

PAVERS SAVE THE PARKS

PHOTOGRAPHY PROVIDED BY JEFF TESNEY

Alabama is a state blessed with water, from the many rivers that traverse our land to the multiple lakes that dot our map, but our coastal areas — the bays, marshes and estuaries — are truly special places, places that need and deserve our protection.

The devastation of the recent oil spill in the Gulf of Mexico has only highlighted the fragility of these areas and their ecological importance.

However, their worth, from both a recreational and commercial standpoint, has long been appreciated and understood by the Alabama Department of Conservation and Natural Resources (ADCNR). That's why it's no surprise that this state agency would choose to use an innovative concrete product in an effort to ensure the least environmental impact for several of its past projects.

Permeable concrete pavers provide a solid stable surface while allowing water from

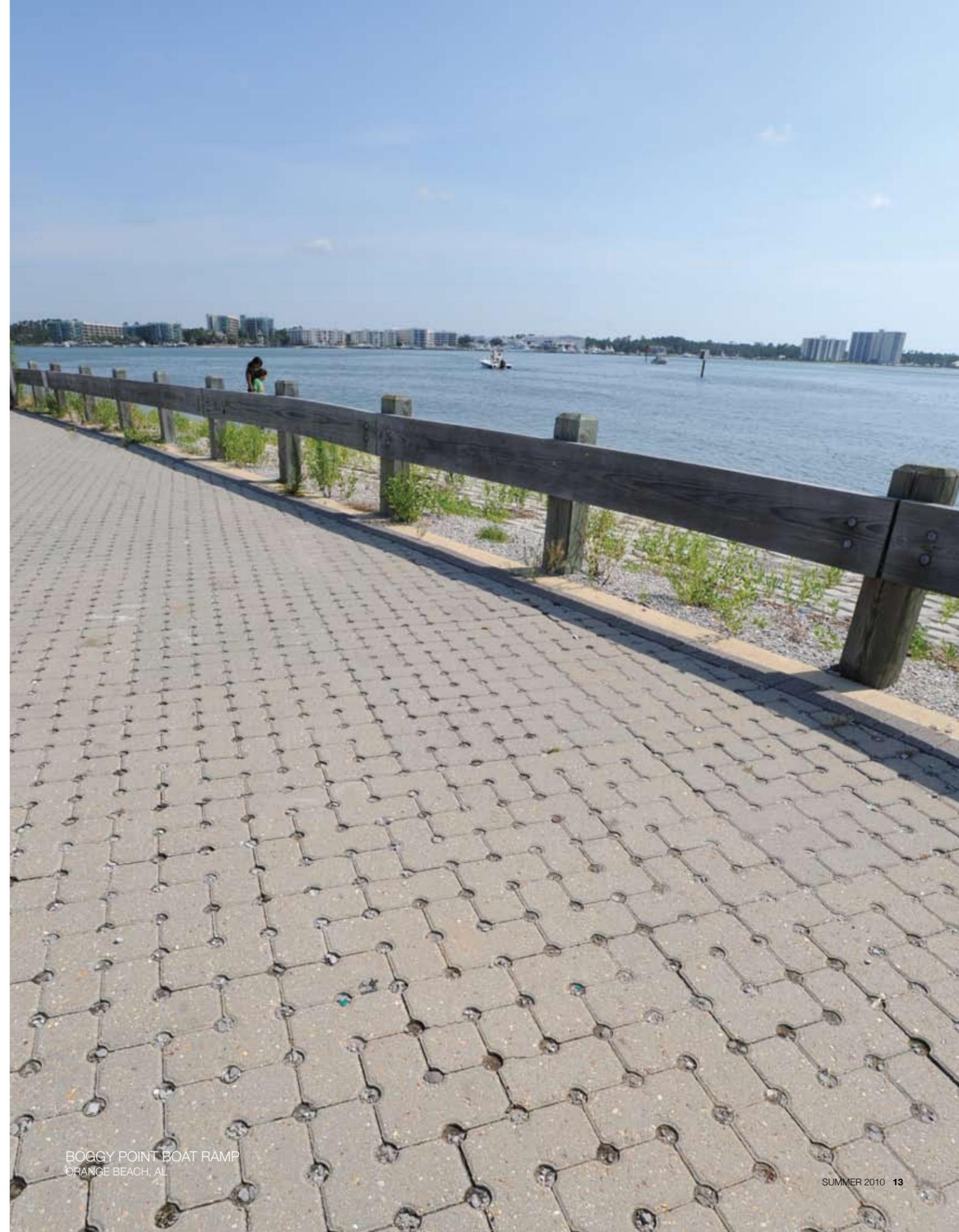
storms and other sources to drain easily and naturally back into the ground beneath through the spaces between the pavers. This is

