

Environmental Statement



Environmental Statement

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Preface

With our stated purpose to “Enrich Outdoor Spaces,” environmental stewardship is part and parcel of what we do at Landscape Forms. In the same way we carefully consider how the environment acts upon our products, we also carefully consider the ways in which our products and practices act upon the environment. Sustainability and stewardship are not just consistent with our company values but are requisite measures in order to achieve our purpose. Design, Culture and Craft—the three pillars at the core of Landscape Forms—are all permeated by a strong sense of environmental accountability that drives us in every aspect of our business.

Landscape Forms Sustainability Principles:

- We will pursue continuous improvement to efficiency and sustainability in all our operations.
- We will find healthy ways to grow.
- We will conserve resources.
- We will consider the complete life cycle of the products we produce.
- We will identify and address adverse consequences of our operations.
- We will respect the needs of future generations.

Our Sustainability Principles are Expressed in our Products, Processes, Programs and Facilities

Landscape Forms actively seeks ways to limit the environmental impacts of our manufacturing, packaging, shipping and administrative processes. We employ recycled materials and wood from responsibly managed forests in our products and produce products with a focus on durability and longevity, many of which are themselves recyclable. We implement energy efficient building solutions and specify sustainable products in our facility. In these efforts, we address our customers’ expectations for high-design, high-quality products while also addressing customers’ commitments to sustainability and the natural environment.

Products & Materials

Durable is sustainable. Landscape Forms' products are designed and engineered to withstand the rigors of natural environment and heavy use to live long, successful lives in outdoor landscapes. The durability, longevity and low maintenance of our products is instrumental to the responsible stewardship of the earth's resources. The primary materials used in the manufacture of Landscape Forms products are steel, aluminum, concrete, and wood. These materials are chosen for their durability and their ability to withstand the challenges of outdoor environments and active public use.

Steel and Aluminum

Steel and aluminum are extremely durable and fully recyclable, making them ideal candidates for a bulk of Landscape Forms' products. Landscape Forms manufactures steel benches, chairs, tables, structural systems, bollards, litter/recycling receptacles, ash urns and other accessories. Easily extruded or cast into a variety of shapes, aluminum is used to make Landscape Forms benches, chairs, transit shelters, structural systems, pedestrian lighting, bollards, display elements, shade structures, litter receptacles and other accessories.

Wood

Landscape Forms manufactures and markets wood benches, tables, chairs and shade structures. We employ sturdy hardwoods for exterior use that are dimensionally stable, resistant to insects and rot, resistant to scratching and marring, and do not require a protective finish. These include Ipe, Jarrah, teak, red oak, thermally modified ash, and Alaskan yellow cedar.

All Landscape Forms wood products utilize wood harvested from sustainably managed forests. As part of our commitment to sustainable forestry, Landscape Forms shall not use illegally harvested wood, wood from genetically modified (GM) trees, or wood harvested from the forest areas where traditional or civil rights are violated.

Landscape Forms has held FSC (Forest Stewardship Council) Chain of Custody certification since 2004 and offers FSC Certified wood as an option on most wood products. Wood products certified by the Rainforest Alliance are recognized as originating from well-managed forests that adhere to the strict environmental principles and criteria established by the FSC.

Jarrah used in Landscape Forms products is harvested from Western Australia's forests, which are managed by the Western Australia government agency, the Forest Products Commission (FPC), in compliance with internationally accepted principles of sustainable development. The FPC gained ISO 14001 certification in 2001. All Western Australian jarrah is now sourced from regrowth forests—harvesting of old growth forests is no longer permitted.

The thermally modified ash adds a domestically sourced species to our offering. Highly durable, modified ash is a perfect material for outdoor furnishings, as it has a long lifespan, is low maintenance, and ages slowly and beautifully. Modified ash retains its uniform grain character and takes on a deep brown color that grays over time. The eco-friendly, low-impact modification process uses heat, not chemicals, to alter the chemistry of the wood, making it resistant to environmental elements, including insects, moisture, and the warping, cupping, expansion, and

Products (cont.)

contraction moisture causes. Thermal modification also reclaims ash species that have been affected by the Emerald Ash Borer, putting the trees to productive use in an outdoor environment instead of burning or landfilling them. Approximately 40 percent of the ash we thermally modify has been affected. See our Wood Technical Brief for more details.

Plastics

Landscape Forms manufactures benches made with PolySite recycled plastic timbers. Formed from HDPE (High Density Polyethylene), PolySite contains 90% recycled content and in and of itself is fully recyclable. Landscape Forms has also partnered with Loll Design to utilize HDPE materials made entirely from post-consumer and post-industrial waste content for use in benches and tables. See our Polysite Technical Brief for more details.

