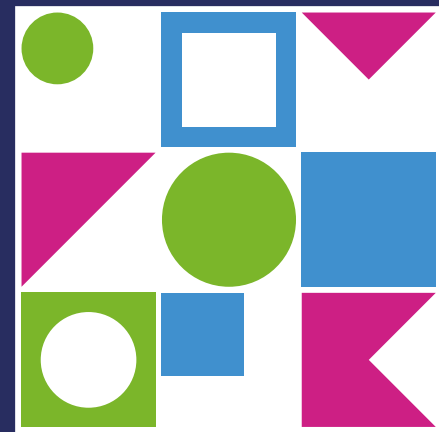


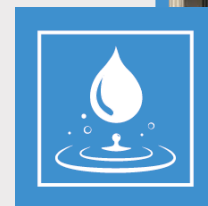
CAPABILITIES BROCHURE



RUBIX

MEP CONSULTANTS

—
**DELIVERING LOW-CARBON,
INNOVATIVE BUILDING SERVICES
DESIGN SOLUTIONS,
TAILORED TO YOUR NEEDS.**





WELCOME

RUBIX

WELCOME

OUR SERVICES

SECTORS & EXPERIENCE

OUR VALUED CLIENTS

1.

MEET THE LEADERSHIP TEAM

Our directors, Alec, Stuart and Daniel have over 50 years' experience leading MEP design teams and delivering multidisciplinary projects for a variety of clients across all sectors of the industry.

- ✓ 50+ YEARS' EXPERIENCE
- ✓ MULTIDISCIPLINARY PROJECTS
- ✓ CHARTERED ENGINEERS
- ✓ COVERING ALL SECTORS



ALEC MABBOTT
Director

STUART GROWCOTT
Director

DANIEL WILLIAMS
Director



—
**MEET THE
RUBIX MEPTeam**



OUR VISION. OUR VALUES. OUR MISSION.



1

Exceed our obligation as engineers to champion low-carbon developments that enhance the local, national and global environment.

2

Keep our values of honesty, integrity and trust at the forefront. To achieve best-in-class standards at each and every step. And, to provide our clients with expert advice, innovative yet pragmatic engineering solutions and the highest level of competency to deliver their aspirations.

3

Focus on delivering low-carbon, innovative building services design solutions that are tailored to our client's needs.



OUR SERVICES

PRINCIPAL SERVICES.

OUR AREAS OF EXPERTISE:

- RIBA Stage 0-7 MEP Design
- MEP Due Diligence Building & Site Acquisitions
- Planning Application Support
- Low-to-Zero Carbon (LZC) assessments, Whole Life Cost Appraisals and Reporting
- Energy Strategies and Predicted Energy Modelling
- Thermal Dynamic Simulations and Overheating Assessments
- Level 2 BIM Delivery, including Development of BIM Execution
- MEP 2D & 3D Modelling
- Plant Access & Maintenance Strategies
- MEP Condition Surveys and Reporting
- Technical Advisor Role / Clerk of Works
- Witnessing, Commissioning and Project 'Close Out'
- Soft Landings and Post Occupation Energy Assessment

OUR RANGE OF MEP CONSULTANCY SERVICES



LOW CARBON ENERGY / SUSTAINABILITY

Working with our clients to realise their net-zero carbon aspirations through construction and operation.

Providing expertise across refurbishment and new-build developments.

Our specific services include:

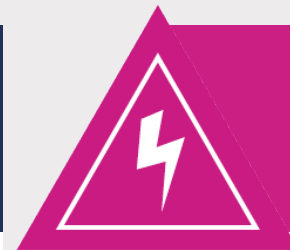
- Helping clients to develop their Environmental, Social and Governance (ESG) strategies
- Passive design and Low-to-Zero Carbon (LZC) appraisals, including whole life cost analyses
- Energy metering strategies
- Dynamic Simulation Modelling (DSM) - thermal comfort and predicted energy assessments
- Building Regulations AD Part L compliance assessments, modelling and reporting (SBEM, BRUKL and SAP)



MECHANICAL DESIGN SERVICES

Our specific services include:

- Ventilation systems
- Heating systems
- Comfort cooling and air-conditioning systems
- Building Management Systems (BMS) and Central Controls Systems
- Boiler replacement
- System refurbishment and upgrades
- Energy metering strategies



ELECTRICAL DESIGN SERVICES

Our specific services include:

- HV/LV distribution and infrastructure
- Power generation and life safety systems
- General lighting design and controls
- External lighting
- Emergency lighting
- General small power
- IT / Data
- Assistive technologies
- Access and security systems
- Fire alarm
- Lightning protection
- Vertical transportation (Performance specifications for lifts)



PUBLIC HEALTH DESIGN SERVICES

Our specific services include:

- Domestic hot and cold water systems
- Above ground foul drainage systems
- Rainwater and greywater harvesting
- Medical gases
- Water treatment
- Water neutrality assessments
- Compressed air

SITE-WIDE CARBON IMPACT STUDIES.

