Review of the Year 2017
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2017 has been a good year for PBA. Our main objective this year has been to improve our clients’ experience. We have made a good start on this aim, through a range of client relationships, people development and innovation-related programmes. We have also benefited from a steady flow of project wins across our target sectors, and our focus on continuous improvement has helped us to deliver this work to the high standards our clients rightly expect from us.

In this Review of the Year, we bring together a broad range of stories from across the Practice about the impact of our client-focused strategy. We hear from:

- Our client strategy team about some of the work we have been doing to create value for our clients by working more closely with them in support of their goals
- Our regional offices about how we have been delivering projects to meet our clients’ aspirations about the benefits they should bring
- Some of the teams who are bringing strategic thinking and new ideas to seize opportunities or address challenges faced by our clients
- Our emerging technology group who are pushing forward the digital boundaries to find more efficient and effective ways of delivering our work
- You – we share your pictures of life at PBA.

We are ever thankful for your contribution to PBA. Whether you are in a technical or business support team, in Scotland or in Prague, I hope that this Review of the Year has something for you.

Keith Mitchell
Improving our clients’ experience

Over the past year it has been our mission to put our clients at the absolute centre of everything we do. We’ve been busy implementing a client-centred strategy that will lead to long-term cultural change within PBA and a better experience for our clients.

This strategy was shared with the Practice through a series of roadshows early in 2017, showing how everyone can play a part in creating a joined-up consultancy that is deeply connected to the needs and aims of our clients.

“The quality and history of your client relationships is perhaps the only source of competitive advantage that cannot be copied.”
To put the strategy in place, each region undertook a client segmentation exercise – an intensive review of all clients to identify our:

- **Most Valuable Clients (MVCs)**, that we know very well
- **Most Growable Clients (MGCs)**, that we know a little but who could become an MVC
- **Most Wanted Clients (MWCS)**, relatively unknown clients that are aligned to our growth strategy.

Our national top 50 clients were named and each was assigned an owner and co-ordinator, tasked with understanding their aspirations and pressures to help us shape our offer. We then mobilised ‘Diamond Teams’ to ensure our offer remains aligned and to guarantee consistent, professional interactions. A bespoke strategy was produced for each client and ongoing collaboration has been secured through monthly face-to-face meetings.

The ‘Diamond Team’ approach has been adopted well throughout the Practice and marks a massive step away from the one-to-one relationships that PBA has had with clients in the past.

**Has the strategy worked?**

The answer is a resounding yes.

In 2017, we’ve been appointed as HS2 delivery partner by Bechtel and we’re becoming increasingly engaged in projects with Places for People, MACE and Urban&Civic. We’ve seen relationships improve with Wates, British Land, Breheny and Segro now that we’re operating as a more connected team and, impressively, we’ve more than doubled our revenue with Taylor Wimpey and McCarthy and Stone over the past twelve months.

Our most notable success has been with Balfour Beatty and the SCAPE framework. We’ve taken over £1 million in business through the SCAPE team in 2017, a tenfold improvement on our previous annual revenue. And this is simply down to improving their experience of working with us.

**Next steps**

Now we are seeing our strategy take hold, we need to build on our success. We are strengthening our processes across the Practice and each region is undertaking a client review to benchmark our progress before ‘promoting’ new clients into the mix.

A great deal of energy, time and investment has gone into making PBA more client-centric. 2017 marked the start of a new way of working, one that will continue to benefit the clients and the Practice in the years to come and ensure that they truly value the hard work we all put in.

Every member of staff was introduced to this strategy early in 2017 through a series of roadshows that explained why we needed to refresh the way we work with clients and the actions we had to take. Some of you provided feedback in response; we listened to your comments and many of your ideas influenced our progress.

At the heart of this roadshow was the message that everyone at PBA should feel empowered to lead the movement towards a joined-up consultancy, deeply connected to our clients’ needs and aims. Our systems and processes should be about providing excellence to our clients and ensuring we continuously improve, and every member of staff can play a part in making this happen.
Networking & growing client relationships

- As 2017 has been about improving our clients’ experience, we have played host to our clients at several business and social events throughout the year.

On a regional level, we have entertained clients at local receptions, breakfast seminars and sporting events. We also opened a new office in Leeds, where we held a sparkling ‘lunch and launch’ event to announce our presence to the local business community.

Nationally, our largest client event took place at the London Transport Museum in June, where our most valuable and most growable clients had an evening reception of networking with a wide range of PBA hosts and special guest speaker, John Sergeant.
Networking & growing client relationships
The PBA brand has developed rapidly in Scotland, our ‘youngest’ region, due to our vision of teams with strong reputations and diversified project portfolios being realised.

The success of our strategy is clear from the number of significant multidisciplinary land development projects PBA has advanced in 2017: remediation and redevelopment of former oil terminal sites at Bowling and Old Kilpatrick in West Dunbartonshire; planning, transport and engineering support for a nationally significant leisure development by Flamingo Land on the shores of Loch Lomond; technical support to Taylor Wimpey for a 6,000-home ‘new town’ in East Lothian; and masterplanning of the former Cockenzie Power Station.

Through our diversification strategy we have successfully evolved our relationships with housing associations, architects, the public sector, and contractors. Our work with universities continues; in 2017 we provided strategic advice and design support to the Universities of Glasgow, St Andrews’ and Edinburgh. Subsequently, we secured first place on the University of Strathclyde’s Civil and Structural Engineering Framework and a major project with West of Scotland University.

One of the most satisfactory aspects of 2017 is the number of projects that our teams have supported outside Scotland – a recognition of our specialist skills. This includes the transport impact of change in industrial land use in London, development of the HS2 growth strategy in West Yorkshire, business cases for Croydon Growth Zone funding and the A2 slip road for Canterbury Council, the Burslem Port strategy and, for the Welsh Government, the Cardiff Airport to St Athan improvements and link road study.

Finally, we prepare for 2018 with a varied and interesting order book, our Edinburgh office move and the addition of another technical discipline – Hydro – to look forward to.
PBA was commissioned by Scottish Government and Transport Scotland to help reduce the overall burden of Airport Passenger Duty (APD) / Airport Departure Tax (ADT) by 50%. Specifically, PBA was asked to undertake independent research to determine the potential economic impact of reducing APD/ADT after the power to do this was devolved to the Scottish Parliament.

What did we do?
The aim of Scottish Ministers was to boost Scotland’s air connectivity and economic competitiveness by encouraging the establishment of new routes to enhance business connectivity and tourism, and to create an environment that encourages airlines to base more aircraft in Scotland, creating new routes and new jobs.

Our research included:

- A review of previous literature on the topic, summarising the findings and identifying any gaps
- Baselining of current demand for air services in Scotland and setting out the supply-side of the air industry
- Developing a reference case forecast for each Scottish airport based on a review of recent trends and existing aviation forecasts
- Development of demand and supply-side logic models, identifying and mapping of potential outcomes and impacts from the policy
- Testing of a set of ADT scenarios with key outputs from each test including:
  - passenger numbers by airport by key market segment
  - level of ADT revenue raised by each band/rate
  - GVA/employment at the Scotland level.

The analysis set out the transmission mechanisms by which the overall reduction in tax would feed through to passenger behaviour and the wider economy terms; and finally, the development of a monitoring and evaluation framework.

What was the project outcome?
Our work provided independent research to help inform the Scottish Government in its development and potential implementation of an ADT tax reduction policy.
Winning work through the University of Strathclyde Framework

PBA was appointed to the University of Strathclyde’s Framework Agreement for civil and structural engineering services in April 2017 after an extensive submission and review process. Our submission, including exemplar case studies on the George Square main library refurbishment and the University of Oxford CL2 Physics Laboratory, led to PBA being ranked first in the tender evaluation process.

Throughout the four-year framework agreement, PBA will work with integrated project teams on site at the University to deliver high-value, high-profile projects.

PBA has been named as the civil and structural engineer on two projects since our appointment to the framework: planned improvements to Royal College and an extension to the Advanced Forming Research Centre (AFRC).

The AFRC is a critical hub for manufacturing industry research at the University of Strathclyde and was the first appointment to be awarded to PBA through the framework.

The new ARFC extension will house the largest forge in Europe – an 8.5m high, 200 tonne dynamic press forge allowing the university to extend its cutting-edge research for manufacturing industries and industry leaders such as Rolls Royce and BMW. The building will be completed by September 2018 ready for delivery of the new forge in October 2018.

As part of the proposed development, additional car parking is to be constructed in both the existing car parking zones. The extension will increase the surface water and foul water discharge from the site, and PBA has been given the responsibility for drainage design and liaising with Scottish Water and the local authority to agree discharge rates. The project also utilises BIM, with each consultant using Revit models to deliver drawings and ongoing clash detection.

The extension is to be constructed while the busy existing facility remains in operation. We are working closely with the architect and wider design team to ensure a seamless tie-in to the existing facility.
Reigniting Cockenzie

Following a highly competitive bid process, PBA was appointed to lead the multidisciplinary team assisting East Lothian Council in the development of a strategic masterplan for the former Cockenzie Power Station site.

Cockenzie Power Station ceased production in March 2013 and the site remained dormant until its structures were safely demolished in 2014. The site, and the area of land covered by the masterplan, is approximately 80 hectares.

