

BUILDING WELBORNE

THE FIRST PHASE



AN ENGLISH GARDEN VILLAGE



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Introduction

by Mark Thistlethwayte,
Chairman of the Buckland Group

It is not often that anyone gets the chance to design and then deliver a genuinely new community – let alone one for 15,000 people to live, work and play in. The responsibility to deliver a place that people will be happy to call home today, one which will be equally enjoyed by future generations – a place of which we are all proud – is very real and sits behind much of our approach to creating Welborne.

I consider us to be very lucky that before Welborne was proposed we were not housebuilders or experienced in urban design; it has given us a ‘clean sheet of paper’ to look at what we really want to deliver. A fundamental part of our approach is our long-term involvement, not just with the creation of Welborne but also with our commitment to its development financially. This approach goes through everything we do. We have spent a great deal of time visiting other developments – nationally and internationally, old and young – and have sought to learn from these places. Some of them are developments that were built 100 years or more ago, so our mission has been to ensure that our take on these places is fit for purpose in the 21st century and beyond. Unfettered by the norms of the building industry we are adopting a bespoke approach to development which will combine high-quality architecture and craftsmanship; integrated community facilities and

social infrastructure from the start; as well as sustainable energy; extensive green space and access to nature.

The project is one of the largest developments in the UK, comprising 6,000 homes, schools, healthcare facilities, parks, retail and commercial premises and all the other key elements you would expect to make this a great place to live.

Perhaps the key difference in Buckland’s approach to seeing Welborne become a reality is that we are involved, and will continue to be involved, in every aspect of the delivery. We are firmly rooted in Hampshire and are focused on the delivery of this new community for our wider community. Publicly-listed development companies tend to need to maximise value for their shareholders in the short term. In contrast, as a local, private developer, we are focused on building a desirable place to live and on creating a thriving new community for the long term.

One lesson we have learned on our tours is the need for ongoing stewardship for the community, to ensure that it continues to be properly maintained and can thrive. To this end, we have established the Welborne Garden Village Trust. The Trust will become the community’s own management and governance vehicle and will itself maintain much of the community infrastructure and open space.



My ambition is to build a place in which people will still want to live,
one hundred years from now. **Mark Thistlethwayte**

- ▶ The Welborne Masterplan
- ▼ The Village Centre



In our view, early spend on social infrastructure is an essential investment that will pay dividends over time. For example, the Welborne Village Centre, with its pub, community hall, GP surgery and shops will be independently built by Buckland as part of the first construction phase, in parallel with the first residential houses. From the earliest possible date we will ensure the necessities of daily life and leisure are available in the community, with a diverse collection of businesses, shops and cafes, making the most of locally-sourced produce and maximising our employment opportunities in the area.

Indicative to our commitment to both the early provision of infrastructure and to the sustainability of the new community we commissioned the 48MW Welborne Energy solar park in 2015. Our first phase will benefit from a new ground sourced ambient heat network, taking heat from water coming up from the aquifer below. We are the first large-scale development of this type in the UK to ensure that energy consumption is properly sustainable.

Of course, as a sustainable community Welborne needs to be a place of employment too. We are committed to creating 6,000 long-term well-paid jobs as part of the

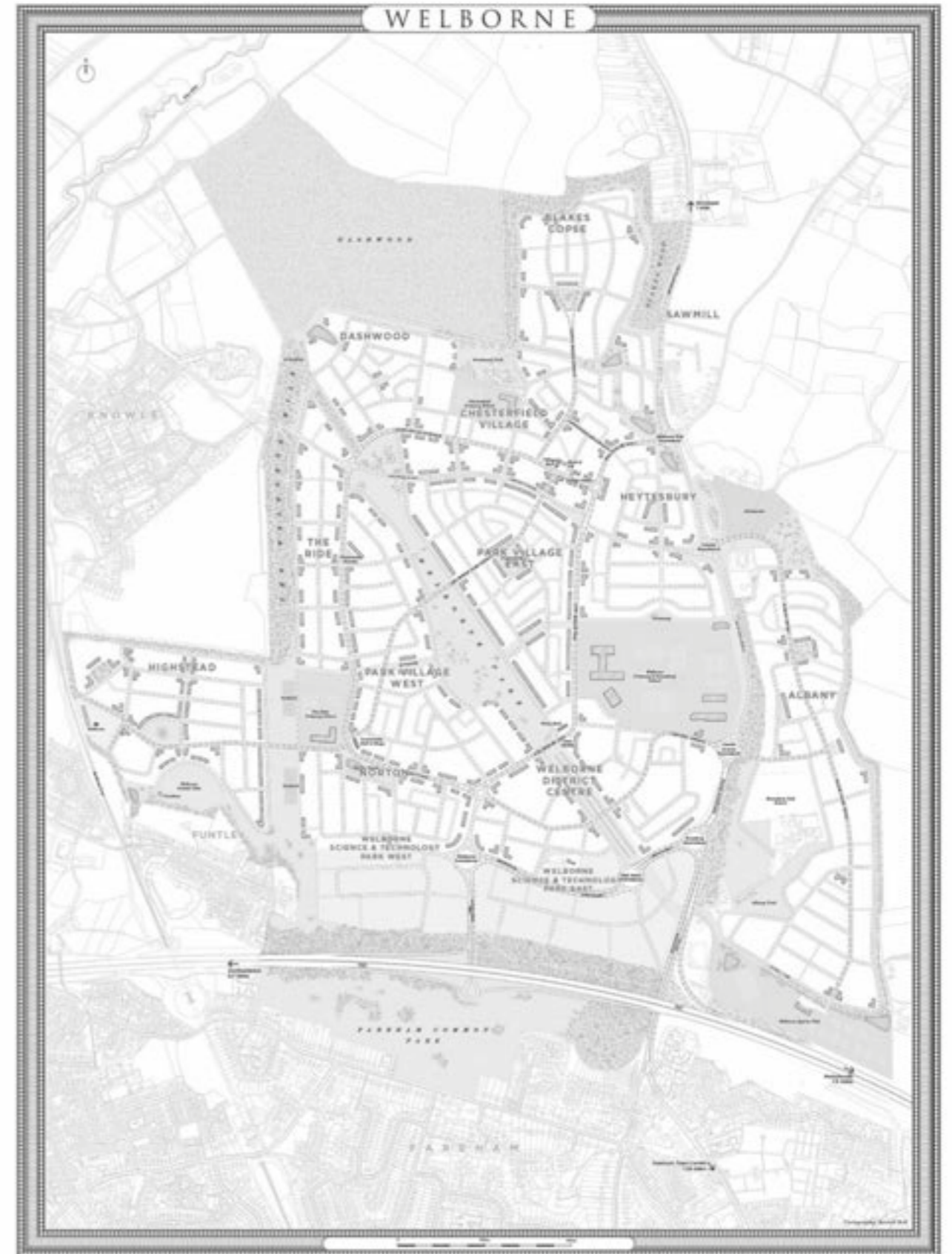
community (after the early construction jobs). Employment opportunities will be designed into most phases of the development, as well as with the proposed Science and Technology Park. We hope to support new incubator units to allow businesses to be established at Welborne and then grow.

