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NPA Holds "Boffo" Show in Las Vegas

The National Parking Association opens its convention. Participating in the ribbon cutting ceremony are: (l to r) David Douglas, Douglas Parking, NPA Convention Planning Co-chair; Steven Douglas, Douglas Parking, NPA Convention Planning Co-chair; Marty Stein, President, National Parking Association; Roy Carter, Toledo Ticket Co., Chairman, NPA Allied Division; Herb Anderson, Impark, Chairman, National Parking Association; Andrew Blair, Colonial Parking (DC), Immediate Past Chairman, National Parking Association, and Jed Hatfield, Colonial Parking (DE), Chairman Elect, National Parking Association. The convention in Las Vegas was the best attended convention in NPA history and sold out its trade show. Pat Langfeld of the NPA commented: "The exhibit hall was packed all three days, and the great enthusiasm of the crowd created a constant buzz. All in all, we were thrilled with the results."

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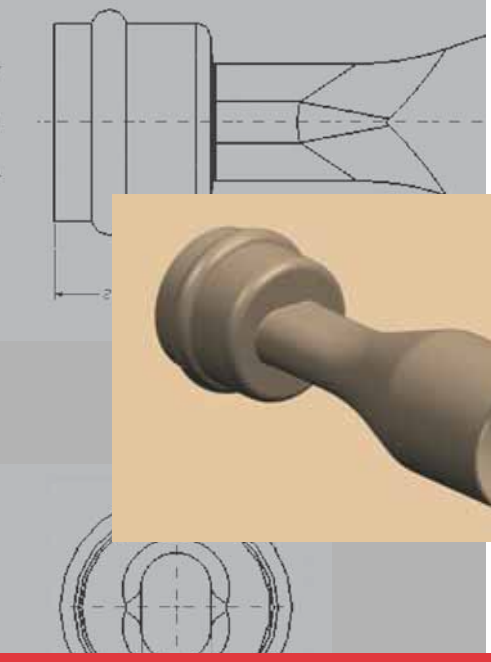

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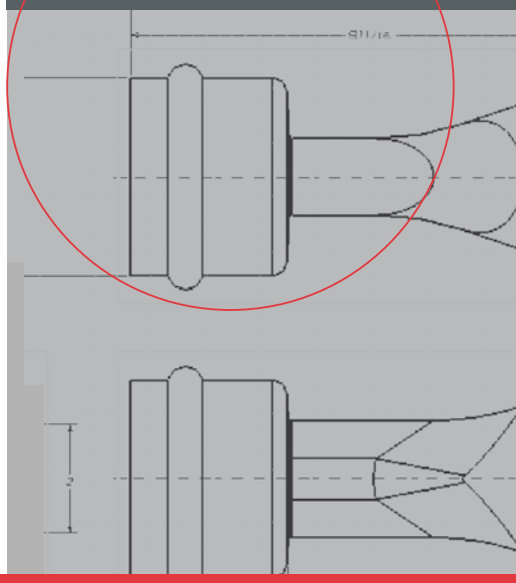

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Unique Hybrid Design T

BY CHARLES CHURCHES, SR, P.E

In most cities, surface parking is an expensive and inefficient use of valuable acreage. Not surprisingly, to leverage the capacity and the financial potential of a parcel of land, many property owners build multi-level parking structures.

At Ruby Memorial Hospital in Morgantown, WV – the teaching hospital for the West Virginia University School of Medicine – parking had become a significant problem. The growth of the hospital's new cancer treatment center was putting parking at a premium in its recently constructed downtown garage. With no additional acreage available for surface parking, it was essential for the hospital to expand the capacity of its existing parking garage without enlarging its footprint. Unfortunately, merely adding another level was not a simple task.

The Foundation of the Challenge

When Carl Walker Construction of Pittsburgh designed and built the 225-space precast parking structure for Ruby in 2003, the hospital decided against incorporating foundation structures that could support future vertical expansion. Within two short years, the garage was constantly at full capacity during all hours of the day, and spaces were not available for patients who needed them. Ruby had made a substantial investment when it built the precast structure, and was unwilling to demolish a parking garage that was only two years into its 50-year lifespan. The challenge was to develop a strategy for adding another level – and 105 more badly needed spaces.

"There was really no way to add another level using the same type of precast structural system," said Len Tsupros, President of Carl Walker Construction. "The foundation system would not stand up to the additional load another level would create. In addition, the garage was now landlocked on three sides due to construction of the cancer center. Even if the foundations could withstand the additional load, it would be physically impossible to raise the additional precast framework into place."

Tsupros knew he needed to build the new deck using a structural system that was lighter than precast. He also knew that marrying the new system with the existing precast garage would be a significant challenge. To address these challenges, he turned to Charles Churches, P.E., for advice. Churches had worked with Tsupros on the original garage design and was familiar with both the structure and the site.