CARBON REDUCTION & ENERGY USE IMPACT STUDIES

Rubix MEP can provide early stage masterplanning for new or existing sites to establish a potential route to 'net zero carbon' operation, through dynamic modelling simulations.

Typical outputs include:

- Assessment of a entire sites to establish opportunities for site-wide carbon and energy use reduction.
- Review and evaluation of associated capital and ongoing operational costs and potential Return On Investment (ROI) calculations.
- Electric Vehicle (EV) charging site-wide impact (to inform wider electrical infrastructure assessment).
- Evaluation of potential locations for optimal PV installations and associated yield calculations.
- Visual representation of existing building stock characteristics to inform 'priority' works.

✓ CARBON & ENERGY REDUCTION MASTERPLANNING

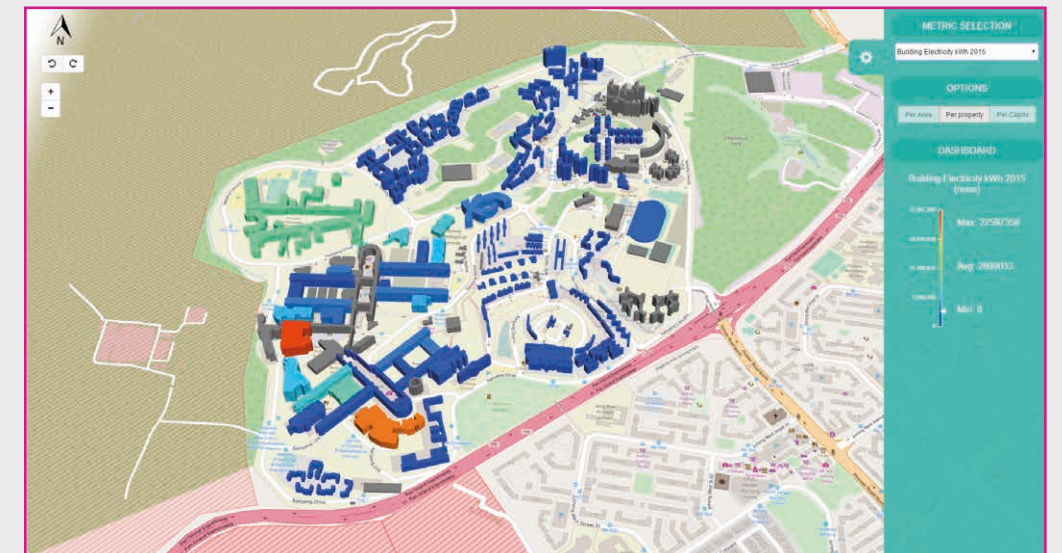
✓ REVIEW & MINIMISE OPERATIONAL RUNNING COSTS

✓ ESTABLISH POTENTIAL ROUTES TO 'NET ZERO CARBON'

