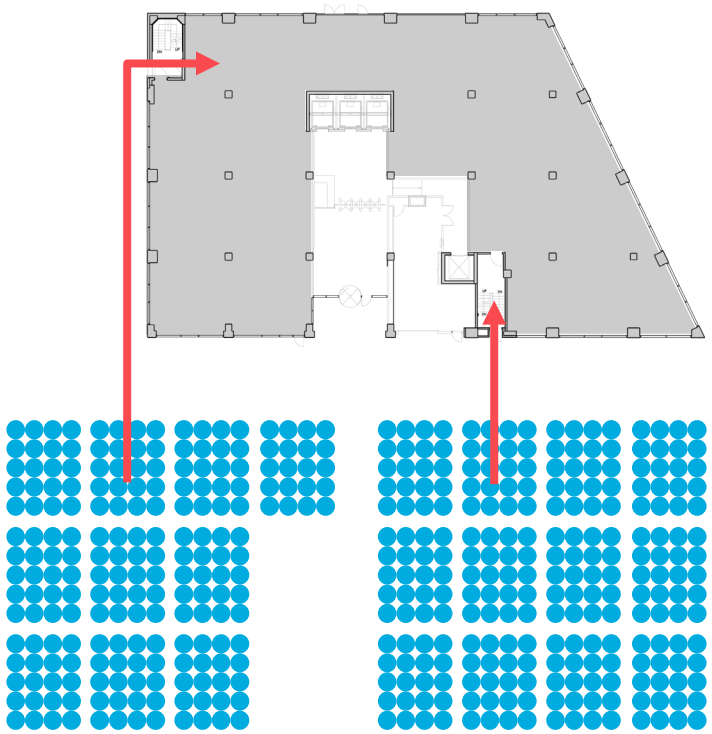
# After COVID-19



# Arrival volume with social distancing



1000 students
arriving at once
**250 min. total***



200 students
arriving 10 min. apart
**50 min. total***

300 students
arriving 10 min. apart
**75 min. total***

* assuming 15 seconds per person for temperature check

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# Public health considerations

## Infrared temperature gun

Time per test: 10-20 sec.
Cost: $150 each

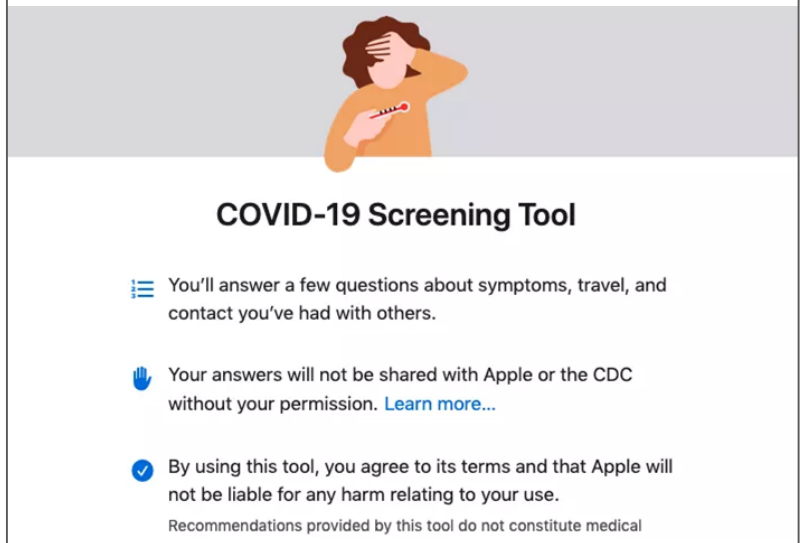
- Slow
- Staff intensive
- Inexpensive
- Simple to learn
- Can have multiple scanners

## Thermal imaging stations


Time per test: instantaneous
Cost: $5,000-$20,000+

- Fast
- Minimal staff
- Expensive
- Complicated tech
- Temperature gun required for backup

## Home self-check + online survey




Time per test: 1-5 min at home
Cost: TBD

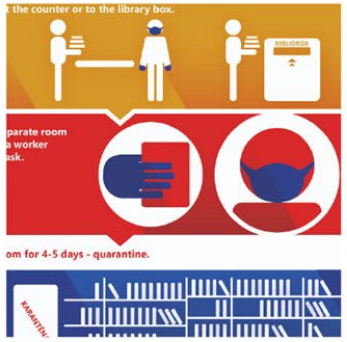
- Fastest
- Inexpensive
- Relies on trust
- Good option for staff and students requiring lobby access

# Design guidelines

## Shelter


- Shade
- Weather
- Queue control

## Signage and messaging




- Establish new rules
- Reduce anxiety
- Wayfinding

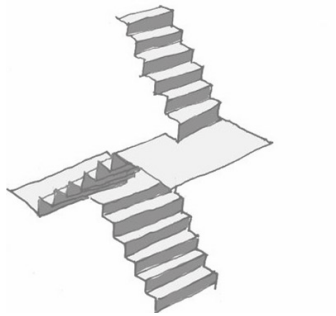
## Lighting

- Daylight
- Color
- Safety at night

## Acoustics

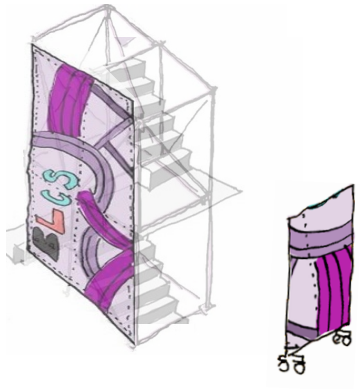
- Mitigate bridge noise
- Allow for conversation
- Create a sense of calm

# Design components



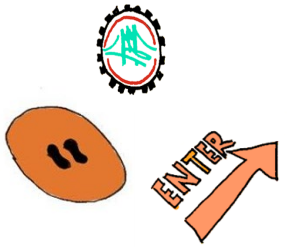
## Exterior stair

Vertical circulation to new building entry on 2nd floor



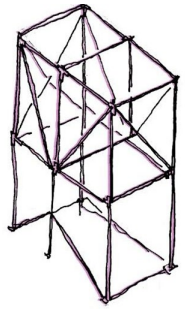
## Screens & partitions

Privacy, messaging, acoustics



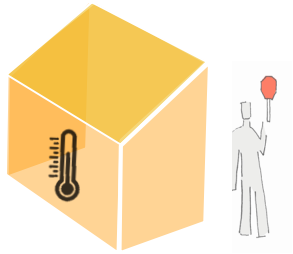

## Wayfinding & distancing signage

Mobile and fixed signage on structure, ground and additional surfaces



## Structure / Shed

Shelter, lighting



## Greeting station

Check-in, temperature check

## Barricades

Traffic and pedestrian control, artwork, planters

# Improved sidewalk shed

Sidewalk sheds are pre-engineered systems with well-known permitting processes that could allow for rapid deployment.

These structures could be easily modified to become more inviting, thoughtfully designed, light-filled exterior lobbies that support new entry sequences without negatively impacting the surrounding neighborhood.

Urban Umbrella shed system with daylighting panels


Wendy PS1 scaffolding installation

Urban Umbrella shed system with nighttime lighting

Sketch of modified sidewalk shed with exterior stair proposed

# Integrated solar covering


Modular rooftop canopy system designed by SITU for Brooklyn Solar Works

# Creative fabric structures

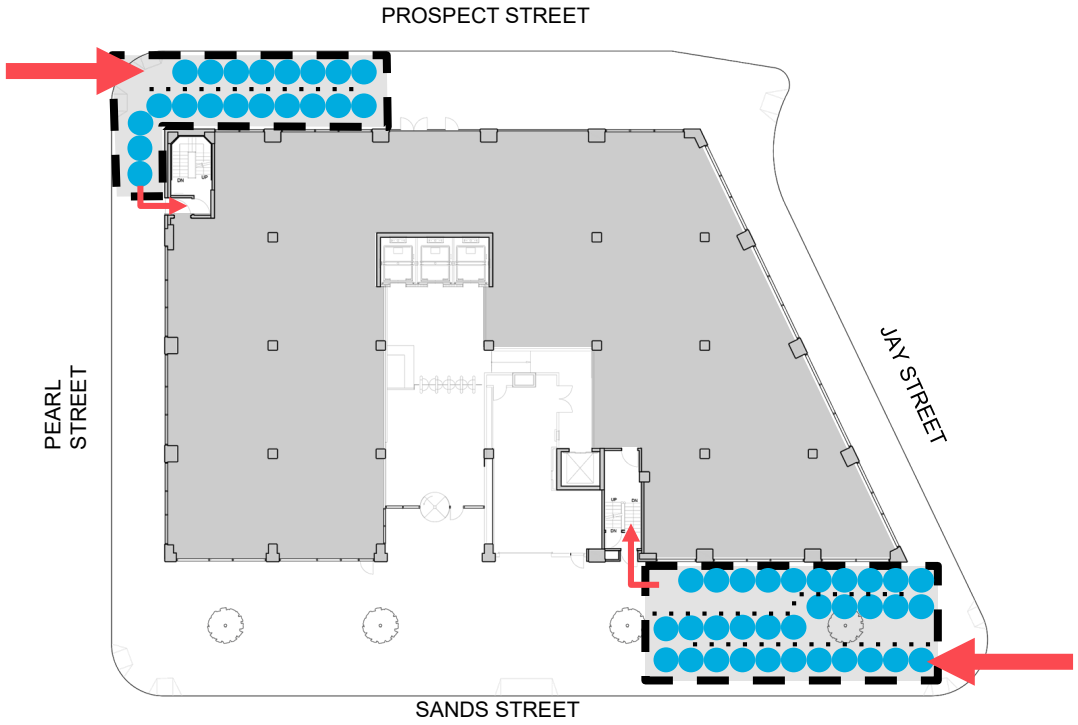

Retractable fabric walkways and covers

Inflatable canopy systems

Tent structures

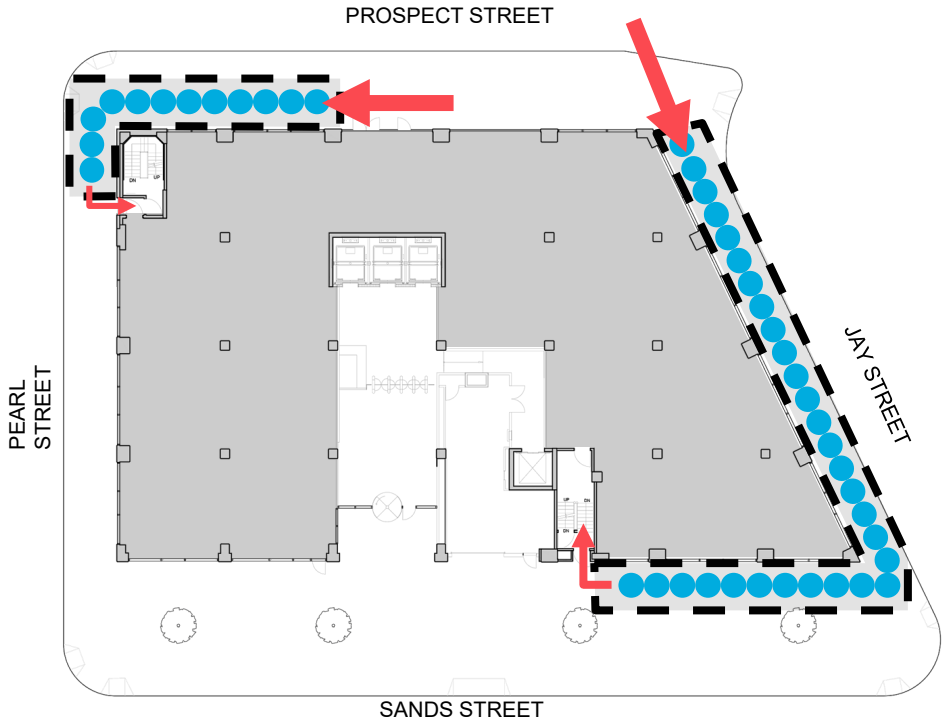
CONTENTS

# Queuing strategies




## Stacked

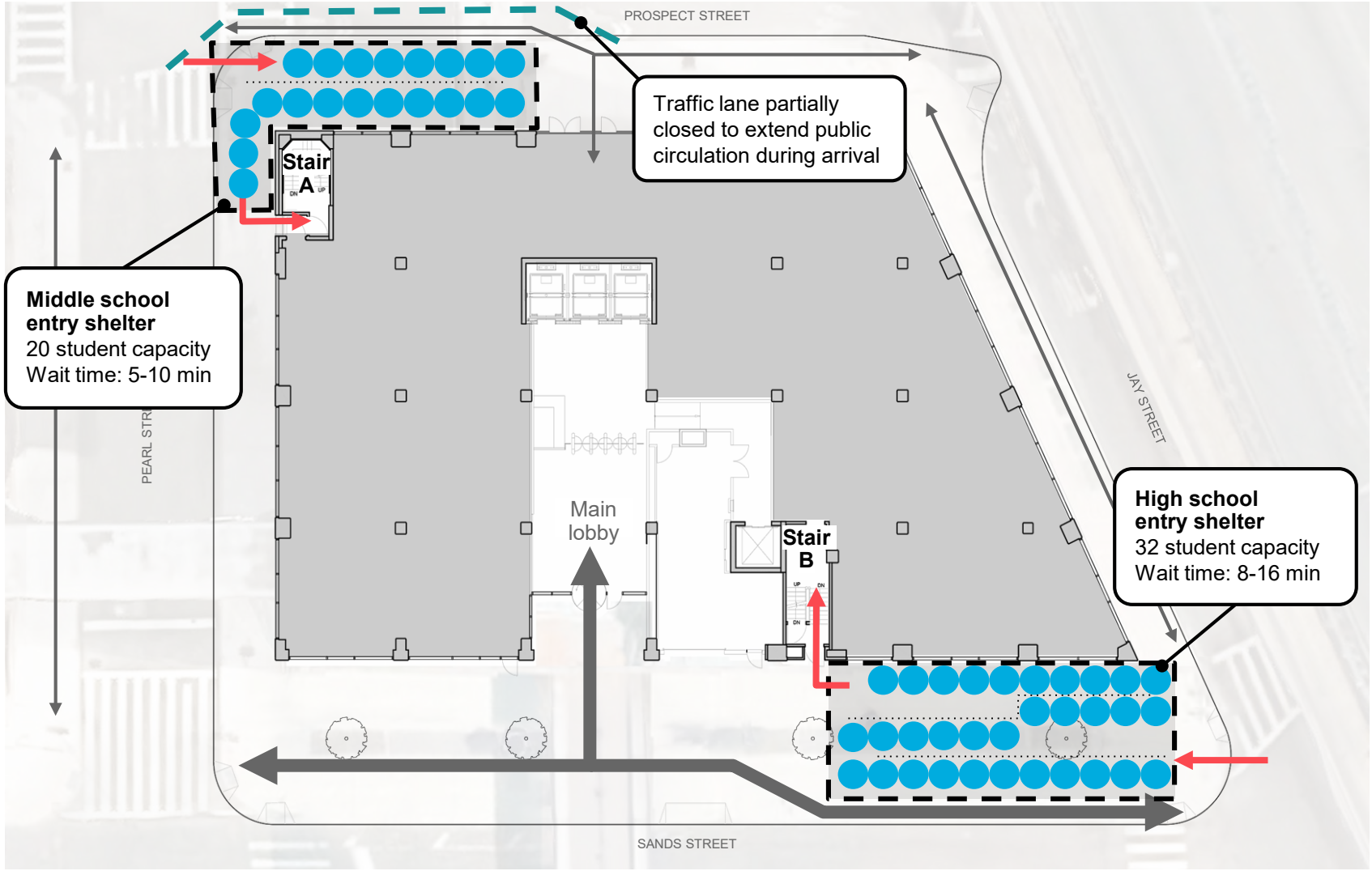
- Greater capacity for students
- Smaller footprint / more contained - less structure
- Greater impact on Sands St sidewalk & building entry
- Higher density of students within shelter




