



F O R T
H A L S
T E A D

*Design & Access Statement
Application Revision 1
June 2020*



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CONTENTS

1. THE VISION	1	6. MASTERPLAN	88	8.13 STAR HILL ENTRANCE	166
1.0 THE VISION	4	6.1 ILLUSTRATIVE MASTERPLAN	90	8.14 SURFACE MATERIALS	168
2. INTRODUCTION & BACKGROUND	7	6.2 INDICATIVE DENSITY	92	8.15 OFF-SITE IMPROVEMENTS	170
2.1 INTRODUCTION	8	6.3 VILLAGE CENTRE	94	9. TECHNICAL STRATEGIES	172
2.2 PLANNING POLICY CONTEXT	10	6.4 EMPLOYMENT & EDUCATION USES	96	9.1 HERITAGE & CONSERVATION STRATEGY	174
2.3 DOCUMENT STRUCTURE	12	6.5 LANDSCAPE STRATEGY	98	9.2 ECOLOGY STRATEGY	176
3. SITE & LOCAL CONTEXT ASSESSMENT	15	6.6 PLAY STRATEGY	104	9.3 DRAINAGE STRATEGY	177
3.1 SITE LOCATION	16	7. CHARACTER AREA GUIDANCE	106	9.4 SITE LEVELS STRATEGY	178
3.2 THE SITE TODAY	18	7.1 CHARACTER AREAS	108	9.5 UTILITIES STRATEGY	179
3.3 HISTORICAL TIMELINE	22	7.2 GATEWAY HAMLET	112	9.6 ENERGY, WASTE & RECYCLING STRATEGIES	180
3.4 HERITAGE & ARCHAEOLOGY	26	7.3 OLD GROVE PLACE	116	9.7 DESIGNING OUT CRIME	181
3.5 LOCAL CHARACTER ASSESSMENT	31	7.4 INNOVATION & EDUCATION HUB	120	10. DELIVERY	182
3.6 ACCESS & CONNECTIONS	48	7.5 VILLAGE CENTRE	124	10.0 DELIVERY	184
3.7 LOCAL FACILITIES	53	7.6 VILLAGE MEWS	130	11. EVALUATION	186
3.8 AONB & LANDSCAPE CONTEXT	54	7.7 ANISBIRCHES WALK	134	11.1 HEALTHY PLACEMAKING	188
3.9 ECOLOGY	60	7.8 BEAUMONT GLADE & DUTCHMORE WOOD	138	11.2 SUSTAINABILITY MATRIX	190
3.10 DRAINAGE & UTILITIES	61	7.9 MATERIALS	142	12. CONCLUSION	192
3.11 CONSTRAINTS	62	8. ACCESS & MOVEMENT	144	12.1 SUMMARY OF BENEFITS	194
3.12 OPPORTUNITIES	63	8.1 ACCESS STRATEGY	146	APPENDIX	196
4. DESIGN DEVELOPMENT	65	8.2 PUBLIC TRANSPORT	147	APPENDIX A: DESIGN REVIEW PANEL SUMMARY	198
4.1 COMMUNITY CONSULTATION	66	8.3 ACCESS & MOVEMENT STRATEGY	148	SCHEDULE OF AMENDMENTS	202
4.2 MASTERPLAN EVOLUTION	70	8.4 INDICATIVE STREET HIERARCHY	149		
4.3 DESIGN PRINCIPLES	76	8.5 WALKING & CYCLING ACCESS	150		
5. PARAMETER PLANS	78	8.6 GENERAL DESIGN GUIDANCE	152		
5.1 LAND USE & GREEN INFRASTRUCTURE	80	8.7 CROW DRIVE	154		
5.2 BUILDING HEIGHTS	82	8.8 TRAFFIC CALMING MEASURES	156		
5.3 ACCESS & MOVEMENT	84	8.9 CHARACTER AREAS	158		
5.4 DEMOLITION	86	8.10 WOODLAND ARRIVAL	160		
		8.11 TREE-LINED AVENUE	162		
		8.12 VILLAGE CENTRE	164		

Items highlighted in yellow represent amendments made to the previously submitted Design and Access Statement. A dedicated Schedule of Amendments can be found at the end of this document detailing each amendment and where in the document it is located.

