### **ARTO Products and LEED Version 3**

## Potential Credits for New Construction & Major Renovations

### What is LEED?

<u>LEED</u> is an internationally recognized green building certification system, providing third-party verification that a building or community was designed and built using strategies aimed at improving performance across all the metrics that matter most: energy savings, water efficiency, CO<sub>2</sub> emissions reduction, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts.

Developed by the U.S. Green Building Council (USGBC), LEED provides building owners and operators a concise framework for identifying and implementing practical and measurable green building design, construction, operations and maintenance solutions.

#### What is LEED 2009?

<u>LEED 2009</u> is not a "tear down and rebuild" of the LEED that exists in the market but rather a reorganization of the existing commercial and institutional LEED rating systems along with several key advancements.

The <u>LEED 2009 Green Building Rating System for New Construction and Major Renovations</u> is a set of performance standards for certifying the design and construction of commercial or institutional buildings and high-rise residential buildings of all sizes, both public and private. The intent is to promote healthful, durable, affordable, and environmentally sound practices in building design and construction.

Prerequisites and credits in the LEED 2009 for New Construction and Major Renovations include:

- Sustainable Sites (SS)
- Water Efficiency (WE)
- Energy and Atmosphere (EA)
- Materials and Resources (MR)
- Indoor Environmental Quality (IEQ)
- Innovation in Design (ID)
- Regional Priority (RP)

LEED 2009 for New Construction and Major Renovations certifications are awarded according to the following scale:

- Certified 40–49 points
- Silver 50–59 points
- Gold 60–79 points

Platinum 80 points and above

### **Certification Process**

Project teams interested in obtaining LEED certification for their project must first register online. Registration during early phases of the project will ensure maximum potential for certification. The Green Building Certification Institute (GBCI) assumes administration of LEED certification for all commercial and institutional projects registered under any LEED Rating System. Learn more about the project certification process.

In LEED, points are awarded for environmentally friendly actions taken during design, construction and use phases. Each of the seven main categories of LEED consists of a number of credits which can earn points. In LEED for New Construction and Major Renovation, a building requires at least 40 points for certification – <u>ARTO products can help your projects claim 10 or more points</u> toward LEED certification.

Please note that there is no such thing as a "LEED-certified" product. Instead architects must complete LEED worksheets that establish whether different parts of the projects are eligible for LEED credits.

## **LEED Credit Potential Using Arto Products**

Materials & Resources MR 4.1 Recycled Materials 10% (1 Point)

Materials & Resources MR 4.2 Recycled Materials 20% (2 Points)

Recycled Materials – LEED points are available for products that use recycled materials. ARTO products are manufactured with recycled water, recycled aggregate is utilized for many of our products and can be added to meet custom specifications. ARTO is constantly seeking to expand recycled content without compromising product quality or displacing regionally sourced materials

Materials & Resources MR 5.1 Regional Materials 10% (1 Point)

Materials & Resources MR 5.2 Regional Materials 20% (2 Points)

Regional Materials – To reduce transportation impacts LEED points are available for products that are both manufactured and use raw materials sourced within 500-mile radius of the project site. Because all ARTO products are handcrafted in Southern California we can contribute to this credit for projects in the vast majority of California, Nevada, and Arizona, including all major metropolitan areas

Sustainable Sites SS 6.1 Stormwater Control – Quantity (1 Point)

## **Sustainable Sites SS 6.2 Stormwater Control – Quality (1 Point)**

<u>Stormwater Control</u> – ARTO pavers or stepping stones installed on an aggregate base can create a pervious pavement to help claim LEED points for improving quality and quantity of runoff.

# **Sustainable Sites SS 7.1 Heat Island Non-Roof (1 Point)**

# Sustainable Sites SS 7.2 Heat Island Roof (1 Point)

Heat Island Effect Reduction – To combat the heat island effect associated with urban development LEED points can be awarded if solar reflectance index (SRI) of hardscape, paving, or high slope roofing is greater than 29. ARTO products, including pavers, roof pavers, and wall caps, can be specified in many colors with verified SRI greater than 29 including: Bone, Buff, Caqui, Cotto Gold, Early Gray, Gold, Hacienda, Hacienda Limestone, Natural Gray, Ocean Green, Old California, Rosa (other colors may qualify but have not been laboratory tested)

# Environmental Quality EQ 4.1 Low Emitting Materials: Adhesives and Sealants (1 Point)

<u>Low-VOC Materials</u>: Use adhesive and sealers with low-VOC levels when installing ARTO products in order to improve indoor air quality and secure this LEED credit.

# Innovation in Design Process ID 1-1.4 Innovation in Design (1-4 Points)

<u>Innovation Credits</u>: Innovation credit points may be awarded for innovation and performance above and beyond LEED requirements. ARTO has often worked with design professionals to create custom pieces and to employ cutting-edge technology for specific projects. Potential innovation credits include:

- Sustainability due to long lifetime, durability, low maintenance
- Replacement of VOC-emitting materials (carpets, paints, other finishes)
- Recyclable plus reusable in certain cases (sand set pavers)
- New technologies (pervious pavers, self-cleaning photocatalytic concrete)

Again, there is no such thing as a "LEED-certified" product but the chart below shows how ARTO products can contribute LEED points in many credit areas

LEED Credit Area	Credit (points)	Description	Eligible Products
Recycled Content	Materials & Resources MR	Project	All Products
	4.1 (1)	material	(recycled content
		includes 10%	varies and can be
		recycled	added upon

		content	request)
Recycled Content	Materials & Resources MR 4.2	Project	, ,
-	(2)	material	
		includes 20%	
		recycled	
		content	
Regional Material	Materials & Resources MR	10% of	All Projects within
	5.1 <b>(1)</b>	project	500-mile radius of
		material	ARTO factory
		locally	(includes all major
		manufactured	metro areas in CA,
		and sourced	NV, and AZ)
Regional Material	Materials & Resources MR	20% of	
	5.2 <b>(2)</b>	project	
		material	
		locally	
		manufactured	
		and sourced	
Stormwater Design	Sustainable Sites SS 6.1 (1)	Install sand	Roman Pavers,
<ul> <li>Quantity Control</li> </ul>		set or	California Pavers,
Stormwater Design	Sustainable Sites SS 6.2 (1)	pedestal	Broadway Pavers
<ul><li>Quality Control</li></ul>		pavers as	
		part of	
		pervious	
	0 1 1 0 0 0 7 1 1	pavement	
Heat Island Effect	Sustainable Sites SS 7.1 (1)	Use colors	All products
- Nonroof	0 1 1 0 0 7 0 14	with	in exterior
Heat Island Effect	Sustainable Sites SS 7.2 (1)	approved SRI values	Installations
- Roof	F : 110 E F0.44		A11 1 4
Low Emitting Materials	Environmental Quality EQ 4.1	Use low-VOC	All products
- Adhesives &	(1)	sealers,	in interior
Sealants		adhesives to	installations
		improve indoor air	
		quality	