

POST-PANDEMIC MULTIFAMILY DESIGN

In March of 2020, everyone left their offices and went home without knowing how long they'd be there. For many of these people, "home" was many of the multifamily residential buildings that CBT designs.

Now the long-term, here-to-stay reality about shared living spaces and a new normal have emerged, design firms like ours are faced with a new set of imperatives that will permanently affect the way we design multifamily residences.



TIMELINE

We spoke with many of our clients in the multifamily sector and have gathered our research in this presentation.

To effectively plan for the future in our new situation, we need to examine it in phases.

Many of the immediate changes were responsive to a global crisis in stark and unsustainable ways to preserve everyone's health.

However, the longer-term picture looks to be much more promising. We have reflected, tested, and tested again many of the short-term solutions to understand which will be with us for a longer time.

At right and on each page that follows, we offer a guide to the new reality and project an eventual sociological shift that will stay with us. Along the way, we'll need to produce designs that are responsive to a quickly changing culture.

NOW/ IMMEDIATE

- · shut down
- · clean
- · socially isolate
- · locate and wear masks
- · seek filtered, fresh air
- · shop online
- · WFH full-time

UNTIL THE VACCINE

- · considered reopening
- · emphasis on cleanliness
- · socially distance
- · wear masks
- · focus on fresh air
- · increased deliveries
- · use new cooking skills
- · careful takeout
- · WFH almost full time

SOCIOLOGICAL CHANGES

- trying to redefine 'normal'
- · emphasis on cleanliness
- · improved fresh air
- · improved air filtration
- · increased home deliveries
- · perfect cooking skills
- WFH, two days per week and when ill or weather related

PEOPLE ARE WORKING FROM HOME



YOU STAY HOME IF:

- · you are mildly sick
- · it's a snow day
- · your train line is down
- · it's a heads-down day

BUILDINGS WILL NEED INCREASED:

- · bandwidth and upgrade/downgrade options
- · number of smaller, well-equipped rooms
- · unit flexibility



TRANSPORTATION



UNTIL THE VACCINE

SOCIOLOGICAL CHANGES

INCREASED USE OF PERSONAL TRANSPORTATION DEVICES

- · Bikes
- · Electric Bikes
- · Scooters
- · Vespas

"If you're living near work, you're going to find a new way to get there. Alternative transportation is the new normal. Buildings will need to provide more storage for bikes, scooters, electric vehicles. These modes of transportation are no longer leisure items, and building owners who understand this will have the preferred properties."



INDOOR AIR QUALITY

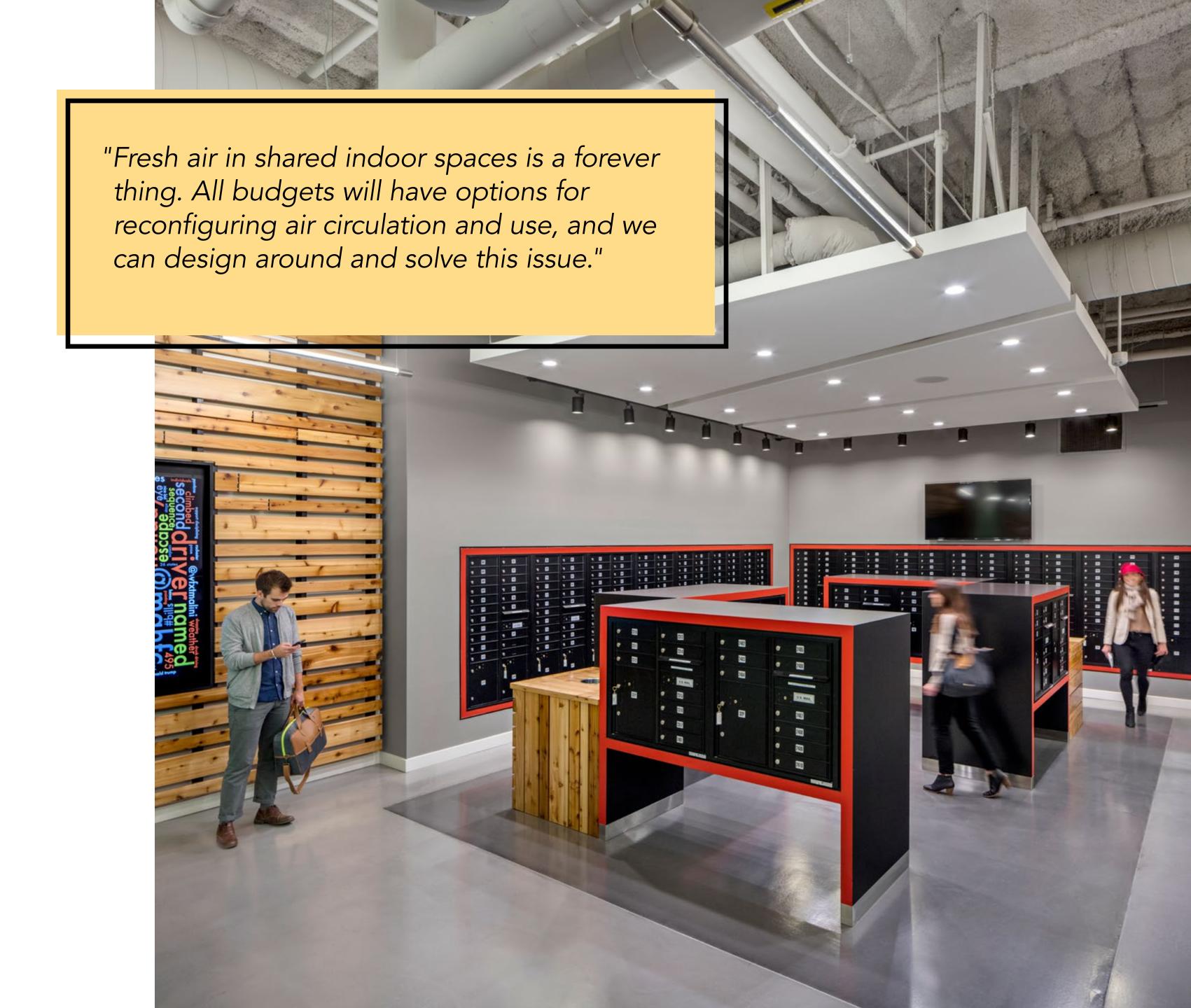


IMPROVED AIR FILTRATION

- · dedicated distribution
- · less mixing of spaces
- · more fresh air especially in shared spaces