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1. THE VISION

A UNIQUE VILLAGE WITH A LIVING AND WORKING COMMUNITY

Surrounded by Kent's dense woodland, Fort Halstead is currently known only as a place closed off. Take a walk now and you'll find a place that conceals, and reveals its history with every turn.

*As the site opens up, it will become a revelation—its wooded landscape and hidden history instilling an excitement to *venture out to discover* more. In doing so, this place can serve visitors, residents and employees on different levels. Taking a *holistic approach* to design that builds in environmental, social, cultural and economic needs, Fort Halstead has the potential to *become a truly unique village—creating an active, healthy and innovative way of life among woodland.**



1.0 THE VISION

Reinvigorating the past...

The Vision of a new sustainable development at Fort Halstead has been characterised into four key elements:

ECONOMIC

An economic hub of continued innovation, opening the doors to new businesses

Fort Halstead has always been a place for innovation. The new Enterprise campus could take this thinking forward and shape an excellence around a specific topic and attracting pioneers and retaining QinetiQ as a business of international importance.

ENVIRONMENTAL

Restoring the landscape and protecting the surrounding ancient woodland

The extraordinary activities at Fort Halstead have shaped it's landscape. With its enclosed woodland, dramatic slopes and expansive grasslands, the site offers curiosity, excitement and wonder to these diverse spaces. While the remains of the bunkers give the village a unique character which contrasts with its natural surroundings.

Refreshing the present...

SOCIAL

An intriguing and open site for a people of all ages to enjoy

Fort Halstead is opening its doors to the public and transforming from a private to a social site. **With 635 new homes** and a business campus it will house a new community connected to the network of local villages, shaping itself as a new village that becomes a place for contemplation and healthy living.

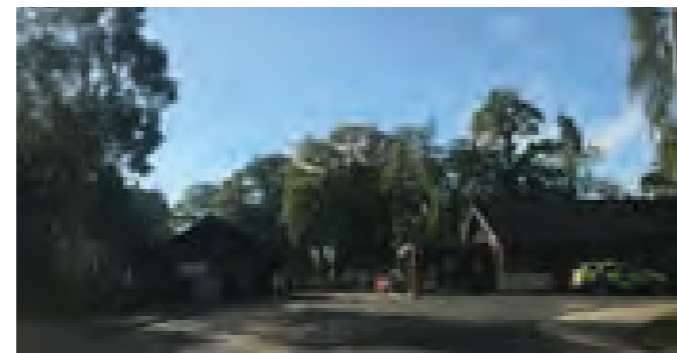
CULTURAL

Discovering the history of Fort Halstead

Opening up the site for the existing local community to discover the history of Fort Halstead. Telling the story of events in a sensitive, engaging and immersive way.



From secluded to inviting...



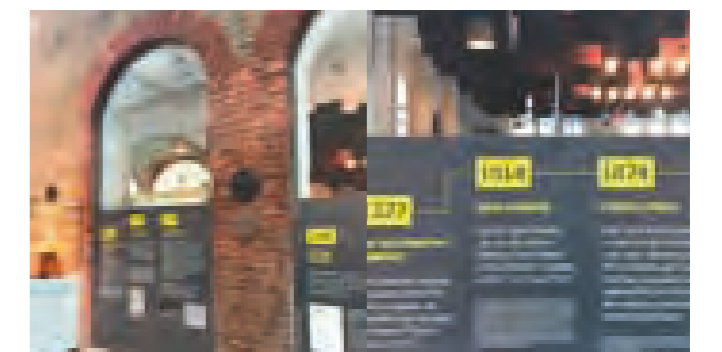
From concealing to revealing...



From industrial to natural...



From history to heritage...



Realising the Vision...

Below lists the proposed interventions which will help in delivering the four elements in creating a sustainable development at Fort Halstead.