✓ ELECTRIC VEHICLE (EV) CHARGING SITEWIDE IMPACTS

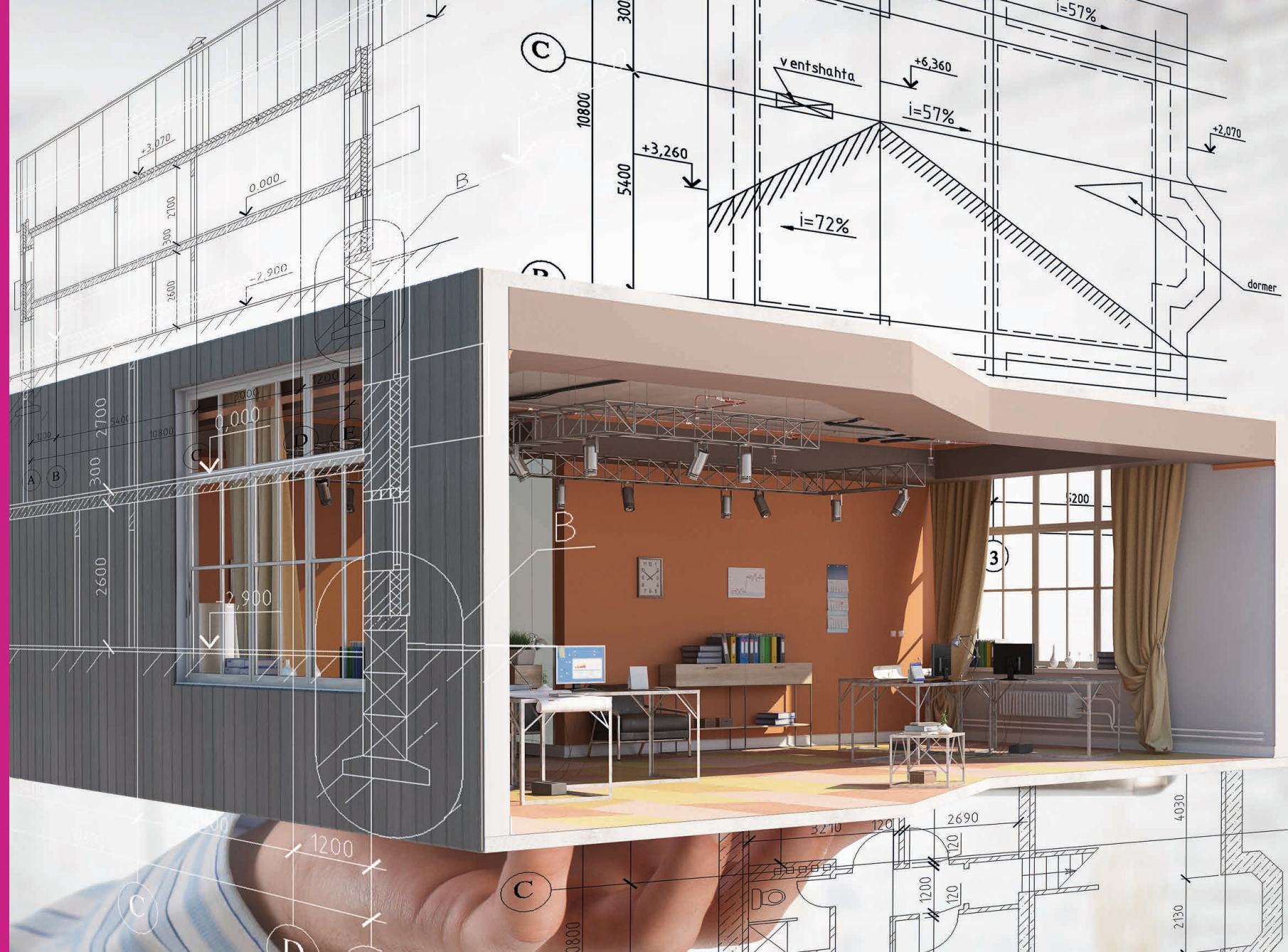
✓ REALISTIC USE OF RENEWABLE & LOW-CARBON TECHNOLOGIES

A CARBON IMPACT STUDY CAN ENABLE CLIENTS TO EVALUATE THEIR CARBON EMISSIONS IMPACT, AND ASSOCIATED ENERGY USE & OPERATIONAL COSTS, OF A GIVEN SITE. THIS ENABLES LONG-TERM CARBON REDUCTION MASTERPLANNING TO BE CARRIED OUT IN A PRAGMATIC MANNER.



DESIGN FLOW CHART

From concept to completion and beyond, we're here to help. Offering a comprehensive MEP Design package from RIBA Stages 0-7.



FROM CONCEPT

TO COMPLETION

AND BEYOND...

PRE-CONSTRUCTION

- 1 RIBA 0-4
 - Feasibility & Planning

CONSTRUCTION

- 2 RIBA 5
 - Installation, Monitoring & Reporting

HANDOVER & IN-USE

- 3 RIBA 6-7
 - Documentation & Aftercare

**WE'RE HERE
TO HELP.**

PRE-CONSTRUCTION

RIBA 0-4

- Pre-planning advice and support including passive design solutions appraisal and informing building massing and configuration.
- Establish project specific requirements and assist our clients with robust technical advice.
- Site surveys and due diligence.
- Develop the energy strategy.
- Assistance and production of reports to overcome any planning conditions relating to building services.
- SBEM / SAP Analysis.
- Infrastructure load assessments and calculations.
- Development cost analysis & support.
- MEP Specifications, Schedules & Drawings.
- Liaise and arrange utility connections / disconnections.
- Full MEP Design package to suit requirements.
- Keeping our clients informed; attendance at meetings, presentations, milestones.

CONSTRUCTION

RIBA 5

- Attendance at mid & post tender interviews with tender return and M&E Cost Reviews.
- Responses to technical queries and RFI in relation to appointment of contractor / sub-contractors.
- Review and comment on contractor drawings and deliverables.
- Review Building Regulations and Part L Requirements.
- Review and comment on installation and commissioning programme.
- Site Inspections and reporting.
- Clear and concise communication, keeping our clients informed; attendance at DTMs, workshops & tender engagements.

