

# COVID-DESIGN

[A look into what might be]



[Image credit: Kristadecor / Sundukovy Sisters Design Studio]

## PROBLEM

In 2020 the world entered a global health pandemic that has been unprecedented. The disease COVID-19 is very contagious and has shown to be deadly. Because of the rapid growth of the disease nations world wide locked down in order to help control the spread of the disease. Now after practicing social distancing and living in isolation for months, life must go on.

## CRITICAL POSITION

As architects we design space and places for people to enjoy, live, work and play. Taking what we have learned from the Covid pandemic, we have a responsibility to make the world a safer place when it reopens and to find a way to maintain joy, discovery and ambiance in our physical world.

We believe we can do better than a sea of plexiglass and vacant spaces.

## COVID SOCIAL DISTANCING REQUIREMENTS

- + Maintain 6-foot separation.
- + Avoid physical contact.
- + Face masks encouraged.
- + Wash hands and disinfect frequently used surfaces routinely.

## RESTAURANT RE-OPENING REQUIREMENTS

- + 6-Foot separation between tables & diners.
- + If 6-feet cannot be maintained, a physical barrier separating diners is required.
- + No more than 5 seated per table.
- + Reduce capacity.
- + Single-use menus.
- + No condiments left on table, or must be sanitized after each guest.
- + Employees to wear ppe.

*\*OWNERS SHOULD VERIFY LOCAL REQUIREMENTS*



COVID-DESIGN A LOOK INTO WHAT MIGHT BE | PRESENTED BY HINGE STUDIO

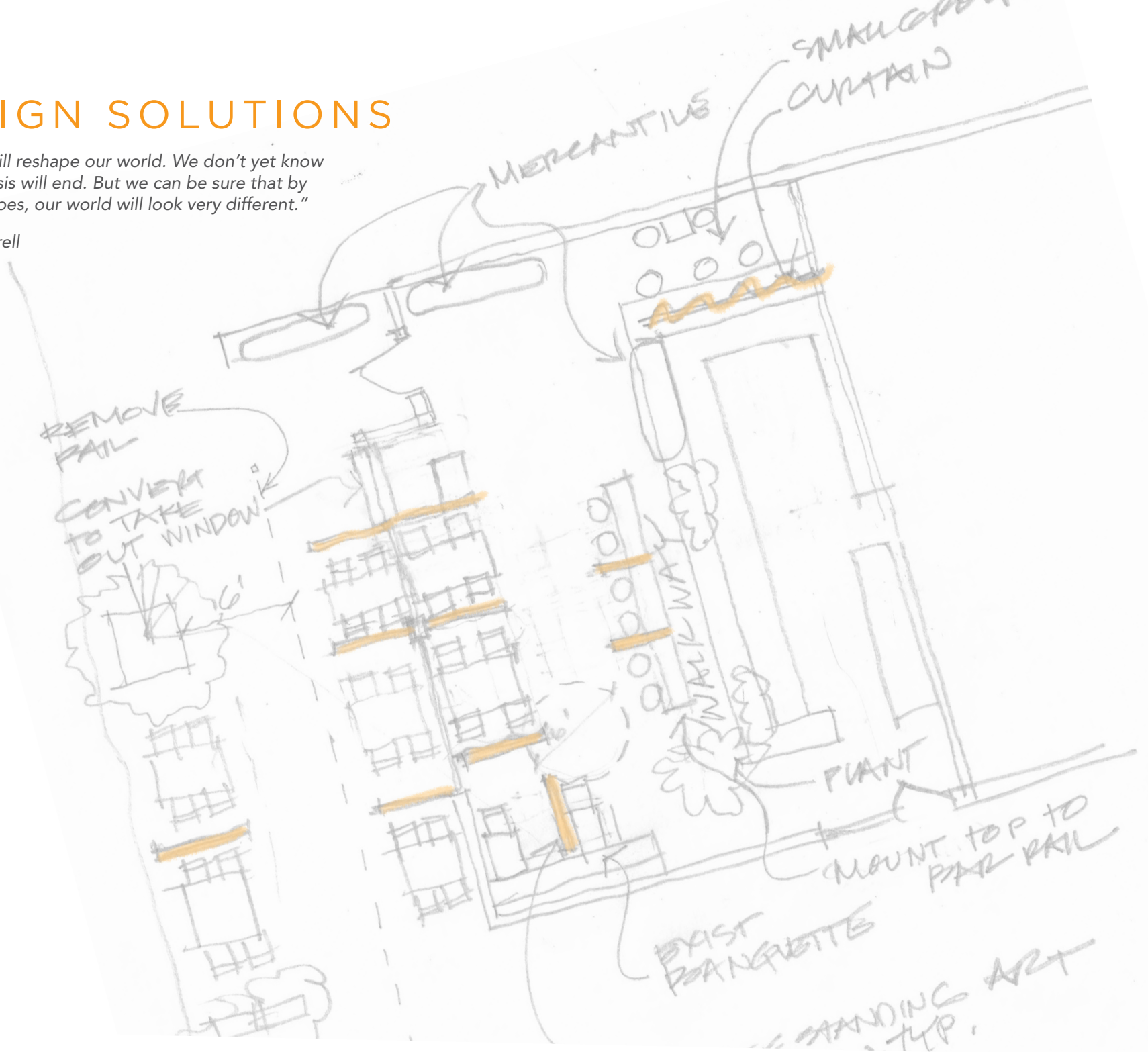


COVID-DESIGN A LOOK INTO WHAT MIGHT BE | PRESENTED BY HINGE STUDIO

# DESIGN SOLUTIONS

"Covid-19 will reshape our world. We don't yet know when the crisis will end. But we can be sure that by the time it does, our world will look very different."

