# Benefits of Green Building and LEED Construction by the use of

piazza STONE™

## Environmental Benefits:

The material is a combination of natural stone materials, principally marble, recovered from debris fields in quarries and residue from fabrication. No new material is mined. Production therefore is only using materials previously discarded.

Hydrocarbons used in the recovery are confined to fuel for loaders and not for the drills and cutting tools used to excavated the marble. A 50 pound bag of material will contain approximately 50% of reclaimed material.

The material is recovered without the use of water sources used in the cutting of the raw stone thereby preventing either the excessive use of water or the runoff found in some quarrying operations.

No hydrocarbons are used in firing the materials as is commonly done in the production of cementatious building materials.

No hydrocarbons are used in the blending process as well.

When the raw materials are blended with the marble, air handlers are incorporated to prevent any dust being released into the atmosphere. Any residue is reintroduced into the product during subsequent blending.

The material, when combined with bonding compounds, uses significantly less water that is used in the production of concrete by a factor of nearly 84% less water.

The material, while cast at a central location, weighs significantly less (67%) than an architectural piece of natural stone or cast concrete. Therefore, the transportation and handling of these cast pieces requires far less hydrocarbons to move the pieces to a job site.

EPS shapes used in manufacturing the casting inserts are made from regrind Expanded Polystyrene.

All Piazza Stone elements are created to tight tolerances in sizes and shapes. This eliminates waste created by field fabrication and on-site casting.

## Economic Benefits:

The material, when cast, is impervious to weather, wind, and sun due to the hardness attained at the end of curing. Thus the owner of the building will have significantly less concerns over deterioration during the life of the building.

Installation of the materials is considerably easier than the erection required with natural stone or concrete, requires minimal lifting capabilities and facilitates ease of use by the installing personnel.

The cast elements weigh 67% less than natural stone or cast concrete allowing the engineer to reduce the load requirements for the total structure. This limits the amount of steel and concrete needed for the supporting structure.

The casting molds used to create architectural elements are maintained and reused rather than being discarded after each pour.

The cost of maintaining the material during its life cycle will be significantly less than competing products due to the integral natural earth colored pigment used and the low water absorption (less than 5%) due to the 8,300 psi of the finished product.

Piazza Stone has been tested to ASTM C66 / C 666M-03 and has received certification that will endure a minimum of 125 years thereby giving building owner's confidence that no replacement will be required.

The utilization of Piazza Stone will permit the owner to achieve an esthetic value equal to natural hand-cut stone at significant savings of 67%. Indirect costs are also less for the owner due to the lower weight of the structure and ease of installation.

## Health and Community Benefits:

The blending of bags of Piazza Stone is done in locations that permit the use of rail transportation as compared to the commonly used over-the-highway trucks commonly found in cement and other heavy materials.

During the installation, there are no VOCs used in the adhesive application to various substrates.

Piazza Stone provides the architect the opportunity to restore older structures to recapture the original elegance thereby saving the consumption of new materials and demolition costs. This permits the regentrification of older buildings and historic sites.

Piazza Stone is manufactured of materials that are non-combustible. In a fire, there will be no creation of harmful chemicals released into the environment.