



Sustainability Report

2022

Jan 2022 – Dec 2022

Introduction

Originally based in Hockley, Essex, Lemon Groundwork Solutions were incorporated in 1978. The head office was moved to larger premises in Wickford, Essex in 1992. A second depot was established in Rugby, Warwickshire and opened in the year 2000, with a third depot being established in the Creeksea, Essex in November 2019.

The company's customer base includes a wide range of general builders, ground-workers and under-pinner plus major civil engineers and piling contractors.

The company operates under a strict Integrated Management System (IMS) which is independently certified by CARES (UK Certification Authority for Reinforcing Steels) to BS EN ISO 9001:2008 and meets a wide range of other industry related CARES Standards.

Lemon Groundwork Solutions (LGS) has developed and implemented an integrated management system (IMS), which uses ISO45001:2018, ISO14001:2015 and ISO9001:2015 as frameworks that allows our organisation to document and improve our practices in order improve our performance and to better satisfy the needs and expectations of our customers, stakeholders and interested parties.

Certifications

Wickford

- Product Conformity – Cert No: 950601
- ISO 9001 Quality – Cert No: 1355
- ISO 45001 OH&S – Cert No: 1855

Creeksea

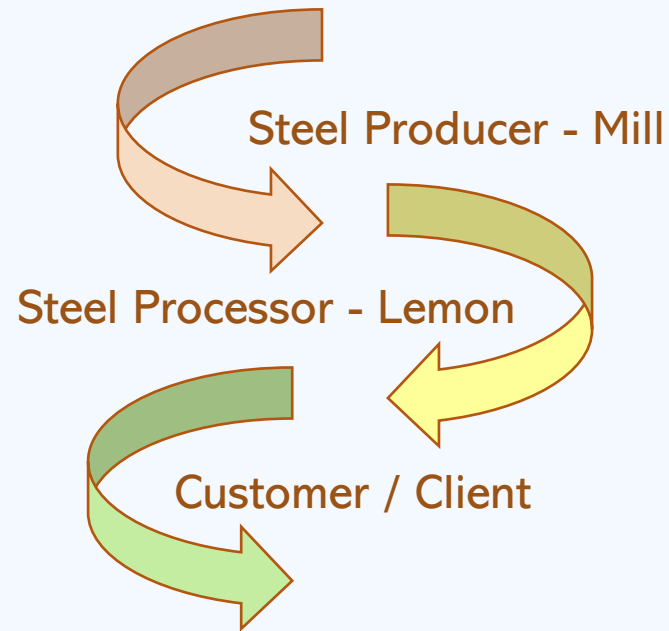
- Product Conformity – Cert No: 200104
- ISO 9001 Quality – Cert No: 1711
- ISO 45001 OH&S – Cert No: 1854
- ISO 14001 Environmental – Cert No: 1742
- BES 6001 Responsible Sourcing – Cert No: 1744
- CARES Sustainability – Cert No: 1743

Rugby

- Product Conformity – Cert No: 950601
- ISO 9001 Quality – Cert No: 1592
- ISO 45001 OH&S – Cert No: 1856

Traceability and Responsible Sourcing

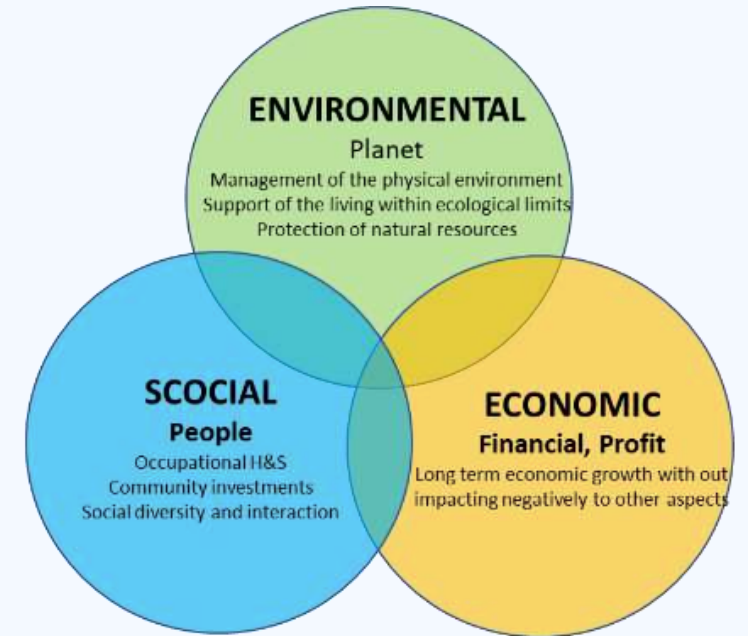
As part of our commitment to responsible sourcing, our policy is to prioritise purchase of raw material from suppliers that hold a recognizable responsible sourcing accreditation such as BES6001, we are also able to trace 100% of this material back to the manufacturer and cast. This traceability is maintained throughout the production process and final delivery to the customer.



