

BUROHAPPOLD
ENGINEERING

OUR GLOBAL SUSTAINABILITY REPORT

2018/2019

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Cover
The High Line
New York, NY, USA

A fine example of a regeneration project that has been of benefit to the city of New York economically and its residents’ wellbeing.

Architect
Field Operations/Diller Scofidio+Renfro

Image
Getty/SeanPavonePhoto

Image: Harry Borden

1. Foreword

BuroHappold has always been a practice that has values that go beyond the basic requirements of our profession to encompass the broad environment that we sit within.

We value human wellbeing, we embrace mutual responsibility and we understand that a sustainable future is intrinsic to the economic and social impact of our work.

This Global Sustainability Report seeks to show how we implement our principles and engage positively with the wider environment. Much of the report aligns our many activities within the framework of global initiatives such as the UN Sustainable Development Goals (SDGs) and the Global Reporting Initiative (GRI). In doing so, we have set out our own targets for improvement and plan to report on these in the future.

To align with our recent climate emergency commitments, I would draw your attention to our energy and carbon targets stated to the right.

I commend this report to you and look forward to the future journey we have mapped out.

Neil Squibbs CEO

OUR BUSINESS

We aim to be Net Zero carbon for our own business operations by the end of the financial year ending April 2021.

OUR PROJECTS

Our target is that all new build projects will be Net Zero carbon in operation by 2030 and all projects by 2050.

This section relates most closely to: UN SDG 13 – Climate Action

2. Climate action



Our aim is to help our clients understand the urgency of climate change. We can advise what climate action means for their projects, in terms of reducing emissions, the risks they face in a changing climate and the opportunities to unlock wider benefits through climate action.

In 2019, we initiated and signed a series of engineering declarations covering the role of civil, structural and building services professions in tackling the climate and biodiversity emergencies as follows:

www.structuralengineersdeclare.com
www.buildingservicesengineersdeclare.com
www.civilengineersdeclare.com

These sites were sites created with the support of the [Happold Foundation](#).

We have taken the following actions within the business:

- Our leadership commitment to tackling climate change as a business priority: Produced a radical plan to reduce our own emissions, placing the climate emergency as a key pillar of all our project work and developing our climate change services to clients.
- Produced a BuroHappold climate emergency action plan covering our firm, projects, people, services, network and operations.

- Collaborated with our peers and clients to advocate for strong national policy through organisations such as the Aldersgate Group, in support of the UK’s commitment to Net Zero carbon by 2050. We have participated in the steering group for the UKGBC Net Zero Carbon Buildings Framework Definition which launched in 2019.

Through considered, shared action across the whole business and with our clients and collaborators, we believe we will harness the best ideas and embed climate action more firmly into our practice. This is a process that will continue over the coming year and we will constantly revisit our plans to make sure we ensure and accelerate change within our business.

EXAMPLE ACTIVITIES AND PROJECTS

Projects:

- **C40 Cities Climate Research** provides cities with ambitious plans to tackle greenhouse gas emissions and air quality simultaneously. Actions that could yield an 87% reduction in green house gas emissions, a 49% reduction in PM2.5 levels, 223,000 premature deaths averted and up to \$583 billion in economic benefit
- Our work to help refine and analyse New York City’s **1.5°** Climate Action Plan has contributed to devising a set of actions that will both increase the speed of GHG reduction while also addressing environmental justice and social equity. Where possible, benefits were analysed and presented spatially to ensure that actions benefit all New Yorkers. For example, by identifying communities without bike lanes, the City could focus on engaging with those communities to install new bike infrastructure and improve health and safety.
- BuroHappold was proud to win the **NCE100 Award** for Impact on Climate Resilience in 2019.



Image: Getty/Marco Plunti

OUR TARGETS

We have developed the following strategic objectives as part of the Climate Emergency Action Plan:

STRATEGIC OBJECTIVE	AIM
Our firm: to deliver a climate and biodiversity action plan for BuroHappold.	To demonstrate leadership in taking action on the science and reducing our own footprint.
Our projects: to understand and address the social and environmental impact of our projects.	To demonstrate leadership in taking action on the science. Improving our project impacts, while encouraging clients to seek to mitigate climate impact and build resilient solutions.
Our people: to develop our knowledge and skills, share this and collaborate widely.	Collaboration to ensure we all have the knowledge, skills and competencies to effect change, and that we are empowered to do so effectively.
Our services: to ensure we respond to today’s needs and are agile to meet tomorrow’s.	Working together to identify areas of opportunity and need, both current and future, without delay. Building new services based on new skills and wider briefs that we develop with our clients.
Our network: to position ourselves to have greatest influence.	Ensuring we play our full role in influencing the market, the professions, regulations and policies that will support our goals, and ensure that everyone is able to participate in this journey.
Our operations: to place the response to climate and biodiversity emergency central to our business operations.	To embed the commitments we have made as a fundamental part of our vision and strategy — measuring performance against goals and holding ourselves accountable for delivering them.

Advancing the climate action agenda with our clients and our business operations is intrinsic to what we do

This section relates most closely to: UN SDG 7 – Affordable and Clean Energy
GRI 302 – Energy
GRI 305 – Emissions

3. Energy and carbon



We believe that solving the issues facing the global energy industry is one of the most important challenges of modern times.

This drives our passion for finding the best engineering solutions on our projects, in order that the three pillars of the energy trilemma are achieved. These are minimising energy usage and the impacts on climate change, ensuring security of supply and increasing affordability for consumers.

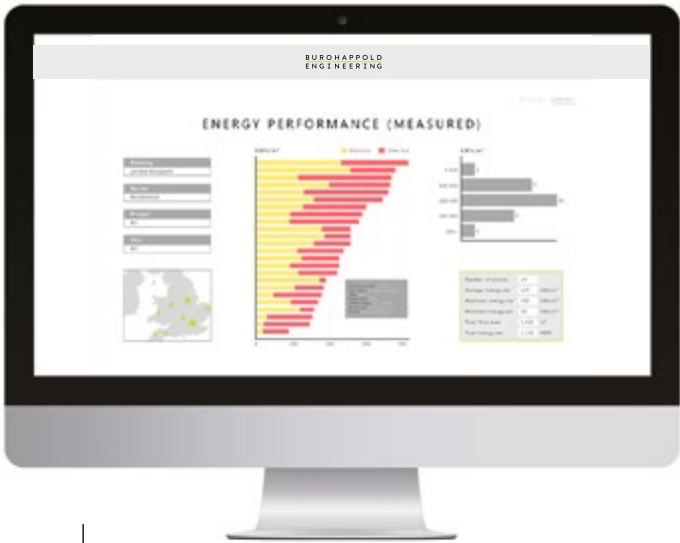
Our energy work ranges from building-scale demand and supply analysis right up to city or national scale infrastructure design. We work with private enterprises, local authorities and councils, universities and national governments to achieve carbon emission reductions that satisfy both technical and commercial requirements.

