

**Engineering
Excellence**

PJCE

A PASSION FOR THE POSSIBLE



**Large
Residential
Experience**



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Who we are

PJCE is a structural and civil engineering consultancy practice with a proven track record of delivering complex projects through innovative design.

Based in South West London and established in 2004, PJCE is a creative, dynamic and responsive team, providing a personal and hands-on approach. We have the expertise and team structure to resource even the most challenging of projects.

We are proud of our agility and are committed to helping our clients achieve their objectives every time. As creative engineers we are passionate about building design and embrace new technologies, adapting them to develop optimum solutions.

PJCE works on projects throughout London and the rest of the UK and across a diverse range of market sectors, from private individuals to large developers.



SEAN PRINGUER-JAMES

Sean has over 25 years experience as a London-based structural engineer, working on a diverse range of projects with the UK's leading architects and clients.

Sean's experience ranges from new commercial developments, residential blocks and prefabricated/modular structures. He has successfully delivered projects using an expansive array of structural materials and is always keen to innovate and use new technologies and ideas.



JAMES BISHOP

James has 22 years of experience in the construction industry. He has been involved with many prestigious projects, working with high-profile architects and clients in the UK and overseas.

James has managed large multi-disciplinary design teams and very much enjoys collaborating with other design practices. Having spent several years working in-house at an architecture firm, James has a good appreciation of holistic building design and understands the value of providing clear engineering input from the very start of a project.



TOM MARSHALL

Tom has around 20 years professional experience working on a vast array of projects across a wide range of sectors. Key projects have involved large high rise residential developments, complex basement projects and refurbishments of buildings of all ages, including the intricacies of dealing with listed buildings.

He was initially drawn to structural engineering by the practical problem-solving nature of the discipline, which comes naturally to him. He loves to get under the skin of every brief using a strong methodical approach to understand the overall project goals and constraints at the beginning of a project, allowing him to focus on the principles that matter most to clients and architects.

The team

PJCE is a team of highly skilled individuals with a love of engineering. We have a shared curiosity which shapes our innovative thinking, through a collaborative and open approach. Young talent is nurtured and individuals are given appropriate responsibilities, generating a genuine sense of pride in their work. Skills and knowledge are kept up-to-date through regular training and CPD study.



The wider team



STRUCTURAL ENGINEERS

Our engineers work across our project portfolio, gaining experience of buildings of all types and sizes. Our inclusive and open approach stimulates ideas, confidence and best practice. The Directors are hands-on and oversee every project, passing on invaluable experience to the engineering team.



TECHNICIANS

Our technicians are fundamental to every project, using the latest building information modelling techniques to bring designs to life. We routinely use BIM visualisations to ensure the most efficient and sustainable solutions are reached.



CIVIL ENGINEERS

The civils team is critical to every project, assessing drainage requirements, flood risk and working with architects and developers to implement sustainable and efficient drainage schemes.

All of this is backed up by our support team, ensuring the business runs seamlessly. They are the first point of contact for clients, collaborators, and prospects.



What we do

From its inception, PJCE has operated at the very highest standards of quality, integrity and value. We build strong and lasting relationships with our clients by ensuring an intimate understanding of their goals, working in partnership with project teams to exceed expectations, from concept to final delivery.

SERVICES

We support our clients throughout the project lifecycle, including feasibility studies; planning documents; concept design; design development; full construction documents; site inspections and building investigations. We have an inclusive and open approach, enabling us to share knowledge, ideas and best practice.