"When I talked the job over with Len and discussed all the angles, it became immediately clear that a steel-framed, post-tensioned deck was the only solution that was going to work for Ruby," Churches said. Tsupros and Churches worked together on developing a design, and submitted it to Ruby for review and acceptance. Within a few weeks, approval was received and the job was under way.

To support the load of the additional parking deck, the precast structure needed to be reinforced. In addition, direct ties had to be made between the reinforcements and the existing foundation system.

"Our first challenge was to reinforce the precast center wall of the garage so it could handle the large point loads we were deal-

akes Garage Up a Level

ing with," Tsupros said. "We installed cast-in-place columns at 20-foot intervals all the way down the wall. The bases of the columns were tied into the existing caisson and grade system, and the precast floor tees were cut to allow the columns to rise to the top level of the precast structure."

Once the reinforcement was complete, the steelwork was installed. Center supports of the post-tensioned deck were tied to the new cast-in-place supports. At the perimeter of the building, steel columns were erected on the tops of the original precast structural columns.

"To install the steel columns at the perimeter, we fabricated base plates that fit over the heads of the precast columns," Churches said. "The steel columns were welded to the plates and then dropped into place. They were secured with bolts that were epoxied into the existing columns. When the steelwork was complete, precast façade panels and column covers were installed to seamlessly integrate the new post-tensioned deck with the original precast structure."

With the structure in place, the concrete decks were installed. When the concrete was cured, steel plates were installed to make the transition between the end of the precast deck and the beginning of the post-tensioned driving surface. In the meantime, the elevator tower and stairwells were modified to serve the new parking level; life safety systems were installed; and the new deck surface was waterproofed to protect it from the elements.

This $2 million project was completed in five months, and the garage remained open to hospital visitors, staff and emergency vehicles during construction. The additional parking capacity cost approximately $19,000 per additional parking space, and the lifespan of the hybrid garage is estimated to exceed 50 years,

"Carl Walker Construction did an exceptional job on this project," said Josh Clovis, Project Manager in the Planning Design and Construction Department at Ruby Memorial Hospital. "They understood our challenges, came up with an innovative way to expand our existing garage, and did it all in an extremely short time frame. We were very pleased with the outcome."

Tsupros also was pleased with his firm's accomplishments. "This garage is really a one-of-a-kind structure. It demanded that we do some creative thinking that most firms in our business are not set up to do. In the end, we showed that you can effectively bring together two different structural systems, expand parking capacity and lifespan, and end up with a truly attractive parking garage."

Charles Churches, Sr., P.E., is Director of Marketing and Business Development for Carl Walker Construction. For more information log on to www.carlwalkerconstruction.com

PT

Q&A, Part II – Manufacturers Go Into the Witness Chair

Earlier this year, **Parking Today** reached out to more than 7,000 of our readers by e-mail and asked what they would like to know from revenue control manufacturers. We then edited those questions and sent them out to 25 different companies. The companies below responded to our request.
We discovered that our readers wanted to know a lot, and that our respondents wanted to say a lot. So we have divided this response into a number of parts. What follows is Part II, including questions about parking meters, the cost of parking equipment, delivery time, service agreements, lane counting systems, and cash vs. credit. Note that we have edited some of the responses for length; however, we did not change the answer or the tone. If a company is not listed as a responder, they either elected not to respond or felt the question not appropriate for their product line.
The first four questions were answered in October. The final three questions will be answered next month. Editor.

5 Are parking meters moving toward credit card acceptance?

Digital Payment Technologies – Our company has several clients where credit card payment represents over 70% of all transactions. Cashless systems like credit cards are becoming more and more in demand for all transaction-based systems, including parking meters.

MacKay Meters - Yes. As technology continues to improve, so will payment options in the meters.

Metric Parking – Approximately 90% of our current orders are for machines accepting credit cards.

Parkeon – Our on-street multi-space parking meters have accepted credit cards for over 10 years now. And we've done it with real-time online authorization, lowering our clients' risk of fraud and eliminating the need to purchase and manage blacklists of bad card numbers. Off-line credit card acceptance is no longer a viable solution in today's world, and we provide real-time credit card acceptance in both pay-and-display and pay-by-space meters. Anything other than that structure is not serving the client well.

POM – Not at this time. With the high PCI-compliance costs (see late-summer **PT** Parking Blog entries) and the high credit card fees that cut into city revenue, it just doesn't make good business sense for us. We're still up to our ears in orders for meters that take cash and smart cards, so we'll just keep doing what we do best. Note that most on-street equipment that take credit cards are multi-space or P and D equipment, not single-space meters

WPS – Apparently all pay devices seem to be. I think cell phone payment is a better alternative for meters/P and D.

6 Why is parking equipment so expensive compared with other sectors/technologies? Our clients argue that prices of computers are going down every year, but parking equipment is still expensive.

Digital Payment Technologies – Difficult question to answer without having a specific sector or technology to compare against; however, client demand for more features within parking technolo-

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Q&A, Part II – Manufacturers Go Into the Witness Chair

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gy drive software development costs, as well as the need for more advanced hardware and new devices that can add to the cost.

