GRAHAM

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).

1.0 SUPPLIER NAME: GRAHAM

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

2.0 PUBLICATION DATE: 26th September 2022

3.0 COMMITMENT TO ACHIEVING NET ZERO:

GRAHAM is committed to achieving Net Zero Emissions by 2030 (scope 1 and 2) and Net Zero across our full value chain by 2040 (Scope 1,2 & 3).

Our commitment to achieving Net Zero has been set out within our **"Climate Action Strategy".** The Climate Action Strategy sets out our vision and ambition for net zero across our entire value chain (scope 1,2 and 3) and aligns with Global Sustainable Development Goal 13 (Climate Action). Our strategy includes a **roadmap** with specific short- and long-term actions toward our overarching net zero ambition. To support our transition to net zero, we have set out specific areas of focus – these include net zero fleet and plant, innovation and collaboration, leading the supply chain, net zero materials, energy management and verification of carbon data.

Figure 1 – Dunore Point Solar Farm – Winner of the Sustainable Building Project of the Year

4.0 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 started measuring carbon performance in 2014 and at that time our emissions inventory consisted of scope 1 and 2 and partial scope 3 emissions. Over the past two years 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 emission sources relevant to our operations. Following this extensive data collection exercise, the GRAHAM Greenhouse gas emissions inventory for financial year 21/22 (including all relevant scope 3 sources) was externally verified to the Achilles Carbon Reduce scheme (certification achieved in Sept 2022). This means that 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 and verified in line with ISO 14064-3:2019 and Carbon Reduce Programme Technical requirements. The substantial increases to our scope 3 inventory necessitated a revision of our baseline to financial year 21/22 so that future GHG emissions measurements can be compared on a "like for like" basis. Having revised our baseline to FY21/22, the baseline and actual data sets detailed in section 4.0 and 5.0 are the same.

Figure 2 – GRAHAM staff pictured during a Tree Planting Volunteering Day (January 2022)

4.0 BASELINE EMISSIONS FOOTPRINT

Scope	Emissions Source	Baseline FY21/22 (tCO_2e)
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	*Scope 3 Subcategory Description & Applicability*	
Purchased goods and services[3]	Purchased Goods & Services	359,586
Capital goods[3]	Capital Goods	1,559
Fuel & energy related activities[3]	Electricity T&D & WTT for all Fuel	3,038
Upstream transportation	Upstream Deliveries	2,526
Waste generated in operations	Water Treatment and Supply	18
	Waste (Landfilled & not Landfilled)	538
Business travel	Employee Vehicles	1,420
	Rental cars, Flights, Trains, Hotels	1,641
Employee commuting	Employee Commuting & Home Working	5,351
Upstream leased assets[3]	Not relevant to GRAHAM operations	0
Downstream transportation	Not relevant to GRAHAM operations	0
Processing of sold products[3]	Not relevant to GRAHAM operations	0
End of life treatment of products[3]	Not relevant to GRAHAM operations	0
Downstream leased assets[3]	Not relevant to GRAHAM operations	0
Franchises[3]	Not relevant to GRAHAM operations	0
Investments[3]	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*

5.0 CURRENT EMISSIONS REPORTING

Scope	Emissions Source	Current Year FY21/22 (tCO_2e)
SCOPE 1	Gas Oil	8,927
	Company Vans	2,089
	Company Cars	213
	HVO	2
	Other (Gas, Kerosene)	142
	TOTAL SCOPE 1	**11,373**
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5.0 CURRENT EMISSIONS REPORTING

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.

Figure 3 – Solar Hybrid Generator in use at School of Public Health, Imperial College London, White City Campus