The masterplan will create a vision for the redevelopment of the area, with a wide range of future opportunities set to be explored. PBA was tasked with discovering which options will deliver the greatest economic and social impact, and create an environment and opportunities that support a flourishing economy. We developed proposals and tested them with the community and other key stakeholders before putting together a final report for submission. Each proposal combined an energy plant with tourist attractions, business, retail and industry, in different ratios and using different parts of the site.

The strategic location of the site and its surroundings have the potential to position it as a development capable of competing internationally in terms of scale, quality and location. The site sits in the ‘East Lothian Coastal Corridor’ allowing the creation of a sustainable, connected and low-carbon development that fits sensitively within the environment. The site is also connected to the national grid, a railhead and a pier, and its proximity to existing residential communities provides the chance to build a new, wider community where residents can live, work and play.

By creating the right framework for the future redevelopment of the area, we expect that an environment can be created that will secure commitments from major inward investors in the coming years.
Bringing marine projects back to Glasgow

Glasgow-based Malin Group has acquired a large brownfield site on the bank of the River Clyde to support its goal of bringing marine design and build projects back to Glasgow.

PBA has been commissioned by Malin Group to provide all planning, EIA, engineering and ground remediation support for the development. We are at the start of the process – scoping the EIA and establishing the planning strategy, as well as working on the site acquisition and early ideas for the remediation strategy.

The 47-acre site is located upriver of the Erskine Bridge on the north bank of the Clyde, and was previously a Royal Navy oil storage facility that suffered extensive damage during the second world war. This site is near another major project we are working on in the area, Exxon Site Development at Bowling.

Malin Group is looking to create a marine technology hub on the site. This will bring together research providers, skills development, design, manufacturing, and practical marine operational and logistics experience in a location that has complementary facilities backed by direct access to the deepwater channel of the River Clyde.

The Carless site is ecologically diverse, supporting terrestrial and wetland habitats that are priorities for conservation in the UK. It is also located immediately adjacent to areas of the Clyde designated as being of European importance for nature conservation. The proposals will result in the loss of the habitat mosaic within the site, and have the potential to impact the adjacent marine environment and the European and nationally designated sites.

PBA is carefully negotiating the surveys required to determine the ecological baseline that will inform the complex impact assessment needed to support the progression of the separate planning applications for remediation and subsequent development. This is one of the most ecologically complex projects PBA is currently delivering, requiring iterative adjustment to the specification of terrestrial and marine surveys in response to emerging results and stakeholder consultation. The steady progress towards realising Malin Group’s aspiration to return marine design and manufacture to the Clyde is a testament to PBA’s knowledge, skills and judgment.
In 2017, we’ve strengthened relationships with established clients and nurtured links with new clients throughout the North and the Midlands, enjoying notable successes thanks to our multidisciplinary teams’ ability to overcome planning obstacles and technical constraints.

We scooped the award for masterplanning at the 2017 Planning Awards for our work on the Prescot Town Centre Masterplan, and we are lead consultant on the Halsnead Garden Village project in Knowsley, one of the largest development schemes in Merseyside. We’ve attained permissions for new homes, gyms, play centres, supported living facilities, retail parks and much more, and we’ve secured new framework agreements with Co-op and Mersten, ahead of their upcoming expansion plans. The Manchester office also welcomed Brian Laird to lead our transport capability and we’ll soon be expanding our offering with the introduction of ecology.

In Birmingham, Tim’s arrival as office Partner coincided with increased activity on HS2 and a real step change in the way the city is presenting itself to the world. As an office, we’re responding to these changes with our involvement with HS2 and major infrastructure projects like UK Central and the metro extension. Paradise is progressing and we continue to advise Midlands clients, such as IM Group, across their property and housing businesses, with projects like Blythe Valley Park reaching significant milestones. From city centre focused advice – on the Grand Central and Bullring shopping centres – through bridge structures work, to garden villages and new settlements in the shire counties, we’ve applied our skills to developers, local authorities and government departments.

We’ve also opened our new office in Leeds where we’re working on HS2, the redevelopment of the Tetley Brewery and business park Thorpe Park, and a new retail park on the site of the former Buslingthorpe Mills. We look forward to getting involved in many more local projects in the near future.
Developing Blythe Valley Park

PBA has supported planning applications for the development at Blythe Valley Park for over 10 years.

In November 2016, we helped IM Properties secure permission for new housing, alongside new and existing commercial properties, providing more employment opportunities for the area.

PBA prepared the transport assessment, as well as noise, air quality and transport input for the environmental statement, both of which supported the overall planning application. We worked closely with Solihull Metropolitan Borough Council to prepare the transport assessment, reaching an agreement on the transport strategy, public transport access and off-site highway improvements.

The timing for highway improvements was phased, assisting with the overall viability of the scheme as well as providing the local highway authority with the certainty that the worst-case scenario had been addressed. Highways England provided no objection to the scheme but did offer conditions, one of which was subsequently removed before the determination of the planning application.

A new site access was approved, which crossed the Green Belt and therefore meant very special circumstances had to be demonstrated alongside measures to minimise the traffic impact on residents. As part of this process, a traffic management scheme was developed in consultation with residents and the local highway authority. PBA has subsequently prepared the Section 278 scheme and is due to start on site in 2018.

PBA’s parking strategy has afforded the client flexibility in the provision of parking spaces for the existing and future employment uses across the site. This was achieved by providing a cumulative parking ratio across the business park which gained the approval of the local highway authority. Subsequently, the client has been able to progress their plans while still meeting occupiers’ car parking requirements, including an overspill car park, within the original planning consent.
Pewterspear Green Road, Warrington

PBA was commissioned by the Homes and Community Agency (HCA) to secure outline planning permission for a residential development of up to 180 dwellings on land to the south of Pewterspear Green Road in Stretton, Warrington.

PBA was appointed to the HCA multidisciplinary panel as a lead consultant from 2014–2018. Appointing us through the HCA helps the public sector save time and money on projects, including major development, due diligence, estate renewal and refurbishment.

The land in Stretton passed to the HCA from English Partnerships, after the site was transferred to them by the Commission for New Towns. The HCA then asked PBA to provide planning consultancy services and lead a multidisciplinary team, supported by IBI Group, to provide technical advice in relation to transport, noise, utilities, ecology, flood risk and drainage.

There was strong local opposition to the scheme as residents feared the additional housing would lead to increased traffic on an already congested local road network. We worked collaboratively with the council to demonstrate that the scheme complied with the development plan and would not result in any significant adverse impacts, particularly in relation to the highways network.

As a result, planning officer support for the scheme was secured, and Warrington Borough Council subsequently resolved to grant outline planning permission for up to 180 dwellings subject to the signing of a Section 106 Agreement in February 2017. The legal agreement was then completed and planning permission was granted in September 2017.
Award-winning masterplan for Prescot town centre

PBA was commissioned to develop the masterplan and Supplementary Planning Document (SPD) for the transformation of Prescot town centre into a thriving and attractive destination for residents and visitors.

We were appointed by Knowsley Council to deliver a masterplan that will help to shape the development and redevelopment of Prescot town centre over the next fifteen years.

Prescot is one of the oldest settlements in Merseyside and the town has a unique and rich heritage. The plan aims to build on this, while addressing the fact that the town sits within one of the country’s most deprived local authority areas and faces issues common to town centres across the country.

The masterplan highlights the opportunities for residential development that will enable more people to live at the heart of the town, improvements to transport connections, and options to create an environment and spaces where people will want to visit and spend time.

PBA developed the masterplan to improve the local economy by addressing the loss of retailers and lack of private sector investment. It also aims to meet the needs of the local community by including proposals for new leisure, retail and residential developments plus improvements to the public realm and accessibility. This includes the Shakespeare North Theatre which has already secured government funding.

PBA was presented with the award for masterplanning at the 2017 Planning Awards for its work on the Prescot town centre masterplan, alongside Environmental Associates. The masterplan was described by judges as an ‘ambitious and significant project that encapsulates a strong sense of place.’
Redeveloping the historic Tetley Brewery

PBA recently helped secure provisional approval for plans to redevelop the historic former Tetley Brewery South Bank site in Leeds.

The former Tetley Brewery land was acquired by Vastint UK who appointed PBA to carry out technical due diligence, transport planning and ecology for the development.

The application, one of the biggest the city centre has seen, includes 850 homes, offices, commercial space and possibly two hotels. The proposals are focused around a new park that will form the centrepiece of the development and create a large green space in the city.

Leeds is central to the Northern Powerhouse concept. Its South Bank area is one of the most significant regeneration opportunities in Europe, providing high-quality development in Leeds city centre, focused around the proposed new HS2 station, a growing major rail hub.

Due to its location, the transport aspects of the masterplan development were critical. PBA successfully negotiated low on-site parking provision and concentrated on public transport, park-and-ride, and pedestrian and cycling connections, supported by comprehensive travel planning.

PBA is also playing a role in the wider South Bank development aspirations, providing supporting advice on the strategic transport issues which aim to transform highway infrastructure into public realm improvements, green areas, shared spaces, and cycle and pedestrian priorities.
South West

- In 2017 we implemented PBA’s strategy at a regional level, developing our technical service offer, strengthening our relationships with our most valued clients, and developing new relationships in areas of sector growth.

We’ve seen notable successes with development and infrastructure projects on the M4 and M5 motorway corridor, and key growth locations around the Bristol, Bridgwater, Taunton, Exeter and Plymouth markets.