+ Josep Borrell

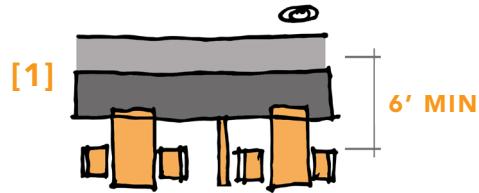


## [SPACE PLANNING]

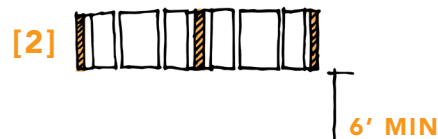
Requirements for reopening dictate that guests be able to maintain 6' social distancing or be separated by a physical barrier, such as a screen. Occupancies are reduced by 50-75%. In order to maintain profit solutions must allow for the maximum number of guests and the highest flexibility. However, we believe owners must also take into consideration ambiance. Spaces should avoid feeling cold and empty.

### [1] BAR PLAN

Temporary table tops added at bar to increase distance to food prep while maintaining bar experience.



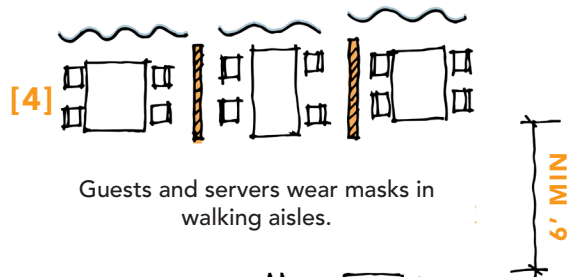
[2] Seat each booth by adding screen between booths.



[3] Use screens and plant or other filler at long tables to space and avoid empty feel.



[4] Partitions such as screens and curtains allow tables to be closer together.



Guests and servers wear masks in walking aisles.

[5] Fill existing furniture with plants, candles, or decor to avoid empty feel.



## [SPACE PLANNING]



[Claret / Heavy Restaurant Group. Image Credit: Brooke Fitts]

## [PLANT TABLES & SCREENS]

A simple way to increase spatial separation while still maintaining and ambience - plants. Place plants on existing table tops so patrons are sitting next to an empty table, or create partitions using plants.



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## [PLANT TABLES & SCREENS]



[Segev Kitchen Garden by Studio Yaron Tal + Hod Hasharon, Israel]

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[Casa Cook by Miguel Garcia Quetglas - Ibiza]

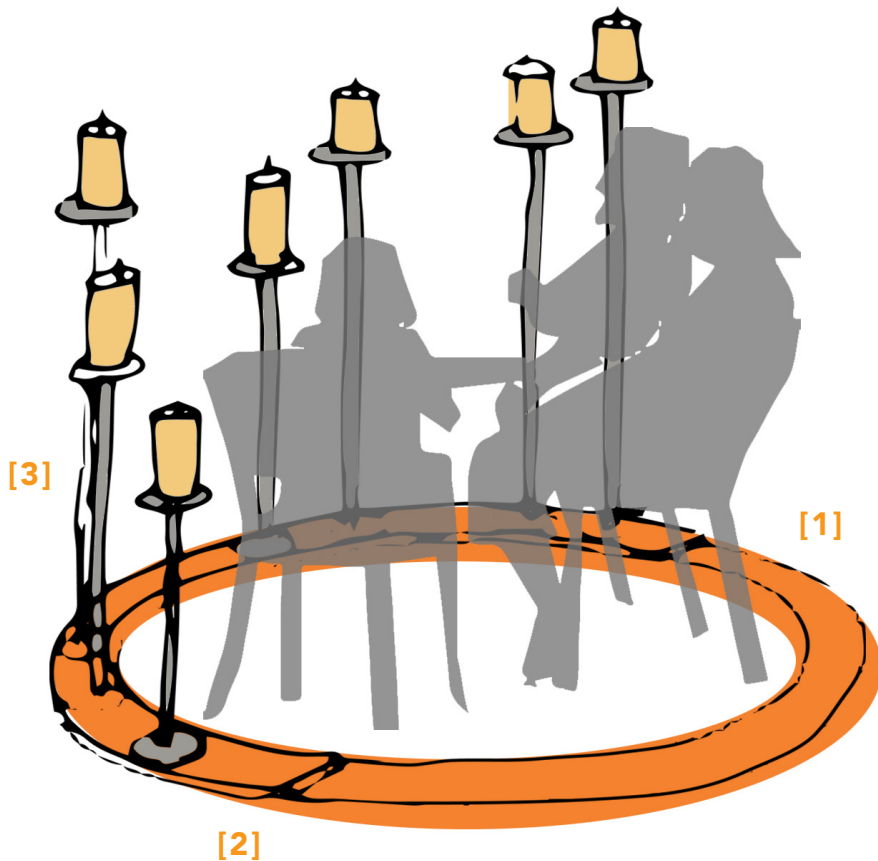
## [DEMARKING 6 FEET]

A visual cue, as basic as a circle on the floor can help remind people to stay separated and can create a sense of security and ownership of space. Cues can be painted or use a vinyl graphic for a less permanent solution. Get creative with color and pattern to add interest. Combine this with other screening elements to create simple flexible rooms.

[1] Graphic adhered to floor.

[2] Plywood base.

[3] Pipe stands screwed to plywood.

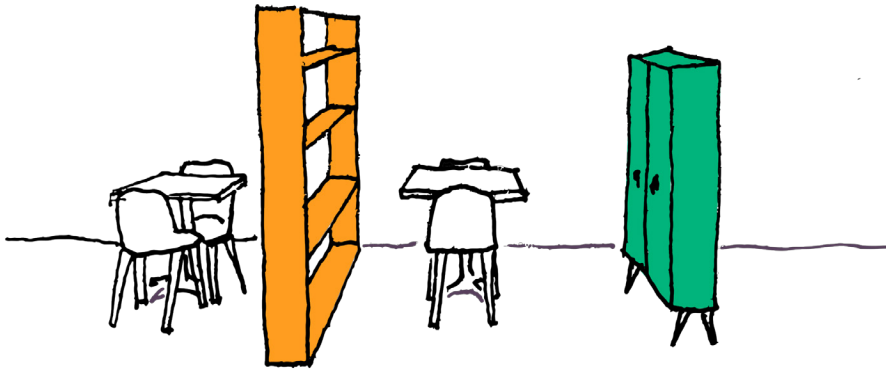


## [DEMARKING 6 FEET]



# [FURNITURE AS DIVIDERS]

Insert furniture between tables to create small rooms within a larger room. Another simple way to divide the space, while still maintaining a cozy feeling.