## Linear

- Lower density - better student distancing
- Single line easier to monitor by staff
- Greater impact on less-trafficked Jay St. sidewalk
- Jay St. is very loud due to bridge train traffic

# Arrival experience with stacked queue




Student with 6' distance

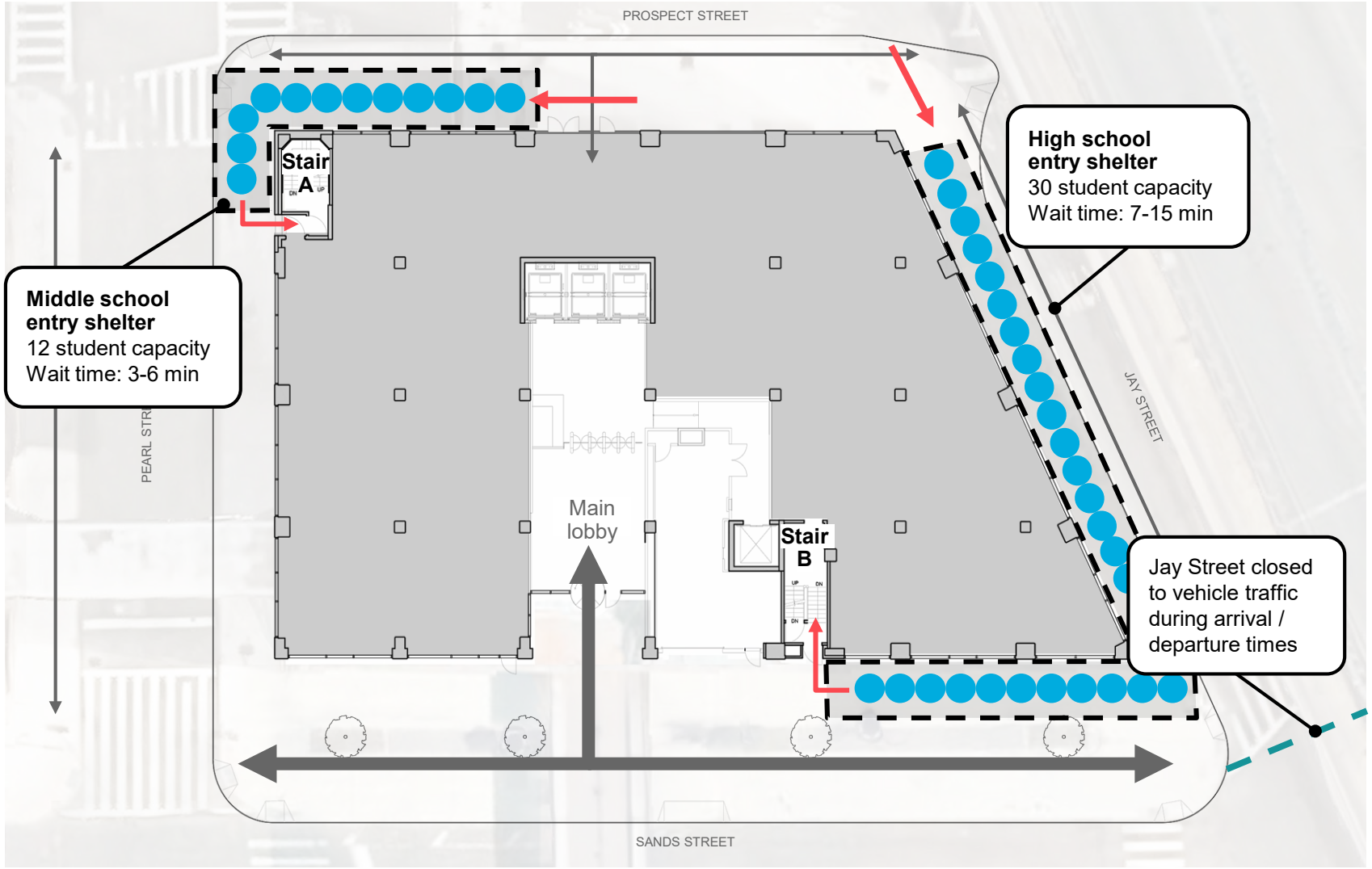
Structure footprint

Start of line

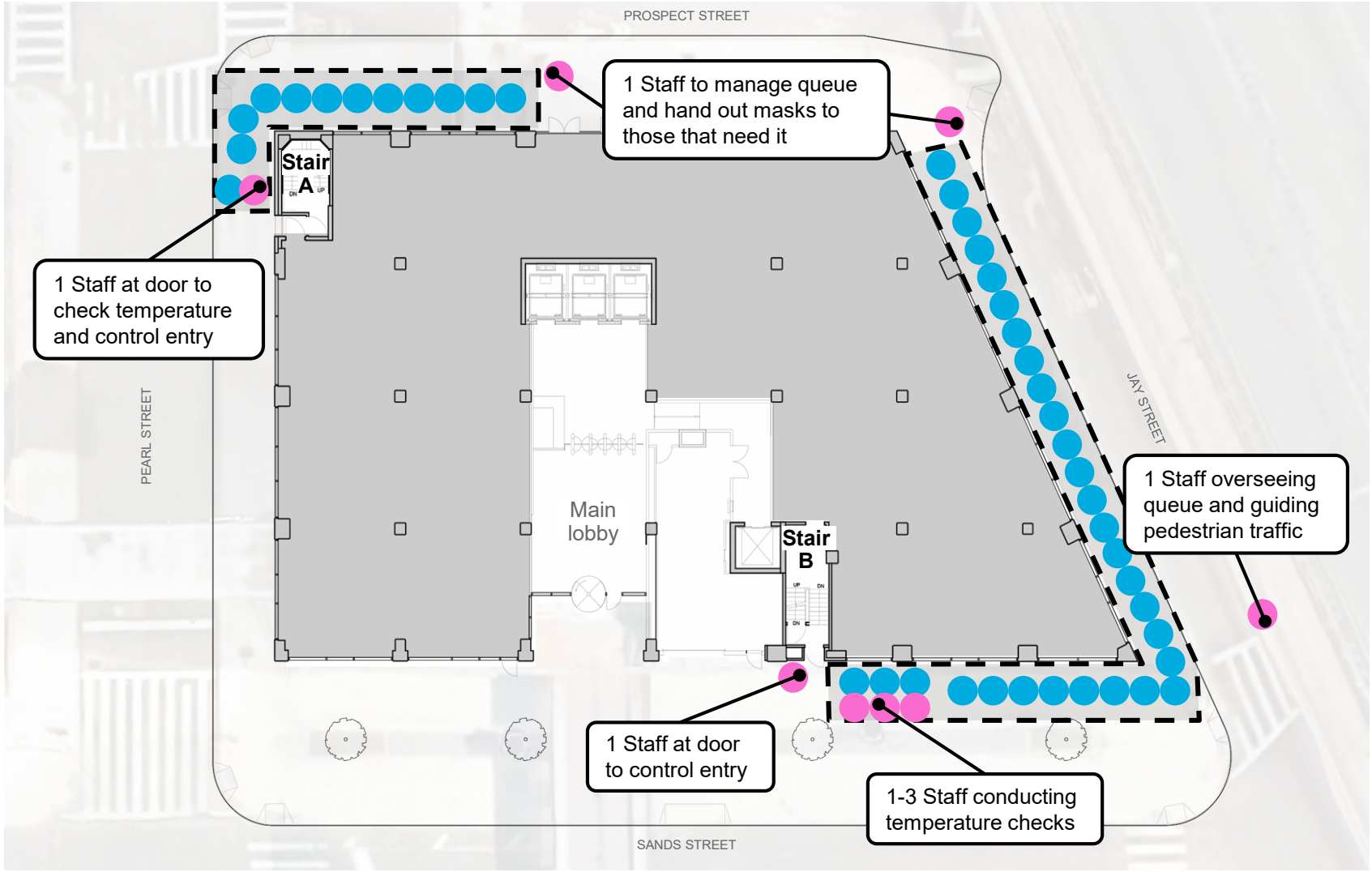
Public circulation

Road barricade

# Arrival experience with linear queue



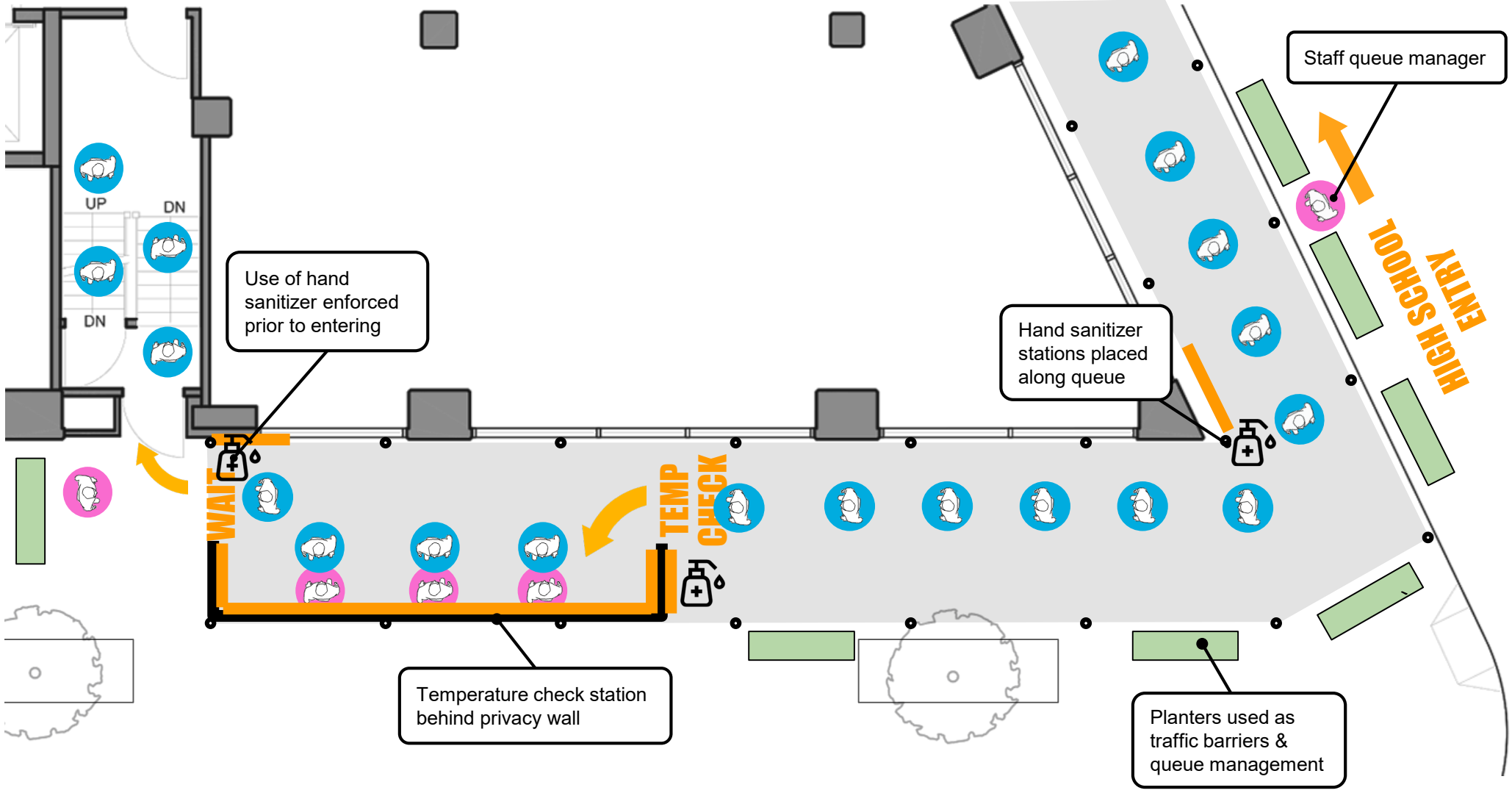
# Staffing needs with linear queue




Student with 6' distance

Staff with 6' distance

# Arrival experience, zooming in




BROOKLYN LAB
CHARTER SCHOOL
JAY
ONE WAY
HS ENTER HERE


BROOKLYN LAB
CHARTER SCHOOL
JAY
ONE WAY
HS ENTER HERE


BROOKLYN LAB
CHARTER SCHOOL
BROOKLYN LAB
CHARTER SCHOOL

# Thank you!

# Ideas from PSF

PSF PROJECTS
ARCHITECTURE DPC

# Back To School Toolkit
# Brooklyn Lab Charter School

PSF PROJECTS
ARCHITECTURE DPC

## FACTS & CHALLENGES
## APPROACH
## EXPLORATIONS
## METHODOLOGY

**About**
This work was created by **PSF Projects.** Our team thrives on viewing challenges as opportunities to create innovative solutions that improve the quality of life.

**Contact**
Barrett Feldman: barrett@psfprojects.com
www.psfprojects.com

# FACTS & CHALLENGES

# FACTS & CHALLENGES

## PREMISE:

**IF** students are required to follow 6’-0” social distancing practices in a world with COVID,

**THEN** we think schools will need to increase entrances and stairs in order to reduce resulting wait times.

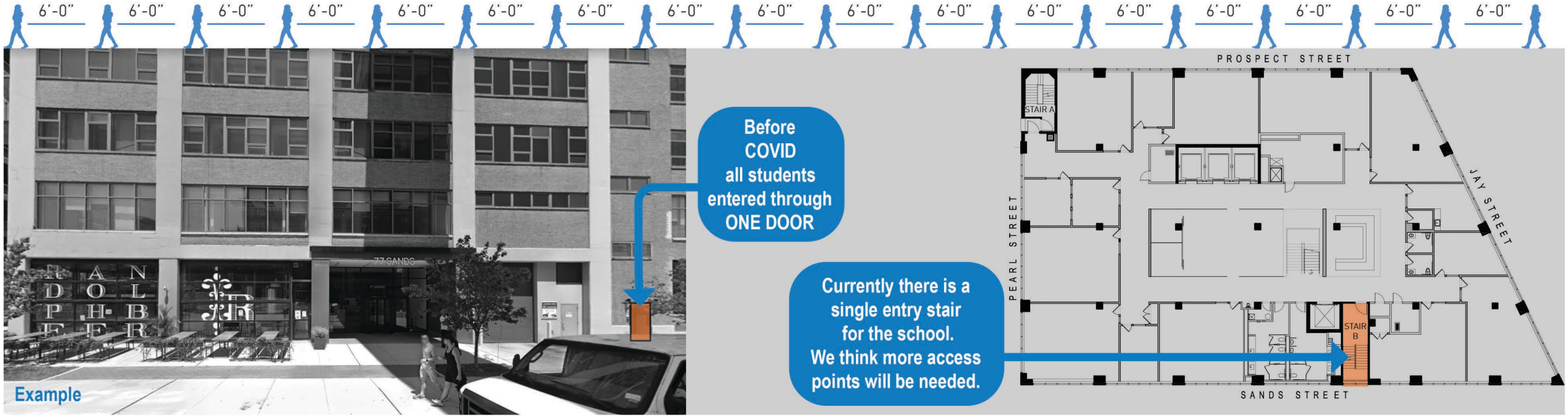
## HYPOTHETICAL:

We base our analysis and example case study on a 1000 student school.