HANDOVER & IN-USE

RIBA 6-7

- Review & agree testing and commissioning programme.
- O&M Manual and handover documentation review.
- Execute system witnessing including specialist systems.
- Prepare and issue witnessing reports and incorporate within a tracker.
- Prepare Practical Completion MEP Services Report.
- Seasonal commissioning reviews.
- Initiate Soft Landings aftercare, where appropriate.
- Keeping our clients informed; attendance at handover, staff training & completion engagements.



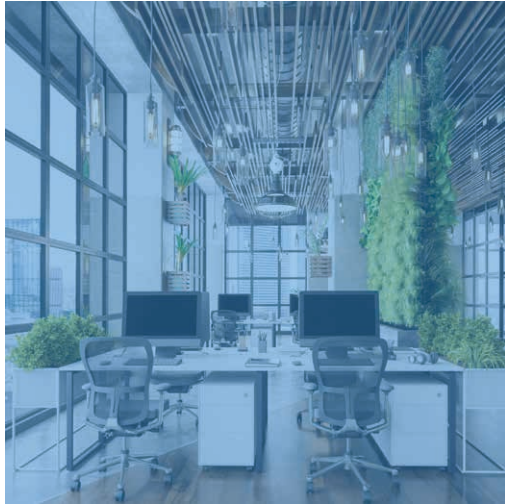
SECTORS & EXPERIENCE

[WELCOME](#)

[OUR SERVICES](#)

[SECTORS & EXPERIENCE](#)

[OUR VALUED CLIENTS](#)



PROUDLY COVERING
ALL INDUSTRY
SECTORS

✓ CARE SECTOR

✓ COMMERCIAL

✓ DEFENCE

✓ EDUCATION

✓ HEALTH CARE

✓ HERITAGE

✓ LIFE SCIENCES

✓ RESIDENTIAL

LATER LIVING & CARE SECTOR

PROJECT TITLE: KNOWLE RETIREMENT VILLAGE
CLIENT: OPUS VILLAGES

Construction Value: c.£34m

Opus



“RUBIX ARE A HIGHLY PROACTIVE CONSULTANCY. THEY HAVE THE TECHNICAL KNOW-HOW AND HAVE HELPED US NAVIGATE ALL THE LATEST LEGISLATION AND STATUTORY REQUIREMENTS.

THEY HAVE WORKED EXTREMELY WELL FOR US AGAINST TIGHT DEADLINES AND KEPT US WELL INFORMED AT ALL STAGES.” - Patrick Egan, Opus Villages

High-end later living retirement community with 46 village apartments across seven two-storey maisonette style buildings and a further 39 village suite apartments contained within the central community building.

The three-storey community building also provides central community support, restaurant, lounge, coffee bar, library, treatment room, gym, hair salon, private dining, etc. as well as ancillary catering and laundry provisions.

Rubix MEP were appointed to undertake the complete MEP design and specification from conception to RIBA Stage 3. Our appointment includes a client monitoring role through the contractor design and construction process, including witnessing of testing and commissioning and project close-out.

- RIBA Stage 3 with Revit / BIM Level 2 output
- Energy strategy with options for EPC A and net zero carbon
- Operational energy calculations to align with the client's marketing strategy
- Tender evaluations and technical support

LATER LIVING & CARE SECTOR



PROJECT TITLE: KING’S HILL (78-BED CARE HOME)

CLIENT: LOVETT CARE

Construction Value: c. £11.0m

A new purpose-built 78-bed care home for use Class C2.

Rubix MEP have been appointed for full MEP consultancy duties with the project being let under a Design and Build form of contract.

Our duties include:

- Energy Strategy to align with the clients' aspirations, which include BREEAM 'Excellent' In-Use.
- Dynamic Thermal Assessment for compliance with AD Part O (Overheating) of the Building Regulations.
- Infrastructure design including redundant supplies, diversions, and new connections.
- MEP Performance Specification and Design Strategies
- Post contract detailed design reviews
- Clerk of works including evaluation support and inspection and reporting of MEP installations.
- Commissioning support and witnessing
- Project close-out including Practical Completion reporting

LATER LIVING & CARE SECTOR



PROJECT TITLE: CHELMSFORD (60-BED CARE HOME)

CLIENT: LOVETT CARE

Construction Value: c.£10.0m

A new purpose-built 60-bed care home for use Class C2.

Rubix MEP have been appointed for full MEP consultancy duties with the project being let under a Design and Build form of contract.