TARGETED AREAS -

- · all shared amenity areas
- · package rooms
- · trash and recycling rooms



DELIVERY GUIDELINES



FEWER LOCKERS

· bigger package rooms

LOADING / DELIVERY / PACKAGE MANAGEMENT

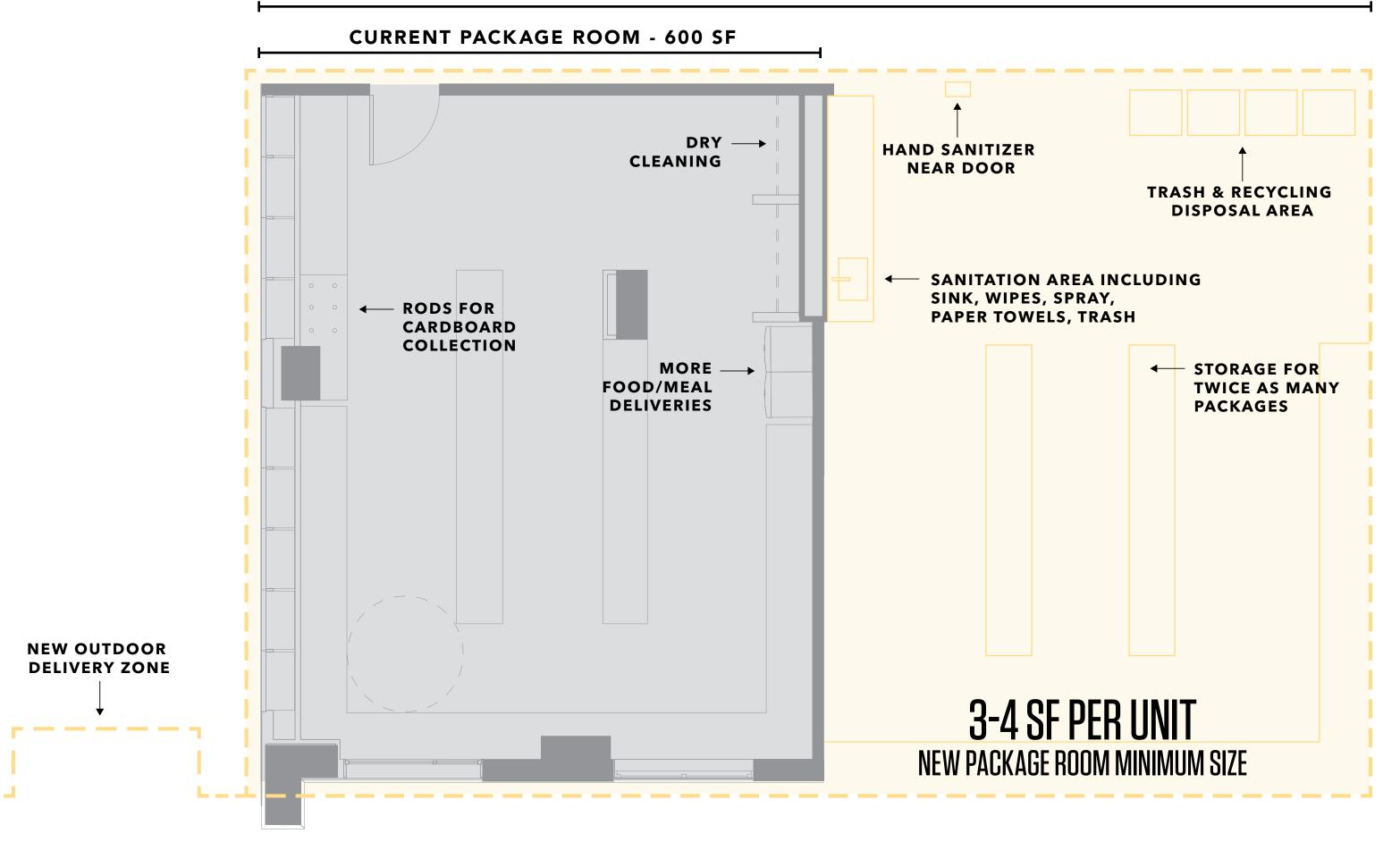
· full-time package/delivery concierge

UNPACKING IN THE PACKAGE ROOM

- · disposal area for cardboard recycling
- · adjacent to trash room/compactor
- · requires sanitation station

FOOD DELIVERIES

- · less interaction with food delivery driver
- · food delivery 50+ times per day



"We know that people are now getting more packages because they can't leave home, and they're letting them wait. Packages are no longer being opened in units – increasing needs for both space and management of trash, recycling, and deliveries."

FRONT DESK

NOW/

UNTIL THE VACCINE

SOCIOLOGICAI CHANGES

How do we make the concierge feel safe while still providing a welcoming experience for residents?

The role of a concierge is a hospitality profession. By isolating them from the residents, we're creating the opposite environment. We need concierges and residents to be able make human, welcoming connections that are safe without feeling antiseptic.



TOUCHLESS TECHNOLOGY



ENTRY

· must be touchless or will need wipes and trash at every door

SMART ACCESS CONTROL SYSTEMS

· Butterfly MX, Brivo, Proxy, and Openpath

PUBLIC RESTROOMS

· as touchless as possible: doors, faucet, soap, toilet, lights

SWITCHES

· touchless/wave/motion activated switch

ELEVATOR

- · accessed by smartphone
- · voice-activated controls

EMERGING TECHNOLOGIES

- · gesture recognition (Samsung smart TV)
- · biometric tech (face recognition, eye scan)



AMENITY POWDER ROOMS



EVERYTHING TOUCHLESS

- · toilet and lid
- · faucet
- · soap dispenser
- · hand sanitizer
- · new door hardware solution

WAVE TO OPEN CONTROLS

- · American Chute easy-wave pneumatic interlock system for trash
- · fully automatic
- · ADA compliant
- wave hand to initiate the door to open/close

"Shared restrooms are a problem right now, and making sure that they are beautiful while solving today's problem is important. It's critical that restrooms maintain the level of sophistication of the rest of our building spaces."



SANITATION & DENSITY ANALYTICS



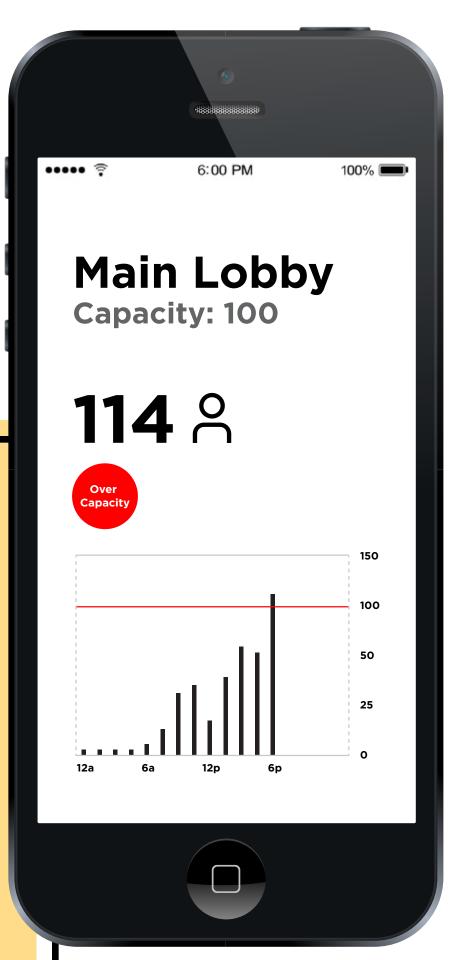
CLEANING PROTOCOLS

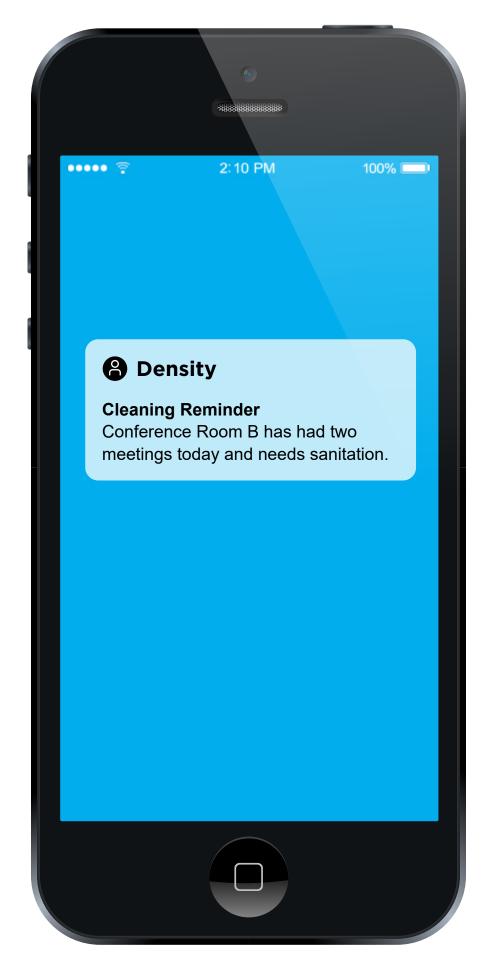
- · increased scheduled cleanings = increased maintenance costs
- · increased transparency

ANALYTICS

- · real-time occupancy data
- · last time cleaned
- · foot-traffic analytics
- · space utilization analytics
- · save \$ avoid over-staffing by matching operations to expected visits

"Everyone is cleaning and the desire for cleanliness is going to stay with us. What we're finding helpful is the use of data analytics. This helps the building staff to focus efforts toward resident usage, and reassures building staff and residents that the spaces are safe and clean."