Federal APD – While there is no question that parking equipment can be compared to a computer, remember this is only one component of the products that comprise a parking and access control system solution. There still is a significant amount of additional hardware that comprises what constitutes lane equipment and the total parking facility management solution. Today's parking solution manufacturers are faced with significant rising cost in raw materials (metals, electronic circuitry, mechanical hardware, etc.), as well as the OEM automated currency handling components associated with automated cashiering stations. The industry requirement for increased levels of automation and custom operational functionality requires additional development costs on behalf of the leading parking solution manufacturers. Purchasers of these solutions should take into consideration that every equipment provider has competition and it is their ability to choose that continues to keep the cost for equipment reasonable.

Hamilton – The volume of parking equipment sold is limited when compared to products sold in many industries, requiring that development costs be recovered over fewer products sold. Also, the volume of components purchased to manufacture equipment is not sufficient, in many cases, to obtain larger discounts from suppliers.

MacKay Meters – Unlike computers, parking equipment has a very narrow market to recoup development costs and overhead (primarily municipalities). Computers recoup by selling volume. You probably have at least one computer in your home, but you likely don't have a parking meter. Raw material prices, cost-of-living adjustments, increased shipping costs and competition all put pressure on a company's bottom line. Not to mention that parking meters have to be engineered to withstand vandalism and extreme weather, as well as to constantly feature new functionality.

Metric Parking – The prices are going up because of the demands coming in from the customers. Free trials, PCI-compliance, included extended warranty, custom software (that can be used only for a specific client). These features cost money to develop, test, then build and implement. Additionally, these units have more than a PC. They have metal casings, metal vaults all made to be vandal resistant, and many other features that have cost. I have been in the P and D industry for over 12 years, and the prices have come down over the years!

Parkeon – A multi-space parking pay station is much more than a computer. It is an amalgam of wireless communications (modem), ultra-efficient solar-power technology, super-sensitive coin and bill validators, credit card readers that also accept smart cards, sophisticated on-board machine self-diagnostics, high-security locks and vaults, specially engineered trigger-shut collection devices, specialized housing that can withstand the elements and thwart vandalism attempts, and much more.

POM – Computer volume is much, much higher than parking equipment volume. Volume drives down the cost of components, creates manufacturing efficiencies and lowers shipping costs. Additionally, housings for parking equipment have to be rugged enough to withstand the elements, vandalism and tampering. Those materials are more expensive than the materials used to house computer components.

Scheidt & Bachmann – I argue that the equipment, when a realistic comparative assessment is made, is actually priced commensurate with other similar technologies. However, keep in mind that while it appears that computers are going down, the needs and the expectations of the users, particularly from an IT and data-sharing prospective, are increasing dramatically. For example, while one could state that a Dell desktop could be had for about $800 compared with, say, $1,500 seven years ago, the operation that was stand-alone five years ago (and could use the desktop unit) now has online credit card processing, a high-speed connection router, and a network connection to a server in the main office. The demands that are commonplace today far outpace the incremental decrease in unit hardware.

Standard Parking Systems – Parking equipment is a specialized business. It's not so much the cost of a PC but the cost of the software that runs on the PC. These software packages are written specifically for the parking industry and cannot be sold to any other vertical market.

The prices are going up because of the demands coming in from the customers.

T2 – Traditionally parking equipment has been built utilizing proprietary technology and communications protocols. As a result, the decreasing prices of computers and other general technology components have no effect on parking equipment. Utilizing standard components and communication protocols in parking access and revenue control systems enables customers to reap the benefits of decreasing price of technology.

WPS – Great question! The answer is simple economics – volume! Also, when PC-based products are purchased by businesses or end users, an inordinate amount of time to load applications and provide setup are managed internally by the buyer, along with a one-hour wait to Help desks. In parking, the added costs from manufacturers also covers the many hours spent "hand-holding" the client during their system setup and PC skills training – it really can be tasking.

Zeag – It is really a question of value versus price. We are certainly all aware that the price of home computers continues to move in a downward trend. There are many factors, however, that create distinctions between the computer industry and the parking industry. Not the least significant of these is the fact that computers are, for the most part, mass-produced with very few variations in the overall design or function. Parking is a niche industry with site-specific requirements. In real terms, the price of Zeag equipment has come down over the last 20 years. In addition to the savings offered through technology, we continue to improve efficiencies by sourcing and assembling in the United States.

7

What is the average time from a PO until installation for equipment in an already established parking facility – for example, installing a count system?

Digital Payment Technologies – Depending on manufacturing lead times and the amount of installation preparation and pub-

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Q&A, Part II – Manufacturers Go Into the Witness Chair

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lic notification of such a change, times can be as short as a week to several months.

Federal APD – This can vary depending on the size and complexity of the system (even just a count system). But, on average, for Federal APD from PO to complete installation on a retrofit is six to eight weeks.