We achieved planning permission for the M5 J23 Bridgwater Energy Park for BAE Systems, secured a major employment allocation at M5 J24 Sedgemoor on behalf of landowners, and used our specialism with LDOs to secure major commercial development opportunities at M5 J25 Taunton. We’re working for St. Modwen on a major industrial site at M4 J17 Chippenham Gateway, and have delivered full technical services to support an outline planning application for The Vale, Taylor Wimpey’s largest UK urban extension project in Bristol. We’ve also been active in Plymouth, supporting delivery of the Drake Circus Leisure scheme for British Land and being recognised nationally with awards for our work on Plymouth Coach Station.

We’ve made good inroads with our most wanted clients, securing professional appointments at Filton Airfield for YTL Developments UK and regional project commissions with the HCA.

It’s not all been about our clients though. We’ve expanded and rebranded our offices and are adopting smarter working practices through an agile working trial. Through Brett Communities we’ve placed staff at schools in Taunton and Bristol as part of our STEM Ambassador initiative. We’ve also found time for a social life as well including sedate river cruises, treasure hunts, ‘tough mudder’ and many more.

The South West is a rich and varied place to work, and 2018 promises to be another challenging and exciting year for the region... the apples in our cider orchard are looking rosy!
South West
Lifting the Vale

PBA is supporting Taylor Wimpey in the promotion of a new sustainable community of 4,500 dwellings on the outskirts of Bristol, through the West of England’s Joint Local Plan.

PBA has been involved in the development, on and off for over 10 years. Previously we promoted the site on behalf of Strategic Land Partnerships and then Land Trust, as a much larger sustainable urban extension of over 10,000 dwellings, through the old regional spatial strategies.

The proposed development is Taylor Wimpey’s largest project and PBA, a key member of the team, is providing transport, engineering, drainage, utilities, ecology, ground conditions, noise and vibration, air quality, sustainability, energy and waste services.

Taking influence from this year’s study tour of Freiburg’s much heralded sustainable urban extensions at Vauban and Rieselfeld, our work to date has demonstrated that The Vale can deliver an exemplar new community – a community that offers a mix of employment, retail, education and social uses within a walkable neighbourhood structure.

The development also maximises the benefits of new transport infrastructure, namely the recently constructed South Bristol Link and Bristol’s MetroBus network, as well as supporting the delivery of Bristol’s transport vision through improved bus services and a new park-and-ride. A flexible approach to the masterplan enables the development to embrace changes to travel behaviour over time; for instance there is the potential for a new railway station, and land for a future light rapid transit route between the city centre and Bristol airport has been safeguarded.

PBA’s collaborative work on ecology and drainage, together with the client’s landscape architects, has also created a multifunctional, blue-green infrastructure network that offers enhanced habitat corridors, attractive recreational areas and flood management.

Taylor Wimpey has embraced social media in the promotion of the scheme, focusing on this as the main channel to build positive news stories and public support, and to convince stakeholders of The Vale’s planning pedigree. We look forward to being involved in the ongoing realisation of the 20-year vision for The Vale.

Junction 24 employment site, Sedgmoor

PBA has been acting on behalf of local landowner, Jo Notaro, in the promotion of a major employment site for several years on engineering, environment and planning.

Through our work tracking the Local Plan review we identified sites that weren’t coming forward. The J24 site had been stalled for many years with failed options, a confused landowner and a frustrated local authority. Seeking to extend our experience of major sites adjacent to the motorway, we approached the landowner directly. We have supported them in making representations to the local plan, planning his development in a way that is sensitive to the history of the site, and seeking the most appropriate delivery partners.

It has been a long journey, but we are now preparing a hybrid planning application for the site which includes mixed-employment land and a new motorway service area. Our client has partnered with Euro Garages and is working with them to deliver the planning application.

The site has strong backing from the local planning authority as a much-needed employment development to support the Hinkley Supply Chain. The site will also provide a high-quality alternative to Bridgwater Services, which sits off the same junction, causes significant congestion issues and regularly comes last in motorway service rankings.

Our task is not simple. We are working with a diverse set of stakeholders, including Highways England, Somerset County Council, a driven, focused, growing business and a local landowner, but we will deliver a high-quality, mixed motorway service area with an employment site next to the motorway that meets the raised expectations set by Gloucester Services.
PBA has been supporting regeneration in Plymouth for many years, both for the private and public sectors. Drake Circus Leisure is the final step in a chain of regeneration sites that was kick-started by Plymouth City Council (PCC) many years ago, when they sought development partners for the redevelopment of their aged coach station.

PBA initially advised the authority, who then engaged British Land as development partner. British Land chose to reassemble the team behind the regeneration of Whiteley Village in Hampshire, and appointed us to help them realise their vision for a new Leisure scheme adjacent to the existing Drake Circus shopping centre.

Although the development didn’t align with their existing assets in the area, British Land was keen to create a broader offering, a campus for people to shop and play to increase the length of their visits and improve the customer experience. With the addition of Drake Circus Leisure to their existing assets British Land now controls nearly 50% of the city centre, which places them in a strong position to drive investment and steer the market.

The first step was for PCC to find and deliver a new site for the coach station in record time. We supported them through the planning, design and construction stages and the award-winning coach station is now operational, bringing increased footfall to another area of the town in need of additional investment.

Following a quick and focused planning application, British Land is now about to begin work. However, the process has not been without its difficulties; the initial tendering of the scheme came in over 50% higher than budgeted. This meant the entire design team, working alongside McLaren, had to go through a significant value engineering and redesigning exercise.

Still, when we go Christmas shopping in December 2019, watch a film in the new IMAX cinema and eat in the new Sky Bar restaurant overlooking the harbour, we won’t remember the challenges, just that we have created a great place for the local community.
Building homes and relationships with the HCA

Over the last year our work with the Homes and Communities Agency (HCA) in the South and Southwest has grown rapidly. Much of our work has been driven by the Government’s ‘Starter Home’ initiative, which set objectives for the HCA to acquire brownfield land from the open market to deliver new housing. However, this sits alongside a separate stream of public sector land acquisitions, taking surplus land from local authorities, defence agencies, the NHS and others. This means the HCA must de-risk a broad range of sites and secure planning prior to the arrival of a development partner.

In the Southwest, this led to a programme of site appraisals and acquisition followed by site clearance, masterplanning and redevelopment applications. PBA has reviewed around 20 sites across the region at the pre-acquisition stage, with work varying from a single discipline technical review to full multidisciplinary studies with planning and viability appraisals. Notable examples are the ongoing ground investigations and ecological appraisals across a 27-hectare historical landfill in Weston-super-Mare.

The HCA has bought approximately 15 sites in the last year and we are working closely with their development managers to secure the opportunities as each of the sites come forward. So far, we have been appointed to deliver seven sites with further prospects in the pipeline.

Based on these appointments, we will be assisting in delivery of redevelopment across 16 hectares of previously dysfunctional brownfield land. Our work will include demolition and clearance of a part of the Hall & Woodhouse Brewery in Blandford St Mary, a former ceramics factory in Colyton, East Devon and a former lace factory in Barnstaple. We will undertake assessments of flood risk, drainage, utilities, ground conditions, transport, ecology, noise and viability, together with delivery of planning services. We will also work hand-in-hand with trusted sub-consultants to deliver archaeological and asbestos surveys, alongside masterplanning. All this will be completed under the HCA’s banner of ‘accelerated delivery’, which means PBA will need to rise to challenging timescales that require careful coordination and management.

“We have worked with PBA through a variety of projects ranging from high level pre-acquisition development constraints and viability appraisals, to detailed design and construction delivery. Throughout these schemes we have continued to be impressed with PBA’s consistent approach; understanding our aspirations, providing intelligent development advice and always delivering to meet the required timescales. PBA is a highly professional and knowledgeable team of consultants, with a wide range of expertise; they continue to provide a high-quality, flexible and collaborative service.”

Lisa Broom, Homes and Communities Agency
PBA beyond the project

- Whenever we think about doing something outside our regular work for clients, we tell ourselves that we don’t have time – we are too busy doing our day job. No matter how often we realise that we could make things easier, better, more efficient or deliver business benefits in the future by doing something different now, we often ignore our own good advice.
Yet there are teams of people who are making the time to think longer-term about how we can help our clients seize new opportunities or tackle new challenges. For example, this year, we have been talking to clients about:

- **Garden settlements:** Government has been supporting garden settlements as one answer to the housing crisis, but what is a garden settlement? How does this differ from the original vision of a Garden City, and what does this tell us about how to deliver new and better communities. How does this help our clients meet their commercial objectives?

- **Planning transport and development:** There is a widely-held view that – outside of the main metropolitan areas – the current planning process is leading inexorably to more car-dependent development, with consequential detrimental effects on socio-economic outcomes. Yet, travel trends amongst younger people are changing significantly. Is it time for a different approach? Will this help to deliver quicker and superior planning agreements for our clients?

- **High speed rail:** We have seen high speed rail as an opportunity for economic growth for many years – starting as long ago as the 1990s when we began work at Ebbsfleet and on CTRL. Over recent years, we have supported the High Speed Rail research of the Independent Transport Commission, and played a leading role in the work of the National Infrastructure Planning Association. We now have work at more than seven HS2 station locations, and act as part of the Bechtel development partner team for HS2 Phase 2.