instead of the water running off over the surface (picking up dirt, car oil and other pollutants along the way) and then finding its way back into the ground water or into nearby streams, lakes, rivers or ponds.

An obvious benefit of permeable pavers is their environmentally-friendly nature. As "green" building practices become more and more mainstream, and as requirements from the Environmental Protection Agency (EPA) concerning storm runoff become more stringent, permeable pavers are getting more attention, particularly for parking lot projects.

At Boggy Point Boat Ramp in Orange Beach, protecting the water directly adjacent to the parking area was a major concern for the ADCNR. So the decision to use permeable pavers was an easy one, as Terry Boyd, Chief Engineer for ADCNR, explained. "Boggy Point has an approximately 60,000-square-foot parking lot that is constructed from permeable

pavers," he said. "We wanted to make sure that we protected the coastal environment, and we didn't want any oil sheen to run off into



BOGGY POINT BOAT RAMP
ORANGE BEACH, AL

the water. That's why we picked the pavers."

Boggy Point was completed in July 2005, and Boyd and his colleagues were so pleased with the pavers' ability to manage storm water runoff, that when it came time to choose materials for a site that was to be a "conservation showplace," they turned to permeable pavers again. The 5 Rivers Delta Center in Spanish Fort offers visitors the opportunity to discover and experience the area's natural wonders. This resource Center took its name from the five rivers (Mobile, Spanish, Tensaw, Apalachee and Blakeley) that converge at the Mobile-Tensaw Delta and flow into the bay, and it was designed for outdoor recreation, conservation and land stewardship education. "The pavers were doing exactly what we wanted them to do at Boggy Point," Boyd said. "Since 5 Rivers is an environmental center, we really wanted to use this product to show others how it can be used and why it should be used."

According to Clif Dixon, Landscape Architect for ADCNR, the first phase of construction at 5 Rivers was a demonstration project that used several different paving surfaces that were environmentally friendly. "We used some pervious concrete and had that in place for year and a half," he said. "Then we decided to use the permeable pavers for the four parking lots at the center. The aesthetics are compatible."

Dixon echoed Boyd on the importance of the Center's visitors being aware of the choice. "We wanted to be able to demonstrate to visitors some ways that you can use sustainable building products, and the pavers were a great way to do that," he said. "This Center is all about conservation and being good stewards, so we certainly wanted to be good stewards when building it."

Permeable pavers were also used at May Day Park & Pier in Daphne, and again, the "green" aspect gave impetus to the choice.

"For May Day, the pavers were used for the same reason they were used at Boggy Point," Boyd said. "To mitigate any negative environmental impact."

While they've certainly proven that they are eco-friendly, permeable pavers are made of concrete, and that means they are inherently strong and durable too. Some of the pavers' staying power relates to their individual nature, and this results in another positive that Boyd liked, specifically for Boggy Point. "We felt like the pavers would hold up better in a hurricane if water came up over the parking lot," he said. "We had an asphalt parking lot at a similar waterfront site that Hurricane Ivan destroyed. We thought if water got over it the pavers, thanks to the holes, there wouldn't be so much of a threat of hydrostatic pressure building up and 'floating' the parking lot up."