Good architecture is fundamental for us in both the residential and commercial settings. By partnering with leading architects to oversee the design of our homes and other buildings, and with family-run housebuilders who truly understand the very best of both traditional and modern techniques, we will be able to deliver high-quality new homes within a beautiful community setting.

Incorporating lots of green space is integral to our design. We will embed trees, gardens, and access to nature into the fabric of the community, promoting wellbeing and biodiversity.

Our vision is to build a community inspired by the English Garden Village movement of a hundred years ago, fit for today and for the future.

This document sets out in more detail how we are making this vision a reality.





▲ Chesterfield neighbourhood



▲ Chesterfield neighbourhood

Ben Pentreath

... is bringing his expertise in elegant building design to Welborne

When Mark Thistlethwayte set out on his Welborne journey, he wanted to build a town that set the benchmark for a traditional English Garden Village, but one fit for the modern age.

Central to that was the architectural style: a contemporary reinterpretation of a golden age of Edwardian housebuilding that developed in the late nineteenth century and matured in the first three decades of the twentieth century.

It is this period that has provided inspiration for Ben Pentreath at Welborne. Ben has a significant reputation in designing new places with a profound understanding of tradition, projects such as Poundbury and Faversham, for the Duchy of Cornwall, Sulis Down in Bath, and the new town of Tornagrain in the Scottish Highlands.

Ben has been the Welborne Town Architect since the start of 2019. His practice has drawn together the entire Masterplan, itself inspired by great Edwardian exemplars – with its strong, landscape-led structure of leafy, tree-lined streets, with wide grass verges and hedgerows.

As the Garden Village moves towards reality, Ben is designing a large number of the houses, as well as steering through the broader architectural Design Codes for Welborne. The pictures throughout this book illustrate the proposed houses, squares and streets that are all designed by Ben and his office, adding texture and meaningful variety to the overall Masterplan across the 1,000 acres.

The appeal for Ben lies as much in the intellectual as the architectural. Other new towns are being built across the country, but few have the scale and ambition of Welborne. The brief laid down by Mark and John, to create a modern sustainable blueprint for high quality housebuilding that can set a new standard for the future, is a challenge that intrigued Ben and his team.

As you can see from this book, studded throughout as it is with Ben's wonderful illustrations, Welborne is on track to become an exemplar of the English Garden Village, but one fit for the modern age. It's only right that Ben Pentreath is at the heart of it all.



This first phase of Welborne that we are now designing is substantial in scale – representing for example, one-third of the entire Poundbury development – but is just over one-tenth of the entire Welborne project. It's incredibly exciting to see the whole area beginning to take shape in detail; we are re-learning the lessons of the great Edwardian town planning movement, which have proved to be such a powerful and enduring theme in English domestic planning, and which crucially have the potential to be delivered to a very high standard in the modern housebuilding system today. **Ben Pentreath, Town Architect**



There will be something revolutionary about seeing these streets emerge, because nothing like it has happened for a hundred years. I sincerely believe that Welborne will set a new benchmark, on a large scale, for building new settlements with an inherent sense of authenticity and design; simple but with a real sense of character and meaning.

Ben Pentreath, Town Architect

- ▲ One of Ben's designs of a Welborne home
- ▶ A CGI showing Welborne's Dashwood Avenue including one of the strategic cycle routes that is designed into the street network



Kim Wilkie

... a proponent of biophillic landscape architecture

It's not just that he has a History degree from Oxford, and studied Landscape Architecture at the University of California, Berkeley, although undoubtedly both of these experiences give him a different perspective on the work he does.

What makes his approach unusual, and indeed unique, is that his first action on visiting the Welborne site in the summer of 2022 was to grab handfuls of the soil and let it run through his fingers. Kim believes that the most important connection he can make in his work is between people and the land they inhabit.

That thinking has heavily influenced his work; where others saw a low chalk hummock at the centre of Ben Pentreath's site Masterplan, Kim saw the vestiges of a long barrow, the remnants of Iron Age settlements on the Welborne site from 5,000 years ago. Recreating that landscape in his modern design for Welborne was a central

part of Kim's vision. So too was a desire to excavate the original chalk pits and dew ponds around the site, again a nod to the community that once thrived there.

This approach is strikingly similar to that taken by Ben, both men looking to the past to create a new future for Welborne in their respective roles as Town Architect and Strategic Landscape Architect. Perhaps this explains the remarkable number of collaborations that both have undertaken. They work symbiotically, spending long hours standing on the land imagining what once might have been, as they decide what will be.

Kim views Welborne as a project in his backyard – the site is only a few miles from where he lives – and is in no doubt that the vision he has for the landscape is one shared by the Welborne team; drawing inspiration from the past to create a new future at Welborne.



.....
The most important way in which people can connect with the landscape around them, is not just the view from their kitchen window, but the bench under the tree in the woods, where they can sit and contemplate all around them.