Our duties include:

- Energy Strategy to align with the clients' aspirations which include BREEAM Excellent In-Use.
- Dynamic Thermal Assessment for compliance with AD Part O (Overheating) of the Building Regulations.
- Infrastructure design including redundant supplies, diversions, and new connections.
- MEP Performance Specification and Design Strategies
- Post contract detailed design reviews
- Clerk of works including evaluation support and inspection and reporting of MEP installations.
- Commissioning support and witnessing
- Project close-out including Practical Completion reporting



LATER LIVING & CARE SECTOR



PROJECT TITLE:
MELROSE GRANGE, ST. MELLONS
CARDIFF

CLIENT: HALLMARK LUXURY CARE HOMES

Construction Value: c. £18.0m

Melrose Grange, Cardiff represents the first all-electric care home in the Hallmark Luxury Care Homes’ portfolio. An 85-bed care home providing residential, dementia and nursing care designed to deliver Hallmark’s signature homely, relationship-centred luxury care within a sustainable development ethos.

Our consultancy duties included:

- Development of the Energy and Sustainability Strategy
- Dynamic Thermal Assessment for compliance with AD Part O (Overheating) of the Building Regulations.
- Infrastructure design including redundant supplies, diversions, and new connections.
- MEP Performance Specification and design strategies
- Post-contract detailed design reviews
- Clerk of works, including valuation support and inspection and reporting of MEP installations.
- Commissioning support and witnessing
- Project close-out including Practical Completion reporting



LATER LIVING & CARE SECTOR

REFURBISHMENTS & EXTENSIONS



PROJECT:
8-BED EXTENSION, THISTLE HILL

CLIENT:
BARCHESTER HEALTHCARE

Provision of a new extension to the existing care home to respond to a local need for additional respite care.

Rubix MEP have been appointed for full MEP consultancy duties with the project being let under a Design and Build form of contract.



PROJECT:
12-BED EXTENSION, LANCASTER GRANGE

CLIENT:
BARCHESTER HEALTHCARE

The project shall provide a new 2-storey extension to the existing care home to provide an additional 12no. en-suite bedrooms and to reconfigure, providing new 'Life Skills Kitchens', assisted bathrooms, lounge spaces at each floor and also the refurbishment of the existing dining spaces.

Rubix MEP have been appointed for full MEP consultancy duties with the project being let under a Design and Build form of contract.



PROJECT:
EXTENSION, VILLAGE GREEN CARE HOME

CLIENT:
PRESSBEAU CARE HOMES

The project comprises the part demolition, and refurbishment of the existing 'Grade II' listed care home and construction of a new 2-storey extension, providing an additional 12no. en-suite bedrooms. It also includes the provision of new 'Life Skills Kitchens', assisted bathrooms, lounge spaces at each floor and the refurbishment of the existing dining spaces.

Rubix MEP have been appointed for full MEP consultancy duties with the project being let under a Design and Build form of contract.

RESIDENTIAL

urbansplash
Create.iF

PROJECT TITLE:
CORNER HOUSE 1, PORT LOOP

CLIENT: URBAN SPLASH / CREATE.IF

Construction Value: c. £15m

A new multi-occupancy residential apartment block at Icknield Port Loop in the heart of Birmingham City Centre. Corner House 1 forms Phase 2C of the wider Port Loop development being delivered in collaboration with *Urban Splash*, 'Places for People', *Glenn Howells Architects*, *Birmingham City Council* and the *Canal & River Trust*.

The new 5-storey apartment building shall be located at the intersection of two of Birmingham's canals, namely the Birmingham New Mainline Canal and Icknield Port Loop Canal. It shall provide 22no. new modern apartments over five storeys.

Rubix MEP were appointed to carry out the full MEP design for the project, from RIBA Stage 2 (Concept) through to RIBA Stage 4 (Technical Design).

RESIDENTIAL



PROJECT TITLE: THE LAMPWORKS

CLIENT: REGAL ME / BUILD FIFTY5

Construction Value: c. £23.0m

A new mixed-use / residential build-to-rent development comprising 148 apartments across 5 blocks of one-, two- and three-bedrooms, alongside landscaped courtyards and communal spaces in Birmingham's historic Jewellery Quarter.

Rubix MEP were appointed for full RIBA Stage 4C MEP design duties through to construction issue working directly for the appointed MEP Contractor (Regal ME).

Our duties included:

- RIBA Stage 4C Construction Issue MEP design drawings and equipment / plant schedules.
- Detailed 3D Revit coordination (BIM Level 2)
- Full Builderswork in Construction (BWIC) detailing
- Coordination with full design and contractor teams (BPN Architects, SBK Civil / Structural, Build FiftyFive, Space Interiors)
- Construction support



HERITAGE



“THEY HAVE THE ABILITY TO PRESENT AND COMMUNICATE SOMETIMES COMPLEX AND TECHNICAL WORK IN A MANNER UNDERSTANDABLE TO THE LAYMAN – AN IMPORTANT SKILL TO FACILITATE PROMPT PROJECT PROGRESSION.”