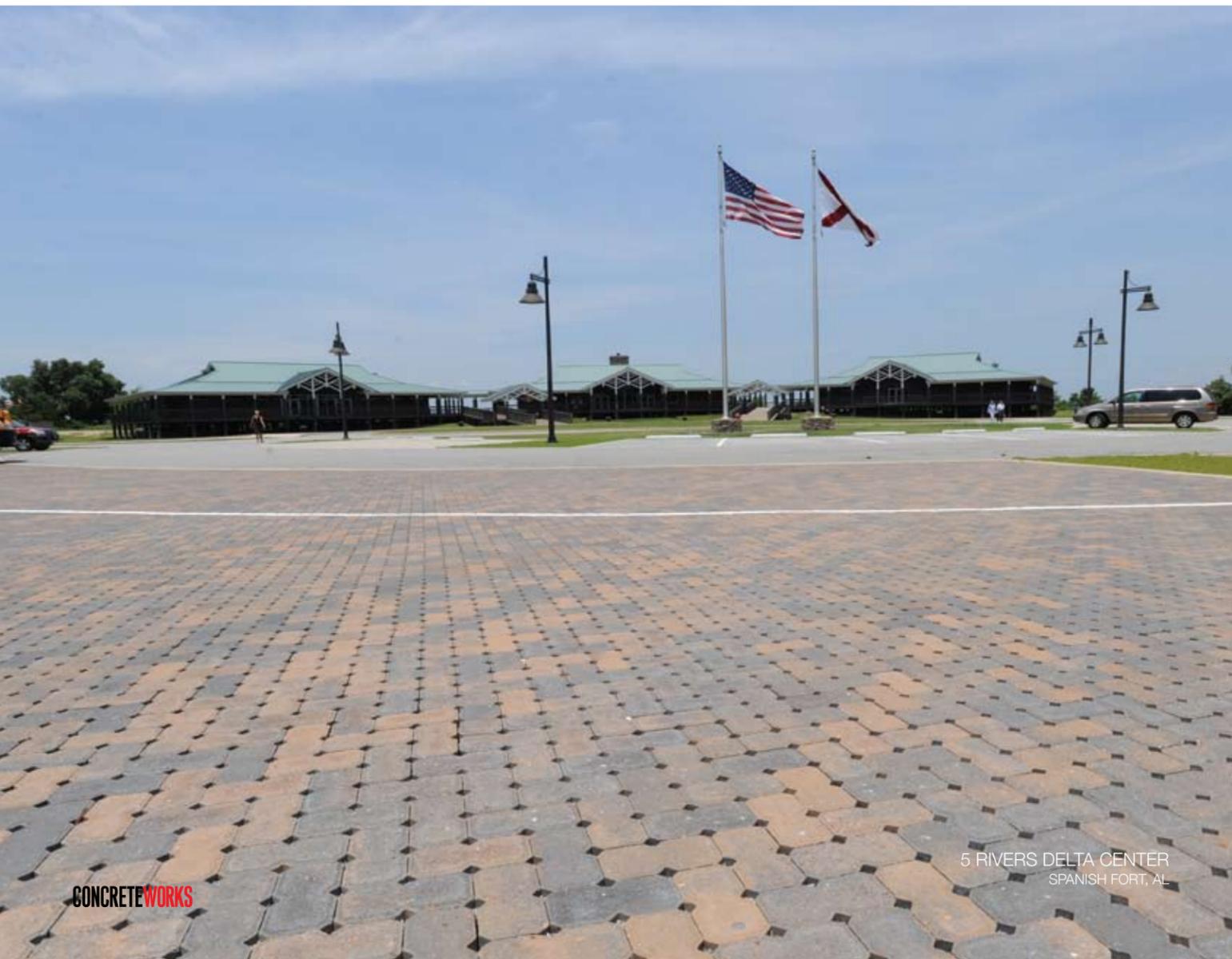
During Hurricane Katrina, the parking lot at Boggy Point proved Boyd right when it held up well despite taking a beating from the

storm and rising water. "We might have had one little corner that sand came out from under and the block settled back wrong, but that was the only damage," he said.

Ease of installation and little to no maintenance needed after installation also make permeable pavers appealing. "At Boggy Point, the pavers were laid with a machine," Boyd said. "Because of the way the blocks fit together, the interlocking L-shape, the machine could grab a stack and do several at once. It was pretty easy to do."

