It's Smooth Sailing for Busy Marina Bathhouses, Thanks to Powerful, Reliable Macerating Plumbing

Lake Michigan marina outfits two floating, 600-square-foot bathhouses, each with six bathrooms and a laundry room, and equipped with macerating plumbing to avoid system failures during peak usage by the general public.

BY JULIE REYNOLDS

HAMMOND, INDIANA — When the Hammond Marina on Lake Michigan opened for the season in May 2009, boaters were greeted with a pair of new dockside conveniences: two floating bathhouses, each with six bathrooms and a laundry room. You wouldn't know it, looking at them nestled into the dock today, but the ADA-compliant, 15-foot x 42-foot facilities were built in a factory more than 400 miles away and trucked to Indiana on an 18-wheeler.



TRIPP WEIGEL (FROM LEFT), JON MERIWETHER, DEBORAH NATTRASS, KEITH CAREY AND MILAN KRUSZYNSKI WITH ONE OF THE TWO NEW FLOATING BATHHOUSES AT THE HAMMOND MARINA IN THE BACKGROUND.

Installing the bathhouses was a much-needed upgrade to the main dock, and customer satisfaction was the project's top priority for the Hammond Port Authority. To help meet



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Saniflo Case Study: Hammond Marina Bathhouses, Hammond, Indiana Page 2 of 7

that goal, the authority brought in Deborah Nattrass to oversee the complex job. Nattrass is co-owner of Product Link, Inc. and Nautical Nature, Inc., both of which

specialize in marina products in California and the Great Lakes areas.

Through the years, Nattrass has overseen a range of marine projects that involve installing pump-out systems, docks, floating bathrooms and floating houses. For the Hammond Marina, she recognized that top-notch plumbing was key to customer satisfaction, so she opted to use Saniplus macerating toilets from SFA Saniflo Inc. in all 12 bathrooms, reducing the potential for clogging and other plumbing problems that are common in public restrooms.

"This setup is unique," says Hammond Harbormaster Keith Carey. "I'm not sure a conventional toilet would have worked. If not for the macerating pumps, I would foresee a lot of problems."



EACH OF THE TWO BATHHOUSES WEIGHS 39,000 POUNDS. A CRANE WAS USED TO PLACE THE STRUCTURES ONTO THE FLOATS DESIGNED AND BUILT BY MERCO MARINE.

Up to 1,000 People Daily: With more than 1,100 slips accommodating watercraft as large as 80 feet, Hammond's is the second largest publicly owned marina on Lake Michigan. Two thirds of the marina's customers will rely on the new facilities. "On an average weekend, the marina will serve 800 to 1,000 people a day," says Carey.

Adds Nattrass: "I've heard of harbormasters saying public baths can be a headache for marina operators, so we try to prevent that. Whenever you do a marina project, it's good

Saniflo Case Study: Hammond Marina Bathhouses, Hammond, Indiana Page 3 of 7

to have macerating plumbing, because you don't want any issues with a floating structure. Saniflo makes the bathroom error-proof."

"First-Class Units": The late Charlie Stricker, former head of operations and maintenance for the Hammond Port Authority, conceived the project. He wanted to avoid building more structures that would block the view of the shoreline, and building on pilings didn't achieve the aesthetic the authority wanted. "After looking at a number of options, Charlie worked with Nattrass to come up with the modular bathhouses, which look more like the other structures in the marina," explains Carey, who took over the project after Stricker passed away.

Nattrass had the challenging job of pulling together and supervising multiple subcontractors to carry out the complex project. She contracted with Merco Marine of Wellsburg, W. Va., to supply the platform, floats and decking to support the structures at the Marina's dock. Jon Meriwether started Merco Marine in 1979 as a part-time operation with his son. Today, the company operates from a five-acre manufacturing plant, offering a wide array of marine products.

It took nine truckloads to transport the float materials to Hammond. Meriwether's company supplied the float, platform, metal truss frames and decking. "Each bathhouse weighs 39,000 pounds," he says. "To support them, we built units 130 feet long and 30 feet wide, with 330,000 pounds of flotation. We designed the float so that it sits slightly below the dock. These are first-class units."

Meriwether, who lives in a floating house himself, was already familiar with macerating systems. In fact, his company now offers a new floating-restroom product that also features the Saniplus toilet. "I'm using maceration because I don't want the plumbing to clog up," he says.

It was Meriwether who researched builders for the project, helping Nattrass settle on Modular One in Pulaski, Tenn. That company system-built the bathhouses on-site and handled their transport to Indiana.

Saniflo Case Study: Hammond Marina Bathhouses, Hammond, Indiana Page 4 of 7

Early on, macerating toilets emerged as a key to the project's success. "I've sold floating structures previously, and Saniflo macerating products have the best name and reputation. They are excellent for marine application," Nattrass explains. "When you have a boating community with lots of people, you don't want any plumbing problems. A regular toilet wouldn't be sufficient in that type of application."

Nattrass recommended using Saniflo's Saniplus model, which has a built-in grinder, thus "eliminating anything that's coming off that structure that could back up the system," she explains. Using small-diameter discharge piping, the Saniplus can pump effluent 15 feet vertically and 150 feet horizontally.

Even that considerable pumping distance falls well short of Hammond Marina's unusual plumbing configuration, which requires effluent to be pumped 900 feet from the dock to the sewer. Each Saniplus toilet therefore connects to a floating tank. When the tank is filled, the contents are pumped to a larger lift station, which then pumps it to the sewer.

"The plumbing is kind of a complicated, two-stage setup," says Carey. "I'm not sure a conventional toilet would have worked. If not for the macerating pumps, I would foresee a lot of problems. The grinders seem to do a very good job of breaking down the paper and other solids to allow them to pass easily through the pumps."

Carey notes that some of the other pumps in the marina have to be cleaned once a month, adding: "I don't foresee any maintenance issues like that with the two new macerating systems."

From Pulaski to Hammond: The bathhouses were fully constructed in Pulaski, with the exception of some exterior finish work done after they were placed onto Meriwether's floats in the marina. Each bathroom has a toilet, sink and shower, and each bathhouse has two handicapped-accessible bathrooms. A laundry room and a mechanical room round out each facility.

The entire construction project took under three weeks, with Modular One's plumbers installing the Saniflo systems. General manager Tripp Weigel was not familiar with

macerating plumbing prior to the project. "We were a little nervous about macerating plumbing, but it was a fairly easy and simple installation."

Meriwether recommends installing macerating technology in public restrooms that are heavily used on weekends. "We've had a positive experience with macerating toilets," he says. "There's a call for these in state parks and private marinas. We sell them all over the country."

"We'll definitely go with maceration when we do more of these boathouses," Nattrass agrees. "Saniflo has a great name out there, and their products are very user-friendly, easy to operate and easy to maintain."

For harbormaster Carey, the proof was in his customers' response. "I've been talking to all of our customers, and the feedback has been outstanding," he says. "That's what we're here for — to please them and serve them. If they're happy, I'm happy."

About the author: Julie Reynolds is an associate of O'Reilly/DePalma, an expert in the building and architectural products field. For more than two decades, she has been writing about issues of interest and concern to American consumers. For 15 years, Ms. Reynolds directed public affairs and corporate communications at the National Fire Protection Association. She has worked with the Home Fire Sprinkler Coalition since its founding in 1996 and with the Home Safety Council since 2003. Her byline has appeared in AAA World, the Boston Globe, Flightline, NFPA Journal and Sprinkler Age. She also writes Web content and video scripts.

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Saniflo Case Study: Hammond Marina Bathhouses, Hammond, Indiana Page 6 of 7

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