6.0 EMISSIONS REDUCTIONS TARGETS

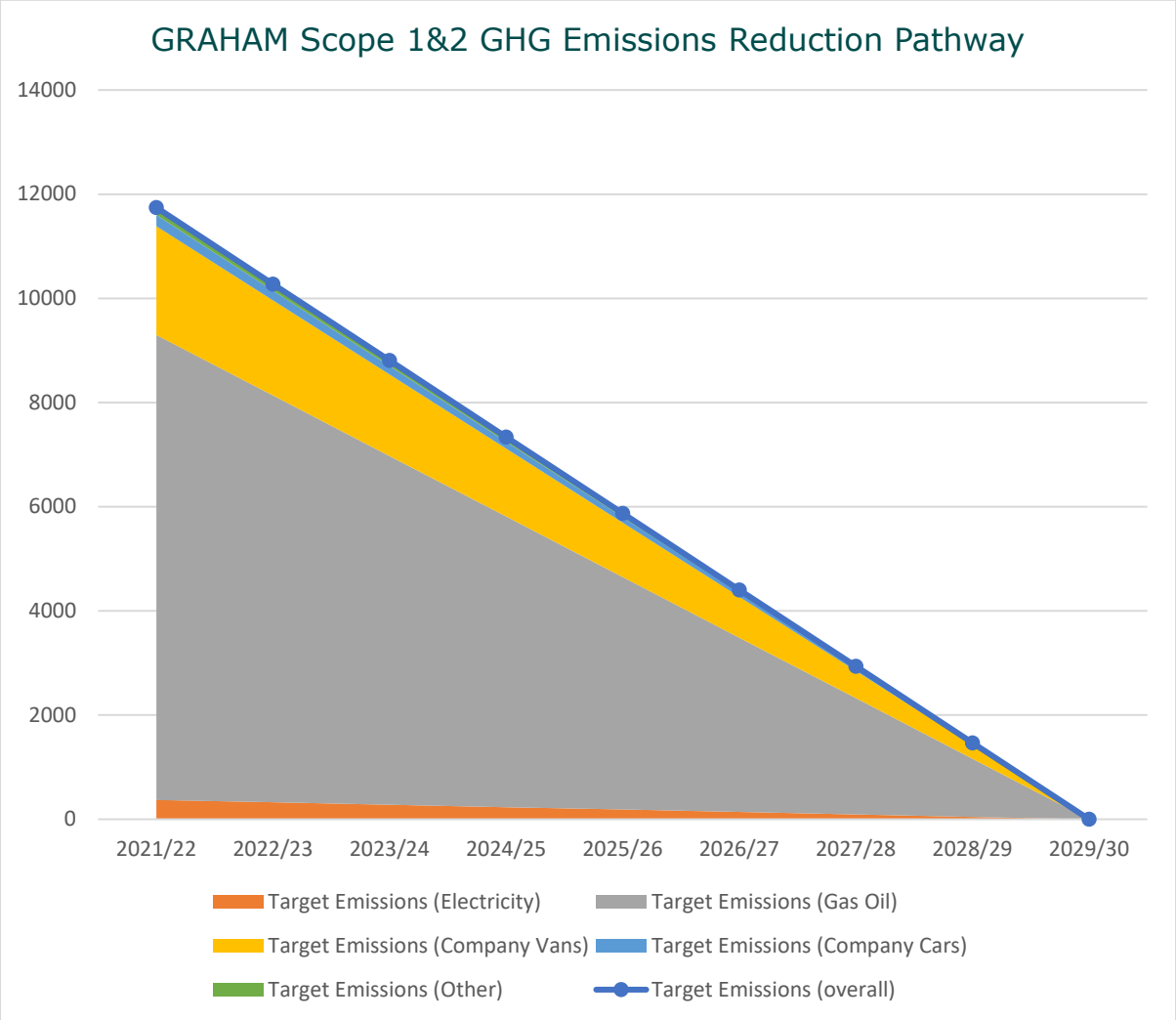
In order to continue our progress to achieving Net Zero, we have adopted the following carbon reduction targets.

- Phase 1: By 2030 at the latest, achieve Net-zero carbon emissions (across our scope 1 and 2 emissions)
- Phase 2: By 2040 at the latest, achieve Net-zero carbon emissions (across the full value chain – scope 1,2 &3).

Having committed to setting our targets through the "Science Based Targets Initiative" we are aligning our approach with a 1.5degree scenario in line with what the latest climate science deemed necessary to meet the goals of the Paris Agreement.

We project that our scope 1 and 2 carbon emissions will decrease over the next five years to 2,936 tCO_2e by 2027. This is a reduction of 75% from the baseline. Additionally we project that our scope 1, 2 and 3 emissions will decrease over the next five years to 250,575 tCO_2e by 2027. This is a reduction of 33.3%.