Kim Wilkie, Strategic Landscape Architect

Ben and I have worked together so long we've learned to finish each other's sentences. I'm looking in and he's looking out. He's designed the beautiful homes where Welborne's new residents will live, but I like to think I've designed how they'll move. I want the community who will live there to enjoy these chalky grasslands, meander along the paths, scramble up the playfully sculpted mounds among the ponds and trees... to see the views and feel connected to the land. And I hope the children roll down the slopes, just as children have always done throughout history.

Kim Wilkie, Strategic Landscape Architect



▲ Kim's work at Heveningham Hall in Suffolk
▶ Franklin Farm, Hampshire





▲ Welborne Park



▲ Chesterfield neighbourhood

Selecting the Perfect Partners

John Beresford, Managing Director of Buckland Development Ltd led the build partner selection

The normal method of delivering homes is very different to what we at Welborne are proposing. Traditionally housebuilders compete with one another to buy land. Of course, it's no surprise that most landowners want a quick sale to the highest bidder – who can blame them?

Sadly, this model has unintended consequences. A builder who is successful in having their (highest) land offer accepted will often seek to claw back their profit by increasing the density of homes or reducing the cost of building – usually by reducing the quality of the materials in the scheme that is built.

Having spent many years in the industry I'm aware of this and many other shortcomings in the system that work against good design. Several years ago, I met the owners of the Southwick Estate, and was struck by their determination to break the mould and build a place of which they and their successors would be proud for generations to come. It was their determination and understanding of the economics of development that attracted me to join them in their journey of creating a different model for building Welborne.

Since the planning application for Welborne was granted, our focus has been on the delivery of the infrastructure and the homes. Whilst the housing market

has been dominated by larger volume builders there are sometimes little rays of light where smaller privately-owned builders have battled with the planning system to get better-quality schemes built. We knew we needed to find like-minded builders that had similar values to us and who cared about the homes they built. By the time we got our planning consent we found that we didn't have to look too far for the right builders. They came to us!

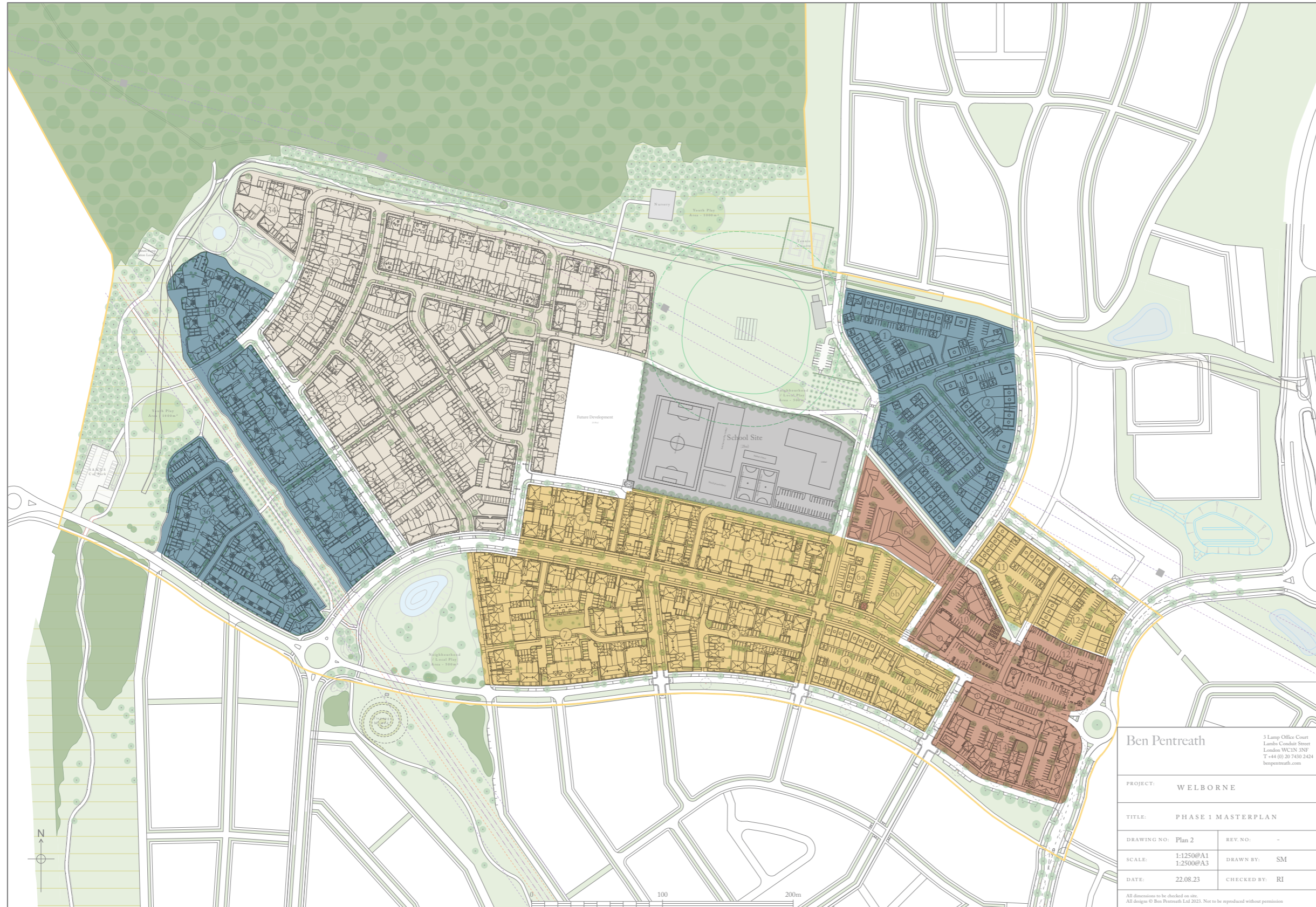
As much as we feared the demise of the good quality builder, we were delighted that some builders had seen our vision for Welborne and had decided to target us as well. This led to a position where we shortlisted builders who we thought could be suitable partners. On our journey of meeting builders and visiting the places they had built we reduced the shortlist to three.