A line of 1000 students socially distanced 6’-0” apart is 1 1/2 miles.
That is longer than the Brooklyn Bridge!

## PROPOSAL:

Our design proposal presents a response to the challenge of entry into School Buildings in a world with COVID and social distancing. What follows is a modular approach to solving this new quandary.



# APPROACH

**FACT**
AVERAGE ATTENTION SPAN OF A MIDDLE SCHOOLER IS 10-12 MINUTES

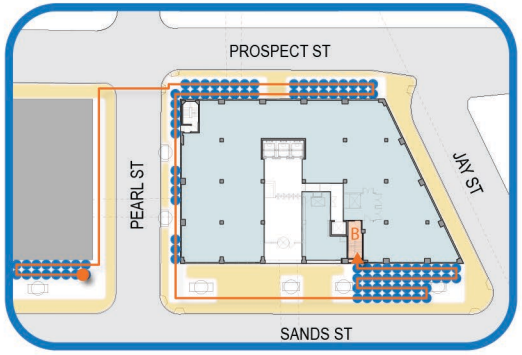
**CHALLENGE**
REDUCE WAIT TIMES TO 10 MINUTES

**STRATEGY**

## DESIGN

### ADD SECURE ENTRANCES & STAIRS

- CONSIDERATE OF NEIGHBORS
- AFFORDABLE & EASILY DEPLOYED
- FUN & PRODUCTIVE




## SCHEDULING

### ALTERNATE ATTENDANCE

School Schedule @ 50% Capacity Week 1

| | M | T | W | TH |
|---|---|---|---|---|
| Middle School | | ■ | | ■ |
| High School | ■ | | ■ | |

School Schedule @ 50% Capacity Week 2

| | M | T | W | TH |
|---|---|---|---|---|
| Middle School | ■ | | ■ | |

### STAGGER ARRIVAL

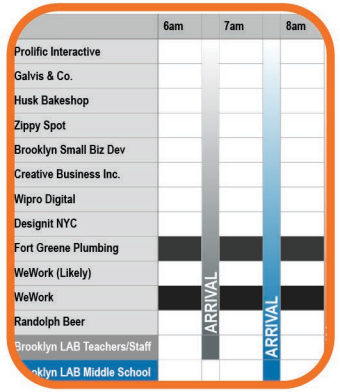
Student Arrival Schedule @ 100% Capacity, Assuming 1000

| Arrival Time | Stair A | Stair B | Stair C |
|---|---|---|---|
| 7:45 | 83 | 83 | 83 |
| 8:00 | 83 | 83 | 83 |
| 8:15 | 83 | 83 | 83 |
| Total Per Stair | 249 | 249 | 249 |
| Total Per Day | | | |

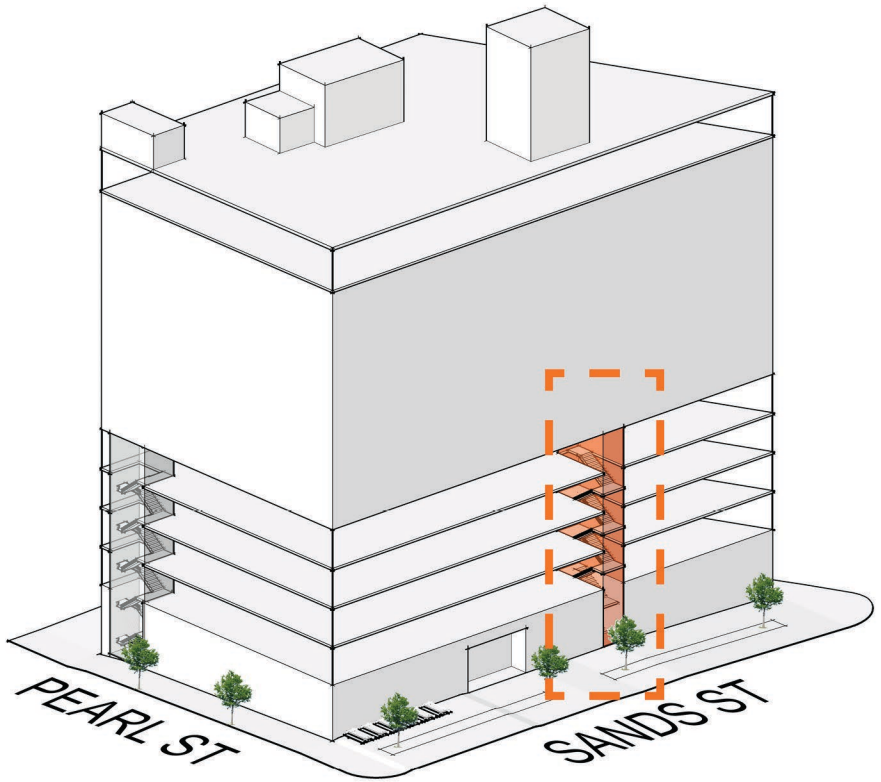
Student Arrival Schedule @ 50% Capacity, Assuming 500

| Arrival Time | Stair A | Stair B | Stair C |
|---|---|---|---|
| 7:45 | 41 | 41 | 42 |
| 8:00 | 41 | 41 | 42 |
| 8:15 | 41 | 41 | 42 |
| Total Per Stair | 123 | 123 | 126 |

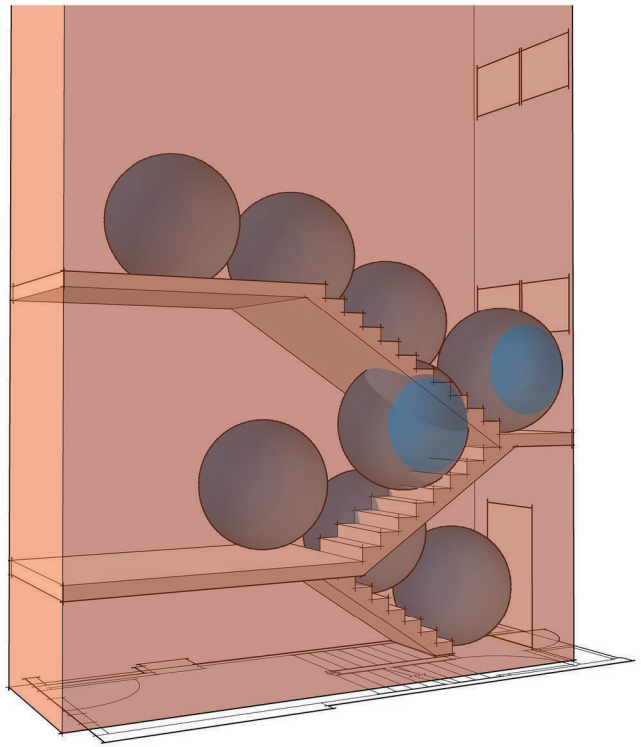
### SCHEDULE OF NEIGHBORS



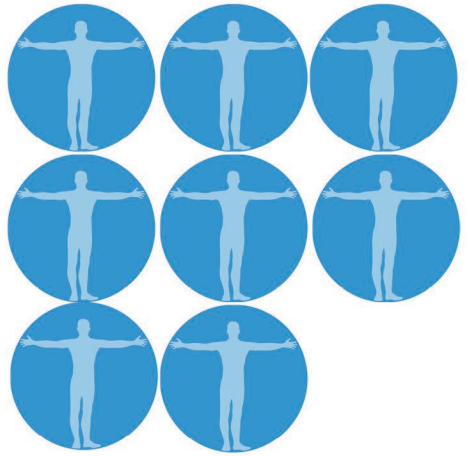
# 1st SCENARIO: MAIN ACCESS STAIR (Stair B)



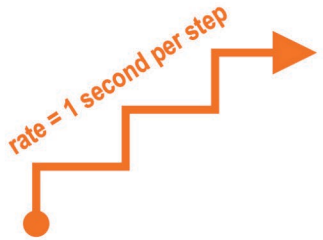

**We analyzed the stair to find the maximum capacity using a 6'-0" volumetric spacing.**



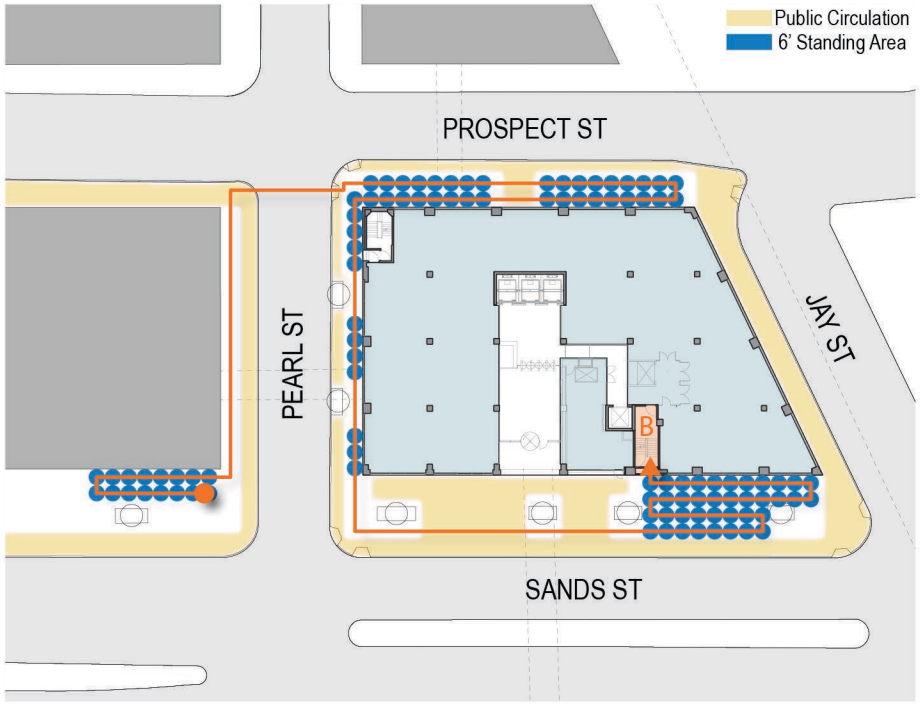
**Capacity = 8 students**



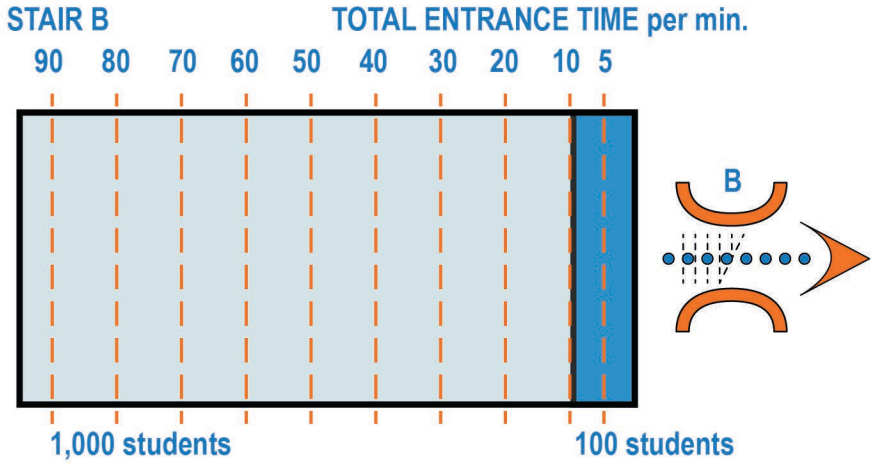
# 1st SCENARIO: MAIN ACCESS STAIR (Stair B)




**The sidewalk will be overwhelmed with even 100 students and it will be impossible to provide covered waiting zones.**

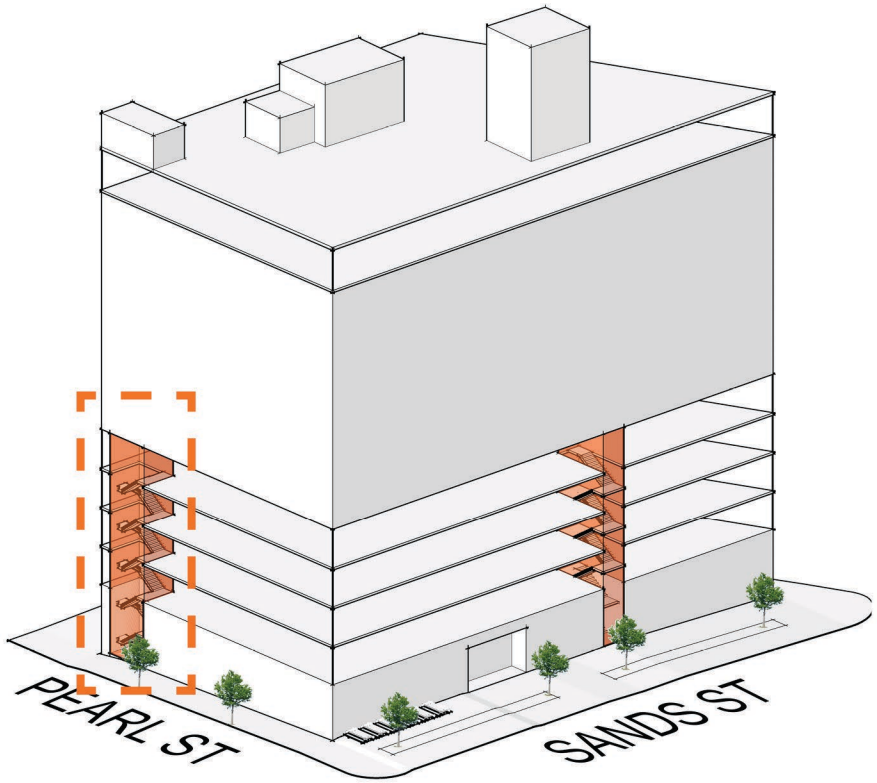



**IF 1000 socially distanced students use this one entrance and stair, THEN it will take 90 minutes to enter.**

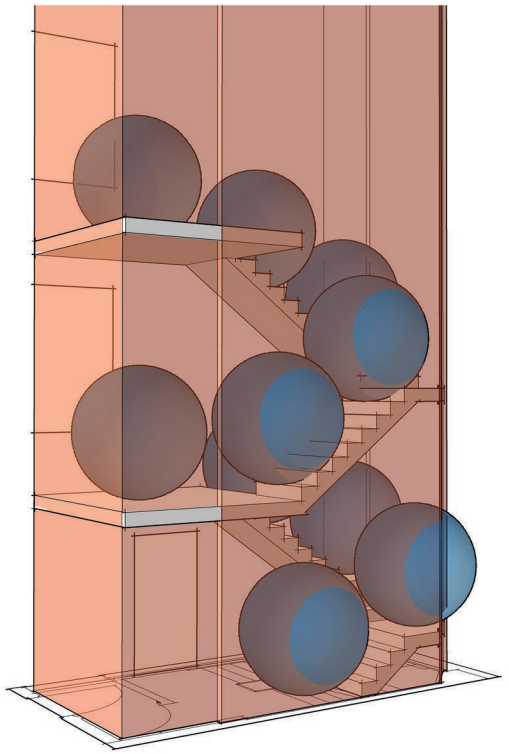


# APPROACH

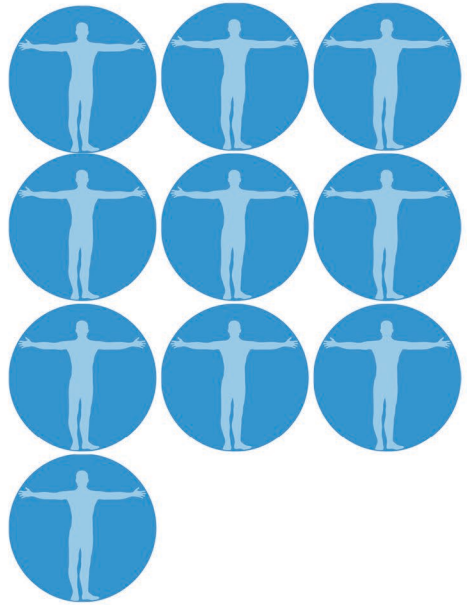
# 2nd SCENARIO: UNUSED EXISTING STAIR (Stair A)




We analyzed the stair to find the maximum capacity using a 6'-0" volumentric spacing.

