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THE COVID EFFECT

Outdoor projects thrived in 2020. Will the trend continue?

HARDSCAPE UPDATE

Cleaning and maintaining PICP

OUTSOURCING THE DESIGN

New service for affordable landscape architecture

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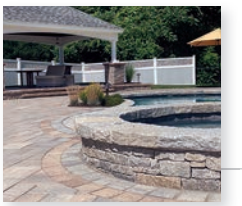

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EDITOR'S LETTER

Will 2021 be a good year for design-build projects? I can't help but think so. When pandemic reality set in last March, it wasn't until later that many clients realized they wanted to "up" their outdoor-living game. But by that time, it was often too late, as contractors and supplies were backlogged by demand. Above ground pools in my area were sold out; an arborist I contracted with in June didn't arrive until October!

This year, while demand remains, clients have had a year to plan, plot, and save for projects. When *Turf* writer K. Schipper talked to landscape contractors, they confirmed that design-build projects thrived in 2020, and they expect a prosperous 2021. One contractor reported bookings for this summer are running at least two months ahead of 2019 figures. For more, see the facing page.

No matter the project, hardscape is nearly always an element. But how many landscapers take advantage of hardscape maintenance work? According to ICPI, permeable pavers present a real opportunity. Find out why on page D-5.

And finally, for those who have been letting the "design" element of design-build hold them back, a new service helps contractors break through that barrier with affordable outsourced landscape designs. To find out how it works, see page D-7. Get ready to "build" your business!

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ON THE COVER

This gorgeous project recently completed by Mariani Landscape has it all. Read more about design-build trends in this issue of *DesignBuild*. (Image: Mariani Landscape)

COVER: JESSICA TOAL, GROUP C CREATIVE DIRECTOR

COVID's Effect On Design-Build

Outdoor projects thrived in 2020. Will the trend continue?

By K. Schipper

Design-Build projects did well in 2020 as clients turned to outdoor enhancements. Main Photo: A BrightView project in Colorado Springs. Inset Photo Left & Right: Hardscape projects from Bahler Brothers, Inc. Inset Photo Middle: Mariani Landscape enhanced a beautiful view.

It's not news that COVID-19 has people spending more time outdoors, and it put a renewed emphasis on outdoor projects in 2020. Not only was landscaping deemed an essential service, but after a shaky few weeks at the start of the pandemic, landscape design-build firms found their businesses were booming. But with vaccines currently being distributed and an anticipated return to some form of normalcy, will the trend continue?

Whether residential or commercial, the emphasis in 2020 wasn't on big, splashy projects, but rather on simply providing comfortable, usable spaces that allowed families to get out of their houses and into the fresh air. Even better, designer-contractors see at least a few of these trends continuing in 2021.

The Big Surprise

Call it unexpected. Call it a shock. Call it quirky. Whichever word you choose to describe last year's business climate in the design-build market, it's safe to say it was a surprise. That's the word Terry Morrill, owner of Sun Valley, CA-based Pacific Outdoor Living, uses. "There was a very short time lag when COVID first came out, but then it just kind of exploded," Morrill says. "We ended up with record sales after a pretty slow start. The leads started picking up and we did just great."

Across the country in South Windsor, CT, Ryan King, an award-winning designer with Bahler Brothers, Inc., uses the word "awesome" to describe that company's level of business. "February and March sales were almost half of what we normally see, so we were starting to get a little nervous," says King. "But I think once people realized they were going to be stuck at home for quite a long period of time, they started realizing they wanted to improve their backyards."

At the outset of the COVID pandemic things weren't quite so rosy with commercial contracts either. Blue Bell, PA-based BrightView Companies has more than 175 commercial landscaping offices around the country, and Thomas C. Donnelly, President of BrightView's Development Services, says some sectors of its client list were particularly hard hit. "Where we saw the most significant impact of the pandemic was with some of our amusement and hospitality clients," Donnelly says. "They had to shut down operations, so they've slowed some projects and deferred other improvements and enhancements into 2021 and 2022."

On the other hand, the company is seeing a lot of activity in its larger residential

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PHOTOS: COURTESY OF BRIGHTVIEW COMPANIES; BAHLER BROTHERS; AND MARIANI LANDSCAPE

COVID's Effect On Design-Build

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development. "We're seeing masterplan community work of significance in places like Texas, California, Arizona, Nevada, Colorado and Florida," he says. "We're seeing a lot of activity in a large scale."

In the backyard, many homeowners were looking for something that didn't necessarily incorporate all the bells-and-whistles. Frank Mariani, CEO of Lake Bluff, IL-based Mariani Landscape, uses the word "tweaking" to describe what many clients were doing. "I think they were looking at their garden in a way they'd never looked at it before," he says. "They wanted to extend their living space from the interior of their homes, but it was more adding enhancements. It might be hardscapes, or softscapes, or lighting and irrigation. We were very busy."

