



## Our Why

Formed in 1982, Will Rudd Associates has grown steadily, operating now as Will Rudd Davidson from offices in Edinburgh and Glasgow. We are a very successful and well respected Company of professional Consulting Civil and Structural Engineers providing our services throughout the United Kingdom and overseas.

We employ highly qualified / skilled staff who are trained continuously. All our staff naturally live and breathe our values. Economy and effectiveness of design and continuous Client attentiveness is fundamental to our company ethos.

Over the past four decades of practice, we have grown to become one of the largest practices in Scotland.

“To Clients with an engineering challenge, Will Rudd Davidson are the proactive, problem solving Consulting Civil & Structural Engineers who complete high quality, commercially viable projects and make them feel confident, secure and inspired because we have the right blend of people, approach and expertise to see and help me realise the possibilities for the projects journey, where others can’t.”

### **We want to push the boundaries of what’s possible**

We will realise this by continually innovating, maintaining high standards and staying grounded along the way. Our people are the drivers of change. They must never lose sight of the bigger picture.





## Our Approach

We promote the greater good, building trust with everyone we do business with. Successful long term relationships with our Clients are made possible through effective team work.

We retain our skills base by keeping our staff actively involved in our projects; whatever level they've risen to in the company. To put it simply, we take pride in every stage of the process.

Our Clients are everyone to whom we provide a service. This includes our fellow Design Team members and contractors, as well as the organisations which commission us. We believe if we help our project colleagues succeed, we will succeed, and anything is possible when we all work well together.

Our Project Teams strength is maximised by our Senior Staff leading and participating directly throughout its duration. This guarantees on call close access to high level corporate knowledge, diverse technical skills and expertise together with an extensive network of contacts with other specialists with an exemplary record of experience and achievement.

We employ a proactive and pragmatic approach to every project which ensures that Directors and Senior Staff are directly involved in all commissions continuously. This approach results in highly experienced engineers working closely with Clients and the Project Team throughout the entire journey of each project. We understand that every project is unique, and the value of consistent senior level input and experience is invaluable to navigate through very complex challenges.





## Core Services

We consider the design and construction process as one, especially on complex projects. In a well thought out design solution, buildability needs to be considered, to maximise the site potential.

Part of our role in the design process is to provide an engineering solution which is not only efficient and safe to build, but also one that is practical and has addressed the issues of the site. As the design progresses, we see our role as being an integral member of the Design Team working to produce a coordinated design to minimise on site problems.

We provide core civil and structural engineering services along with other specialists' services such as temporary work design, façade engineering and conservation engineering. We aim to provide a one stop shop for the required engineering services you will need for any project.

We have developed specialist complementary engineering skills specifically to complement and enhance the service we deliver to our Clients and Project Teams. These are all commercially established business sectors for us where we work directly with the specialist contractors.

This allows us to inform the design process in detail at the early stages, de-risking the construction phase and promoting a more robust and fully considered holistic design. We can take on the design responsibilities for all contractor design portions (CDPs), which streamlines and simplifies the Building Warrant process.



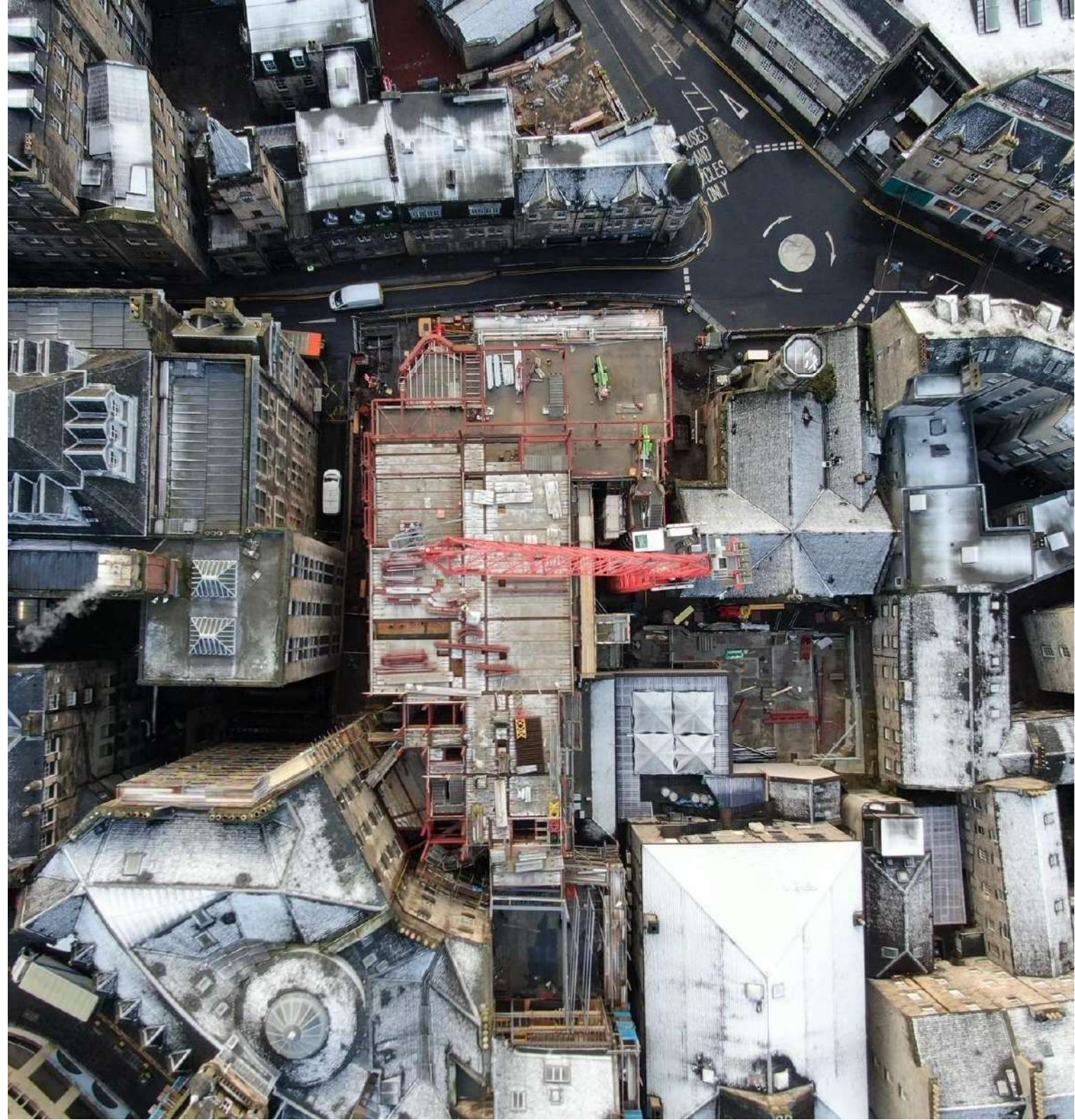
## Additional Services

On larger projects we can provide a multi-disciplinary team service working with our trusted partners under the Will Rudd Davidson banner. Adopting this approach we will take on the project management role providing one point of contact to ensure coordination and efficient delivery of these different design elements as part of the wider team.

We will review the design and construction programme from a multi-disciplinary approach to assess key critical path milestones and review options to fast-track the overall delivery process where possible. Through this approach we are able to offer a more streamlined process to our clients where we can bring consistency to the quality of the service provided and the end product.

We are able to offer the following additional services working with key partners and subcontractors where required on any project:

- Architecture
- M+E
- Sustainability
- Utilities
- Energy Assessment
- Fire Engineering
- Wind & Microclimate
- Air Quality Assessment
- Geotechnical Engineering
- Flood Risk Assessments
- Transport Assessment
- Ecology
- Acoustics
- Quantity Surveying



## Sustainability

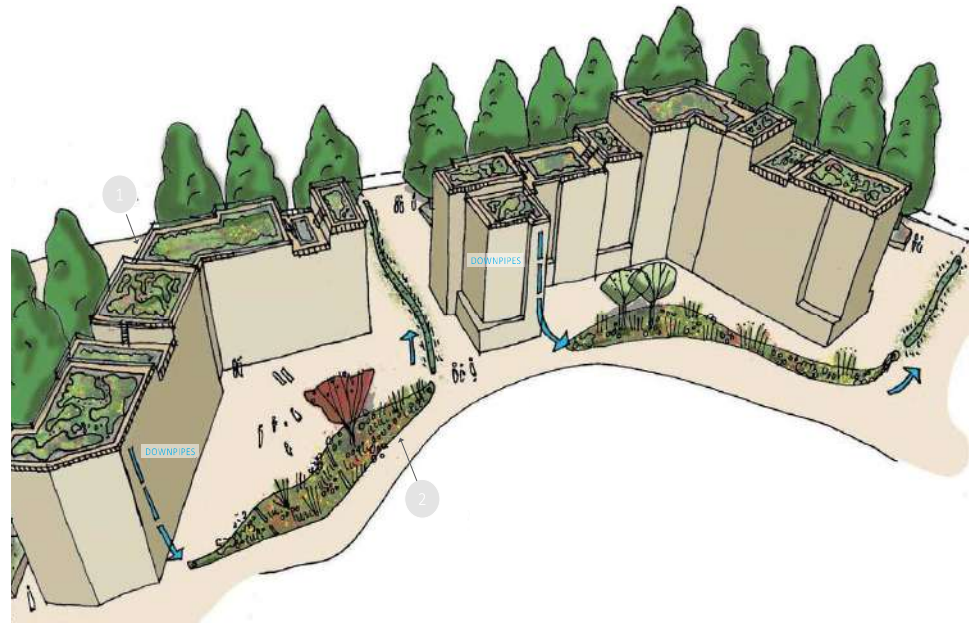
Engineers have a responsibility to help mitigate the effects of climate change by influencing the way buildings and infrastructure projects are designed, commissioned and constructed.