Our dedication to improving energy efficiency and reducing carbon emissions on our projects has led to the development of our “building performance dashboard”; an online platform that summarises global operational energy data from our as-built projects. The dashboard will give us a greater ability to respond to increasingly demanding energy and carbon targets across all our markets worldwide, developing our understanding of how the buildings we design perform in practice. With this “feedback loop” approach, we want to enhance our contribution to energy decarbonisation globally.

Beyond our project and consultancy work, we aim to minimise our operational carbon footprint through more efficient and considerate practices. We are committed to producing a radical plan to reduce carbon emissions from our buildings and travel. In order to achieve this, we have been investing in online tools that enable us to monitor our energy consumption more accurately and more frequently.

EXAMPLE ACTIVITIES AND PROJECTS

- Energy Consultancy Projects
- OPDC energy, daylight and overheating in tall buildings + soft landings and POE framework
- Zero Carbon Cornwall
- North Shore



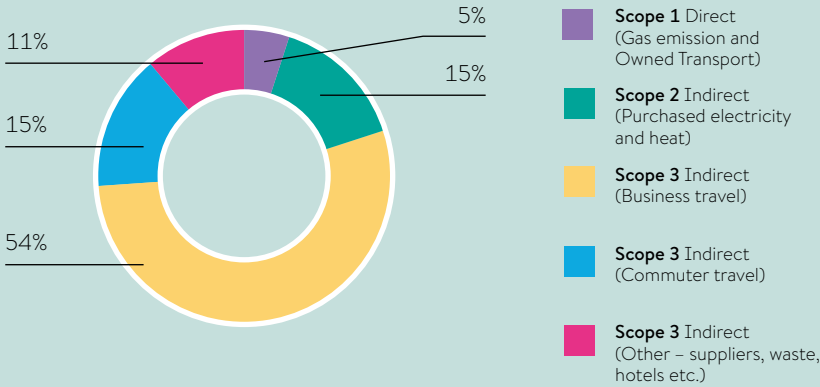
BUILDING PERFORMANCE DASHBOARD
An online platform that summarises global operational energy data from our as-built projects.

OUR BASELINE AND TARGETS

An estimate of our Global Carbon Footprint from May 2018 to April 2019 is:

Type of Emission	Tonnes of CO ₂ e/person	Absolute Tonnes of CO ₂ e
(a) Scope 1 – Direct (Gas emission and owned transport)	0.156	175
(b) Scope 2 – Indirect (Purchased electricity and heat)	0.462	803
(d) Scope 3 – Indirect (Business travel)	1.665	2,894
(e) Scope 3 – Indirect (Commuter travel)	0.478	831
(f) Scope 3 – Indirect (Other- suppliers, waste, hotels, etc..)	0.346	602
TOTAL (without offset)	3.108	5,305
(g) Carbon offsets/Green tariff	-0.293	-300
TOTAL (with offset)	2.815	5,005

BuroHappold
global emissions
2018-19
Tonnes of CO₂e/person



We aim to be Net Zero carbon for our own business operations by the end of financial year 2020/21.

This will include scope one and two emissions for our offices and scope three business travel. Key steps include:

- Establishing a robust baseline including gathering reliable energy consumption data for all our offices.
- Identifying opportunities for energy savings and reduced travel impacts.
- Identifying the potential for on-site renewable energy generation.
- Producing office-specific plans with short, medium and longer term objectives to reduce emissions.
- Purchasing clean renewable energy supplies to our operations with recognised certification / verification e.g. REGO certified electricity.
- Offsetting residual emissions through recognised high quality mechanisms.
- Disclosing our performance in a recognised way such as using the UKGBC Net Zero carbon buildings framework declaration.

Our target is that all new build projects will be Net Zero carbon in operation by 2030 and all projects by 2050.

This is in line with global initiatives such as the WorldGBC / C40 Cities advancing Net Zero campaign.

It will require joined-up action with our clients and collaborators as set out in the Engineers Declare commitments. We are determined to play our part and advocating change in pursuit of this objective.

We aim as a firm to be Net Zero carbon for our own business operations by the end of the financial year ending April 2021

This section relates most closely to: **GRI 201 – Economic Performance**

4. Economic performance

Details of BuroHappold’s Economic Performance is published in the *Annual Review 2018/19*

The company financial year runs from 1 May to 30 April.

In the year 2018/2019, the key figures for the whole group were:

Turnover
£173 million
Operating profit
£22 million
Profit margin
13%

NEWCASTLE UNIVERSITY URBAN SCIENCES BUILDING
Newcastle, UK

This award winning building sets a new benchmark for campus design, achieving a balance of sustainability, space flexibility and operational efficiency. The building acts as a ‘living laboratory’, bringing together facilities managers and sustainability experts, enabling continuous research and learning in this field.



This section relates most closely to: UN SDG 8 –Decent Work and Economic Growth
GRI 204 – Procurement Practices
GRI 205 – Anti-corruption
GRI 206 – Anti-competitive Behaviour
GRI 408 – Child Labour
GRI 409 – Forced or Compulsory Labour

5. Fair practice and procurement

Integrity is of fundamental importance to BuroHappold. In the context of our business activities, procurement processes and relationships, we respect the spirit and detail of the laws and regulations in all countries where we operate.

We treat our suppliers with the same integrity, respect and professionalism we expect from each other and we actively develop mutually beneficial relationships with those that share our values and are aligned to our Equality and Diversity Policy.

The practice has recently put in place a Code of Conduct Policy that we have required all employees to read and confirm their acceptance. This Code of Conduct refers to the following policies that aim to ensure we implement fair practices in our employment and procurement policies:

- [Anti-Bribery Policy](#)
- [Gifts and Hospitality Policy](#)
- [Anti-Fraud Policy](#)
- [Conflicts of Interest Policy](#)
- [Modern Slavery Policy](#)
- [Speak Up \(Whistleblowing\) Policy](#)

We always:

- Seek to add value wherever possible and deliver our promises
- Aim to work only with suppliers who share our business and ethical standards
- Act fairly, transparently and ethically
- Meet our contractual obligations and work together to resolve any disputes
- Always communicate honestly and transparently
- Seek to develop strong and lasting relationships
- Ensure total compliance with the laws and regulations of the country in which we are operating, including working hours, pay (e.g. Living Wage), welfare, and human rights.