Bahler Brothers' King says his most-common project was patios. "They didn't want to put in a whole great backyard; they called because they wanted to get out of the house," he says. "They wanted to have a nice place to sit, grill some food, and have a table. Some added a small fire feature."

Pacific Outdoor's Morrill reports a similar interest from his clients, although being in California, people weren't afraid to go a little larger. "We probably saw more big projects," he says. "People were going for pools and outdoor barbecues."

Shifts In Thinking & Practice

Aside from better numbers, it was far from business as usual in 2020. Morrill says the biggest speed bump to his increased productivity was getting plans reviewed by local government officials.

And everyone agreed that keeping employees and clients safe brought a host of new challenges. Mariani says his team's resilience is what impressed him. His management team would gather daily to do a SWOT (strengths, weaknesses, opportunities, and threats) analysis and come up with a game plan, recognizing that the following day, it could change and be worthless.

It also gave some of Mariani's older rolling stock a workout. "We had equipment on the road that we would never have used in previous years," he says. "But, in order to have fewer people in a truck, we used what we had."

BrightView's Donnelly says not only did some locations begin limiting the number of workers that could be on a particular job site, but it really became a whole new work environment with social distancing and an emphasis not just on worker safety, but on health. "It's a very significant shift in thinking," Donnelly says. "And our people had to comply not just with the protocols we've established, but also help the general contractor improve his protocols. Everyone has to look out for the health of each other."

This stunning and tranquil landscape project by Mariani Landscape is the perfect antidote to COVID-era stress.

The Year(s) Ahead

With vaccine distribution continuing, people are beginning to believe the worst of the pandemic will soon be over. But is that true, and what happens next? It depends on who you're talking to. Because BrightView serves larger commercial and institutional accounts, Donnelly says they're busy looking at the long-haul—not just 2021, but into 2022 and '23. He sees some fundamental changes in business, including the building of more warehouses and distribution centers to serve a growing e-commerce market. All will need landscaping.

Donnelly also sees office buildings changing as some parts of the workforce return. "I think there's going to be a more collaborative-type campus environment, with indoor and outdoor amenities," he postulates. "The landscape industry will benefit significantly from the opportunity to get employees outdoors."

On the residential end, opinions are mixed. Pacific Outdoor's Morrill believes once people go back to work and begin traveling again, they will spend less on their landscaping. Though he's confident home swimming pools will remain strong in Southern California.

Bahler Brothers' King agrees with Morrill, but he thinks 2021 will see people still being cautious and staying home. "I think this year people are still going to be focusing on home improvement and boosting the value of that house with a better outdoor living space," King says. "If anything, I see them spending more." One number that backs that up: Bahler Brothers' bookings for this summer are running at least two months ahead of 2019 figures.

Mariani is even more optimistic. He thinks the pandemic may have taken people back to a simpler era when spending time with friends and family was more important than in the recent past. "I think that's going to continue to be a focus for a lot of people," Mariani concludes. "Even when it's safe to travel I think people will be looking at extending the amount of time they can enjoy their outdoor living spaces. That means lighting. That means shade in the summer. That means extending the season with heat, whether it's a fireplace, a fire pit, or heaters. It's outdoor kitchens. I'm anticipating another good year."

Schipper is a writer and editor specializing in B2B publishing. She is a partner in Word Mechanics, based in Palm Springs, CA.

Do you have a comment? Share your thoughts in the Comments section of the online version of this article at TurfMagazine.com. Or send an e-mail to the Editor at acosgrove@groupc.com.

PHOTO: MARIANI LANDSCAPE

PHOTO: INTERLOCKING CONCRETE PAVEMENT INSTITUTE (ICPI)

PICP reduces stormwater runoff volumes and rates, and filters pollutants, but can sometimes clog from sediment if not maintained properly.

Prevent Permeable Pavement Clogging

An opportunity for landscape contractors, millions of square feet of PICP need maintenance.

By David R. Smith

Permeable interlocking concrete pavement (PICP) reduces stormwater runoff volumes and rates, while filtering pollutants. This material has an admirable track record in paying for itself by reducing or eliminating detention ponds. In older cities with combined sanitary and storm sewer system, PICP presents a cost-effective means to reducing flows to wastewater treatment plants and related processing costs. Meanwhile, homeowners are retrofitting driveways and hardscaping backyards with PICP. Retrofits are sometime incentivized with rebates from the local municipality.

However, when civil engineers, landscape architects, architects, and contractors recommend PICP, property owners may resist as a result of their own or someone else's experience with PICP clogging. In other cases, the owner won't receive education on what's required to clean PICP, or if they are educated on cleaning needs, many do not want to spend the money for surface cleaning. These situations lead to lack of maintenance, and clogging may occur.