Dixon agreed, adding that contractors seem to like using it. "We've been very pleased with the ability of contractors to use it. We haven't had the first bit of trouble on that front. It's been really good for our projects; I'd certainly use it again."

Pav'R Construction actually put the pavers down at 5 Rivers, and Robert Davies with Pav'R said installation was a cinch. "Putting in permeable pavers is a very straightforward installation," he said. "You



5 RIVERS DELTA CENTER
SPANISH FORT, AL



BOGGY POINT BOAT RAMP
ORANGE BEACH, AL

don't have to worry about cracks, and because they are individual, you can change elevations easily."

Neither Boyd nor Dixon expects any maintenance issues to pop up either. "I don't expect a lot of maintenance," Dixon said. "There won't be any re-surfacing to do, like you would have to think about with asphalt," Boyd added. Also, because it is put down in segments, portions can be removed easily for any underground repairs or other needs.

As a strong and durable, eco-friendly, simple-to-install, low maintenance product, permeable pavers seem to have it all. And they look good too. "The pavers have a great look and add a nice aesthetic to a site," Boyd said. "They also allow you flexibility to do different patterns and colors."

May Day Park took advantage of the pavers' versatility. "One thing they did on that project was to use blue and white pavers to make the stripes needed for the parking lot spaces," Boyd said. "Instead of painting the stripes on, they used a saw to cut out spaces and then added the colored pavers. It turned out really neat, and there will be no maintenance or repainting the stripes needed."

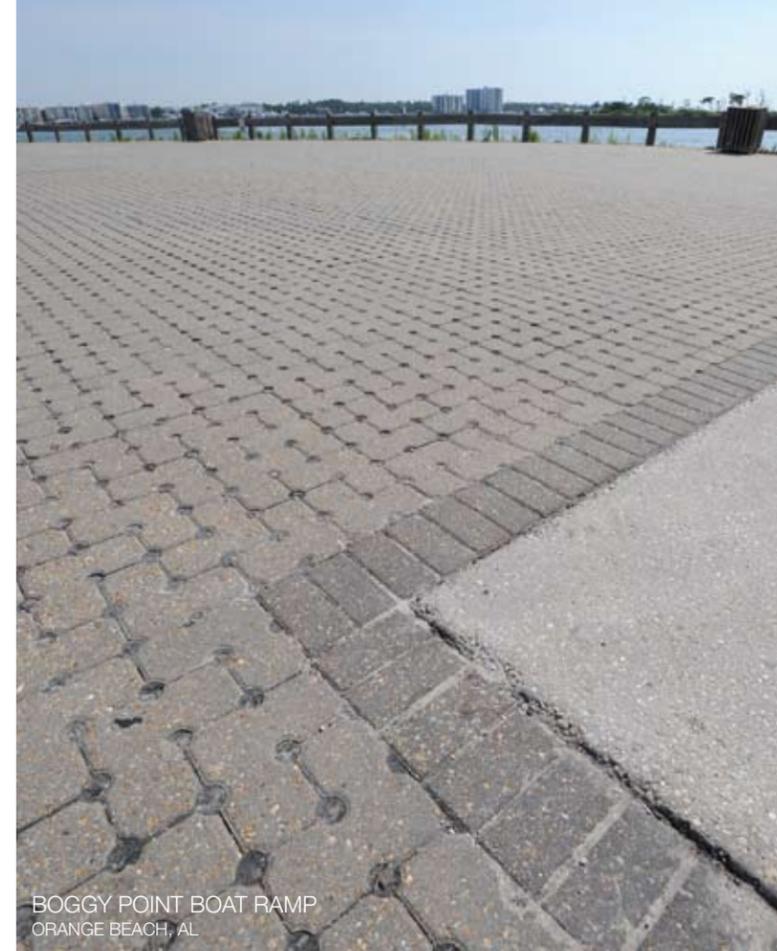
But with all these benefits, how do permeable pavers compare to other materials in terms of cost? "Permeable pavers are more expensive than asphalt, but they are more durable," Boyd said. "Boggy Point survived a hurricane. And it's hard to put a price on the environmental aspect. Because you don't have to do anything else to them, permeable pavers are a 100-year solution versus a 15-year solution, so in the life of the project, they may turn out to be cheaper. And for some sites, you may escape the need for a retention pond since they drain themselves. That's a cost savings." ■ Jennifer Kornegay