ECONOMIC

- New Innovation and Education Hub – to significantly contribute to the existing employment opportunities in the area. The innovation and education hub will provide a variety of employment space including office, research and development and light industrial uses
- Provide local employment opportunities to reduce the need to travel
- Retention of existing employer QinetiQ on site
- Retention and integration of key existing buildings within the employment area

ENVIRONMENTAL

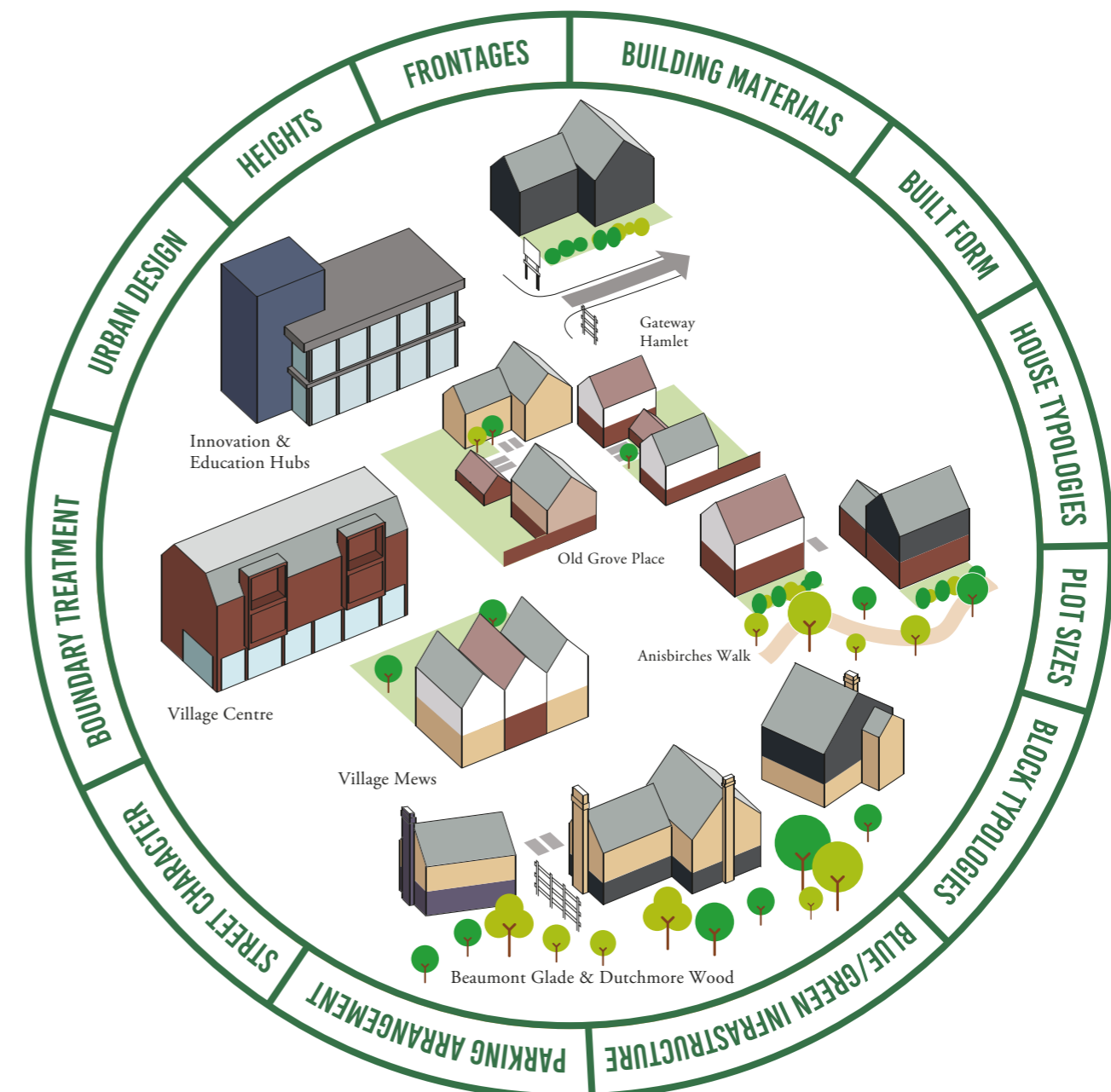
- Protection, enhancement and maintenance of ancient woodland and retention of key tree groups within the site
- Sustainable drainage
- Network of green and recreational spaces, providing every resident with access to a green link within 100m of their home
- Encouraging sustainable transport i.e. new bus link, reducing the reliance on the private car
- Promotion of healthy lifestyle through creation of safe, attractive and convenient walking and cycling routes
- Locally sourced building materials
- Sustainable energy strategy