- **Opportunities in the Oxford to Cambridge corridor:** In response to the competition announced by the National Infrastructure Commission, PBA has supported multiple competition entries aimed at providing ‘forward-thinking ideas’ that can ‘contribute to delivering the homes the area needs, integrate the delivery of infrastructure with high-quality places and maintain the environmental and cultural character of the corridor’.
Creating Garden Communities

In response to the Government’s announcement at the start of 2017 to use garden cities and towns as a way of supporting much-needed housing delivery across 14 key regions in the UK, PBA launched a series of blogs to review the original principles of the garden city movement and discuss how these should be updated to remain relevant to modern times.

PBA has significant experience of working on such developments including Kilnwood Vale in Crawley, Aylesbury Woodlands and, perhaps most notably, Ebbsfleet. We pride ourselves on creating communities where people want to live and, as garden settlements offer a unique opportunity to do this, the questions and issues surrounding them are close to our heart.

The ‘Creating Garden Communities’ campaign includes blogs from our senior leaders where each posed questions about the nature of garden cities, the benefits they offer and the challenges that stand in the way of their delivery:

- **Tim Allen** opened the series drawing on his experience of the emerging story at Ebbsfleet, where we have been engaged for over 25 years, to discuss the nature and history of the Garden City,
- **Bernard Greep** focused on the challenges that now face planners and how those issues, which include land ownership, design standards and EIAs, have changed since the original garden cities were planned 100 years ago.
- **Keith Mitchell** took a movement perspective, discussing why factoring in travel trends and achieving ‘good growth’ should be so important to the garden cities movement.
- **Andrew Clarke** provided the most recent contribution to the series, asking the question of whether we can realise the dream of a cleaner, greener and more economical garden city.

We’ll continue to explore the remaining principles into 2018 and hope that the series, once concluded, will contribute to a better understanding of how garden communities can provide sustainable places where people want to live, work and play – as well as contribute to meeting future housing needs.
Driving growth through HS2

Over the last few years, PBA has become synonymous with delivering HS2 growth ambitions.

HS2’s beginnings were not auspicious; the initial proposals were criticised but then research by the Independent Transport Commission (supported by PBA), showed how greater capacity and connectivity could stimulate growth around HS2 stations.

Since then, HS2 has placed new emphasis on its growth strategy, and PBA has been involved in the development of HS2 growth strategies at Old Oak Common, UK Central, East Birmingham/North Solihull, the Constellation, Chesterfield, Toton and Leeds.

Our first project, Old Oak Common, was a Development and Infrastructure Funding Study (DIFS) which underpinned proposals for 24,000 houses and 44,000 jobs around the proposed HS2/Crossrail station. Now we are part of the team taking forward the masterplan on behalf of the Old Oak Common Development Corporation.

At UK Central, our DIFS provided evidence for the establishment of the UK Central Growth Company and its plans for development around the HS2 station south of Solihull, and on surrounding land at the NEC, Birmingham Airport and Birmingham Business Park. We’ve supported the company as the business case has developed and have recently been appointed to develop a strategy for utilities.

HS2 has taken many steps forward over the last 12 months. In November 2016, the route for the second phase was confirmed – from Crewe to Manchester and from the West Midlands to Leeds. Then, in July 2017, it was confirmed that the line’s north-eastern route to Leeds will run east of Sheffield.

PBA’s most recent announcement was to confirm our appointment alongside Bechtel as Delivery Partner for HS2 Phase 2, a 7.5-year contract worth around £170m. The role will provide technical assurance and oversight of the Civils Design and Environmental Services to:

- Deliver a hybrid bill for Phase 2b (Birmingham to Leeds and Crew to Manchester)
- Guide and support the Bill through Parliament
- On Royal Assent, provide a successful handover to the contractor.

The PBA team is from Birmingham, Reading, London and Manchester, and is providing senior management team support in environment, engagement, transport, utilities and agricultural liaison. Our knowledge of the HS2 proposals, our experience of major infrastructure projects, and ability to work collaboratively in project teams, has helped establish us as a leading player in the HS2 project, and a key driver of the growth it aims to deliver.
Planning Transport and Development: Putting Places First

Did you know that men aged between 17 and 34 are travelling 47% less than they were 20 years ago? However, there are more white vans on the road and our increasing population is keeping traffic levels high. The Independent Transport Commission hosted a webinar at PBA in summer 2017 to highlight these issues. This led to PBA producing its own analysis with the aim of stimulating discussions with clients about how their projects may be affected.

What will happen if the Millennial generation continues to travel less, and what if Generation Z is even more susceptible to agile working arrangements, travel alternatives, and the sharing economy? Will we be able to predict what will happen and provide advice about the infrastructure needed to support future communities when the future bears so little relationship to the past?

Most forecasting techniques rely on empirical evidence of past behaviour to forecast the future. Evidence suggests this is no longer a viable approach, yet we still rely on Predict and Provide modelling techniques in planning transport and development. The realisation that this must change finally seems to be catching on.

Professor Peter Jones (University College London) has suggested a Vision and Validate approach where we establish a shared vision of the places we are trying to deliver, and use our technical skills to plan how we get there using transport models in back-casting mode rather than forecasting. Putting places first – infrastructure projects second.

Rather than being treated as theory, this concept is now forming the basis of strategic planning in some of our major cities – but what about the day-to-day development planning we do for clients? The need to address this aspect of planning is arguably more urgent, bearing in mind the government’s housing agenda and the impact this could have on new communities being developed now.

This thinking has wider applications beyond transport. At its heart is a question about how future technological and behavioural changes will allow us to make more efficient use of land and infrastructure. Our clients rely on us to be thinking about what we do and improving what they can achieve. This has the potential to transform unviable sites into viable sites, enabling clients to deliver better projects for themselves, and for future communities.
Connecting Cambridge to Oxford

The Cambridge to Oxford corridor includes four of the UK’s fastest-growing economies and most productive centres: Cambridge, Milton Keynes, Northampton and Oxford. The region critically needs new infrastructure to overcome constraints to growth and promote regeneration, creating a knowledge-intensive cluster that competes on the global stage.

The key to this lies in integrating placemaking with infrastructure to get the right blend of housing, employment and facilities with connectivity and ease of movement for users. This need inspired the National Infrastructure Commission (NIC) ideas competition to find inspirational visions for the development of the corridor. The competition received over 60 entries and PBA contributed to several of them, one of which was highly commended and one shortlisted.

PBA Partner Ron Henry collaborated with Fletcher Priest Architects and Bradley Murphy Design to create the shortlisted entry, and followed this success by publishing his thoughts on the corridor and the opportunities it will unlock for PBA.

Over the last 20 years, development in the East of England has been happening at a healthy pace. Commuting to London from towns along the corridor has improved, yet poor transport connectivity between East and West remains unchanged. Outstanding universities are based throughout the region but they must be better connected to become a world-renowned hub for education. The region is home to 3.3 million people and meeting the demand for housing is a challenge.

In recent years, PBA teams in Oxford, Northampton and Cambridge have been involved in major transport infrastructure and development schemes along the corridor including Oxford’s new Barton Park residential scheme, the Northern Gateway, Bicester eco-town, Aylesbury Woodlands, Brooklands and Newton Leys in Milton Keynes, Wintringham Park in St Neots, Waterbeach in Cambridge and the North West Cambridge development. Each one will transform its local area, fuelling the corridor’s growth.

PBA is dedicated to creating better communities. Our experience of strategic infrastructure and large-scale development management means we will not only be able to help unlock and deliver schemes quickly and efficiently, we’ll also be able to design a corridor that can adapt for future communities.

PBA has been involved in over 1,500 projects within 10 miles of the corridor. Contains Ordnance Survey data © Crown copyright and database right 2017.
The East of England region continues to grow and our presence and brand goes from strength to strength. Cambridge is one of the best performing cities in the UK and PBA is at the heart of that economic activity and growth.

2017 was the most successful year ever for the Cambridge office and another outstanding year for Northampton. This is down to great staff, great clients and exciting schemes.

We are working closely with well-known developers in the UK including Urban&Civic, O&H Properties, Grosvenor, Hallam Land, Bloor Homes, as well as contractors such as Balfour Beatty, Wates and Breheny. We have built relationships with more local clients such as Marshalls, University of Cambridge, Endurance Estates, Hill Partnership and the Internal Drainage Board, while our international work for Center Parcs in Ireland is also well underway. Our strong pipeline of work demonstrates our leading role in the opportunities emerging across the region and along the East-West corridor.

We were privileged to welcome ICE President, Professor Lord Robert Mair, to our Cambridge office in 2017. During his visit he presented our inaugural Innovation Awards to recognise the creativity of our staff – a great honour for the winners.

Our technical prowess is fundamental to everything we do and in 2017 we’ve seen members of our team complete chartership qualifications, professional training agreements, become qualified as panel engineers, and develop our utilities capabilities. PBA was part of a shortlisted team in the National Infrastructure Commission Ideas Competition and our design work at Jesus College was nominated for an IStrutE buildings award.

Finally, and most importantly, with much delight, we welcomed some ‘new additions’ to the extended PBA family; our congratulations go to Hollie Pritchard, Christina Vlachou-Ess, Jon Walton and their families. We are looking forward to 2018 and the chance to work together for what will be another great year.
Located in the centre of Cambridge, the West Court site was in need of substantial refurbishment to meet the growing needs of Jesus College.

PBA was appointed to help the College develop the existing buildings into improved conference facilities and a new research centre.

Over nearly three years the Cambridge buildings team worked closely with Niall McLaughlin Architects to solve an impressively complex £12m project. The challenges included delivering a new pavilion café with a basement bar alongside the refurbishment of a 1920s Grade II listed building and a 1970s concrete framed building which closes the south side of the original court.