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[Fairfax Cafe, Photo By: Noah Fecks]

# [SCREENS]

Screens are ubiquitous in this post covid world. Consider materials that provide both separation and ambiance.

[1] Screen frame - made from black or painted pvc pipe, or consider using prefab welding screen frame or coat rack.



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# [SCREENS]

[2] Washable wallpaper

[3]. Wood slats sandwich acrylic.

[4] Colored polycarbonate.

[5] Oil cloth fabric.

[6] Waxed canvas.

[7] Welding curtain.

[8] Create simple ladder frames from wood or pipe and weave with fabric.

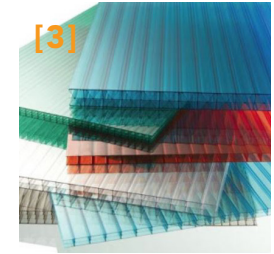
[9] Consider unique shapes for interest.



[1]



[2]



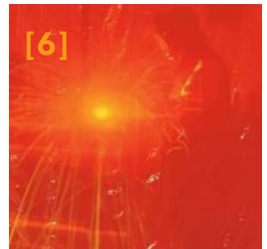
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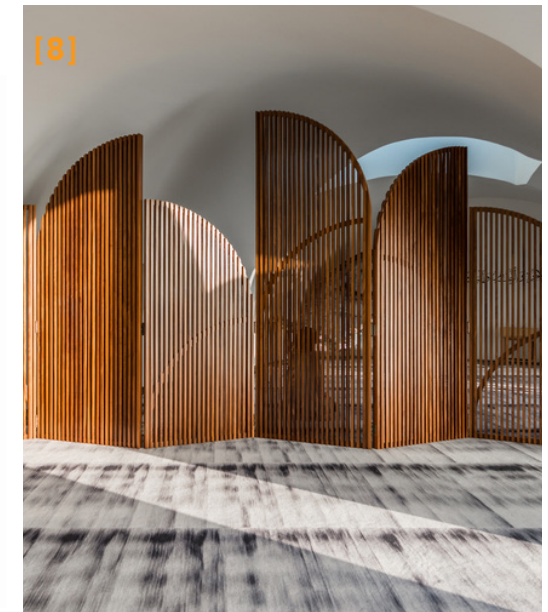
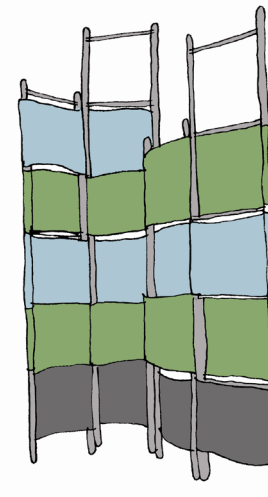
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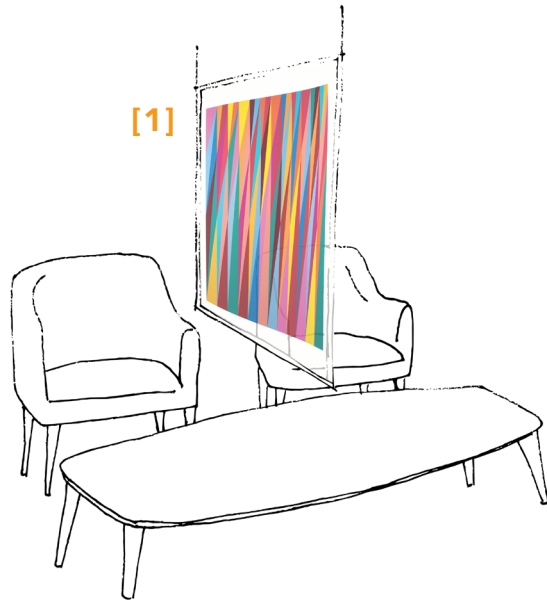
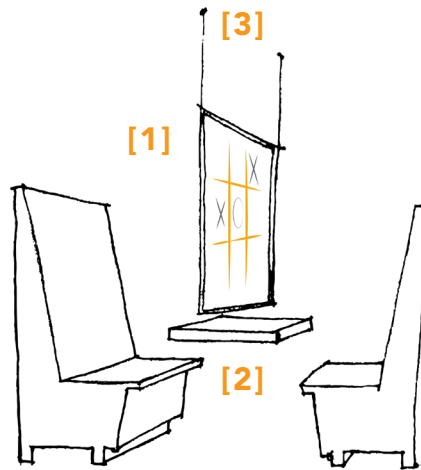
# [INTERACTIVE SCREENS]

A way to make the screens a part of the experience is by making them interactive with games, or by displaying artwork and changing it daily, or a number of different options. Keeping the material something like a plexi-glass so that it's easily sanitized is crucial.

[1] Sandwich game or art between plexiglass.

[2] Provide dry erase markers for interactive experience.

[3] Consider suspending with fishing line.

