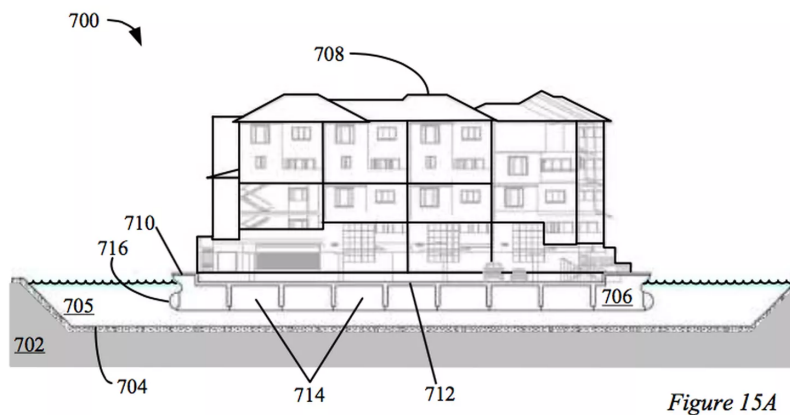


This hoverboard startup wants to create floating cities to combat climate change

Pontoon City, here we come

by Andrew J. Hawkins | @andyjayhawk | Oct 27, 2016, 8:00am EDT



Arx Pax

As rising sea levels continue to threaten coastal communities around the world, a potential (and far-fetched) idea has emerged to protect houses and apartment buildings by floating them on pools of water like a boat. [Arx Pax](#), the Silicon Valley startup behind the [Hendo hoverboard](#), recently was [granted a patent](#) for something it calls a self-adjusting floating environment, or SAFE Building System, that it plans to license to real estate developers, aid groups, and governments interested in creating climate change-proof communities.

Here's how it works: a shallow pool connected to a nearby body of water, like a river or bay, is excavated under a development. The pool is then filled with a few feet of water, while the excavated dirt is used to shape the surrounding land to protect against storm

surges. Shipping container-sized modules are assembled into groups, positioned above the pool, and locked together to form a stable platform. The floating community is built on top, complete with roads and utilities.

In theory, the development floats up during a flood, allowing flood waters to flow under and around the community. The subterranean pool would also help minimize damage during an earthquake.

IT'S UNCLEAR HOW MUCH MORE OR LESS EXPENSIVE THIS METHOD WOULD BE

It's unclear how much more or less expensive this method would be than current flood-control projects like levies or sea walls. Arx Pax insists its system is more cost-effective, but it seems like it would take a great deal of capital to construct. And this would only be effective for future coastal developments, with current communities left vulnerable to rising sea levels.

“No matter how ‘green’ your building is, it’s not sustainable if it isn’t able to withstand an event,” said Greg Henderson, co-founder and CEO of Arx Pax, in a statement. “As an architect and builder, I knew there had to be a way to build more responsibly in areas subject to earthquakes, floods and rising sea level.”

This may seem like an odd turn for a company that makes [magnetically powered hoverboards](#) and [engines for hyperloops](#), but Arx Pax has been talking about using its technology to mitigate flood and earthquake damage for years now. Of course, the SAFE Building System wouldn't be using the company's magnetic levitation technology to make buildings float, but floating pontoons like those used to support the [Evergreen Point Floating Bridge](#) over Lake Washington or [Japan's Mega-Float](#) runway in Tokyo Bay.

"A POSITIVE IMPACT ON OUR BUILT ENVIRONMENT"

Arx Pax, eager to prove that this crazy-sounding idea isn't crazy at all, provided a number of third-party quotes as validation. Gregory Stone, executive vice president at [Conservation International](#), said that Arx Pax's proposal “is sure to have a positive impact on our built environment,” while Doug Robertson, president of Bay Area structural engineering firm Daedalus, called it “a viable foundation system for private

homes, commercial, civic and institutional buildings and even for large-scale developments.”

But the true test of the SAFE system’s viability is whether any developer or government licenses the technology. Henderson tells *The Verge* that Arx Pax is in discussion with stakeholders “around the world,” but couldn’t disclose details due to non-disclosure agreements.

“We need to teach others how to build the system,” Henderson said. “Remember the old adage, ‘You give a poor man a fish and you feed him for a day. You teach him to fish and you feed him for a lifetime.’”

To say nothing about teaching the residents of the floating cities of the future to fish out their bedroom windows.