

### **Environmental & LEED Attributes of Precast Concrete Paving Slabs**

The use of precast concrete is a sensible choice for sustainable development. Precast plants reuse formwork, in itself a conservationist move, and in doing so reduce construction waste that would otherwise be generated at a job site. Because precast concrete components are modular and standardized, they are installed in a quicker fashion and result in reduced construction times and energy usage, noise and emissions from on-site equipment and in reduced site impact.

The cement used in concrete is made of natural materials such as limestone and clay. Most cement plants rely on nearby limestone quarries. The cement industry has made significant progress in reducing carbon dioxide emissions and energy usage in the last 30 years and is continually striving to make further reductions.

In addition, cementitious material used in concrete often contains manufacturing byproducts such as fly ash and blast furnace slag that would otherwise find their way to a landfill. Waste water can be recycled for use in manufacturing. Steel used for concrete reinforcement is typically composed of 95 percent post-consumer recycled content. Aggregates used in the manufacturing of precast concrete are generally extracted and manufactured regionally.

Concrete is a very strong and durable material, which is a significant sustainable attribute. It will not rust, rot or burn and has a service life of up to 100 years.