Sustainability Principles

The challenge for industry and business is to play a fundamental role in helping to deliver sustainable development, which is defined as: “Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs” Sustainable development requires an integrated approach to the three core elements of social, economic and environmental aspects of our business.

- **Environmental Sustainability** - Ecological integrity is maintained, all of earth's environmental systems are kept in balance while natural resources within them are consumed by humans at a rate where they are able to replenish themselves.
- **Economic Sustainability** - Human communities across the globe are able to maintain their independence and have access to the resources that they require, financial and other, to meet their needs. Economic systems are intact, and activities are available to everyone, such as secure sources of livelihood.
- **Social Sustainability** - Universal human rights and basic necessities are attainable by all people, who have access to enough resources in order to keep their families and communities healthy and secure. Healthy communities have just leaders who ensure personal, labour and cultural rights are respected and all people are protected from discrimination.



Environmental Product Declaration EPD

Product Description

Reinforcing steel bar (according to product standards listed in Sources of Additional Information) that is obtained from scrap, melted in an Electric Arc Furnace (EAF) followed by hot rolling.

The declared unit is 1 tonne of carbon steel reinforcing bars as used within concrete structures for a commercial building.

Technical Information

Property	Value, Unit
Production route	EAF
Density	7850 kg/m ³
Modulus of elasticity	200000 N/mm ²
Weldability (Ceq)	max 0.50 %
Yield strength (as per BS 4449:2005)	min 500 N/mm ²
Tensile strength (as per BS 4449:2005)	min 540 N/mm ² (Tensile strength/Yield Strength ≥ 1.08)
Surface geometry (Relative rib area, f_R as per BS 4449:2005)	min 0.040 for Bar Size >6mm & ≤ 12 mm min 0.056 for Bar Size >12
Agt (% total elongation at maximum force as per BS 4449:2005)	min 5 %
Re-bend test (as per BS 4449:2005)	Pass
Fatigue test (as per BS 4449:2005)	Pass
Recycled content (as per ISO 14021:2016)	96.0 %

Main Product Contents

Material/Chemical Input	%
Fe	97
C, Mn, Si, V, Ni, Cu, Cr, Mo and others	3

Carbon Footprint

Introduction

This report provides a summary of the carbon footprint assessment results for the production of construction steel forms at the location given above.

The results are reported for 1 tonne of reinforcing steel as installed in a building based on data provided by the company in a questionnaire and verified by UK CARES. The whole life cycle of the product has been assessed.

Methodology:

This carbon footprint report is calculated based on calculation rules specified in Product Category Rules for Type III environmental product declaration of construction products to EN 15804:2012 by BRE Global Ltd, as used in UK CARES' EN15804 compliant EPD Scheme.

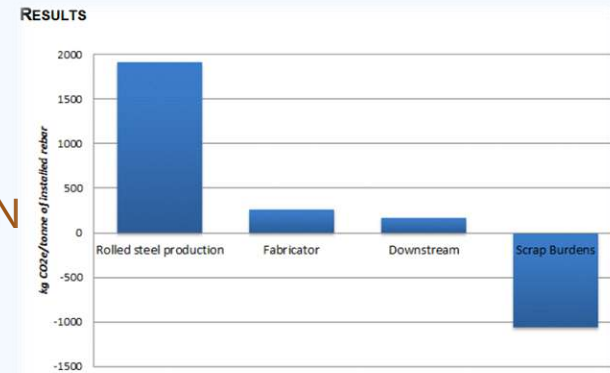


Figure 1: Carbon footprint results for production of 1 tonne of construction steel forms

Table 1: Carbon footprint results (kg CO₂e/tonne construction steel forms)

Impact Category	Rolled steel production	Fabricator	Downstream	Scrap Burdens	Total
GWP, kg CO ₂ e	1919	262	171	-1058	1295

Key Achievements

Lemon Groundworks is proud to highlight the below key achievements from 2022

- 🏆 **100%** Increase in community incentives
- 🏆 **100%** of employee Company cars are **electric/Hybrid**
- 🏆 **99%** of employees live within the **Local community**
- 🏆 **Employee turnover** reduced from 75% to 43%
- 🏆 **Become a member** of Essex County Council Carbon Cutting Essex