We take this responsibility seriously and as advocates of sustainable construction, we have been successfully delivering projects in the energy sector in recent years in addition to also embedding sustainability principles from day zero in all our design process.

We have signed up to the *UK Structural Engineers Declare Climate & Biodiversity Emergency* and continue to look for ways in which we can research, share knowledge and implement improvements in all that we do in our role as engineers.

In our approach in the design of building structures we are striving to review the embodied carbon as part of early engineering options appraisals to help inform the most appropriate and efficient design solution. Through our work on existing buildings we are able to demonstrate where a structure can be re-used, adapted or extended to prolong its useful life.

As part of our approach to civil engineering we continue to implement the principles of blue-green infrastructure and well integrated SUDS in all of our projects promoting best practice within the UK. We are championing the use of green roofs on a number of projects which bring real benefits to surface water managements on urban sites whilst also improving bio-diversity and having other positive social impacts.





## Our BIM Capabilities

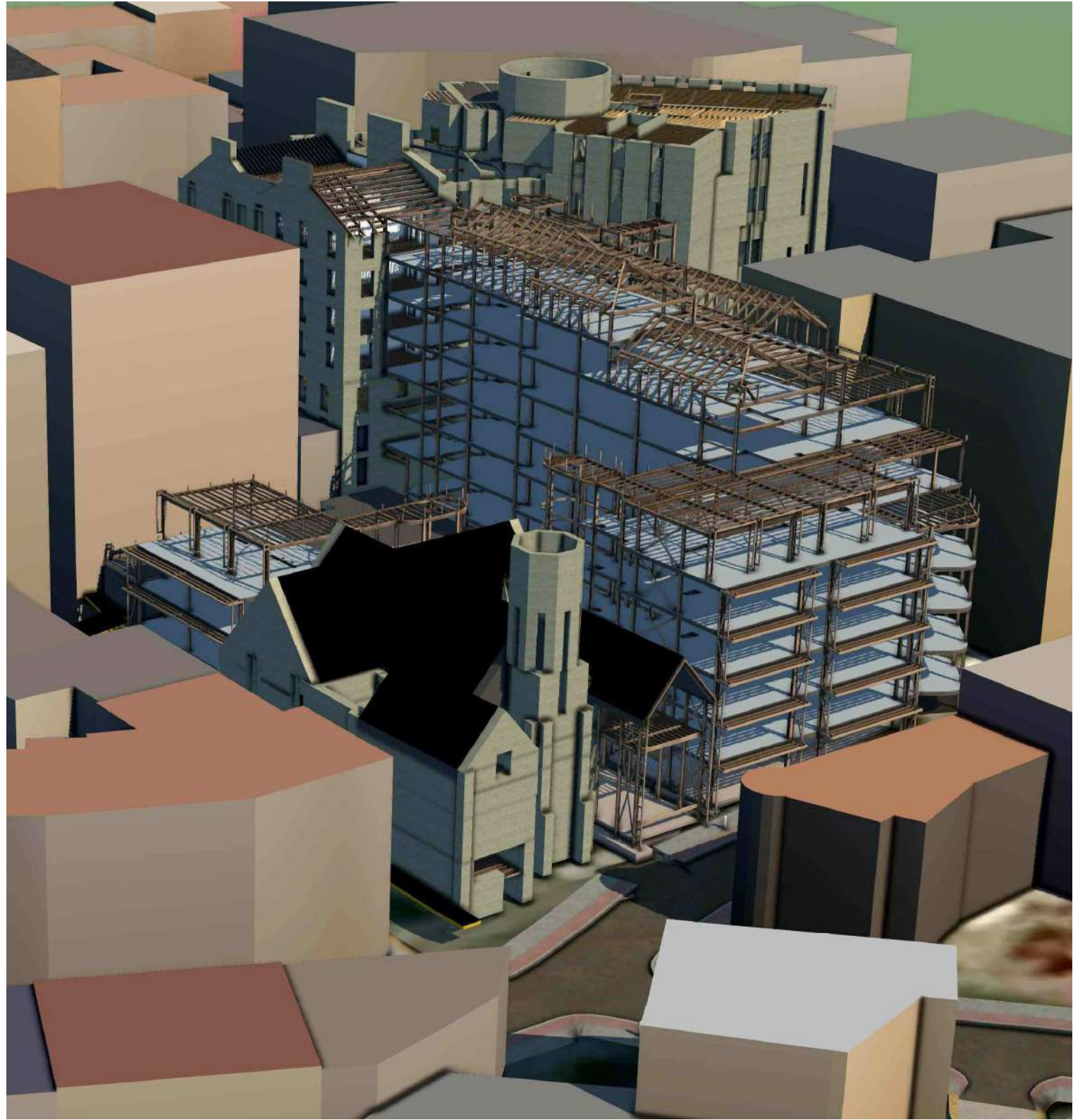
At Will Rudd Davidson we recognise that BIM (Building Information Modelling) is a process not a software solution with coordination, collaboration, effective communication, information management and quality assurance at its core with the process being underpinned by technology.

The practice has the capability of delivering collaborative civil and structural design and providing coordinated, federated project information models. The practice is experienced in operating various CDEs (Common Data Environments) from both Client and Contractor sides including Viewpoint for Projects, Conject (Aconex), ASite and SharePoint and recognise the value in document control and consistency.

Will Rudd Davidson has rigorous internal checking procedures in place for civil and structural design, models and drawings. We follow a checklist system based on self-check, peer check, senior check procedure which provides a robust workflow, responsibility, and accountability.

The practice recognises the need for training and refresher training for technical staff. All staff are trained in software and processes appropriate to their role and this is backed up by guidance and support from our Senior BIM Coordinator.

Will Rudd Davidson have the ability to embed classification data within modelled elements for contribution to an AIM (asset information model). The practice deploys BS1192:2007 and PAS 1192 part 2 workflows, document numbering, version control and processes as standard and have the experience and knowledge to adapt to Client standards when required.





## We CARE

We have a rich tradition at Will Rudd Davidson of Engineering Scotland's Built Heritage. We have vast experience across our Senior Engineering Team, of delivering Engineering solutions to problems associated with Old Buildings.

We bring a sympathetic, light touch approach to investigation, appraisal and Engineering judgement to remediation and conservation of listed buildings, ancient monuments and buildings at risk.

Using traditional methods and understanding historic materials, we can assist in breathing new life into, or ensure a secure future for old properties.

As a reflection of this commitment, we hold at Management level, accreditation with the Conservation Accreditation Register for Engineers (CARE) Scheme.

In support of the preservation of age old design and construction legacies, the Conservation Accreditation Register for Engineers (CARE) is a published list identifying civil and structural engineers, skilled in the conservation of historic structures and sites.

Becoming a Conservation Accredited Engineer, sets you apart as an expert in the field as there are few such individuals in practice, our services are much sought after, and we have a Portfolio of work that we are extremely proud of.





## Our Experience

We have a wealth of experience of delivering projects in various sectors across the UK.