EXAMPLE ACTIVITIES AND PROJECTS

- **JUST label for US**
BuroHappold is committed to paying a living wage for all employees, using the Poverty in America: Living Wage Calculator to assist in determining the minimum living wage.

The practice has recently put in place a Code of Conduct Policy that we require all employees to read and confirm their acceptance

OUR BASELINE AND TARGETS

- Develop our procurement processes to ensure compliance with the policies stated above.
- Maintain a global days payable outstanding time of a maximum of 45 days

INTERNATIONAL LIVING FUTURE INSTITUTES™ JUST™ LABEL. USA

BuroHappold Engineering North America received the International Living Future Institutes™ JUST™ label, a significant milestone for the overall wellbeing of our North American practice. The programme gives our firm the opportunity to become a more socially just practice by putting a score on our activities, such as employee wellbeing, by tracking our financial donations and contributions, and measuring our level of community involvement. Acting almost like a report card, our office recently scored highly on the JUST rating system.

Just.

Organization Name: BuroHappold Engineering
Organization Type: Service Provider
Headquarters: Los Angeles, CA
Satellite Facilities: New York, NY San Francisco, CA
Boston, MA Chicago, IL
Number of Employees: 194

Social Justice and Equity Indicators:

Diversity

- ■ ■ Non-Discrimination
- □ □ Gender Diversity
- ■ ■ Ethnic Diversity

Equity

- ■ ■ Full Time Employment
- ■ ■ Pay-Scale Equity
- ■ □ Union Friendly
- ■ □ Living Wage
- ■ □ Gender Pay Equity
- □ □ Family Friendly

Safety

- ■ ■ Occupational Safety
- ■ ■ Hazardous Chemicals

Worker Benefit

- ■ ■ Worker Happiness
- ■ □ Employee Benefit
- ■ ■ Continuing Education

Local Benefit

- ■ ■ Local Control
- □ □ Local Sourcing

Stewardship

- □ □ Responsible Investing
- □ □ Community Volunteering
- ■ ■ Positive Products
- □ □ Charitable Giving
- □ □ Animal Welfare
- ■ □ Transparency

THE SOCIAL JUSTICE LABEL

BHE-001

EXP. 04/10/2020

This section relates most closely to: **UN SDG 3 – Good Health and Wellbeing**
UN SDG 11 – Sustainable Cities and Communities
GRI 403 – Occupational Health and Safety

6. Health and wellbeing

At BuroHappold we believe the built environment should support people to feel great, help get the job done and enable businesses to thrive.

We recognise that the skills, capability and passion of our own people are at the heart of what we want to achieve and the health and wellbeing of our people is important to the continued success of the practice. We recognise that the projects that we work on have people at their heart and the quality of the inside and outside of buildings has an impact on our health and how we feel.

A key element of what we do comes from our global Health and Safety policy statement and H&S management system. We ensure that our employees work in a healthy and safe environment by providing a three yearly global training programme with regular reports on any incidents and training progress.

The practice provides resources such as Employee Assistance Programmes that provides free and fully confidential support and advice to employees and their immediate family. These are supported by a number of initiatives and a comprehensive collection of Health and Wellbeing information on our intranet that includes Mental Health First Aiders, activities and advice on maintaining a healthy body and mind as well as top tips on maintaining a

successful work/life balance. We have sought external assurance of our approach by gaining WELL certification for two of our offices.

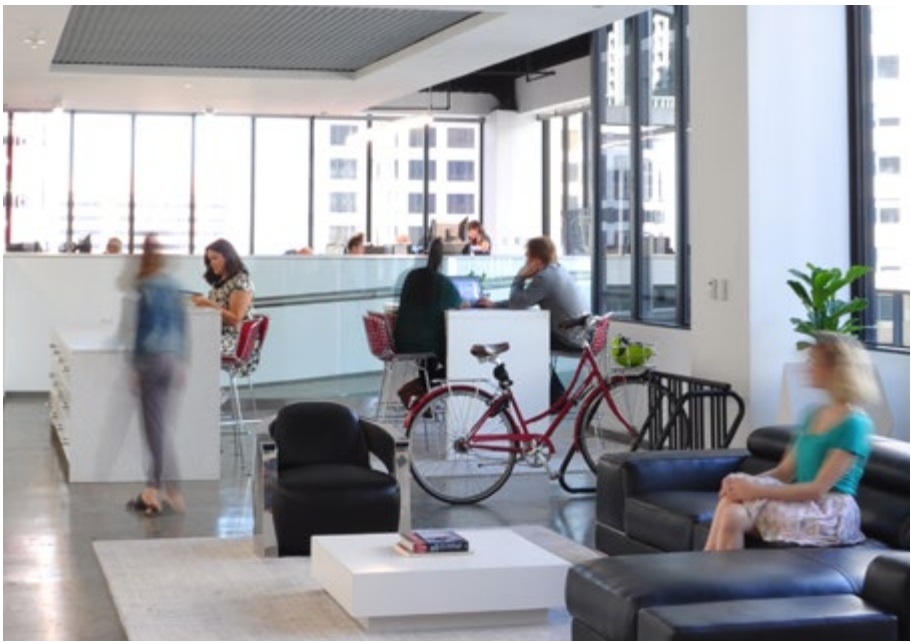
We have provided advice on many projects about Health and Wellbeing in the built environment extending our professional offer in this area using employees who have developed expertise. Some of these are illustrated below to the right.

EXAMPLE ACTIVITIES AND PROJECTS

- **Los Angeles and Warsaw**
BuroHappold is walking the walk through WELL certification of two of our offices, including the first WELL project in Poland
- **Design for Wellbeing in Higher Education.**

OUR BASELINE AND TARGETS

- We have certified two of our offices through WELL Certification. We will aim to achieve third party health and wellness certification for two additional offices by 2020.
- We are currently monitoring environmental conditions in two of our offices. We will aim to implement continual environmental monitoring in one quarter of all offices by 2020, with one done to RESET standards.
- We are pursuing WELL, Living Building Challenge, Fitwel, and Health Impact Assessments on 17 of our current projects. We aim to establish an internal health and wellness checklist for all projects by 2020 and double our WELL, LBC, Fitwel, RESET and Health Impact Assessment projects.