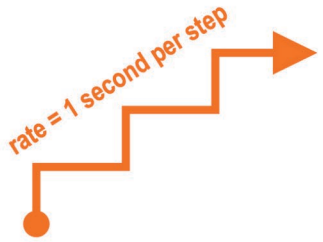


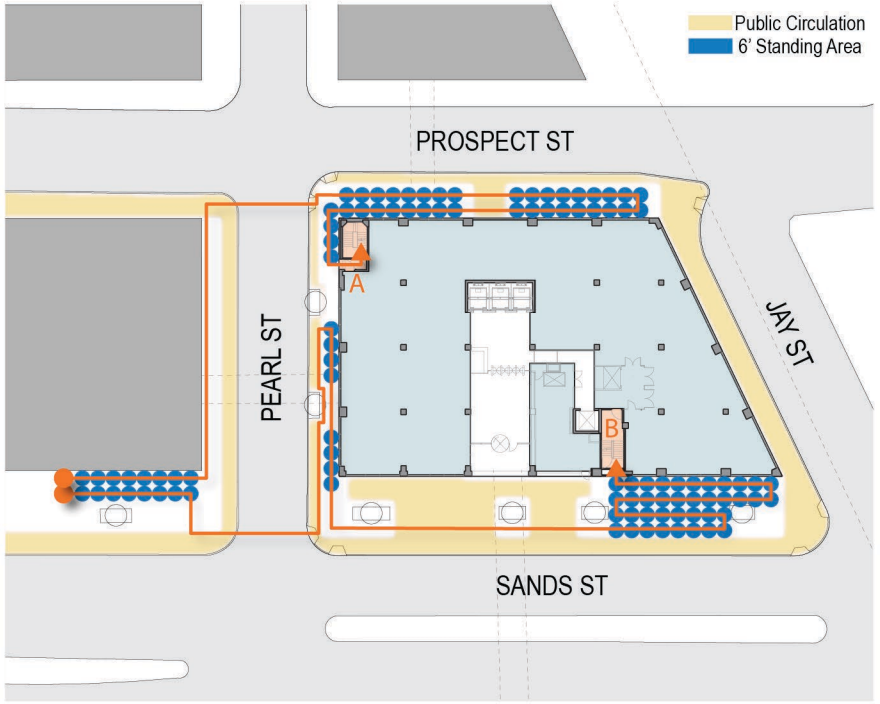
Capacity = 10 students



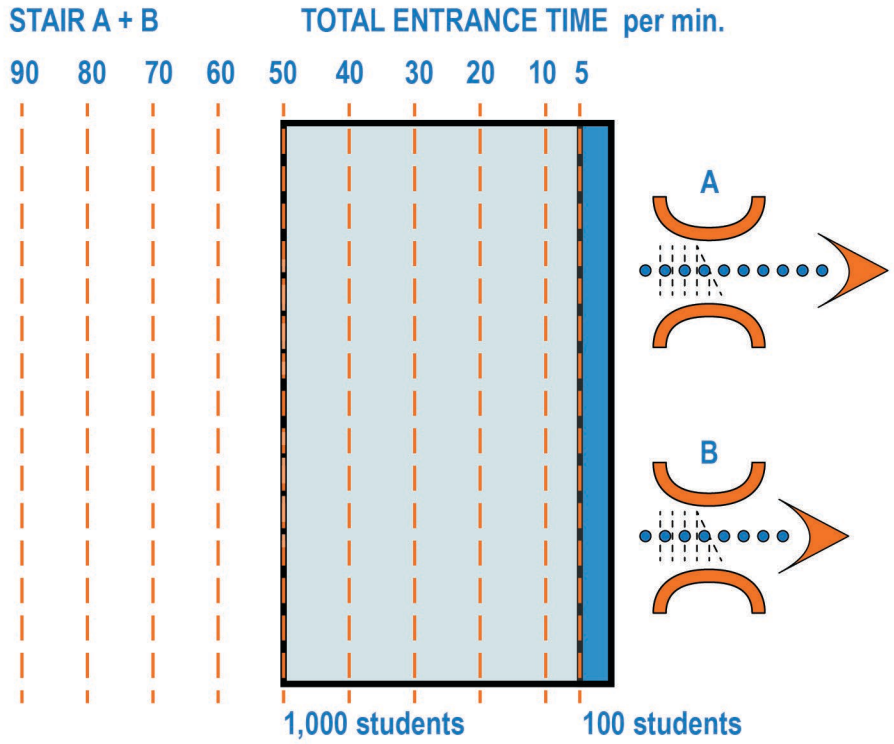
# 2nd SCENARIO: ADD UNUSED EXISTING STAIR (Stair A + B)

**The sidewalk will still be overwhelmed with students and it would be nearly impossible to provide covered waiting zones. Scheduling student arrivals can further reduce the wait time and length of the line.**



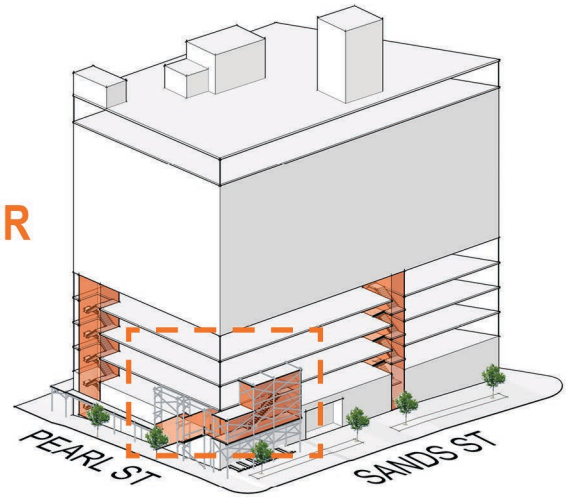



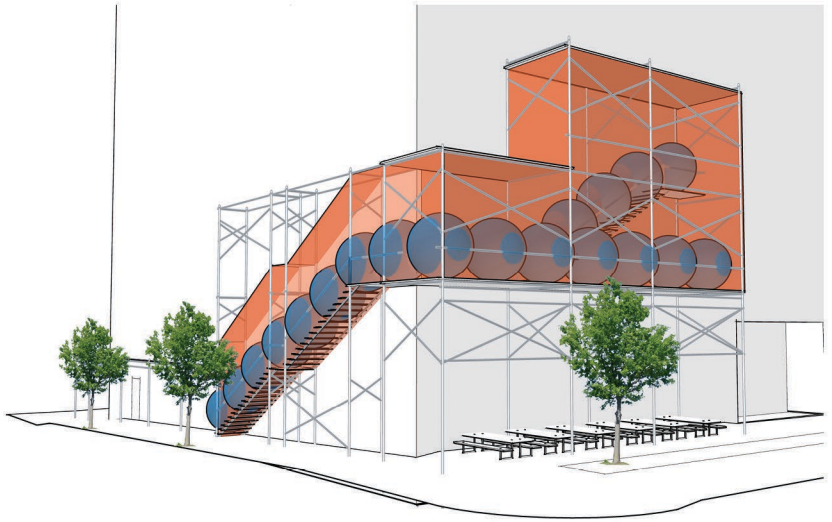

**IF 1000 socially distanced students use two existing entrances and stairs, THEN it will take 50 minutes to enter.**



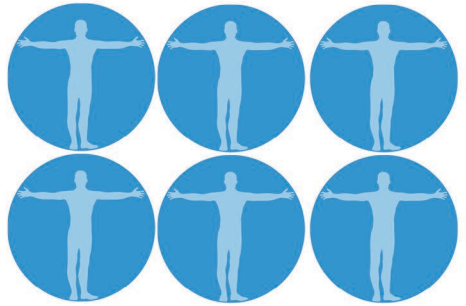
# 3rd SCENARIO: TWO NEW TEMPORARY SCAFFOLD STAIRS (Stairs C & D)

**STAIR C**

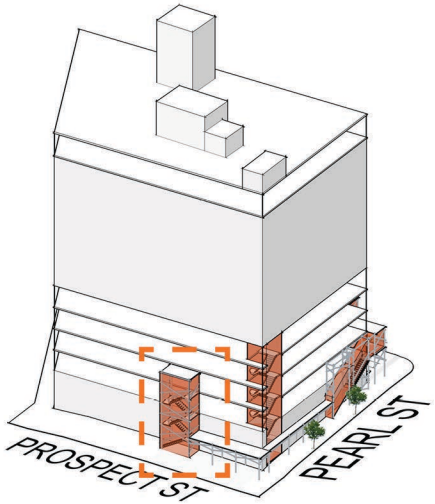


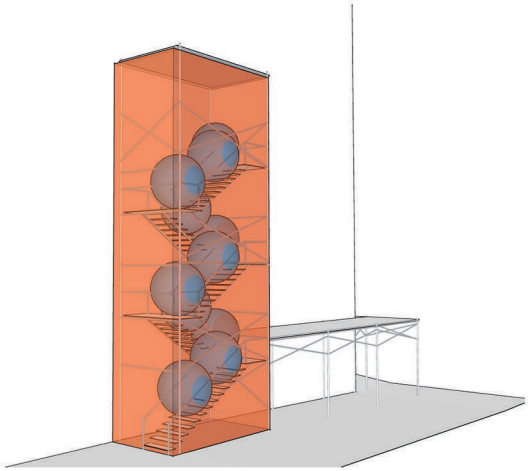



Capacity = 6 students

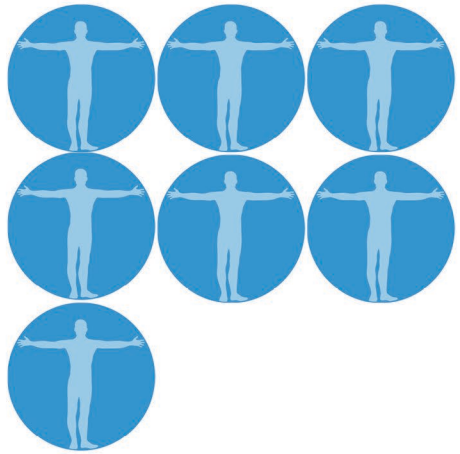


**STAIR D**



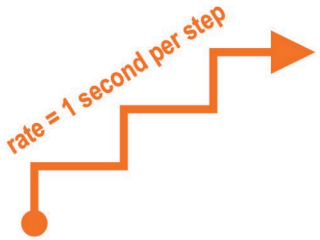
Capacity = 7 students

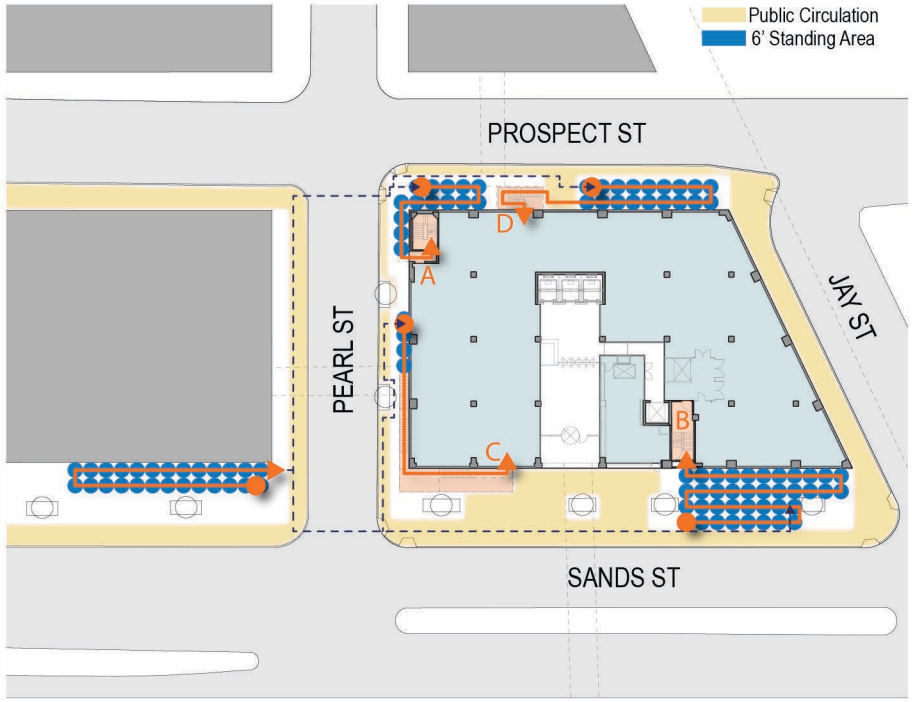


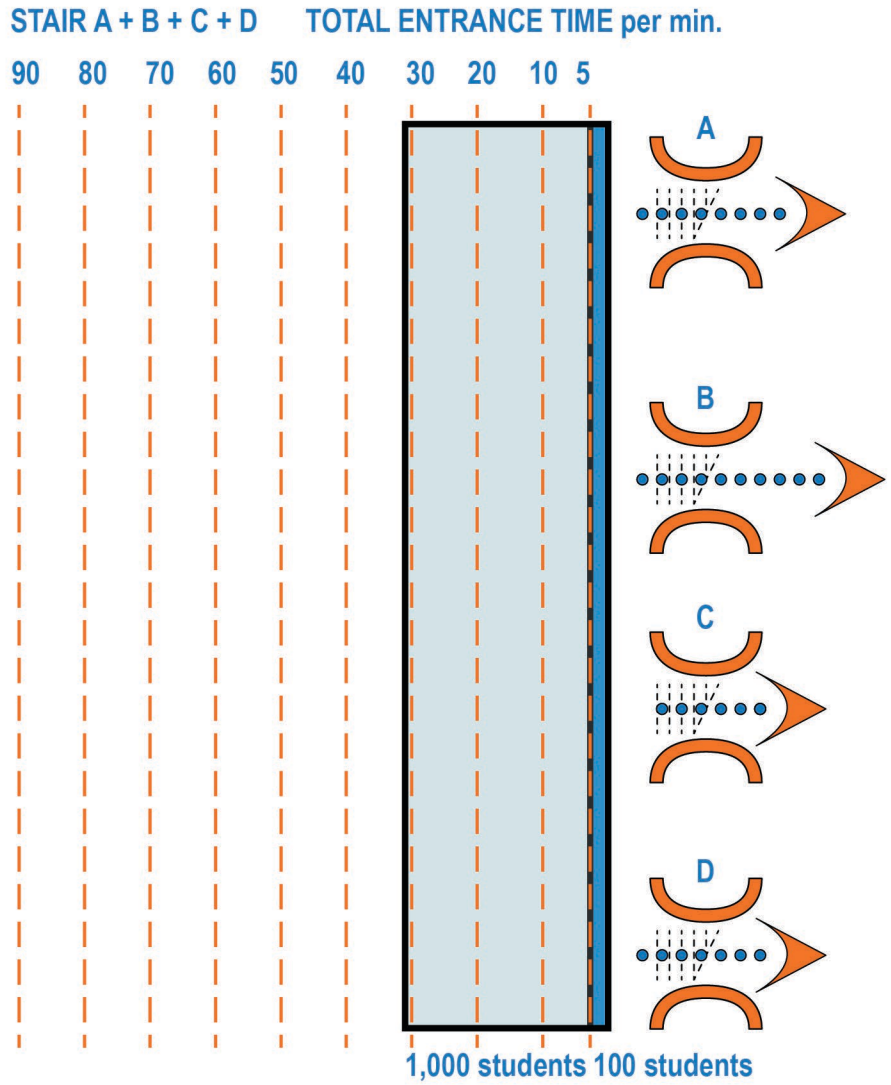
# 3rd SCENARIO: ADD TWO NEW TEMPORARY SCAFFOLD STAIRS (Stair A + B + C + D)