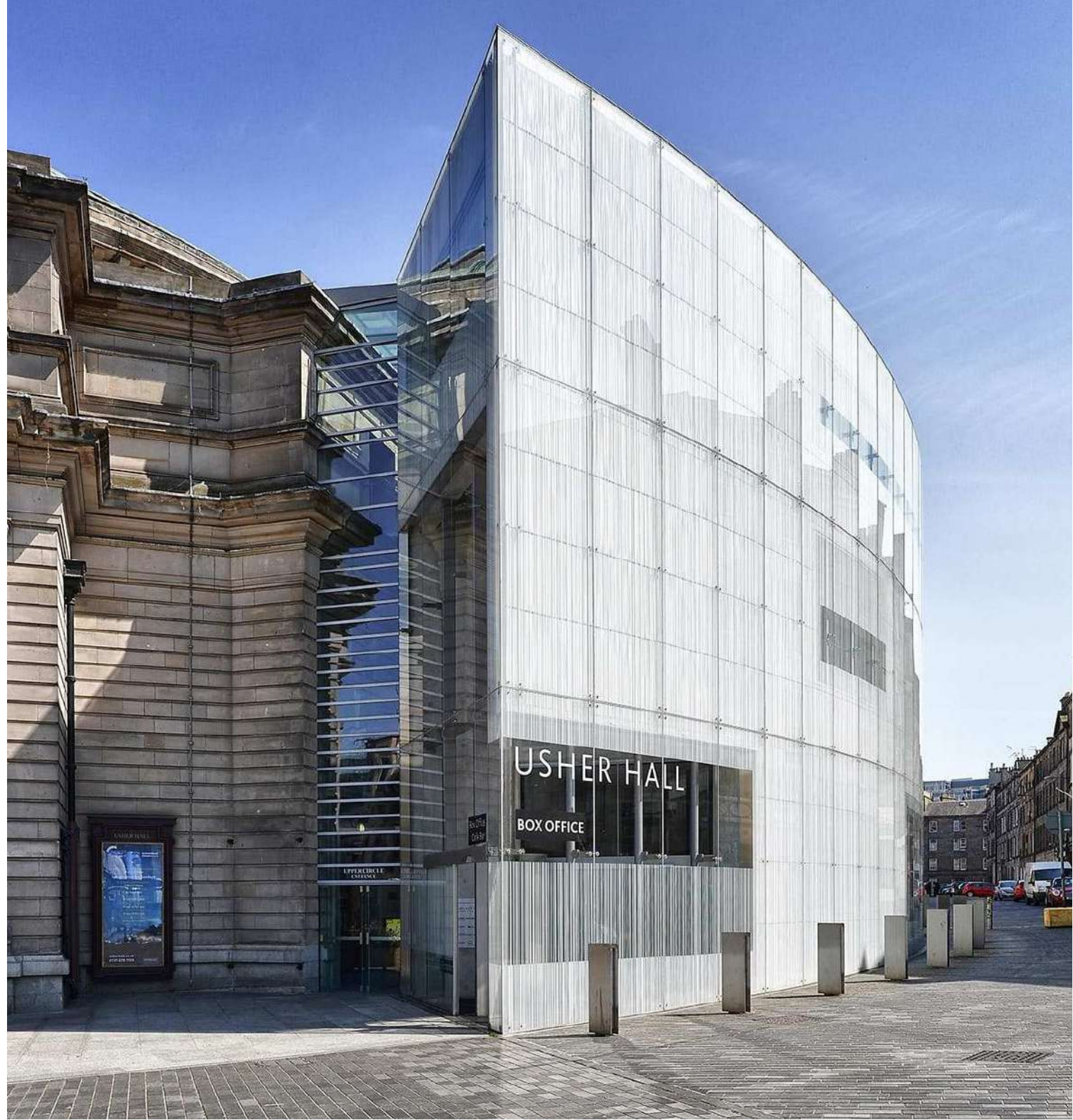
We will always look for more creative, ingenious and innovative ways to solve problems. We will continue to serve local and international markets; attracting large scale commissions whilst serving the needs of more modest proposals in exactly the same way.

We provide design, coordination and consultancy services for buildings and structures of all types ranging from the small to the very tall, and new to historic monuments. We have both breadth and depth of experience in all sectors.

We act as Lead Consultant, Project Engineer or Project Manager. The combination of our approach, highly skilled and experienced staff, together with leading edge technology, allows us to provide an agile and integrated range of services to the UK market place.

We believe that a holistic approach to design is a key factor in delivering a successful project. Our approach to design is to develop the engineering solutions hand in hand with the architectural aspirations.

We have selected a sample of projects which demonstrate our experience and capabilities in the delivery of a variety of developments in different sectors and locations where we have built an exceptional reputation for delivering complex and challenging projects.



# case studies



01

## Barnbogle Castle | South Queensferry

Barnbogle Castle is a category A-listed building, situated in the grounds of Dalmeny Estate in South Queensferry.

Following some storm damage in 2010, there was a requirement to repair the external terrace and this also led onto a full repair of the external stonework. Once this work was complete, it was decided to convert the castle into a prestige events venue and we were the Project Engineer involved in these works.

The main spaces of the building, such as the Scottish Library and vaulted Banqueting Hall, were all retained and new facilities for catering, and toilets were created within the building.

A new lift was installed which provided improved access to all floors. Fire detection and protection issues were addressed and a sprinkler system, carefully integrated within the existing fabric, has been installed.

Located on the shore of the Firth of Forth, we were able to solve the issue of SUDS drainage by designing an off-grid solution.



02



## Glasgow Golf Club | Glasgow

With a members club that was founded in 1787 and Grade B listed Clubhouse set in the heritage parkland course at Killermont, Glasgow, both the project and client group are steeped in significant heritage.

Following a devastating fire in September 2018, initial making safe works were carried out before the engagement of Thomas Johnstone Ltd in a two-stage tender to realise the reinstatement and extension of the Clubhouse.

An in-depth forensic structural condition survey was conducted and the technically challenging temporary works developed and progressed on site, prioritising remaining making safe works. During the design development process, prioritisation of key demolition and shell works are being progressed taking full advantage of the contractors involvement.

The proposed works include the reinstatement, internal alterations and extension to the existing clubhouse, which promises to compliment and house the members club for many more years to come.





01

## Easterton Farm Regeneration | Gleneagles

This development involved the regeneration of Easterton Farm as part of the wider Gleneagles site to provide Glamping pods and other new leisure facilities.

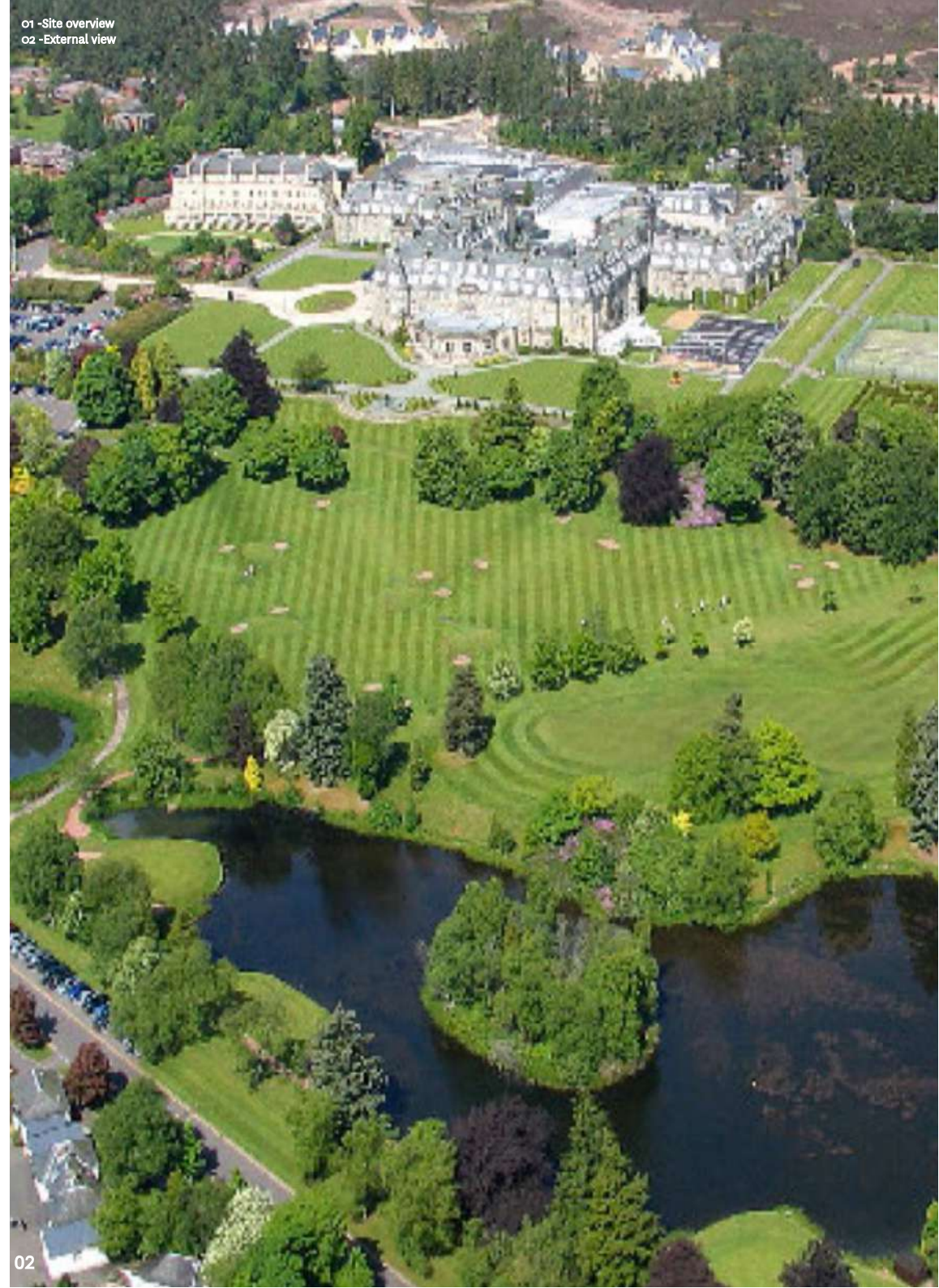
We were involved in the following:

