

TREK is committed to sustainability from an economic, social, and physical perspective. By operating within this framework, we are able to deliver projects that positively affect the economy of the surrounding neighborhood and creates a shared neighborhood vision for the future, while also implementing environmentally sensitive practices, such as the use of geothermal and solar building systems, and high performing building envelopes.

In the last 10 years, TREK has developed:

- 3 LEED communities (2 silver and 1 Gold).
- 7 communities with solar photovoltaic installations generating approximately 30% of each community's electrical needs
- 8 communities with geothermal systems (open and closed loop as well as single-well (for individual homes) and well-field installations for larger scale communities).

TREK has developed a test model multifamily development utilizing both geothermal and solar packages in a multistory building setting. This building, located in Punxsutawney, PA reduces energy consumption within the development by approximately 60%.

But sustainable development is more than green design and construction practices. Building sustainable communities also entails providing a variety of housing (apartments and houses) and occupancy types (rental and ownership) and, where appropriate, a clear path to transition rental communities to homeownership.

TREK's Path to Sustainable Communities:

Water Efficiency

Water use is high in a residential setting, and therefore is an issue we always consider carefully. Hot water, especially, demands much energy. TREK's development use water as efficiently as possible without sacrificing luxury or performance as perceived by tenants. This is done with thoughtful design and product evaluation. High-quality low-flow toilets, urinals, showerheads and other fixtures are available in the market, and TREK is committed to selecting the best products that meet real-world criteria without compromise.

On the commercial side as well, TREK strives reduce water consumption through the exploration of cutting-edge technologies for commercial dishwashing, laundering, and other water-intense equipment. We implement operations and maintenance programs for cleaning, food prep and service staff to educate and facilitate water efficiency. Leaks are a significant, but often overlooked, use of water, and we intend to remain diligent about water usage in any of our projects.

Preference is always given to native or drought-tolerant species that will not require excessive watering.

Stormwater management is an important issue in any region of the country. At TREK, we look to reduce the amount of impervious paving and consider use of pervious paving wherever possible. The use of a vegetated roof or landscaped plazas assists that goal while providing an attractive amenity. Careful selection of highly-reflective roofing and paving materials would help reduce heat-island effect. Nighttime light pollution can also be accomplished through thoughtful design and product selection.

Energy

Using energy wisely is not only good for the environment; it is good for the financial success of the development. As we intend to be long-term stakeholders in our developments, our commitment to energy-efficient design is very serious. Strategic up-front investments can reap quick paybacks and real returns, and we intend to pursue such investments enthusiastically. Given the current economic climate and marketing awareness of environmentally-responsible businesses, this is a simple good practice from every angle.

Benchmarking tools will allow us to monitor our energy success while providing independent credibility from a marketing standpoint. Measurement and verification tools integrated with equipment will alert us to problems before they become urgent or detrimental.

There are many ways in which we intend to responsibly use minimal energy. A geothermal or solar program have a higher up-front costs, but can payback within just a few years, and use significantly less energy than conventional systems. We would look for the smart decisions that ripple throughout the design; careful lighting selection and use of compact fluorescent lighting can reduce air conditioning demands while using less energy themselves. Selection of Energy Star or efficient appliances and equipment such as refrigerators, copiers, televisions, computers, LED lighting in exit signs, etc. have the same effect. While some cities are often dismissed as too overcast for solar installations, solar hot water can be quite successful and economical in our climate, and we would investigate this, as hot water is a significant energy load in hospitality. Great care will be given to window selection and exterior wall insulation as a means of reducing the energy demands in the first place. Heat recovery equipment can be installed to take waste heat from laundry or kitchen equipment and pre-heat make-up air. Seemingly small decisions, like paint color, lamp shade fabric or window treatment materials can impact energy loads, and we will consider these factors throughout design.

Operations and Maintenance

Green buildings are only successful if they operate as they were intended. We are committed to a green design as a living, working environment, not simply a design on paper.

Our operations and maintenance strategies may include a green purchasing program, with preference for non-toxic, biodegradable cleaning supplies. Convenient, attractive receptacles for collection and sorting of recyclables would be provided in public areas and throughout the site

Maintenance plans are established to regularly check working components of the buildings; water fixtures, seals, fans, dampers, thermostats, clean air filters, etc. to avert problems before they lead to damage or intense repairs. We incorporate integrated pest management policies to avoid the use of toxic pesticides or chemicals as much as possible. Environmentally friendly snow and ice removal systems and entry walk-off mats will minimize dirt and debris entering the buildings, providing a safer, cleaner environment.

Quality of Life

Humans are very much a part of the environment we are working to protect. With so much focus on saving Btus and kilowatts and dollars, the human impact can often be overlooked. TREK is attracted to sites and communities because of the human vibrancy in the immediate surroundings, and our developments seek to enhance this vibrancy. Our green strategies are one means of doing so.

TREK encourages residents and commercial employees, as well as visitors to use mass transit, bicycles, car sharing or alternative-fuel or hybrid vehicles by making those options available and convenient (possible Zipcar location) and through possible incentives (such as indoor bicycle parking and preferred parking for hybrid vehicles). This can help activate the street, promote neighborhood security (both real and perceived), establish connections to the community and improve health by promoting exercise, while also reducing the carbon footprint of our developments.



Century Building Bicycle Commuter Center – Downtown Pittsburgh

We would look for ways to incorporate artwork, furnishings and decorations from local artists, craftspeople and vendors into the building lobbies and interior design. This would reinforce the connection we hope to make with neighbors, provide jobs locally, and simultaneously eliminate or reduce the carbon-intensive needs of packaging and shipping. We would hope to find artwork that draws inspiration from, or reflects views of the history and future of each community we work in.