

4 | **WHERE DO WE GO?**
Taking smart cities beyond proof of concept takes vision and follow through

8 | **THE INVISIBLE ASSET**
Local leaders need to prioritize problems with water infrastructure

AMERICAN

Serving government leaders since 1909

CITY & COUNTY

January 2019

BOROUGH OF FOREST HILLS

OFFICES

POLICE

CROWN COMMUNITIES

Local governments are honored for innovative and impactful projects | **14**

+ From the Archive | **24**

Forest Hills, Pa.

Net-zero energy municipal complex

Completed in January 2018, the Borough of Forest Hills, Pa.'s new municipal complex consolidates its administrative and council operations, its police department, a community space and a library branch for nearby Edgewood, Pa.

Located next to the borough's recreation center that features trails, sports fields and natural resources, the new complex creates a "municipal campus" feel for the area.

The complex also accomplishes another major feat: it generates nearly all of its power through renewable sources.

Solar panels on the building's roof supply the building's electricity. Angled southward to absorb maximum sunlight throughout the year, the panels also serve as a heating source for an enclosed glass hallway. The solar energy powers LED light fixtures

with automatic dimming sensors, but design aesthetics welcome ample sunlight into the building.

Below the complex's parking lot, 40 90-foot geothermal wells provide the building with heating and air conditioning. The building's only use of non-renewable energy is for its backup generator, which uses natural gas.

"Overall, it's a net-zero energy building. We're essentially paying nothing for electric, nothing for heating and air conditioning," says Forest Hills Manager Steve Morus, who adds that there's a small charge for the natural gas generator.

The complex also contains an efficient stormwater management system. Green infrastructure such as rain gardens surrounding the complex and a bioswale contained in the parking lot work to manage stormwater around the site. These features reduce the peak discharge rate into the Turtle Creek watershed by over 64 percent for the 100-year storm.

The net result is a major improvement from the building's predecessor. The borough's former municipal building had poor insulation and regular



windows, which contributed to high utility costs. It wasn't compatible with Americans with Disabilities Act accessibility standards, and limitations existed for the building's storage and security.

The new complex underscores Forest Hills' designation as a Tree City under the Arbor Day Foundation — the building's roof panels and columns consisting of wood, not steel or concrete. It's another deliberate measure that the borough took in keeping with what Morus says is a longtime, keen interest in being environmentally conscious about what they do and how they do it.

"The building presented an opportunity to really go into great depths in this one example of being environmentally aware and conscious, with all the different things we were able to do with it," Morus says.