

E-COMMERCE AND THE CHANGING FACE OF RETAIL

The Power of Flexible Design



Over the past 20 years, retailers are the living embodiment of the oft-used adage, “Change is the only constant in life.”

In just two decades, e-commerce transformed the retail landscape. Over that timespan, e-commerce grew nearly twentyfold in the United States, from \$28 billion to \$520 billion. As e-tailers emerged by the thousands, many established brick-and-mortar retailers struggled to survive. This changing landscape forced many established retailers to rethink their models. The most successful are introducing two divergent strategies: experiential retail and their own branded e-commerce platforms. By offering both in-store and on-line service, retailers are able to straddle the line between physical and online shopping.

The transition, from providing an exclusively physical shopping experience to one also offering on-line shopping, may be the most important retail trend of recent years — one dramatically accelerated by the novel Coronavirus (COVID-19) pandemic. In just a few weeks, America’s retailers created contactless

shopping experiences, allowing consumers to purchase products online from local retailers, drive to the store, and have store employees deliver the products straight to their vehicles.

This experience combines the best of physical and on-line shopping. There’s no searching for products; product and inventory information is available with just a click. There’s no waiting in long lines to pay, nor do they have to wait days — sometimes weeks — for purchases to arrive. From the consumer’s perspective, shopping online is a win/win.

The evolution from retail to e-tail, and the introduction of contactless shopping, are not news; satellite testing programs were underway long before COVID-19. However, the current environment dramatically accelerated implementation — people across every socioeconomic bracket in every U.S. state are forced to stay home. Some experts think that the COVID-19 crisis hastened the transition by as much as 25 years, and that poses significant issues for retailers.

CHALLENGES AND OPPORTUNITIES

One of the greatest challenges facing retailers is their physical constraints — location, parking, land, and buildings designed to serve the current retail model. Today's stores were developed to serve a single purpose — provide a place for customers to browse aisles and shop. Today, however, retailers need their buildings to do much more.

Changing trends forced national and regional retail chains to double down on their locations. They're reallocating space or expanding facilities at current stores to serve as warehousing and distribution centers, shipping products purchased online from these existing assets.

It's not just their own e-commerce operations that they need to plan for, either. Some retailers also serve as return centers for Amazon and other e-tailers.

Some retailers sought to compete with on-line options by providing the one thing not available — human connection. They retooled stores and locations into experiences with “living rooms” or private retail coaches. The impact of COVID-19 on these investments is stark, taking away their uniqueness by limiting interactions onsite and closing some all together. The question remains if customers will return to these locations when allowed.





WGI's site planners are helping our clients — commercial developers and retail tenants — meet constantly evolving facility needs brought on by the e-commerce revolution. Our Flex Design philosophy is built around creating site layouts and building placement that can be readily adapted for changing customer-use patterns. For retailers, that means designing buildings that can serve multiple purposes, including traditional brick-and-mortar shopping functionality, customer experience, warehousing, and distribution. Clients are also starting to include drive-through and curb-side services in areas that have never experienced it, e.g. Best Buy, Home Depot, etc. This isn't going away — it is expanding.

WHY FLEXIBLE DESIGN AND WHY NOW?

The real estate sector is facing a multitude of disruptive trends from emerging technologies, climate change, demographic changes, and now COVID-19. While we cannot precisely describe the direction and timing of these changes, we can work with clients and other professionals to understand possible and plausible futures. The next decade of design will focus on site plans and blueprints that work well under a variety of future scenarios.

[WGI's commercial outlook](#)

Initially, a new building may be designed as 80% retail space and 20% warehousing and distribution, while allowing enough flexibility to reverse these roles over time.

The initial design flexibility accommodates immediate needs (such as loading docks and storage space), while also easily and cost-effectively permitting necessary shifts with the emergence of

new delivery vehicle types (including autonomous vehicles and drones), and changes to inbound- and outbound-delivery patterns as e-commerce evolves.

Residential and commercial development can also benefit from Flex Design. With e-commerce's rapid growth, residential and commercial building managers will need the space to

accommodate parcel and food deliveries, as well as passenger-loading zones. Flex Design allows owners to determine how much delivery drop-off space is required now, and how much is likely to be required over time, all while promoting flexibility to meet curb demand. For example, anticipating future parking reductions and what to do with excess property in suburban retail.