USABLE STAIRS

NOW/

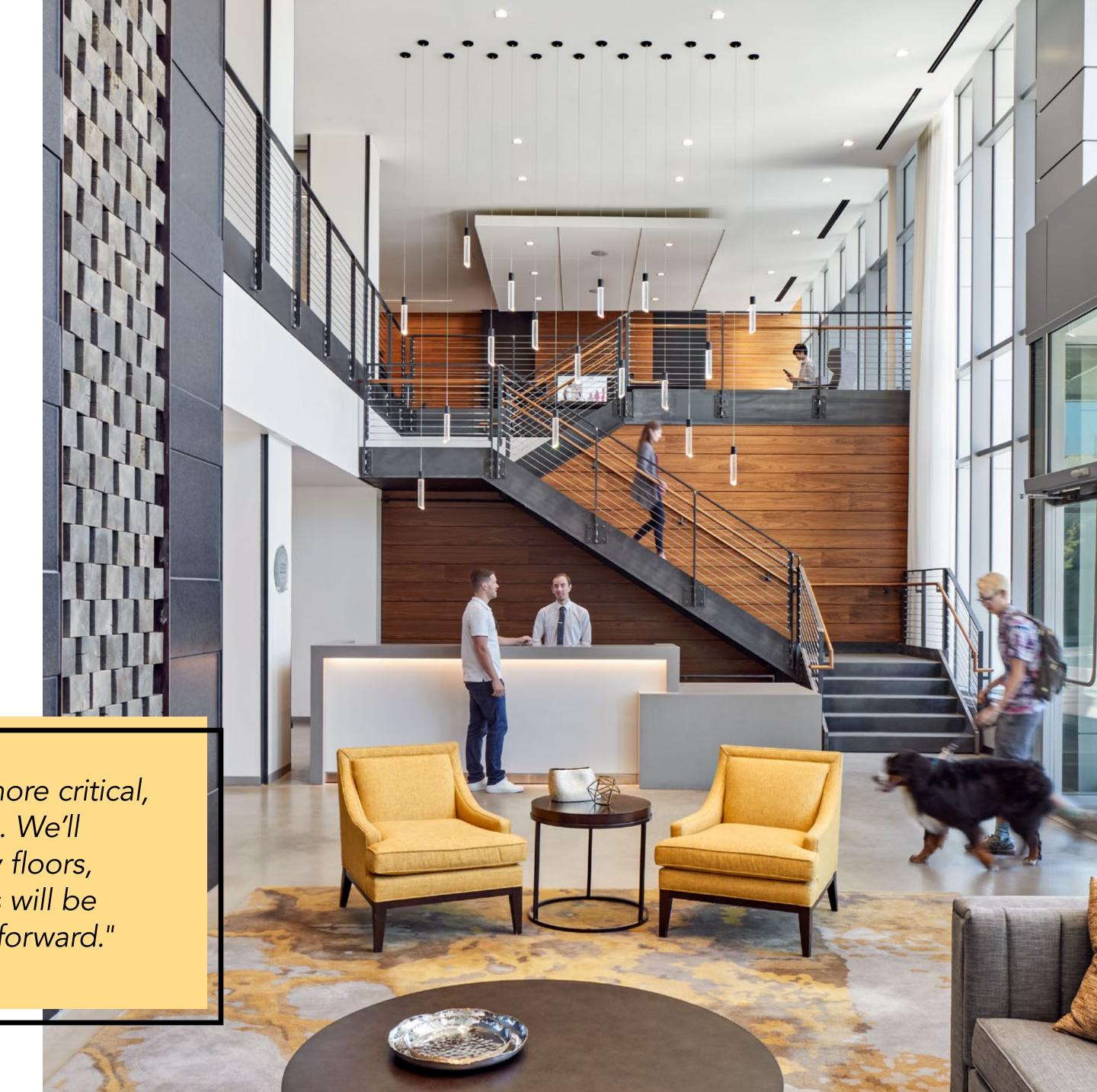
UNTIL THE VACCINE

SOCIOLOGICAL CHANGES

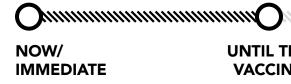
RESIDENT EXPERIENCE

- · more frequent use of stairs
- · improved design
- · connector between amenities and lower-level units
- · wider stairs on lower levels
- · connections between amenity floors

"Wider stairs for distancing will be more critical, and will be sought out by residents. We'll see more stairs connecting amenity floors, and the back-of-house egress stairs will be designed to a higher level moving forward."



FITNESS SPACES



UNTIL THE VACCINE



PODS

- · cleanliness upgrade
- · scheduled and fully sanitized between uses
- · customized solution

CLASSES

- · flexibility
- · rent equipment
- · virtual classes from unit

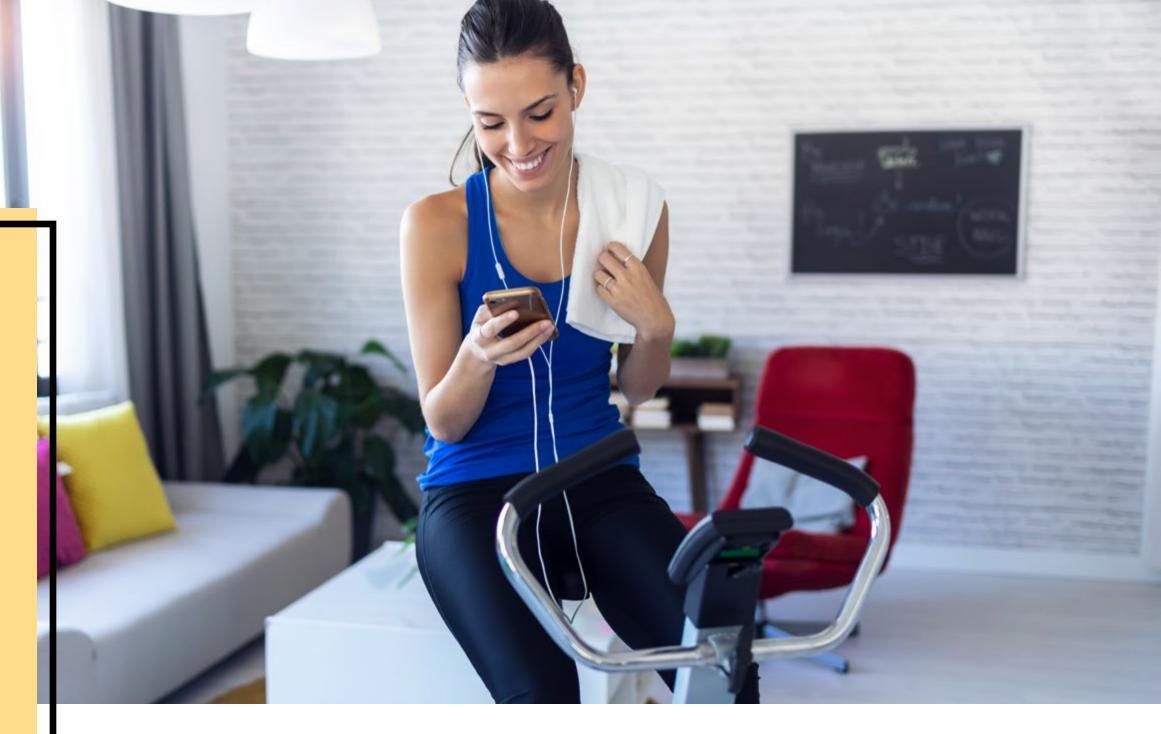
OUTDOOR

- · fresh air
- · variety

UNIT

- · mirror technology
- · workout wall/zone

"You don't have to go to the gym to work out. You can rent weights, a stationary bike, or other equipment for short- or longterm use in-unit."





OUTDOOR SPACES



MORE EMPHASIS ON OUTDOOR SPACES

- · more individual spaces vs. group gatherings
- · controlled paths of travel & access points
- · access from amenities
- · access from all units