SOCIAL

- Providing community and retail facilities in the village centre
- Land safeguarded for a new primary school on site
- Diverse range of house types including size, architectural style and tenure.
- New early years nursery on site
- Permeable road network with a wide range of traffic calming measures to create a people and child-friendly environment

CULTURAL

- Opening of the 19th Century Fort to the public
- Refurbishment of the listed buildings in the Village Centre and Fort
- Retention of the bunker area to form part of the heritage walking trail within the site



Masterplan 'ingredients'





2. INTRODUCTION & BACKGROUND

2.1 INTRODUCTION

DESCRIPTION OF DEVELOPMENT

Fort Halstead lies to the north of Sevenoaks, and close to the south-eastern edge of the M25. It is bounded by the A224/Polhill Road to the east, Star Hill and Lime Pit Lane to the west and south, respectively, and a number of farm properties and Great Stockholme Wood to the north.

The site itself is currently occupied by Dstl and QinetiQ as a defence research complex, with a range of industrial buildings scattered throughout the site. The existing larger scale industrial buildings are connected with internal roads, served by large areas of hard standing used for parking and access with smaller storage buildings and bunkers as well as areas of amenity grassland and mature trees completing the picture of the current development. The surrounding mature woodland is a key characteristic of the site, which envelopes the majority of the current built-up area and provides a high degree of enclosure and privacy.

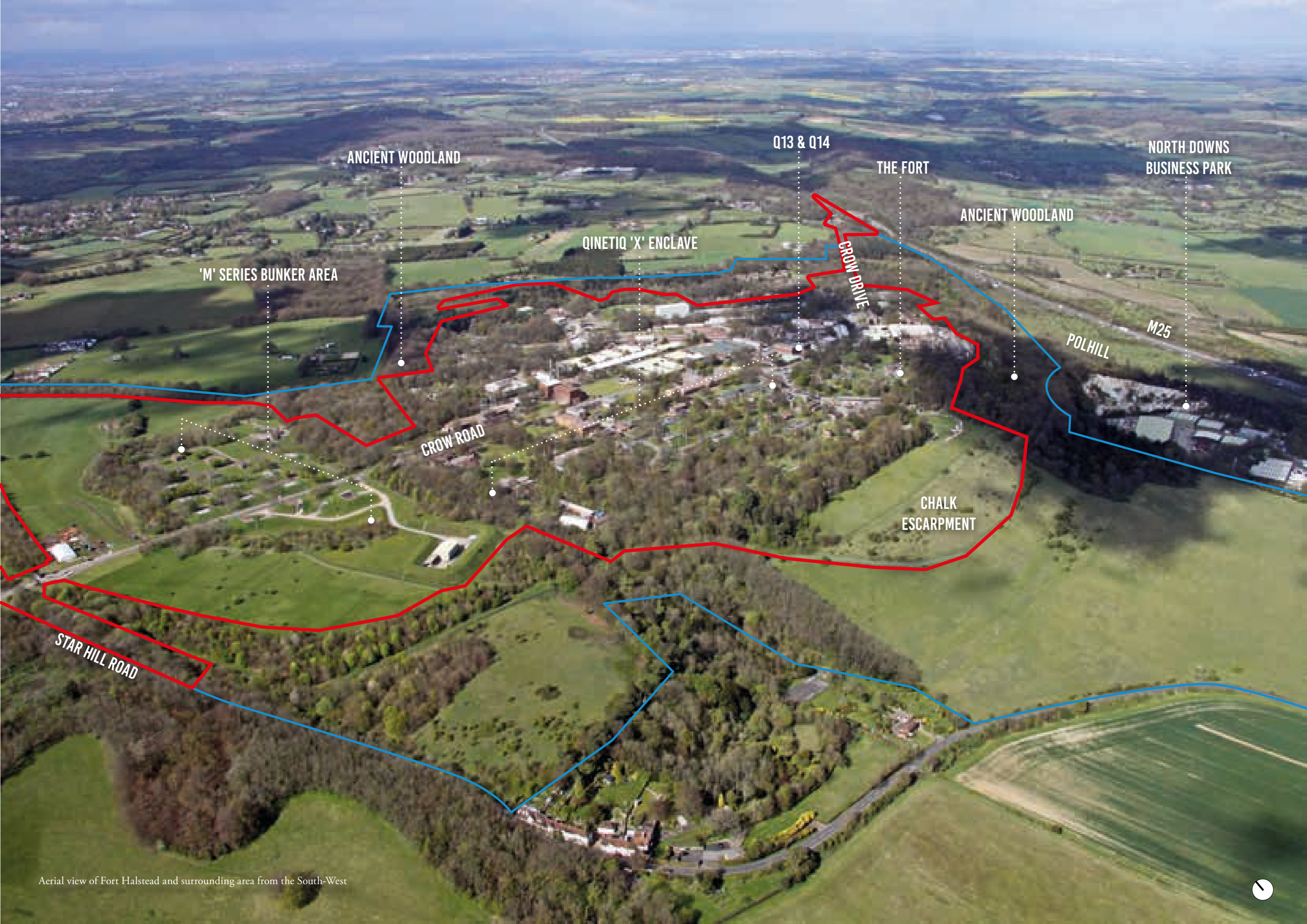
The application as outlined in this document is for the following:

