

FCSI WHITEPAPERS



**The future of
foodservice
design in a
post-Covid-19
environment**

FOODSERVICE DESIGN IN A POST-COVID-19 ENVIRONMENT

Apple's Steve Jobs said: "Design is not just what it looks like and feels like. Design is how it works." The design of commercial kitchens and front-of-house spaces are fundamental to the success of a foodservice operation, meaning design consultants will play a pivotal role in forging the 'new normal' of a post-pandemic world. This whitepaper, produced for FCSI The Americas by Progressive Content, will explore the future of foodservice design: what it will look and feel like – and how it will work in practice

INTRODUCTION

A recent report from the [Babbage Pulse](#), which tracks US consumer behaviors and attitudes during Covid-19, found the activity Americans are most interested in experiencing again, when safe to do so, is visiting a restaurant.

More than half (56%) of those polled voted for this, which is no surprise considering the role restaurants – and all foodservice operations – play in our society. Not just to provide sustenance, but as a social connection and a restorative touchpoint.

The shutdown of the hospitality industry caused by Covid-19 has been exhaustive, brutal and, in many cases, permanent.

The nature of the virus, and how it is spread, means many commercial foodservice operations will need to be re-thought and re-designed before they can re-open. According to [FCSI's April 2020 Covid-19 reader survey](#), 69% of respondents believe the crisis will fundamentally change how people eat and drink in the future.

As those restaurants still in operation continue to pivot towards a carry-out or food delivery model while the shutdown is in place, this whitepaper will examine the challenge for operations in North, Central and South America to continue to adapt their kitchens and front-of-house areas for social distancing and a host of other challenges once the shutdown is phased out or over completely.

Below, we hear from a range of FCSI The Americas Professional member design consultants and industry experts on how commercial kitchens in a range of sectors will need to be re-designed for a post-Covid-19 future. It will explore when to re-fit or renovate and the implications for foodservice equipment.



Visiting a restaurant is the activity Americans are most interested in experiencing again

RESTAURANTS: THE GREAT PIVOT OF 2020

The word ‘pivot’ has acquired significant resonance since the shutdown was enforced in April 2020. According to a survey the National Restaurant Association [released](#) on April 20, approximately 60% of US restaurants had pivoted to an off-premises only business model.

Pivoting requires adapting to new rules and processes, all of which will affect future design requirements. “Restaurants that have made the pivot to takeout and delivery have stepped up their attention to the Food Code requirements for employee health and personal hygiene, and cleaning and sanitizing,” says Larry Lynch, senior vice president of certification and operations for the [National Restaurant Association](#).

Going forward, a key challenge will be for restaurants to adapt their kitchen design and front-of-house areas for social distancing once the shutdown is over or being phasing out. “Not every restaurant is the same and not every state’s opening scenarios will align,” says Lynch.

“Every restaurant will have its own challenges that have to be evaluated and addressed in accordance with the guidelines from their state health regulators, the Food and Drug Administration [FDA] – which oversees the Federal Food Code – and the Centers for Disease Control and Prevention [CDC].”

Restaurants, says Lynch, were already “the most highly regulated industry”. The Food Code provides specific safety measures for food safety, employee health and personal hygiene, and cleaning and sanitizing. Restaurants have stepped up those measures and this will continue as dining rooms reopen, he says.

“Social distancing is the new challenge that restaurants are taking seriously. We expect state health regulators will put occupancy limitations on dining rooms. Restaurants are considering contactless payment systems, automated ordering systems, mobile ordering apps, website updates and texts to communicate and conduct business with reduced need for close contact. They are also focused on communicating with customers [in terms of hours, menu items, reservations, etc], to help promote social distancing and safety efforts.”

In terms of how sizeable the challenge will be for operators to adapt their kitchen design and front-of-house areas for social distancing, FCSI Associate John Reed, owner of Customized Culinary Solutions in Skokie, Illinois, believes the answer will be two-fold, based on short-term and long-term design needs.