PRIVATE OUTDOOR SPACES

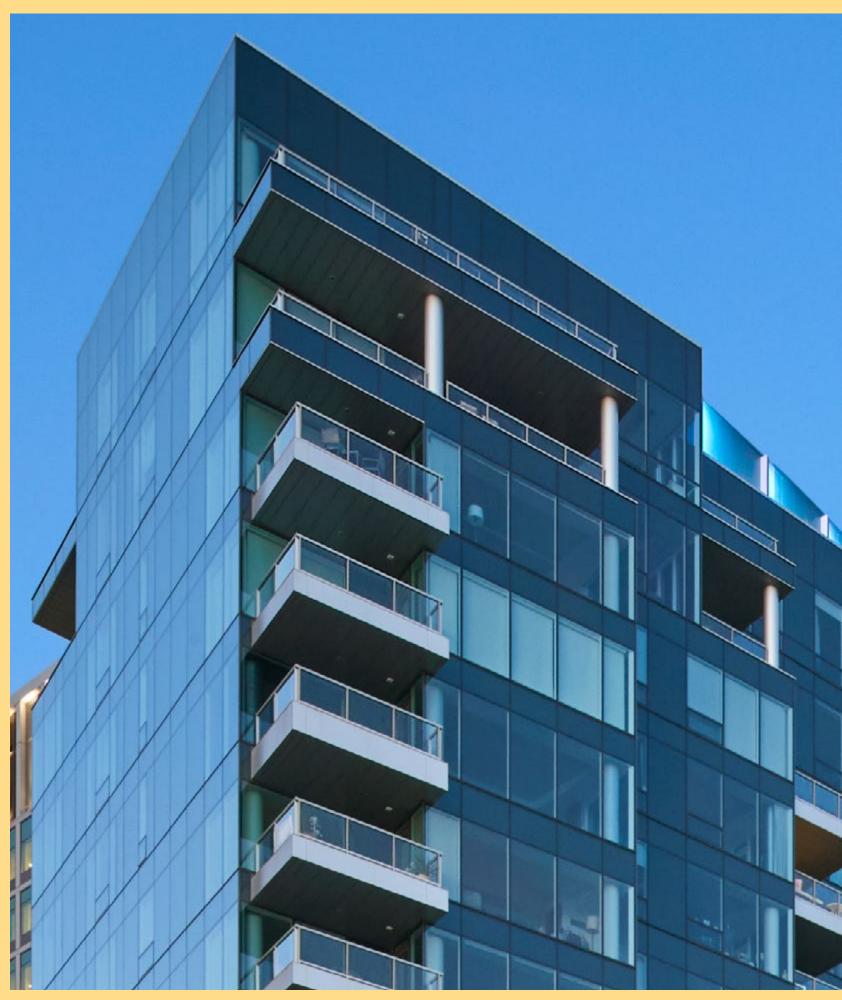


ACCESS TO FRESH AIR FROM UNIT

- · balconies
- · Juliet balconies
- · terraces
- · indoor/outdoor zones



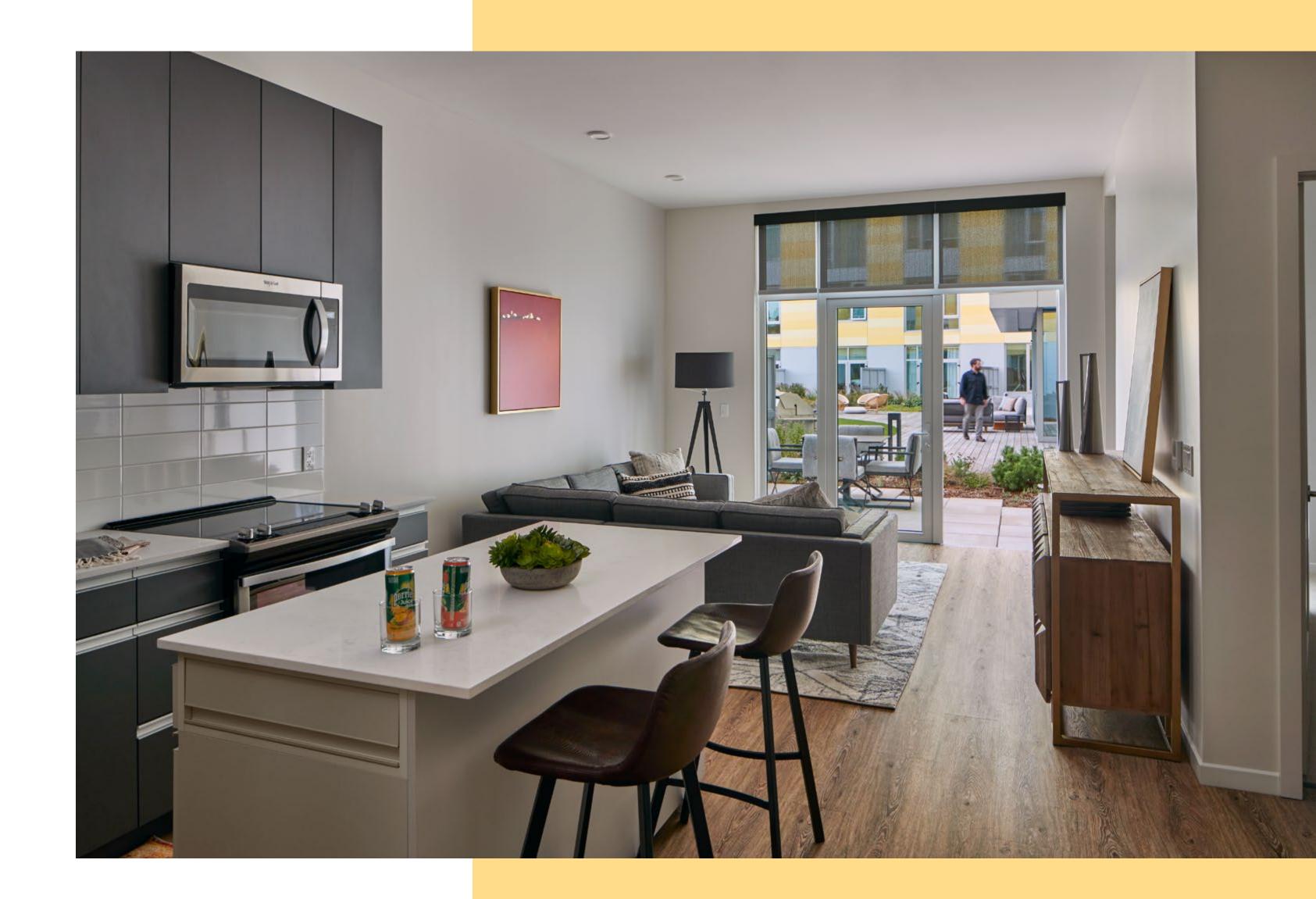






SPACE PLANNING CONSIDERATIONS

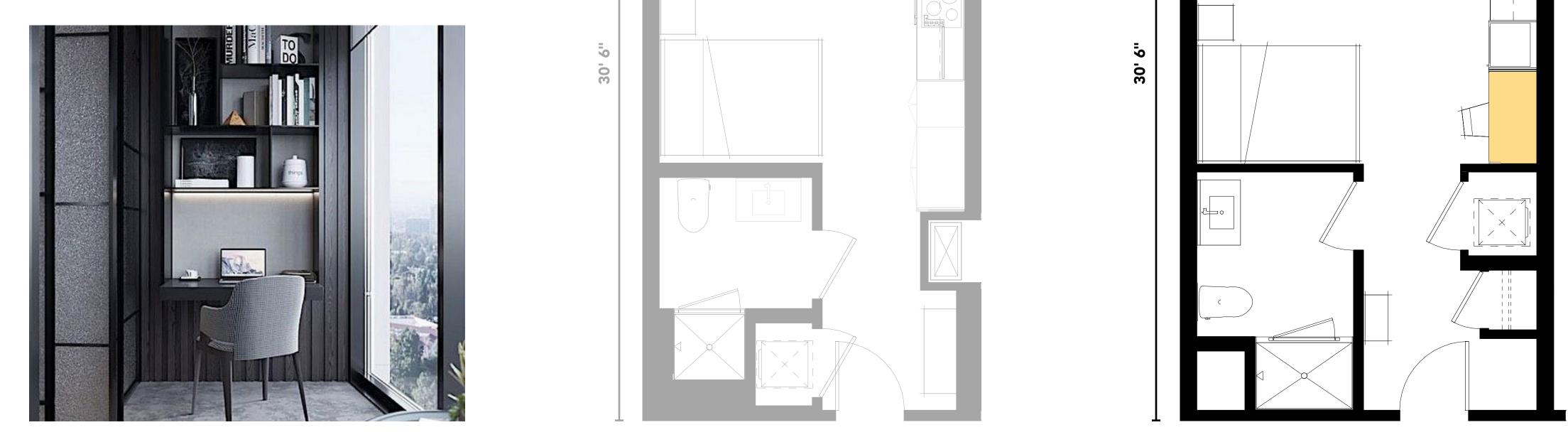
- · cooking = kitchen storage
- · WFH = home office setup
- · efficient, multi-purpose space for WFH
- · fresh air = access to outdoors
- · return of the mudroom zone to leave dirt at the door



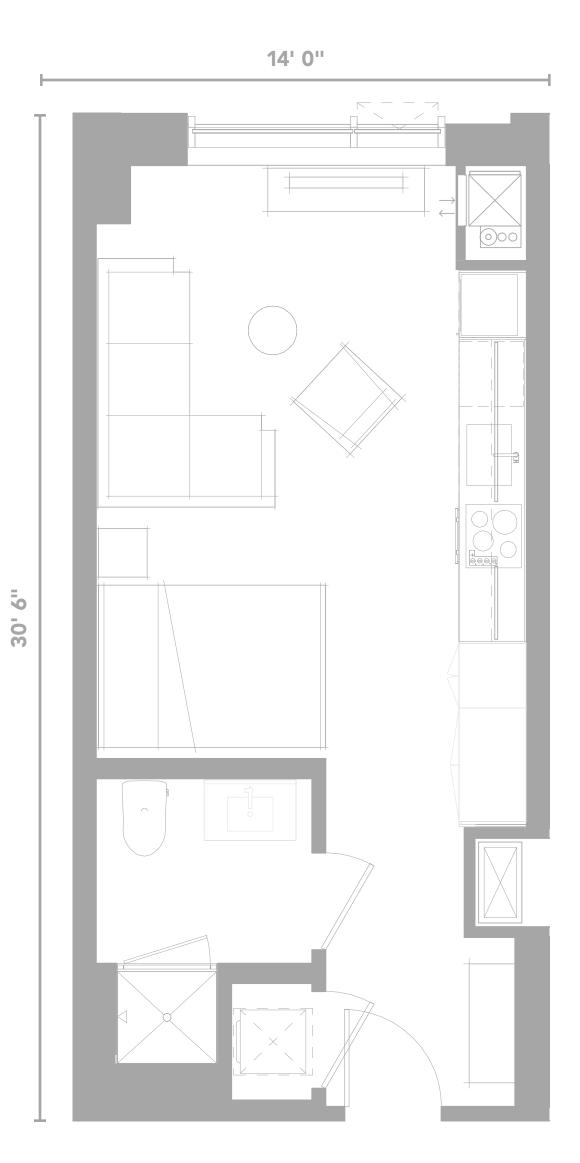


STUDIO: OPTION 1-1' 6" WIDER

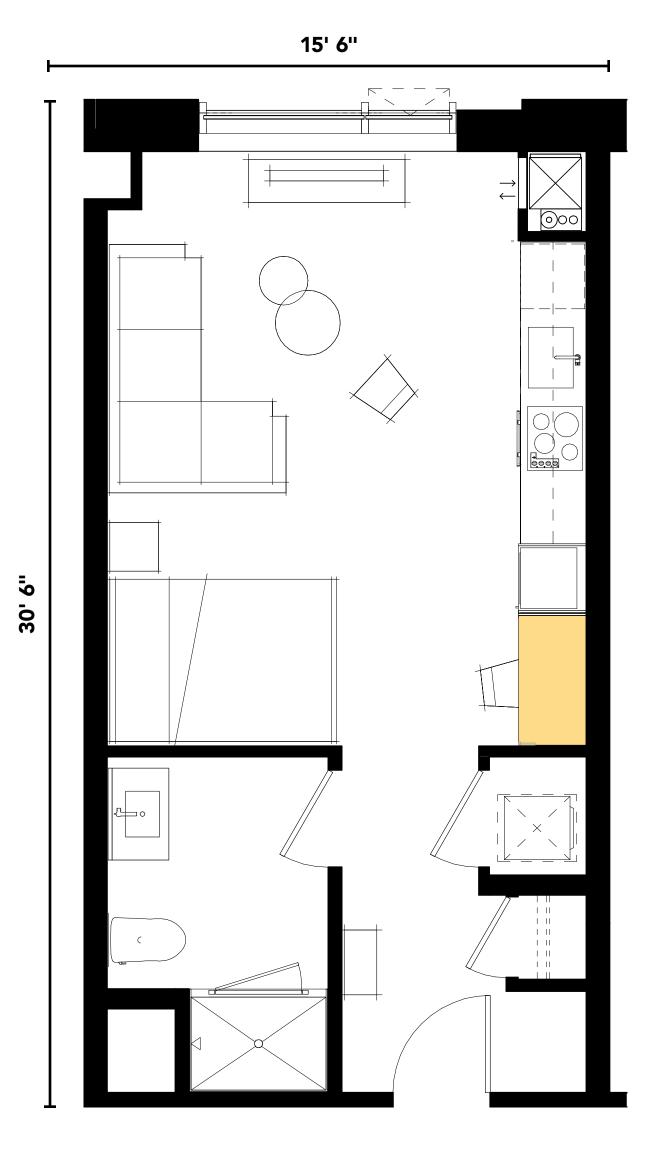
The new version of this studio unit increases by just 45 square feet, but it adds more livability and incorporates a WFH station.