Through our discussions, we discovered that if we wanted to partner up with better quality, smaller builders we needed to change the way they normally bought land, built homes and sold homes.






Put simply, our dilemma was that the kind of better quality builders we wanted to work with aren't the sort of builders that can write huge cheques to pay for the land. Conversely, those that can, won't build the sort of homes we aspire to deliver at Welborne.



At Welborne we have formed partnerships with a new kind of business model where Buckland shares in the risk and reward with the house build partners. The build partnerships we have formed won't pay for the land until the homes are sold which means that our better quality builders are building on schemes that would have normally been reserved for big volume builders. In essence, we've designed a financial structure that enables the better quality smaller builder to construct on a large scheme such as Welborne. This approach is groundbreaking, and future residents of Welborne will reap the benefits for years to come. **John Beresford**



◀ Welborne's Masterplan for phase one demonstrating how land will be divided for delivery

-  CG FRY & SON
-  PYE HOMES
-  THAKEHAM
-  2FE SCHOOL
-  VILLAGE CENTRE BUCKLAND DEVELOPMENT LTD

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PROJECT:	WELBORNE		
TITLE:	PHASE 1 MASTERPLAN		
DRAWING NO:	Plan 2	REV. NO:	-
SCALE:	1:1250@A1 1:2500@A3	DRAWN BY:	SM
DATE:	22.08.23	CHECKED BY:	RI

All dimensions to be checked on site.
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▲ Welborne Park



▲ Dashwood neighbourhood



◀ First phase map of parks and public green spaces

- VILLAGE CENTRE SHOPS AND AMENITIES
- VILLAGE CENTRE PUBLIC SPACE
- PARKS AND PUBLIC GREEN SPACES
- COMMUNITY GARDENS
- PRIMARY SCHOOL
- HOUSES AND PRIVATE GARDENS
- ORCHARDS
- DASHWOOD WOODLAND

CG Fry & Son

... is not your usual housebuilder

It's not just the fact that it is a third-generation family business, now thriving under the leadership of Philip Fry, grandson of Charles, the founder.

Nor does its single-minded approach to craft, build and design quality set it aside from others, as our other two house build partners will attest.

What makes it unusual is that this highly successful modern construction company is set well off the beaten track, in the astonishingly beautiful village of Litton Cheney, in Dorset. When we say in the village, we mean right in the heart of the village, two hundred metres down the hill from where the business was founded in 1935.

Perhaps the subliminal effect of being in such a picturesque setting has rubbed off on everyone who works for CG Fry. The houses they build today would sit comfortably in the ancient village and look as timeless and elegant as the rest.

Philip's grandfather was originally a wheelwright, but with the advent of the mechanised tractor, he saw the writing on the wall, and turned his hand to building. That woodworking heritage still exists in the business; the sizeable joinery which sits at the heart of the headquarters produces a huge array of hand-crafted porches, balustrades, kitchens, doors and even windows for CG Fry customers across the country.

It's easy to see why Welborne and CG Fry are natural bedfellows; both are obsessed with building homes to the highest possible standard, both are driven by legacy, tradition, and craft and both have an extraordinary attention to detail. Welborne residents will expect design, materials, construction and finish of the very highest standard. With a CG Fry home, this is exactly what they will get.



Tradition and craftsmanship run through the blood of this family business. Every development we work on is a bespoke exercise in recreating the features and characteristics that are typical of that area.
Philip Fry, Managing Director, CG Fry & Son



We make sure we spend time getting to know the local communities and the architectural heritage of the site, so that we can honour the small details. That's what the new owners would look for, but it's also what the local residents already in the area will recognise and appreciate. I want to create homes in which people are proud to live, now and in the future. It's a joy that Mark and John [of Buckland] have the same desire.

Philip Fry, Managing Director, CG Fry & Son

- ▲ Charlie Fry and his employees outside the first home they constructed in Chalk Pit Lane at Litton Cheney; Harry Carpenter – Apprentice Joiner
- ▶ A recent CG Fry development, Kingston Farm, Bradford-on-Avon





▲ Proposed CG Fry houses in the Dashwood neighbourhood

Pye Homes

... have been building communities for almost one hundred years

In 1927 Jack Pye built his first house. Almost one hundred years later, Graham Flint finds himself at the head of one of the most respected and innovative traditional housebuilders in the country.

The business was run by the family for 91 years, and then in 2018, Pye was acquired by Blenheim Estate, a long-standing partner of Pye's and a respected landowner within the county of Oxfordshire and beyond. Since then, Graham and his team have been fully occupied building out much of the award-winning homes at Blenheim, with nearly half the development now complete.

When put on the spot, Graham is clear on why Buckland chose his firm as one of the three house build partners. Pye, he says, is a byword for quality.

