



GRAHAM

PPN 06/21 Carbon Reduction Plan **2023**

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PPN 06/21 Carbon Reduction Plan

This document outlines the Carbon Reduction Plan for John Graham Holdings Ltd (Trading as GRAHAM) in response to Public Procurement Notice (PPN 06/21).

Supplier name: GRAHAM

This Carbon Reduction Plan relates to John Graham Holdings Ltd (Trading as GRAHAM) and all of its subsidiaries.

Publication date: 26th September 2023

Commitment to achieving Net Zero

In 2021 GRAHAM committed to achieving Net Zero across our full value chain by 2040 (Scope 1,2 & 3). In addition, we also committed to a near term target of Net Zero Emissions by 2030 (scope 1 and 2).

Following updates in industry guidance and scientific research we have also now reinforced our commitment toward net zero by committing to a minimum absolute GHG reduction of 50% by 2030 from a 2021/22 base year (scope 1 & 2). We believe that our commitments align with the latest climate science and support the urgent global action needed to decarbonise industry.

Our commitment to achieving Net Zero has been set out within our Environmental Sustainability Strategy "Constructing a Sustainable Future". The Strategy sets out our vision and ambition for net zero across our entire value chain and includes specific priority areas as well as short and long-term actions dedicated toward our overarching net zero ambition.

KEY PRIORITY AREAS IDENTIFIED TO SUPPORT OUR TRANSITION TO NET ZERO



Management of Climate Risk and Opportunity



Biodiversity and Nature Based Solutions



Implementation of Circular Economy Solutions



Alignment to PAS2080



Net Zero Buildings and Infrastructure



Carbon Data Management



Adoption of Modern Methods of Construction



Alignment to ISO 20400



Sustainability Communications and Campaigns



Implementation of an ISO 14001 EMS



Industry Collaboration



Carbon Reduction Certification



Zero Diesel Sites



Energy Management



Responsible Plastics Management



Climate and Decarbonisation Training (Internal and External)

Baseline Emissions Footprint

Baseline emissions are a record of the greenhouse gases that have been produced in the past and were produced prior to the introduction of any strategies to reduce emissions. Baseline emissions are the reference point against which emissions reduction can be measured.

GRAHAM GROUP BASELINE YEAR: FINANCIAL YEAR 2021/2022

GRAHAM started measuring carbon performance in 2014 and this year was the original baseline upon which we targeted emissions reductions. At that time our emissions inventory consisted of scope 1, scope 2 and partial scope 3 emissions. In 2021 our recognition of scope 3 as a critical element in the path to net zero led us to undertake the significant task of extending the scope of our emissions to all scope 3 sources relevant to our operations. The additional measured data created a need to rebase line to financial year 2021/2022 in order to ensure that we could compare “like for like”. In this way scope 3 sources relating to purchased goods and services, upstream transportation, waste generated in operations and employee commuting are now all included within our inventory.

“It is an absolute privilege to have won a best Energy Achievement Award. The prosperity of the planet is only possible where we work together to conserve energy and reduce carbon. It is fantastic that the judges have recognised the progress that GRAHAM have made on our journey to Net Zero and we will continue to do everything we can to help our stakeholders on their own decarbonisation journeys”.

Lianne Taylor
Head of Environmental Sustainability, GRAHAM



Members of the GRAHAM Environmental Sustainability Team pictured receiving the “Best Energy Achievement in Construction Award” at the 2023 Business Energy Achievement Awards

