

ON **Halkias** SUSTAINABILITY

BASICS Sustainability is a term used to describe humanity's desire to sustain economic growth and environmental health for the long term – presenting a delicate balance. Architects create habitats for people to live and work in – environments that truly enhance people's lives. The idea of taking care of the earth, making it a better place through our built environment, is pervasive in architecture. But, it is not a new idea. It's the basis of good architecture itself – creating designs that reflect nature and man's interaction with nature. That's been the goal of architects for centuries. And that's exactly how we view LEED.

George Halkias, Project Manager/Associate for Pittsburgh-based Astorino, one of the largest and fastest growing full-service architecture, engineering, interior design and design/build firms in the nation. Astorino is a leader in sustainable design and LEED (Leadership in Energy and Environmental Design) certified projects. The firm has designed more than 2.8 million s.f. of sustainable projects of which 1 million s.f. are LEED Silver or Gold certified.



LEED We believe that the LEED program is going to become the rule rather than exception. It is the most widely accepted and global in its scope for sustainability. We've created a LEED training program for our staff to ensure that our designs – all our designs – are consistently sustainable. We actually integrate LEED standards into the design process.

COMMUNICATION Upon initiation of a project, one of our LEED-certified professionals meets with the project team to assess the scope of the project and its future sustainable potential. Based on our expertise in sustainability, Astorino identifies all of the potential areas where sustainability can be incorporated into the design. We also work with the client to define how aggressively they would like to pursue sustainability in each area. Astorino takes a very deliberate approach to this process because this process ensures sustainability.

GROWTH Our firm's growth and progress over the years stems from our ability to stay on the forefront of industry trends as well as respond to our clients' evolving needs. As such we have strategically added technological advances and professional service disciplines to continue to meet our clients' needs. As we expand our service offerings, we are careful to integrate them into our client-centered project delivery methodology. Today, Astorino employs more than 180 people. It's a very exciting time to be part of such a dynamic organization.

TRAILBLAZING When we started the design process for PNC Firstside Center in Pittsburgh, Pennsylvania, LEED was only in draft form. Fortunately, the client had the forethought to understand the benefits of sustainable design and agree to the reclamation of a "brownfield" site where the structure would stand. The result is a 5-story, 647,000 s.f. facility – a mission critical structure that has earned environmental and design awards around the country. In fact, PNC is the largest building ever certified as Silver under the USGBC's LEED 2.0 rating system.

CERTIFICATION The LEED certification is a fairly detailed process, but based on all of our experience, it is now one of our core competencies. In fact, we recently completed a Gold certified 113,000 s.f. building in Delaware.

ROI Everyone's major concern is budget. Some believe incorporating sustainable design will cost more. We're finding the opposite is true. Sustainable design makes financial sense in the form of reduced energy and operating costs, improved employee efficiency, lower turnover rate and improved corporate image.

DESIGN When you take a 30,000 s.f. view, all buildings present the same set of challenges: air handling, structure, finished materials. But it's when you focus on the specific project, there are many unique issues that must be addressed based on the structure's intent, or purpose. For example, when considering indoor air quality, you would approach the situation differently for a healthcare structure than you would a residential structure. However, when you overlay sustainability on air handling, you twist it further depending on the structure's purpose. That makes for exciting design.

OWNERS The points we have made successfully to owners regarding sustainability involves the environmental impact. Sustained buildings make financial sense. Depending on the technology, the initial costs may be somewhat higher, but there is always a payback. With the technologies we employ, aggressive paybacks are increasingly possible – and probable – with sustainability.

TEAMWORK Successful sustainable design relies on a strong relationship with the contractor. Contractors have to participate in the design process. They must be aware of the sustainable goals, especially when value engineering a project. Alternative products must meet the same sustainable requirements as those originally specified. Each sustainable project is unique, so the contractor can't assume anything based on past experience.

STEEL From a sustainability standpoint, we use steel because it offers the kind of flexibility in selecting materials to be used with it. Also, steel has a high amount of recycled content. When the structure is built from steel, it significantly increases the percentage of recycled content used in the building. This is an advantage when pursuing LEED credits.



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