MacKay Meters – Depending on the technology ordered and the quantity, typically 30 to 60 days from receipt of client specifications.

Metric Parking – If the customer has been talking with vendors for several months about a project, the equipment should be in local inventory and can be installed within a month. However, when a customer just calls one day and says they need 40 meters, companies don't always carry large inventories of custom equipment.

Scheidt & Bachmann – Ten days to three years. Is this an add to an existing system, a replacement? Is there civil infrastructure, product development, etc.?

Approximately 90% of our current orders are for machines accepting credit cards.

Standard Parking Systems – Four to eight weeks depending on inventory and site location.

WPS – It depends on the type of count system and how much work needs to be done on-site. My estimate for a counting system for four levels would be four to six weeks, assuming there are no bureaucratic delays with permits and scheduling.

Zeag – It isn't really possible to make a generalized statement about the installation of equipment since there are a myriad of variables that make it improbable, if not impossible, to determine timing. However, upon receipt of an executed contract and mobilization payment, Zeag normally delivers equipment within four to six weeks with an install period determined by customer needs and site conditions.

8 Do most suppliers furnish a service level agreement along with preventive maintenance agreements? What is the standard time for investigating a customer complaint on a ticket spitter, gate arm, card reader, automated equipment, etc.?

Digital Payment Technologies – Our company furnishes a service level agreement as part of our warranty and scope of service. We also establish preventive maintenance programs in association with our local resellers. Time to investigate a customer complaint depends on the nature of the problem, but our goal is to respond to any customer complaint within an hour of receiving a call/message.

Federal APD – That probably varies from supplier to supplier. We have agreements, and although each market can have slight differences, our clients have the ability to purchase service and preventive maintenance agreements that are customized to meet the unique requirements of their facilities. When under an agreement, clients should receive priority service over a (work) site that has a service request but is not under an agreement. The time to address a service- or maintenance-related issue varies slightly from market to market, and response time can be dictated by the service agreement. Keep in mind that the faster the response time, the higher the cost. Typically, service agreements call for a four-hour response time during normal working hours Monday through Friday (i.e., "call in the morning and we will be there in the afternoon; call in the afternoon and we will be there the following morning"). After-hours, weekend and holiday service are available for a premium.

Hamilton – Technical support is available six days a week.

MacKay Meters – We prefer to train our customers to handle non-warranty maintenance issues themselves. MacKay provides toll-free tech support (usually included in price) when needed.

Metric Parking – Yes, within 24 hours of the logged call.

Parkeon – Two answers. First, we do supply a service level agreement as well as a parts agreement and/or warranty. Second, in an on-street parking environment, the municipality or its contractor is responsible for the system and its care and operation. So Parkeon would supply a preventive maintenance schedule to the buyer, but the buyer or contractor would perform the preventive work. Also, any customer complaints would be up to the client to investigate.

POM – We offer extended warranties and service either through local distributors or pickup/turnaround service from our factory. Service is normally priced based on the actual repair parts/labor used.

Scheidt & Bachmann – Most of our projects are under some level of extended maintenance. Those that are not have on-site staff that has received a level of front line service training. Our goal is to provide service within a four-hour time frame. In some cases, we are there before the four hours and in some cases beyond the four hours. In every case, we attempt to have at least one site person able to address simple service items such as ticket jams and putting gates back onto a bracket. Some clients are amenable, while some expect hands-on service regardless of the issue or time of day.

Standard Parking Systems – This all depends on the dealer installing the equipment.