THE FLEX DESIGN APPROACH IS BUILT AROUND FOUR PHASES:

- PHASE 1** Work with owners and their strategic planners to assess trends impacting their business operations and customer needs.
- PHASE 2** Consider trends and business objectives, to determine what the site and space need to accomplish.
- PHASE 3** Work with modeling and study results, to determine options for optimizing how the site and space can be fully utilized.
- PHASE 4** Employ flexible design that maximizes utilization now, while allowing for future flexibility.

WGI FLEX DESIGN PRINCIPLES:

In the face of rapid change and uncertainty, WGI is committed to services that manage risk through thoughtful planning and design options. We are developing a suite of services built on the following principles:

1. WGI will work with clients who wish to consider services and solutions that anticipate and account for disruptive trends and impacts.
2. WGI will assemble multi-disciplinary teams needed to assess and design for flexibility, and where possible, identify solutions that deliver multiple client and community benefits.
3. WGI will help navigate the need to adhere to industry standards while taking advantage of a growing list of innovative design guidelines, alternative standards, pilot project design, and modular building materials.
4. Stakeholder engagement is central to new approaches and flexible design. WGI will provide research, education, and “myth and fact,” important aspects of engagement and working with critical partners.

The Flex Design approach is a true collaboration between owners and the design team, fully meeting the owners’ immediate needs, and those anticipated well into the future.

SPOTLIGHT: FLEX PARK

Parking plays a vital role in any Flex Design. In fact, parking is so elemental to the success of any development that WGI created a separate Flex Design approach for it that we call Flex Park™.

Flex Park was born from the idea that the evolution to smart cities and the introduction of self-driving and self-parking cars will impact parking demand to such a great extent that newly designed parking facilities should provide for flexible use. If parking demand decreases in 10 or 20 years because of

self-driving cars and the proliferation of TNCs, sections of parking garages can be easily and cost-effectively refit to serve other uses.

The same concepts apply to retail parking and e-commerce. The addition of loading docks to serve e-commerce impacts traffic flow on a property’s footprint. Likewise, delivery vehicles are changing — from electric cargo bikes to autonomous delivery robots. More e-commerce means increased delivery activity, which translates into new patterns in

loading dock, customer dwelling times, circulation, and traffic.

Concurrently, personal vehicle use in parking areas will change, too. As retail space is converted to warehousing and distribution, less parking is typically needed. However, parking areas may see different uses. For instance, if curbside pick-up remains a common service even after the COVID-19 crisis abates, retailers will need to permanently alter their parking areas to accommodate this service. They may also need to make changes to the stores

themselves, adding discrete e-commerce pick-up/drop-off areas away from store entrances. This would make the e-commerce customer experience much more convenient, promoting a safer pedestrian experience for those visiting the store in person. Providing a separate area solely for e-commerce's vehicular traffic not only enhances pedestrian safety, it preserves the traditional brick-and-mortar shopping experience they are used to. One of the most significant hazards in any parking lot or garage is the risk of drivers being hit by other cars after they leave their vehicles. It's essential to minimize