BASELINE EMISSIONS FOOTPRINT: Yr 21/22

Scope	Emissions Source	Baseline FY21/22 (tCO2e)
SCOPE 1	Gas Oil	8,927
	Company Vans	2,089
	Company Cars	213
	HVO	2
	Other (Gas, Kerosene)	142
	TOTAL SCOPE 1	11,373
SCOPE 2	Purchased Electricity ¹	833
	Purchased Electricity ²	371
	TOTAL SCOPE 2 (Market Based)	371
SCOPE 3	<i>Scope 3 Subcategory Description & Applicability</i>	
<i>Purchased goods and services³</i>	Purchased Goods & Services	359,586
<i>Capital goods³</i>	Capital Goods	1,559
<i>Fuel & energy related activities³</i>	Electricity T&D & WTT for all Fuel	3,038
<i>Upstream transportation</i>	Upstream Deliveries	2,526
<i>Waste generated in operations</i>	Water Treatment and Supply	18
	Waste (Landfilled & not Landfilled)	538
<i>Business travel</i>	Employee Vehicles	1,420
	Rental cars, Flights, Trains, Hotels	1,641
<i>Employee commuting</i>	Employee Commuting & Home Working	5,351
<i>Upstream leased assets³</i>	Not relevant to GRAHAM operations	0
<i>Downstream transportation</i>	Not relevant to GRAHAM operations	0
<i>Processing of sold products³</i>	Not relevant to GRAHAM operations	0
<i>End of life treatment of products³</i>	Not relevant to GRAHAM operations	0
<i>Downstream leased assets³</i>	Not relevant to GRAHAM operations	0
<i>Franchises³</i>	Not relevant to GRAHAM operations	0
<i>Investments³</i>	Not relevant to GRAHAM operations	0
	TOTAL SCOPE 3	375,678
TOTAL EMISSIONS (SCOPE 1,2 & 3)		387,422

1. Location Based – Based on grid average fuel mixes
 2. Market Based – Reflective of renewable electricity supplies purchased
 3. Data provided voluntarily – not mandatory as part of this Carbon Reduction Plan

CURRENT EMISSIONS FOOTPRINT: Yr 22/23

Scope	Emissions Source	Baseline FY22/23 (tCO2e)
SCOPE 1	Gas Oil	7,330
	Company Vans	2,313
	Company Cars	222
	HVO	28
	Other (Gas, Kerosene)	141
	TOTAL SCOPE 1	10,035
SCOPE 2	Purchased Electricity ¹	1,123
	Purchased Electricity ²	238
	TOTAL SCOPE 2 (Market Based)	238
SCOPE 3	<i>Scope 3 Subcategory Description & Applicability</i>	
<i>Purchased goods and services³</i>	Purchased Goods & Services	374,419
<i>Capital goods³</i>	Capital Goods	1,447
<i>Fuel & energy related activities³</i>	Electricity T&D & WTT for all Fuel	3,045
<i>Upstream transportation</i>	Upstream Deliveries	3,602
<i>Waste generated in operations</i>	Water Treatment and Supply	20
	Waste (Landfilled & not Landfilled)	274
<i>Business travel</i>	Employee Vehicles	1,716
	Rental cars, Flights, Trains, Hotels	1,945
<i>Employee commuting</i>	Employee Commuting & Home Working	5,968
<i>Upstream leased assets³</i>	Not relevant to GRAHAM operations	0
<i>Downstream transportation</i>	Not relevant to GRAHAM operations	0
<i>Processing of sold products³</i>	Not relevant to GRAHAM operations	0
<i>End of life treatment of products³</i>	Not relevant to GRAHAM operations	0
<i>Downstream leased assets³</i>	Not relevant to GRAHAM operations	0
<i>Franchises³</i>	Not relevant to GRAHAM operations	0
<i>Investments³</i>	Not relevant to GRAHAM operations	0
	TOTAL SCOPE 3	392,436
TOTAL EMISSIONS (SCOPE 1,2 & 3)		402,709

1. Location Based – Based on grid average fuel mixes
 2. Market Based – Reflective of renewable electricity supplies purchased
 3. Data provided voluntarily – not mandatory as part of this Carbon Reduction Plan

Current Emissions Footprint

The GRAHAM emissions data contained within this CRP are aligned to the GHG Protocol's Corporate Standard and the corporate value chain (scope 3) accounting and reporting standard using the "operational control" approach. Emissions have been calculated using Department for Business, Energy and Industrial Strategy (DBEIS) Conversion Factors for company reporting of GHG emissions.

Our emissions footprint has been calculated as both "market based" and "location based". For the purposes of this CRP, we have presented the data as market based, reflective of renewable electricity supplies purchased.

All of our scope 1, 2 and partial scope 3 emissions have been certified to the requirements of Achilles Carbon Reduce. In this way we have received independent verification that we have measured our GHG emissions in accordance with ISO 14064-1:2018.

Aligned to the guidance within the corporate value chain (scope 3) accounting and reporting standard, primary data was prioritized for use and where unavailable secondary and proxy data was used and where necessary extrapolated.