Studio: Original layout 427 sq ft



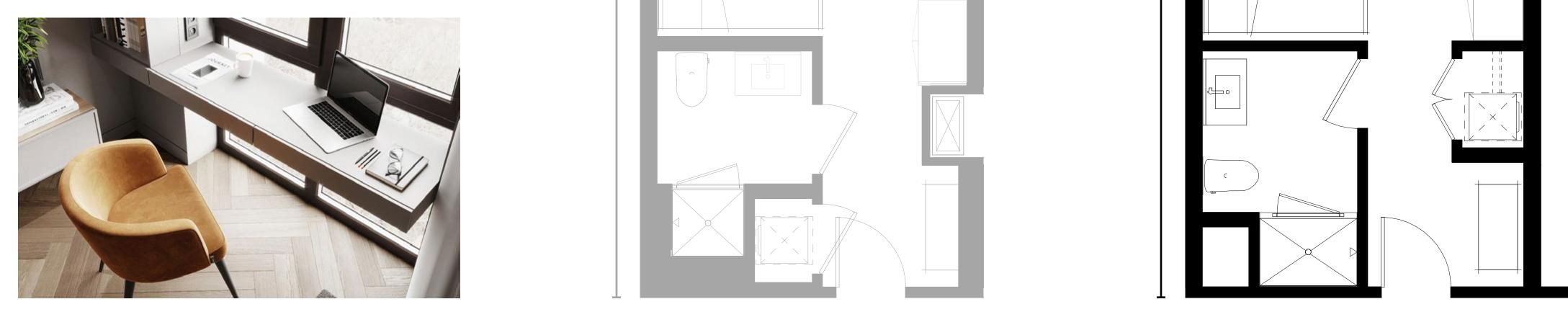
Studio: Open plan with WFH alcove desk 472 sq ft



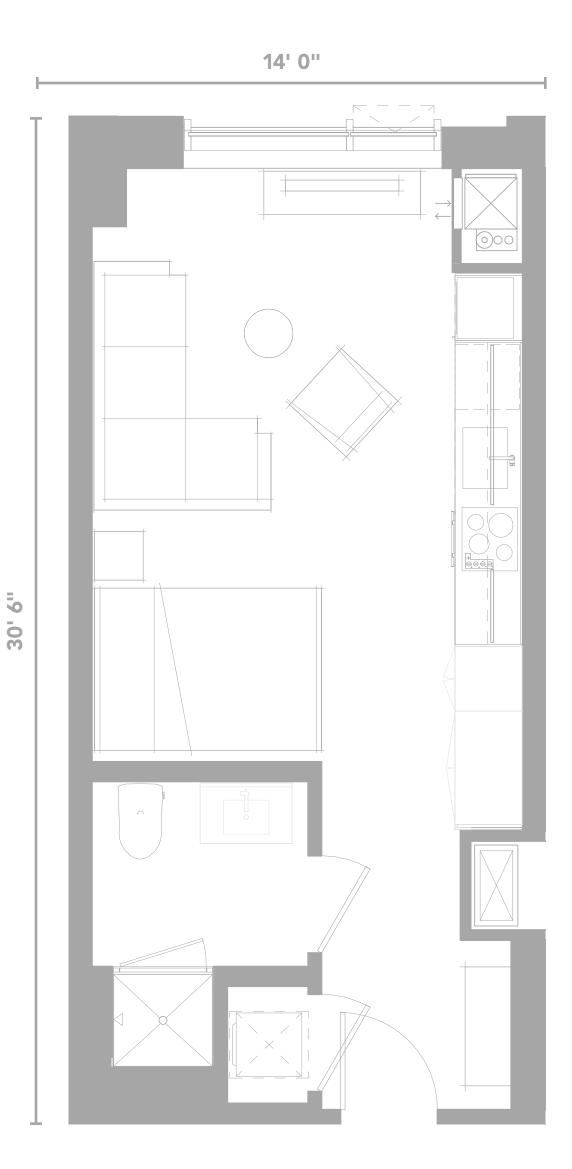


STUDIO: OPTION 2 - 0' 6" WIDER

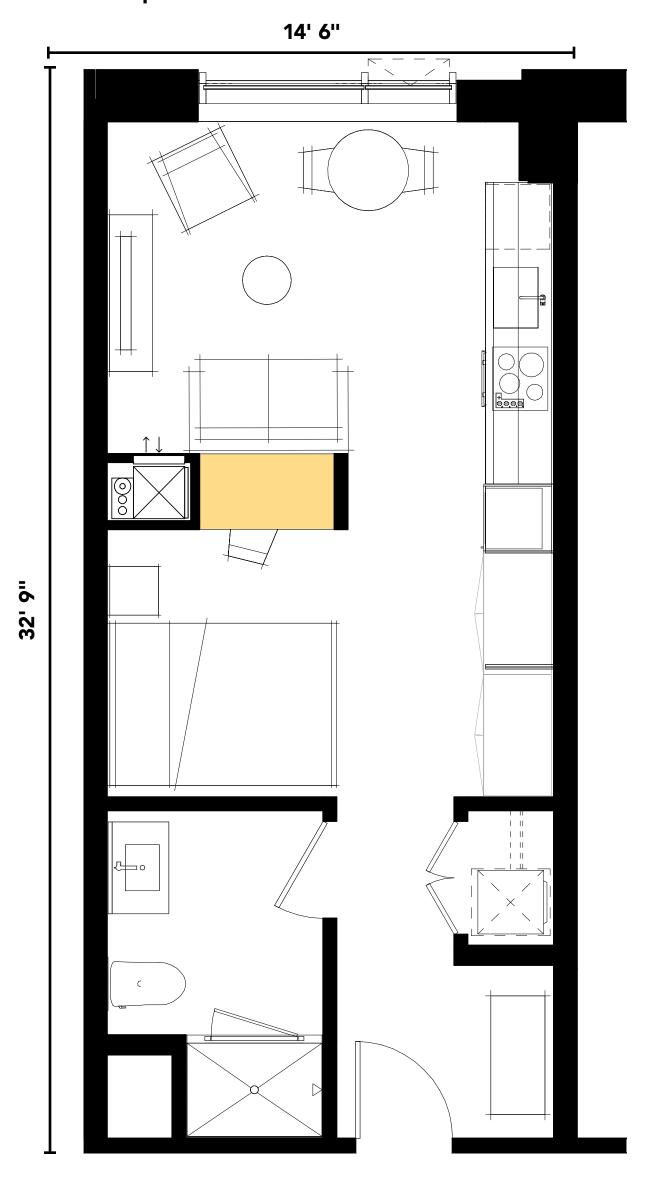
With this redesign, the layout puts a WFH station as a divider between the living space and sleeping space, but positions it so you get a view out during the day. We know if you're in one position for several hours a day, this is a huge benefit. The layout, while adding just under 50 feet of space, can also accommodate more than one person in a far more comfortable setup — and you keep a dedicated dining area.



