Parking Technology-

By Bill Smith, Smith Phillips

On the March:

How technology has transformed parking

he headline of an article recently published by The Outline declared:

are pretty ugly when parking their cars. The subhead read: The worst part of driving will never get bet-



Bill Smith

ter. The worst part of driving will never get better. But is parking really the worst part of driving? In fact, over the past decade parking has gotten immensely more convenient and pleasant, largely because of the introduction of innovative new technologies designed to make parking more driver-friendly and manageable.

"We are in the midst of a technology revolution that has seen the introduction of unprecedented technological advancement," said Dan Kupferman, director of Car Park Management Systems for Walker Consultants. "Technology has made parking more efficient, more precise, and easier to operate. It's also making parking more customer-friendly than ever

before."

Access And Revenue Control

Parking access and revenue control systems (PARCS) have long been technology staples for parking facilities. PARCS equipment controls who enters and exits parking facilities, while at the same time managing how users pay. Since people often enter buildings and building complexes through their parking facilities, parking also serves as a de-facto lobby that's managed by their PARCS equipment.

PARCS is also the cornerstone of one of the most excit-

ing new trends in parking: frictionless parking. Frictionless parking permits drivers to park without interacting with traditional payment systems, and it revolves around a suite of technologies built on top of a Parking Access Control System. In addition to PARCS a frictionless suite can include license plate recognition (LPR), barcode readers, and reservation software. When combined in a frictionless suite, these technologies can make parking seamless and interactive by removing the need to stop at gates to enter or stop at exits to pay.

Parkers just drive in and out as they wish and the system recognizes the vehicle, associates it with a previously generated credential, and bills the driver or credits it to a permit, often through a smartphone.

Parking reservations—or pre-booking—technology is also an important element of frictionless parking. Pre-booking platforms permit parkers to reserve a space in a particular facility from a home computer or mobile device. Some systems even allow parkers to reserve a specific parking space in a parking facility. When drivers arrive, their names are displayed on signage above the space, making it easy for them to find the correct space.

"Modern parking reservations technology offers drivers unprecedented convenience," said Theresa Hughes, Chief Executive Officer of Chauntry, the company world's leading parking reservations provider. "Nothing is more frustrating than having to waste valuable time searching for a parking space. Now people can leave their homes knowing that there will be a parking space waiting for them."

Parking Guidance

Parking guidance systems (PGS) represent another technology that has dramatically improved the parking experience. By its very nature, PGS has always been about customer service. By guiding drivers directly to open spaces, PGS eliminates the anxiety that often comes with parking and significantly reduce the amount of time it takes to find a space.

"Parking guidance systems take all the uncertainty out of finding a parking space," said Dale Fowler, director of INDECT USA, a leading provider of parking guidance systems. "By guiding drivers directly to open spaces, and then directing them back to their cars when they are ready to leave, the technology eliminates the parking frustrations that used to be so common."

But parking guidance technology has advanced by leaps and bounds in the past few years, and today it makes parking even more convenient. For instance, some parking guidance sensors have license plate recognition technology build in so each sensor can identify individual vehicles. This feature can be used in frictionless

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Spring Preview-

Two essential steps to protect your ...

continued from page 5C you crank up that AC.

Protecting your business from the volatile energy markets can be accomplished with good planning. A combination of strategic supply-side purchasing and demand-side energy efficiency measures is a great start to taking control over one of your largest expenses

Chuck Hurchalla is president of Evolution Energy Partners, a premier full-service energy consulting firm with extensive knowledge of the deregulated energy markets. Evolution Energy Partners' executive team has over 80 years experience in energy procurement and energy engineering - and has used this

expertise to help clients maximize the opportunities while minimizing the risks that these markets pose. How a business uses energy is an important factor in managing energy needs, therefore services are designed to address both the supply and demand sides to achieve clients' energy goals.

2018 Industrial Real Estate Trends...

continued from page 6C and bank regulations on development opportunities. Consequently, pre-leasing rates in the northeast are among the highest in the country at over 85% in 2017. In addition, capital is adopting speculative build-to-core strategies in secondary markets to meet return requirements and satisfy immediate tenant demand. The Rockefeller Group acquired

a 228-acre site with plans to develop 2.2 million s/f in Piscataway, NJ, a branch of the NJ Turnpike Corridor, with the first phase already 100% pre-leased to a large national retailer. We had significant institutional interest from all investor types to provide joint-venture equity up front for a multi-phased project.

We expect higher transaction volume in 2018 as in-

vestors continue to be under allocated industrial product when compared to other asset classes. In addition, we expect larger portfolio sales and recapitalizations to be a significant trend in 2018 as developers take chips off the table while still maintaining partial interest.