OUR LOS ANGELES OFFICE ACHIEVES WELL CERTIFIED™ GOLD
100% of the office annual power is purchased in renewable energy credits.



OUR WARSAW OFFICE ACHIEVES WELL CERTIFIED™ GOLD
This prestigious honour, the first to be awarded to any project in Poland, was given to the building for meeting the IWBI's WELL Building Standard™. The standard focuses on improving the health and wellness of people in the buildings where we live, work and play.

This section relates most closely to: UN SDG 1 – No Poverty
UN SDG 5 – Gender Equality
UN SDG10 – Reduced Inequalities
GRI 402 – Labour Management Relations
GRI 405 – Diversity and Equal Opportunity
GRI 406 – Non-discrimination

7. Inclusivity, equality and diversity

BuroHappold is determined to continuously enable and embed practices which foster a diverse and inclusive culture.

These practises reflect the varied cultures of the communities and clients we serve – a culture where all our people, irrespective of gender identity, ethnic or national origin, sexual orientation, marital or civil partner status, pregnancy, race, age, religious belief, or disability have the support and opportunities to reach and exceed their potential.

We firmly believe that our engineering does not stop at the site boundary. Ted Happold and the founding partners believed that BuroHappold should support the needs of society beyond its immediate activity as a professional practice in the built environment, and this continues to be on of our key principles. We encourage our projects to have a genuinely positive impact for the wider economy and society, with many of our projects forming part of broader local regeneration, stimulating the economy, creating employment opportunities and working with local education providers. This is a commitment we take seriously, with a number of programmes to engage with communities and policymakers to ensure long-term sustainability and success of our projects, sharing our skills with those most in need and inspire the next generation.

Inclusion is an integral part of life at

BuroHappold. We strive to create a safe and inclusive workplace for all our employees to bring their whole selves to work and be accepted for who they are. Our employee resource groups and Diversity and Inclusion Forums, provide employees with opportunities to share experiences, best practice and ideas with the business on how we can all foster a culture of inclusion.

By looking at our business practices and activities through a diversity lens, we will continue to strengthen our community in addressing bias and supporting the development and visibility of under-represented employees, we aim to further promote the rich diversity of our employees' experiences, talent and ideas.

EXAMPLE ACTIVITIES AND STORIES

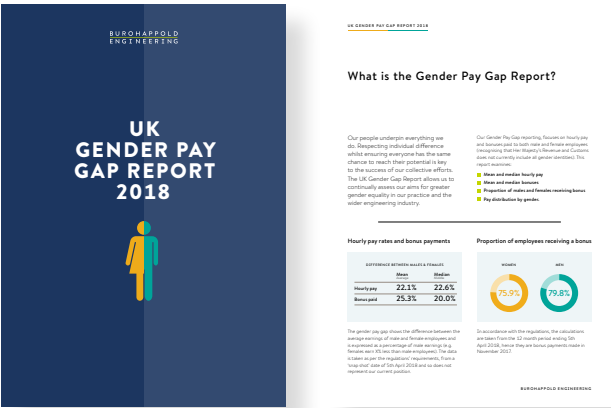
- **Inclusive and Diversity**
Employee led diversity and inclusion communities:
 - Representatives of Women in Engineering;
 - Fairness, Awareness, Inclusion and Respect (FAIR) group London;
 - USA Inclusion and Diversity Groups.

BASELINE AND FUTURE TARGET

- Our 2019 Culture Survey highlighted positive insights into our employee experience, with 87% of respondents believing that BuroHappold offers a fair, inclusive and respectful environment. We aim to increase this figure to 90% at the next survey and have introduced measures such as our fairness and inclusion awareness sessions and prevention of sexual harassment training to support our goal.

THE UK GENDER PAY GAP REPORT

The UK Gender Gap Report allows us to continually assess our aims for greater gender equality in our practice and the wider engineering industry.



ENGINEERING WITH PRIDE

We are proud to embrace diversity and committed to supporting equality for all in the workplace. Together, we are one creative community.

#bhwthpride



As a truly interconnected community, we value human wellbeing, embrace mutual responsibility and strive to be an inclusive and diverse practice

This section relates most closely to:

- UN SDG 2 – End Hunger
- UN SDG 11 – Sustainable Cities and Communities
- UN SDG 12 – Peace, Justice and Strong Institutions
- UN SDG 17 – Partnerships for Goals
- GRI 203 – Indirect Economic Impacts
- GRI 411 – Rights of Indigenous Peoples
- GRI 413 – Local Communities

8. Community involvement

BuroHappold believes in the need to be actively involved with our local communities wherever we can, as well as making our skills, experience and time available to those in society that are most in need, wherever they are located in the world.

Addressing inequity through project-based and outreach work in tandem with local UN SDGs, will help to ensure equitable access to opportunity in housing, education, and quality public space.

One of our main programmes for community involvement is Share Our Skills (SOS), established in 2014, which enables our employees to carry out non-fee paying work during regular work time. Much of this work is focused on international communities in Africa, Asia and South America but it also involves work with the communities where our offices are located. The SOS programme has a long history of supporting the Happold Foundation, a charity that is dedicated to using engineering skills and experience to make a positive impact on people’s lives. It works with young people, educators and researchers to shape communities who want to improve the built environment.

In addition we work with local charities and non-profit organisations by engaging in numerous local community initiatives and volunteer activities. Our charitable contributions in the UK are coordinated each year by a group called UK Giving. Our team in Los Angeles works with many local Los Angeles based non-profit organisations including Homeboy Inc., Los Angeles Eco Village and Our Foods, to address numerous

sustainable development issues such as criminal justice, affordable housing, and sustainable food supplies. Our LA office engages in numerous local volunteer activities such as Friends of the Los Angeles River Annual River Clean-up, Los Angeles County Homeless Count and tree planting activities. In Mumbai we contribute 2% of our average net profits to the Prime Minister’s National Relief Fund which provides immediate relief to families of those killed in natural disasters like floods, cyclones and earthquakes.

In Hong Kong, our team works with the Lighthouse Club Hong Kong, a charity that promotes construction industry safety and provides poverty alleviation and educational support to construction industry employees to avoid fatalities, injuries and illness.

EXAMPLE ACTIVITIES AND PROJECTS

- **Los Angeles Eco Village**
SOS project focused on sustainable, affordable housing community based living in Los Angeles.
- **Bridges to Prosperity**
Several projects across the practice, including [Rwanda](#) and [Panama](#). Their stories are told in these videos.