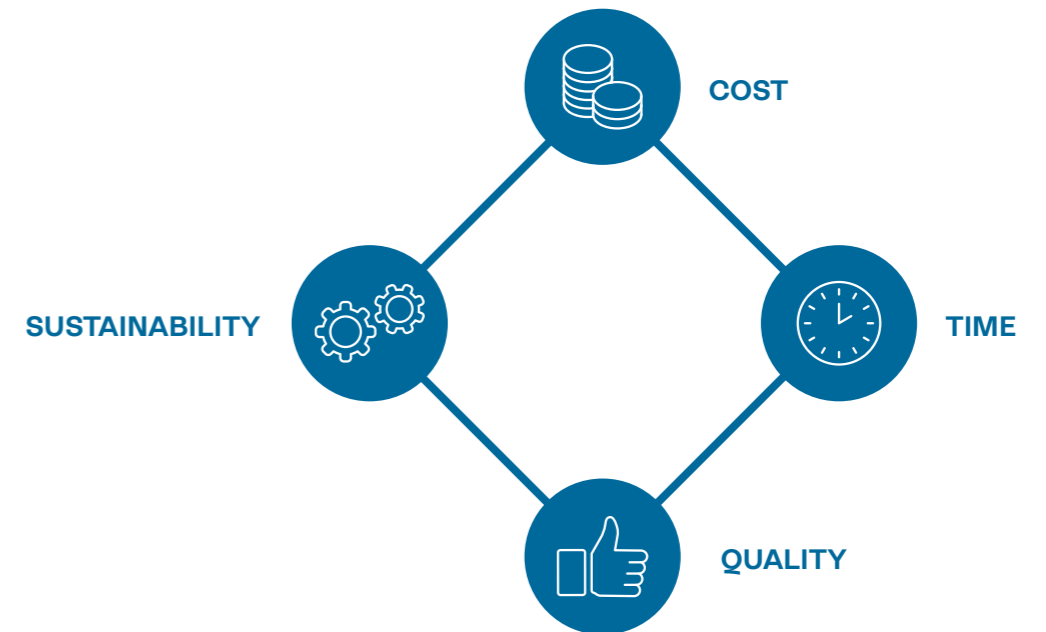
OUR CORE SERVICES:

- Civil and Structural Engineering
- Below-ground Drainage
- Sustainable Drainage Systems (SuDS)
- Building Information Modelling (BIM)
- Basement Impact Assessments

SUSTAINABILITY

Creating projects which have positive outcomes for society and the environment is a critical principle in the built environment and PJCE incorporates this ideal into every design we create. We routinely use digital modelling to ensure we find the best solutions to complex problems, identify errors, simplify the construction process and thus reduce wastage and costs.

The cost, time and quality triangle is now square, with sustainability a key factor in the decision-making process for project strategy. We embrace this additional dimension to our design and constantly ask ourselves if we have the most sustainable solution to a given problem.



Our expertise

We ensure the right solution for every project using a palette of different construction systems. These include traditional masonry walls, reinforced concrete frames, steelwork with composite slabs, timber systems (such as timber-joint floors or CLT panels), pre-cast concrete and modular systems.

Our experience means that we appreciate the importance of creating inspiring buildings, containing light, column-free spaces. We also understand that these projects need to be realised as economically as possible.

PJCE has experience in dealing with complexities such as sewer diversions, build-over agreements, basement construction on site boundaries and phased sequencing. We work with the project team to develop realistic design programmes and then ensure we meet agreed milestones.

All projects have constraints unique to the site, requiring creativity in order to achieve the desired objectives. We collaborate closely with the client and design team and use the latest technology to analyse, design, visualise and present our proposals. The solutions we develop take into consideration the comfort of the future occupants, with attention given to both the acoustic and dynamic performance of the structure.

EDUCATION AND COMMUNITY

PJCE is proud to work with some of the UK's finest schools and colleges, refurbishing, renovating and building new facilities. We help create imaginative spaces in basements, roof voids and brand new buildings; for teaching, administration and recreation.

The history and diversity of many of these estates can result in projects that are very complex and we have resolved many challenging requirements to create fabulous new spaces, where pupils and students can learn, live and thrive.

COMMERCIAL

Our experience in commercial building projects includes the design of office, retail, hotel and leisure developments.

The structural design of commercial buildings can be a complex process with due consideration required to create safe, functional and efficient spaces.

RESIDENTIAL

PJCE has many years of experience in the design of structures for residential developments. Our project portfolio ranges from the refurbishment of Victorian residences to the construction of new high-rise apartment buildings.

We ensure the right solution for every project using a palette of different construction systems. These include load-bearing masonry, reinforced concrete frames, steelwork with composite slabs, timber systems (such as timber-joint floors or CLT panels), pre-cast concrete and modular systems.

Our experience in residential design means that we understand the need to utilise the opportunities for repetition in cellular buildings. We also appreciate the need to accommodate car parking grids beneath the superstructures and to create column-free spaces in high-spec penthouses.