- Water regulatory with discharge migration toward Allan Water
- Deforested areas and stump harvesting requirements
- Long span footbridges and road access bridges (to span over trunk gas main)
- Natural water cycle drainage management systems
- Ponds, swales, wetlands, rain gardens, circulation roads and multiple building locations
- Trunk road access slip ways and 'off site' road modifications
- Car and bus parking
- Foul water treatment plants

In this project we worked very closely with the ecologists, environmentalists, Client, and statutory bodies as the location of the buildings and infrastructure were highly constrained by the rainwater management and environmental needs. Creating new lakes, treated water discharges, and altered water courses required appropriate licencing and significant proactive engagement with SEPA.

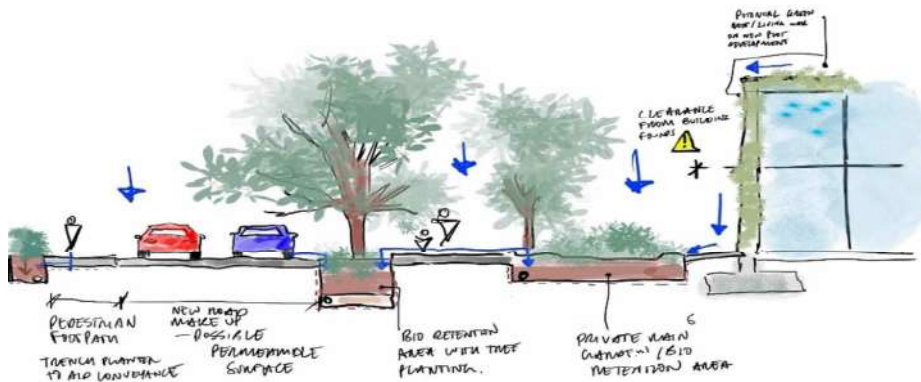
Drainage and sewage treatment had to be carefully designed so they could reach maximum distances without the need to incorporate unnecessary pumping cambers or other drainage catchment / treatment system.

The road access slip ways and off-site enhancements were carefully negotiated with the road authority to ensure the most effective access solution could be achieved.



02

01

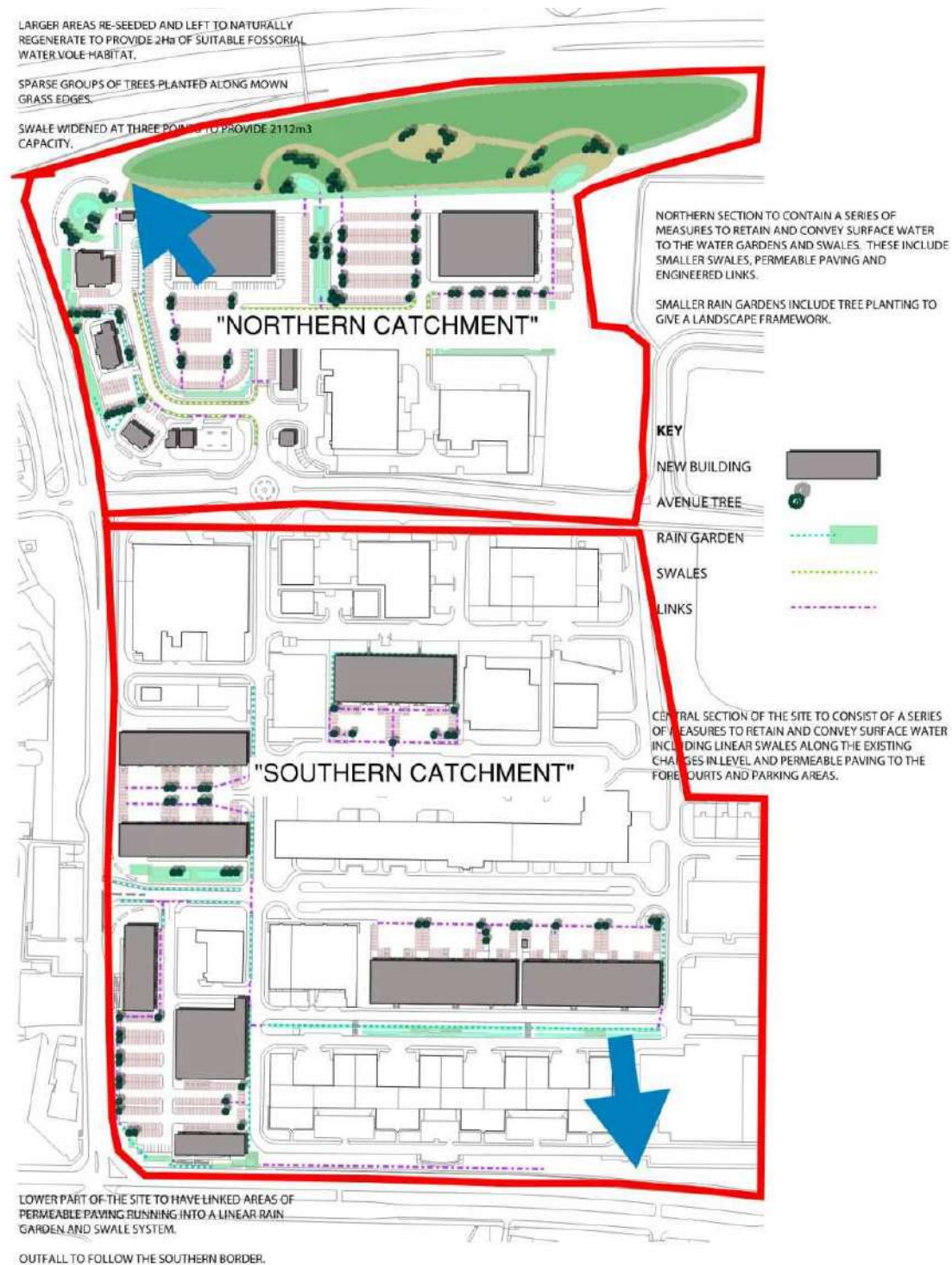


## Queenslie Blue-Green Masterplan | Glasgow

It is proposed to develop the current Queenslie Industrial Estate in the East End of Glasgow and implementing “Blue-Green” Infrastructure masterplan exercise for the site. Green Infrastructure has been defined as “the network of natural and semi natural features, green spaces, rivers and lakes that intersperse and connect villages, towns and cities. It is a natural, service providing infrastructure that is often more cost effective, more resilient and more capable of meeting social, environmental and economic objectives than “grey”.

Blue-Green Infrastructure aims to recreate a naturally orientated water cycle, while contributing to the amenity of the development, by bringing water management and green infrastructure together. It aims to cost effectively deliver sustainable urban drainage in such a way as to provide cost effective drainage which adds economic value through increased property values, as well as the aesthetic and non material benefits.

Within an urban environment, green infrastructure has traditionally consisted of domestic gardens, street trees, sports pitches, civic spaces, green roofs and walls. When considering urban green infrastructure, however, one must also take a wider view than just considering individual elements within the urban fabric. Green infrastructure should be viewed as a network of interlinked structures, serving their own function and supporting and enhancing the function of other elements. This synergy of infrastructure functioning can occur with regards to single functions (such as improving interconnectivity of ecology).



02



## Drumshoreland Garden Village | Livingston

The site covers approximately 108 hectares and currently comprises agricultural land, Ancient Woodland and other mature woodland areas.

The vision for the new settlement is as a unique residential-led mixed-use development based on the principles of a Garden Community, with the overall anticipated quantum of development in the order of 1800 units.

Drumshoreland Garden Community will look to create a development which enhances the natural environment and provides a comprehensive SuDS infrastructure network to enhance amenity and biodiversity.