One of the biggest challenges of the project was to form a basement only two metres away from the listed building, in tricky geological conditions with a relatively high water table. This was made more complex as the lightweight timber pavilion on top was not heavy enough to stop the whole structure from floating.

The cramped 1970s building structure was heavily remodelled to squeeze in a high-spec lecture theatre as well as creating new two-storey light wells to bring daylight into the conference accommodation.

At a detailed level, the architect used glulam oak throughout the project to unify the different parts of the development, all with expressed form and hidden fixings. PBA’s creativity in quickly producing concepts for connections and slender structural forms, including prototyping a key connection detail using 3D printing, allowed us to inform the architectural design in real-time.

The Bursar of Jesus College expressed a view that these buildings should still be around in 200 years; the sort of longevity that can only be achieved if every aspect of the project is excellent. We’re confident that this development will stand the test of time.
Center Parcs, Longford Forest

When Center Parcs decided to build a holiday village in the Republic of Ireland, they turned to PBA.

We know the client’s product, their drivers and the likely project challenges. Informing the masterplan, and appraising the environmental impacts, we prepared engineering designs in support of the successful planning application.

The civil engineering team has now been novated to the main infrastructure contractor, Roadbridge, and has prepared detailed design information for the €40m infrastructure contract, with construction commencing in spring 2017.

Set in 400 acres of forest, the development includes a swimming pool, supermarket, restaurants and 455 lodges. The infrastructure works include one million m³ of earthworks, 12 km of road, a 1,000-space car park, water sports lake and a waste water treatment plant. Zones of low-grade soft peat amongst mixed glacial till presented challenges, but PBA developed an earthworks strategy that overcame them. High groundwater levels and predominantly impermeable soils meant a sustainable drainage solution was needed. Our design achieved this by using the proposed lake for attenuation, as well as widening existing watercourses and incorporating rock check weirs to slow down and store flood water.

The client wants to retain as much of the forest as possible. Roads and buildings are positioned to make use of existing forest clearings, while preserving zones of high-quality woodland. Our design was developed with a constant awareness of the implications for tree clearance and root protection.

We continue to support the project in a supervisory and designer role as it moves on to the construction of facilities. The village will open in 2019, accommodating 2,500 guests and creating 750 jobs.

Turning Aylesbury Woodlands into a garden town

In 2017, the Aylesbury Woodlands development was granted outline planning permission by Aylesbury Vale District Council. PBA, working alongside our client Buckinghamshire Advantage, led the development of the masterplan for the site.

PBA was appointed through the Homes and Communities Agency (HCA) Multidisciplinary Framework to support Buckinghamshire Advantage with initial preliminary technical and planning advice for the Aylesbury Woodlands site in 2014, helping to create the vision to take the site forward.

Aylesbury Woodlands, part of the Aylesbury Vale Enterprise Zone, is an extensive site to the east of Aylesbury, which will include commercial premises, road infrastructure, leisure facilities and 15,000 new market and affordable housing. The development is intended to be a high-quality sustainable scheme designed to deliver green infrastructure – with 50% of the site green and open.

The decision by Aylesbury Vale District Council to grant permission follows an extensive programme of work, including community and stakeholder engagement in the evolution of this mixed-use proposal. PBA delivered the masterplan for the development as well as co-ordinating contributions from a multidisciplinary team of consultants covering ecology, landscape, heritage, drainage, transport, air quality and noise.
Waterbeach Barracks and Airfield, Cambridgeshire

PBA continues to support Urban&Civic on the redevelopment of the Waterbeach Barracks site, north of Cambridge. We have been working on this site since 2014, providing highways, transport, infrastructure, FRA and many other services. The project is being led from the Cambridge office but with the help of Northampton, Reading and Bristol.

In March of this year an outline application was submitted after we previously helped to secure temporary planning consent for a change of use for many existing buildings on the site. The proposals will deliver a high-quality settlement of 6,500 dwellings, green open space, associated commercial use, primary and secondary schools, and investment in a range of transport, energy and community facilities to support both the new residents and the surrounding town and villages.

While the application is still to be determined, a resolution to grant is anticipated in spring 2018, and it is hoped that a suite of reserve matters applications can follow soon after.

PBA has been engaged in various work streams with the architect Fletcher Priest, landscape architects Bradley Murphy Design and town planners David Lock Associates.

One of the challenges that we are continuing to overcome is the development of a transport strategy without any clear commitment from the local authorities on the strategic infrastructure that will be needed to support the requirements of the existing infrastructure deficit and future development.

However, the recent Cambridge and Peterborough devolution deal has resulted in additional momentum and focus on this transport corridor. We are hopeful that there will be greater certainty early in 2018.
Land north of Cherry Hinton, Cambridgeshire

PBA was appointed by Marshall Group Property and Endurance Estates in 2016 to provide infrastructure and technical services to support the delivery of a new residential development over 45 hectares on part greenfield, part brownfield site adjoining Cambridge Airport. The current proposal also includes a primary school, a secondary school, local centre and community hub, open space and a new spine road.

In addition to multidisciplinary technical services, including transport, flood risk and drainage, utilities, geotechnical and land contamination, sustainability, and waste and energy, PBA has also provided support to the Supplementary Planning Document (SPD) and masterplan.

The site, allocated for development in the Cambridge East Area Action Plan, falls within both Cambridge City Council and South Cambridgeshire District Council planning areas and includes land under the private ownership of two organisations.

Transport, land quality, flood risk and drainage all posed major challenges to the development. Extensive modelling was required in relation to flood risk and surface water management, including the diversion of a major water course, creation of flood compensation areas and an earthworks strategy that didn’t compromise the development framework and parameter plans.

PBA conducted independent transport modelling, with the agreement of the local authorities, to develop a strategy for highways, cycle ways and bus routes, that will minimise the impact to the already complex traffic issues in and around Cherry Hinton.

All these factors serve to make this a challenging development, not only in terms of technical issues, but also because of the need to meet the aspirations of two clients and two local authorities.

PBA has worked collaboratively with the client, project team, local landowners and local authorities to progress the EIA and masterplan in parallel with the SPD, resulting in a robust planning application that meets all requirements. The plan also successfully safeguards the future expansion of the development next to the airfield while providing improved highways infrastructure and connectivity throughout the development.
In 2017 our London offices merged in Bowling Green Lane. We also saw the merger of the London and Kent business groups to strengthen our multidisciplinary offer, unite complementary skills and build on the strong private and public sector relationships of the combined group.

Public sector regeneration continues to be a major area for us in London. Our expanding private rental sector offering is also providing opportunities with major high-rise schemes in Acton attaining planning permission and the further development of sites in Brentford, Swiss Cottage and Archway.

The London transport team has had success with The Leisure Hall at Meadowhall, Eden Walk Shopping Centre in Kingston and Serpentine Green in Peterborough. The planning team continues to support the DCO and energy planning work for Drax, Watt Power and Cory, while the economics team remains at the forefront of policy change, taking a leading role following the publication of the GLA Industrial Land review. The structural team continues to work on major residential programmes in Bexley, Camden, Ealing and Hackney, commercial refurbishment schemes and innovative laboratories for leading universities.

The Ashford office saw steady growth in both civils and transport planning teams, building on successes at Kent Thameside, Ebbsfleet, NW Sittingbourne and Eurolink, and increasing public and private clients in Canterbury. We’ve maintained strong relationships with clients at Thames Tideway, Kings Hill and King’s Cross, and enjoyed continued success in urban regeneration projects such as the South London Mail Centre site, Elephant Park and The Wharves in south east London.

We’re excited about the year ahead. As we prepare for a new landscape post-Brexit, we’re confident that the continued diversity of our portfolio means we are well placed to respond to any challenges.
Delivering much needed social housing

The UK is often quoted as being in the grips of a ‘housing crisis’. Waiting lists for social housing continue to grow; there are currently more than 1.8 million households waiting for a social home – an increase of 81% since 1997.

Many of the issues with social housing stem from the fact that not enough social housing has been built over recent decades. The Government has therefore pledged to deliver 400,000 social homes over the next five years, 90,000 of which are to be built in London. The Mayor of London has committed to building new homes on land owned by City Hall, including Transport for London land, and intends to fast-track scores of sites. This presents an opportunity for PBA.

In 2017 we achieved planning consent for high-profile schemes in Westminster and Wandsworth and continue to deliver large estate renewal programmes in Camden, Hackney and Southwark; helping unlock the delivery of much needed housing for the London boroughs.

In Hackney, we delivered multidisciplinary services in the design of the Great Eastern Buildings and for the Kings Crescent development, which involves the demolition of two apartment blocks and 18 houses across a four-hectare site and the construction of seven apartment blocks, providing 765 new residential units. In Camden, we continue to support the regeneration of the Agar Grove estate, providing 493 homes to the stringent Passivhaus standards. While work also continues at Elephant Park to provide 2,500 new homes and the largest new park in London for 70 years.

PBA continues to provide multidisciplinary services for The Timberyard development in Deptford, where we were appointed by Lendlease to deliver 1,100 new properties as part of the North Lewisham masterplan. 2017 also saw Dujardin Mews, our project to deliver high-quality affordable units on a disused gasworks site in Enfield, win a RIBA regional award.