**IF 1000 socially distanced students use two existing entrances and stairs,**
**THEN it will take 30 minutes to enter.**

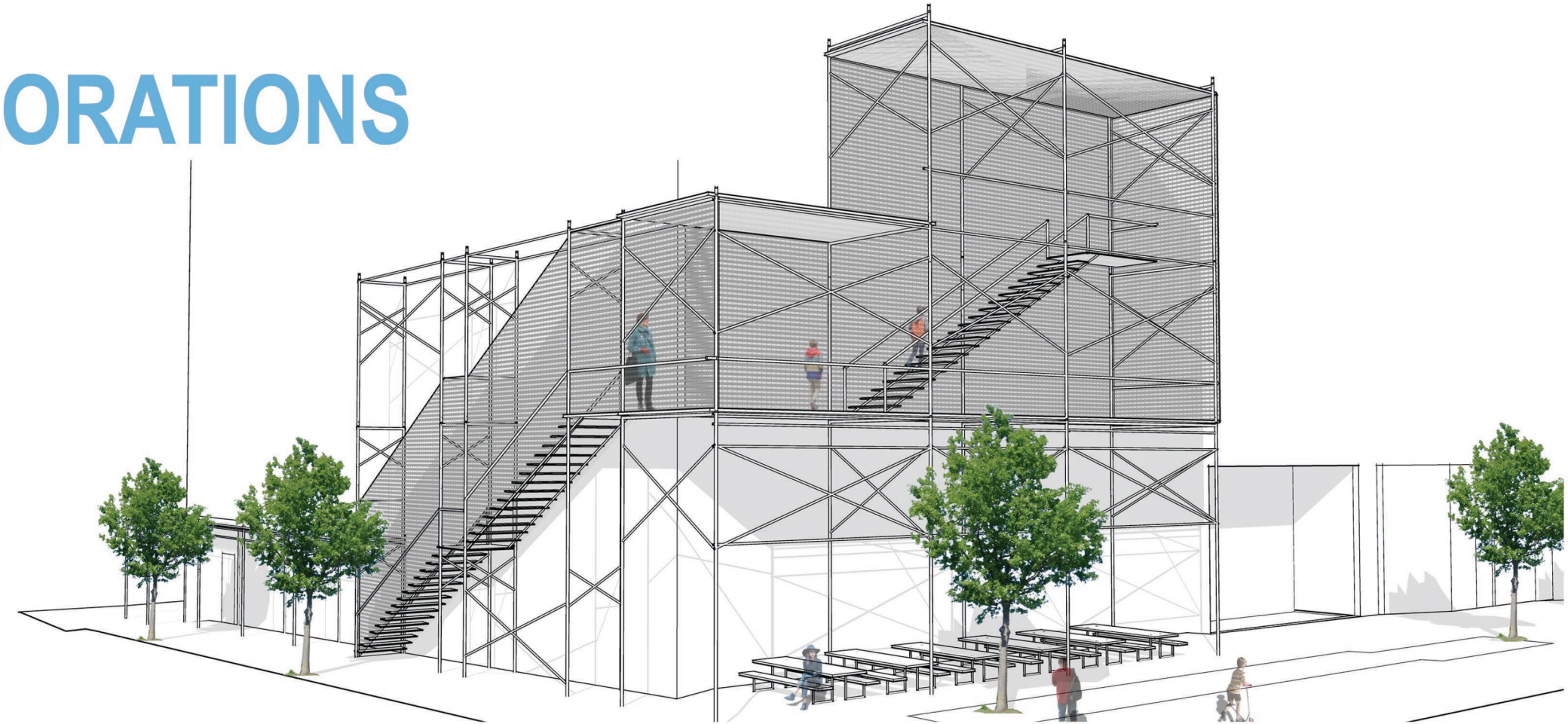
**The sidewalk will no longer be overwhelmed with a crowd.**



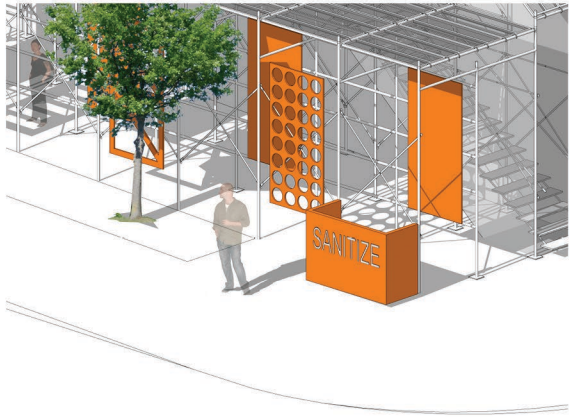



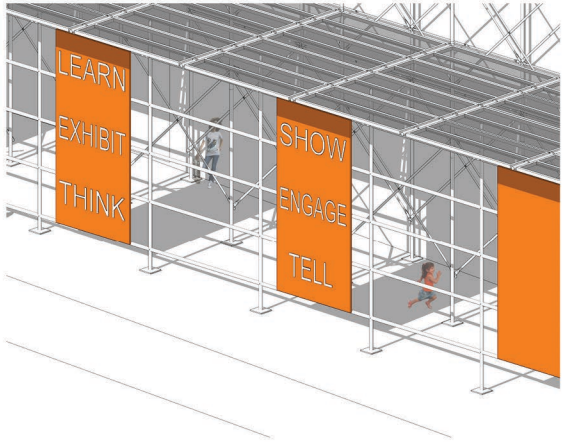
# EXPLORATIONS

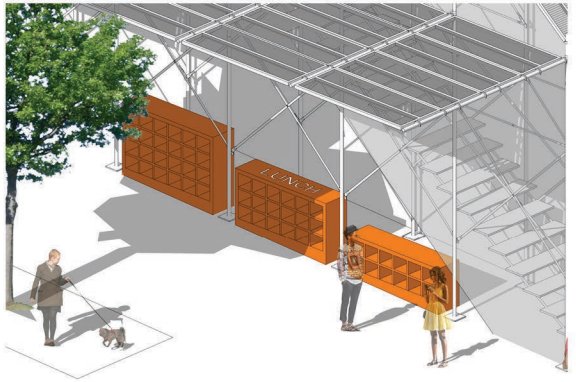


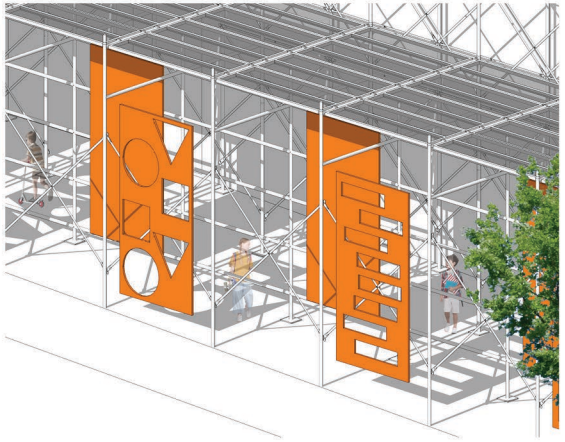
# AFFORDABLE & EASILY DEPLOYED EXAMPLES: SCAFFOLD

# NEW FRONT PORCH: FUN & PRODUCTIVE



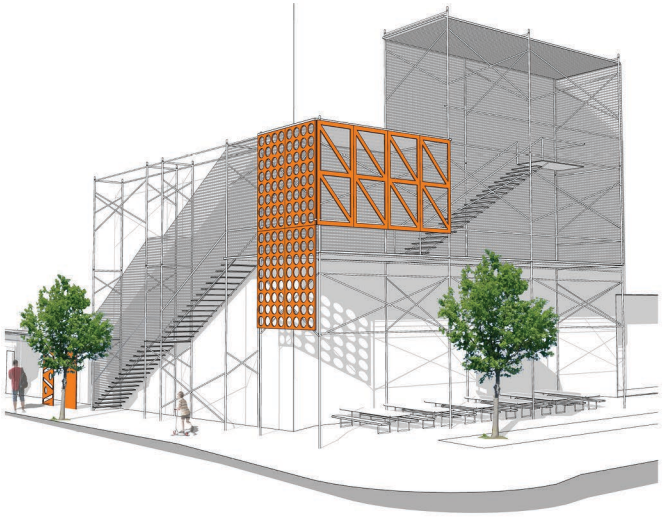





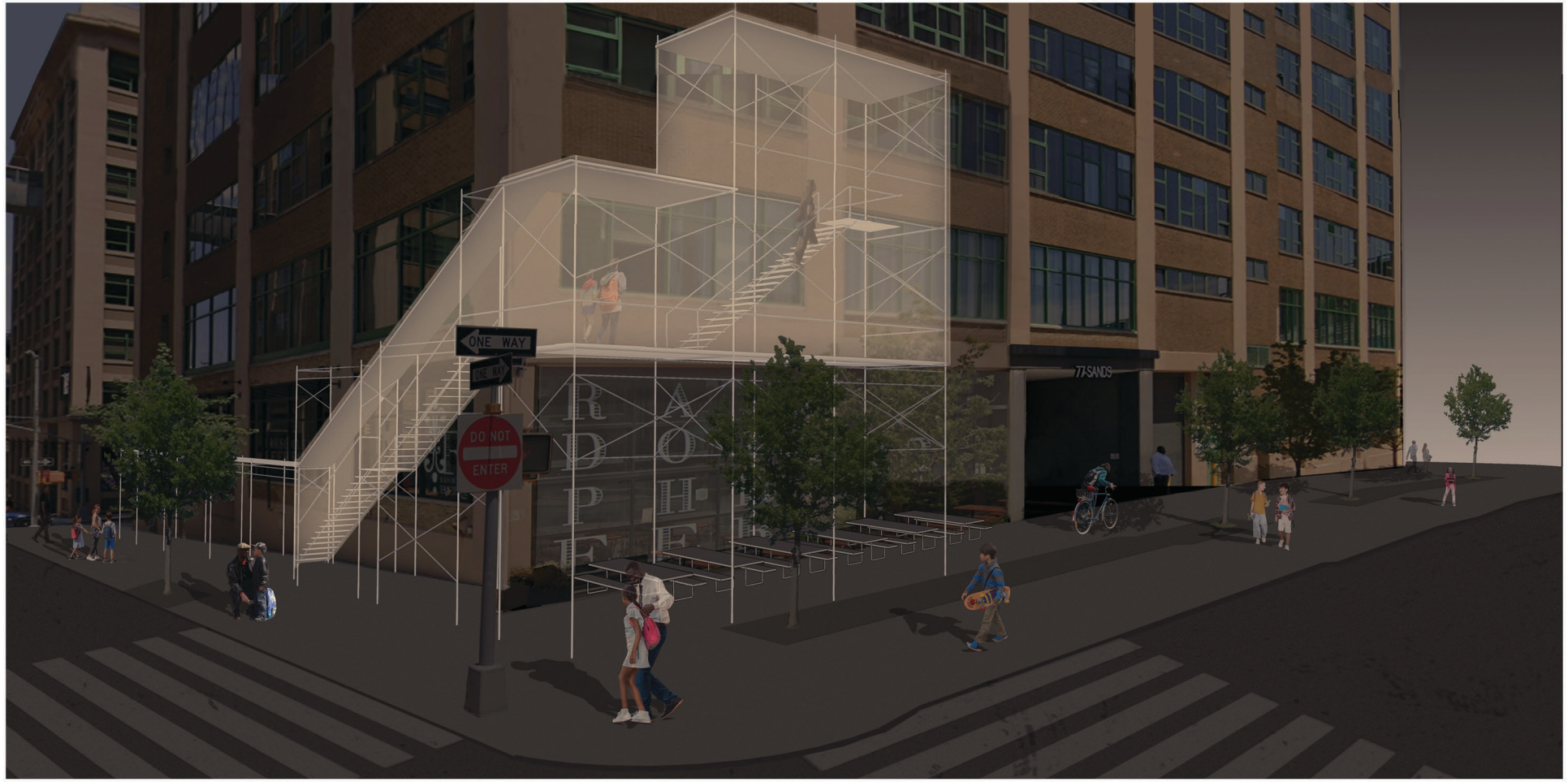
The scaffold can be transformed into a dynamic framework for engaging between students, staff, teachers, parents, and the community.

**The scaffold can provide a place to:**

- get cover from rain & snow
- sanitize hands and cell phone
- get grab ‘n go breakfast
- exhibit student work
- learn & teach
- engage



# LANTERN



# METHODOLOGY

# ANALYSIS: EXISTING STAIRS

## 1st Scenario: Stair B

| # of stair climbers | # in stairwell at once | Minutes to enter/climb/exit | Total minutes | Hours |
|---|---|---|---|---|
| 100 | 8 | 0.75 | 9 | 0.16 |
| 1,000 | 8 | 0.75 | 94 | 1.56 |

## 2nd Scenario: Stair A+ B

| # of stair climbers | # in stairwell at once | Minutes to enter/climb/exit | Total minutes | Hours |
|---|---|---|---|---|
| Stair B | | | | |
| 50 | 8 | 0.75 | 5 | 0.08 |
| 500 | 8 | 0.75 | 47 | 0.78 |
| Stair A | | | | |
| 50 | 10 | 1 | 5 | 0.08 |
| 500 | 10 | 1 | 50 | 0.83 |

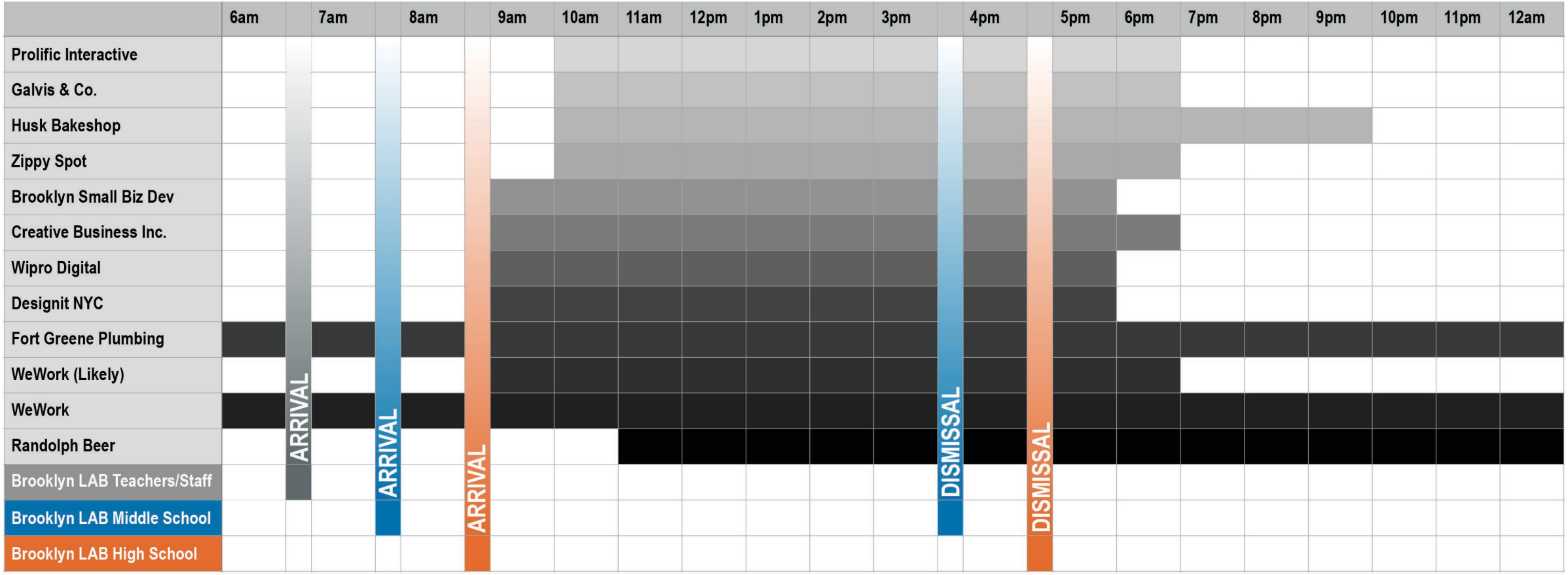
# ANALYSIS: EXISTING STAIRS + NEW STAIRS