Landscape Forms manufactures and markets seating, planters, bollard sleeves and litter receptacle parts made of LMDPE (Linear Medium Density Polyethylene). Our polyethylene products are flame, stain and scuff resistant and are protected with UV inhibitors and stabilizers. LMDPE made with recycled content does not provide the structural integrity required to produce durable site furnishings and therefore is not employed; however, our LMDPE parts are fully recyclable. See our Polyethylene Technical Brief for more details.

Concrete

Landscape forms uses Ultra High Performance Concrete (UHPC) in the construction of its products. UHPC is orders of magnitude stronger than conventional concrete, increasing its lifespan and decreasing the need for replacement. UHPC can also be recycled several times before finally being used as granular road base. See our UHPC Technical Brief for more details.

The products that come from Kornegay Design, a Phoenix-based cast concrete design and manufacturing studio under the Landscape Forms umbrella, are constructed using a by-hand casting process. Compared to motorized large batch casting, by-hand casting results in an extremely dense concrete mix that uses less water, requires little electricity and results in minimal waste. Kornegay planters and receptacles are designed for a long life of use in high-traffic areas and to withstand harsh environmental conditions. The Kornegay Standard Mix concrete has a compressive strength of 6000 PSI, far exceeding the industry standard of 3500 PSI, resulting in a much more durable end product.

Lighting

Landscape Forms collaborates with award-winning lighting consultants to develop innovative solutions for new lighting products, centered around delivering appropriate lighting levels using high efficiency LED technology.

Our commitment to efficiency (energy, design and materials) is consistent with our goal to address the needs of our customers while honoring our pledge of environmental sustainability. We currently offer high efficiency LED lighting options in transit shelters, pedestrian & pathway lighting, streetscape lighting and bollards for pathway demarcation and wayfinding.

LEDs are at the forefront of developments in energy efficient lighting technology. Featuring real world operating lifespan of 100,000+ hours, typically calculated as the time it takes for the output

Products (cont.)

to reduce to 70% of their initial brightness. LED technology also features an inherent resistance to failure, allowing for a very long operating life, meaning fewer unscheduled maintenance events, and much longer scheduled maintenance cycles. Many of our lighting fixtures are compliant with the standards of the International Dark-Sky Association and are certified as being Dark Sky Friendly.

LEDs provide focused light with no waste or “spill.” Due to the directional nature of LED light, it is easier to direct light where it is needed, avoiding light pollution, trespass and ensuring high efficiency.

Landscape Forms is a pioneer in human-centric lighting for pedestrian spaces. For more than a decade we have focused product and technology development in areas of appropriate color temperature for nighttime illumination, glare reduction and vertical illumination. We develop LED arrays that provide light in the 2700K – 4000K range, a warm white light that mimics organic color temperatures, providing illumination similar to moonlight. This development supports the natural melatonin/serotonin cycle that is essential for human health.

We offer LED lighting in both wired and solar options. Solar-powered smart technology bollards and Connect and Kaleidoscope transit shelters, which utilize renewable energy and save on wiring installation costs, are an ideal solution for remote areas disconnected from wiring infrastructure and locations where security or emergency preparedness mandate uninterrupted lighting in case of grid failure.

Processes

Lean is green. Landscape Forms follows Kaizen principles of continuous improvement across all aspects of the company from the corner office to the manufacturing floor. When coupled with attention to the sustainability of specific solutions, the Kaizen approach offers inherent environmental benefits to business operations and is a useful tool for waste reduction and pollution prevention.

All steel, aluminum, wood scrap and sawdust generated in our manufacturing processes are recycled. 99% of the water used in our manufacturing process is recycled.

Metal Manufacturing

Through the Kaizen principles of continuous improvement, there have been significant milestones achieved in workflows and processes within our metal manufacturing facility. Our teams conduct meetings to focus on continuous improvement. Several new initiatives have resulted from these meetings, including the creation of our 5S audit practices that use metric scores to ensure our team is creating a lean workflow and maximizing efficiency throughout every process area. We perform regular testing on our machinery to ensure we are running at the proper speed to increase efficiency and ensure that the life of the machinery is maximized.

Processes (cont.)

All carbon steel, stainless steel and aluminum is reused or recycled when it is no longer usable. Other initiatives include reusable skids for cardboard; vending machines with stocked materials and supplies to reduce unnecessary usage and waste; and reduced skidded materials in relation to our laser operations.

Wood Manufacturing

In 2019, the Landscape Forms operations and engineering teams came together to set elevated quality standards for our source wood. This initiative allows us to use the materials more efficiently, significantly reducing the amount of wood that is scrapped, and reconfirming to the customer that the product is of the highest possible quality. The portion of wood that is scrapped for recycling is meticulously tracked and recorded to ensure the most sustainable use of our source wood. The combination of our elevated quality and increased efficiency initiatives instituted in 2019 have led to significantly increased throughput in our wood manufacturing facility.