Will Rudd Davidson have provided Civil and Geotechnical Engineering input into the planning proposals for the development in addition to hydraulic modelling and flood risk assessments as part of a holistic site overview which embraces the principles of blue-green infrastructure.





## Ardbeg Distillery | Islay

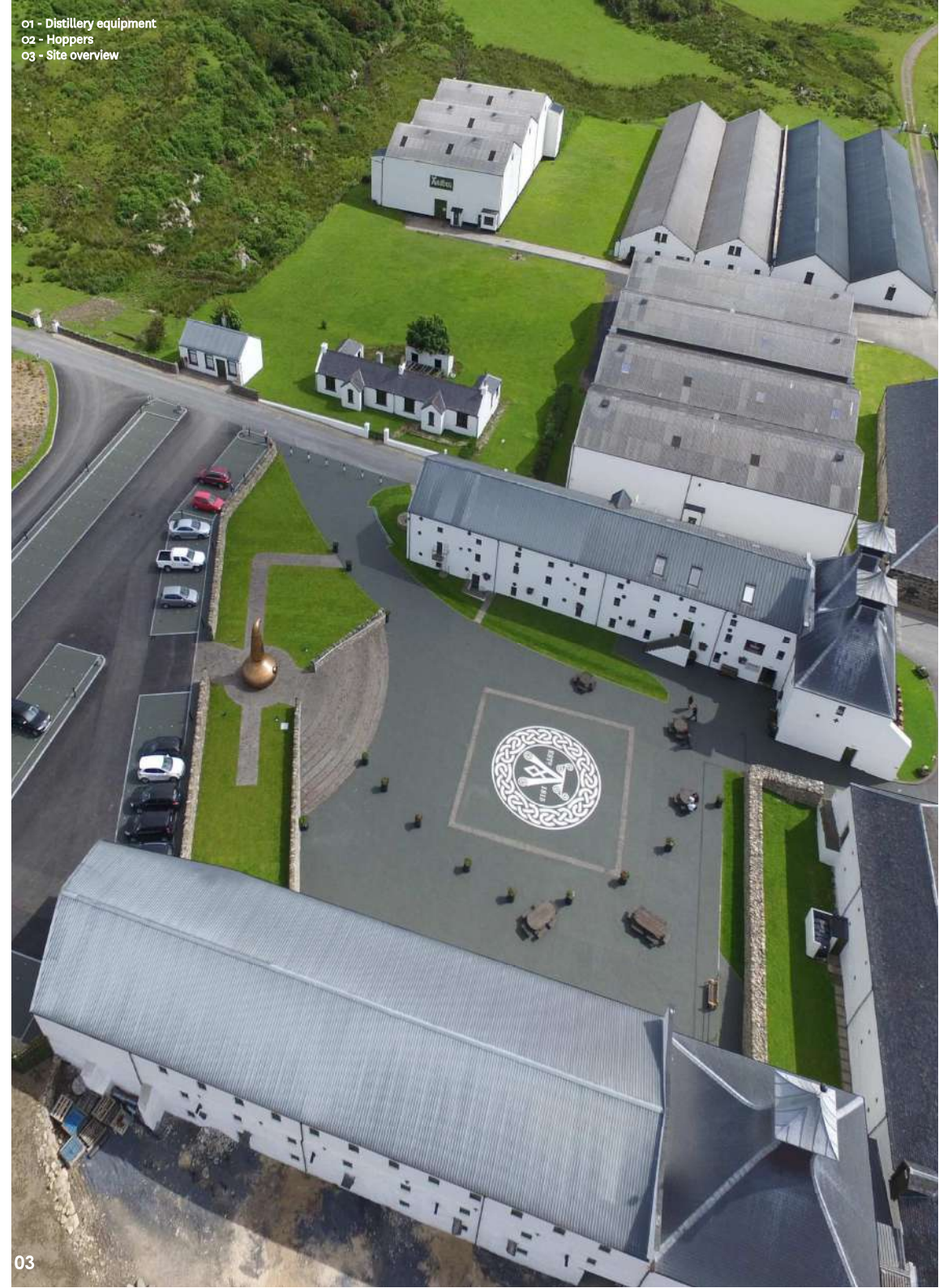
This project comprised the first phase of distillery upgrades, as part of an overhaul of the operations and visitors experience.

The project involved a new entrance road, visitors car park, entrance Piazza with improved landscaping works.

To facilitate this, processing upgrades and alterations were carried out, including the addition of a new delivery access road, new malt intake and spent grain silos,.

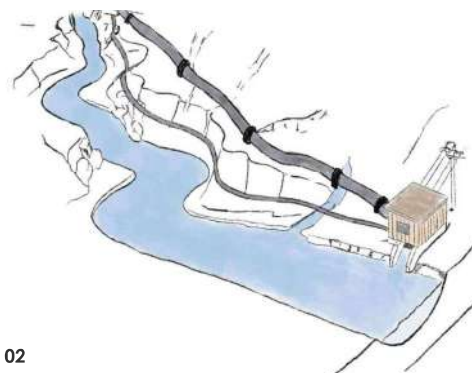
The project involved a significant increase of the hard landscaping on the site which involved careful coordination and integration with the current building and associated drainage and SUDs infrastructure.

The project has acted to enhance the visitor experience whilst also improving the efficiency of the distillery operations.





01



02

## Hydroelectric Scheme | Mull

Will Rudd were appointed to conduct a feasibility study into potential site locations for the construction of a mini-hydroelectric generation scheme on the Isle of Mull.

The client aimed to construct a rock crushing facility in order to deliver a “Enhanced Weathering” program as part of a wider collection of schemes including reforestation and biochar production, with the ultimate aim of maximising the amount of carbon being taken out the atmosphere in both the local forest and other forest sites owned and maintained by the client.

The proposed Hydroelectric scheme would serve the rock crushing facility as a means of renewable energy.

As part of the feasibility study, Will Rudd carried out a two day field investigation and identified several locations on the Isle of Mull which could serve as a feasible site for the proposed projects.

The feasibility study looked at several parameters including suitable watercourses (based on potential energy capacity) and local ground conditions and local infrastructure.





01

## Topgolf | Cambuslang

TopGolf is an American leisure and entertainment company and this project involves the design of their first Scottish development on the outskirts of Glasgow. The building is a three storey golf driving range and contains function spaces, food and beverage areas and associated infrastructure.

The structural elements consist of a structural steel frame with includes long span steelwork along with large cantilevered steelwork. The exterior of the building is clad in a wide palette of materials ranging from random rubble to large areas of curtain walling. Visitors to the complex are greeted at the main entrance by a large cantilevered canopy structure.

A large earthworks and civil engineering element is also required for this project. This included liaising with key statutory authorities with regards to flood protection, SUDS and the diversion of local infrastructure.