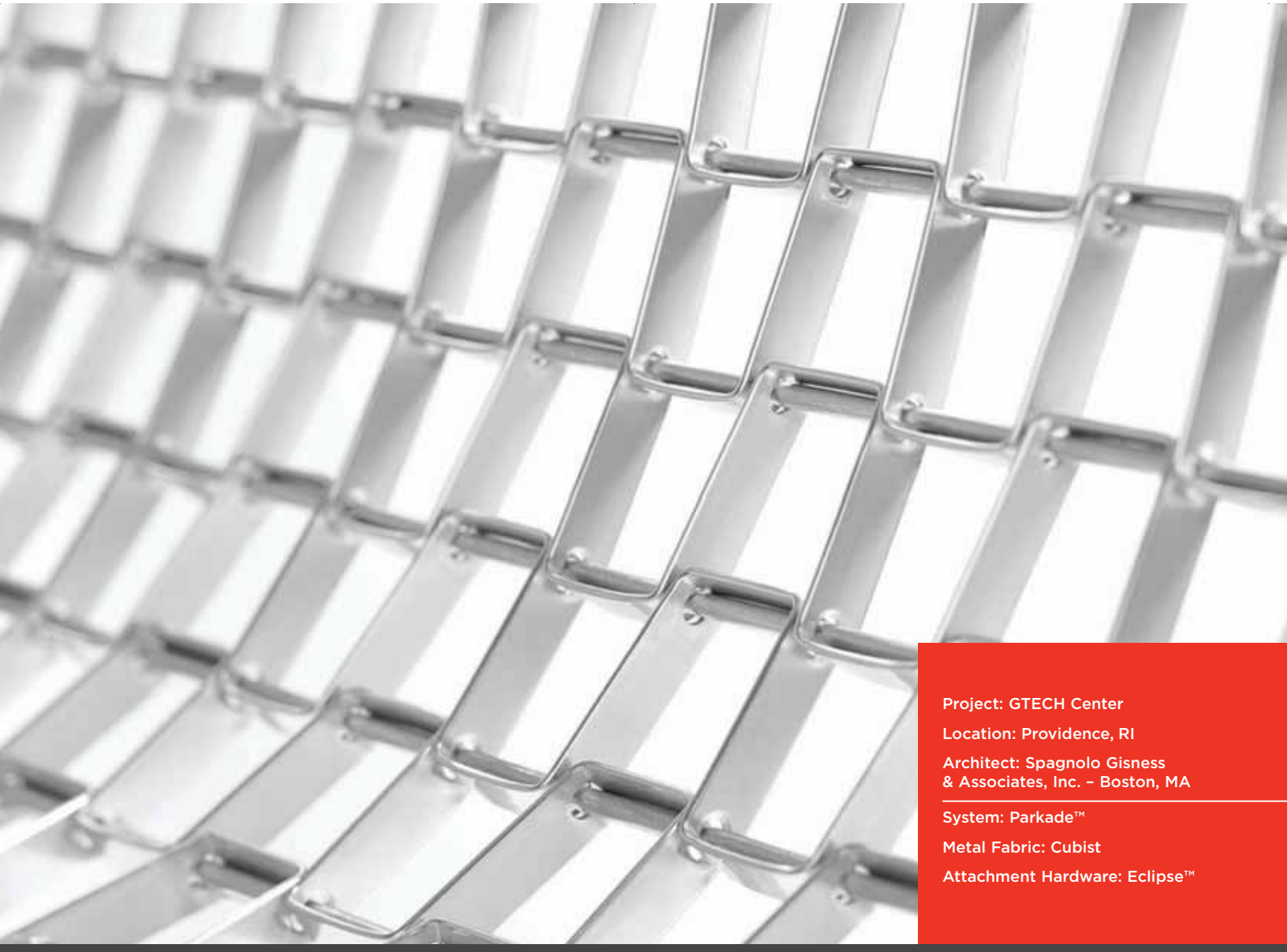
WPS – Yes, we do. Response times vary, but most should be handled within four hours or same day.

Zeag – We provide service contacts based on the individual needs of the customer. Without question, some sites require 24-hour coverage, while others seek to minimize their cost impact with options relating to response and repair times. We offer online software support and on-site support with a one-hour maximum response time. As the manufacturer, we also offer fully comprehensive support contracts, allowing the owner to budget their entire support cost for the year.

To be continued …

The final three questions will be answered next month in **Parking Today**. They focus on "green" issues, specialized counting, and cash vs. credit card.

PT



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SPECIAL CONSULTANT'S SECTION

The Unknown Vendor

Parking Today sat down with a number of vendors over the past few months and talked about equipment, specifications and consultants. The only way they would speak was on the condition of anonymity. What follows comes from the "unknown vendors." Editor.

"(Consultants) write specifications that no one can meet, and then criticize us when we can't or won't meet them."

"They have little in-depth understanding of the PARCs system, but the owners follow their advice, often to the detriment of the operations of the garage."

"We try to educate them on our systems and the technology behind them, but they seem uninterested."

Frustration is rampant among the revenue control manufacturers when they talk about trying to bid specifications. Some of the issues are highly technical; others are mind-boggling simple.

"We were bidding a job in an existing garage, replacing existing equipment. I walked the garage and saw that the existing equipment was scratched and banged up. Some of the lanes were closed because the equipment was so beat up it didn't work," said one unknown vendor. "I got in my car and drove through the lanes. The turning radiuses were all off. There was no way a driver could maneuver through those lanes without potentially hitting the equipment. This is Parking 101. The design was awful."

They specify features willy-nilly, blend one from one vendor with one from another, and then expect them to work flawlessly.

The vendor went on to note that the worst part was that the consulting firm that specified the new equipment hadn't noticed the obvious problem and hadn't recommended any solution for it. "Sure, it would have cost a bit more to change the lane configuration, but then the main equipment problem in the garage would go away. The reason the owner was replacing five-year-old equipment was that it was so trashed it couldn't be repaired. Without changing the lanes layout, ours would have looked the same in a few months."

The problem, said another unknown vendor, is that the owner hires the expert to come in and fix a problem or write a specification for equipment. This is the guy getting $400 an hour. He talks to the owner and creates an expectation.

Then the vendors come in and look at the specification

The Unknown Consultant

This is a compilation of the responses from consultants. They, too, wish to remain unknown. Editor.