BASEMENTS

Our involvement with basement design often begins with the production of a Basement Impact Assessment (BIA) document which, as a planning requirement, sets out the impact of subterranean developments on drainage, sewage, surface water and ground water flows and levels. We produce specification for Site Investigations and work closely with Geotechnical consultants to develop the most appropriate solutions for retaining structures and foundations. Many developments require statutory approvals from Infrastructure Authorities. We have extensive experience in the production of technical submission documents and assisting with the approval process.

CIVILS AND SUDS

Our Civil Engineering team design below ground drainage schemes that are incorporated with the substructure of a building. We also specialise in Sustainable Drainage Systems (SuDS); we develop solutions that mitigate the risks associated with rainwater run-off and flooding. We regularly produce Flood Risk Assessment and Drainage Strategy documents for the planning process and at the end of a project we can produce a validation report to confirm that the drainage strategy has been implemented.

TALL STRUCTURES

We have been involved with several multi-storey building projects with heights ranging up to thirty storeys tall. The design of such buildings requires an early focus on the lateral stability system as this has a direct impact on the lettable space for a development. We use computer analysis to explore structural core arrangements and work closely with the Architect and MEP engineer to coordinate with the lifts and riser requirements. To further optimise core designs, we can assist with the commissions of wind tunnel tests to obtain site-specific wind pressures to use in our design.

REGENERATION

We have extensive experience in regeneration of existing properties. Over the years we have worked on many building modernisation projects involving structural alteration and additions. Some of these projects have involved buildings with heritage statues and the associated conservation requirements. Building extensions have included creating additional storeys and inserting basement levels beneath existing buildings. These projects require careful site investigation works and evaluation of record drawings. Working with existing buildings requires careful consideration of buildability and utilising methods to limit building movements.

MODULAR CONSTRUCTION

Our modular design experience ranges from volumetric systems such as pod buildings, to panelised systems such as precast concrete developments. The pod buildings consist of fully fitted out modules that are constructed off-site and the quickly stacked together on site. Some of our taller modular developments have incorporated in-situ core structures for lateral stability, others have utilised the inherent stability of the prefabricated modules to avoid the need for any additional elements of superstructure to be formed on site.

Triptych, Bankside



This substantial mixed-use development provides 163 residential units, office, retail and cultural facility space over three blocks with a double basement and landscaped podium. The two taller towers are residential, with in-situ flat slab construction using blade columns concealed within partitions. A transfer deck at ground floor allows a change in grid which maximises car parking spaces within the basement.

The use of top-down construction for the long span steel office building has been adopted reducing both the build programme and minimising the requirement for lateral temporary works. The curved façade comprises 900mm wide faceted triple-glazed units and required a high level of coordination with the structural design.

In-ground drainage, SuDS and civil design, including Section 278 coordinated and designed by PJCE.

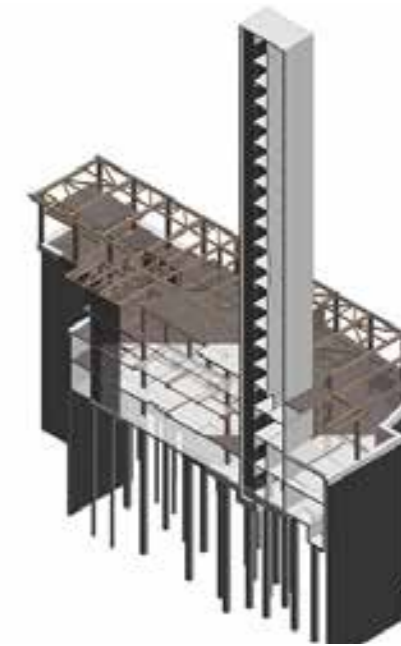
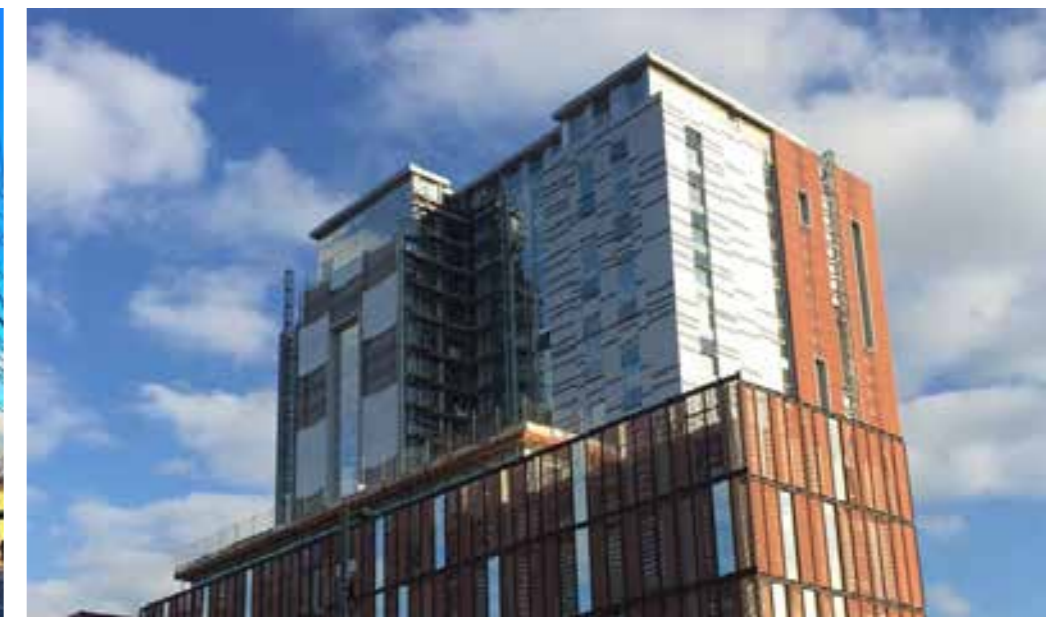
Client
JTRE