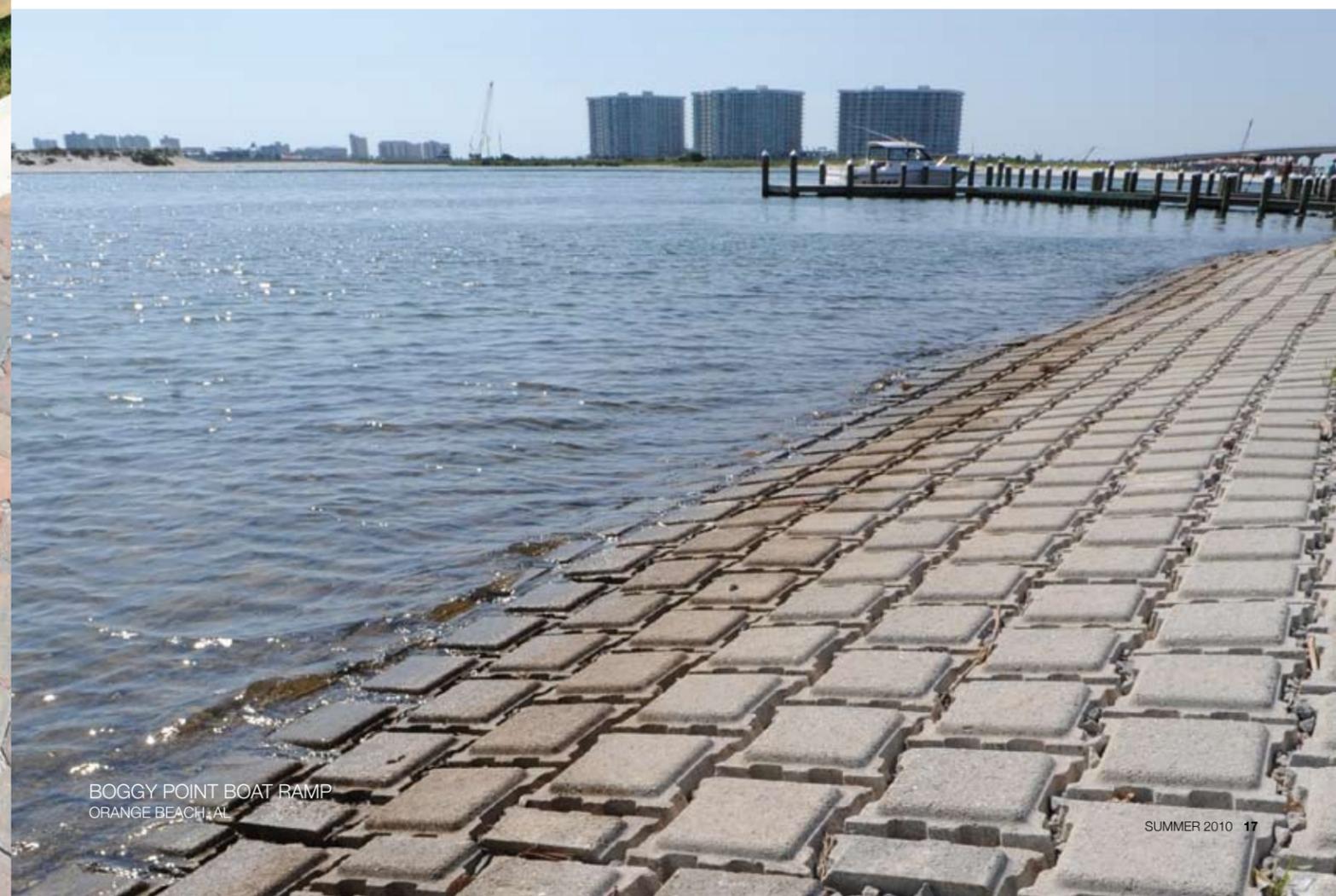
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