Studio: Original layout 427 sq ft



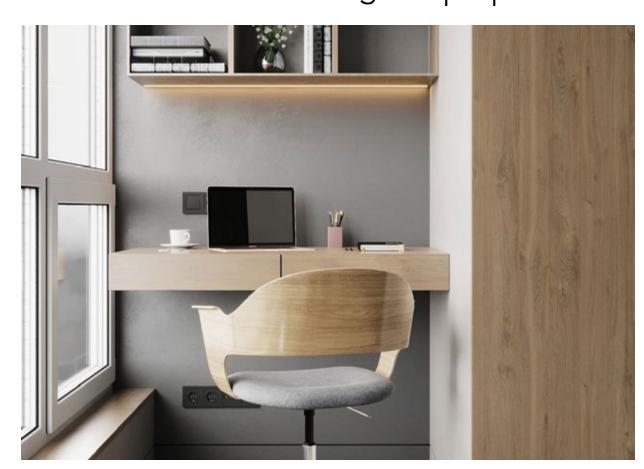
Studio: Zoned with WFH alcove desk divider 474 sq ft





ONE BED: OPTION 1 - SAME SIZE

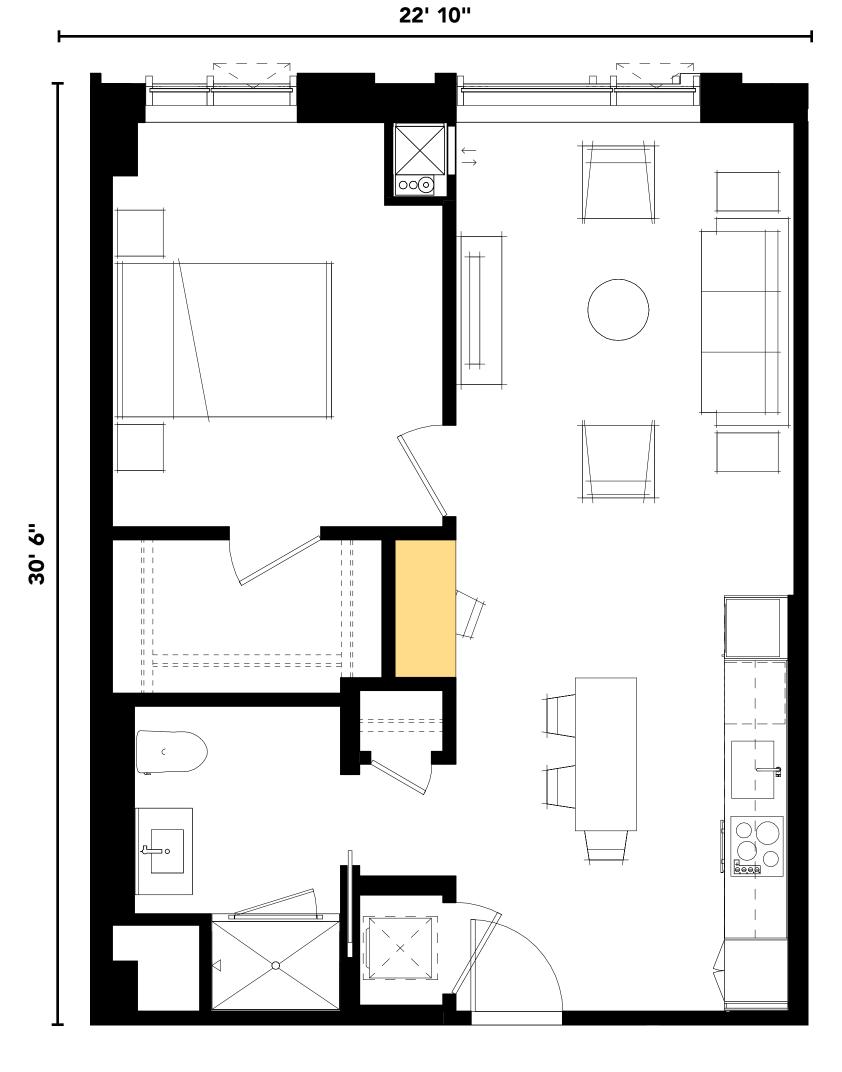
With this modification to the unit, you have the exact same amount of space, but we give you a WFH station in the kitchen area. The unit is essentially the same, but you don't have to transfer your workstation as you go through your day (especially if you share the space with someone else). If you're not working from home, you can use it as a bar or other storage or purpose.



One Bed: Original layout 696 sq ft



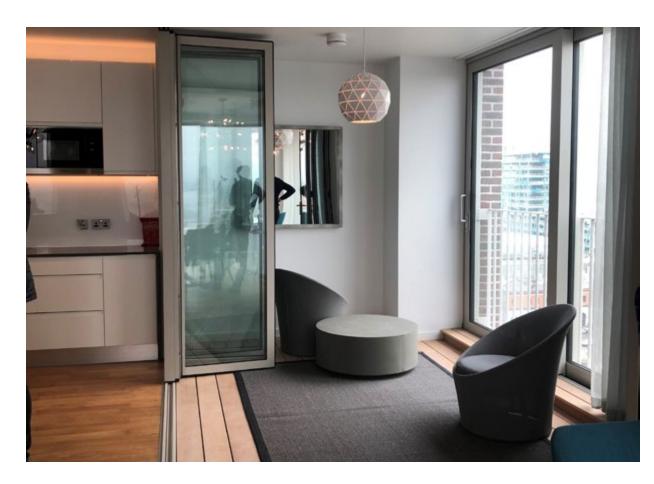
One Bed: WFH alcove desk and walk-in closet 696 sq ft





ONE BED+: OPTION 2 - 2' 6" DEEPER

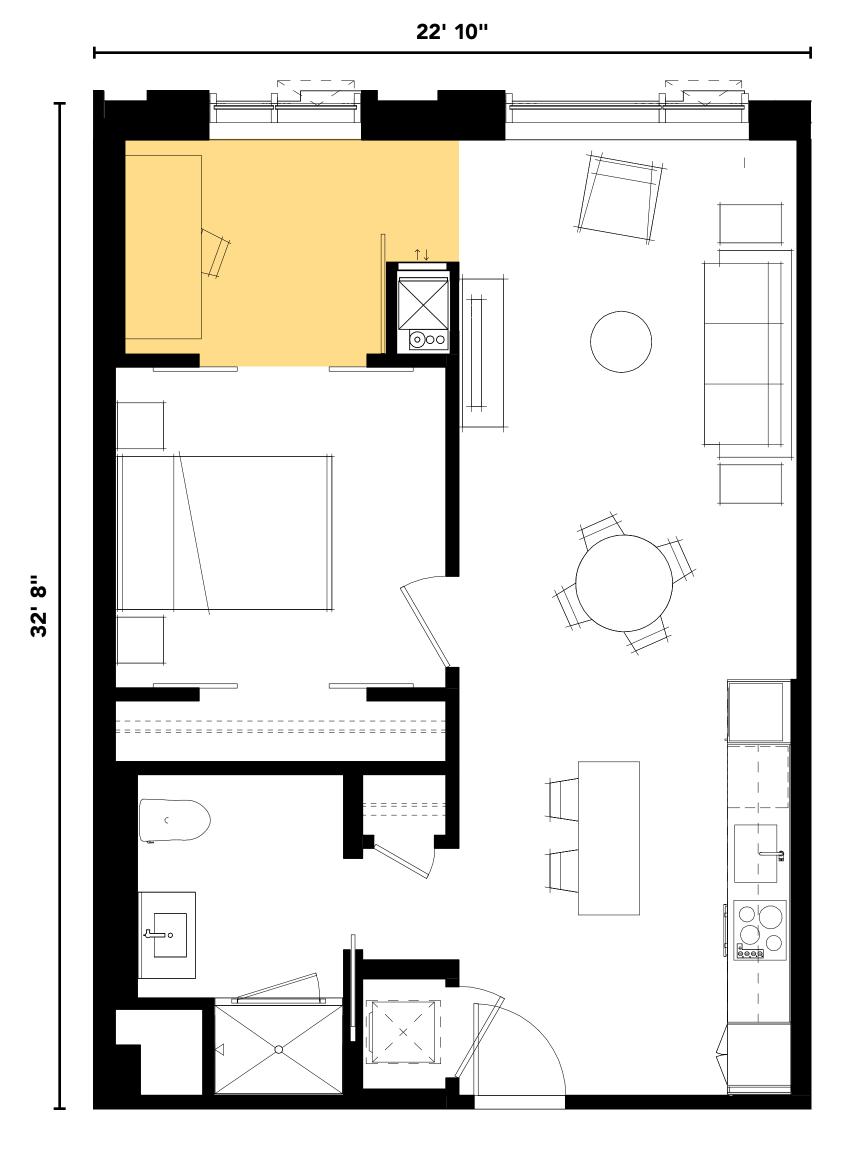
For 745 square feet, without having to build an entire den, you get a mini-den at the window line. It's open to the living room when you want it to be, but acoustically and physically separated when you need it to be. The bedroom, while moved somewhat away from the window, allows for maximum daylight while working and access to the view if desired.