Location
Bankside, London

Architect
Squire & Partners/TW-2

Date of completion
2023

The Stay Club, Colindale



Nineteen-storey modular building with basement accommodating nearly 600 ensuite bedrooms.

The superstructure comprises prefabricated modular units, stacked on top of one another and supported at the base by a long-span steel podium structure over the reinforced concrete substructure.

Client
Hallmark Property Group

Location
Barnet, London

Due to its height, the building is stabilised laterally by a slip-formed concrete core which is connected to the modular elements via an on-site concrete diaphragm at every five floors.

Located adjacent to tube lines, technical submissions with Network Rail were necessary to achieve statutory approval.

Architect
Contemporary Design Solutions

Date of completion
2016

Verdo, Kew Bridge



This development consists of three residential blocks of between nine and 14-storeys providing 253 new homes adjacent to the new Brentford Community Stadium.

The precast concrete system comprises a series of concrete panels forming load-bearing walls and floor slabs. Internal walls are placed between apartments and the external walls consist of insulated precast sandwich panels with an external skin supported by stainless steel brackets.

The design takes advantage of the repetitive nature of the floor layouts and, with no need for scaffolding, the buildings were assembled at a typical rate of six days per level.

Client
Byldis/EcoWorld

Location
Kew Bridge, London

Architect
JTP

Date of completion
2022

The Cube, Wenlock Road



At ten storeys on completion this development was the tallest hybrid CLT building in Europe. The overall form steps and rotates up the building to create a complex and dynamic geometry.

Lateral stability of the building is provided by a central reinforced concrete core, supported off a foundation raft with concrete flat slabs at the lowest levels and the timber frame bolting into the core above level one.

A single storey basement is provided with a secant piled wall, which acted as the temporary water cut off to the adjacent Wenlock Basin during construction.

Client
Regal Homes

Location
Hackney, London

Architect
Hawkins/Brown

Date of completion
2015

Dalston Works, Dalston



A ten-storey scheme with 121 apartments over a single basement adjacent to the HS1 tunnel system and directly over the future Crossrail 2 scheme.

The structural scheme included a basement raft with reinforced concrete extending to first floor level. The superstructure consisted of cross-laminated timber (CLT) frame. By using CLT construction, vertical loads were kept to

a minimum which ensured loading restriction to the proposed tunnels below were met. A 'GEOlight' storm storage system satisfies the SuDS requirements, providing a full gravity in-ground drainage system by PJCE.

Client
Regal Homes

Location
Hackney, London

Architect
Waugh Thistleton

Date of completion
2017

VI Castle Lane, Westminster



This boutique development consists of 28 apartments and three townhouses in London's West End.

The basement is formed with a secant piled wall, which typically cantilevers to minimise temporary propping.

Where the adjacent buildings are tight to the site boundary, diagonal corner props were introduced to limit movement to an acceptable level.