We engage in numerous local community initiatives and volunteer activities

OUR BASELINE AND TARGETS

- BuroHappold provides 200 employees days annually for SOS projects and will continue to do so.
- BuroHappold has committed to fund one “Bridges to Prosperity” project (US\$ 30,000) each year for the next 3 years



BRIDGES TO PROSPERITY Gasiza, Rwanda

Our engineers worked on the project as part of our Share Our Skills initiative, a scheme that allows individuals to give their time to projects without charge. BuroHappold and Price&Myers jointly funded the work on the bridge, alongside fundraising by the engineers and sponsorship from the Happold Foundation.



A BRIDGE ACROSS THE RIO Calovebora, Panama

At the end of the project, a nine year old boy who came to the site every day to help out told our team that he wanted to be a bridge engineer when he grew up. We certainly hope he can fulfil his dreams to connect people through projects like these.

This section relates most closely to: **UN SDG 4 – Quality Education**
GRI 404 – Training and Education

9. Training and education

Our vision is to grow our expertise globally through continuous quality learning and opportunities where everyone can thrive. We believe that by providing a learning culture where all employees are empowered to own their development and reach their full potential, we are enabling our organisation to share our knowledge, experience and skills with local and wider communities in the engineering and built environment.

Learning and education of all employees is essential for the development and growth of individuals to continue to shape the future of design and long term sustainability of our projects. We encourage opportunities to collaborate and share knowledge across all teams, geographies and disciplines as well as with external partners and communities. To support this, we offer an integrated mix of learning methods, from on-the job-learning supported by mentoring and coaching, formal courses online and face-to-face, professional accreditation through technical development and continued professional development through related professional bodies.

How are we growing our expertise? Initiatives include; computational hackathons which are focussed sessions to develop programming and collaborative technology skills, leadership and management development programmes, our project leadership academy and our new C:Lab programme; designed to build our consultancy and integration skills through academic research, workshops, stakeholder engagement, conferences and guest lectures.

BuroHappold contributes learning and education opportunities in our local communities in a variety of ways. Through the Happold Foundation we support Engineering Futures, Engineering Education and student scholarships. We have many links with universities and academic institutions that enables us to provide Engineering Doctorates, internships, and expert-led lectures to students. BuroHappold partners with non-profit organisations such as Spark, ACE Mentoring, and the Los Angeles Promise Fund to provide equitable educational opportunities to all. We are also involved in events in many locations to raise awareness of engineering with school children, including visits to schools to talk about STEM (Science, Technology, Engineering and Maths).

Many opportunities exist on a daily basis for learning on the job, and this is often the most effective way of learning

EXAMPLE ACTIVITIES AND PROJECTS

- **ACE**
ACE mentorship programme is an after school program for US high school students who are interested in architecture, engineering or the construction industry.
- **IKB Academy Work Experience**
Providing work placement experience for school students in Bath, UK



HAPPOLD FOUNDATION HELPS TO BRING ENGINEERING TO YOUNG PEOPLE

LEADERSHIP DEVELOPMENT COHORT

Networking and learning together.

OUR BASELINE AND TARGETS

- Learning and Development satisfaction score of 85%+ from leadership and management formal and virtual learning offerings
- Make learning scalable and accessible to all employees through virtually-led workshops on key business skills. Supporting our climate change ambitions by reducing travel whilst offering quality development globally.
- Following our 2019 Culture Survey results we will focus development of our managers on regular feedback to support the empowerment of all employees in their continuous development. We will provide all managers with virtual led training in coaching and mentoring by Q1 2020.

This section relates most closely to: **UN SDG 11 — Sustainable Cities and Communities**
UN SDG 12 — Responsible Consumption and Production
GRI 301 — Materials
GRI 306 — Effluents and Waste

10. Materials and waste

We recognise the increasing pressures on the earth’s finite resources and believe in the urgency for responsible consumption to operate safely within the world’s bio-capacity.

Our aim is to reduce the material and waste footprint of the built environment, including that of our offices around the world, by advocating the transition towards a circular economy.

As a global community of engineering consultants and specialists in the built environment, we are responsible for designing some of the most iconic buildings on the skyline and vital infrastructure that help communities thrive. We recognise that every design decision we make has an impact on the whole life material efficiency of our client’s projects and the waste arising from the construction, operation, maintenance and eventual deconstruction processes. To reduce the material impact of our projects, we seek to embed circular economy principles into our design approach by requiring all major projects to identify whether:

- Lifetime issues have been addressed in the design, through consideration of durability, future use, or maintenance and repair.
- A waste management strategy for the project has been drawn up, or whether waste reduction has been considered and incorporated into a site waste management plan.

- Re-used components have been specified, such as metals with high recycled content.
- Whole-life implications of materials have been considered.

To minimise the resource impact of our offices around the world, we have policies and plans to minimise the overall waste generated and recycle whatever we can.

In 2018 we undertook a Global Waste Review to develop a route map to eliminate avoidable single-use plastic and reduce unnecessary waste.

EXAMPLE PROJECTS

- **Südkreuz, Berlin**
A new innovative 30,000m² office space using a fully modular, timber-concrete-hybrid structural system developed with Cree by Rhomberg. The lightweight and rapid construction system saves embodied carbon and is material efficient.
- **Towards a Zero Waste NHS Scotland**
In collaboration with Zero Waste Scotland, we undertook a waste management audit of 16 hospitals and reverse logistics appraisal to identify barriers and opportunities to achieving Scotland’s ‘Zero Waste to Landfill’ policy.
- **UKGBC Circular Economy Guidance for Construction Clients**
BuroHappold was part of the working group that developed this practical non-technical guidance for clients to start incorporating circular economy into their project briefs.

EXAMPLE ACTIVITIES

- As of 1st May 2019, all BuroHappold offices have committed to stop purchasing avoidable single-use plastic.
- A strategy to transition our global offices to zero waste to landfill is under development. Our Los Angeles office is leading the way, with two employees trained as TRUE Advisors to help the office achieve certification under the **TRUE** Zero Waste Rating System. Inspirational initiatives in LA so far include a vermiculture composting system of office organic waste to produce compost for the balcony garden which produces seasonal veg for employees and native flowering plants to attract pollinators.



SÜDKREUZ
Berlin, Germany

This pioneering new office complex will feature a revolutionary fully modular, timber-concrete-hybrid structure.