"First and foremost, we agree with many of the statements made – with just a few exceptions. I do have a problem with the inclination by many of the vendors you interviewed to paint all consultants with the same brush. I believe that much of what was reported – including specifications that no one can meet, lane geometry that doesn't work, specification errors, technical errors, unfamiliarity with specific technologies, poor or insufficient operational suggestions, ridiculously technical specifications preferred over clear performance specifications (referred to as operational specification) and even blatant plagiarism – unfortunately exists in our industry. I can even add a few on the consultant side that weren't mentioned, but that would be piling-on."

"Let's be fair: There is more blame on many fronts. Consultants, vendors, manufacturers, owners and operators all have contributed to making parking revenue and access control almost a laughingstock. The vendors have identified only part of the problem.

"I have worked in a parking booth, signed on a cashier terminal, emptied a pay-on-foot terminal, formatted numerous database reports (and actually knew what they said). I have done this on equipment of multiple manufacturers and actually am familiar with what are the strengths and weaknesses of most of the equipment on the market. In fact, I would guess that many of the consultants in my firm have far more 'booth time' than many of the vendors installing the equipment. So instead of getting on some silly Dennis Miller-type rant, work to fix the problem by first recognizing we are all to blame."

"I can't tell you how often I have been at a service call or installation and some young tech had the manual open on the gate box. Train them properly. The rest of the building trades produce detailed and high-quality professionally engineered shop drawings. Some of the parking technology submittals I have had the privilege of reviewing were terrible. When are vendors going to stop acting like system integrators? Custom systems are always problems; vendors have enough problems with basic systems out of the box. If one of our clients asks for a large amount of customization, we always advise against that strategy."

"Manufacturer's load up equipment with features that only a few of my customers will ever use. They often have dealers that are unqualified to represent the company and spend little time supporting the guys in the field. Much of the equipment is not designed with the capabilities of the end-user in mind.

"In the retail world, POS credit card transactions are rock solid (when was the last time you had a bad read at a gas pump?). Pay-on-foot credit card transactions at a parking facility I use often work about half the time. The big difference is the quality and frequency of maintenance.

"Manufacturers of parking technology know how often the equipment must be maintained, but do they tell the customer? No chance. That would put them at a competitive disadvantage. At some point, they will understand that reliability is far more

The Unknown Vendor

and offer alternatives. It puts the vendor in a defensive position. The owner says to himself, "They are just saying that because their stuff won't do what the consultant asked for." It's a lose-lose for the vendor.

'I'm not talking about differences of opinion here," noted another. "I'm talking about objective errors in a specification. "We had a spec that required fiber to be pulled throughout an entire facility. Fair enough. However, this was an IP-based system and there were already numerous fiber backbones throughout the garage. It would have saved a large amount of money and time if we just used the existing communications network. The consultant who specified the job, first, didn't know that the technology existed to use existing fiber and, second, didn't know that it existed.

"What are we vendors supposed to do in that case? Anything we say will make either us or the consultant look bad, and we have to keep the consultants on our side or we simply won't get any more work."

"Want to know the biggest problem? I'll tell you the biggest problem from my point of view, said yet another vendor, cowering in the corner behind a potted plant. "The consultants just don't know how this equipment works. I was actually asked by a consultant to describe how one audits our system. Isn't that something a consultant should know? Aren't they selling that knowledge to their owners?

"It's like this: There are tons of features on our systems and my competitors' systems. Most of those features are never used by the operator, the owner, or are even known about by consultants, except through reading our literature. They don't seem to understand how those features can be used in the operation of a garage. They just say "Gee, that's a good idea," and write it in the spec.

"Of course, when you write a specification from the point of view of what features are available on the market and not on how the feature is going to be actually used, a problem is created.

"I had a case where we were at a pre-bid conference. One of the bidders asked the consultant just how a certain requirement of the spec was to work. The consultant looked puzzled, and then looked at me and said, 'Can you handle this one? It's from your brochure.' As I started to mumble something, half the vendors in the room got up and walked out.

"Many consultants have never worked in a parking booth, never signed on a cashier terminal, never changed the cash vault in a POF, never looked at a report, or worse, understood what it means. Yet they specify features willy-nilly, blend one from one vendor with one from another, and then expect them to work flawlessly.

"And by the way, 90% of the features purchased on these systems are never used. Why is that? From my point of view, the consultant built a grandiose system, but the operator and owner weren't on board. These complex systems require 'high-end' people to run them. Do the consultants consider that fact when they specify? I doubt it."

The room was in stitches with this one:

"How many times have you received a specifica-

Continued on Page 30

The Unknown Consultant

important than the bells and whistles they are selling."

"The owners also are a problem; they see a bunch of 'features' at a parking show and demand that the consultant produce a patchwork quilt of a specification so they can get all the 'neat stuff' out there."

"Parking operators seldom invest in equipment and training. When Hilton takes over a Marriott flag, the entire POS system is replaced. Hilton managers are trained on specific systems with specific procedures. If operators would commit to a system and commit to a training program, it would make us all look better.