A concrete frame with a central stability core forms all but the top floor, which is constructed in lightweight steel frame to provide a large open plan penthouse.

Client
Sons and Co

Location
Victoria, London

Architect
DROO/TW-2

Date of completion
2018

The Residence, West Hampstead



The Residence is a group of 91 beautifully crafted, contemporary luxury apartments in one of London's most desirable districts.

Located on sloping ground this building cuts deep into the site requiring a ten-metre-high retaining wall to the rear of the development. The retaining wall is formed from secant piles with a reinforced concrete lining. The primary structure is a flat slab design with lateral stability provided by reinforced concrete cores. To provide more open-plan space, a lightweight steel solution was adopted for the penthouse which also supports a 'brown' roof.

The change in grid for basement car parking is provided by a grillage of transfer beams, with all gravity loads supported by piles. PJCE also carried out the design of the load bearing masonry facade.

Running through the site was a 1.8metre diameter main route sewer, which required diverting to allow the full construction of the basement. The diversion was detailed and agreed by PJCE with Thames Water and subsequently installed utilising pipe jacking technique.



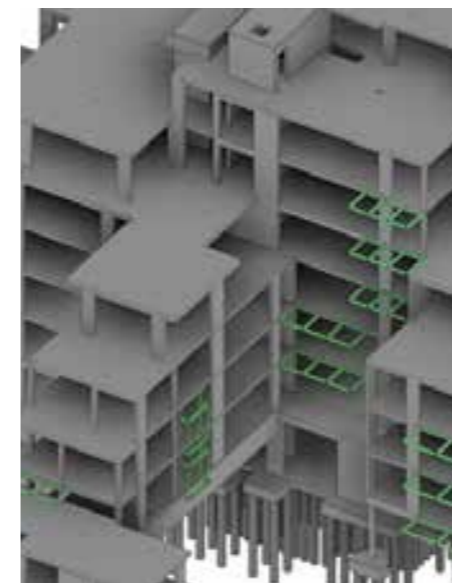
Client
Regal Homes

Location
Camden, London

Architect
Hopkins Architects

Date of completion
2016

Kingsway, Hove



A nine-storey mixed residential and commercial building, next to the beach in Hove, consisting of 59 flats. The development incorporates the historic Alibi Public House with PJCE designing modifications to the original structure.

The main block is formed using in-situ reinforced concrete flat slabs, with concealed 'blade' columns.

Full civil, in-ground drainage and SuDS is provided by PJCE. Modifications to the adjacent highways have been fully detailed as part of the Section 278 works.

Client
Rocco Homes

Location
Hove, East Sussex

Architect
JJR

Date of completion
2020

Stay Club, Western Avenue



The use of steel modular units to create 225-bedroom accommodation for Hallmark, highlights how this modern method of construction introduces speed to the programme duration, as modules arrive on site with internal finishes already installed.

The superstructure comprises prefabricated modular steel pods, stacked on top of one another and supported at the base by long-span, steel podium structure over a reinforced concrete

substructure. The ground floor slab was designed to accommodate the weight of a mobile crane during construction and the basement retaining walls are cantilevered from the raft to create a continuous skylight to the rear of the building.

The stacks of modules are book-ended by multi-storey steel frames to provide open-plan commercial spaces. PJCE assisted with the design of the façade, consisting of masonry and Corten steelwork.

Client
Hallmark Property Group

Location
Gypsy Corner, West London

Architect
Contemporary Design Solutions

Date of completion
2023

Appleby Blue Almshouse



Appleby Blue is a modern 57-home almshouse launched by United St Saviour's Charity, providing affordable independent sheltered housing fit for the 21st Century, benefitting Southwark's older people and the wider community.

The Almshouse consists of a five-storey building surrounding a courtyard garden, incorporating beautiful indoor and outdoor spaces. The structure consists of a four-storey reinforced concrete frame with flat slabs and the top storey is exposed

timber construction. Lift and staircase core walls are constructed in concrete for lateral stability.

The architecturally expressed, slender cantilever walkways received a high degree of design focus to achieve the desired aesthetic whilst integrating the building services and thermal breaks. Design challenges have also included the 17-metre span concrete encased transfer beams, which support the building above the open-plan garden room.

Client
JTRE-London

Location
Southwark Park Road, London

Architect
Witherford Watson Mann

Date of completion
2023



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