GLOBAL WASTE INITIATIVE INTERNAL COMMS CAMPAIGN



OUR BASELINE AND TARGETS

To reduce the impact of our projects, we will seek to:

- Integrate embodied carbon assessments into the standard design and decision-making process.
- Review and refresh our material specifications to ensure they reflect the latest thinking in reduced embodied impact, responsible sourcing and healthy materials.
- Deliver circular economy awareness training to our employees to build knowledge capacity and spark debate on embedding the principles into our standard design approach.
- Develop a firm-wide healthy materials vetting plan.

To reduce the impact of our office operations, we will seek to:

- Conduct a waste audit in at least 80% of our ISO 14001 offices in the next reporting period.
- Finalise our route map and timeframe to achieve zero waste to landfill.
- Review the BITC Circular Office guide and identify a route map to transition BuroHappold offices towards a more circular economy.

This section relates most closely to: UN SDG 6 — Clean Water and Sanitation
GRI 303 — Water and Effluents

11. Clean water and sanitation



Our philosophy is to treat water as a finite resource. We aim to identify water resource strategies that minimise potable demands, provide appropriate resilience, make maximum use of alternative supply sources and provide wider blue infrastructure benefits.

Water Resource Management (WRM) is the process of managing water use in an integrated manner to ensure that it is used in the most efficient way possible. As such it is a key part of water cycle management.

The BuroHappold water group is highly experienced at identifying WRM plans at all project scales, from relatively small building plots to international masterplans. Having identified the baseline water demand of a project, the team considers all water demand and supply points within that project to ensure that the use of potable water is as efficient as possible. Inherent to this is an understanding of the water quality required for a given use so that, as far as possible, potable water is provided only at those points where water of that quality is required.

By matching quality of supply to quality of demand, along with a suite of demand reduction measures, our team is typically able to demonstrate saving against the baseline demand up to 40% by considering blackwater, greywater and harvesting technologies for uses such as irrigation, toilet flushing and water-based landscape.

Our water strategies are informed by a thorough understanding of the requirements of the project, commercial reality, an in-depth understanding of local and national guidelines and codes of practice as well as cultural practices. This is especially important as our team delivers sustainable solutions around the world in areas as diverse as Europe, North America and Asia, and the Middle East.

Within our own business, we are a relatively low user of water but we have adopted a number of measures to minimise our water use that includes dual flush toilets, using aerators on faucets/ taps and using recycled grey water in our Warsaw office for toilet flushing.

EXAMPLE ACTIVITIES AND PROJECTS

- **2012 Queen Elizabeth Olympic Park**
Providing an assessment of the proposed park in order to achieve “good” status in accordance with the EU Water Framework Directive in order to optimise sustainable water use, habitats and species, water quality and flood risk. We continue to provide advice on ongoing developments.
- **Kibera, Kenya**
Reducing the risk of health risks from contaminated water by implementing flood risk reduction strategies in this Nairobi slum.
- **Memusi Water, Kenya**
Improving water supply for nearly 3000 people so that children have better access to education by removing the time required to collect water.

We consider the water cycle from cloud to coast, and through sensitive resource management we are able to demonstrate 40% savings against baseline demand



MEMUSI WATER
Kenya
BuroHappold is working with the Memusi Foundation to help supply quality education to Kenyan communities in need.



WADI HANIFAH FLOOD
MANAGEMENT PLAN
Riyadh, Saudi Arabia

OUR BASELINE AND TARGETS

We have improved water supply for several communities in developing countries – we will aim to significantly improve water supply for at least one community a year.

Current water consumption limits allow 125 litres per person per day in residential properties the UK. We will aim to limit the design water consumption in new residential developments in the UK to 105 litres per person per day.

Measures can come from a wide range of sources. In the UK we may use measures including the Code for Sustainable Homes and the environmental performance tools, such as CEEQUAL, BREEAM and LEAD.

Having identified the baseline water demand we look to reduce this through the application of demand reduction measures. This can include low flow taps and toilets at a building scale, to zero-scaping

(reducing or eliminating the need for supplemental water from irrigation) on a regional/district scale.

We look to minimise potable water use by maximising the efficient use of non-potable sources, including black water recycling, grey water recycling, treatment sewerage effluent or renewed water and rainwater harvesting.

Our targets:

- Minimise water demand
- Match quality of supply with quality of demand
- Provide appropriate resilience of supply
- Identify treatments that provide wider benefits, such habitat, alternative water source, recreation and education.

This section relates most closely to: UN SDG 11 — Sustainable Cities and Communities
GRI 305 — Emissions

12. Travel and transport

We believe that transport and travel needs to be designed to optimise connectivity, whilst minimising the impact on the environment. We also aim to continually reduce the impact of our own business and commuter travel by promoting sustainable travel options.

We undertake projects where we provide advice and design on projects on transport and travel solutions that seeks to optimise connectivity. Our transport advice has been a key element to our master planning work on numerous developments including innovative solutions for KA-CARE hospital in Riyadh and the major redevelopment on the former Filton Airfield, Bristol, UK.

We carry out a global commuter travel survey which includes all our main offices every two years. This produces an overall measure of the impact of our commuter travel on the environment in terms of CO₂ emissions as well as miles

travelled by each transport mode. As a consequence each office produces a Commuter Travel Plan with measurable targets. We have regular initiatives on travel including the active commuter travel challenge in the US.

We gather data on carbon emissions from our Business Travel for each business unit but have not yet set targets. 50% of our UK vehicle fleet are electric vehicles.

EXAMPLE ACTIVITIES AND PROJECTS

- **BeMobility**
A multi-modal approach that combines different electric forms of transport into one coherent smart scheme.
- **Commuter Travel Survey 2018**
Results of our survey across all our global offices.

50% of our UK vehicle fleet is electric

OUR BASELINE AND TARGETS

- Our 2018 emissions from Commuter Travel is 548kg CO₂e per person per year globally which has reduced from 900 kg CO₂e per person per year in 2014 — we will aim to reduce this by 5% by 2020.
- We will aim to develop targets for our business travel emissions by 2020.