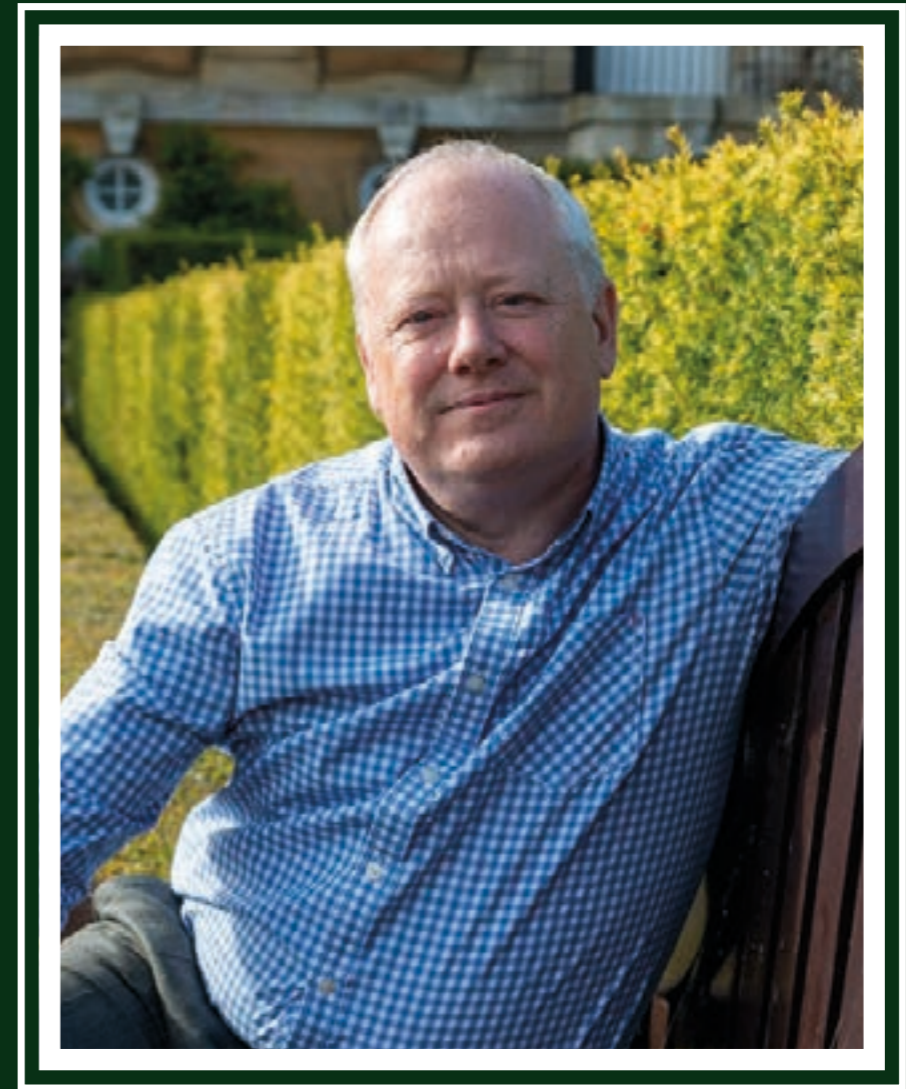
There is a zeal about how Pye builds its houses, right down to the fact that they have used many of the same subcontractors on their sites for around 45 years. In a modern world of hire-and-fire, that's an astonishing tenure.

The benefits are clear for all to see. Graham says that bricklayers and stone masons who come from Oxfordshire know how to build in the local vernacular and are spiritual descendants of the local style which is particular to the Welborne area.

The result is thoroughly superior build quality that has led to many of their customers being repeat purchasers of homes built by Pye. There is a self-evident pride that Graham and his team know all of their customers and purchasers.

He's excited too by some of the innovations in technology that the Welborne project offers, especially the closed loop heating system that will heat homes more efficiently, and without using fossil fuels.

As with so many aspects of the Welborne story, old Jack Pye would be comfortable with the design and build quality of what Graham and his team are creating, even if he might be a bit bemused at the prospect of running a heat pump from your smartphone.



As the Managing Director I have the privilege of being the custodian to this wonderful family legacy. My priorities are the same as they were at the start – we build the best homes we can, using the best materials and the best workforce. Tastes change, innovations arrive, and other homebuilders come and go. We've stood the test of time, making sure that the homes we build continue to live up to our high expectations. For us, some things about building homes haven't changed.

Graham Flint, Managing Director, Pye Homes



The quality of homes and the customer care we provide is important to us and the personal touch matters. People who buy our homes know each of us by name, and because of this we get a lot of repeat customers. Some people are on their fourth Pye home, and this is something in which we take great pride.

Graham Flint, Managing Director, Pye Homes

- ▲ Pye houses at Park View in Woodstock, Oxfordshire
- ▲ The construction of a home at Park View in Woodstock, Oxfordshire
- ▶ Bricklayers on a Pye Homes site





▲ Proposed Pye Homes houses in the Dashwood neighbourhood

Thakeham

... puts the culture and welfare of its workforce first

If you were to imagine a housebuilder that had set out to do good – as well as build well – then you would be hard pressed to beat Sussex-based housebuilder Thakeham.

Started in 2003 by Rob Boughton, Thakeham has quickly become one of the very best of its kind in the UK, with an enviable reputation for creating communities and bringing a strong spirit of professionalism to the housebuilding industry. Rob's uncompromising approach to business quality and standards has established Thakeham as leaders in sustainability, with a commitment to reach net zero by 2025. This plan features a strong devotion to community engagement and a series of partnerships with charitable causes, most notably the Plunkett Foundation.

But it was the way the business engages with its supply chain, and the construction workers and tradespeople who deliver Thakeham homes to the highest quality, that caught Mark and John's interest. The welfare and empowerment of those workers is so engrained in company culture that they're known informally as the *Thakeham Family*, a term that has become commonplace around the industry.

For Thakeham, that's a commitment to attracting the best talent, at any stage of a project. Being hired to work on a Thakeham project is hard – the company is scrupulous about references and standards of work. Once onboard though, and you join the family, the company will do all it can to look after you.

For a multi-year project as big as Welborne, these characteristics are invaluable. The Welborne vision calls for a regular supply of construction workers and materials of the highest quality over a prolonged period of time. This is where the *Thakeham Family* comes into its own.

Thakeham is one of the few businesses to maintain the old-fashioned topping out ceremony, religiously attended by Rob and his management team. From every apprentice on their first job, through to the most experienced construction veteran, standing in a muddy field chomping away on a bacon sandwich standing alongside the man who runs the company is a great leveller.

The Thakeham houses are built beautifully, with such evident care and attention, by the very people assembled to celebrate the occasion. It's no wonder those topping out ceremonies are so well attended.



It's not just about houses; it's about community. If you build 6,000 homes without soul, you'll fail. And as with charity, community begins at home. At Thakeham we recruit people from a whole range of backgrounds. We believe everyone deserves a chance; those coming out of prison, people leaving the armed forces or anyone who's been unemployed for a while. **Rob Boughton, CEO, Thakeham Group**



There's still more work to do; for example, we'd like more women in construction. We're proud that our workforce is now 38% female, and we're working hard to increase that. We run our training modules on Diversity, Inclusion and Unconscious Bias in the same way that many organisations do, but we're especially proud of the culture we have created where people feel they are able to be themselves and bring their whole selves to work without being judged.