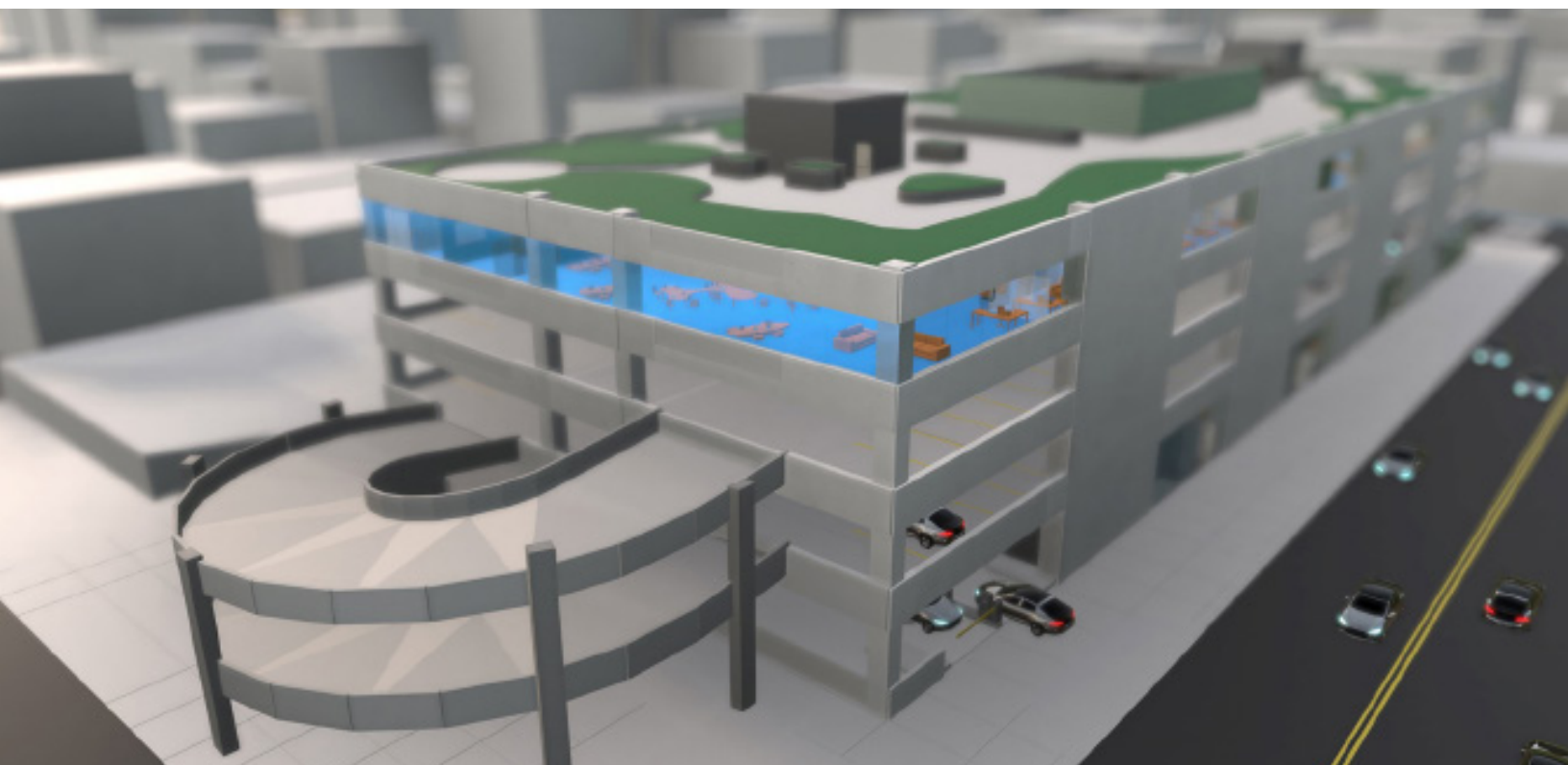
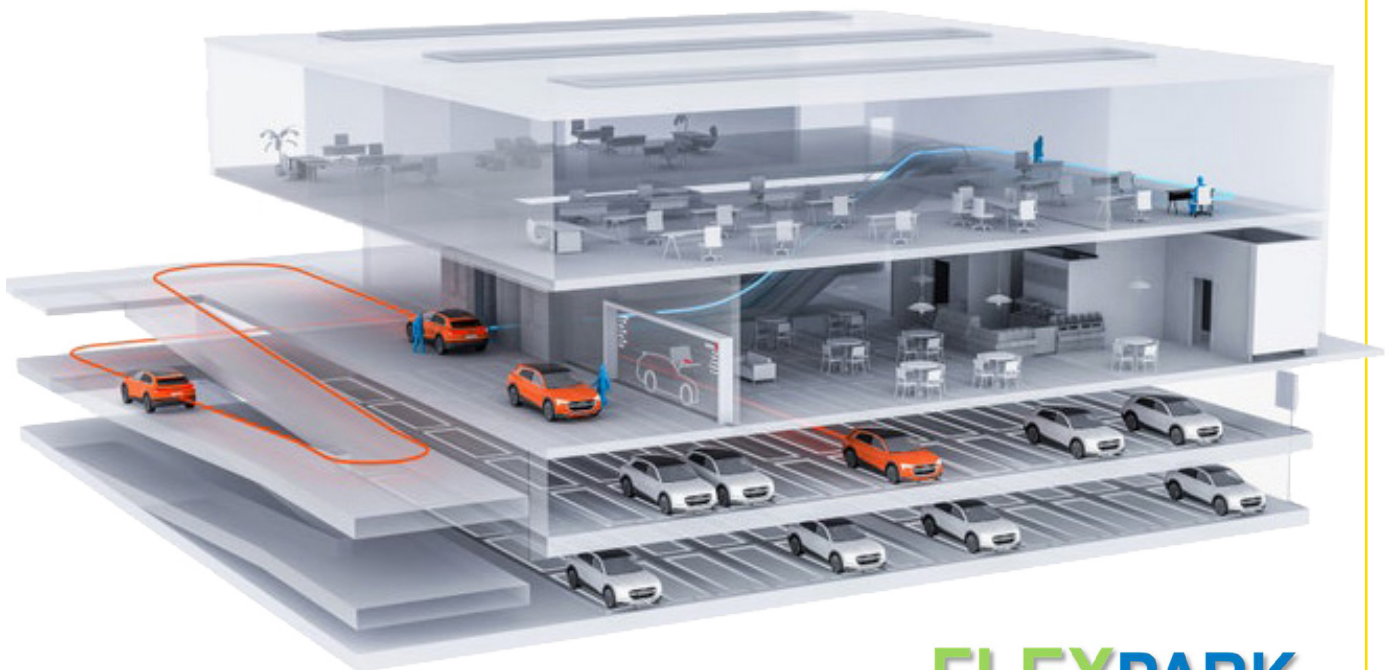


