



## **LEED Certification- Contribution from Clay Brick**

This correspondence is written regarding the use of clay brick products, manufactured by Pine Hall Brick, to help achieve Leadership in Energy & Environmental Design (LEED) certification. It references the LEED Green Building Rating System for New Construction & Major Renovations (LEED-NC) as published by the United States Green Building Council (USGBC).

The use of clay brick support the achievement of credits in the following categories:

### **Sustainable Sites Credit 6.1 Stormwater Design: Quantity Control**

Using our permeable pavers, RainPave or StormPave, in a permeable pavement system to maintain or reduce stormwater runoff (depending on impervious cover %) will help in qualifying for this credit.

### **Sustainable Sites Credit 6.2 Stormwater Design: Quality Control**

Using our permeable pavers, RainPave and StormPave, in a permeable pavement system to remove total suspended solids from stormwater runoff will help in qualifying for this credit.

### **Sustainable Sites Credit 7.1 Heat Island Effect: Non-Roof**

Using any of our pavers in either Red, Buff, Accent Gray or Rose colors (featuring SRIs above 29) in over 50% of the site hardscapes will help in qualifying for this credit.

### **Energy & Atmosphere Credit 1 Optimize Energy Performance**

Using our clay brick in a thermal mass design to reduce heating or cooling energy use will help qualify for this credit.

## **Materials & Resources Credit 2 Construction Waste Management**

Recycling jobsite brick waste (as part of an overall recycling plan) into brick mulch or for use into alternate applications can help qualify for this credit.

## **Materials & Resources Credit 4 Recycled Content**

Using our Rose color pavers that incorporate 53% recycled pre-consumer waste aggregates can help qualify for this credit. Using our Spektra Series face brick colors that incorporate recycled pre-consumer waste aggregates can help qualify for this credit: Platinum=69% , Pewter=59%, Charcoal=43%, Oatmeal=59% and Salmon=54%

## **Materials & Resources Credit 5.1 Regional Materials: Manufactured Regionally**

Using clay brick made within 500 miles of a project site can help qualify for this credit. Our brick facilities are located in Madison, NC (27025) and Fairmont, GA (30139).

## **Materials & Resources Credit 5.2 Regional Materials: Extracted Regionally**

Of the clay brick qualifying for Credit 5.1 above, 100 % of the materials used in their production are extracted within 500 miles of the manufacturing site. The clay brick used can help qualify for this credit.

## **LEED Category: Innovation and Design Process ID**

While not qualifying for a designated LEED credit, the use of clay brick may contribute to an Innovation in Design credit in life cycle cost and durability. Brick is man's oldest building material that lasts thousands of years and brick is 100% recyclable for use in salvaged brick applications, brick mulch, or as roadway sub-base material. Brick is an inert product with virtually no emissions. The embodied energy used to produce brick is less than most common building materials including concrete, glass, steel, and aluminum according to the American Institute of Architects.

In addition, although not specifically designated in LEED for potential credit, our manufacturing facilities incorporate the following environmental and energy & waste reduction procedures to produce brick:

- ❖ Recycles process water for brick production
- ❖ Recycles all un-fired brick into new production
- ❖ Employs dust reclamation systems
- ❖ Recycles kiln waste heat to dry brick
- ❖ Employs high tech scrubbers on kiln smokestacks to reduce potentially harmful emissions
- ❖ Recycles harmless waste re-agents for farm use (donation)
- ❖ Uses recycled waste wood for fuel (alternate use fuels)
- ❖ Recycles fired brick (not sold) into brick mulch for landscaping
- ❖ Mining sites reclaimed into quail habitats & hunting preserves
- ❖ Reforestation of reclaimed mining sites
- ❖ Recycles plant site overburden into brick production
- ❖ Meets or exceeds all federal & state EPA regulations
- ❖ Continuously monitors the environmental impact at all plant & mining sites
- ❖ Continuously monitors and invests in resources to lower energy use per brick produced

We hope that this helps answer your questions regarding our clay brick & pavers and their ability to contribute to LEED certification. **For clarification, no product of construction, including masonry, can capture LEED credits by themselves.** LEED is a self-assessing system for rating “whole building” environmental performance from a life cycle perspective based on accepted energy and environmental practices. It is not a simple checklist of utilizing a minimum quantity of environmentally friendly elements but rather a holistic approach to project design.

There may be other specific applications where clay brick may assist in achieving LEED credit such as passive solar energy applications or permeable pavement applications. For more information contact us at [info@pinehallbrick.com](mailto:info@pinehallbrick.com).