## 3rd Scenario: Stair B + A + C + D

| # of stair climbers | # in stairwell at once | Minutes to enter/climb/exit | Total minutes | Hours |
|---|---|---|---|---|
| **Stair B** | | | | |
| **25** | 8 | 0.75 | 2 | 0.04 |
| **250** | 8 | 0.75 | 23 | 0.39 |
| **Stair A** | | | | |
| **25** | 10 | 1 | 3 | 0.04 |
| **250** | 10 | 1 | 25 | 0.42 |
| **Sands Street** | | | | |
| **25** | 6 | 0.75 | 3 | 0.05 |
| **250** | 6 | 0.75 | 31 | 0.52 |
| **Prospect Street** | | | | |
| **25** | 7 | 0.75 | 3 | 0.04 |
| **250** | 7 | 0.75 | 27 | 0.45 |

# SCHEDULE: NEIGHBORS

## Example Tenant Schedule: 77 Sands Street




School ingress and egress does not conflict with the business hours for most tenants.

# SCHEDULE: SCHOOL DAY

## Alternate Attendance

| School Schedule @ 50% Capacity Week 1 | M | T | W | TH | F |
|---|---|---|---|---|---|
| Middle School | | | | | |
| High School | | | | | |

| School Schedule @ 50% Capacity Week 2 | M | T | W | TH | F |
|---|---|---|---|---|---|
| Middle School | | | | | |
| High School | | | | | |

## Stagger Arrival Times

| Student Arrival Schedule @ 100% Capacity, assuming 1000 | | | | |
|---|---|---|---|---|
| Arrival Time | Stair A | Stair B | Stair C | Stair D |
| 7:45 | 83 | 83 | 83 | 84 |
| 8:00 | 83 | 83 | 83 | 84 |
| 8:15 | 83 | 83 | 83 | 84 |
| Total Per Stair | 249 | 249 | 249 | 252 |
| Total Per Day | | | | 999 |

NOTE: For simplicity, example chart assumes all stairs on site have the same capacity.

| Student Arrival Schedule @ 50% Capacity, assuming 500 | | | | |
|---|---|---|---|---|
| Arrival Time | Stair A | Stair B | Stair C | Stair D |
| 7:45 | 41 | 41 | 42 | 42 |
| 8:00 | 41 | 41 | 42 | 42 |
| 8:15 | 41 | 41 | 42 | 42 |
| Total Per Stair | 123 | 123 | 126 | 126 |
| Total Per Day | | | | 498 |

# Thank You!

PSF
PROJECTS
ARCHITECTURE DPC

# Strategies: Classrooms & Learning Spaces

# Ideas from PBDW

PBDW ARCHITECTS

PBDW ARCHITECTS

Back-to-School Facilities Toolkit

# Classrooms & Learning Spaces

# EXECUTIVE SUMMARY

## DESIGN STRATEGIES

- SOCIALLY DISTANCED CONFIGURTIONS
- PHYSICAL BARRIER CONFIGURATIONS

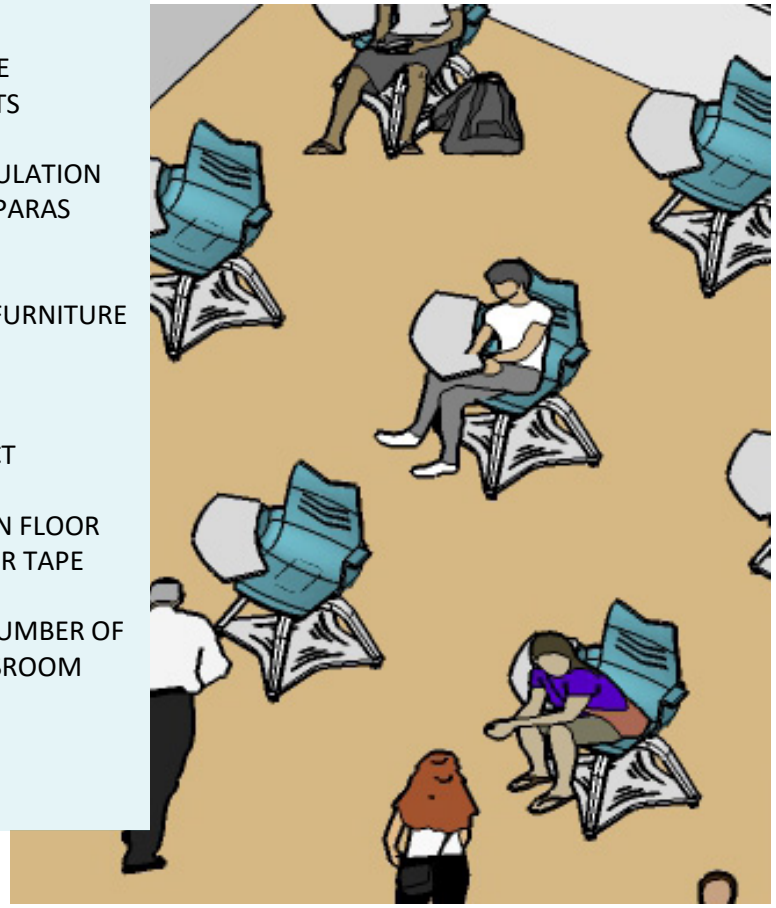
## DESIGN GOALS

- WORK WITHIN THE LIMITS OF EXISTING FACILITIES
- BE REVERSIBLE
- FACILITATE COMMUNICATION
- PROVIDE FLEXIBILITY
- ACCOMMODATE ALL LEARNERS

# CLASSROOM STRATEGIES

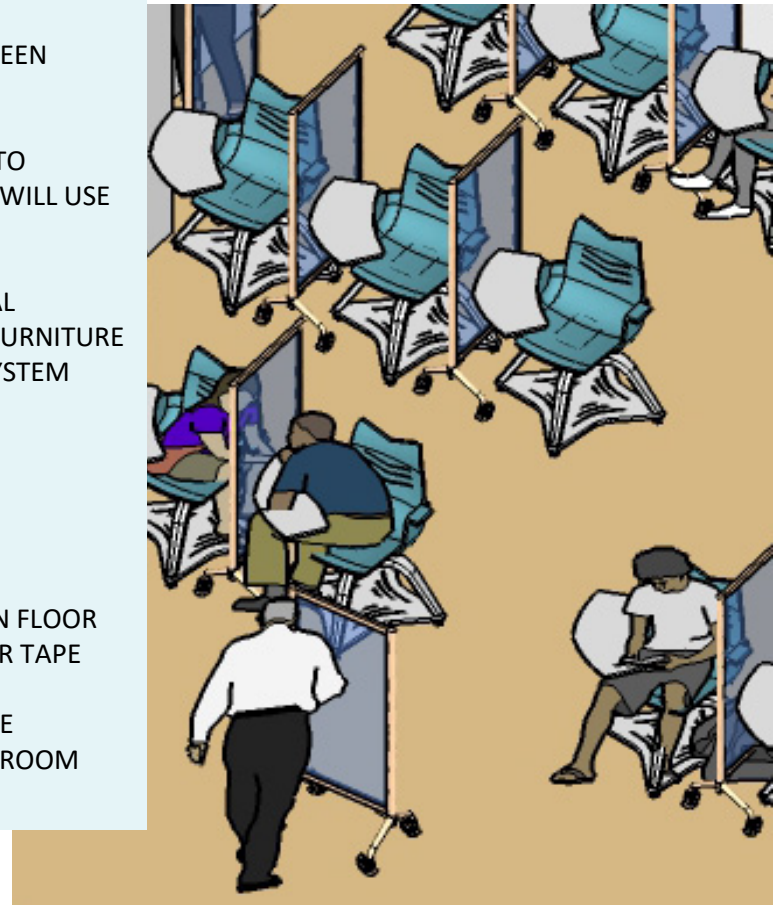
## SOCIALLY DISTANCED

- MAXIMIZES DISTANCE BETWEEN OCCUPANTS
- CLEAR PATH OF CIRCULATION FOR TEACHERS AND PARAS
- LIMITED PHYSICAL MODIFICATIONS TO FURNITURE
- EASY TO IMPLEMENT
- LIMITED COST IMPACT
- LAYOUTS MARKED ON FLOOR WITH VARIOUS COLOR TAPE
- MOST LIMITING IN NUMBER OF STUDENTS PER CLASSROOM

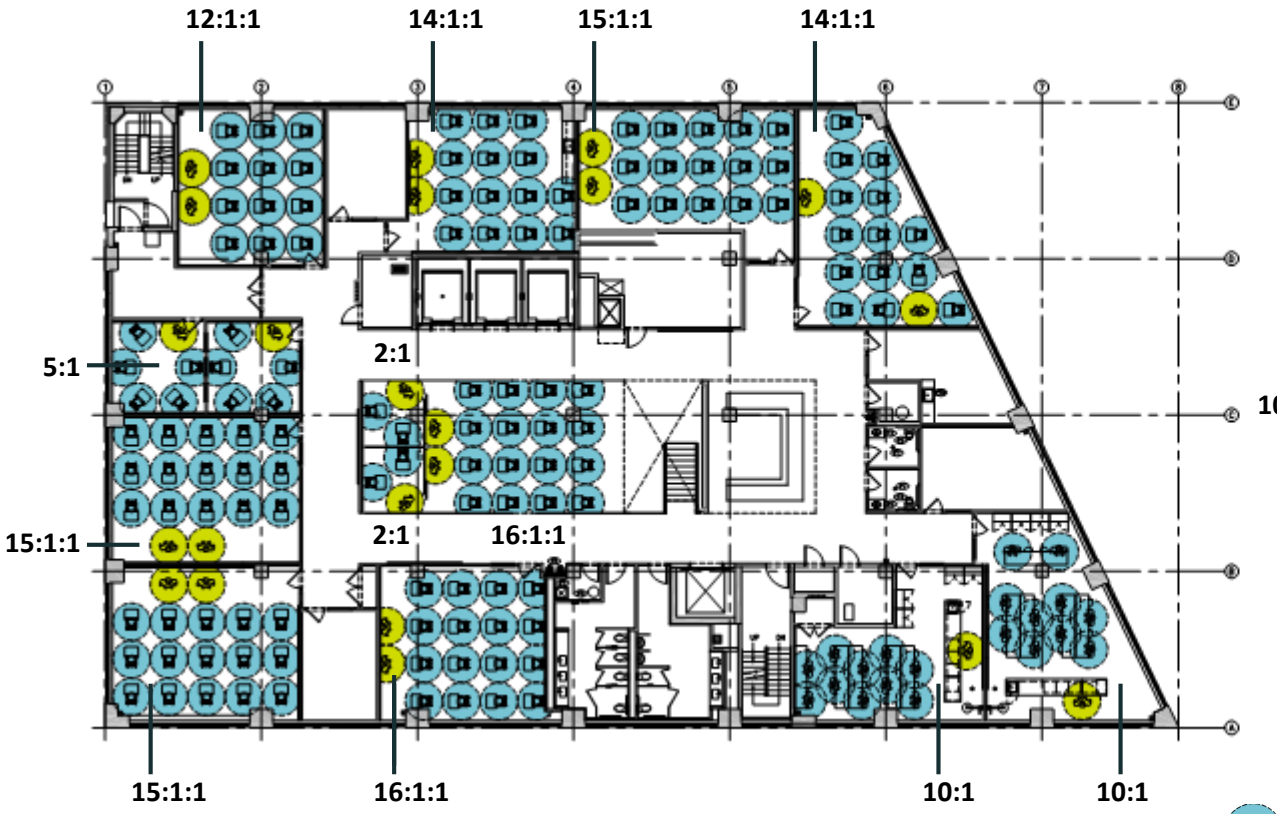


## PHYSICAL DIVIDERS

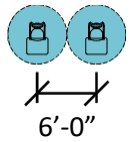
- LESS DISTANCE BETWEEN OCCUPANTS
- FOR CLOSER ACCESS TO STUDENTS, TEACHER WILL USE PPE
- TEMPORARY PHYSICAL MODIFICATIONS TO FURNITURE DEPENDENT UPON SYSTEM USED
- EASY TO IMPLEMENT
- COST IMPACT
- LAYOUTS MARKED ON FLOOR WITH VARIOUS COLOR TAPE
- ACCOMODATES MORE STUDENTS PER CLASSROOM