"Downstream Transportation and Distribution" has not been included in our inventory as this category is not applicable to our operations. GRAHAM do not own or sell the infrastructure and buildings that we construct and manage.



New Electric Vehicle chargers installed across our key office locations

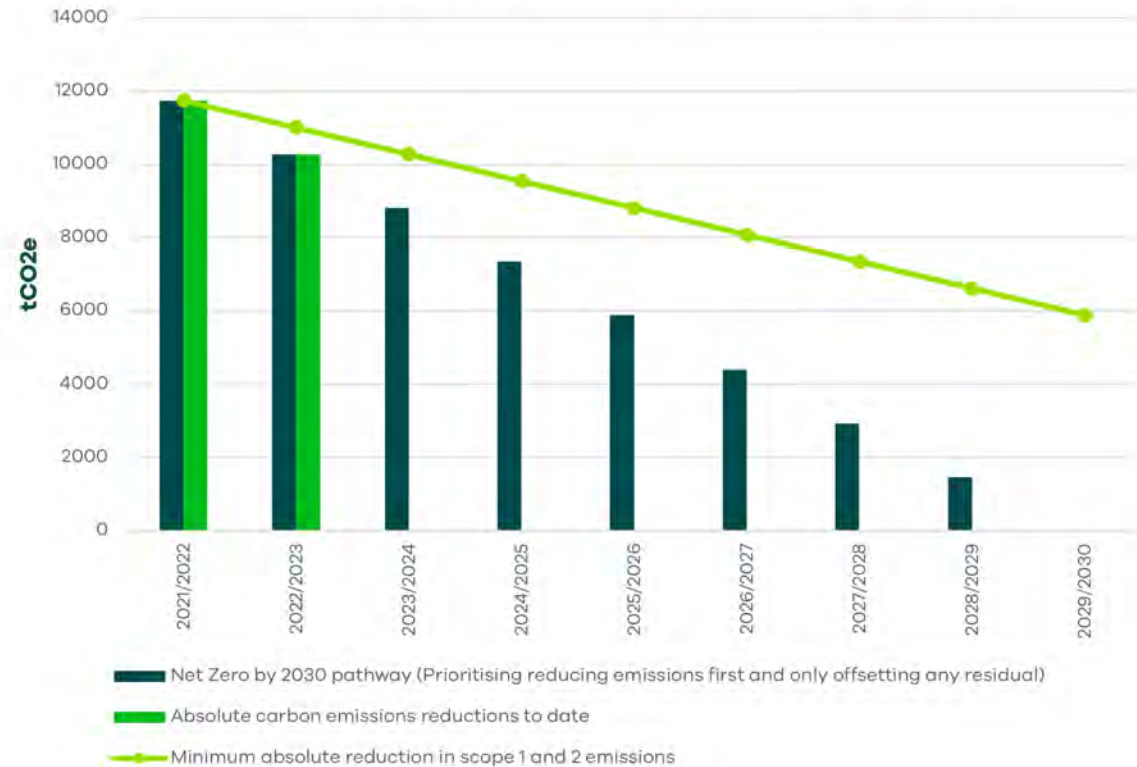
Emissions Reduction Target

We are committed to decarbonising our business and have adopted the following carbon reduction targets:

- By 2040 at the latest, achieve Net-zero carbon emissions (across the full value chain – scope 1,2 &3).
- By 2030 achieve Net-zero carbon emissions (Scope 1 & 2 emissions)
- By 2030 reduce absolute scope 1 & 2 emissions by a minimum of 50%

With the need for action growing, we believe that our targets will help drive the action needed for us to decarbonise our business. This year we have also strengthened our commitment by setting out a specific absolute reduction commitment to be achieved. In this way we are aligning with the latest climate science and focusing on prioritising reducing emissions. We recognise that in the future it may not be possible for our ambitions to be achieved solely from emission reduction initiatives and that we may need to use high quality, credible offsetting to neutralise some residual emissions. We will continue to monitor the credibility of voluntary carbon markets and will only ever view offsetting carbon as a last resort.