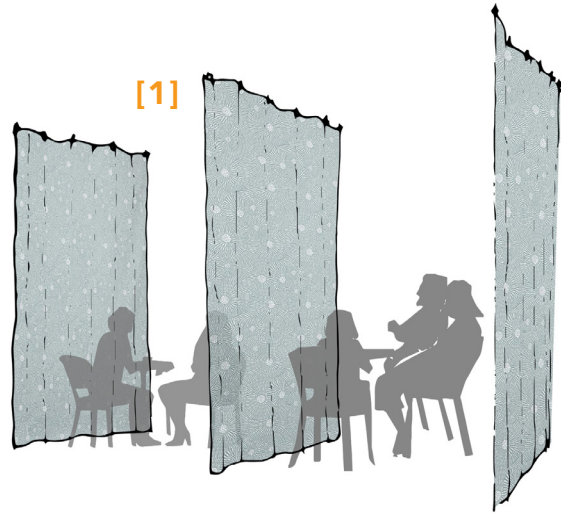


[Image Credit: Max Hawney]

## [CURTAIN DIVIDERS]

Curtains can divide space and add a sense of intimacy and softness. Use wire suspension systems with easy clips or hooks for easy removal for frequent washing.

[1] Ceiling or wall mounted cable curtain holder can be purchased at ikea for \$15.



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## [CURTAIN DIVIDERS]



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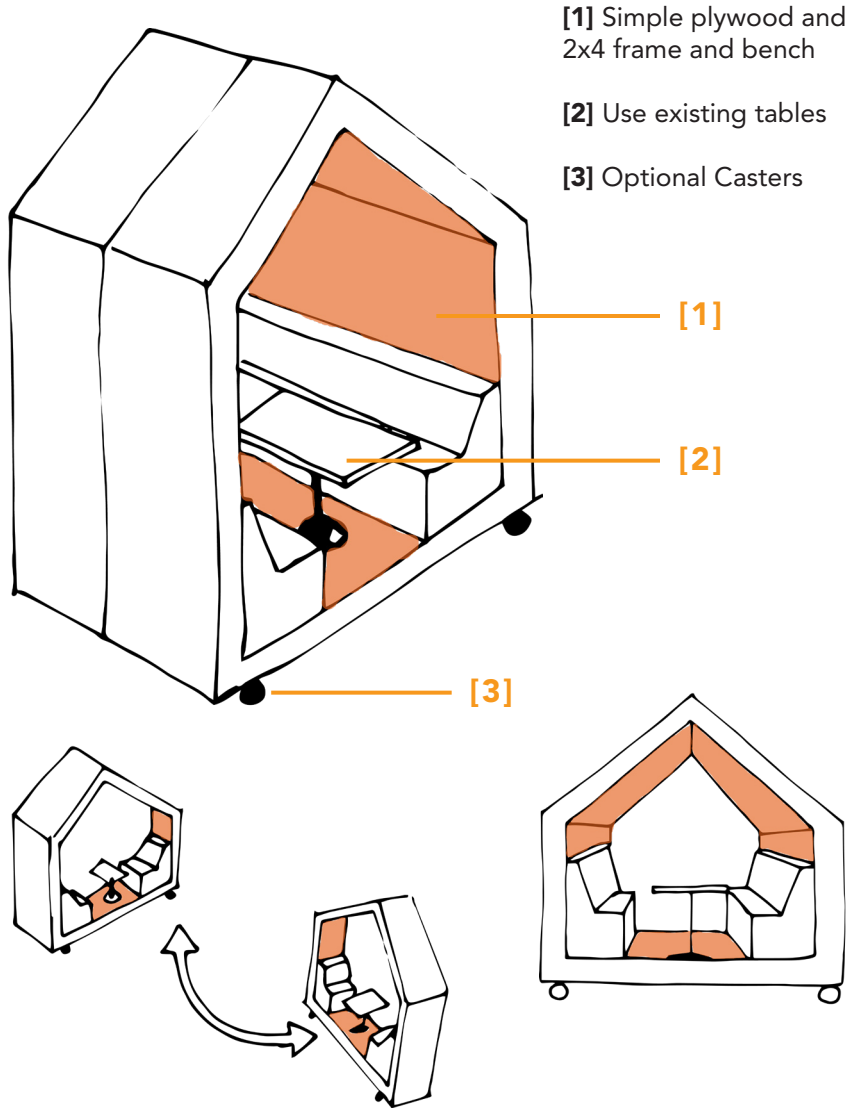


[Image Credit: Kristadecor / Sundukovy Sisters Design Studio]

[Image Credit: Kristadecor / Sundukovy Sisters Design Studio]

## [DETACHABLE PODS]

Restaurant layouts will become much more spaced out once places reopen. Making a guest feel protected while also not isolated in an open room can be a challenging task. Creating movable pods for dining allows flexibility of layouts and a way to combine tables for families or once spacing restrictions are reviewed. Consider creating a few special pods that can be reserved.



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## [DETACHABLE PODS]



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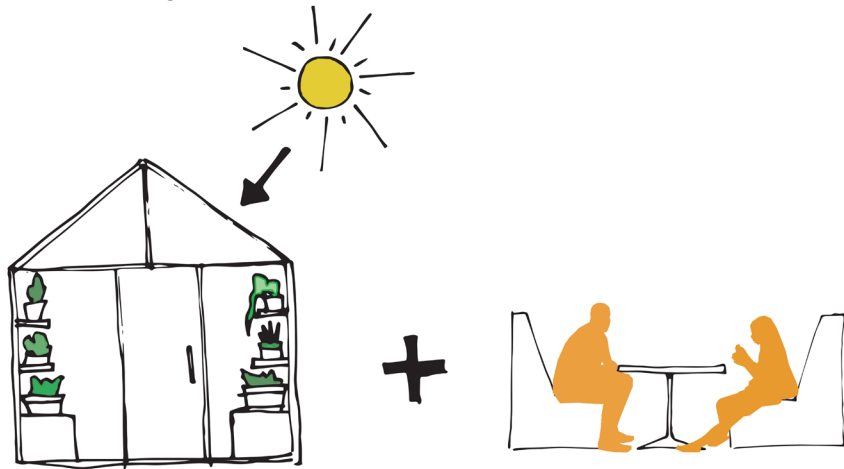


# [GREENHOUSE PODS]

Much like the detachable pods. Small greenhouses give the user a sense of protection and separation but done so in a more playful way. This application is great for outdoor dining.