Image Courtesy of Kerkstra Precast

that risk by designing parking areas that minimize interactions between pedestrians and moving vehicles.

Just as Flex Design provides a framework for creating buildings adaptable to new uses, so does Flex Park™. Following the same four-phase approach, WGI parking planners and designers determine the goals of the individual uses in each parking area; study how the overall parking area, as well as individual areas within the parking facility, can be fully utilized; and then create a flexible design maximizing utilization, while adapting to meet future needs.

In a parking lot, this is typically accomplished by restriping spaces, pick-up areas, and commercial-loading areas. Parking lots may also need modified entrances and exits, to and from the property, to separate private vehicles from commercial trucks, and pedestrians away from drop-off/pick-up areas. In garages, the flexibility tends to be built into the structure itself. For example, different uses require different load-bearing standards. Flex Park™ designers work with clients to anticipate potential future uses and build the necessary standards into each floor of the parking structure.



FLEXPARK™

TODAY'S WORLD REQUIRES FLEXIBILITY

The retail industry is in a state of flux, and not solely because of COVID-19. It has merely accelerated changes already happening. Today's retail environment requires flexibility and agility to quickly adapt to the constantly changing landscape. Flex Design can provide retailers that flexibility in their building designs, while Flex Park™ can do the same for parking areas.

Change is the only constant in life, and WGI can help retailers meet change as it comes.

PLANNING FOR UNCERTAINTY

WGI is incorporating next-generation planning techniques into projects. These emerging tools are critical for understanding and getting in front of trends. Some of these include:

Exploratory Scenario Planning:

These workshops and sessions examine change-drivers and associated impacts. Taking the most plausible scenarios, we can incorporate into design options.

Simulations:

Simulations provide brief models of how a project performs with changing variables in local settings.

Technology Foresight:

Working with technology partners, WGI tracks various, emerging pilot projects and plots their likely evolution and market-adoption rates. In this manner, we can help clients understand how technologies, alone and in combination, could impact space usage, operations, maintenance, and costs.

LET'S TALK.

For more information about this study or to have a conversation with one of our experts, please contact us:



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FLEX DESIGN SUITE OF SERVICES

In addition to FlexPark, we are pleased to offer the following services for adaptable, flexible design:

Logistics + E-Commerce: Our services help clients meet the growing opportunities with e-commerce and logistics. Services include:

- Technology Foresight + Overview
- Site Selection
- Due Diligence
- Redevelopment + Repurposing
- GIS Capabilities
- Entitlements + Permitting
- Traffic Impact Studies
- Curbside Management

Complete Streets+: A complete network of streets needs to consider growing competition for space from new technologies, communications networks, green infrastructure, and placemaking. Services include:

- Trend Analysis & Scenario Planning
- Inventory + Mapping
- Mobility Network Recommendations
- Traffic + Circulation Studies
- Curbside Mapping + Management plans
- Adaptable Street/Curb/Sidewalk Typologies
- Pilot Project Design + Monitoring
- Digital Infrastructure
- Landscaping
- Stakeholder Engagement

Mobility Analytics: WGI has a new partnership with UrbanSDK, providing data intelligence and predictive analytics. This powerful new tool provides real-time data feeds to assess mobility system performance. This helps overcome reliance on outdated forecasting methods that are not well-suited for constantly changing conditions.



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