Next year promises to continue in the same vein with high-profile projects such as the Thamesmead and Alma Estates progressing to construction, and a number feasibility schemes for the City of London and Bexley moving towards planning submission.
Refurbishing office buildings in London

Our structural teams continue to demonstrate expertise in delivering complex commercial refurbishment projects. Major facelifts have been completed for buildings in Uxbridge and Westminster with several new projects lined up for the coming year.

Following the successful refurbishment of the award-winning Thames Tower in Reading, the structural team have recently delivered the refurbishment of Charter Place in Uxbridge. Charter Place was built in 1986 with an integral split-level basement car park and four floors of offices above the ground floor.

The existing structure was re-used where possible reducing cost and time during construction. Ultimately, the refurbishment increased the area of the building by adding a new six storey extension to the south side, infilling the space on the north side of the building with a new three storey extension and adding a penthouse floor.

The project successfully turned a 1980s structure into a commercially viable building with a modern exterior and energy efficient services which surpassed BREEAM targets by 10%.

PBA has also been integral in the scheme to provide modern office facilities to the Local Government Association (LGA) at Transport House in Westminster and its sister site at Layden House in Farringdon.

At Layden House we have been appointed under the HCA framework to provide the full suite of multidisciplinary design services for the complete refurbishment of the 1970s office building up to BCO standards in time for the opening of Farringdon Crossrail in 2018.

This year also saw the complete refurbishment of the Transport House office building in Smith Square, Westminster. Built in 1926, Transport House needed complete modernisation to meet the growing demands of the teams in residence. Phase 1 saw the LGA move operations from their Westminster premises to Layden House, allowing Transport House to be completely stripped out. Phase 2 is soon to be underway in early 2018 with LGA moving back into Transport House, therefore allowing the refurbishment of Layden House to commence, with PBA also being appointed by the main contractor for the delivery phase of this exciting project.
Working innovatively with world class universities

PBA has major projects underway at schools and universities across the country and our innovative approach to outstanding educational facilities continues to see us deliver world class results.

Education and universities remain a key focus for London and Ashford. New primary schools are being delivered in Ealing, Islington and Southwark, while our structures team has been heavily involved in designing laboratories at the University of Warwick and the National Physics Laboratory in Teddington.

We also continue our long-standing relationship with the University of Cambridge, supporting masterplanning at their NW Cambridge and West Cambridge campuses, as well as advising them on innovative transport systems such as Advanced Very Rapid Transit.

PBA has been involved in the ongoing £117 million redevelopment of the University of Oxford’s Old Road campus for several years and work has continued throughout 2017. The redevelopment includes the design of two new medical research buildings, the Kennedy Institute for Rheumatology and Nuffield Department of Medicine.

In 2017 PBA’s structures team also enabled the completion of high-tech facilities for the University of Oxford, including the Beecroft ‘Physics’ facility designed with world-class vibration isolation.

The new Clarendon Physics Laboratory occupies a prominent site in the science area of Oxford. The five storeys above ground provide office, teaching and collaboration space for theoretical physics, while the three basement levels are dedicated to research labs for experimental physics.

The basement labs require a very high degree of vibration isolation, requiring isolation pads between columns and foundations, floating floors to labs, keel slabs and air tables to provide the highest possible level of isolation. By modelling the construction sequence of the building, PBA developed a strategy to minimise the foundation movement of the adjacent building, stabilising the soil and reducing movement to acceptable magnitude.
Delivering nationally significant infrastructure with Drax

Building on existing relationships with Watt Power Limited, PBA has secured work this year with new client Drax Group PLC, which acquired several major power generation infrastructure projects from the Watt Power portfolio at the end of 2016.

PBA is supporting Drax across its Nationally Significant Infrastructure Projects (NSIPs) providing services that include discharge of Development Consent Order (DCO) requirements; environmental due diligence; DCO planning advice; consultation process management; and Environmental Impact Assessment (EIA).

A key project is Millbrook Power Project. We originally worked on this project in 2014/2015; following the acquisition by Drax we were once again appointed to support the management of the DCO planning and consultation process and EIA services, for the up to 299 MW gas-fired peaking plant proposed at the Rookery Pit South, Millbrook, Bedfordshire.

Technical disciplines provided included planning, air quality, noise, ecology, landscape and visual, water resources and quality, archaeology (provided by Orion Heritage), transport and socio-economics. The DCO was managed through our new major infrastructure team and the EIA was co-ordinated through the energy, environment and infrastructure team.

Following submission and acceptance of the application by the Planning Inspectorate (PINS), the project will now proceed to the examination phase, during which we will continue to provide DCO planning and environmental support.

Our DCO planning team is providing similar support to Drax on another gas-fired peaking plant in Wales.

Nine Elms South London Mail Centre

The Nine Elms South London Mail Centre (SLMC) Parkside development is part of the wider Nine Elms Opportunity Area in Wandsworth. BAM Nuttall was retained to remediate the brownfield site and they engaged PBA to provide the infrastructure and utilities design for the 220,000 m² mixed use development, which will provide 1,870 homes.

The extensive below-ground infrastructure has been modelled in 3D to BIM Level 2 LOD 200/300 with non-graphical objects attributes added. Working with BAM, we also developed a best practice initiative – a process to export Civils 3D utilities, setting out information directly to site. Construction works commenced in February 2017 and is expected to last twelve months.

Our Client, BAM Nuttall, awarded us their London Division’s 2017 Supply Chain Award for our outstanding work and collaboration on this project. They commented:

“Peter Brett Associates’ approach to design development, which focuses on client needs, programme elements and budgets is truly remarkable. Their offer of value engineering, sharing of learning goals and commitment to delivery makes them a key partner in the accomplishment of our projects.”

This project demonstrates that collaborative working is integral to the way we work – by working closely within PBA and with external partners, we drive creativity and deliver value to clients.
The South Group’s continued drive for technical innovation and diversifying its client base has seen great success in the past year, and we’re looking forward to major new projects in the coming years.

Although there are uncertain times ahead, we are in an excellent place for 2018 by understanding our clients’ objectives and how we can help deliver their projects across our thriving economic region.

Our success across a wide range of projects such as the award-winning Thames Tower, Reading’s mass rapid transit network, Barton Park and Worton Grange place us in an unparalleled position to support growth. We continue to support Swindon Borough Council to deliver infrastructure for 4,500 new homes at Wichelstowe. We are also supporting Crest, Barratt, Taylor Wimpey, Berkeley Homes, David Wilson, L&G and many others in the delivery of much needed housing across the country.

We are pushing forward with plans for growth which are fuelled by our investment in people and technology. We also continue to support local schools and colleges develop future talent, maintaining our close relationship with UTC Reading.

You should all be proud of what you’ve contributed this year. You’ve worked on some of the UKs most exciting and prestigious projects, and still found the time to support charities and maintain a thriving sports and social calendar.

We look forward to 2018 with confidence. Our focus on our clients, our investment in people and technology, alongside our position on national frameworks and the national infrastructure agenda place us in an enviable position for the future.
Redeveloping Battersea Power Station

In August 2011 planning permission and listed building consents were secured for the redevelopment of the site. At the heart of the development will be the iconic Grade II listed power station building, surrounded by new homes, offices, shops, community and leisure facilities forming a self-sufficient, vibrant and inviting new community. Serving both the new population of Nine Elms as well as the existing population of Wandsworth, together with hotels, student accommodation and serviced apartments, the development will become a new town centre for central London, creating over 14,000 new jobs.

New buildings will be set around the restored power station building and open onto 22 acres of high-quality open space that will be home to play areas, water features, outside performance areas, river frontage, public art and much more.

PBA was appointed to design the main access into the site (Pump House Lane) and junctions into future development phases, including sub-basement car parking serving adjacent development phases. We are also the client’s lead consultant, responsible for coordinating work being carried out by other consultants and architects. This puts PBA firmly at the heart of one of the most exciting and challenging redevelopment projects currently happening in London.

Overall PBA’s design involves civils, structures, bridges, geotechnical and environmental, with initial work being completed during 2017. PBA will also complete utilities diversions, the coordination of utilities for future development phases, structural design of access ramps down to the underground parking and associated M&E design, together with a link tunnel beneath the road.

The Battersea Power Station masterplan has an estimated capital cost of circa £2.5bn and a delivery programme which completes in 2025.

Following 30 years of planning, the redevelopment of London’s 39 acre Battersea Power Station site has commenced. The ten-year scheme will deliver another piece in the jigsaw of London’s south west urban fabric; providing new homes, employment, retail and leisure opportunities, all connected to central London by an extended tube and road network.
South Reading Mass Rapid Transit

Back in 1999, PBA, in partnership with Reading Borough Council, created a 2020 vision for the Reading urban area, that identified a transport strategy to support strong economic growth and reduce reliance on car travel. Much of this strategy has now been funded and/or delivered, including M4 junction 11 with bus priority lanes, major station and interchange upgrades, Christchurch Bridge and a future Green Park station.

Mass Rapid Transit is now the focus of investment, delivering a segregated fast-track public transport network for the urban area, connecting park-and-ride sites to the town centre and stations. PBA prepared a full business case for phases 1 and 2 of the scheme and was awarded £4.5m of Local Growth Fund by Thames Valley Local Enterprise Partnership (LEP) along with Reading Borough Council’s local contribution (£1.1m).

Phases 1 and 2 will provide segregated bus links to connect the existing bus lanes through M4 Junction 11, and the recently constructed Mereoak park-and-ride facility from the A33 Island Road junction to GreenPark junction north bound. The route will improve journey times and reliability of service.