"By the way, we are not lawyers; we don't make $400 per hour."

"Last week. I purchased a new computer after the motherboard of my old computer died. I had my choice of processor, memory, hard-drive capacity, operating system, and even the color of the case. I had my old hard drive installed in the new computer, along with my Zip drive, 3-1/2" drive, an extra DVD/CD player/recorder, and even my trusty 5-1/4" drive. Once (it was) running, I was also able to use my existing speakers.

"All of these components were from different manufacturers, yet they all worked together, thanks to industry standards. My new computer even comes with a warranty that is valid regardless of the manufacturer of the other components in my system.

"Furthermore, if it breaks after the warranty period, I have a choice of repair locations. Ever try to read the data from an electronic parking meter from one vendor with a handheld unit from another vendor? Ever replace a damaged cashier terminal purchased from one vendor to an existing PARCS supplied by another vendor? Without standards, equipment manufacturers have created a forest of incompatible, often proprietary, assortment of hardware and software."

"For the parking operator, the purchase of parking equipment is often a once-in-a-career experience. It usually occurs for one or more of the following reasons:

- Existing equipment does not provide the level of control needed for an operation.
- The equipment is no longer serviceable (due to obsolescence or lack of manufacturer support).
- Existing equipment has been damaged.
- Renovation or expansion of facility provides ideal time to upgrade equipment.

"The parking operator is faced with trying to look at each tree in that forest to discover the best match for his/her needs. Not only must the operator consider the tree itself, but also the maintenance of that tree over the next decade. It is not an easy task. Many parking operators are better trained in management issues than in parking equipment. That is why many operators hire a consultant to assist in this process.

"The fact that parking operators need to hire a consultant to assist with the acquisition of parking equipment is an indication of the failure of the parking industry to provide standards for equipment and adequate training for those who manage parking facilities. So until such time as those shortcomings are corrected, the consultant will continue to participate in the process of equipment acquisition."

Nearly every complaint listed against consultants is also made by operators against equipment manufacturers. "Vendors don't listen to my needs. They promise a 'complete installation' but don't include wiring. They make $2,000 profit on every gate they sell. They lack objectivity. They say their equipment transmits data in 'real-time' but in fact, only certain data are transmitted immediately. They have never been responsible for managing a parking operation."

"They say service is always available, but when you call for service in Cleveland, the technician is in Denver."

Some of these complaints are based in reality. (Look at ORD and DFW.) Others are completely unfounded. The operator and consultant must take steps to avoid potential pitfalls and ensure that the equip-

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tion and thought it looked familiar, only to compare it with one you received a few months before and find it was word for word the same, even down to mistakes in lane configurations. It's as if one size fits all."

PT asked the group of vendors what they would recommend to consultants writing specifications. The general agreement was that specifications shouldn't be technical, but operational. If a company has a track record of success, why do you care what the clock time is on the microprocessor? The question in this case should be how fast is the transaction time? If you are satisfied with the answer, that should be all that's important.

If the spec is operational, it means that the owner and operator have sat down with the consultant and with his or her guidance discussed each issue and reviewed how the garage is to be run. Then those requirements can be written into the specification and the vendors can describe how they are going to meet those requirements.

There may be four or five valid approaches. However, if a technical spec is written down to the way paint is applied to the gate, many valid bidders may be excluded to the detriment of the bidding process.

It was generally agreed that it was not possible for a single person to be an expert in all revenue control vendors. Why not designate a person to become an expert on one vendor, really an expert? Visit the factory, work in a location where the system is installed, learn the good and the bad. Understand how it works and why it works that way.

Then when a spec is written and before it's released, let each have a look from the point of view of the bidders. The chaos that reigns at many pre-bid conferences might be lessened or eliminated.

PT

The Unknown Consultant

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ment purchased meets his/her requirements. Listing only operational requirements is, unfortunately, no longer possible in an industry with no real standards for equipment.

So without standards, how does the consultant help protect the operator from getting the wrong equipment? The consultant writes specifications.

Not every set of specifications is perfect. In fact, few are. That is why there are site visits, pre-bid meetings, corrections and addendums. Could the system be improved? Certainly.

Operators must realize that the purchase of new equipment will not solve all issues related to revenue diversion, and it will not make your operation fully PCI-compliant. Instead of creating 20 new customized reports, operators should attempt to use the reports provided by the equipment manufacturer. This will save money initially and help prevent software problems in the future when upgrades are installed.

Consultants can do a better job of researching equipment. They also can take advantage of opportunities to learn from equipment vendors. Finally, consultants should avoid using the same specs for every new project.

Equipment manufacturers can offer training, not sales promotions, to consultants. Over the past five years, I am aware of only one equipment vendor who has provided informational training sessions on parking technology during one of the national conferences. Only a few vendors have taken the opportunity to make an informational presentation at a meeting of the Parking Consultants Council.