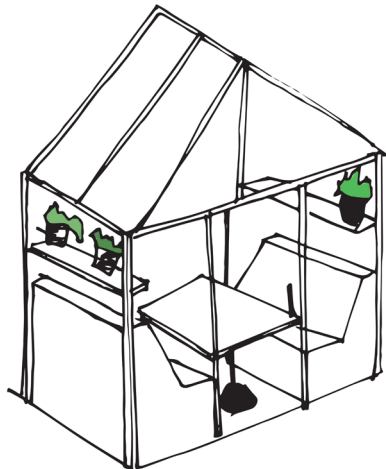
[1] 6'x8' Greenhouse Kits Available online for ~\$300. Consider removing side panels and doors for easy access / airflow.

[2] Use existing tables and chairs.



[1]

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# [GREENHOUSE PODS]



[Image Credit: Anne Lakeman, Willem Velthoven]

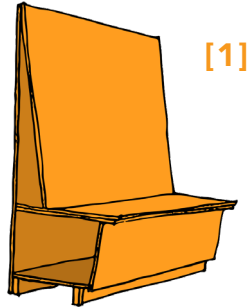


[Image Credit: Anne Lakeman, Willem Velthoven]

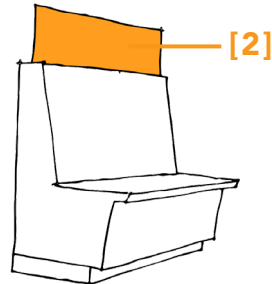
# [FLEXIBLE BOOTH SEATING]

A couple of options - construct high-back, flexible booth seating, or add a screening element to existing lower booths. With the movable booths, many seating and dining layouts are possible to accommodate appropriate social distancing.

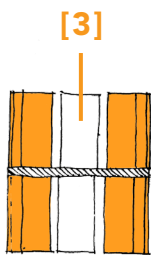
[1] Plywood tall back, lightweight, movable booth.



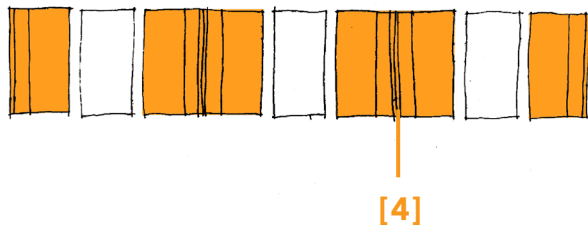
[2] Existing booth with new screen element.



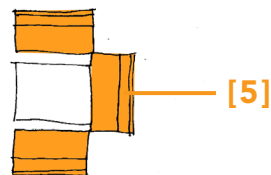
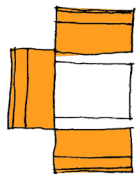
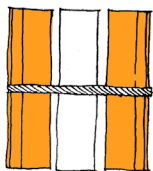
[3] Booths separated by wall.



[4] Booths arranged back-to-back.

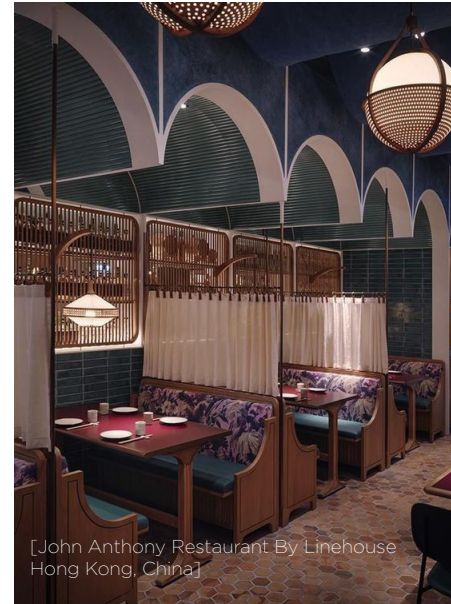


[5] Booth clusters to accommodate more guests.



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# [FLEXIBLE BOOTH SEATING]



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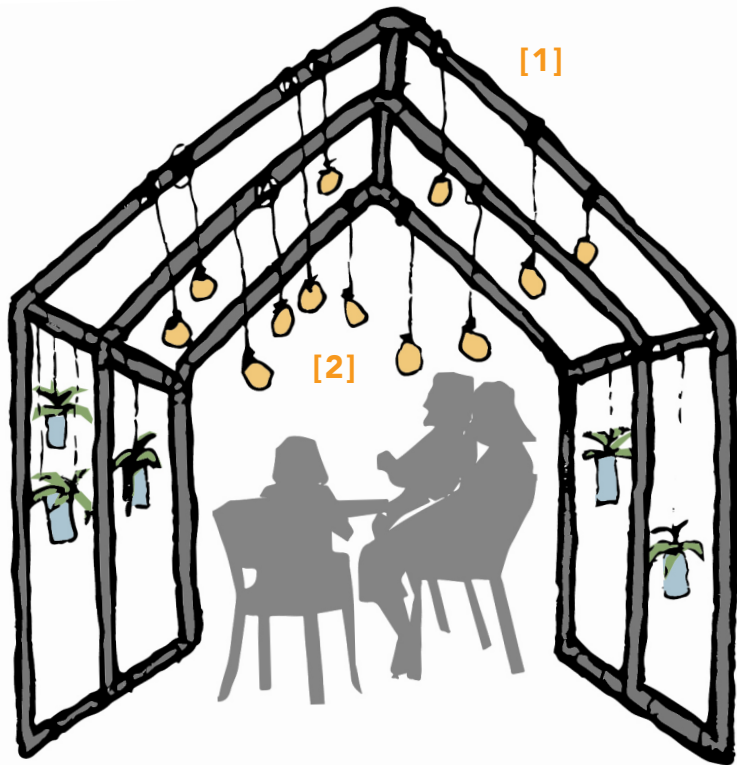


## [PIPE FRAME ENCLOSURES]

A simple frame can be made from pvc or metal pipe and painted. This can be used as an armature to hold shelving, fabric, plants etc. A series of these frames can be used to fill space and create pods in which people can separate. Again this could be a unique "reservable" space.

