Brick	Pavers	Environmental Features
		Sustainable Sites
	Indirect	**SS 4.1, Alternative Transportation – Public Transportation Access**: Pavers may contribute to this credit if used in walking and biking paths between buildings and transit stops.
	Indirect	**SS 6.1, Stormwater Design – Quantity Control**: Pavers may contribute to this credit if used to create pervious paving areas to reduce runoff as part of a stormwater management plan.
	Indirect	**SS 6.2, Stormwater Design – Quality Control**: Pavers may contribute to this credit if used to create pervious paving areas to capture and treat runoff as part of a stormwater management plan
	Direct	**SS 7.1, Heat Island Effect – Nonroof**, Option 1 (cool paving): Pavers may contribute to this credit in two ways. The methods may be combined, but each paving area may only be counted once toward a target of 50% cool paving. • Pavers with Solar Reflectance Index of 29 or greater are considered **high-reflectance paving**. • Pavers installed in an open-grid pattern, with at least 50% of the surface made of pervious materials, are considered an **open-grid pavement system**.
	Direct	**SS 7.1, Heat Island Effect – Nonroof**, Option 2 (covered parking): Pavers with Solar Reflectance Index of 29 or greater may contribute to this credit if used on the roof of covered parking.
		Water Efficiency
	Indirect	**WE 1, Water-Efficient Landscaping**: Pavers may contribute to this credit if used to create pervious paving areas as part of a rainwater harvesting system to be used for irrigation.
		Energy and Atmosphere
Indirect	Indirect	**EA 1, Optimize Energy Performance**: Bricks (and pavers if used on a rooftop) may contribute to this credit if used in designs that take advantage of the thermal mass of masonry to control temperature, reducing heating and cooling requirements. The energy modeling method is the best way to incorporate the effects of thermal mass.
		Materials and Resources
Direct	Direct	**MR 4, Recycled Content:** Bricks and pavers contain 40% pre-consumer recycled content, so are considered **20% recycled** for the purposes of this credit.
Direct	Direct	**MR 5, Regional Materials:** Bricks and pavers consist of materials recovered and extracted within 500 miles of the manufacturing facility. For project sites **within 500 miles of Caledonia, WI**, bricks and pavers contribute to this credit.
		Indoor Environmental Quality
Indirect		**IEQ Prerequisite 3, Schools**: Bricks may contribute to this credit if used in designs that take advantage of the mass of masonry to reduce transmission of HVAC background noise into classrooms.
Indirect		**IEQ 7.1, Thermal Comfort – Design**: Bricks may contribute to this credit if used in designs that take advantage of the thermal mass and insulating value of masonry to maintain comfortable interior temperatures.
Indirect		**IEQ 9, Enhanced Acoustical Performance, Schools**: Bricks may contribute to this credit if used in designs that take advantage of the mass of masonry to reduce transmission of

Indirect		**IEQ 9, Enhanced Acoustical Performance, Schools**: Bricks may contribute to this credit if used in designs that take advantage of the mass of masonry to reduce transmission of background noise into classrooms and other core learning spaces. Incorporate CalStar brick into wall assemblies with high STC (sound transmission class) ratings.
Indirect		**IEQ 10, Mold Prevention, Schools:** Bricks may contribute to this credit if used to maintain comfortable interior temperatures in accordance with IEQ 7.1.
		Innovation in Design
		ID 1, Path 1, Innovation in Design: Three strategies are available for using CalStar bricks and pavers to achieve this credit. It is possible to pursue multiple strategies in one project.
Direct	Direct	• Complying with **CaGBC's LEED Credit MR 8**, based on CSA S478, Guideline on Durability in Buildings. Brick is considered a durable building material, and USGBC Credit Interpretation 2512 states that importing a credit from another LEED rating system is an acceptable strategy for an Innovation in Design credit.
Direct	Direct	• Using a comprehensive design strategy to **incorporate materials with reduced embodied energy and carbon footprints**. Although USGBC has stated that simply using a new material is insufficient to achieve an Innovation in Design credit, using CalStar bricks and pavers in combination with other innovative and low-impact materials may qualify for a credit.
Direct or Indirect	Direct or Indirect	**ID 1, Path 2, Exemplary Performance:** CalStar bricks and pavers may be used to achieve exemplary performance points by exceeding the criteria for many other LEED credits.
		Beyond LEED
		Resistance to Microbial Growth: CalStar brick and pavers don't introduce food or habitat for mold or other microbes.
		Insect Resistance: CalStar brick and pavers don't introduce food or habitat for termites, carpenter ants, or other pests.
		Embodied Energy: CalStar brick and pavers are exemplary performers in reducing the energy embodied in your projects. Because they're made with self-cementing fly ash, they don't involve fired materials like Portland cement or clay. CalStar bricks require 850-1250 BTUs to produce, compared to 4800-8800 BTUs for clay bricks and 1240 BTUs for concrete bricks.
		Carbon Footprint: CalStar brick and pavers are exemplary performers in reducing the carbon footprint of your projects. A CalStar brick's carbon footprint is 0.25 lb, compared to 1.3 lb for clay brick and 0.75 lb for concrete brick.
		Reduced Construction Waste: CalStar bricks and pavers, when used in designs that take advantage of their modularity, generate very little construction waste. Cut or broken units can be used as site fill, and intact units can be retained for repairs or for other projects.
		Long Service Life: CalStar brick and pavers lend themselves to durable designs that are easy to service or repair, enabling the very long service life demonstrated by centuries of brick construction.
		Low-Emitting Materials: CalStar brick, when used as a finished surface on building interiors, can reduce the use of finishes and maintenance materials that emit urea formaldehyde or other volatile organic compounds. Fly ash brick requires no paint or adhesives and can serve as a low-emitting flooring, wall, or ceiling finish for many types of spaces.
		Thermal Comfort: The thermal mass of CalStar fly ash brick can be used to maintain interior temperatures in regions with high temperature variation.
		Passive Solar Design: The thermal mass of CalStar bricks and pavers can play a vital role in high-performing, energy saving projects designed for passive solar heating and passive cooling.
		Acoustical Performance: Masonry construction uses mass to great advantage in reducing