Vendors can adapt standards. All barrier gates are designed to perform one function – go up and go down on command. All ticket-issuing machines are designed to issue tickets. Why not have a standard set of specs (call them PEM for Parking Equipment Manufacturer) for those basic pieces of parking equipment. Then, any operator could simply state that they want five gates that are PEM-compliant. The need for specs is now gone, along with the need to hire a consultant. The equipment vendor can then concentrate on software and service.

It is not a perfect world, but the consultant didn't write the specs for it.

PT

Alan J. Cruickshank & Associates

Alan J. Cruickshank & Associates (AJC&A) has recently applied its proven approach for two diverse types of parking operations. Each operation was reviewed and included personal observation of traffic entry and exit with particular emphasis on the revenue and access control systems.

At Louisville's Kentucky Exposition Center's five entry gates, drivers either pay a flat rate with cash or use a permit or pre-paid ticket. With multiple concurrent events, lengthy queues can result. Studies of the vehicular arrival patterns, plus the cash payment and permit transactions, allowed us to develop solutions for improved revenue and access control while maintaining overall traffic flow. This included a decrease of cash accepted at the entry locations, an increase in the type and number of pre-paid permits and tickets, plus a plan to channel vehicles to lesser used entry locations, based on method of payment.

At Boston's Massachusetts Bay Transportation Authority (MBTA) the preferred travel mode for many riders each work day is to drive to the rail station and park. The MBTA provides park-and-ride facilities that consist of 7 garages and 81 parking lots. AJC&A conducted a review of these parking facilities to identify the current revenue control operations and existing revenue control equipment to identify shortcomings. To facilitate a phased improvement program that will include use of the new MBTA transit smart card for payment of parking fees, technical, interface and operational ground rules were developed and a system design was drafted. In parallel, AJC&A developed groupings of facilities for operation by multiple commercial parking operators. RFP documentation was then developed and support provided through the selection of parking operators.

Uptown Waterloo

BA Group

Facilitating Compact Urban Development with Parking Strategies

BA Group passionately believes that effective parking planning, design and management is all about good urban design, economic development and the successful integration of transportation demand management considerations. In 2008, we are very pleased to be working on several such projects, including the Mississauga Civic Centre Precinct Parking Study, Uptown Waterloo Parking Strategy, Saint John Strategic Parking Plan, as well as the Mississauga City Centre Parking Strategy. These studies identify how much parking the City should seek to provide, the best way to provide it, how to finance it and how existing surface parking lots could be used for future development sites. They also include recommendations on how to encourage less peak period automobile travel by developing ridesharing, autoshare, shuttle bus, emergency ride home, and parking/transit pricing programs that are integrated with the parking strategy.

California University of Pennsylvania

Juniper Street Automated Garage

CHANCE Management Advisors, Inc.

Following its 2007 assessment of parking and transportation conditions at California University of Pennsylvania, **CMA** was asked to develop a P&T implementation plan in support of the Master Plan. The firm has developed program policies and parking fees, provided design review services for a proposed garage and other new and existing parking lots, recommended safety enhancements at lots and railroad crossings, developed a new transit program, and prepared a parking access and revenue control system description.

As part of the Brandywine Realty Trust development team, CMA is bringing an automated parking garage to Philadelphia. The Juniper Street project will retrofit an existing building with the latest automated technology to create a 24-hour facility to serve residents, employees, shoppers, and those attending cultural events in the heart of Center City. This is the first automated garage that the BRT team will develop, illustrating the ability to renovate older buildings for efficient new parking.

Carl Walker, Inc.

The Grand River Parking Ramp is on the East Lansing campus of Michigan State University and was designed to complement the surrounding historical buildings. The six-level, 730-space ramp features two elevators and three stair towers. It was awarded a 2008 AON Build America Award in the "New Building" category by the Associated General Contractors of America. **Carl Walker, Inc.** (Structural Engineer/Parking Consultant), Granger Construction (Contractor), Fishbeck, Thompson, Carr & Huber (Architects).

CPC

"Designing from the inside out"

Choate Parking Consultants, Inc.

DESMAN Associates

Chicago Downtown Public Parking System Chicago, Illinois

DESMAN is performing a comprehensive Capital Asset Management Plan for all facets of the 9,176 underground parking spaces located at Grant Park in Chicago, Illinois.

Graelic, LLC

Is your parking shrinking as your facility is growing? **Graelic** provides the tools necessary to help get the most out of your parking investment. We add valuable spaces to your existing facility without sacrificing function. Graelic's design and consulting services are based on its commitment to create a parking design concept that will deliver optimum space efficiency …and maximum cost effectiveness…tailored expressly to the user needs. We will custom tailor preliminary design alternatives optimizing function and cost per space. The end result is an efficient cost effective design to construct, safe and convenient for all users, designed and integrated into your future growth plans.

International Parking Design.

For the past 40 years, **IPD** continues to be the parking design leader by creating "firsts" that quickly become the industry standard. The Santa Monica Civic Center Parking Structure is one of the first LEED certified parking structures in the nation.