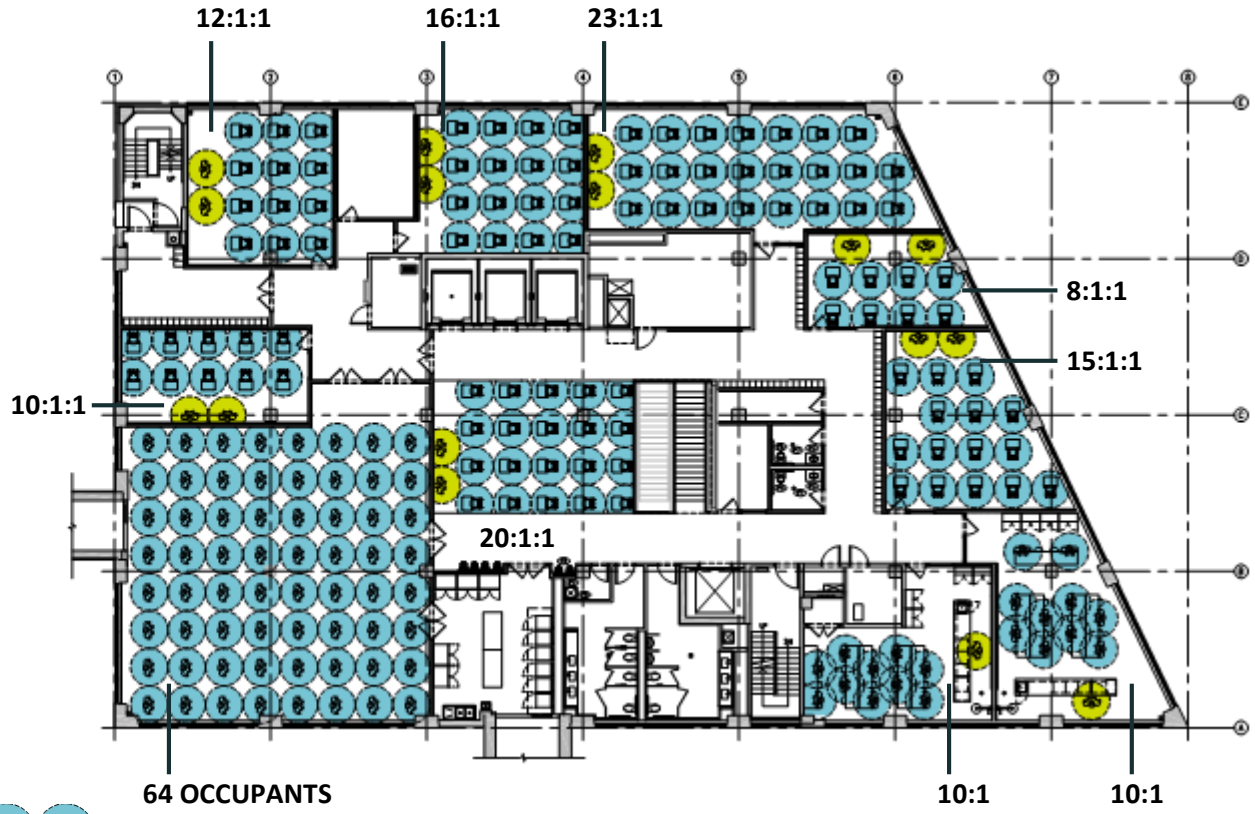


# DISTANCE DIAGRAMS



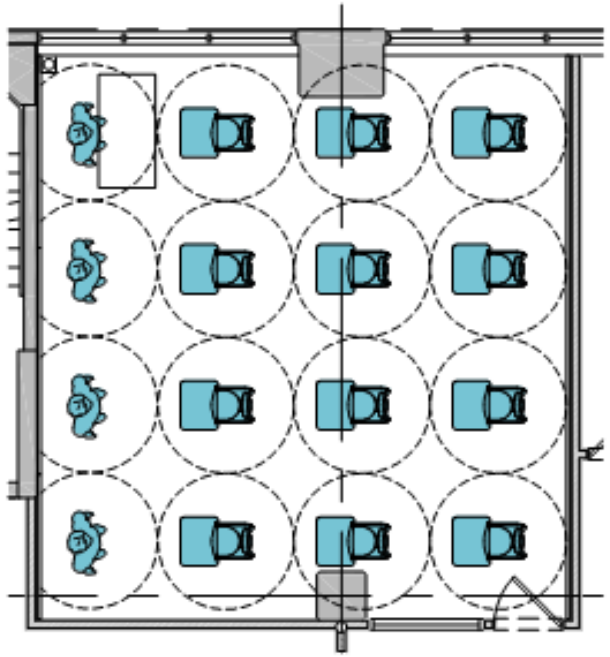

SECOND FLOOR PLAN



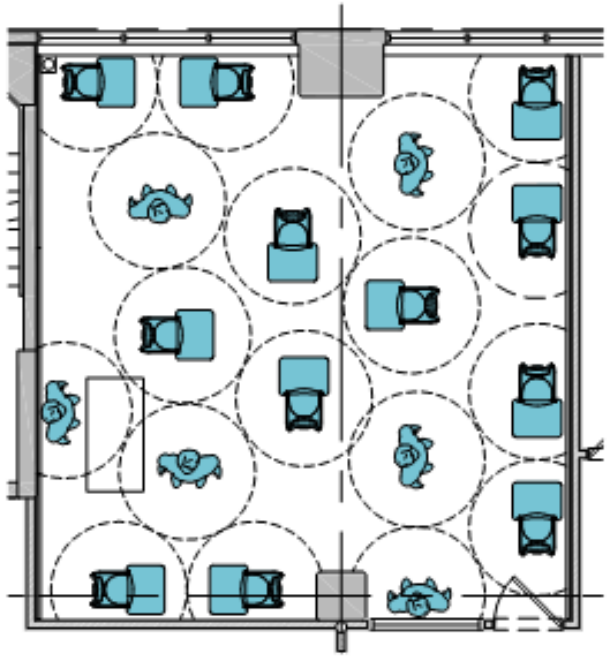

FIFTH FLOOR PLAN

# SOCIALLY DISTANCED

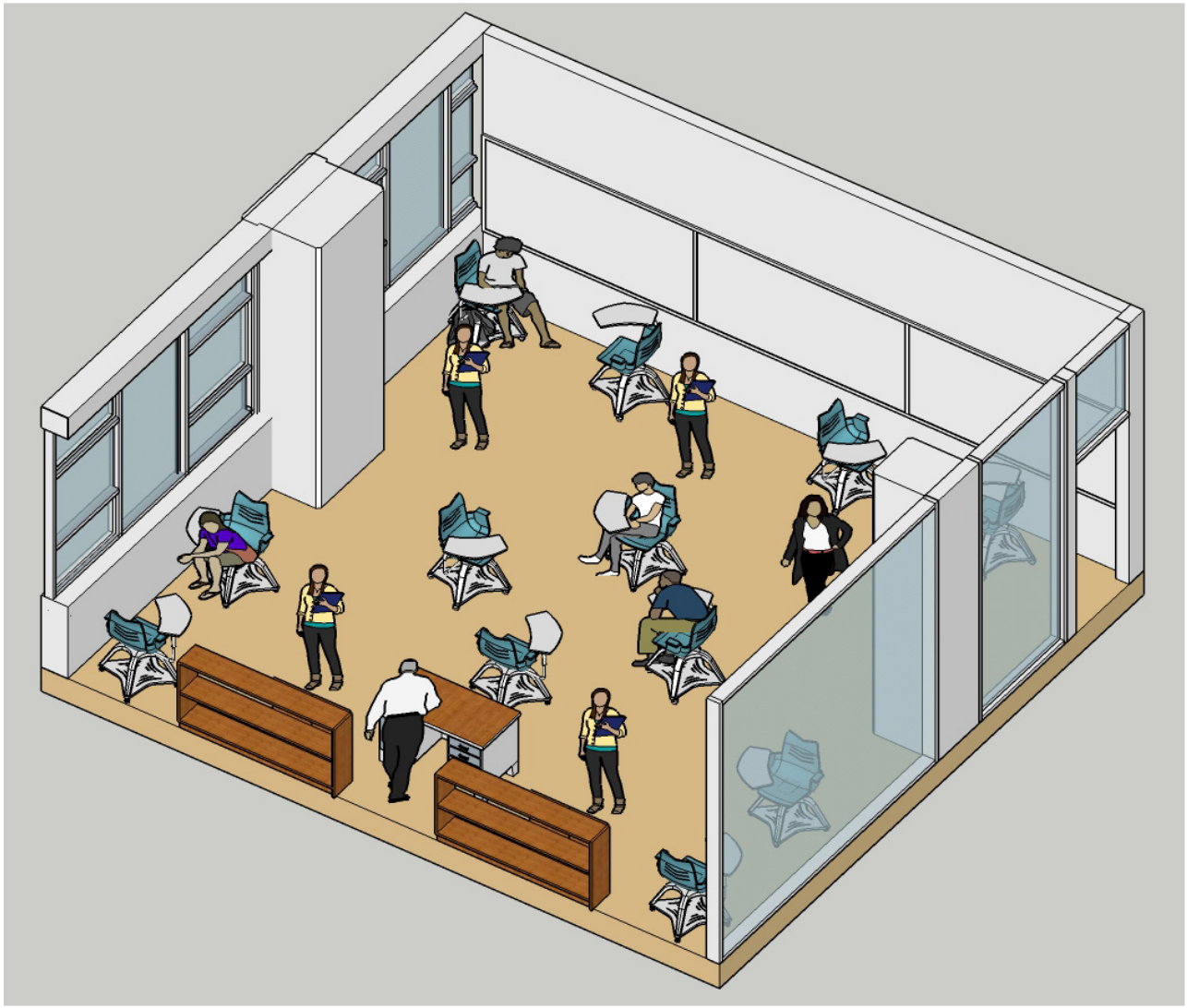


**FACING SAME DIRECTION**
12 STUDENTS
2 TEACHERS
2 PARAPROFESSIONALS

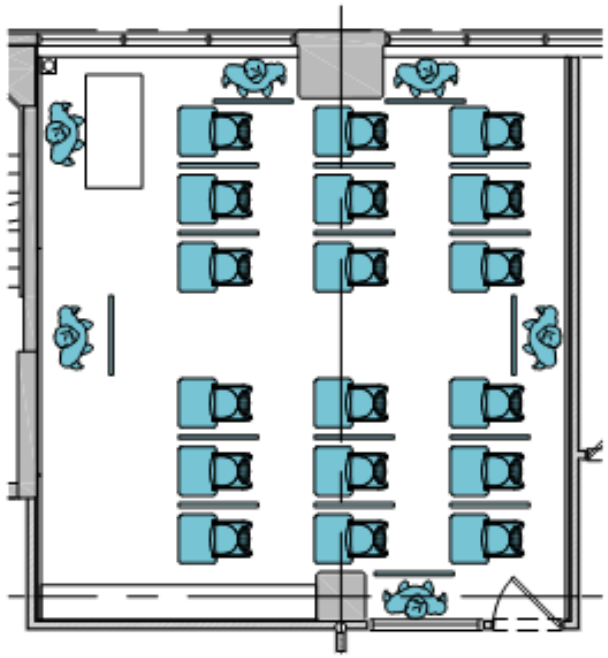
# SOCIALLY DISTANCED



**SMALL GROUPS**
12 STUDENTS
2 TEACHERS
4 PARAPROFESSIONALS

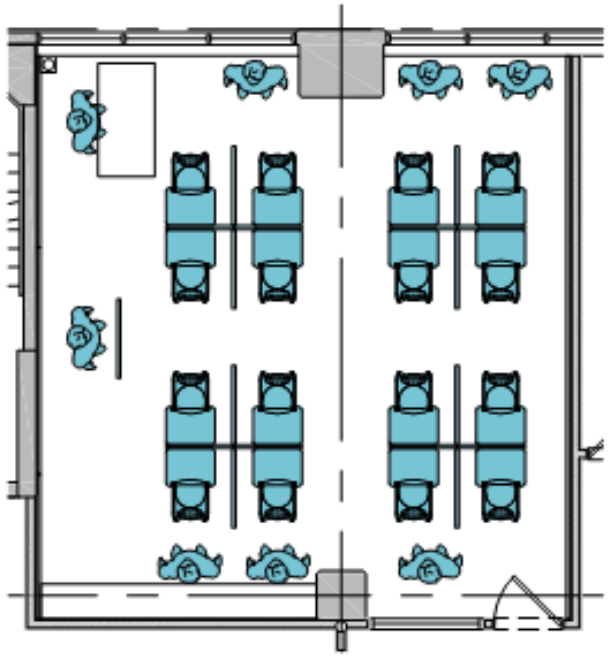


# PHYSICAL DIVIDERS



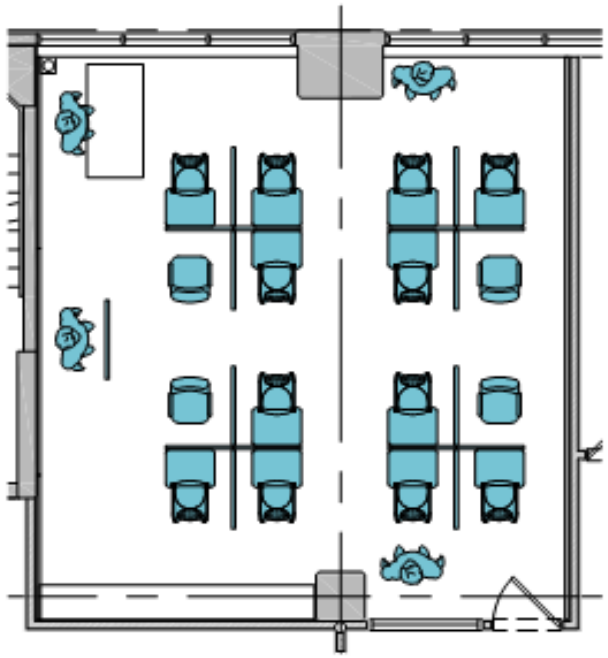
**FACING SAME DIRECTION**
18 STUDENTS
2 TEACHERS
4 PARAPROFESSIONALS

# PHYSICAL DIVIDERS



**SMALL GROUPS**
16 STUDENTS
2 TEACHERS
6 PARAPROFESSIONALS

# PHYSICAL DIVIDERS



**SPECIAL NEEDS**
12 STUDENTS
2 TEACHERS
6 PARAPROFESSIONALS

AIDES USE PLEXIGLASS BARRIERS
WITH TRANSACTION WINDOW TO
INTERACT WITH STUDENTS

# OTHER STRATEGIES

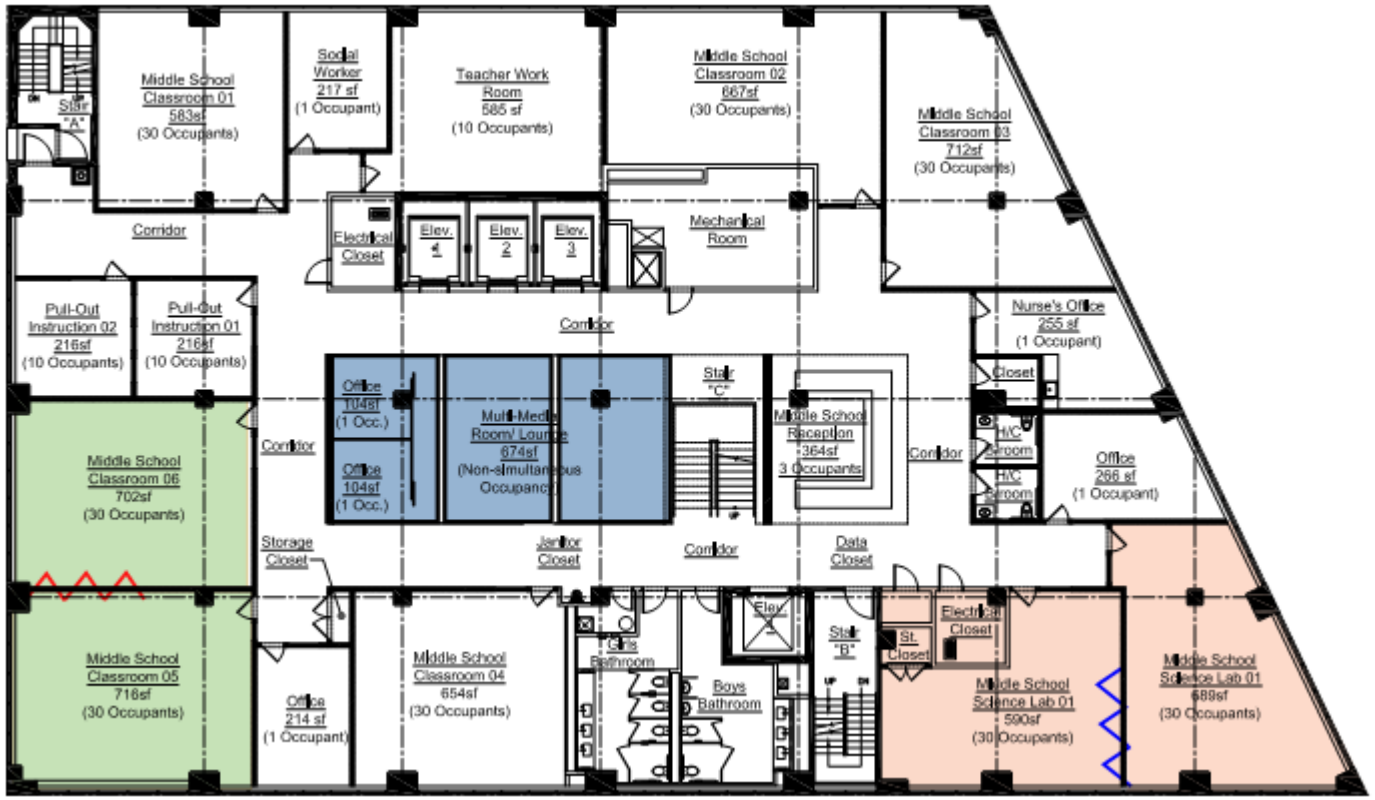
**EDUCATIONAL SPACES**
- Avoid use of shared supplies
- Provide hand sanitizer and cleaning wipes adjacent to shared equipment and copiers