The design and construction of Phase 1a, adjacent to Kier Properties, Worton Grange major development, was successfully completed in 2016. PBA was also commissioned to design and project manage the construction of Phases 1b and 2. Construction commenced in March 2017 with anticipated completion in Nov/Dec 2017 (contract value £2.6m).

Phases 1b and 2 include the introduction of a southbound bus lane by widening the existing carriageway, and the addition of a dedicated lane bypassing at South Oak Way Roundabout. We successfully overcame challenges to construct the new bus lane close to an existing watercourse while maintaining the ecological habitat. The schemes were also carefully designed to minimise the impact on utility diversions and delays to motorists.

The PBA team consisted of civils, transport, Intelligent Transport Systems (ITS), street lighting, hydrology, geotechnical, bridges and ecology, demonstrating the multidisciplinary input required to gain approvals, design and deliver the scheme.

PBA has also secured Local Growth Deal Funds for Phases 3 and 4 of South MRT and East MRT (£10.1m and £19.1m respectively). We have been commissioned to progress the design of the South MRT, providing an extension to the MRT network with later phases completing the connections through to the town centre.
Meeting housing demand in Oxford

The City of Oxford is compact and densely populated with a long and illustrious history. It’s a centre for economic growth, with strong links to the rest of the world, both in terms of industry and academia. The Oxford office is currently involved with a range of strategic development in and around the city responding to the demand for housing and infrastructure improvements.

Barton Park is the largest residential development in Oxford for a generation – located to the north-east of the city centre. The development, a joint venture between Oxford City Council and Grosvenor (BOLLP), consists of approximately 880 dwellings, commercial units, community sports facilities and a school. The development provides essential private and social housing to meet demand in the area and includes future-proof solutions intended to allow versatility as time moves on.

We provided multidisciplinary support to the main contractor (CA Blackwell) during the tender stages, ultimately leading to the project being awarded, and have provided support for the onsite delivery through the design and build contract since early 2015. The journey has been both challenging and dynamic. However, with our versatility, experience and innovative approach, we have been – and continue to be – integral in the delivery of the primary infrastructure critical to the development.

The first phase of housing is currently on sale with the marketing suites open to the public since September 2017. A number of units have been sold and the first of the dwellings are due to be occupied in early 2018.

It is with great satisfaction that we are able to see the development edging closer to completion and providing a much needed new and modern community in Oxford. However, the challenge does not stop here as we continue to provide consultancy support to Grosvenor (BOLLP) until the final occupation in 2025.

The Oxford office in conjunction with Reading is also involved with strategic development opportunities at Oxford North for St Johns College, South Oxford Science Village for Magdalen College, Thames Water and Oxford City Council and Oxfordshire Cotswold Garden Village for Grosvenor Developments.
Utilising PBA’s urban regeneration skills in the Thames Valley

PBA has been working with L&Q to create a new destination for Reading with a central riverside square, that will provide restaurants, a convenience store and landscaped open space for everyone to enjoy. The development will create between 700 and 800 new residences including homes for affordable rent and shared ownership.

Kenavon Drive sits on the site of the former Huntley and Palmer biscuit factory. The history of this site, including the factory, the listed prison opposite and the Abbey ruins, will be reflected in a modern way within the design of the buildings and spaces.

PBA is responsible for providing civil, structural, hydraulic river modelling and transport design services up to RIBA stage 3.

The proposed buildings are arranged in three separate blocks varying in height from six to 11 storeys with a 19-storey tower in the middle block, and low-rise three-storey town houses in the eastern block. The blocks will follow a similar design with perimeter buildings surrounding an enclosed amenity podium space at first floor level that will be accessible by the residents, and consist of hard and soft landscaping.

The podiums also create undercroft parking at ground floor level to meet the parking requirements of the residents. This will allow streets to remain safe and uncluttered and create pedestrian-dominated environments. Visitor parking will be limited to one adopted street and managed by the council through on-street metering.

The superstructure of each podium is a reinforced concrete frame with reinforced concrete flat slab floors. Flat slab construction enables relatively fast construction times coupled with flat soffits for ease of services. To meet the spatial challenges posed by this site PBA developed a surface water drainage scheme using deck drain systems across all podiums to provide the necessary attenuation, thereby avoiding the need for below ground cellular tanks.
During 2017, the Prague office’s workload increased significantly with the start of construction activities on two of our biggest projects in the city.

One of these is the CSOB bank headquarters, a building that will become the seat of the second-largest Czech bank and is being designed to meet strict quality standards while utilising the latest building technologies available. Excavation works also started on the O2 Arena extension, a landmark project with a multipurpose hall that will house conference facilities, sports halls and numerous restaurants. The start of site activities led to increased pressure on our designers to provide timely detailed design documentation. As a result, we have welcomed four new starters since January.

In Bratislava, the detailed design phase started on the extensive Twin City development, a project that we have been involved in for the last six years. The work is being done for HB Reavis, a key client that is very active throughout Europe with ambitious growth plans, especially in London and Berlin. Furthermore, we started the planning permit phase on another significant project in the city – the River Park residential development. As in Prague, new staff were appointed to cope with the increased workload.

The Potsdam office has been busy working for another key client, Vastint Hospitality (IKEA property division) on the Moxy Hotel rollout throughout the country. The sites for this new hotel brand include, among others, Munich, Frankfurt and Berlin (Ostbahnhof as well as Berlin Airport), and the work includes technical due diligence on site, procuring planning, building permits, and detailed design and tender support.
CSOB Bank HQ, Czech Republic

PBA Prague has been appointed to help deliver the headquarters for CSOB, the Czech Republic’s second-largest bank and a daughter company of the KBC Bank of Belgium. The building is being designed to their strict quality requirements and high standards, with an emphasis on exemplary architecture and a pleasant working environment combined with low energy consumption.

The client is aiming for LEED Platinum certification, so the design of the building systems must meet these requirements wherever possible.

The PBA team in Prague is responsible for the design of heating, ventilation and air-conditioning systems in the 40,000 m² building. As the client insists on usage of the most up-to-date systems, our designers decided to utilise concrete core activation for both heating and cooling with pipes located in the floor slabs and walls. This solution requires no further end elements for the systems – no radiators, no chilled beams and no convectors – thus leaving the interior completely ‘clean’. Furthermore, the sole source of heating and cooling will be ground boreholes, so there will be no boiler room, no combustion fumes, and no noisy and unsightly condensers on the building’s roof. The building systems will be able to utilise waste heat from cooling the sunlit side of the building to heat the side in the shade in spring and autumn.
Moxy Hotels, UK & Germany

Moxy is the brand name for Marriott’s budget design hotel. The construction concept is based on a standard design that uses pre-fabricated Cross Laminated Timber (CLT) elements, produced in Vastint’s own factory in Italy and shipped around Europe to different sites. The CLT concept has two main advantages: speed of construction and the use of a sustainable building material.

PBA has been involved since the design of the prototype, and we have carried out technical due diligence for Vastint Hospitality on 25 sites across the UK, Germany and Belgium. Further technical optimisation followed on live projects with the design of standard facades, internal CHP, acoustic and thermal insulation systems, and incorporation of Moxy’s original and exciting interior designs.

We helped secure planning consent to build a Moxy 437-bedroom hotel in Stratford, one of the first planning consents obtained for this brand of hotel in the UK. We supported the planning application submission through the provision of the full range of planning, technical and environmental services. Our high-quality design approach and detailed consideration of the site’s location within the wider Stratford City masterplan led to planning consent success.

For Moxy Eschborn, PBA Germany took the lead consultancy role procuring planning and building permits, followed by detailed design and tender support.
O2 Arena extension, Prague

PBA Prague is playing an integral role in the construction of a new multipurpose building neighbouring the existing O2 Arena in Prague, a landmark convention centre that was completed some 10 years ago and is still one of the best facilities of its kind in Europe.

We are responsible for the design of the ventilation systems in the four storey structure (two of the floors are underground) as well as overall co-ordination of the building services, putting to use our extensive experience in 3D modelling and BIM.

With the ventilation concept concentrating on operational savings, the cooling source will be used in summer only with internal heat gains being compensated by freecooling (i.e. without the use of compressors) in winter. The design is further complicated by the fact that the client requested that spare capacity of the existing air handling units be used prior to designing additional ventilation equipment.

This resulted in the need to find space for a number of large ducts connecting the new building with the existing plantrooms, leading to complex co-ordination solutions involving our designers and the architect.

The extension to the existing O2 will house 20 new halls for conferences as well as sporting and cultural events, together with large catering facilities for 10,000 people. The new building will increase the total capacity of the O2 Arena to 30,000 visitors.

The opening is scheduled for 2019 and there are plans for the building to host the WTA Tour Championships, Davis Cup, ice hockey world championships, rock concerts and other major international events.
In recent years, PBA teams in Bratislava and Prague have taken part in several significant development projects in Bratislava, the capital of Slovakia. The size and scope of these projects is gradually changing the city’s outlook from grey communist-era buildings to modern, sustainable structures.

Three of the most significant developments are in the wider city centre, on brownfield sites, and of these, the Twin City Sever development is a landmark project.

This large project is over 300,000 m² and includes offices, a new bus station and a shopping mall. It will highlight PBA’s global position as we will be directly contributing to economic growth by creating jobs and improving transportation links. This major regeneration scheme in inner Bratislava is being designed using BIM and is the first project of its scale in Slovakia.