In detail:

- Demolition of existing buildings;
- Change of use and works to buildings Q13 and Q14 (including landscaping and public realm);
- Primary and secondary accesses to the site.

In outline:

- Development of business space (use classes B1a/b/c) of up to 27,773 sqm GEA;
- Works within the 'X' enclave relating to energetic testing operations, including fencing, access, car parking;
- **Development of up to 635 residential dwellings;**
- Development of a mixed-use village centre (use classes A1/A3/A4/A5/B1a/D1/D2);
- Land safeguarded for a one form entry primary school;
- Change of use of Fort Area and bunkers to Historic Interpretation Centre (use class D1) with workshop space;
- Roads, pedestrian and cycle routes, public transport infrastructure, car parking, utilities infrastructure, drainage;
- Associated landscaping, landforming and ecological mitigation works.



Aerial view of Fort Halstead and surrounding area from the South-West



2.2 PLANNING POLICY CONTEXT

NATIONAL PLANNING POLICY FRAMEWORK

The National Planning Policy Framework (NPPF) 2019 sets out the Government's planning policies for England and how these are expected to be applied. The NPPF sets out in Paragraph 7 the purpose of the planning system is to contribute to the achievement of sustainable development. Paragraph 8 outlines the three overarching interconnected objectives, namely:

- an economic objective – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;
- a social objectives – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of the present and future generations; and by fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and
- an environmental objective – to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.

Paragraph 59 expands on the need to significantly boost the supply of homes, ensuring there is a sufficient amount and variety of land can come forward where it is needed, that the needs of groups with specific housing requirements are addressed and that land with permission is developed without unnecessary delay.

Paragraph 80 states that significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development.

Paragraph 102 notes that transport issues should be considered from the earliest stages of plan-making and development proposals, so that potential impacts can be addressed, opportunities from proposed transport infrastructure can be realised to accommodate the scale, location and density of development; opportunities to promote walking, cycling and public transport are identified

Proactively drive and support sustainable economic development to deliver the homes, business and industrial units, infrastructure and thriving local places that the country needs.

and pursued; the environmental impacts of traffic and transport infrastructure are assessed and mitigated; and that patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places.

Paragraph 117 highlights the need to promote the effective use of land in meeting the need for homes and other uses, while safeguarding and improving the environment and ensuring safe and healthy living conditions. It highlights the need to make as much use as possible of previously-developed or 'brownfield' land. Paragraph 118 notes that the promotion and support of development of under-utilised land and buildings especially where this would help to meet the needs for housing where land supply is constrained and available sites could be used more effectively.