02



## Advocate's Close | Edinburgh

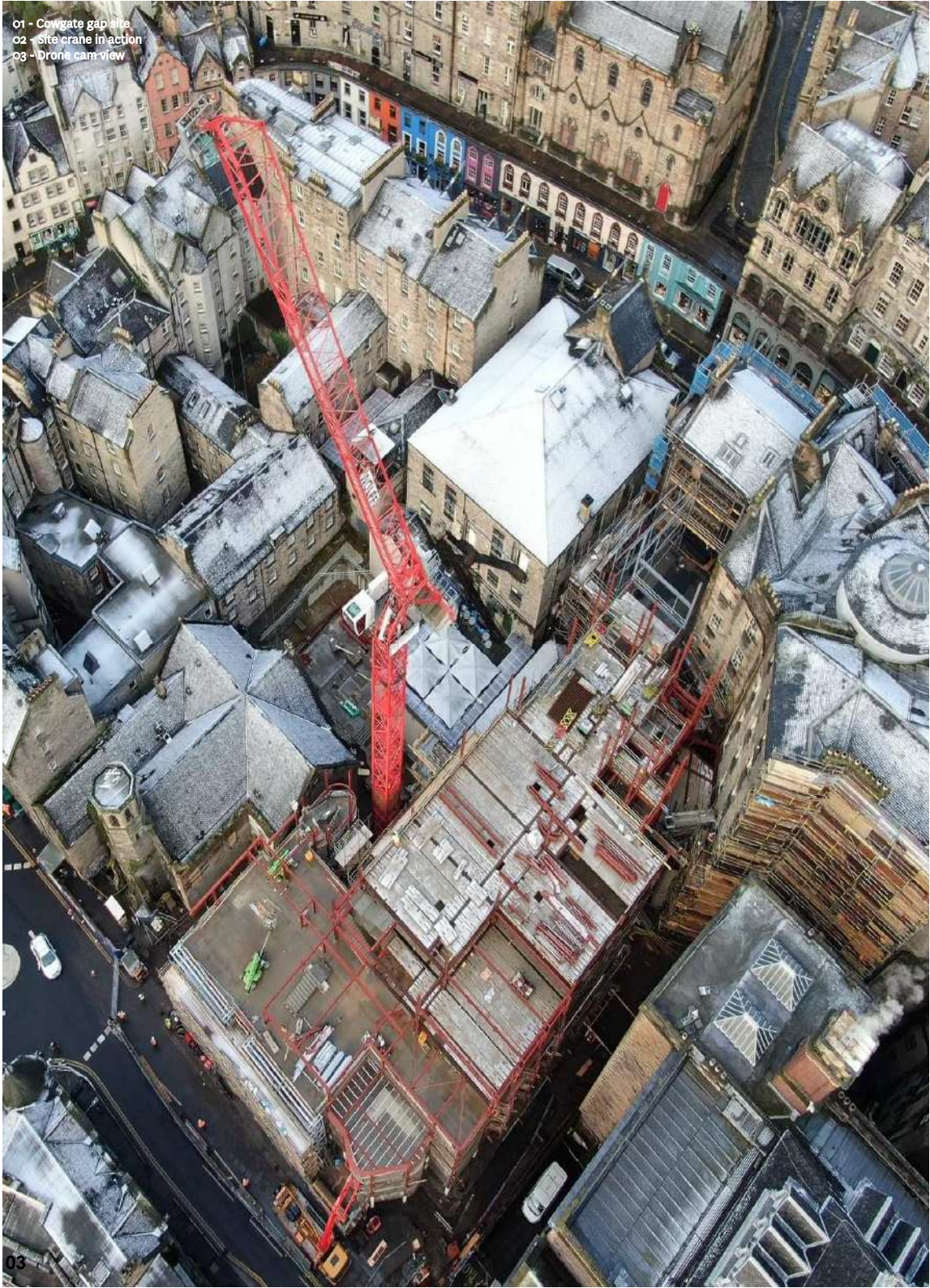
The development is situated within the heart of Edinburgh's Historic Old Town. The site lies within a UNESCO designated World Heritage Site and includes the oldest townhouse in Edinburgh. The development covers a total of 140,000 sq ft, and is spread over a number of different buildings and levels with very restricted access which impacted every design decision. The design brief was to develop a forgotten part of Edinburgh into a new cultural centre incorporating Roxburgh Close, Roxburgh Court, Warriston Close and Advocate's Close.

The location of the development dictated the design approach and philosophy. There has been a strong emphasis on conservation, refurbishment and regeneration. It was very important that the structural solution worked to allow the existing historic buildings to merge with the new structure seamlessly, whilst also being a very economical design.

The overall project contained eleven individual but interconnected buildings ranging from an 'A' listed building constructed early 16th Century, three 'B' listed buildings constructed early 19th Century, a 1960's building and new build office. The works included conservation and restoration engineering, significant structural alterations, comprehensive structural surveying, large asbestos removal contract, façade retention, new build offices vertical extensions, under-pinning, complex below ground drainage and structural remedial works.

01 - Courtyard redevelopment  
02 - vertical extension  
03 - View from Queen Street





## India Buildings, Virgin Hotel | Edinburgh

This project involves the development of the first Virgin Hotels outwith the United States. Located within the UNESCO heritage area of Edinburgh City Centre, the development consists of a mixture of refurbishment to several listed buildings along with a new multi storey hotel within a gap site.

The refurbishment elements of the project include alteration and refurbishment to the Grade A listed India Buildings, Grade B listed Cowgate Church and Grade C listed 11-15 Victoria Street. A series of structural alterations and strengthening has been developed to ensure that they are fit for their new use as a high end luxury hotel.

The new build elements consist of a 9 storey hotel along with a 4 storey pavilion. The hotel building also includes a 2 storey basement within proximity to several existing buildings. Due to the constraints of the architectural design along with the challenging site, consideration to the buildability was made from the outset. This led to a steel framed solution for the superstructure with a contiguous piled wall solution for the substructure.

Will Rudd Davidson provided core civil and structural engineering services on this project in addition to bringing our specialist design capabilities to the fore through the design of the SFS, LSF, curtain walling, RC design and detailing, temporary works and also completing a Resident Engineers role during the construction phase.

This approach allowed the warrant process to be streamlined with the traditional CDP packages designed and coordinated early in the process which also provided better cost certainty to the client.



## 38 St Andrews Square - Gleneagles Hotel | Edinburgh

The building is comprised of no. 37 and no. 38-39, which are both Category A Listed buildings of significant historic and architectural character.

The primary elevations face west onto the square with the north facing elevation of 37 St Andrew Square adjacent to Dundas House.

The proposed works consist of the alteration and extension to the existing premises at 37-39 St Andrew Square, to accommodate a mixed use development comprising Gleneagles Hotel with ancillary restaurant, bar, retail and leisure uses.

The alterations and extension to these significant buildings have required careful and considered thought in the design, detailing and execution of the proposed structural solution.

These include discrete major structural interventions internally, addition of a glazed rooftop extension as well as new build steel frame extension and pavilion building.

01 - Existing frontage to Square  
02 - Rear Extension  
03 - Roof terrace





## Kimpton Charlotte Square | Edinburgh

Will Rudd Davidson provided Structural Engineering Services on this major Hotel Refurbishment.

The project comprised of a complex phased development, within a long established operational hotel, incorporating major overhaul and upgrades to the Georgian New Town Era bedroom block, Bar & Restaurants, a contemporary glazed winter garden roof over the existing external courtyard, and refurbishment of the existing Spa, with the aim of repositioning the business into the city's premier leisure facility.

We carried out an extensive forensic investigation of the condition and adequacy of the existing historic timber floors, and uncovered some localised significant issues requiring structural remediation, and gave the Client peace of mind on the general condition of the structural fabric of the building, going forward.

The refurbishment of the Georgian Block included sensitive interventions to alter and enhance existing structure, whilst conserving elements of original listed building fabric. There was a fine balance between intervention and justification of existing structure, with the aim of providing a light touch, visually, and ensuring structural interventions were necessary, measured and cost effective.

We worked closely with the Architect and a number of specialist interior designers, in support of their delivery of exemplary places and spaces.





## The Edinburgh Grand, Cheval Hotel | Edinburgh

Multiple Grade A and B listed building redevelopment in a UNESCO area, including site wide basement formation, major structural reconfigurations, façade retentions, structural weaving, vertical extensions, façade conservation and 9 storey new build office structure.

In the first instance a full structural survey was carried out of the building to determine what approach we could take.

Conversion from Banking Hall and offices to serviced apartments, commercial units, gymnasium, and private members club.

Single storey extension to create additional rooms and penthouse suite. External terrace provides views over St. Andrew Square and wider cityscape.

West Register Street reconfigured to rejuvenate streetscape with new restaurants and commercial units.