Architectural studio Benoy, in co-operation with local architects Siebert+Talaš, produced the attractive design. PBA International was appointed to provide design of all M&E systems from the early stages of the project through to construction, including an underground bus station, a 260,000 m² shopping area and a 130m-high office tower.

PBA’s input concentrates on efficient design of the building technologies that will not only complement the architectural design, but also facilitate ease of use while taking into account the quality of the internal environment, environmental considerations and operational cost savings.

To achieve this, we are modelling the internal environment using the latest software. Our design uses sustainable energy sources such as solar and groundwater as well as the best modern systems, including induction units and adiabatic chillers.
Emerging technologies

The use of digital technology in our work is moving forward at an unprecedented pace, and the expectation that this will lead to more cost-effective and higher quality outcomes for our clients is increasing. People in PBA are keen to meet these challenges, and as ever, there has been a great deal of innovation around the Practice to adapt our approach to services. However, we recognise the need to foster this innovation and help bring new ways of working into practice more consistently. PBA’s digital strategy is designed to meet this challenge.

Each of our disciplines is working to adopt the emerging technologies in their fields, seeking to create new, more cost-effective ways of working, which also provide us with the opportunity to deliver even better client experiences. Over the past twelve months we’ve seen Planning launch a new interactive database, Geo continue to lead the field with new equipment and software that makes mapping and surveys even more reliable, plus Enviro employing drones and new mapping tools. We continue to improve our adoption of BIM, and GIS are on the verge of offering new interactive tools for use by staff and clients.

It is also vital that PBA continues to respond to the digital transformation that is happening in society. We must embrace the change and seek the opportunities that it offers our business. For example, by placing ourselves at the forefront of smart technology we have secured funding for trials to make life simpler for disabled people travelling around Reading by linking their smartphones to disabled parking bay sensors, allowing them to see where parking is available. PBA has also led the development of a business case for smart city funding on behalf of Reading Borough Council; the bid for £1.73m was recently approved by Thames Valley LEP.

This is just the start. By continuing to grow our digital strategy throughout our entire offering we ensure we are ideally placed to secure projects and deliver quality for our clients that will adapt to our ever-changing technologies and society.
Emerging Technologies

Geographic Information Systems (GIS)

Over the last year we have seen a continual rise in the demand for, and the opportunity for the management and interpretation of ‘big data’ in our projects.

With more and more data becoming available, whether it is from freely available satellite imagery or National Statistics, our ability to value and sift information is increasingly being challenged.

PBA’s approach to this agenda is to collate these disparate streams of information in the context of their geography. This means understanding the information in a social, economic and physical context in the first instance.

The use of PBA’s geographic analytics skills is now underpinning decision-making in a range of projects, such as the preferential routing of electrical power lines and infrastructure phasing strategies for growth areas such as Ebbsfleet Garden City.

We are working to enhance our geographic tool kits, like Geographic Information, to create software platforms that can rationalise data more effectively, enabling clearer interpretation for our clients.

PBA’s capacity to create new approaches to geographic and environmental data analytics enhances our multidisciplinary approach, creating simplicity out of complexity for our clients.
Environment and emerging technologies

The environment business group has been incorporating more and more emerging technologies into their services for clients, making project delivery more efficient by taking an innovative approach to data collation, analysis and presentation. At the highest level, this includes the use of:

- Enviro due diligence reporting via ArcGIS to generate an interactive ‘Story Map’ web-based platform for reporting

Building Information Modelling (BIM)

Integrating BIM into our everyday approach enables more efficient methods of designing, delivering and maintaining built assets throughout their lifecycle, allowing us to better serve our clients in the management of digital data assets.

We have informally worked with BIM for many years, but PBA has accelerated investment over the last three years to become an industry certified BIM provider.

We are working to:

- Educate our clients
- Establish governance in PBA’s BIM adoption
- Align our design processes to support digital working
- Educate, re-skill and align our people
- Identify and align our supporting technology.

It’s difficult to predict the future of BIM. However, with the rapid development of emerging technology trends it’s obvious the world we design for is changing. We must respond to this, embrace change, innovate and invest in new ways of working to stay competitive in a digitally disrupted world.

Interactive Planning Appeals Map (iPAM)

The Manchester office has developed a searchable planning appeals database that allows users to search for notable planning appeal decisions or court judgments.

iPAM has been integrated with an interactive map-based search facility, making it more than just a database. The mapped access database uses Google Maps technology to enable users across the practice to search geographical locations easily and quickly, to determine whether there are any landmark decisions or judgments within a particular area. The mapping tool enables users to visually locate decisions so they can take heed of any important planning matters that could be of relevance to other projects being progressed across the Practice.

Going forward, there are plans to embed links to the complete documents relating to relevant planning appeal decisions or court judgments.
Leapfrog 3D ground data presentation

Leapfrog is based on 3D geological modelling software that uses ‘implicit modelling’ to deliver the fast and automated formation of surfaces such as grade, faults and alteration directly from geological data. This is the opposite of ‘explicit modelling’, considered to be the ‘traditional’ manual method of wireframing and digitising.

In our work at PBA, it means we can take vast amounts of data from boreholes, penetrations rates, grout takes etc. and visualise all this data within a 3D space. It enables us to create a ground model and in some cases, validate the work that we are undertaking. Another advantage of Leapfrog is that it speeds up the modelling process and allows models to be automatically updated as data is adjusted.

Leapfrog will benefit the Practice by allowing us to present our findings and work in a way that is easier for the client and other people working on the project to understand. So far, PBA is currently trialling the use of the technology on chalk mining projects such as Pinner Wood School and Brickfield Cottages. If it is successful within these projects it will be used for all chalk projects.

Emerging technologies in sub-surface investigation

The unknown location of historic chalk mines, shafts and adits beneath our feet present serious issues for local communities. The technology that helps us explore and address such issues is developing quickly and PBA is leading its adoption.

For example, PBA recently conducted investigations in a ground surface collapse using dynamic probes, adapted rotary boreholes, window sample boreholes, and hollow stem auger boreholes. These intrusive works were supported by site-wide geophysical investigations using Ground Penetrating Radar and Electromagnetic mapping. Specialist geospatial engineers also deployed a geo-referenced Cavity Auto Scanning Laser System to conduct subsurface void laser scan surveys. The use of subsurface laser scanning enables open mine workings to be quickly and accurately mapped, in 3D, saving time and cost in the mapping process.

PBA has employed this method of sub-surface investigation on several high-profile projects, using leading edge equipment not widely available in the UK. This establishes us as experts in our field as well as delivering programme and cost savings for our clients.
Pretty much everything that happens at PBA happens because someone, somewhere has the enthusiasm to do something – share it with colleagues – and get out there to do it.

PBA’s approach to Corporate and Social Responsibility (CSR) has been developed to support and encourage this enthusiasm, and facilitate wider participation. Brett Communities now provides a framework through which we can support CSR across four main areas: Sports and Social, Charitable Initiatives, Collaborative Networks and Engagement in Education.

Here are just a few of this year’s activities:
What a year!

[Images of people celebrating with Christmas attire, posing for group photos]
What a Year!
What a Year!
What a Year!
PBA is full of inspirational people. Last year, Howard Darby, a terrific engineer, retired from the Practice having recently completed his doctorate thesis on embodied carbon in buildings. He had never tired of learning and his keen intelligence constantly sought out new challenges.

As an organisation, we want to encourage this desire for learning in everyone. Our knowledge and skills cannot stand still, and as professionals we know we must keep ourselves sharp and relevant through continuous development. The Partners and Directors have made a commitment that PBA will strive to become the best developer of consultants in our market. This is easier said than done. So, I was delighted to discover last week that we are ranked first for the amount we spend on training amongst our peers in the ACE, spending 20% more than second place. Don’t tell Alec.

Of course, spending alone does not mean that we are meeting our needs in pushing ourselves professionally in every area, but the work this year by HR and the technical groups in mapping career-long development paths, promoting routes to chartership and shaping better pathways for our apprentices and graduates will all help. In 2018 we should all commit to not only meeting our CPD requirements but to exceeding our own expectations of how far we can each progress professionally within the firm. It is not just about the next promotion, but also stretching our skills and knowledge in, say, recruitment skills, project management, the application of new technologies or mentoring.

The list of available courses is long, time is short and clients are demanding, but balancing personal development and project delivery is something to work through carefully with line managers, especially, but not only, during the annual development review process. Of course, there is so much to learn from clients and other professionals but we must also get better at reviewing our own work mid- and post-project to gain more insight on how to improve our combined performance. We also need to share this around the firm more freely via Lessons Learned sessions.

We are truly blessed by the exceptional quality of people across our firm and we owe it to ourselves to get the best out of each other. Let’s make this our theme for 2018.

Paul Reilly

Paul Reilly
Review of the Year 2017
Peter Brett Associates LLP is a leading development and infrastructure consultancy

As an independent practice of engineers, planners, scientists and economists, we provide trusted advice to create value from the land and buildings owned or operated by our clients. Together, we create better places for the communities in which we work.

All our work, from the engineering of landmark buildings and critical infrastructure to the spatial planning and economic evidence in support of development, is evidence-based and informed by a deep understanding of what it takes to deliver construction.

We have a strong reputation for taking the initiative to extend our knowledge, seek out opinions, and challenge our methodologies. This open-minded approach to our work is embedded in our culture and our values.