One Bed: Original layout 696 sq ft



One Bed Plus: Flexible WFH study 745 sq ft

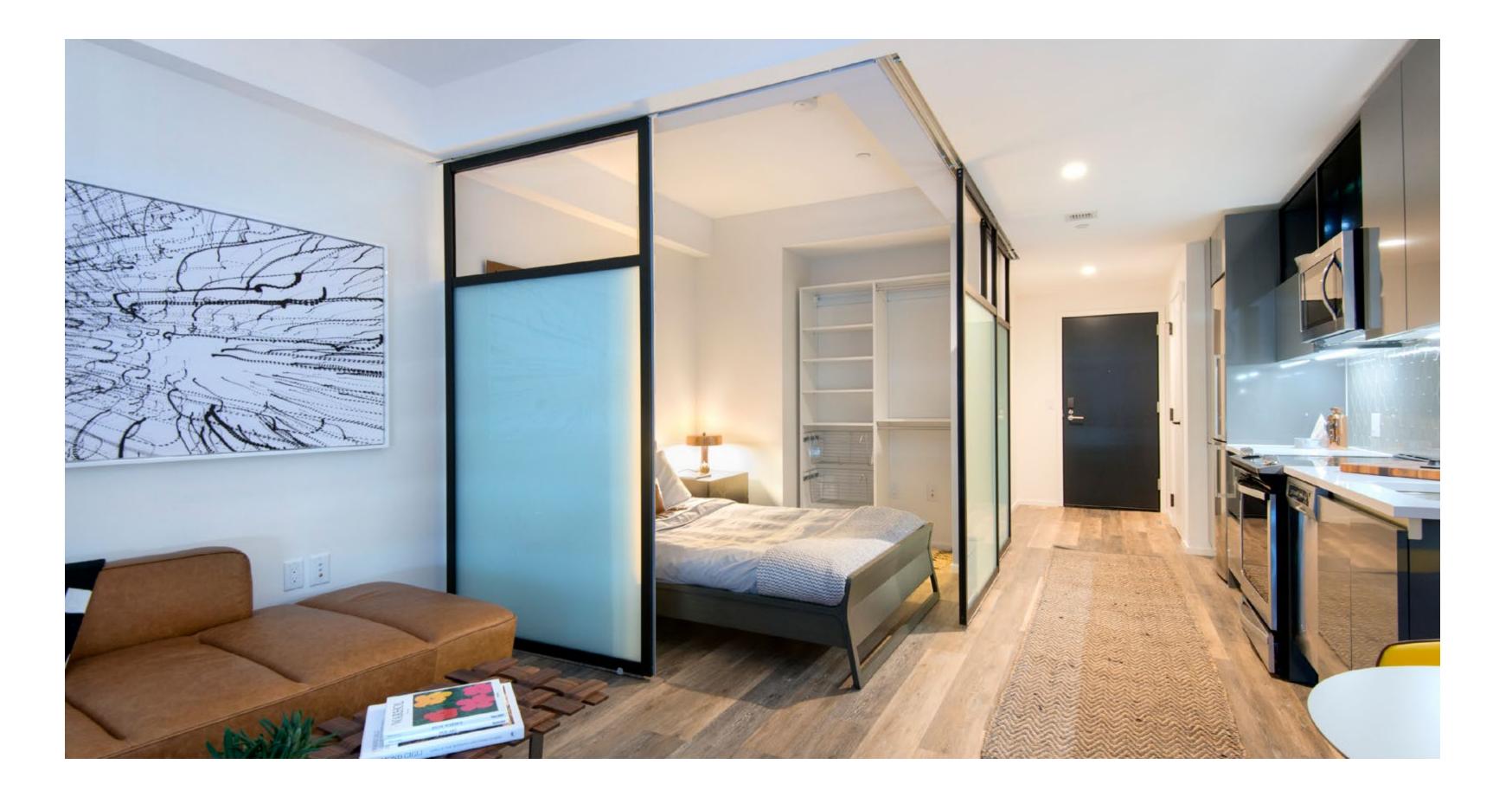


PROJECT APPLICATION EXAMPLES



WFH UNITS

Residents need to see the flexibility of the unit. Having lived through this pandemic every renter now feels the need certain elements – WFH, dedicated spaces. Buildings that show this flexibility without paying for a larger unit is a competitive advantage



P.A.E.





WFH - 2 People

GIRO

CLEI

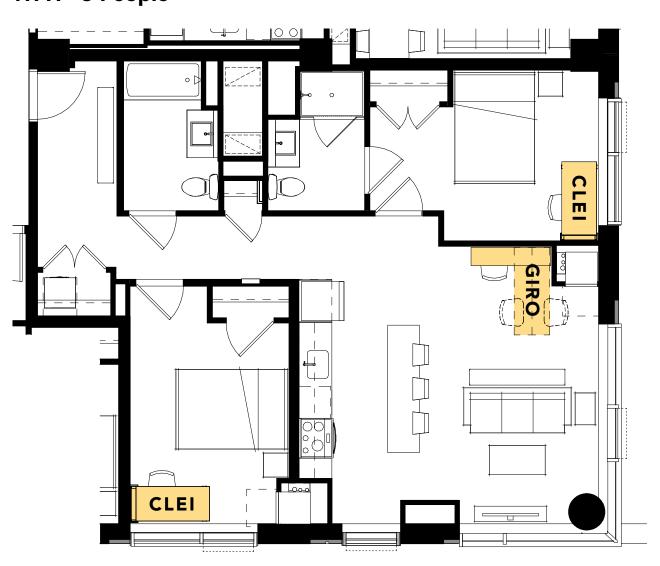
P.A.E.



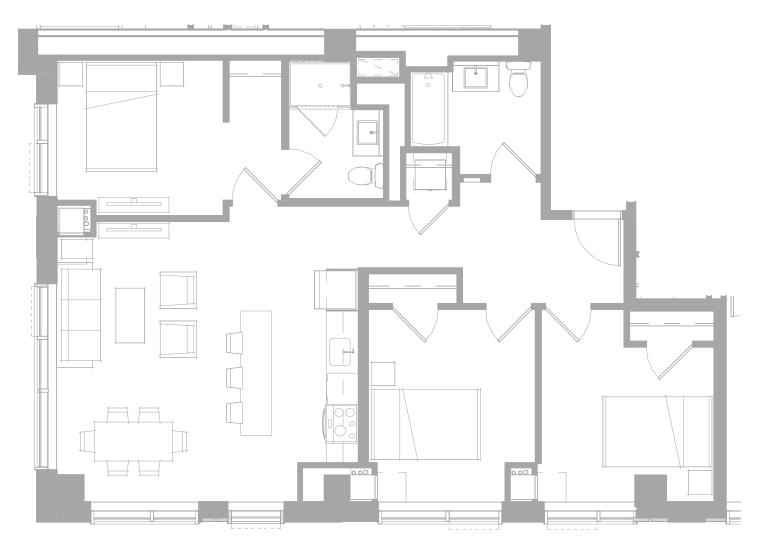
Original Plan



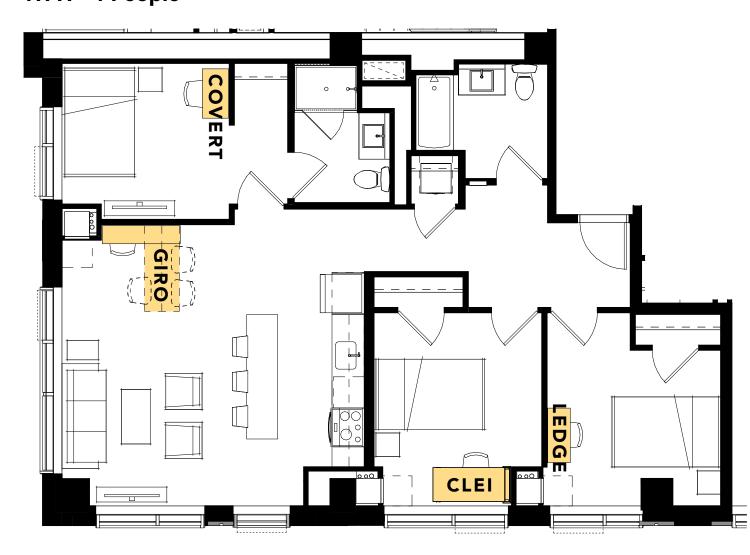
WFH - 3 People



Original Plan



WFH - 4 People



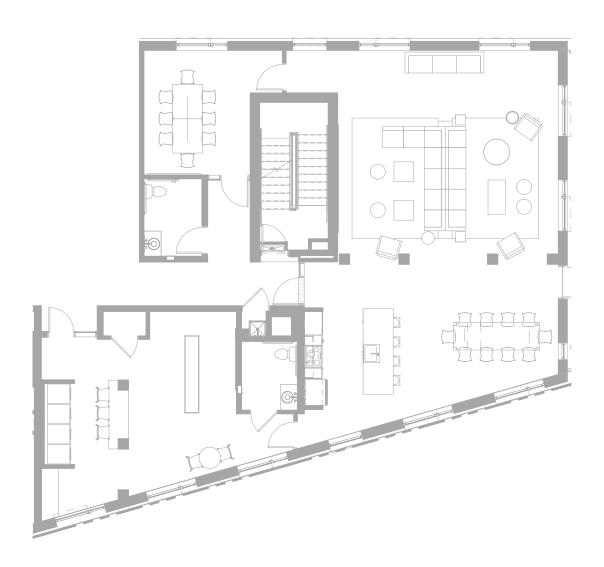
P.A.E.



WFH AMENITIES

Additional spaces to allow access to a variety of WFH options – to get out of your unit for a few hours a day or week will be under more pressure and a competitive advantage. These rooms should be larger than a touchdown space to support 4-8 hours of continuous use. They should have great video conferencing and online presentation systems.