01 - New entrance  
02 - Cafe space  
03 - Feature stair

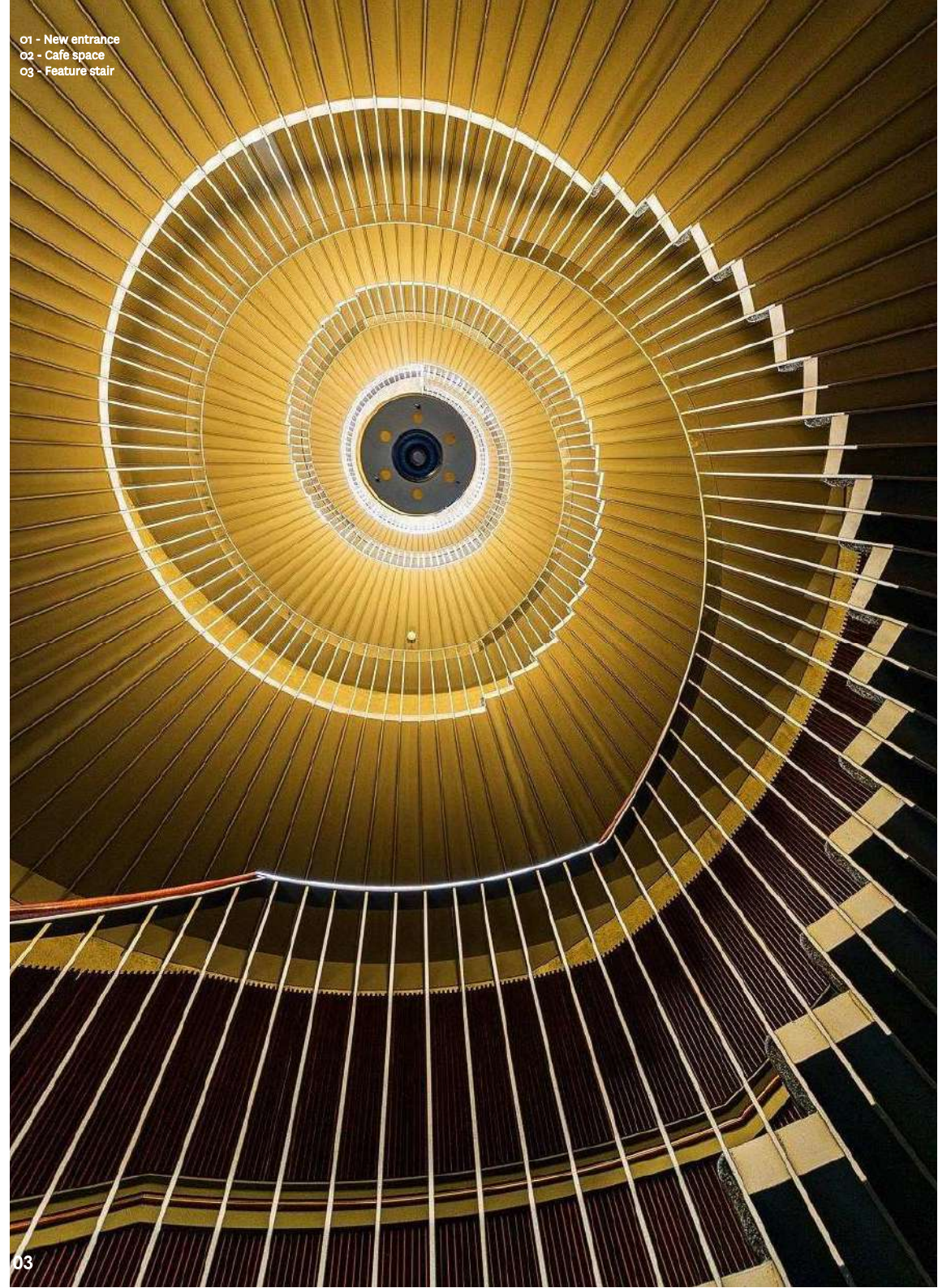
## Usher Hall - Phase II | Edinburgh

The Usher Hall is a significant Grade A listed concert hall in Edinburgh. Will Rudd Davidson were commissioned to work with LDN Architects to prepare proposals for a new extension which would resolve the many practical shortcomings of the building.

The new extension provides level access to all entrances of the existing building as well as accommodating additional office spaces and public event spaces. This area is light and airy and allows for views of the existing building's façade through inventive structural solutions to minimise columns. The basement of the extension, under the podium of the existing structure, provides the new toilet facilities for the building.

Within the existing beaux arts building extensive remodelling was carried out to the back of house areas to enhance the performer's facilities to ensure the Usher Hall maintained its ability to draw internationally acclaimed performers.

In addition, in the front of house area a new circular stair was created within the footprint of an existing stair to provide access to all levels of the building, thus encouraging flow between floors which was traditionally restricted by social class.





## George Street Complex, Marriott Hotel | Glasgow

Previously home to a number of City Council departments, the George Street Complex is made up of a collection of disparate and contrasting buildings – the category B listed corner building at 280 George Street, the A listed Parish Halls at 266 George Street, the 1940s John Street building and assorted small storage buildings on Martha Street.

The buildings each enjoy their own distinct characteristics – a grand staircase, stained glass windows, decorative plaster ceilings and glazed brick.

Proposals include a mix of complementary uses that will enable retention and refurbishment of much of the listed buildings, which add richness and give character to the site, with new build 12 and 21 storey elements that will reinstate the urban block.

These buildings seek to utilise high-quality precast cladding designed in-house as well as intricate substructure designs to maximise this inner-city site's potential. The Client is also looking to create a publicly accessible pedestrian lane that permeates through the centre of the site.

01 - West George St corner  
02 - View to George Square  
03 - John Street view





## 1 West Register Street | Edinburgh

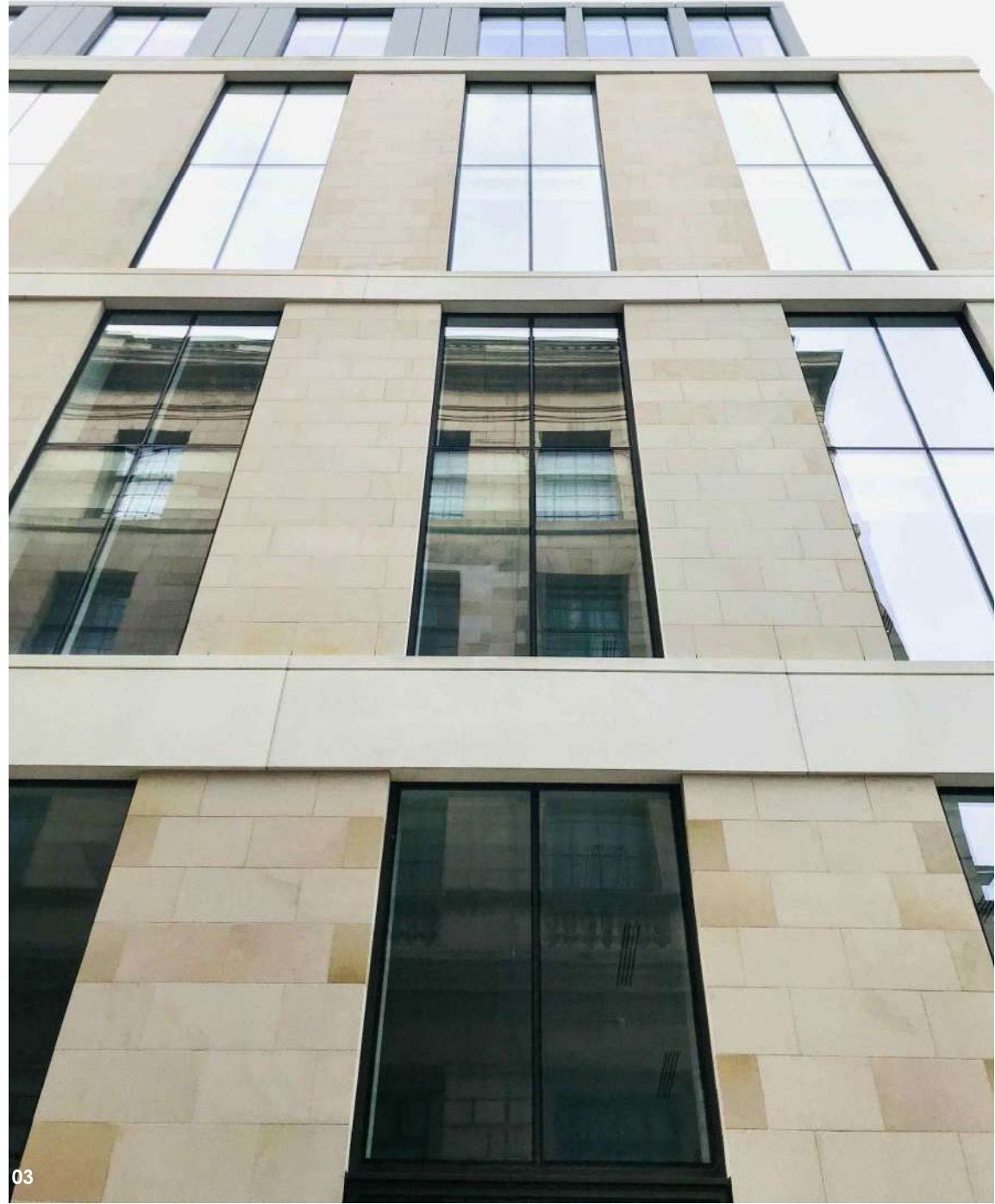
Located in a prominent urban site in the heart of Edinburgh's New Town World Heritage Site and Conservation Area, the project includes a comprehensive redevelopment of the underutilised area in order to bring new life to the existing, redundant buildings and surrounding lanes.

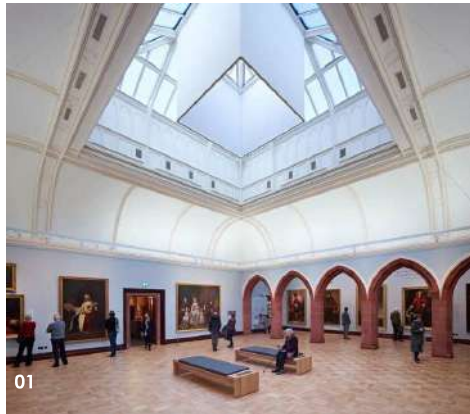
The project involves the redevelopment the existing building previously located on West Register Street and has a significant presence on the south east corner of St Andrew Square.

