



## Hybrid Parking Solution Packs Powerful One-Two Punch

by Alan H. Simon

Often when I am seated in front of new clients discussing their parking garage projects, I find myself defining a consultant's value in terms of multiples of fee. How can I deliver the most efficient and affordable program that meets each client's unique challenge? The answer lies in critical thinking that leads to optimal solutions.



Alan Simon

One such solution for parking is the hybrid system: a combination of structural steel and precast concrete that achieves both savings in construction and maintenance costs. This approach to parking also results in greater speed of construction; simple and lighter foundations; enhanced durability; more options for cladding, design, and aesthetics; and real sus-

tainability with highly recyclable content.

It is the building component of steel, with its many structural properties, that delivers all of these benefits and often makes the hybrid solution the right one for parking clients. Steel that is exposed to view is much more easily maintained than is rebar buried in concrete that has lost its ability to protect steel when its environment has been changed by the intrusion of chemicals. Because of the need for fast construction, precast concrete has a greater potential for high strength and higher durability than does cast-in-place.

### Performance and innovation

One of the earliest hybrid garage projects with which I was involved as a member of the former Boston engineering firm of Zaldastani Associates, Inc. (ZAI) is in East Cambridge, Mass. Located one block from the Middlesex County Court House and CambridgeSide Galleria, the 600-vehicle garage has received decades of heavy use. Despite continual traffic, the garage is in pristine condition and is one of the best



AT&T hybrid parking garages



St. Anne's Hospital employee parking garage



## Save Time - Save Money Advertise *TF* monthly

Save 25% to 30% every month and receive a full package of benefits with the monthly *TF* ("Til Finished) program. This is our most popular advertising schedule because it's simple, it saves money and it is effective.

### What is the *TF* program?

The *TF* program has your ad appear each month both in print and online. The rate is automatically discounted each month to fit your budget for the year. Your advertisement is online and in full color., automatically hyperlinked to your firm's website.

News is free but with the *TF* program-

- Your news and articles receive preferred placement
- Your headlines appear on the High-Profile cover under "InsideThis Issue"
- Your articles are posted to the High-Profile Monthly blog
- Your headlines are e-blasted in FastFacts Friday



High-Profile  
Monthly  
Facilities Development News  
www.high-profile.com

Call us: 781-294-4530  
or e-mail: publisher@high-profile.com

Why keep a low profile?



East Cambridge parking garage

examples of the durability and ease of maintenance afforded by a hybrid system where steel elements are exposed rather than embedded in concrete.

The East Cambridge garage also displays a unique look with its combination of brick façade and steel frame. Cladding, design, and aesthetics often matter, especially in campus settings or any development where the garage must be integrated into its surroundings. Our team took on many large-scale garages on corporate campuses, including the Becton Dickinson project located in Franklin Lakes, NJ. Designed and built for a multinational corporate client and involving the renowned architecture firm of Kallmann, McKinnell and Wood, it was critical that the garage be in keeping with the look of the well-planned corporate campus while at the same time being an economical and durable structure. The steel and precast approach enabled the team to meet these criteria.

### The hybrid system evolves

In early 1990s, the portfolio of hybrid parking garages grew nationally as more clients and end users benefited from the advantages of steel and precast under a design-build delivery format.

The increase in popularity of the design-build methodology cut across all areas of our industry, especially impacting garage design and construction since the precast industry was one of the first to embrace design-build.

The design-build hybrid garage deliverable was quickly adopted as an alternative to precast and repeatedly, in the field, proved to be a more durable and cost effective solution that was better suited for accommodating a variety of exterior treatments and cladding.

Bottom line, the greater industry acceptance and application of design-build amplified the benefits that clients receive from the steel and precast approach.

These projects included seven AT&T garages in Middletown, NJ, and Warren, NJ. The firm's hybrid design-build system proved so successful that an integrated parking garage design-build company was eventually established. Market demand then led to the foundation of Hybrid Parking Solutions, LLC, a company that focused on the design and construction of parking structures for private development. The company eventually transitioned into the parking and professional engineering firm that I founded with my design team. Simon Design Engineering, Wellesley, Mass., serves major clients nationally with both parking as well as general structural engineering needs.

The current and continued market desire for the deliverable of steel and precast as a system and a 25-year-plus working relationship with AISC member Berlin Steel Construction Co., Inc. has resulted in the formation of Hybrid Parking Garages, Kensington, Conn. The company's most recent project is St. Anne's Hospital garage completed this summer in Fall River, Mass., for Steward Health Care in association with Suffolk Construction.

Looking to the future, the hybrid system will continue to reduce the extent of field welding and will feature comprehensive advancements in value-added design, as well as patent-pending and other innovations that seek to continually improve and solidify the hybrid approach.

Alan Simon is a principal at Simon Design Engineering, LLC, Wellesley, Mass. and Hybrid Parking Garages.