Having revised our baseline to FY21/22, the baseline and actual data sets for FY21/22 are the same. Progress data will be illustrated in subsequent Carbon Reduction Plans against the emissions reduction pathway shown below:



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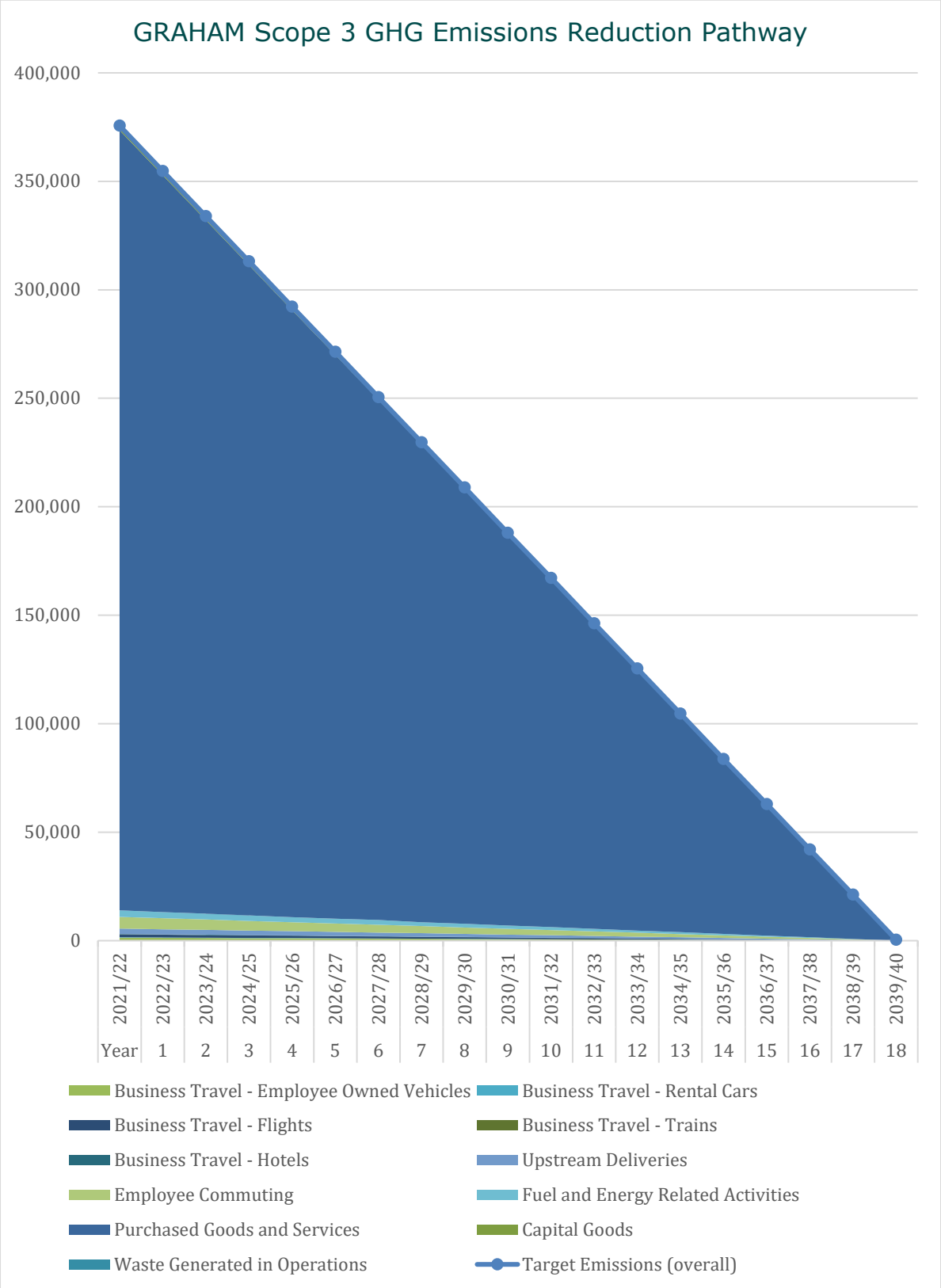

7.0 DETAILED GREENHOUSE GAS INVENTORY

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	8,957.13	9.36	104.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9,070.99
Mobile combustion (incl. company owned or leased vehicles)	2,269.46	0.50	31.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,301.92
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
Addition of lime to soils	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
Total net emissions	**11,226.58**	**9.86**	**136.46**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**11,372.91**

Figure 4 – Electric Vehicle car charging at GRAHAM offices

8.0 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 is on target to equate to 1,468 tCO_2e for direct emissions, a 12.5% reduction against the baseline and the measures will be in effect when performing the contract.