Rob Boughton, CEO, Thakeham Group

▲ Mid-construction on a Thakeham site

◀ One of the famous Thakeham topping out ceremonies



▲ Proposed Thakeham houses at Chesterfield

Charlie Dugdale

... from Knight Frank reflects on the importance of Buckland in securing the long term vision for Welborne

While you may well expect a Partner from Knight Frank to be contributing to this book, the subject matter is perhaps more unusual. Our brief was to advise on a structure that will help Buckland deliver their vision for the long-term and ensure that once the builders are gone and the ribbon cutting has concluded, Welborne remains a place where people want to live.

Put simply, the more people who want to live and work at Welborne, the better return for the homeowners, both in social terms and also financially. A house is, for most people, their single greatest asset and we want the houses at Welborne to be a good investment as well as a fabulous place to live.

Having studied other examples both domestic and international whilst working on the government's Building Better, Building Beautiful Commission we concluded that the long-term Welborne vision could not be guaranteed unless the landowner exerted real control through ownership.

The team devised a governance structure that we believe is the first of its kind: not only has the landowner become an expert Master Developer, but also a house builder.

This means that they will maintain stewardship not just over the delivery phase of Welborne, but out into the future as well. Their task is to ensure that it becomes a place that engenders civic pride and is a great place to live.

Among other things, the Buckland team will be responsible for ensuring the Welborne Strategic Design Code and Streets Manual are adhered to, so later parts of the development are in keeping with the first homes. They also have a responsibility across the estate to provide clean, serviced land for development, all site-wide marketing and the delivery of infrastructure and landscaping. Finally, and most publicly, they are responsible for the establishment of The Welborne Garden Village Trust, a not-for-profit body that maintains Welborne and acts as a trust to ensure these standards are applied in every aspect of the town.



The Welborne Garden Village Trust will ensure that the special nature of Welborne will be preserved for generations to come, and means that this wonderful place cannot fall prey to the future whims of developers. If you are considering buying a house here, that is surely a most reassuring piece of news.

Charlie Dugdale, Partner, Knight Frank

Engaging with Welborne

... bringing the local communities on the Welborne journey

Establishing open community engagement in large development projects must begin well before foundations are laid and homes are built. Our approach to Welborne has been, and always will be, focused on the long-term good of the area. So, while construction is about to start on-site, our discussions with the local community in fact began some 17 years ago, well before Buckland became the Master Developer.

At the start, we sat down with Fareham Borough Council (FBC), along with members of the local community and key stakeholders, and discussed how best to respond to the borough's housing needs. We contributed to the council's concepts from the earliest stages, drawing on the Garden City Principles long before they became a government initiative in 2015. This process included challenging some of the early ideas which we did not feel were appropriate for the area, like early ideas of putting housing along the motorway, or squeezing in more houses at higher density.

This has meant that, over the years, Buckland Development has had a consistent vision and has liaised with numerous groups as FBC took their Welborne plans and policies through the government approvals process. Importantly, we have developed a good understanding

of the concerns of neighbouring villages through workshops and consultation groups. This is important because, after all, we may be building a new community at Welborne but those new homes, people and businesses will form part of a wider local community.

Naturally, there are specific concerns amongst local communities. This is why we established the Community Liaison Group in 2017 encompassing Wickham, Knowle, Funtley, Wallington and North Fareham. The Group meets every three months so that we can listen to feedback, provide updates, and answer questions. We also have our existing commercial tenants within Welborne at Dean Farm – a cross section of local businesses, some of whom are now working on Welborne, as well as Boundary Oak School. We also continue to farm at Welborne and manage the woodlands, meaning there is regular liaison with Southwick Estate team which brings valuable agricultural and land management expertise.

The challenge we face is how to successfully explain this highly complex project to local residents in a helpful and engaging way. As Welborne pivots from concept to construction, we aim to maintain our open discussions with the community, bringing all these important groups with us on this exciting new leg of the journey.



Welborne might be a new community but ultimately the people that live and work there will be part of a much wider network. It is important to us that existing locals know what's going on and feel engaged with the project, and also that people who buy a home at Welborne feel connected to the area.

Fiona Grey, Director of Community & Place, Buckland Development



▲ Phase one Village Centre

Warming Welborne

... a ground sourced heat network

Modern housing developments of this scale typically use air source heat pumps. At Welborne we are taking this a step further by creating what is known as an ambient heat network. This takes the form of a piped network under the footways with a flow of water into every dwelling at a relatively low temperature of around 10–12°C. This water is fed through a heat pump in every house where the temperature can be boosted to around 30–40°C for space heating or even further to 60°C for hot water. The water then flows back to the return side of the network to go back to the source and pick up more heat in a continuous cycle.

One of the big advantages of this is that the efficiency is greater than an air source heat pump, reducing the demand for electricity. It is also far quieter and less intrusive as it eliminates the requirement for a fan unit outside, which typically would sit on the patio blasting out cold air.

However, our system does not just offer heating. In periods of extreme hot weather, the water can be used to send cool water through the fan coil radiators in the homes to provide cool air without the need to use electricity to run air conditioners.

The unique part of the Welborne system is the source of the water. Other ambient networks of this type use a great number of boreholes drilled hundreds of metres deep around the site to abstract heat. At Welborne we have partnered with Portsmouth Water, who supply around 40 million litres of drinking water every day from their underground reservoir at Hoad's Hill, just to the north-east of Welborne. The majority of this water is sourced from the chalk aquifer at depth and is at the stable temperature required. In addition, it is constantly replenished and does not abstract any more water from the ground than is already being used by Portsmouth Water's customers. There is a heat exchanger placed near the reservoir and Welborne will abstract approximately 2°C from the water source in winter.