- Richard Fennell, National Trust Project Manager – F&B



PROJECT TITLE:
CALKE ABBEY HUB KITCHEN &
OTHER WORKS

CLIENT: THE NATIONAL TRUST

Construction Value: ~£1.2m

Completed in the summer of 2026, the project encompassed the regeneration of the existing Food & Beverage (F&B) offers at the Calke Abbey site, in Derbyshire. The project comprised the erection of a new-build ‘Hub Kitchen’ building, BBQ kiosk and refurbishment works to staff offices, the Finishing Kitchen and Welcome Kiosk.

Rubix MEP were appointed for full RIBA Stage 4 MEP design duties and subsequent constuction support through to completion.

Our duties included:

- Initial MEP feasibility assessments of all areas.
- Carbon Impact Study (CIS) & energy assessment.
- Overheating assessment of the new Hub Kitchen using dynamic thermal modelling.
- RIBA Stage 4 MEP design drawings / schedules.
- Roof-mounted solar PV assessment and design.

HERITAGE

PROJECT TITLE: TYNTESFIELD COW BARN CLIENT: NATIONAL TRUST

Construction Value: £1.0m



“A SENSITIVE SCHEME THAT INVOLVED THE REFURBISHMENT OF THE EXISTING COW BARN RESTAURANT & BAKERY AREAS - RUBIX MEP WERE EXEMPLARY IN DELIVERING A CAREFULLY COORDINATED DESIGN.”

- John Goddard, Space Group

A refurbishment of the 'Grade II' listed Cow Barn Café restaurant and retail shop at the National Trust Tyntesfield site, in Wraxall near Bristol.

The scheme comprised a major refurbishment of the ground floor cafe and shop areas, including a new food servery, upgraded seating, and a reimagined shop layout. The renovations preserved the original features of the Victorian farm building, allowing visitors to dine inside the cast-iron cattle stalls while admiring timber roof beams.

Rubix MEP were appointed to deliver the full MEP RIBA Stage 4 detailed design in support of the catering and interior design.

Key project deliverables were:

- RIBA Stage 4 detailed MEP design, including HVAC systems, water services and drainage, small power and data, LV distribution and lighting / emergency lighting.
- Technical support for the site installation team through to completion.
- Witness testing, certificate reviews and site inspections ahead of Practical Completion.

HERITAGE

PROJECT TITLE: LOW-TO-ZERO CARBON FEASIBILITY STUDIES (VARIOUS)

CLIENT: THE NATIONAL TRUST

Construction Value: Various



“HAVING WORKED WITH RUBIX ON A NUMBER OF OUR PROJECTS I WAS CONFIDENT IN BRINGING THEM IN AS OUR IN-HOUSE M&E CONSULTANT FOR HOSPITALITY PROJECTS.

THIS HAS PROVED TO BE A GOOD DECISION AS RUBIX HAVE SHOWN THEMSELVES TO BE THOROUGH,

DETAILED, PROMPT AND AT ALL TIMES HIGHLY PROFESSIONAL”

- Matthew Knowles, National Trust Senior Programme Manager – F&B

Rubix MEP were commissioned to survey and carry out detailed renewable and Low-to-Zero Carbon (LZC) feasibility studies across a number of existing National Trust sites.

These studies specifically focused upon the Trust's Food & Beverage (F&B) offers, as part of their 2030 pledge for carbon neutrality.

Each study reviewed the existing site services infrastructure and evaluated the potential for implementation of passive design measures, energy efficiency improvements and the appraisal of potential renewable / LZC technologies.

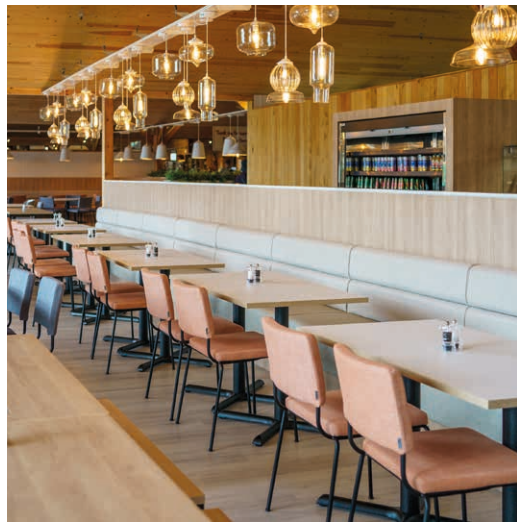
Solutions were appraised and rationalised to provide site-specific recommendations for implementation, including associated energy savings / 'payback' calculations.