- GRAHAM have 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.
- We are increasing our use of Hydrotreated Vegetable Oil (HVO) as an alternative to gas oil. Reducing our gas oil consumption via alternative low/ zero carbon temporary power, energy efficiency and use of low/ zero emission plant remains our priority. However, whilst supply chain capabilities and markets grow in these areas, we are attaining reductions in emissions via use of HVO on key projects. Since April of this year we have used over 100,000litres of Hydrotreated Vegetable Oil (HVO) as an alternative to Gas Oil.
- 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 1.5^{o} 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.
- 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 renewable electricity connections for sites and offices. In the period covered by the report, we purchased 2,115MWh of renewable energy, backed by Renewable Energy Guarantees of Origin (REGO's).
- We worked with our fleet provider to accelerate our transition to low and zero carbon company cars. 100% of all available vehicles now fully electric or plug-in hybrid (PHEV).
- In order to incentivise driver uptake of ultra-low emission vehicles, additional Electric Vehicle Charging Points continue to be installed throughout our regional offices
- We established two net zero working groups and a number of leadership reviews to provide support and to deliver against specific objectives. The working groups assist in building case study evidence and to focus our activities on areas where we can make the most substantial reductions.
- We continued to develop our bespoke software system (Cora) to enable the enhanced visibility of energy and carbon data arising at site level.
- We introduced a new "Environmental Sustainability Action Plan" for sites. This plan is created following a meeting which is held at the earliest stage possible and mandates discussion around a number of sustainability opportunities including low carbon site set ups, HVO etc.
- We established a programme of tree planting as a tangible way of taking positive action to help tackle climate change. This year we have planted one tree for every employee and next year we will be increasing this to planting 5,000 trees per annum
- Throughout the past 12 months we trialed numerous 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.
- A Hybrid working policy remains in place, ensuring that working practices remain effective but also flexible, facilitating the reduction of carbon emissions from unnecessary travel.

- 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.
- Continued Communication and Engagement via Internal and External presentations, intranet and social media posts outlining our approach to carbon management. We have also produced two internal videos on "How to cut carbon on site" to spotlight the steps that site teams can take to reduce emissions on site. In addition, we have presented and participated in numerous webinars including the Sustainable Construction Built Environment Networking event and Business Eye roundtable to give testimony on the GRAHAM approach to Net Zero.
- Energy audits were completed on sites. Opportunities such as installation of smart meters, zoning and controls within temporary electrics and grid connections to replace diesel generators were highlighted and actioned.
- We have engaged with our key supply chain through the Supply Chain Sustainability School. Through the Supply Chain Sustainability School and in collaboration with other contractors, we have provided our key supply chain with a free carbon calculator and free training to help them to measure and report their carbon emissions. We have also written to our supply chain encouraging them to submit this data to us. Furthermore, through the supply chain sustainability school we are investing in the development of our supply chain to attain the highest levels of low carbon skills.

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

- Our Climate Action Strategy details a range of carbon reduction projects that we propose to undertake in the future. This includes PAS 2080 certification for infrastructure projects, continuing to work with our supply chain to reduce their emissions, upgrade of energy management control systems within our offices and continuing our transition to an ultra-low emissions fleet.

Figure 5 – GRAHAM staff pictured accepting one of four Green Apple Awards for Environmental best practice (2021)

9.0 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[1] and uses the appropriate Government emission conversion factors for greenhouse gas company reporting[2].

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[3].

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

Signed on behalf of GRAHAM:

Name: Andrew Cooke

Role: SHE Director

Date: 26th September 2022

[1] https://ghgprotocol.org/corporate-standard
[2] https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting
[3] https://ghgprotocol.org/standards/scope-3-standard