▲ Blakes Copse neighbourhood

The Substations

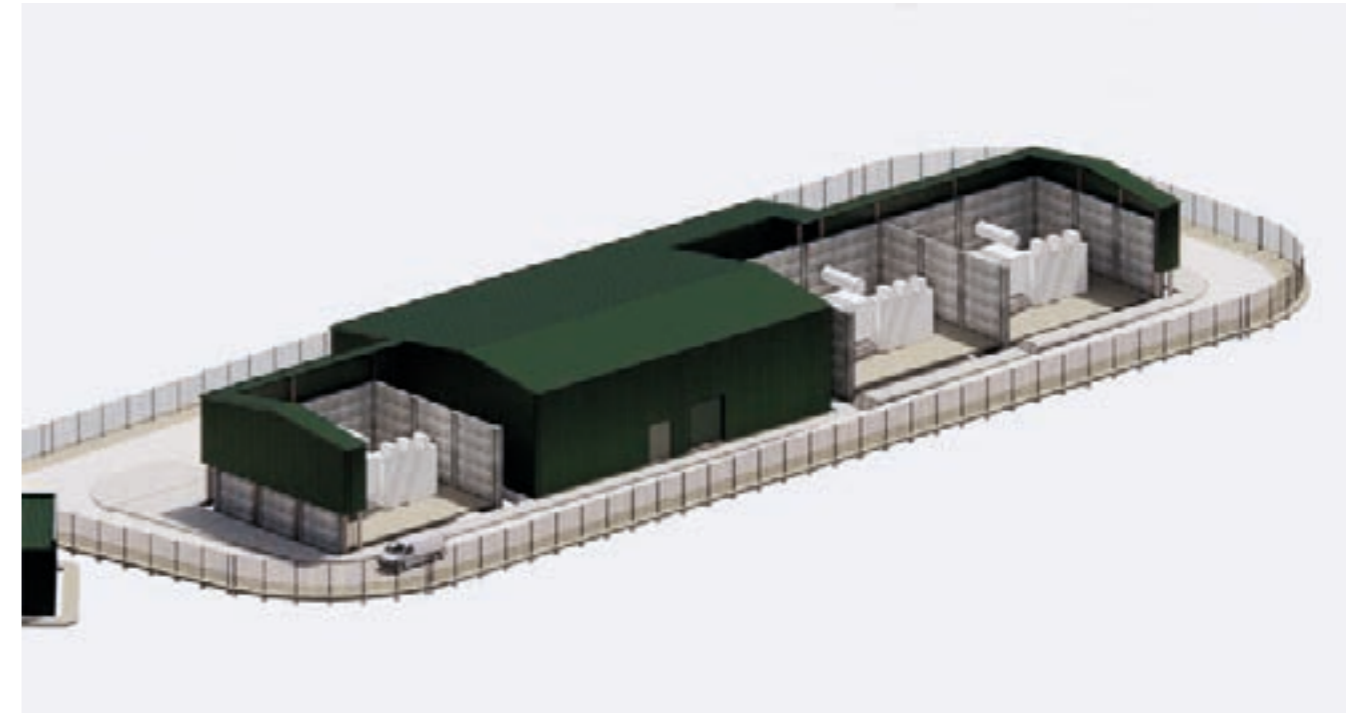
... clean energy meets architectural design

We are committed to ensuring that Welborne is fit for the future, this includes securing the provision of electricity for electric vehicles and heating, enabling us to keep our carbon emissions as low as possible. For this reason we are building electricity substations to service the needs of our new town.

The primary substation will be built to the north-east of Welborne. It will be well-hidden from existing properties and from the A32 by the natural ground contours and planting. The primary substation will have a capacity of 35 megawatts, enough to boil around 12,000 kettles or charge 5,000 electric cars at the same time. We are also utilising 4 megawatts from the existing North Fareham primary substation; this means that the total available capacity at Welborne will be 39 megawatts. This is a much larger amount of electricity required than a typical gas-heated development but will ensure that Welborne is future-proof.

The primary substation will be built within a stand-alone compound and will be designed to resemble a modern agricultural steel-clad building. The design has been carefully considered to reduce visual impact and the transformers which need to be in the open air will be screened by false walls on three sides with the open side facing into earthworks.

These visual measures will also help to alleviate any noise from the substation. All the switchgear is gas insulated which enables it to be housed internally and the substation is both compact and quiet. We are committed to ensuring that not only is Welborne a great place to live, but that people living in surrounding areas are protected and subject to minimal disruption. It is for this reason that we have chosen quality over cost and why we are taking the time to make sure that all works undertaken on the site are done in the very best way.



▲ North East and South West Substation Elevations

Welborne Science & Technology Park

... world-class facilities for groundbreaking research

Welborne is not just a place for people to live. We are creating shops, schools, parks, business premises and healthcare facilities as well as a futuristic, innovative Science & Technology Park.