**DOOR SOLUTIONS**
- Add hand sanitizer stations next to doors
- Use smart building technologies for door lock controls
- Install foot controls for doors

**RESTROOMS**
- Install sensor-operated hands-free technology at faucets & flushometers in restrooms
- Tape off alternate lavatory & urinal to facilitate social distancing
- Increase frequency of cleaning and disinfecting surfaces
- Modify drinking fountains into bottle fillers

**AIR QUALITY**
- Increase ventilation by opening windows
- Sanitize ducts
- Replace existing HVAC air filters with MERV 13 filters
- Change HVAC filters frequently
- Maintain humidity between 40-60%

**SIGNAGE**
- Colored tape on floors to demarcate various furniture Layouts
- Demarcate circulation patterns




**CREATE FLEXIBILITY** for class sizes or activities with movable acoustic and whiteboard walls

**ENCLOSE CENTER FISHBOWL AREA** to create more pull-out and therapy rooms

**COMBINE LABS** with movable acoustic and whiteboard walls to accommodate more students per session

# STRATEGIES IN PRACTICE

DENMARK

*Jens Kristian Vang/EPA-EFE/Shutterstock*

SOUTH KOREA

*Yonhap/EPA-EFE/Shutterstock*

THAILAND

*Gemunu Amarasinghe/AP*

TAIPEI

*Ann Wang / Reuters*

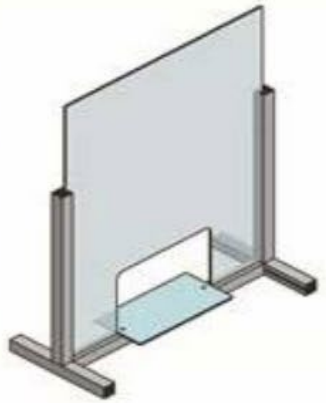
HONG KONG

*Jerome Favre/EPA/Bloomberg News*

DENMARK

*Thibault Savary/AFP/Getty Images*

# EQUIPMENT EXAMPLES



# PBDW ARCHITECTS

## Ideas from Gensler

Gensler

# HIGH SCHOOL SUMMARY

## CLASSROOMS

WHAT IS A SETUP FOR EACH ROOM SIZE AND TYPE THAT FOLLOWS SOCIAL DISTANCING AND SUPPORTS INSTRUCTION FOR GENERAL EDUCATION AND SPECIAL NEEDS STUDENTS?

## CIRCULATION

HOW CAN WE REDUCE THE NUMBER OF STUDENT CONTACTS WITHIN THE HALLWAYS AND STAIRWELLS?

## HYGIENE

HOW CAN DESIGN PROVIDE FOR AND PROMOTE STUDENT HYGIENE?

# 3RD FLOOR


**(9) SGI/CLASSROOMS**
6-9 STUDENT CAPACITY

**(1) SCI LAB**
6 STUDENT CAPACITY

**(3) SPECIALIST ROOMS**
2-4 STUDENT CAPACITY

**(2) SPECIALIST ROOMS**
1 STUDENT CAPACITY

*CAPACITY OF STUDENT & PARA PAIRS TBD ON INDIVIDUAL ROOM BASIS

- TEACHER
- ASSISTANT OR PARAPROFESSIONAL
- STUDENT
- EX. MAIN WALL
- 6'-0" MARKERS
- TEMPERATURE CHECK AT ARRIVAL
- HANDWASH/ HYGIENE STATION

THIS MATERIAL IS INTENDED SOLELY TO PROVIDE IDEAS OR OPTIONS FOR FURTHER CONSIDERATION AND IDEATION. CLIENT SHOULD MAKE DECISIONS RELATED TO YOUR BUSINESS CONTINUITY OR PREPARATION PLANS IN COLLABORATION WITH EXPERTS IN PUBLIC HEALTH AND SAFETY. SEE CURRENT CDC GUIDELINES WWW.CDC.GOV/CORONAVIRUS/2019-NCOV/COMMUNITY/

# 4TH FLOOR

**(8) SGI/CLASSROOMS**
6-9 STUDENT CAPACITY

**(2) SCI LAB**
6 STUDENT CAPACITY

**(2) SPECIALIST ROOMS**
2-4 STUDENT CAPACITY

**(1) SPECIALIST ROOM**
1 STUDENT CAPACITY

*CAPACITY OF STUDENT & PARA PAIRS TBD ON INDIVIDUAL ROOM BASIS


TEACHER

ASSISTANT OR PARAPROFESSIONAL

STUDENT

EX. MAIN WALL

6'-0" MARKERS

TEMPERATURE CHECK AT ARRIVAL

HANDWASH/ HYGIENE STATION

# 5TH FLOOR


**(4) SGI/CLASSROOMS**
6-8 STUDENT CAPACITY

**(2) SCI LAB**
6 STUDENT CAPACITY

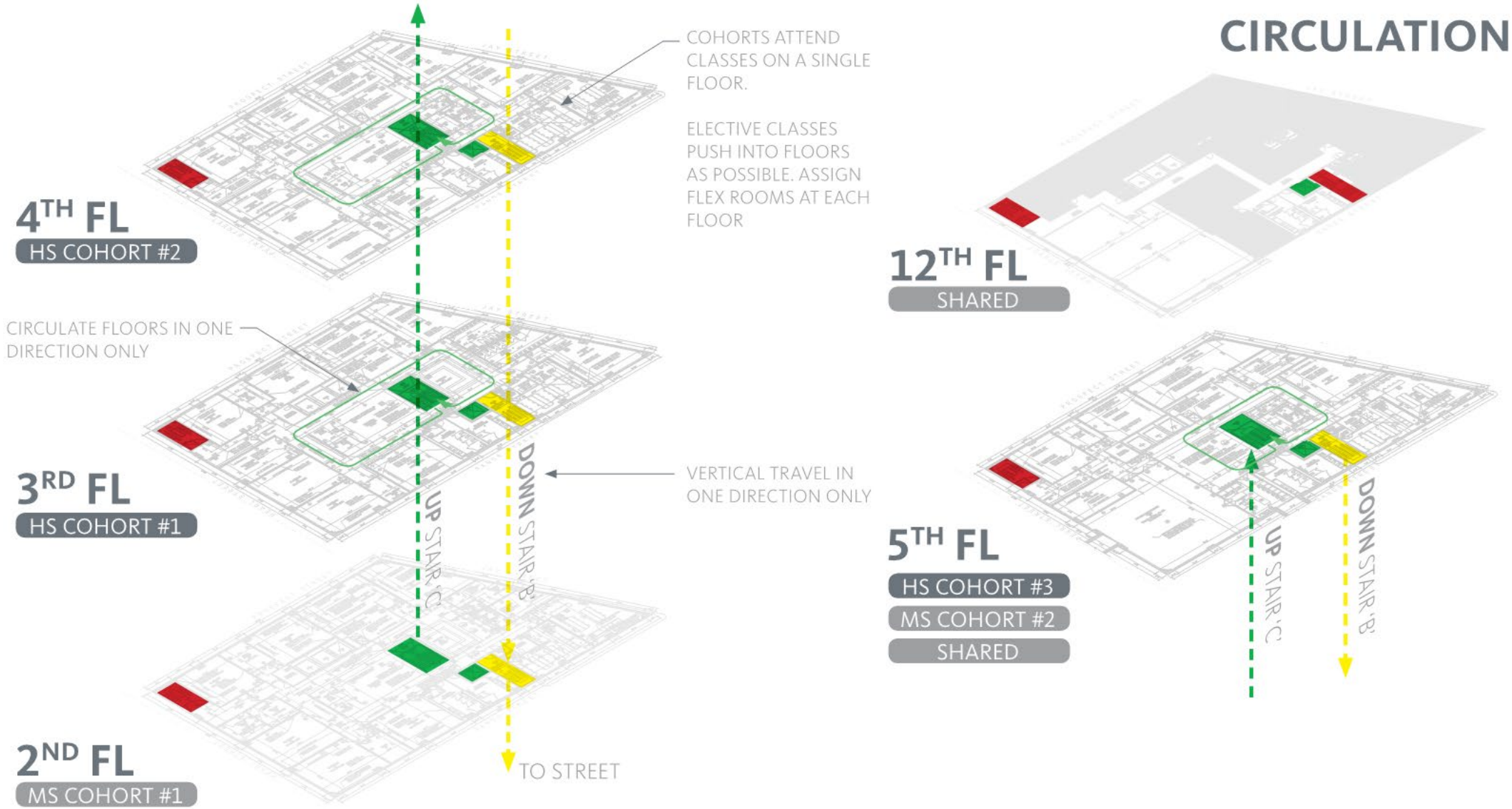
**(2) SPECIALIST ROOMS**
2-5 STUDENT CAPACITY

**MOVEMENT ROOM AND CAFETERIA FLEXIBLE FOR MULTIPLE SCENARIOS**

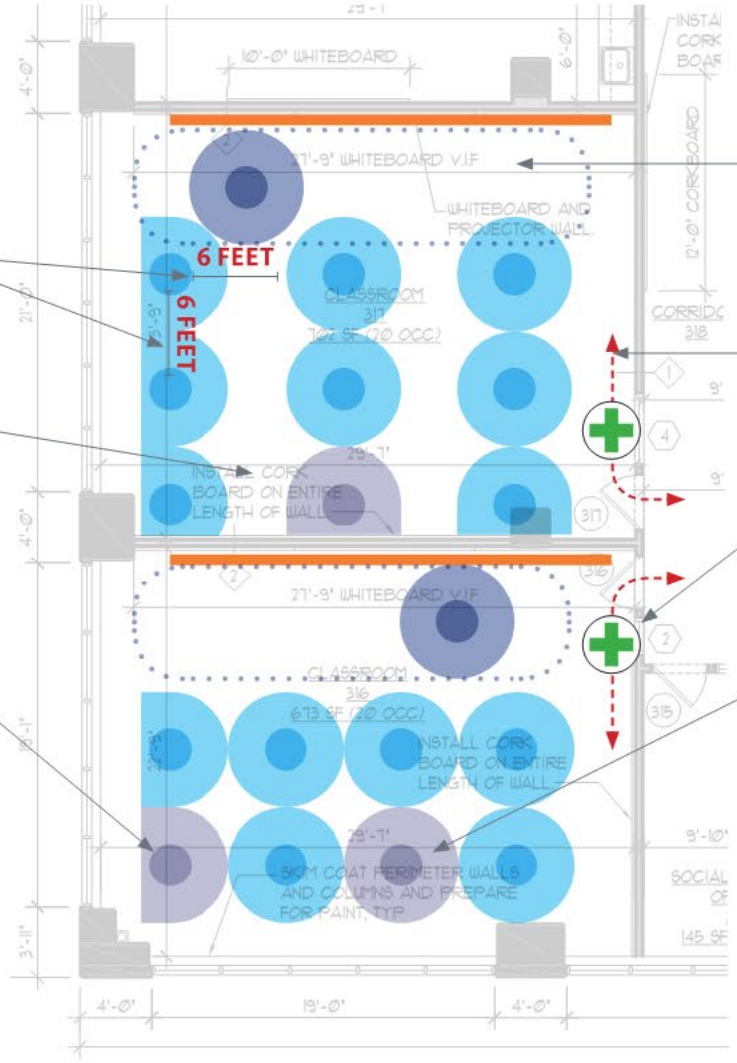
*CAPACITY OF STUDENT & PARA PAIRS TBD ON INDIVIDUAL ROOM BASIS

- TEACHER
- ASSISTANT OR PARAPROFESSIONAL
- STUDENT
- EX. MAIN WALL
- 6'-0" MARKERS
- TEMPERATURE CHECK AT ARRIVAL
- HANDWASH/ HYGIENE STATION

# CIRCULATION



# CLASSROOMS




**APPROXIMATELY 6 FT. CLEAR BETWEEN STUDENTS AND TEACHERS**

ADDITIONAL SPACE AT AISLES FOR TEACHER MOVEMENT

**PARAPROFESSIONALS**
CLASSROOM CAPACITY MUST BE FLEXIBLE TO ALLOW FOR STUDENT + PARA SEATING ARRANGEMENTS BASED ON INDIVIDUAL STUDENT NEEDS

*SEAT COUNT REDUCED IF PARA IN CLASSROOM

**TEACHING ZONE**
MAINTAIN AREA AT EXISTING MAIN WHITEBOARD FOR TEACHER ZONE

**CIRCULATION**
MAINTAIN CIRCULATION AISLE

**HYGIENE STATION**
EACH ROOM CAN PROVIDE HYGIENE SUPPLIES AT ENTRY

**TEACHING ASSISTANTS**
IF SMALLER GROUPS REQUIRE AN ASSISTANT, A CENTRAL SEAT CAN BE USED TO PROVIDE INSTRUCTIONAL HELP

**SPECIALISTS**
FOLLOW PULL-OUT FORMAT. SMALLER ROOMS AND OFFICES CONTINUE TO FUNCTION AS SPECIALIST ROOMS FOR INDIVIDUALS AND SMALL GROUPS

**LOCKERS**
BACKPACKS AND PERSONAL ITEMS CAN BE KEPT WITH STUDENTS. LOCKERS CAN BE ASSIGNED ADJACENT TO HOME ROOMS WITH EMPTY LOCKERS BETWEEN OR STAGGERED ACCESS TIMES

# Next Steps

# FROM IDEAS TO IMPLEMENTATION

**The ideas outlined in this document are the steps to reopening. The actions summarized below describe the implementation process for the ideas.**

### Month One

- **Wide distribution of ideas: s**olicit feedback from all stakeholders, including teachers, students, families, and community members.
- **Generate Additional Ideas:** address needs like new or modified furnishings, mechanical system modifications (increased air flow), and plumbing additions/modifications (for handwashing).
- **Study Feasibility:** evaluate ideas based on regulatory, budget, and schedule constraints.

### Month Two

- **Confirmation of ideas:** to be implemented.
- **Project implementation plan:** developed including scope, budget, and schedule alignment.
- **Team engagement**: design and construction teams brought on board.
- **Mock-ups:** of selected ideas.

### Month Three

- **Construction and installation:** interior and exterior ideas implemented.

# HOW TO ENGAGE

**Our success and safety is tied to yours.** We are sharing our process and plan widely so that we can get input from as many people as possible, and so that our process can help inform yours. Here are various ways to engage with us and help give families and students the option to return to school safely this fall.

- Provide feedback through our survey.
- Register for a focus group conversation.
- Attend a webinar with the American Federation of Teachers, teachers and educators from Brooklyn LAB, and members of the design team.
- Share the V1 Back to School Toolkit with leaders in your school community, reviewing the relevance of questions and ideas developed in relation to the Brooklyn LAB facility to your own context.
- Reach out to offer input or propose ways that we might work together to move this agenda forward in communities around the country.