Scope 1 and 2 - Emissions Reduction Pathway



We project that our scope 1 and 2 carbon emissions will decrease over the next five years to 7,340tCO₂e by 2027/2028. This represents an absolute reduction of 37.5% from the baseline. It is noted that this is the minimum reduction that we have set out to achieve and we are aiming to go beyond this minimum target. Additionally, we project that our scope 3 emissions will decrease over the next five years to 250,000 tCO₂e by 2027/2028. This is a reduction of 33%.

Emissions Reduction Target (cont'd)

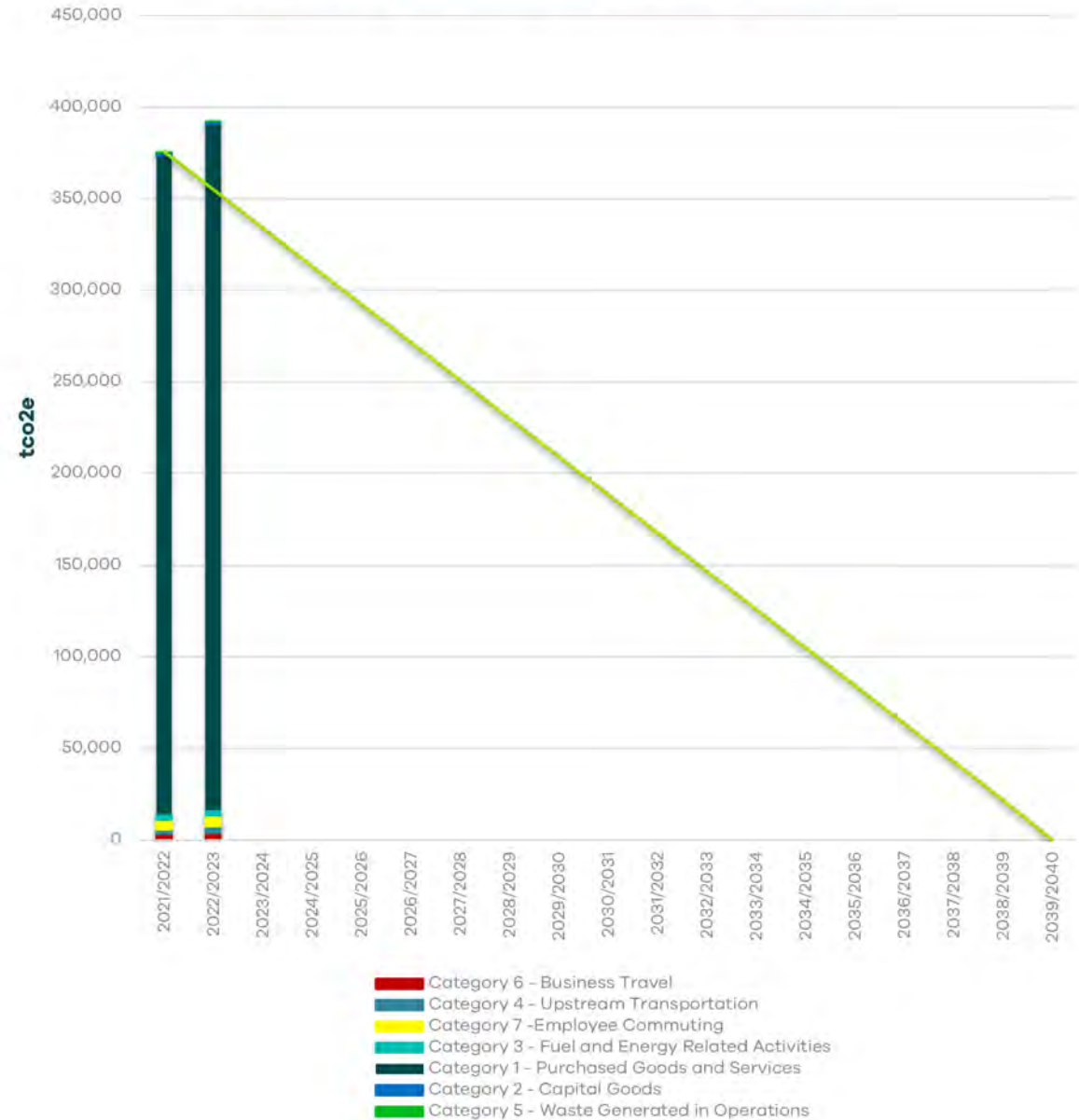
Data for scope 3 emissions spans multiple systems, millions of products and services and is notoriously difficult to unlock and quantify. We are continuing to review and refine our methodologies for measuring scope 3 data and are making good progress in transitioning away from spend based and hybrid methodologies. It is acknowledged that in the short term, data reliability issues relating to purchased goods and services are likely to cause fluctuations in results. In the future we intend to rebase line our scope 3 emissions using transaction level data relating to products and services.