“In the near future – six months to a year – operators will be challenged to work with the limits of their current spaces. With government social distancing regulations on operations, reduced demand for dine-in and lack of working capital, the ability to redesign will be greatly limited. Changes will be limited to



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Not every state will align in terms of how and when restaurants are permitted to re-open

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best use of current design to meet the current conditions focused on customer safety for as long as the restrictions continue,” he says.

“As the consumer market reinvents itself with regards to dining-in restaurants, there will be inevitable needs for the post Covid-19 restaurant. These considerations will include, larger operational space for curbside, pick-up and delivery functions, more efficient equipment with focus rapid cooking, chill/retherm units, and less liner design with more emphasis on kitchen workstations with multiple expediting points. The infrastructure of the restaurant will also need to be highly focused on the use of technology with consideration of dedicated spaces to manage data, hand-held devices and communication technologies,” says Reed.

RESTAURANTS: THE ROLE OF THE DESIGN CONSULTANT

According to Canada-based design consultant Ed Bernard FFCSI, vice president of Cini-Little International in Toronto, kitchen design will need to meet even more stringent health and safety measures in the future. “Equipment in general must be designed to address a post-Covid era,” he says.

“Then there is social distancing, which will be a challenge all on its own within the kitchen space. Some operators will be looking at maintaining their staffing levels, but with staggered periods so three line-cooks, as an example, will not be on the same shift.” Another element, says Bernard, will be a review of menus. “This reduces preparation of multiple items and having multiple staff at work at the same time.”

As far as front of house is concerned, says Bernard, self-serve lines, buffet stations, salad bar and grab-n-go stations all need to be looked at in a critical way. “Post pandemic, these stations will be changing or, if already in place, will be converted to more action-type stations with operator service. In discussions with architect teams, dining rooms are being looked at so that seating can be re-designed and re-positioned to meet social distancing requirements. The formula used for program spaces will not be the established norm, or the once acceptable best industry practice. In general, there will be less restaurant seating within the same space. This will have an impact on the bottom line.”

William Caruso & Partners’ [Stephen Young FCSI and Michael Caruso](#), based in Denver Colorado, believe there has “never been a time in our history where we in the food and beverage industry have been so tasked to ‘figure it out’.”

For design consultants that means contemplating every aspect of how customers will consume in restaurants in the future. “Certainly, social distancing is necessary, however, it is impractical to expect that every person in every foodservice establishment will voluntarily maintain a distance from others of at least 6ft. We do not sit that far apart from one another at the table, we walk past one another while moving through dining space, and we cannot wear masks when eating. Yes, restaurants can and should place tables 6ft apart, but must do so thoughtfully and strategically or they will lose revenue-generating seating.”



“The infrastructure of the restaurant will need to be highly focused on the use of technology with consideration of dedicated spaces to manage data and communication technologies”

Social distancing requirements may force operators to re-think staffing levels

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Any such design must be “robust” says Young and Caruso, while the flow of food and staff “must be strategic and seamless, entailing correct positive and negative air ventilation in kitchen and dining spaces, touch-free technology for sink faucets, doors, coolers, and other implements.”

Additionally, they recommend receiving, dishwashing and laundry “should be designed with clear physical separation between soiled and clean items. Laundry and dishwashing systems should have pass-through washers, so the risk of soiled items contaminating clean items is removed by virtue of design.”

According to Young and Caruso, foodservice operations in convention centers, arenas, airports, theaters, and other large public gathering spaces will “find it more important than ever to be on the innovative side of technology”. Increased automation and “frictionless and touchless service decreases the risk of exposure to threats like Covid-19, and decreases labor cost and risk of illness to employees.”

A designer’s approach to space post-pandemic will be “complex,” says Young and Caruso, and therefore requires thoughtful solutions. Some of which may already exist in other areas of foodservice design. “The healthcare industry has long established the golden standard for kitchen design as it pertains to ‘contamination control’. Pulling decades of experience from healthcare facilities kitchen design and implementing the approach in the design of public venues is a current necessity.”