Concrete Manufacturing

Similar to our wood manufacturing initiatives instituted in 2019, our operations and engineering teams are currently developing a set of elevated quality standards for concrete manufacturing in 2020 and beyond. At Landscape Forms, one of our core principles is the continuous improvement of our products and the constant refinement of our processes, so adjusting our quality standards accordingly is paramount to achieving the most efficient and sustainable use of raw materials. Some of the new initiatives in concrete manufacturing for 2020 include the improvement of our environmental systems to better control the pouring and curing process in order to increase efficiency and reduce scrap.

At the Kornegay Design cast concrete studio, 98% of the materials utilized in the Standard Mix are extracted within a 500-mile radius of the facility in Phoenix, resulting in reduced transportation emissions. Kornegay uses fly ash, a recycled post-industrial material that is a by-product of coal-fired electricity generation, to replace 20% of the Portland cement in the Standard Mix, aiding in sustainability and reducing overall water usage. Despite its continued growth, the Kornegay Design facility has reduced its waste by 50% since 2007 through a comprehensive recycling program for all concrete, sand, and raw material waste, packaging waste, and used office supplies.

Metal Coatings

Landscape Forms metal products are undercoated with Primegard® rust proofing, which provides a high level of resistance to environmental degradation. Products are finished with Pangard II® polyester powdercoat, which is free of lead, free of hazardous air pollutants (HAPs), does not generate hazardous waste, and contains less than 1% of volatile organic compounds (VOCs). Once processed these trace VOCs are fully inert and therefore cause no emission into the environment.

In 2016, Landscape Forms made a significant investment in a new automated powdercoating production line. Ovens are now equipped with sensors to detect gaps in the line and automatically go into a low-fire energy-saving mode if there are no products entering the line. New ovens are also double-insulated, retaining significantly more heat and reducing energy use required to coat products. With this new paint line, products are coated more quickly and efficiently, and a new primer paint reclamation system captures 85% of all excess primer to be recycled and reused. All products are processed more densely to further reduce materials and energy waste.

Processes (cont.)

Moving forward, Landscape Forms continues to research and pursue new technologies that will enable lower cure-temperatures in order to reduce our impact on the environment. As stewards of our natural ecosystem, Landscape Forms maintains full compliance with current environmental laws and retains a consultant to assure that we remain in compliance as we continue to expand and grow.

Wood Coatings

Landscape Forms' wood furniture for outdoor use is manufactured from wood species that weather naturally in outdoor settings. We do not apply paints or finishes to these products and do not recommend the use of finishes on species suitable for natural weathering. Our wood furniture for indoor use is finished with LF-80, a clear, catalyzed low-VOC acrylic finish.

Packaging + Shipping

In 2016, Landscape Forms acquired a Box-On-Demand machine to create packaging at the exact sizes needed. Utilizing this machine, we are able to make boxes that better fit our various products instead of being restricted to off-the-shelf sizes, effectively reducing the amount of corrugated board used per product. This allows us to receive fewer shipments of corrugated board (30% recycled content and 100% recyclable), which we now receive once per week instead of every day.

We have eliminated the use of polystyrene in our packaging due to its limited recycling capability. Instead, products are sleeved in a plastic sheeting to protect our product from scuffing in transit. The plastic sheeting is recyclable high-density polyethylene (HDPE) while the foam padding used is low-density polyethylene (LDPE) which is also recyclable. We are currently working towards providing a recycling guideline to accompany every shipment which will describe how to recycle all of the packaging material utilized. Further, the pallets we use to ship our products can be reused or recycled. Our specific pallet vendor recycles every pallet, pelletizing or converting them into mulch when their useful life has ended.

At Landscape Forms, we continuously evaluate our shipping methods to ensure the highest utilization of space on trucks reducing the number of vehicles and their respective emissions on the road.

Paper Reduction

Dating back to 2007, there have been ongoing efforts to continuously reduce the amount of paper used in our processes. Around 2010 we implemented a vendor portal to eliminate nearly all printed and faxed purchase orders. Nearly all correspondence with suppliers is done electronically. By utilizing a shared computer network, all employees can access manufacturing drawings reducing the need for printed documents. More recent efforts to reduce paper usage include conducting customer surveys electronically versus a mailed paper survey, in addition reducing the amount of marketing materials that we print and distributing them electronically.

Supply Chain

We give preference to local/regional material suppliers and vendor services to reduce the environmental impacts resulting from extended transportation. The majority of our steel and extruded aluminum originates from mills and plants within 150 miles of our facility. Key domestic suppliers are regularly audited. Chinese suppliers are audited four times annually.

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Facilities

Since 2000, our facility expansions have been planned with sustainable solutions as a strategic goal. Our 50,000 sq ft office expansion in 2000 implemented sustainable practices including reducing site disturbance and heat islands; leveraging site orientation to maximize energy conservation; installation of sliding glass doors to allow natural cooling during temperate seasons and ready access to outdoor break areas. Environmentally responsible products and materials were used during the renovation whenever possible.

