



LEED CERTIFICATION ASSISTANCE DOCUMENT

Version 3.0

THIS IS A GENERAL INFORMATION DOCUMENT ONLY.

DOCUMENT PURPOSE

*This guideline is intended to assist those seeking LEED certification for sustainable building projects. Use of the **CityMix** product may help achieve LEED credits, but it is important to understand that factors pertaining to each category must be fully considered by qualified personnel in order to properly determine the final degree of compliance.*

ABOUT CITYMIX

CityMix is an innovative company dedicated to providing a quality product that supports the highest principles of sustainability and green building practices.

CityMix's patent-applied, exceedingly lightweight specialty additive is designed for direct blending with concrete, stucco and masonry products. The *CityMix* additive is composed almost entirely of recycled, non-toxic, post-manufacturing and post-consumer waste.

CITYMIX ENVIRONMENTAL & SUSTAINABILITY BENEFITS

CityMix provides the following benefits to the concrete, stucco and masonry industries, and to buildings in general.

CATEGORIES PER THE LEED NEW CONSTRUCTION AND MAJOR RENOVATIONS 2009 RATING SYSTEM

Sustainable Sites

SS 7.1 Heat Island Effect: Non Roof

SS 7.2 Heat Island Effect: Roof 1

CityMix thermal insulation properties help reduce heat and cold mass retainage in stucco and veneer masonry-based claddings, and on deck and roof top pavers, pads, containers and other common cementitious elements.

Energy and Atmosphere

EA 1.0 Optimize Energy Performance

CityMix's natural insulation properties add moderate R-value to concrete, stucco and masonry.

Products containing 50% *CityMix* fine aggregate substitution, by volume, can expect 50% - 100% higher R-values than those exclusively containing standard cement or mortar-based ingredients.

Substituting *CityMix* recycled additive for a portion of the fine and/or heavy sand and aggregates required to manufacture concrete, stucco and masonry materials can vastly reduce the collective fuel and electrical power required to create these common products.

Lighter product weight means that less fossil fuel energy is required for:

- Mining, hauling and processing natural mineral aggregates
- Shipping processed aggregate materials to cement product manufacturers
- Shipping products to central distribution points
- Shipping to small manufacturers and/or job sites
- Job site lifting and handling energy
- Shipment and transfer of all final *CityMix*-containing products

CityMix reduces product installation energy costs.

Many products incorporating *CityMix* can be cut with simple electric power saws, as opposed to gas-powered equipment or heavy cutting devices requiring large motors, specialty blades or water jetting.

CityMix containing products may generally be secured with lighter attachment hardware and/or reduced adhesive needs.

CityMix's light weight can help reduce a building's overall structural and seismic reinforcement requirements, which translates to projects requiring less steel, concrete, hardware and overall fossil fuel consumption.

CityMix's naturally insulating and sound-deadening properties help produce quieter and more energy efficient wall systems.

CityMix saves energy use by extending various product life cycles.

CityMix's natural water repellency, flexibility, impact resistance and overall durability help prevent cracking and subsequent degradation to concrete and stucco wall coatings.

CityMix containing wall veneers can be as much as 75% lighter than conventionally applied veneer wall systems, which means less settlement damage, fewer wall attachment penetrations and reduced long-term maintenance costs.

Lighter concrete, stucco and masonry transport trucks cause less wear to tires and roadways.

Given the universal presence of concrete, stucco and mortar-based products, truly exceptional environmental energy reductions and benefits are enabled when all the various CityMix virgin raw material and energy saving contributions and opportunities are collectively considered.

Materials and Resources

MR 1.0 – 4.0

MR 5.0 Regional Materials

CityMix's core ingredients and manufacturing systems are designed for local recycling solutions and efficiencies. *CityMix*'s vision is to supply a regional waste product collection and manufacturing center in or near all major North American population centers, thereby

enabling large volumes of packaging foam and other waste EPS products to be reclaimed, re-processed and fully utilized within their respective local communities.

99% of the *CityMix* product is composed of recycled post-consumer and/or post-manufacturing waste obtained within 100 miles of the *CityMix* manufacturing site.

All *CityMix* production waste is fully recyclable and converted into new *CityMix* product.

Indoor Environmental Quality

IEQ 7.1 Thermal Comfort

Concrete, stucco and mortar-based mixes and products utilizing *CityMix*'s specialty blended ingredients evidence reduced dust generation during manufacturing, handling and cutting procedures.

CityMix ingredients are inert, non-toxic and do not contain ozone depleting CFCs or HCFCs.

Innovation in Design

ID 1.0 – 2.0 Innovation in Design

CityMix is currently undergoing a formal LEED review analysis by outside consultants, a process which hopes to formally demonstrate the achievement of significant, measureable environmental performance using a strategy not currently addressed in the LEED for New Construction and Major Renovations 2009 and LEED for Core and Shell Development 2009.

CityMix also hopes to achieve credit allowed for exemplary performance as specified in the LEED Reference Guide for Green Building Design and Construction. An exemplary performance point may be earned for achieving double the credit requirements and/or achieving the next incremental percentage threshold of an existing credit in LEED.

The market availability of the “green”, ultra-lightweight *CityMix* additive provides concrete, masonry and stucco product users and design professionals with a unique opportunity to expand their products and uses in new and innovative ways.

Regional Priority

RP 1.0 Regional Priority

CityMix consultants will also seek *CityMix*'s achievement of credits for addressing geographically-specific environmental priorities.

Additional Benefits: Worker Health & Safety

CityMix's light weight reduces the risk of worker lifting and handling-related injuries during manufacturing, packaging, delivery and installation procedures.

CityMix's uniquely light weight helps reduce overall worker fatigue.