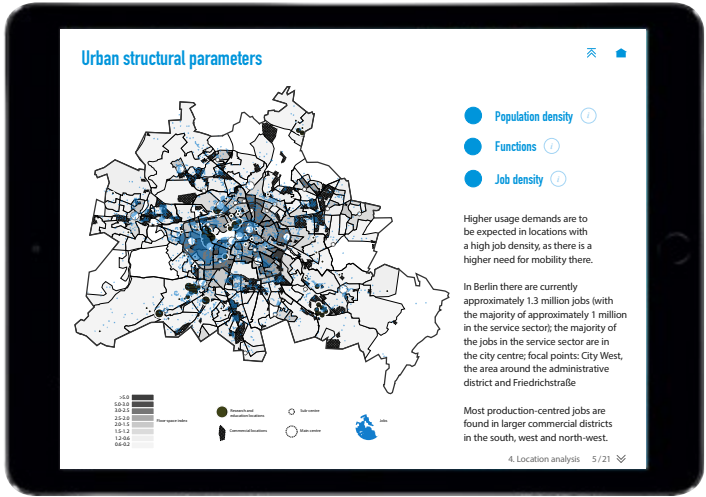


IMAGE: BuroHappold Engineering

BEMOBILITY, BERLIN ELEKTROMOBIL 2.0. Germany

BuroHappold worked as part of an interdisciplinary team to develop Berlin ElektroMobil 2.0, a multi-modal approach that combines different electric forms of transport into one, coherent smart scheme, offering a sustainable alternative to current car travel.



IMAGE: Bloomimages

This section relates most closely to: UN SDG 14 – Life Below Water
UN SDG 15 – Life on Land
GRI 304 – Biodiversity

13. Biodiversity

We believe that protecting and enhancing our natural environment is fundamental to delivering sustainable solutions for a better and greener future. Our aim is to continuously seek to preserve, create and enhance biodiversity and ecological functionality on our projects through an integrated, multi-disciplinary approach that benefits both people and wildlife.

We advise our clients and work with project teams to avoid and minimise the impacts on the natural environment as well as integrate biodiversity and green infrastructure into project planning and design. Our intention is that every project seeks the best possible outcome in terms of biodiversity gain and associated ecosystem services by:

- Understanding the ecological baseline,
- Implementing the mitigation hierarchy and targeting biodiversity net gain,
- Ensuring that projects contribute to both national and local biodiversity and green infrastructure targets and policies,
- Applying international best practice standards for environmental sustainability on our global projects.

To ensure that we do this in a measurable and robust way, we undertake biodiversity net gain calculations, BREEAM Ecology assessments as well as use biodiversity toolkits and key performance indicators to identify and measure ecological

improvements. We also prepare ecological mitigation strategies and management and monitoring plans to document and track implementation.

Internally we encourage an atmosphere of environmental consciousness and ownership, for example our employees participate in a lunchtime jog and litter picking activity (plogging) in many offices. Our new Warsaw office has been designed to benefit both people and the planet while the London office roof terraces are being redesigned with features that provide a range of ecosystem benefits.

OUR BASELINE AND TARGETS

For projects where we provide ecology services, we will aim to:

- Continue to apply the mitigation hierarchy on all of our projects.
- Integrate biodiversity net gain into every design by 2020.
- Apply International Finance Corporation (IFC principles) to our international projects (widely considered to be best practice).

EXAMPLE ACTIVITIES AND PROJECTS

- Los Angeles Countywide Sustainability Plan, Los Angeles, USA
- Neu Schöneberg, Berlin, Germany
- Mayfield Regeneration Development, Manchester, UK



IMAGE: BuroHappold Engineering

LOS ANGELES COUNTYWIDE SUSTAINABILITY PLAN Los Angeles, USA

BuroHappold led a multidisciplinary team to develop a regional sustainability plan to create a resilient, inclusive, equitable, and sustainable county.

NEU SCHÖNEBERG Berlin, Germany

Neu Schöneberg is a new urban neighbourhood developed on a brownfield site which forms part of an important green corridor.



IMAGE: Collignon Architektur

Our aim is to continuously seek to preserve, create and enhance biodiversity and ecological functionality on our projects through an integrated, multi-disciplinary approach that benefits both people and wildlife

This section relates most closely to: **GRI 101 – Foundation**
GRI 102 – General Disclosures
GRI 103 – Management Approach

14. Description and disclosures

ORGANISATIONAL PROFILE

1. Name of organisation

Happold LLP

2. Activities, brands, services and scale

Happold LLP, known as “BuroHappold”, is an international, integrated engineering consultancy operating in 23 locations worldwide with over sixty Partners and 1,700 employees. For over 40 years BuroHappold, has been building a reputation for delivering creative, value-led building and city solutions for an ever changing world. The principal activity of the BuroHappold group is that of consulting engineers providing professional, integrated design and advisory services to clients that include the property and construction sectors, city administrations and campus portfolio owners. The principal activity of Happold LLP is providing management services to companies in the BuroHappold group.

3. Registered address

Camden Mill, Lower Bristol Road, Bath BA2 3DQ, UK.

4. Location of operations

We operate in 23 global locations and internally this is delivered via six geographic business units: United Kingdom; Europe; United States, Middle East, India and Asia. A seventh business unit, ‘Cities’, spans multiple locations and consists of 7 specialisms – bridges, consulting, energy consultancy, environment, infrastructure, transport and water.

5. Ownership and legal form

Happold LLP is the ultimate parent company of Buro Happold Engineer (non-trading) and Buro Happold Limited, which is the main UK trading company. In addition to these companies there are a total of 15 corporate trading entities in the various foreign jurisdictions that BuroHappold operate in, all of which are wholly owned subsidiaries of Buro Happold Engineers Limited.

Happold Limited LLP has approximately 60 members and is incorporated under England and Wales and registered at Companies House (LLP Number: OC331879). The LLP is controlled by its members as delegated to the management team, and as such there is no one controlling party. In terms of identifying Persons of Significant Control (PSC) currently none of the members of Happold LLP hold more than 5% of the shares in Happold LLP and therefore no member qualifies as a PSC.

6. Markets served

Our geographic markets generally include countries in the same areas as our operational locations.

BuroHappold has an established multi-sector client portfolio across culture, sport, commercial and urban development which has expanded in recent years to include the sectors of science and technology, air and rail and education.

7. Supply chain

BuroHappold’s supply chain primarily comprises professional infrastructure consultancy providers, acting as sub-consultants. The types of infrastructure sub-consultants BuroHappold typically engages include: architects; surveyors; geotechnical or environmental consultants; IT consultants; economic/ financial consultants; acoustic; lighting or security consultants as well as BIM suppliers. As a professional service organisation the risks associated with slavery and human trafficking are objectively low.

BuroHappold also directly engages suppliers of services for our offices, such as facilities management, travel, insurance and office equipment.