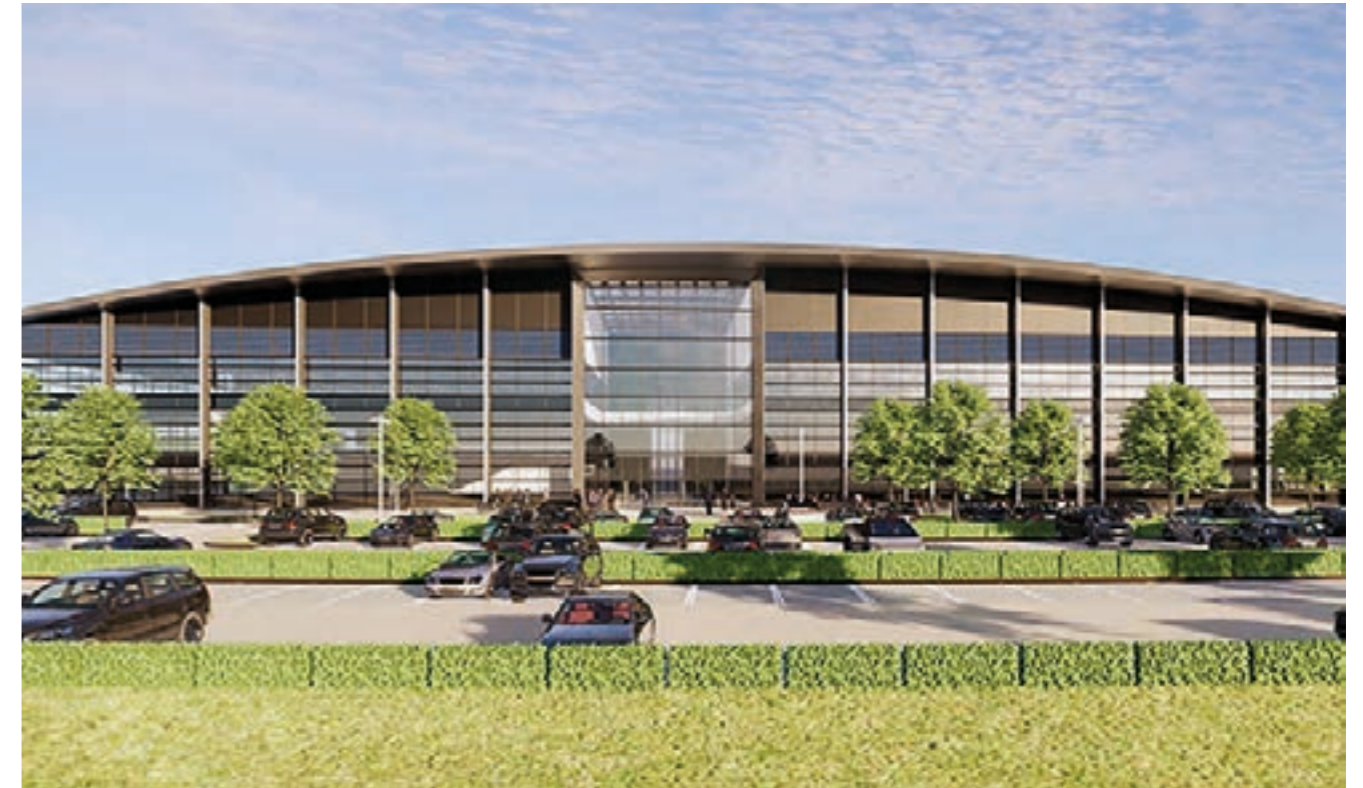
Our location at the heart of the Freeport cluster, close to motorways, main roads and with easy access to international airports makes us ideally placed for large businesses looking for somewhere to relocate or establish roots.

Welborne Science & Technology Park will be modern in all aspects of its design and purpose and will be home to 1,000,000 sq.ft of world-class high-tech facilities. The Park will have enough space for 6,000 people to work across laboratories and offices, and we expect it to become home to companies ranging from exciting start-ups to some of the world's leading technology businesses. Welborne will be a dynamic community of talented entrepreneurs at the cutting edge of scientific disciplines, many of whom will be working on life-enhancing technologies.

The Welborne vision will be found across the Park and we will provide a wide range of support to ensure the continued growth and success of anyone who establishes themselves here. We understand the importance of placemaking and of work-life balance; that's why the Park will be surrounded by beautiful landscaping, with excellent facilities to support the working community. Employees will have ample places to relax – whether looking for somewhere to jog, meet friends or simply step away from their desk.

Welborne Science & Technology Park will be the optimum location for research-intensive businesses. It will provide a hub for cross-company collaboration, enabling people developing complementary technologies to come together and grow.

We are building the Science & Technology Park of the future, but more importantly, we are building a community of like-minded people who want to use the very best facilities to produce the very best work.



▲ Welborne Science & Technology Park

Access Upgrades

... an improved motorway junction

We are building a complete new community at Welborne. To make sure it doesn't have an adverse effect on the highway network, some significant improvements to Junction 10 of the M27 are required.

The Garden Village is adjacent to the A32 and close to junction 10 of the M27, giving easy access to Welborne. By upgrading junction 10 to an 'all-moves' junction this will greatly improve access and meet the demands of residents and people working and visiting.

Currently the junction only allows partial movements for traffic. Our upgrades include the provision of a new underpass under the M27; two new slip roads and a replacement for the existing west-bound off-slip.

Non-car users will also benefit from the upgrade works. We are providing a dedicated Bus Rapid Transport (BRT)

link as well as designing facilities for walking, cycling and using mobility aids alongside the new link roads. Crossing points and a link through the M27 underpass will connect the site with a path through Fareham Common, enabling easy access to the rail station, schools and town centre in Fareham.

The upgraded junction will help to ensure the site is better connected to the wider south coast transport network, enabling us to attract businesses and investment into the area. Local residents will also benefit as the works will alleviate congestion on local roads and improve the safety and journey times of the existing junction.

The works we are undertaking reflect our long-term involvement and ongoing stewardship at Welborne. They will enable us to build a place that people want to visit, a place that meets the needs of various groups, and a place that is always accessible.



▲ Improved motorway junction

Connecting Welborne

... an innovative fibre network, not just in your home

In our aim to future-proof Welborne, and to ensure it meets the needs of the people that live, work and visit, we are providing the very best fibre broadband.

At Welborne, homes will have an ultra-reliable network with symmetrical speeds for uploading and downloading and all rooms will be provided with WiFi as standard; our aim is for every resident to be able to connect to their home network quickly.

Our fibre will cater to everybody – from people needing simple day-to-day activities or looking to make the most of a connected home, to those who need ultra-fast speeds for home working, and people who want to experience the best online gaming.

Welborne Fibre will be available across the site, not just in homes. Our community-wide mesh network means that WiFi is guaranteed everywhere from the village centre to the parks and allotments. This means when you're outside you won't drop connection or need to find additional sources of WiFi.

Despite the powerful nature of the network, homes will only need a small supply box in their homes - these boxes will be contained in a dedicated 166 x 115mm area in each house.

One of our primary aims at Welborne is to ensure the site is fit for the future. The Gigabit connection we are installing will have built-in spare capacity which can handle the bandwidth requirements not just of today, but of tomorrow as well.





▲ Chesterfield neighbourhood



▲ Dashwood neighbourhood



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W E L B O R N E

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