THE HEALTHCARE SECTOR: TIME TO FAST-TRACK TAKE-OUT AND GHOST KITCHENS?

Christine Guyott FCSI, RD, principal of Rippe Associates in Minneapolis, Minnesota, specializes in healthcare foodservice design. “Since the pandemic started we have not worked on any adaptations or retrofits that have changed a model or physical space,” she says.

For Guyott’s healthcare foodservice clients, while there has been a shift to accommodate social distancing, because hospitals have eliminated elective surgeries and with no visitors allowed, retail areas have not been impacted as much as they might have been. “The shift we have seen is a movement to feed the staff and enable them to get vital supplies or groceries.”

Guyott has also seen “a lot of cashier physical barriers and the removal of self-serve items,” while some operators have modified menus or the way isolation trays are handled. “Many of these shifts are operational for now, and, from a layout perspective, healthcare is modifying physical items as they go without complicated design projects until they can assess long-term effects,” she says.

On the subject of healthcare foodservice providers pivoting towards a take-out model, Guyott agrees “this is vital for the future. We were already going there,



The contamination control of healthcare foodservice is long established as kitchen design’s gold standard

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but not moving fast enough in healthcare, which, in my understanding, is due to privacy and tech compliance/payment options,” she says.

One key adjustment, says Guyott, relates to the spaces where customers queue. “If we can get pre-order and pre-pay going, it will decrease the queues in front of stations”

This will require “a lot of tech changes” but Guyott believes the equipment can be more “ghost kitchen/back-of-house focused” to accommodate this. Guyott believes the primary importance is making customers “feel safe in the short term” and then, when they want more interaction, “make to order options” can be reintroduced. Otherwise, she ponders: “How do you bring that back to them without completely redesigning the serving area?”

**THE EDUCATION SECTOR:
CHOICE AND CUSTOMIZATION TO REMAIN AT THE FORE**

Scott Reitano FCSI, principal of Reitano Design Group, believes there are still many questions about the future of foodservice design in the education sector. His firm is partly taking a watching brief to assess the situation.

“For the primary education market, you start asking: ‘Are people going to be OK raising taxes to build new buildings?’ when there is much more immediate need in their lives, such as unemployment? What higher education looks like will get interesting in the next three to six months and beyond. Will colleges move more to an e-learning platform? From a foodservice standpoint, are people going to gather in large settings immediately?”

To prevent long queues where many people have to gather in one place, Reitano foresees “more pre-ordering, more mobile ordering type ‘pick-up scenarios’ where [students] are given a pre-packaged, hot meal and sit down ‘family-style’ and the food is given to them,” he says.

Could this spell the end of the salad bar or buffet in schools, for example? “As designers, we have moved to a more flexible setting. I still believe in putting fresh food bars in the appropriate places,” says Reitano. “Breath guards, formerly known as sneeze guards, will become more prevalent,” says Reitano.

Food items that perhaps were previously self-served, might move to fast-serve, says Reitano. “Or, maybe fast-served food will move to pre-packaging, where the child can grab something ready to go as they move through the line. Choice and customization aren’t going away. How we present the food will have to ebb and flow as we look forward in a post-pandemic world.”

So, will manufacturers have to bring new products to market or instead adapt existing products to deliver kitchens and front-of-house areas fit for post-pandemic foodservice? “Initially it’s about adapting what we have,” says Reitano.

“Our industry still cooks on fire. We’re going to look at pieces we have and adapt those, perhaps in new places to where we’ve had them previously. In terms of



“Choice and customization aren’t going away. How we present the food will have to ebb and flow as we look forward in a post-pandemic world”

An increase in pre-ordering and mobile ordering ‘pick-up scenarios’ is likely in the ‘new normal’

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some specific, big new piece that will evolve out of the pandemic? I've never seen that in our industry."