8. Precautionary principle of approach

We apply the precautionary principle in our own activities to protect our employees and the environment as part of our Health, Safety and Environmental management system. We also apply the precautionary principle in all our design work by promoting sustainable solutions that address all the key issues raised by climate change.

9. External initiatives

During the year 2018, the BuroHappold group contributed £250,000 (2017: £160,000) to the Happold Foundation, a UK registered charity. The Happold Foundation is a charity registered for the promotion of education, research and training in the fields applicable to the construction industry, engineering, design, technology and architecture.

The Happold Foundation is the primary route for financially supporting projects with a social responsibility. BuroHappold also supports other initiatives such as engineering programmes through visiting lecturers and visiting professors in most of our operational locations as well as ground breaking research and sponsoring public lectures. BuroHappold runs a global Share Our Skills Programme where we provide free input into good socially beneficial projects.

10. Membership of associations

BuroHappold is a member of many associations, either organisationally or individually. However, some of the main memberships include:

- Association of Consultants and Engineering (ACE)
- UK Green Building Council – Gold members
- American Institute of Architects (AIA) 2030 Challenge
- Confederation of British Industry (CBI)
- London First
- Chartered Institute of Building Services Engineers
- Institution of Structural Engineers
- Institution of Civil Engineers

11 Ethics and integrity

BuroHappold issued a new Code of Conduct in May 2019, setting out the standards of behaviour expected of global employees which they are all required to electronically sign. The purpose of the Code of Conduct is to clarify the standards of individual and collective behaviour that our employees are required to adhere to across all our global locations. This is supported by other related standalone policies such as Anti-Bribery, Anti-Fraud, Speak Up (Whistleblowing), Diversity and Equal Opportunities, Health and Safety, Quality Policy, Gifts and Hospitality Policy and Modern Slavery which considers the ethics that underpin our relationships with suppliers and external organisations.

To comply with Indian law, BuroHappold publishes a Corporate Social Responsibility Statement on its external website.

BuroHappold has an established Speak Up (Whistleblowing) Policy which sets out the internal mechanism for employees to disclose or expose information which relates to suspected wrongdoing or dangers at work. The aim of the Speak Up Policy is to enable the reporting, investigating and remedying any wrongdoing.

12. Governance structure

BuroHappold is governed by a statutory Board at holding company level which includes two non-executive directors and is advised by an audit committee and Partner committee. Management of the practice is carried out by the Global Executive. The Global Executive is advised by a Global Strategy Group.

15. Goals and standards alignment

These tables describe how BuroHappold is addressing the named standards in principle in this report although we acknowledge that in many cases we are not yet addressing the specific requirements of each standard.

UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

Goals	BuroHappold Global Sustainability Report
SDG1 No Poverty	Inclusivity, Equality and Diversity
SDG2 End Hunger	Community Involvement
SDG3 Good Health and Wellbeing	Health and Wellbeing
SDG4 Quality Education	Training and Education
SDG5 Gender Equality	Inclusivity, Equality and Diversity
SDG6. Clean Water and Sanitation	Clean water and sanitation
SDG7 Affordable and Clean Energy	Energy and Carbon
SDG8 Decent Work and Economic Growth	Fair Practice and Procurement
SDG9 Industry, Innovation and Infrastructure	Energy and Carbon
SDG10 Reduced Inequalities	Inclusivity, Equality and Diversity
SDG11 Sustainable Cities and Communities	Health and Wellbeing
	Community Involvement
	Materials and Waste
	Travel and Transport
SDG12 Responsible Consumption and Production	Materials and Waste
SDG13 Climate Action	Climate Action
SDG14 Life Below Water	Biodiversity
SDG15 Life on Land	Biodiversity
SDG16 Peace, Justice and Strong Institutions	Fair Practice and Procurement
	Community Involvement
SDG17 Partnerships for the Goals	Community Involvement

GLOBAL REPORTING INITIATIVE

GRI 100 Universal Standards	BuroHappold Global Sustainability Report
GRI 101 Foundation	Discription and Disclosures
GRI 102 General Disclosures	Discription and Disclosures
GRI 103 Management Approach	Discription and Disclosures
GRI 200 Economic	
GRI 201 Economic Performance	Economic Performance
GRI 202 Market Presence	Discription and Disclosures (and Annual Report)
GRI 203 Indirect Economic Impacts	Community Involvement
GRI 204 Procurement Practices	Fair Practice and Procurement
GRI 205 Anti-corruption	Fair Practice and Procurement
GRI 206 Anti-competitive Behaviour	Fair Practice and Procurement
GRI 300 Environmental	
GRI 301 Materials	Materials and Waste
GRI 302 Energy	Energy and Carbon
GRI 303 Water and Effluents	Clean Water and Sanitation
GRI 304 Biodiversity	Biodiversity
GRI 305 Emissions	Energy and Carbon
	Travel and Transport
GRI 306 Effluents and Waste	Materials and Waste
GRI 307 Environmental Compliance	Fair Practice and Procurement
GRI 308 Supplier Environmental Assessment	Fair Practice and Procurement
GRI 400 Social	
GRI 401 Employment	Fair Practice and Procurement
GRI 402 Labour Management Relations	Inclusivity, Equality and Diversity
GRI 403 Occupational Health and Safety	Health and Wellbeing
GRI 404 Training and Education	Training and Education
GRI 405 Diversity and Equal Opportunity	Inclusivity, Equality and Diversity
GRI 406 Non-discrimination	Inclusivity, Equality and Diversity
GRI 407 Freedom of Association and Collective Bargaining	Not addressed – not applicable
GRI 408 Child Labour	Fair Practice and Procurement
GRI 409 Forced or compulsory Labour	Fair Practice and Procurement
GRI 410 Security Practices	Not addressed – not applicable
GRI 411 Rights of Indigenous Peoples	Community Involvement
GRI 412 Human Rights Assessment	Not addressed - not applicable
GRI 413 Local Communities	Community Involvement
GRI 414 Supplier Social Assessment	Not addressed – not applicable
GRI 415 Public Policy	Not addressed – not applicable
GRI 416 Customer Health and Safety	Health and Wellbeing
GRI 417 Marketing and Labelling	Not addressed – not applicable
GRI 418 Customer Privacy	Not addressed – not applicable
GRI 419 Socioeconomic Compliance	Not addressed – not applicable

**As our principles set out,
we value human wellbeing,
we embrace mutual responsibility
and we understand that a
sustainable future is intrinsic
to the economic and social
impact of our work.**

Neil Squibbs CEO

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ENGINEERING

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