- ✓ TYNTESFIELD
- ✓ BADDESLEY CLINTON
- ✓ MONTACUTE
- ✓ GIBSIDE
- ✓ ANGLESEY ABBEY
- ✓ SHUGBOROUGH
- ✓ SPEKE
- ✓ PENRYHN CASTLE
- ✓ KILLERTON
- ✓ STUDLEY DEER PARK
- ✓ KNIGHTSHAYES
- ✓ CRAGSIDE
- ✓ ARLINGTON ROW
- ✓ BIRLING GAP
- ✓ TRELISSICK
- ✓ FORMBY
- ✓ GLENDURGAN GARDENS
- ✓ CLUMBER PARK
- ✓ EMMETT'S TEA ROOM
- ✓ ANGEL CORNER ANNEXE
- ✓ MOULTON HALL
- ✓ KEDLESTON HALL
- ✓ WOODCHESTER HUB
- ✓ ASHRIDGE
- ✓ CALKE



HERITAGE

PROJECT TITLE: BATSFORD ARBORETUM
CLIENT: GRAYSCOURT
Construction Value: £2.0m



“RUBIX WERE FANTASTIC TO WORK WITH AND WERE HIGHLY PROFESSIONAL FROM START TO FINISH. WE’RE DELIGHTED WITH THE FINISHED SPACES THAT THEY HELPED CREATE”

- Stuart Priest, The Batsford Foundation

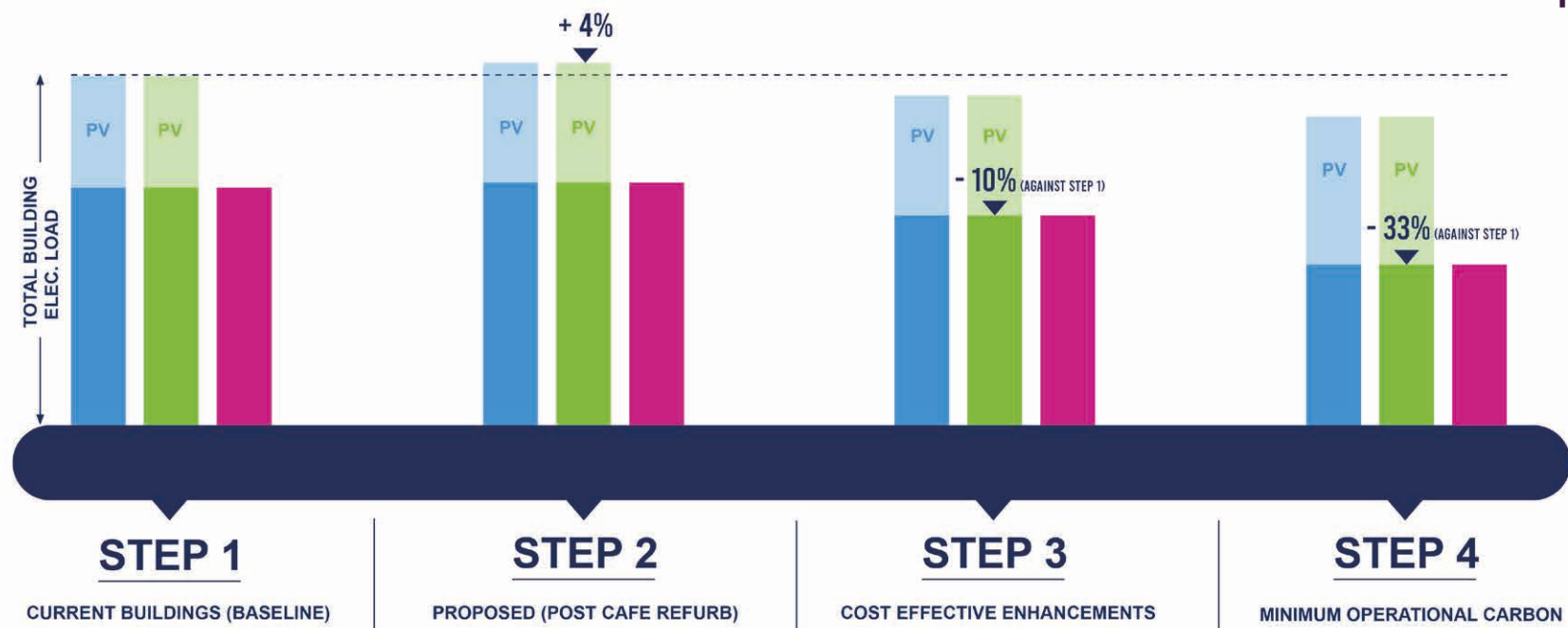
Batsford Arboretum is home to a unique collection of some of the world’s most beautiful and rare trees spread over an area of c.56 acres, together with an existing garden centre, garden terrace cafe and gift shop.