The mixed use development carefully knits together the requirements for Category A listed office space and a high quality restaurant, café, bar, and retail units. The scheme is integrated into a complex, historic setting, while revealing the fine details of the listed Venetian Gothic warehouse that sits within the site.

A complex construction sequence was utilised which involved the retention of the existing façade and construction of the new steel frame on the site footprint in tandem with one another.

New build elements respond to the scale, proportion and character of adjacent buildings, streets and lanes, with natural stone cladding carefully interspersed with precast concrete bands and unique steel bracketry tying the cladding back to the primary structure.





01 - Gallery space  
02 - Cafe space  
03 - Main entrance

## National Portrait Gallery | Edinburgh

The project related to the refurbishment, upgrading and alteration of the Scottish National Portrait Gallery in Queen Street, Edinburgh. The Grade A listed neo-gothic red sandstone building, which was designed by Sir Robert Rowand Anderson and was constructed in the late 19th Century, prior to the refurbishment and restoration works housed a storage area for the National Museum of Scotland and the Scottish National Portrait Gallery.

The building has been brought to life by opening up the front entrance areas, giving a much more welcoming feel on arrival. It included the installation of new mezzanine areas in exposed steelwork that contrasts with the original brick and stone finishes within the gallery areas.

It also included a bespoke glazed 30 person lift, which rises smoothly on a single hydraulic ram to allow visiting parties to enjoy the building without the need to climb the many flights of stairs within it.

The roof over the west side of the building was removed in its entirety and replaced with a new steel trussed structure. The idea was to reinstate the original roof which had been previously replaced after suffering fire damage. This required the implementation of a substantial temporary support and restraint system to allow the building to be safely altered.



03



01 - Main auditorium  
02 - Feature Stair  
03 - Main Entrance

## Kings Theatre | Edinburgh

The first phase of the major refurbishment was completed in 2012. The theatre, constructed in 1906, is a category A listed landmark in Edinburgh and required a sympathetic approach to maintain the feel of the building whilst bringing it up to date in terms of visitor experience.

We have known the building for many years and were involved in both feasibility studies carried out. This phase of the works included extensive external stone, roof and window repairs to maintain the fabric of the building.

Internally the visitor experience was enhanced by the creation of a new box office which welcomes the customer into a bright and contemporary space.

The remodelling of the box office along with the provision of lifts within the building upgraded the access provided for disabled visitors.

Internally to the auditorium new seating was provided as well as enhanced handrails and guardrails to comply with health and safety legislation, whilst maintaining the aesthetic of the 1906 auditorium design.





## Edinburgh Printmakers | Edinburgh

Will Rudd Davidson were commissioned by Edinburgh Printmakers Ltd to convert a disused rubber factory at the corner of a former industrial site in the centre of Edinburgh into the new headquarters for Edinburgh Printmakers, one of the city's foremost champions of the creative industries.

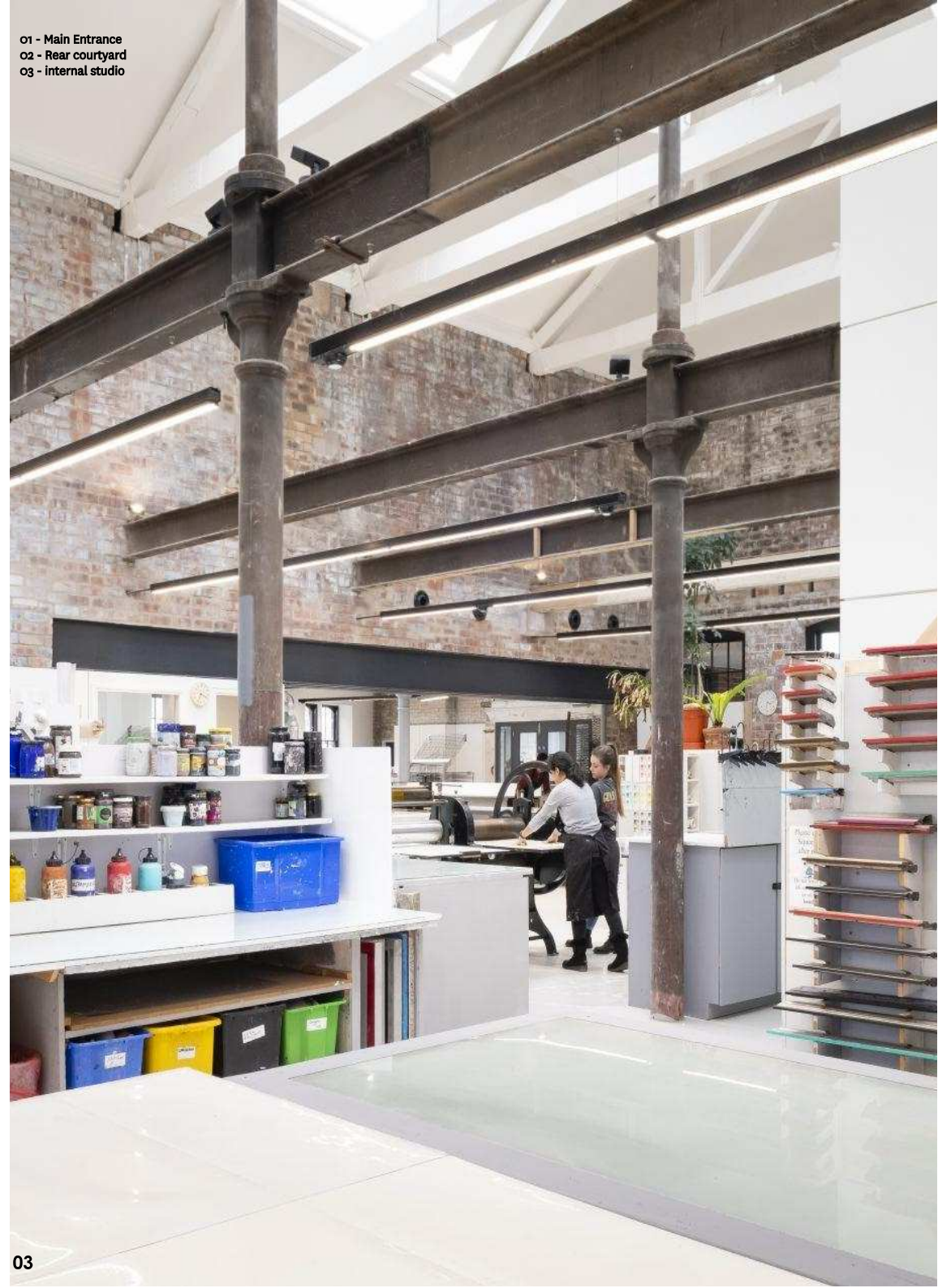
The project involved the repair, alteration and extension of the 4 storey Category C listed Victorian industrial building in order to convert it into a multi-purpose building comprising a studio, gallery, café and offices.

The structural engineering for the project involved extensive repairs to the existing building. There was significant areas of weakened timber and masonry structure which was clearly the fabric of the original building. Using a conservation approach, Will Rudd Davidson were keen to keep as much of the existing fabric as possible and as such the repairs were limited and used suitably sympathetic materials.

One of the key features was the introduction of a new mezzanine gallery and 2 storey steel framed extension to accommodate new a café/bar and artists' kitchen facilities. We also overhauled and extended the underground drainage for the building and provided a new paved courtyard.

The design required a sensitivity to the historic value of the building and its setting within a regeneration masterplan, and the challenges of dealing with contaminated and geotechnically variable ground.

01 - Main Entrance  
02 - Rear courtyard  
03 - internal studio





01 - Thomas Annan 1870  
02 - Union St facade  
03 - Intricate stonework

## Egyptian Halls | Glasgow

Designed by Alexander Thomson in 1871, the Egyptian Halls is now a grade 'A' listed building of significant historical architectural importance which extends beyond Glasgow to include recognition worldwide. The Egyptian Halls is well documented in various literature and is noted as being Alexander 'Greek' Thomson's finest and most elaborately decorated commercial building.

The primary structure is formed by a cast and wrought iron frame consisting primary wrought iron beams which span east to west and are bolted to splice plates that project through painted cast iron columns forming a typical grid system. Primary beams are also supported by the front and rear stone walls. The façade facing Union Street is undoubtedly the showpiece and most significant feature of the building.

Although of sandstone construction, it cannot be considered a monolithic stone wall in the traditional sense, rather it is a series of connected structural stone elements. WRD have been commissioned to oversee a study into potential redevelopment options, ranging from full conservation to facade retention schemes with vertical extensions.

A comprehensive structural investigation has been undertaken with WRD coordinating specialist structural testing, a building pathologist, petrographic testing experts and commissioning a full 3D point cloud survey to review displacement in the frame.



**get in touch...**



## Our Details

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