[1] Painted Pipe Frame.

[2] Be creative. Consider lights, plants, fabric, string to create sense of enclosure.



## [PIPE FRAME ENCLOSURES]



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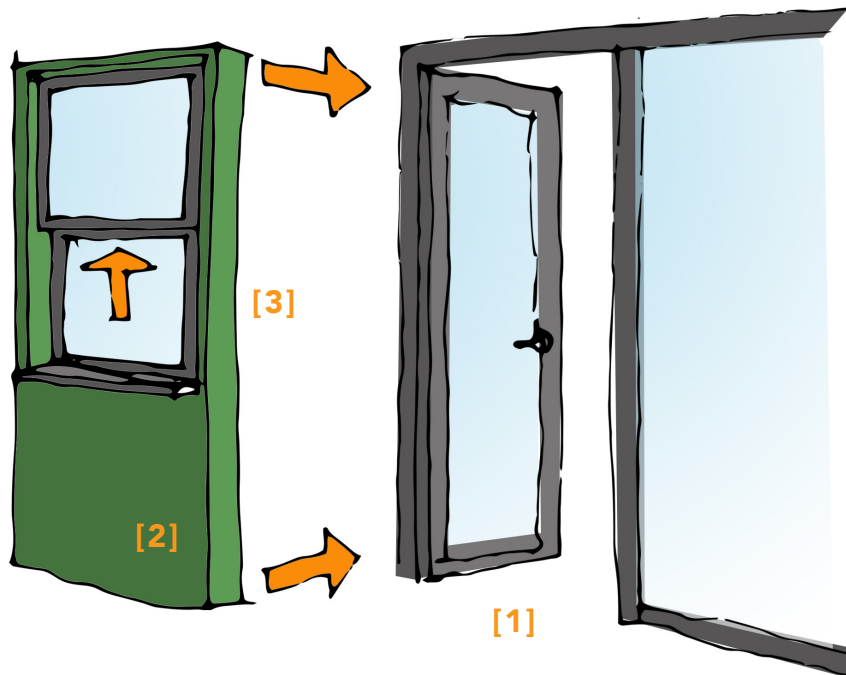
## [STOREFRONT MODIFICATIONS]

Use operable windows, or doors to create easy to go area. Be sure not to permanently block fire exits of course.

[1] Utilize existing doors or windows.

[2] 2x4 and MDO (smooth plywood) create a more secure / permanent infill.

[3] Reclaimed windows make a great divider.



## [STOREFRONT MODIFICATIONS]



[La Napa Restaurant Market, Image Credit: Alexandra Ayersia]

## [MERCANTILE SOLUTIONS]

Some of your clients just might not want to sit and dine, but they may be willing to come in and shop. Restaurants have the unique opportunity to create handcrafted artisan food items that people will enjoy at home. Consider transforming a portion of former dining space into a Mercantile area.

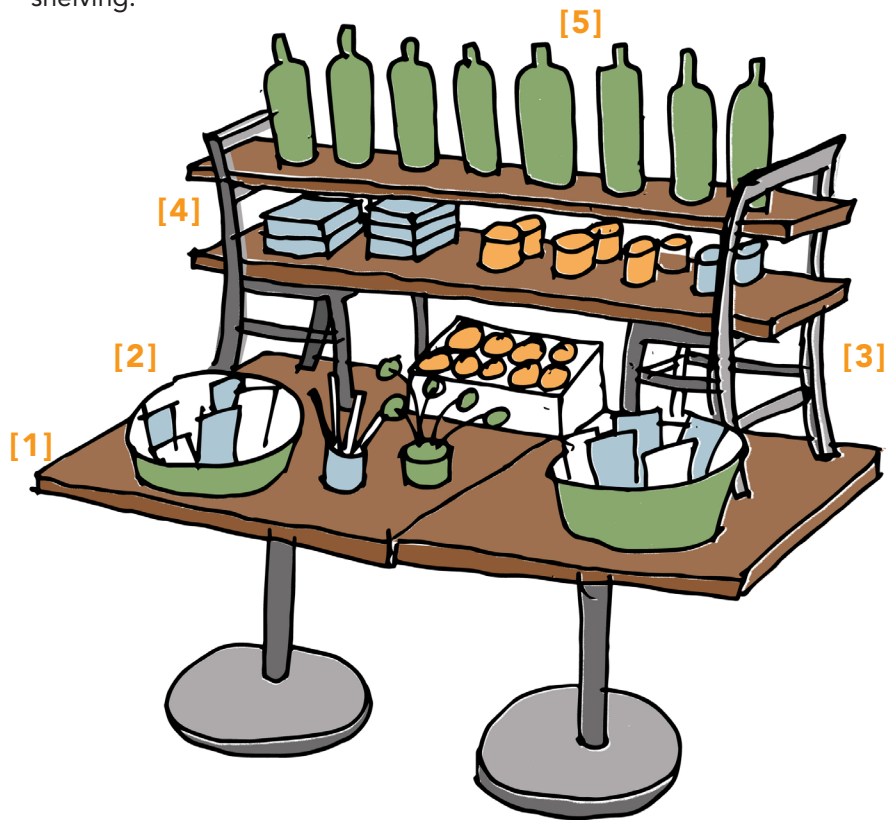
[1] Utilize existing furniture for display.

[2] Package and sell house-made goods, or local produce.