LTIFR – 10.33

Materiality Matrix

Material Aspects				Ability to influence (high/low)	Material Aspects			Ability to influence (high/low)
less ←----- Importance to Environment, Stakeholders and Society -----→ more	Biodiversity			Low	GWP and GHG emissions			Low
	Eco-toxicity			Low	Primary Material Use and Materials Efficiency			High
	Local purchasing			Low	Energy Use			High
	Supporting SME's			Low	Slave Labour			High
					Child Labour			High
					Safe and Healthy Working Conditions			High
					Community relations			High
					Gender Equality			Low
					Diversity			Low
					Fair wages			High
					Contribution to Diversity and Stability of the Local Economy			High
					Stable Employment			Low
						</		

Maturity Matrix

Maturity Matrix Worksheet

Maturity Matrix Worksheet					
Data Collection/Reporting Period (e.g. Year 2017)			2020		
You may want to refer to the characteristics for each practice in Table A1 'Sustainable Development maturity matrix for continual improvement of organisations seeking certification of their products' in BS8902:2009					
Sustainability Principles	Practices (Please add any additional practices that are relevant to your approach to sustainability management)	Characteristics of the approach to sustainability in developing organizations			Objectives & Plan(s) / Programme(s)
		Maturity			
		Ad-hoc engagement, an informal approach to stakeholders in relation to these Practices. Limited understanding of the implications of the Practices on business priorities and decision making.	Policies and approach documented and well understood. Accountable party identified and responsible implementing roles/tasks resourced, trained and operational. Certified or uncertified management systems in place to manage the Practices.	Engaged' plus: Proactively using sustainability to drive innovation into the organization at every level to deliver improved performance. Company success is viewed in broader terms than foundation financials only. Positive and negative impacts on our natural capital, wellbeing, local communities and economic contribution should be considered and built into all decision making.	
		Immature	Engaged	Proactive and Learning	
Inclusivity	Stakeholder identification and mapping			X	
	Open engagement in various formats for various stakeholders		X		
	Stakeholder issue identification			X	
	Communication of organization response to issues raised		X		
	..... / Additional practice				
Integrity	..... / Additional practice				
	..... / Additional practice				
	Leadership shown - clear			X	
	Accountabilities documented		X	Mat	
	Code of Conduct adopted			X	
Stewardship	Integrity risks identified and managed				
	..... / Additional practice				
	..... / Additional practice				
	..... / Additional practice				
	Sustainable development culture		X		
Transparency	Responsible/Sustainable Supply chain approach adopted			X	
	Systematic Environmental Management			X	
	Systematic Social Management			X	
	Systematic Economic Management			X	
	Skills and training			X	
	Career development			X	
	..... / Additional practice				
	..... / Additional practice				
	..... / Additional practice				
	Identify appropriate metrics/KPIs			X	
	Monitor performance			X	
	Publicly report management practices and performance		X		
	Review performance			X	
	..... / Additional practice				
	..... / Additional practice				
	..... / Additional practice				

Stakeholder Analysis

	STAKEHOLDER	EXPECTATION	INTERACTION	INVOLVEMENT
Internal	Employees	Stability of employment relationship Fair & competitive remuneration Equal & fair treatment Safe & healthy working conditions Good leadership Opportunities for career development	Everyday work communication Training programme Suggestion forms H&S Committee meetings Workforce participation & consultation meetings	Provide a consistently high-quality product to meet our client's requirements
	Suppliers	Business ethics Mutual benefits Long term relationship Stability of operations & reliability Clear procurement criteria	Supplier meetings Evaluation Feedback forms Website	Provide sustainable products Provide high quality products Provide support & advice
Combined	Customers	Business ethics Quality & reliability Flexibility Innovative solutions	Customer meetings Customer feedback forms Website	Provide growth and stability of a sustainable business
	Financial Institutions	Responsible company Stable employment Return on investment Innovation Local investment.	Meetings Site visits	Quality & sustainable products Value for money Support & advice Business opportunities Long business term relationships;
External	Neighbours / Local Community	Act as a responsible company Support local people Train local people	Direct through meetings Secondary through workforce Website Feedback forms & communication forms	Source of labour Provide services & products Trust in the local community
	Local Authorities	Act as a responsible company Business ethics Flexibility	Meetings Other Written Communication Website	To provide transparency within the Company
	Waste Carriers	Act as a responsible company Business ethics Long term relationship	Everyday work communication Meetings Communications forms Website	To provide each other with support and advise with regards to the protections of wildlife and the environment
	Local Conservation Society	Act as a responsible company Support local wildlife Taken environmental aspects into account	Meetings Website Secondary through workforce Communication forms	To provide each other with support and advise with regards to the protections of wildlife and the environment
	Local Ports	Act as a responsible company Business ethics Mutual benefits Long term relationship Stability of operations & reliability Source of employment	Everyday work communications Meetings Website Communication forms	To provide services which are integral to the Company's operations and to reduce carbon emissions with regards to transport impacts