Our 2009 renovation encompassed office, restroom and lunch room upgrades, and although not large enough to qualify for LEED certification, design, planning and construction implementation were based on the following LEED credit intents and requirements: Optimizing Energy performance, Enhanced HVAC Management, Building Reuse, Construction Waste Management, Recycled Content, Rapidly Renewable Materials, Certified Wood and Low Emitting Materials.

In 2018 and 2019, we replaced over 3000 fluorescent bulbs with high efficiency LED bulbs across three of our facilities, reducing energy consumption from lighting by over 80%. Further in 2019, we implemented an upgrade project for our office HVAC controls systems allowing us to efficiently run temperature-controlled zones and maintain occupied and unoccupied settings. This project led to immediate savings in energy costs and qualified for significant rebates from our local energy provider.

For our production areas, in 2018 we installed a new state-of-the-art dust collection system for our wood shop to help maintain a high standard of indoor air quality for our employees. This improvement simultaneously reduced our overall energy consumption for the system by integrating variable frequency drives and Ecogates in the system. We have implemented a structured maintenance program to regularly inspect and repair any leaks in our compressed air system to ensure that the equipment is not consuming more energy than is required for standard production activities. We also utilize heat exchange and diverters on our compressed air and dust collection systems to supplement heat to our HVAC system in our production areas during the heating seasons.

Our custodial practices are committed to using chemicals that are less harmful for the environment including replacing acid-based chemicals where possible by utilizing universal cleaners with neutralized peroxide bases. We are currently working to eliminate the use of all aerosol cans in our custodial practices as well. We are fully compliant to air quality and hazardous material storage and disposal standards in all of our facilities and maintain a Zero Exposure certification with DEQ for storm water retention.

In 2019, we implemented new staggered shifts in our production schedule that allow us to divert our peak energy periods, resulting in less demand on the power grid at critical periods of time and a 30% energy reduction at our primary production facility.

Currently, 40% of our transportation fleet consists of hybrid electric vehicles. When used for local transit, these hybrid vehicles are able to run solely on electric power, eliminating the use of combustion for short-term transportation. We plan to transition our entire fleet to 100% electric power by 2025 as new technology in electric long-haul commercial vehicles becomes more widely available.

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People

Not only is Landscape Forms committed to manufacturing sustainable products, but also to leveraging our strong collaborative culture to grow and reinforce our commitment to sustainability. Investing in our people and our culture has been a cornerstone of Landscape Forms from day one over 50 years ago, and in our sustainability efforts today, the ethos is just the same—environmental stewardship is not just a top-down initiative, but a collective effort that is part of our everyday operations and draws upon leadership from all levels of our company. When visiting one of our facilities, it doesn't take long to observe and appreciate the sense that we as a community are all in this together. We are all committed to common goals, and we empower our team members to continually identify improvements in their respective fields in order to reach these objectives. This culture of continuous and collaborative refinement and innovation is the key to our achievements in sustainability thus far, and it is paving the way to an even more sustainable future for Landscape Forms.

Other Programs

In our efforts to help reduce waste and eliminate batteries from landfills, we created a Battery Program that provides team members with rechargeable batteries, as well as Battery Recycling Program for non-rechargeable batteries. We also continue to participate in recycling programs such as: cardboard packaging, office paper, printer cartridges and non-returnable beverage bottles and cans. Our returnable bottles and cans are donated to the local community center. Employees are provided with filtered tap water and ice and are encouraged to use refillable water bottles. We also promote carpooling for our team members who commute a significant distance every day by providing company sponsored, fuel efficient transportation options including a company van.

In support of our local environment, we participate in the Michigan Adopt-A-Highway Program, sponsoring a two-mile stretch of highway in our community. At least three times a year, company volunteers pick up litter along the highway. This program contributes to cleaner highways and allows MDOT to utilize funds allocated for litter removal to improve Michigan's roads.

We also partner with the Southwest Michigan Land Conservancy to help maintain the Chipman Preserve, a 228-acre park with six miles of trails. Employee volunteers spend time throughout the year prepping trails, picking up litter, clearing debris and planting wildflowers in the preserve.

Making sustainable product choices requires the careful assessment of the product's source. Specific product attributes matter, but so does the way a company conducts its manufacturing, operates its facility, selects its materials, chooses its vendors and partners, and treats its employees. Sustainability is a long-term proposition. It requires commitment, infrastructure, investment and employee participation. Landscape Forms is taking the long view in the operation of our total business to achieve our sustainability goals. We provide products today that focus on sustainability from inception to installation, and we continue to pursue new ways to minimize our footprint and provide more sustainable solutions going forward.