[3] Chairs can become shelving.

[4] Package ingredients and recipes for make at home treats.

[5] Sell back stock of wine for home consumption.



## [MERCANTILE SOLUTIONS]



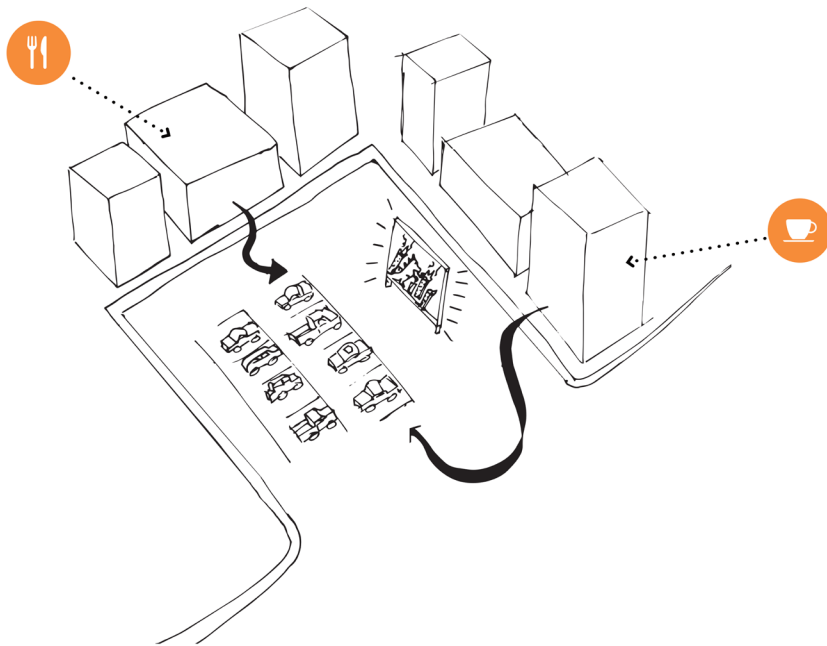
[Claret / Heavy Restaurant Group. Image Credit: Brooke Fitts]



## [PARKING LOT ► DRIVE-IN THEATRE]

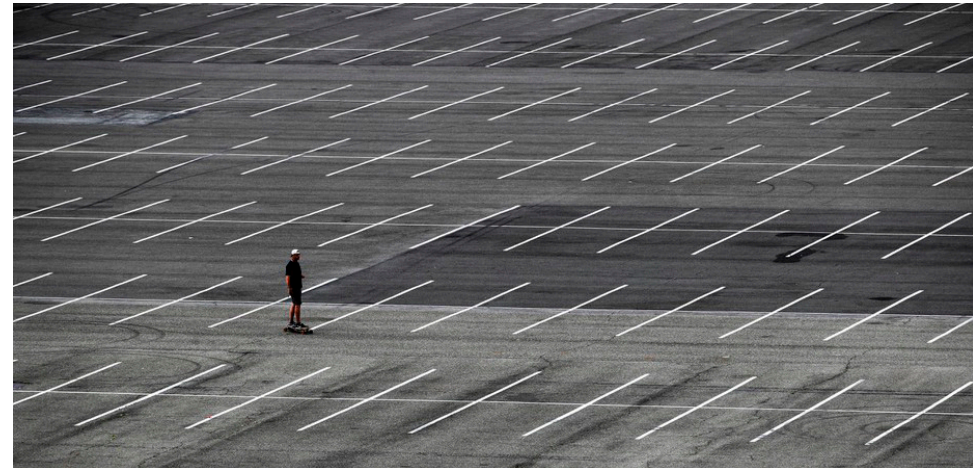
Due to covid large parking lots have become empty concrete oceans. As restaurants start to re-open they are focusing a lot on take-out / delivery options.

One idea to transform these empty parking lots is to create drive-in in movie theatres with the surrounding restaurants being able to deliver to your parked car.



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## [PARKING LOT ► DRIVE-IN THEATRE]



## [OPERATIONAL MODIFICATIONS]

- + Throw away replaceable table covering.
- + Coverings over meal plates that are removed tableside.
- + Greater access (and visibility) to hygienic products such as wipes & sanitizers on tables and public areas.
- + Cutlery, glassware and plastics cleaned @ tableside for customer assurance.
- + Disposable items - cutlery, etc removed from public area provided upon request.
- + Removal of salt & pepper shakers and condiments and provide either packets or on demand.
- + Pay @ table function to avoid passing CC to the server.
- + Digital menu boards or tablets w/ anti-bacterial screens to replace menus.

## [PLANNING FOR FUTURE SPACES]

### Surfaces that have anti-microbial coatings or materials for frequently used or touched areas .

- + Copper, brass and bronze kill bacteria and viruses.
- + Nanotech coatings - coatings simulating the biological properties of shark skin - killing bacteria and viruses.
- + Consider cleanability of surfaces - spray on antimicrobial coatings are available but they are less effective than a good cleaning regime.

### Hands free tech for frequently used / touched items.

- + Doors
- + Toilets
- + Faucets

### Enclose kitchens from main dining area.

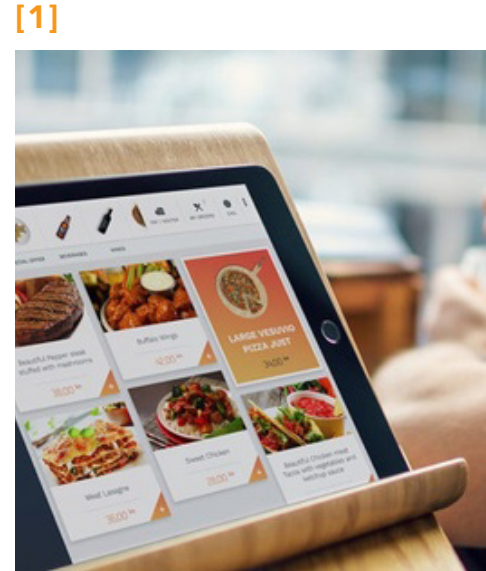
**Build in nooks, or partitioned off areas for groups to separate from each other.**

**Build in take out windows/drive up options.**

[1] Digital menu board with anti-bacterial screen.