The new extension project expanded the existing building by over 420m², providing a high specification kitchen, cafe and garden shop. The contemporary building design respects the historic arboretum and surrounding environment and boasts key environmental features such as FSC timber, sheep’s wool insulation, heat pumps and

rainwater harvesting.
Rubix MEP were responsible for the RIBA Stage 4 detailed design of the MEP services for the project, including LV distribution, lighting & emergency lighting, small power & data, fire alarm, heating, ventilation, hot & cold water and LPG gas services.
The project also included Low-to-Zero Carbon (LZC) technologies in the form of air source heat pumps and greywater recycling systems, providing on-site sustainable energy and helping to reduce the building’s carbon footprint.

SUSTAINABILITY

PROJECT TITLE: COLETON FISHACRE CARBON IMPACT STUDY
CLIENT: NATIONAL TRUST



THE STUDY ENABLED THE NATIONAL TRUST TO EVALUATE THE CARBON EMISSIONS IMPACT, AND ASSOCIATED ENERGY USE / OPERATIONAL COSTS, OF A GIVEN SITE POST REFURBISHMENT AND WILL FURTHER ENABLE POTENTIAL FUTURE PLANNING TO MEET THE REGIONAL 5% ANNUAL REDUCTION IN CO₂ KPI TARGET.

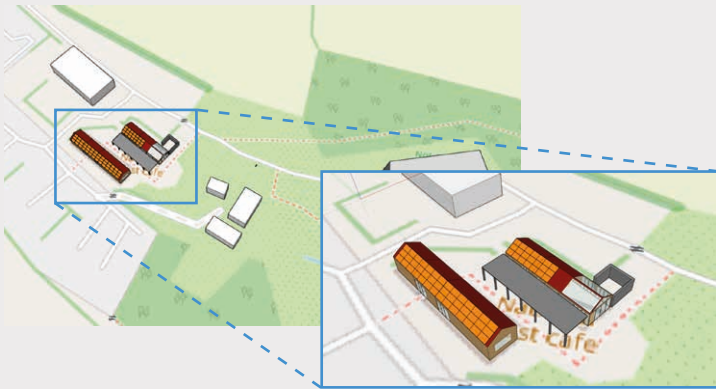
A “Carbon Impact Study” for the National Trust Coleton Fishacre site, which looked to evaluate the Energy Use and associated Carbon Dioxide (CO₂) emissions across existing and projected future scenarios.

Detailed energy and carbon analysis modelling was carried out for the site, the first of its kind for the National Trust, which enabled their Commercial Projects team to establish a clear and defined potential route to minimum operational carbon, using a 4-step approach (see graphic above).

The study responded to the following key National Trust business objectives:

- National Trust business KPI that relates to a “**minimum annual reduction in Scope 1 and 2 CO₂ emissions of 5% on a regional / site basis**”.
- The overarching National Trust pledge to achieving “**Net Zero Carbon by 2030**”.

Further carbon impact studies are now planned and being undertaken for multiple National Trust sites across the UK.



COMMERCIAL

PROJECT TITLE: SHEPPERTON STUDIOS

CLIENT: SPACE GROUP

Construction Value: £2.0m



“THIS PROJECT WAS A HIGHLY PRESTIGIOUS SCHEME, WITH DETAILED COORDINATION REQUIRED USING BIM. RUBIX WERE EXCELLENT AND ARE NOW OUR ‘GO-TO’ MEP DESIGNERS.”

- Chris Lee, Space Group

Part of the wider £500m expansion that will make Shepperton Studios the second largest film and TV studio in the world.

The project includes for the design and Category B fit-out for the food and beverage spaces providing a coffee shop, catering kitchens, restaurant and servery spaces across 3-buildings.

Rubix MEP were appointed to deliver the MEP design in support of the catering and interior design.

Key project deliverables were:

- RIBA Stage 4 detailed MEP design, including HVAC systems, natural gas, small power and data, LV distribution and lighting / emergency lighting.
- Full coordination of MEP services with the category A design and installation undertaken by others.
- Production of MEP Revit model complete with BIM Level 2 output and a clash-free model.
- Technical support for the site installation team.



OUR VALUED CLIENTS & PARTNERS

OUR VALUED CLIENTS & PARTNERS



National
Trust

McLeod+Aitken
construction professionals

CBRE

**holden
+ lee**
construction consultants

SPACE
GROUP

Fabric+

LOVETT
Care Homes

urbansplash

WREN

**SEVERN
TRENT**

 **Format Architects**



buildfifty



Opus



BARCHESTER
Celebrating life

Create.iF



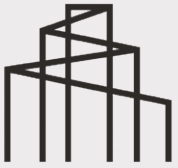
 **Met Office**


**SUNRISE FACILITIES
MANAGEMENT**


Elevate Property Group

 **REGAL**

 **Office for
National Statistics**


CADENCE
PROJECTS



GET IN TOUCH

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