How confident is Reitano that the sector will adapt quickly and effectively to these changes and challenges? "They already have. I've seen programs turn on a dime," he says, citing schools that had been serving lunch-to-go every day moving to three days, or instead, adapting entire delivery systems to serve food – including breakfasts – over weekends to children in need.

"It will be interesting to see, not if the operators can keep up, but if the funding and National School Lunch program will be adaptable enough to catch up with what these people are accomplishing in an amazingly short time."

**GENERAL:
END OF THE LINE FOR THE BUFFET LINE?**

Reitano's observation regarding the salad bar, remains an interesting one. Certainly, one school of thought is Covid-19 could even deal [a fatal blow to the buffet](#) – a food type once infamously described by comedian Jerry Seinfeld as representing "emotional problems on a plate".

"At least in the immediate future, the days of buffets are in the past. Salad bars are likely to provide pre-plated/covered and pre-packaged salad choices and buffets are being replaced by the hot and cold pre-plated/covered and pre-packaged food component," says Stephen Young FCSI and Michael Caruso.

While state by state regulations will vary, replacing buffet lines completely will increase. "Upon reopening, when social distancing becomes more flexible, customer behavior will change. Consumers may avoid buffet restaurants believing that crowds of people talking around exposed food, sharing the same utensils and sitting at common tables next to each other pose a greater risk of coronavirus contamination," says Emmanuel Melo FCSI, design director of Studioino in Sao Paulo, Brazil.

To mitigate against this, [Melo advises](#) that operators will need to "control the inflow of customers to avoid crowding". He also recommends restaurants use posters to explain their social distancing protocol, produce menus (where necessary) from disposable materials and "provide fixed washbasins (two or three per service line) or hand sanitizer dispensers" for customers at buffets.

Additional measures include no longer using central counters (service on both sides), or only employing them on one side, while staff must wear gloves and masks. Inside the kitchen, "all dishes and utensils must be washed and sanitized in dishwashers with rinsing at 84°C," says Melo.

In terms of new buffet formats, Melo advises operators employ a 'delivery' system "from the restaurant's kitchen to its dining room. Instead of the traditional buffet, a 'wall' formed by vertical refrigerated and heated grab-n-go displays." In these he recommends restaurants provide complete meals, food in portions and snacks, prepared and packaged in the kitchen [or a central kitchen]. This



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Salad bars are likely to provide pre-plated/covered and pre-packaged salad choices for customers

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new format will be easier to adopt for the commercial restaurant segment and for decentralized kitchens in the corporate foodservice sector,” he says.

CONCLUSION:

Looking overseas, the experienced Australian design consultant Tim Smallwood FFCSI believes foodservice designers must prepare for the post-pandemic future by thinking outside of the box. “The challenge will be for designers to reframe the questions to identify the problems the disruption has raised and to enable the flexibility to adapt to a new future,” he says.

“Good design has the power to transform a problem into an innovative solution. For those designers and businesses who have demonstrated their ability to look beyond the obvious and see the potential, the next few years may yet prove to be especially fruitful because the new environment, although different, will be no less rich in possibilities for those who are prepared,” says Smallwood.

“Good design is good business,” said IBM’s president, Thomas Watson Jr. Now, more than ever, foodservice design consultants can demonstrate their value by showing that intelligent, practical and considerate design can enable businesses to get back on their feet and be ready for the next challenge.

NEED TO KNOW:

- Be flexible: adaptability is key. Some short-term design measures may not be fit for purpose in six-months. Think outside of the box and communicate clearly with clients.
- Be cognizant of how other sectors approach sanitation and social distancing control in design. Healthcare has great experience of contamination control and risk management.
- Be ready to work with – and adapt – what is already available. There will probably be a gradual evolution in foodservice equipment development rather than a ‘big bang’ of reinvention.
- Be ready to rely increasingly on the implementation of technology. Good design, allied with technology, can limit the risk of spreading the virus, but also enable an improved customer experience.
- Be prepared: opportunities exist for those who plan ahead, foresee future challenges and listen to – and learn from – their peers.

FURTHER INFORMATION:

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