The notion of clogging means that water puddles on a PICP surface rather than infiltrating quickly. There may be some infiltration into the surface and base, but it is very slow. In many cases, water puddles in places on the surface, and then moves to another area that more rapidly infiltrates the stormwater.

The biggest cause of clogging is the area around the impervious pavement, or contributing drainage area (CDA), delivering sediment to the PICP. There are many projects with no CDA. These usually need little, if any, cleaning. In contrast, sediment from vehicles, and especially deteriorating asphalt surfaces, deliver small particles that enter the PICP joints and slow infiltration.

See PICP As A System

Property owners often view PICP surfaces as "just another pavement" that requires little maintenance, says Matt Otero, COO at Designs by Stonescapes in Commerce City, CO. "There is a lack of education about how PICP works and why routine maintenance is important," he says. PICP is a drainage system that must be maintained the same way any other type of filtration system would, he points out. "There should also be some thought put into the design of surrounding landscape areas to minimize runoff debris."

Inexpensive, routine PICP maintenance includes the use of brooms, leaf blowers, rotary brushes, and shop vacs. More expensive methods for larger areas involve using regenerative air machines that, like the other methods, remove loose dirt, leaves, and other debris from pavers and from the top of joints before it enters them via rain and tire traffic. This keeps the pavement infiltrating as designed with minimal replacement of joint aggregate. Unfortunately, most owners don't follow a routine maintenance schedule. So, when clogging occurs, more intensive, restorative maintenance is required that involves removal and replacement of sediment and joint stone. This is a more costly, time-consuming process compared to performing regular maintenance.

Vacuums For Tough Jobs

Members and staff of the Interlocking Concrete Pavement Institute (ICPI), and other organizations, have researched and witnessed demonstrations on the effectiveness of vacuum machines withdrawing sediment and aggregate from 3" deep (~80 mm) and ~3/16" (5 mm) or larger width joints

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Prevent Clogging

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typical to many PICP projects. The majority of machines are effective, but a bit inefficient because they require several passes to remove these materials. Moreover, the sediment often binds the aggregate, making both difficult to withdraw. Fortunately, recent research and cleaning demonstrations have uncovered innovative approaches to restoring infiltration of clogged PICP surfaces. These require only one pass over the pavement, regardless of joint size and depth. (For an overview of PICP maintenance, *ICPI Tech Spec 23: Maintenance Guide for Permeable Interlocking Pavements* is available for download from ICPI.)

"We install a lot of permeable pavers and offer maintenance agreements for them," says Otero. "Unfortunately, by the time most customers ask for maintenance, the amount of sediment in the joints requires a restorative cleaning rather than simpler routine maintenance."

To handle larger, more complex jobs, he explored a variety of vacuums and vacuum trucks, but settled on a less expensive, more portable machine that can remove aggregate and debris from PICP joints in one pass.

Otero experimented with different sized vacuum heads that rendered different cleaning levels. "A 24"-wide (600 mm) vacuum head that pulls half of the joint material out works well for pavements that are less dirty. But a pavement that has gone five years with no cleaning requires a 6"-wide (150 mm) head that pulls most of the joint material out," he says. The equipment can easily be operated by a two-man crew with minimum training. In fact, Otero cross-trains his employees to handle the restorative maintenance as well as installation to give him flexibility when scheduling work.

Otero focused on equipment for restorative maintenance informed by the type of permeable pavements he expected to maintain. Spending the time and money to build exactly what he needed was worthwhile, he says. "Not only does the maintenance service ensure ongoing performance of the permeable pavement, but general contractors like the fact that they don't have to protect the pavement as they finish construction of an area," he says. "The ability to offer maintenance services to my installation customers, general contractors, and other PICP owners is a business decision to grow my business."

Top: The puddles on this PICP, shown above, indicate the start of surface clogging due to sediment in runoff received from adjacent pavements. Why not clean them as well?

Right: Besides vehicles, eroding asphalt surfaces present another sediment source. If not cleaned regularly, years of neglect can result in sediment build-up in the joints and bedding.

Steve Jones, inventor and President of Pave Tech, a hardscape products provider near Minneapolis, MN, conducted a six-year effort to develop TYPHOON, a compressed air system to clean PICP and remove joint material. Jones discovered the effective simplicity of using compressed air without water. "The compressed air blows the joint material out just as a water pressure based system," he says. "But there is no sloppy mess when using air, and no loss of surface, as one would get from water pressure washing."

