

IN CONVERSATION with Christine Knapp

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Knapp: It avoids the need to upgrade the sewer capacity. If we weren't doing this, we would have to build a tank and tunnel system that would cost about \$10 billion, which would only serve the single purpose of managing water during heavy rainstorms. So that was one of the reasons for thinking outside the box and not doing the traditional approach—it is really expensive for only one purpose, where green infrastructure is more cost-effective and adds additional co-benefits.

PART 3 HOPE FOR THE FUTURE IN THE CITY OF BROTHERLY LOVE

gb&d: Where is the greatest need for improvement in Philadelphia's sustainability trajectory?

Knapp: We haven't had a strong engagement program in this office because we have such a small staff. Early on we had to prioritize what we could get done, and that was really working inside city government. We do all this great work, but even the best work doesn't mean as much if people don't know about it. We definitely want to make sure that's a bigger priority and that more people are aware of what sustainability means in their own lives, whether it's at

"We generally try to encourage the surface expression of green infrastructure, so we can maximize the triple bottom line benefits. So there is an emphasis on trees and rain gardens and those types of things that have aboveground benefits, versus the infiltration systems that are below ground."

home, or in their community, or in their school, or in their business. That's something that I think is an opportunity for us to expand and do a little bit more with. Also, we have a high poverty rate in Philadelphia, and that's been one of the challenges as well. We're competing in a space where people are really struggling just to put food on the table and keep their kids safe and get a good education.

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Defined Design Butterfly House by Feldman Architecture

By Alex Nates-Perez

Visionary firm Feldman Architecture recently took peace and serenity to a new level by creating an imaginative, sustainable getaway retirement home dubbed the **Butterfly House**. Their clients spent two years selecting the perfect plot of land on the privately owned **Santa Lucia Preserve** near Carmel, California and settled on a 2,900-square-foot area within a meadowland butterfly habitat—the muse for their home's name and unique design.

Inspired by the surrounding colorful insects, Feldman Architecture designed

an indoor/outdoor integrated living space complete with a butterfly style roof built for sustainable temperature regulation and water conservation. The home has a modern aesthetic consisting of three spaces—a central area for main living and two buildings for sleeping, bathing, and relaxing. Each structure opens up to spectacular views of the surrounding hills and canyon below. The home is a leader in contemporary sustainable luxury thanks to its green features, outdoor integrations, and beautiful design. **gb&d**

Irrigate / irigāt/ (verb)

Supply water to (land or crops) to help growth, typically by means of channels. The butterfly roofs harvest rainwater in order to preserve water in an area of the world where droughts are common and water conservation is of the utmost importance. The roof collects water into an irrigation system that feeds the native plants and surrounding fields to keep the home green and lush, rendering the structure a self-sustaining environment with little to no landscape maintenance as a result.



PHOTOS: JOE FLETCHER

Pavilion /pə'vilyən/ (noun)

A summerhouse or other decorative building used as a shelter in a park or large garden. Butterfly House is arranged into three connecting pavilions—a main living space, a space where the clients will sleep, bathe, and relax, and another guest chamber. The use of connecting pavilions promotes the indoor-outdoor integration essential to this home's design. The pavilions also allow privacy for the clients while hosting their family and friends by having the main living area separate from the two sleeping spaces.

Thermoregulation /thūr'mō-rĕg'yə-lā'shən/ (noun)

The maintenance of a constant internal temperature independent from the environmental temperature. Concrete walls and large expanses of glass provide both aesthetic and functional services. This neural pallet enhances the beauty of the Butterfly House's surrounding environment while regulating the temperature inside for comfortable living. Concrete and glass are materials that absorb heat from sunlight during the day to keep the internal temperature of the home cool and refreshing and release heat at night for a cozy interior.

THIS SPREAD The clients expressed a desire to integrate indoor and outdoor spaces with a simple, modern aesthetic.