[2] Enclosed kitchen separated from restaurant.

[3] Butcher paper table covering with roll at each table.



## [CONSIDERING AIRFLOW AND MECHANICAL SYSTEMS]

### LOW HANGING FRUIT FOR EXISTING SYSTEMS

- + Have system inspected and maintained by professional prior to reopening.
- + Fully clean ductwork, system and change filters prior to reopening.
- + Upgrade filters (if approved by above professional) and make a plan to change them often.
- + Increase the number of air changes per hour and amount of outdoor air (if approved by above professional).
- + Program system to provide flushing for 2 hours before and after occupancy; open any and all windows for at least 2 hours before and after occupancy.
- + Create a daily cleaning schedule of high-touch surfaces, such as thermostat, and interior of refrigerators.
- + Run the system on minimum outside air when occupied.
- + Leave toilet exhaust running 24/7.
- + Use portable hepa filters to help filter the air, and give a visual cue that air is being cleaned.
- + If possible open doors and windows - fun fact: indoor air pollution is 2-5 times worse than outdoor air (geographic location dependent).
- + HVAC is just one aspect of many that must be considered moving forward, others include sanitation, circulation, ppe attire, etc.
- + Consider locations of existing supply and return duct grills when locating tables.

### DESIGN CONSIDERATIONS FOR FUTURE MECHANICAL SYSTEM UPGRADES:

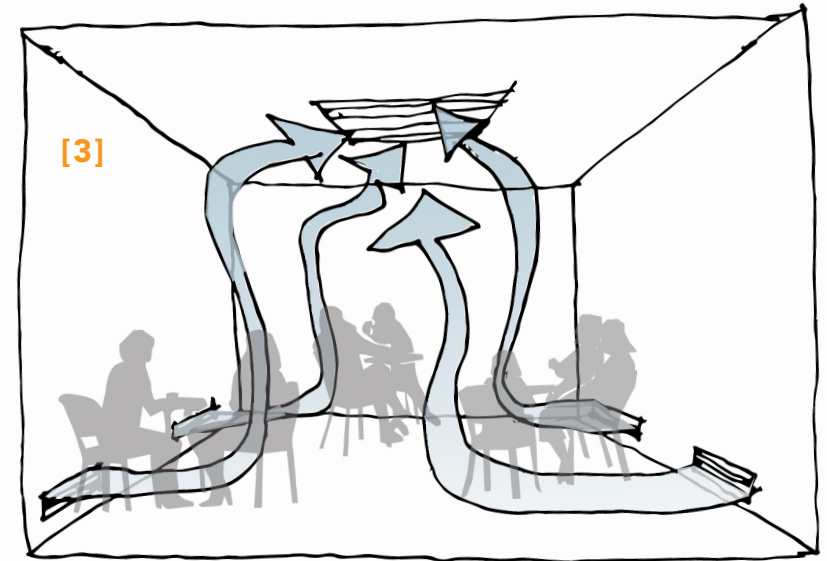
- + Displacement ventilation air flow systems - systems which introduce low velocity airflow low in a space and exhaust it high in a space - will minimize the amount of air exposure across multiple individuals.
- + UV light systems / UV technologies in space- UV light can be used to sterilize surfaces - it can be installed system wide or within sections of existing ductwork. It can also be installed visibly in spaces to sterilize high touch areas and to give guests a sense of security.
- + System wide increased filtration.
- + Increased air changes per hour.

## [CONSIDERING AIRFLOW AND MECHANICAL SYSTEMS]

[1] Portable Hepa air filter.

[2] Portable UV Light Sterilizer.

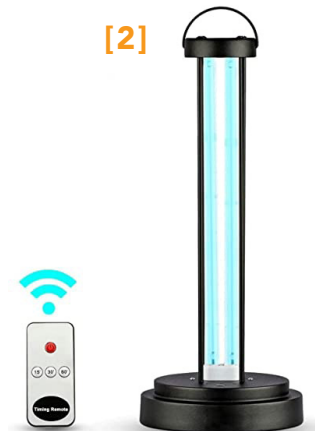
[3] Displacement ventilation systems introduce air low and exhaust it high rather than mixing air horizontally like conventional systems.



[1]



[2]



# COVID-DESIGN

[A look into what might be]

The loss of restaurants and bars and other spaces where people gather has made us, as architects, realize what a vital role these places play in the collective human spirit. Beautiful engaging spaces filled with generous hospitality and the joy and celebration of others nourishes us and makes us feel alive. We would like to dedicate this work to those individuals who are battling to keep the hospitality industry alive in this time of crisis and change.

Hinge would like to acknowledge the creative energies, inspiring ideas, and lovely illustrations of the team that worked on this book:

*Sabrina Johnson*  
*Guy Hartwig*  
*Kate Cudney*  
*Weston Norwood*  
*Matthew Hagen*

Learn more about Hinge at:  
[www.hingestudio.net](http://www.hingestudio.net)  
instagram: @hingestudio

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Learn more about Buttermilk Creative Studio at:  
[www.hellobuttermilk.com](http://www.hellobuttermilk.com)  
Instagram: @hellobuttermilk

Hinge would like to thank Rushing Engineering for their consultation on Airflow and Mechanical Systems

## [REFERENCES]

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[https://www.governor.wa.gov/sites/default/files/Phase%20%20Restaurant%20industry%20re-open%20proposal\\_FINAL.pdf](https://www.governor.wa.gov/sites/default/files/Phase%20%20Restaurant%20industry%20re-open%20proposal_FINAL.pdf)

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