The TYPHOON system features a rotating wand with nozzles attached to a 115 HP air compressor to focus controlled, high pressure air in PICP joints to remove clogging sediment, debris, and aggregate. This process is followed by the PAVEVAC, which is attached to a high volume, high suction (27", or 675 mm of Hg) vac truck or trailer, to complete cleaning the joints and surface by removing loosened debris and aggregate from the PICP surface.

"A three-man crew can remove silt, debris, and joint material on 1,000 square feet in about an hour," says Jones. "It takes us a less than an hour to train someone to properly use the equipment." Training includes how to work with compressed air, a truck-mounted vacuum exerting 27" of Hg suction, plus safe operation of hoses. Overall, it is an effective means to restore highly clogged permeable pavements. ■

Smith is technical director for the Interlocking Concrete Pavement Institute (ICPI). He got an early start on permeable pavements via research in 1977, and since then has researched, consulted, and trained civil engineers and contractors in permeable pavement design, construction, and maintenance. He has written many technical papers and has contributed to state and municipal guidelines on permeable pavements. Smith is co-editor of the 2015 ASCE book, "Permeable Pavements." His latest book is the 5th edition of "Permeable Interlocking Concrete Pavements" released in 2017. He is also vice-chair of the ASCE 68-18 national standard on permeable interlocking concrete pavements. For more information or to learn more about ICPI installer certification, visit www.icpi.org.

Do you have a comment? Share your thoughts in the Comments section of the online version of this article at TurfMagazine.com. Or send an e-mail to the Editor at acosgrove@groupc.com.

PHOTOS: INTERLOCKING CONCRETE PAVEMENT INSTITUTE (ICPI)

Outsourcing The Design Of Design-Build

New online service helps you stay in the field.

By Blythe Yost

For lawn care and landscape professionals, making the transition to offer design-build services can be intimidating—especially so if no one on your crew is a landscape architect. While employees may have hands-on knowledge of say, pool or hardscape installation, the ability required to sit with a client, address their wish list, and come up with a cohesive design is not in everyone's wheelhouse. And depending on the client, the time spent on design can drain the project budget.

Recently a new online service, Tilly—launched two years ago as a consumer solution to easy, affordable landscape architecture—is realizing its potential as an outsourced design service for growing landscaping firms. The company was the brainchild of four friends: one a landscape architect; the others business savvy homeowners who saw a need in the marketplace. But what the founders didn't initially realize was the service's appeal to busy contractors, landscapers, and nurseries.

After receiving frequent requests by green industry experts to partner, Tilly launched Tilly for Pros at the end of 2020. With designs completed in 44 states thus far, the inexpensive option is now becoming popular with companies that either do not have a design team in-house or are simply too busy to handle all incoming projects.

"For me, it makes more sense that I'm out in the field, boots on the ground—acquiring clients and installing rather than designing," says Alejandro Frezza, President of TGW Landscaping and Contracting Inc. in Rockland County, NY. "Having Tilly handle my design project load frees up my schedule and helps my bottom line significantly."

The entire process is online—from answering a questionnaire to uploading a property survey and photos. Each project is completely custom and created by a landscape designer with extensive plant knowledge in the project's hardiness zone. All plans are designed based on client's geography, personal style, and functional needs. With Tilly for Pros, designs are delivered in five to seven business days. Plans can also be co-branded with the landscape company's logo for those who view Tilly as an extension of their own team.

PHOTO: TILLY

This rendering of a naturalistic patio for a Texas residence is a landscape design from Tilly. Launched at the end of 2020, Tilly for Pros aims to provide landscaping firms with affordable outsourced landscape designs.

"We've been considering a landscape design service for our busy garden center for a number of years," says Jessica Thomas, Co-Owner of Agway of Cape Cod, a leading lawn and garden center. "Implementing our collaboration with Tilly couldn't come at a more perfect time, and comes with great value to us and our customers. Our employees can focus on customer interactions and feel confident introducing Tilly for design assistance, saving us time and offering added value to customers." She adds, "I went through the design process with my personal property and it was a wonderful experience. It's a valuable extension of our green goods business."

Tilly's services are available throughout the U.S. and parts of Canada. Prices are $375 for a Front Yard Package; $525 for a Backyard Package and $775 for a Full Yard, with add ons such as 3D renderings and lighting plans. The deliverable includes a one-page PDF for use in the field, a scaled conceptual landscape plan, plant schedule, materials and plant images, and designer notes to help explain the project to the client. One round of revisions is also included. ■

Yost, CEO and Co-Founder of Tilly, offers extensive industry knowledge to the company and design team. Yost has been practicing landscape architecture for over 15 years. She is the Principal and Founder of two high-end landscape companies, Yost Design and Hudson House and Garden, which serve the New York tri-state area. Yost graduated from Cornell University with a Bachelor of Landscape Architecture and a focus on horticulture. For more information, visit www.tillydesign.com/contractors.

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