DON'T BE FUELISH

JOIN THE GRAHAM ECO LEAGUE

£500 | Reward for most fuel efficient driver (each quarter)

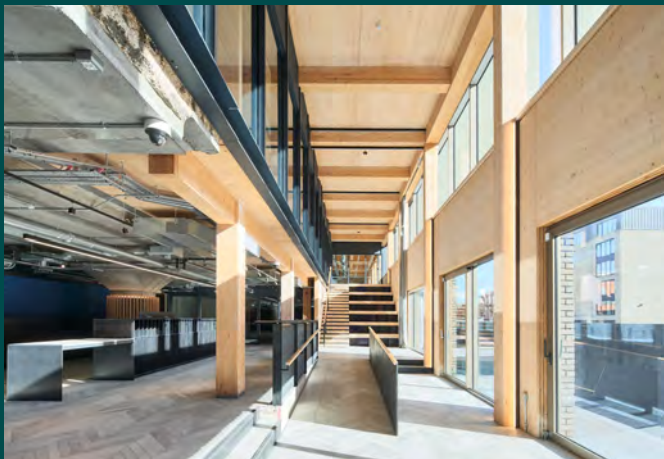
Scope 3 - Emissions Reduction Pathway



Detailed Greenhouse Gases Inventory

Direct GHG emissions are quantified separately below for each applicable gas.

Category	CO2	CH4	N2O	NF3	SF6	HFC	PFC	Desflurane	Sevoflurane	Isoflurane	Emissions Total (tCO2e)
Stationary Combustion	7,394.23	7.89	97.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7,499.77
Mobile Combustion (incl. company owned and leased cars)	2,499.75	0.57	34.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,535.26
Emissions - industrial processes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Removals - industrial processes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Leakage of refrigerants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Treatment of waste	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Treatment of wastewater	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Emissions - land use, land use change, and forestry	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Removals - land use, land use change, and forestry	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fertiliser use	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Addition of livestock waste to soils	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Addition of crop residue to soils	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Enteric fermentation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Open burning of organic matter	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity generated and consumed onsite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Medical gases	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Exported electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL NET EMISSIONS	9,893.98	8.47	132.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10,035.04



Carbon Reduction Projects

Completed Carbon Reduction Initiatives

The following environmental management measures and projects have been completed or implemented since the 2021/22 baseline. The carbon emission reduction achieved by these schemes equate to 1,471 tCO₂e (Scope 1 and 2), a 12.5% reduction against the baseline and the measures will be in effect when performing the contract.

- Launched our revised Group wide Sustainability Strategy in 2023 “Constructing a Sustainable Future”, setting out our enhanced approach to how we will meet our ambitious targets.
- Enhanced our energy and carbon management processes and committed to achieving external verification of our carbon management system to the requirements of PAS 2080 (Stage 1 assessment completed in July 2023).
- Met the requirements of Achilles Carbon Reduce certification having measured our greenhouse gas emissions in accordance with ISO 14064-1:2018 and having committed to managing and reducing our emissions in respect of the operational activities of our organisation.
- Business Unit carbon targets for key emission sources were set out, supported by provision of monthly carbon data. This assisted the leadership teams in reviewing progress against the targets set.
- We launched an ant-idling campaign, supported by telematic data to motivate machine drivers to reduce idle times where possible.
- We set up a campaign to incentivise fuel efficient driving and reward the most fuel-efficient van drivers each quarter.
- Telemetry has been mandated for all generators and data is collated monthly and analysed in order to enhance operating efficiency, minimising fuel consumption.
- We switched from gas oil to Hydrotreated Vegetable Oil (HVO) for almost a quarter of all fuels purchased. This has allowed us to further reduce our emissions from fuel use as it has 90%+ fewer carbon emissions than diesel or gas oil. HVO is being used as a transitional option and is subject to careful monitoring and due diligence.
- Having worked with industry partners to develop the UK’s first construction orientated Carbon Literacy Training, we are continuing to roll out this training out throughout our organisation. By investing in our people’s awareness of the climate emergency, we ensure that our teams understand the urgency with which we must all act.
- We worked with our energy management consultancy to procure new electricity connections for sites and offices. In the period covered by the report, we purchased 4,846 MWh of renewable energy, backed by Renewable Energy Guarantees of Origin (REGO’s).