Marc Duval is director at HFF's Florham Park, NJ office. ■

Design is transforming . . .

continued from page 7C residents use common spaces more often to live, work, and play, they have transformed into living rooms! The lines between public and private spaces are blurred and this provides an opportunity to join the "sharing economy" and figure out how to integrate what is important to the community into the space. Not only is coworking transforming design, so is the need for personalization. In order to personalize a space, technology can help with state-of-art fitness machines that record, analyze and share performance and progress. Media lounges can offer Bluetooth connected speakers; virtual theatres allow you to plug in from a

mobile device where you can stream video and watch Netflix; iCafes with USB ports and other web-access features are now common practice. PET FRIENDLY: It's a pet revolution! Pet ownership is on the rise with more than 70% of apartment renters owning either a cat or dog. Dog wash stations, pet parks, exercise stations, concierge services, even dog treats in the lobby, are becoming the norm. Multifamily Executive reported that AvalonBay hosts Doggie Paddle pool parties, Yappy Hours and pet CPR classes to bring pet lovers together in their community.

Richard Gacek is the Principal Designer of Gacek Design Group.

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continued from page 12C parking systems or to enforce spaces using black and white lists, notifying enforcement officers if an unauthorized vehicle parks in a reserved space.

Most PGS systems also come with Find My Car features that allow drivers to find their vehicles if they've forgotten where they parked. Finally, sensors can be equipped with surveillance video equipment monitoring individual spaces so if a parked car is hit by another vehicle, or if a parker is the victim of a crime at his vehicle, the entire episode will be recorded for the protection of those parkers.

PGS systems have always also provided important administrative benefits. For instance, they collect utilization data that can be used by parking owners to make informed parking management decisions. They also maximize utilization of available spaces by reducing the risk that parkers will give up and look for someplace else

to park. In addition to generating more revenue for owners by maximizing occupancy, PGS can also help owners defer capital costs because garages that appear to be full when they aren't often lead owners to mistakenly believe they need to invest in new facilities or the expansion of existing garages.

"When you consider that owners typically consider their facilities to be fully occupied at 85 or 90%, being able to fill that remaining 10 to 15% of currently unused spaces can be a huge benefit," said Fowler. "For the typical mid-sized parking structure that translates to tens of thousands of dollars a year in additional revenues."

But there are other ways parking owners benefit as well. For instance, by making parking so much more convenient, PGS offers a competitive and public relations benefit. Drivers will want to park in facilities that are more pleasant and convenient. PGS also makes it easier for owners to charge dy-

namic rates that reflect actual parking demand because they can measure occupancy in realtime and adjust prices as needed. Similarly, owners can use PGS to establish VIP, economy, and other designated parking areas and charge accordingly. Finally, in areas where parking turnover is desired, parking guidance systems can be used to enforce parking time limits, let drivers know when it's time to leave, and inform enforcement personnel when a vehicle has overstaved the time limit.

Pay-By-Phone

Mobile payment has matured incredibly over the past decade. No longer is the technology merely a platform allowing drivers to pay for parking sessions with their phones. Today it serves as a gateway providing access to a vast array of services.

Pay-by-phone has always been about parker convenience, and the latest advances have raised the bar considerably. Now drivers can move from their first thought of visiting a destination to reserving parking, choosing shops or other activities to visit, validating their parking session, and finding their car when they are done, all on a mobile device.

And convenience goes both ways. Parking owns and local businesses benefit just as much. New mobile services can generate and send interactive e-tickets for a variety of wallets, smartphone platforms, and ticket technologies, such as 2D-Barcode, Bluetooth and NFC. Additionally, local businesses can band together to maximize the promotion of their locations by marketing parking assets as part of the customer journey. For example, they can distribute visitor passes with reservations. validate visitors, and distribute promotional coupons. These services can be a vital entry point that moves patrons from having initial interest along a spectrum that ultimately leads to customer loyalty. These are

just some of the ways that mobile strategies offer efficiency while providing new manners of engagement.

"The evolution of pay-byphone technology has been extraordinarily beneficial to both drivers and businesses," said Dan Kupferman of Walker Consultants. "Mobile technology was always very convenient for drivers, but today it is much more flexible, user-friendly, and useful."

Exciting Times

Technology has transformed the parking experience, and far from being "the worst part of driving," today's typical parking experience is much more convenient and pleasant than ever before. And with the constant pace of innovation we can expect even more exciting advancements in the coming years.

Bill Smith is public relations consultant specializing in parking, and a contributing editor to Parking Professional magazine.