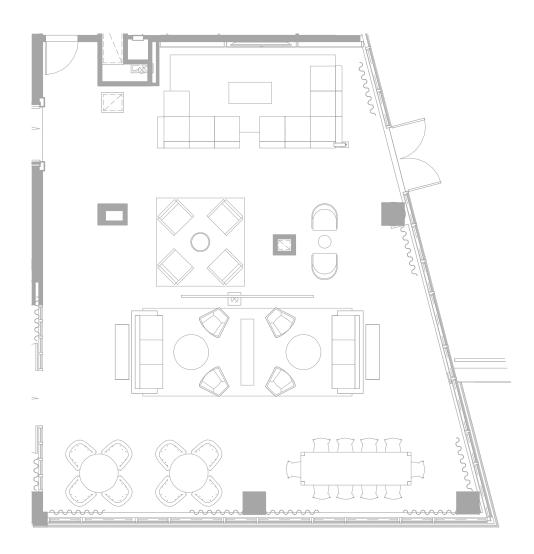
Original Plan



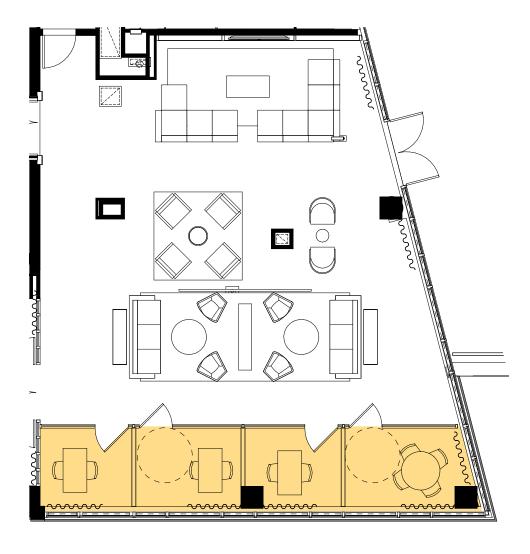
2 WFH Offices



Original Plan



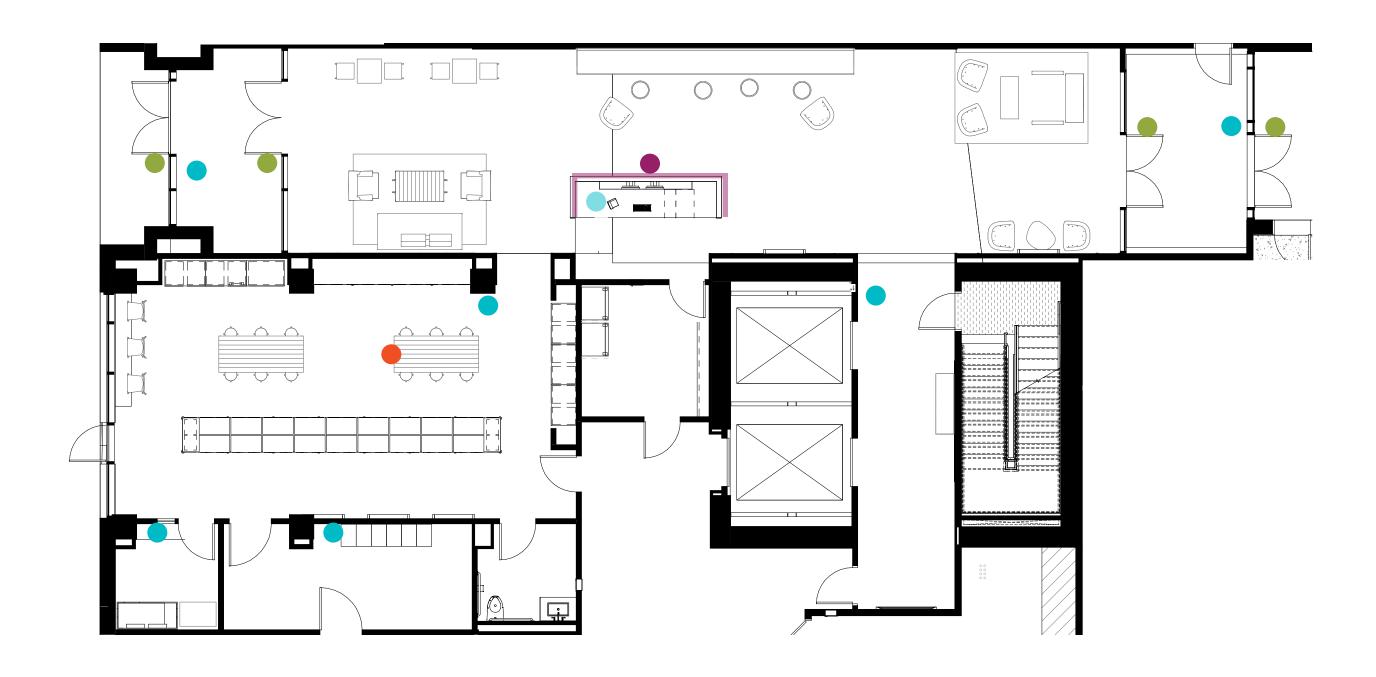
4 WFH Offices





SANITATION

Identifying well designed, well located options for sanitation and cleanliness throughout public spaces.







B + N INDUSTRIES

AUTOMATIC OPENER

White powder coat sanitary stand with touch free electronic hand sanitizer dispenser. Holds a single gallon and features a locked door that houses a back-up gallon



SANITATION STATION - COUNTERTOP

TOUCHLAND

KUB Premium countertop smart hand sanitizer dispenser. 13.78"H x 8.2"W x 4.84"D



PROTECTIVE SCREENS

B + N INDUSTRIES

Ceiling-suspended transparent panels. Top Edge Grip 3.19 cable and rod system accommodates panel thicknesses up to 3/8".



SANITIZING WIPES STATION

RECYCLE AWAY

Black or white powder coated free standing 28"H wipe dispenser with 12"D base, a built in waste receptacle, and easy access door.



SANITIZING WIPES STATION

RECYCLE AWAY

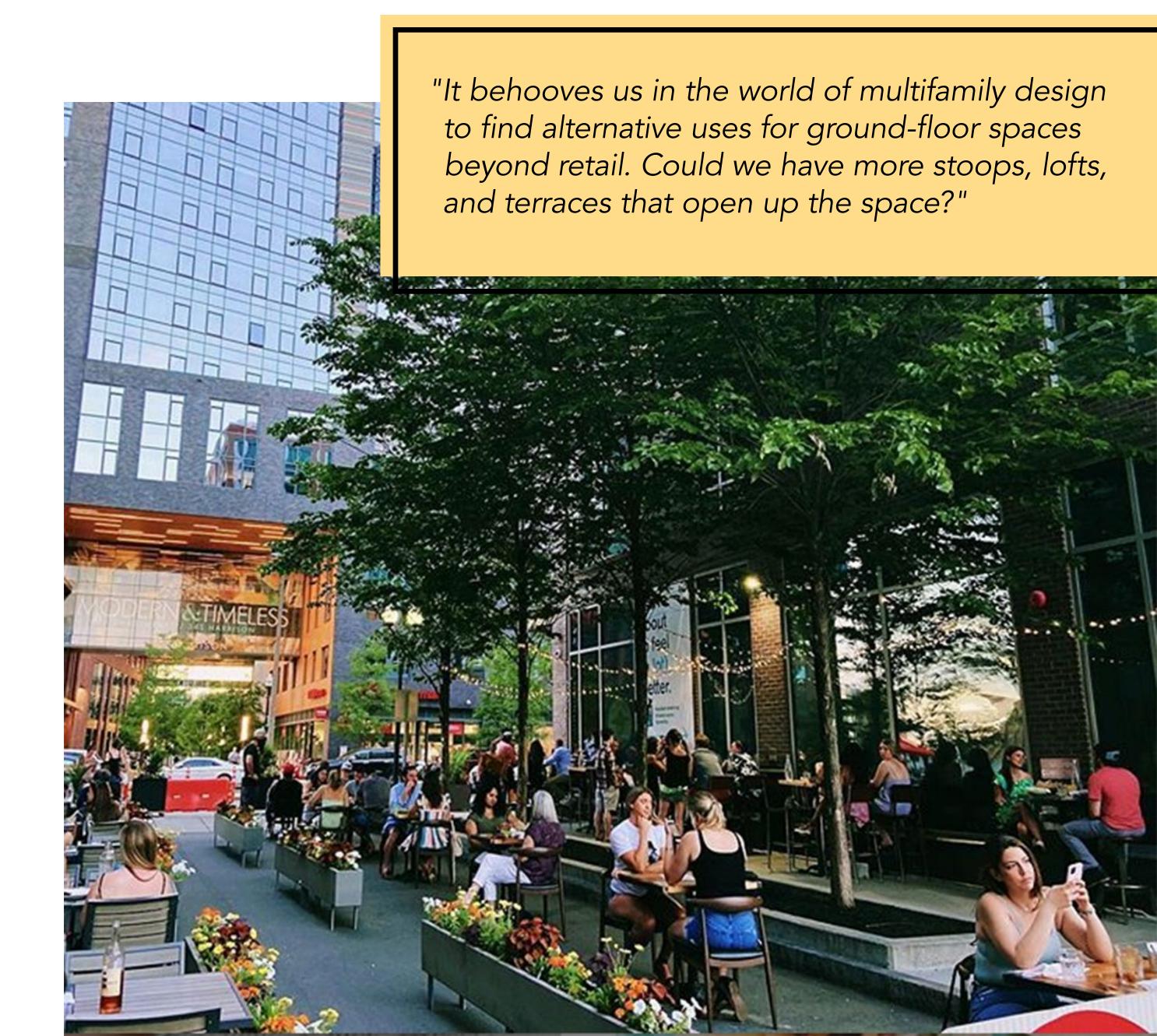
Satin black or white wall mount or countertop disinfecting wipe station. 10"Dx10"H

GROUND FLOOR ACTIVATION



ACTIVATION VIA

- · artist lofts
- · stoops
- · ground floor terraces
- · partially covered retail
- · amenity spill-out area
- · indoor/outdoor connections



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Architecture
Interior Design
Urban Design

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