- We undertook Energy Audits across our sites and offices in order to identify carbon hotspots and opportunities for improvement.
- We worked with our fleet provider to accelerate our transition to low and zero carbon company cars. 63% of all company cars are now fully electric or plug-in hybrid (PHEV).
- In order to incentivise driver uptake of ultra-low emission vehicles, additional Electric Vehicle Charging Points were installed throughout our offices.
- We continue to develop our bespoke software system (Cora) to enable the enhanced visibility of energy and carbon data arising at site level.

- In demonstrating our organisational commitment reducing energy usage and GHG emissions,



GRAHAM have committed to setting a science-based Target through the "Science-Based Targets Initiative". In this way have used a science-based approach to ensure our targets align with requirements to ensure a 1.5o scenario, limiting the effects on climate change. We are also signatories to the "Pledge to Net Zero", have joined the "Contractors Declare" movement and have committed to "The Climate Action Pledge". In addition, we have been selected as a "Construct Zero Business Champion" within the Construction Leadership Councils Construct Zero programme.

- During design stage (where we have design responsibility), each element of construction is reviewed to identify whether products with increased recycled content or lower embodied carbon can be used as alternatives. For example, we undertake a review to ascertain whether elements of concrete could be replaced with steel or timber alternatives or whether using cement replacements is feasible. In addition, we use lean design through material efficiency and lean structural solutions to lower operational carbon emissions and embodied carbon impact.
- We continue to run net zero working groups to provide support and to deliver against specific objectives. The working groups assist in building case study evidence and focus our activities on areas where we can make the most substantial reductions.
- We continue to work with our supply chain to embed into our operations best practice in energy efficiency and low carbon construction techniques.

- Our company IT systems continue to be used to support the use of online meeting platforms to reduce emissions associated with business travel and commuting.
- We undertook a programme of Tree planting as a tangible way of taking positive action to help tackle climate change.
- We continue to invest in new technologies in order to gain understanding of the advantages, benefits and potential barriers to low or zero carbon technologies and alternative sources of energy.
- Hybrid working policy in place, ensuring that working practices remain effective but also flexible, facilitating the reduction of carbon emissions from unnecessary travel.
- We continue to undertake energy and carbon related communication and engagement activities via our intranet site and social media channels.

We have successfully completed Stage 1 of PAS 2080, a global standard for managing carbon.

In future, we hope to implement further measures such as:

Our Environmental Sustainability Strategy details a range of carbon reduction projects that we propose to undertake in the future. This includes continuing to work with our supply chain to reduce their emissions, moving towards zero diesel site operations and continuing our transition to an ultra-low emissions fleet.



GRAHAM staff pictured working with a local heritage trust, undertaking volunteer work to restore pathways at an Area of Outstanding Natural Beauty

Declaration and Sign off

This Carbon Reduction Plan has been completed in accordance with PPN 06/21 and associated guidance and reporting standard for Carbon Reduction Plans.

Emissions have been reported and recorded in accordance with the published reporting standard for Carbon Reduction Plans and the GHG Reporting Protocol corporate standard and uses the appropriate Government emission conversion factors for greenhouse gas company reporting.

Scope 1 and Scope 2 emissions have been reported in accordance with SECR requirements, and the required subset of Scope 3 emissions have been reported in accordance with the published reporting standard for Carbon Reduction Plans and the Corporate Value Chain (Scope 3) Standard.

This Carbon Reduction Plan has been reviewed and signed off by the board of directors (or equivalent management body).

Signed on behalf of GRAHAM:

Andrew Cooke

SHE Director

26th September 2023

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