Paragraph 124 states that the creation of high quality buildings and places is fundamental to at the planning and development process should achieve. Good design is a key aspect of sustainable development, creates better places in which to live and work. Paragraph 127 developments should contribute to the overall quality of an area over the lifetime of the development; be visually attractive as a result of good architecture, layout and landscaping; be sympathetic to local character and history, including built and landscape setting, while not preventing innovation or change such as increased densities; establish a strong sense of place; optimise the potential of the site to accommodate and sustaining appropriate amount and mix of development and support facilities.

Paragraph 133 states the great importance attached to Green Belt. Paragraph 145 notes the exceptions when development is not inappropriate, namely the partial or complete redevelopment of previously developed land, whether redundant or in continuing use, which would not have a greater impact on the openness of the Green Belt than the existing development; or not cause substantial harm to the openness of the Green Belt, where the development would re-use previously developed land and contribute to meeting an identified affordable housing need with in the area of the local planning authority.

Paragraph 170 stresses the need to contribute to and enhance the natural and local environment, notably valued landscapes, recognising the intrinsic character and beauty of the countryside, minimising impacts and providing net gains for biodiversity; preventing new development contributing to unacceptable impacts on soil, air, water or noise or land stability and help improve the local environmental conditions; and remediate degraded land.

Paragraph 172 notes great weight should be given to conserving and enhancing landscape and scenic beauty in the AONB.

Paragraph 185 requires positive strategy for the conservation and enjoyment of the historic environment, taking into account the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation; new development making a positive contribution to local character and distinctiveness.

2.2 PLANNING POLICY CONTEXT

LOCAL PLAN

The site currently has an allocation for mixed-use employment and residential development in the 2015 Sevenoaks Allocations and Development Management Plan. In Policy EMP3, redevelopment proposals are expected to achieve a range of employment uses and up to 450 residential units delivering an employment-led development. The amount of built development should be fully contained within the employment site boundary, should have no greater impact on the openness of the Green Belt, and building heights are to take into account the need to conserve and enhance the natural beauty of the countryside.

Sevenoaks District Council are in the process of producing a new Local Plan 2015–2035. The Submission Local Plan comprises a draft allocation for the delivery of a mixed-use scheme with employment space and up to 750 homes, with exceptional circumstances for the proposed removal from the Green Belt. The Council are legally challenging the Inspector's report on the Examination in Public of this Local Plan.

The site is critical to assisting Sevenoaks in delivering new homes and affordable housing, preserving and creating jobs and protecting and securing designated heritage assets, the landscape and ancient woodland for the long-term enjoyment of the district and its future population.

DESIGN GUIDANCE

A wide range of guidance documents are available, giving information and advice on issues relevant to the development of the site. These cover diverse topics and range from the general to the specific. A general familiarity with all relevant guidance has been important, but particular reference has been made to local design guidance.

Local Design Guides

- Kent Design Guide SPD 2007,
- Kent Downs Area of Outstanding Natural Beauty Management Plan 2014–2019

Other Guides

- Urban Design Compendium – English Partnerships and the Housing Corporation, 2013
- Safer Places: The Planning System and Crime Prevention – ODPM, 2004
- Meeting Part M and Designing Lifetime Homes – Joseph Rowntree Foundation, 1999
- The Green Guide to Housing Specification – Building Research Establishment (BRE), 2000
- The Green Guide to Specification – BRE, 2008 (online only)
- Building for Life 12 – Delivering Great Places to Live: 12 Questions You Need to Answer – Commission for Architecture and the Built Environment (CABE), 2012
- By Design – Urban Design in the Planning System: Towards Better Practice – Commission for Architecture and the Built Environment (CABE), 2000
- Manual for Streets – Department for Transport, and Community and Local Government, 2007
- Car Parking: What works where? – English Partnerships, 2006

2015 PLANNING PERMISSION

In 2015 outline planning permission was granted for a mixed-use development, which included:

- Up to 450 homes
- Residential developable area: 12.83 Ha
- Average density: 35 dph
- Mixed-use village centre around retained buildings Q1, Q12, Q13 & Q14
- A large central green: 1.70 Ha
- Hotel: 0.57 Ha
- Employment area to the east of the site, retaining A1, A3, A10, A11, A13 and A14: 3.52 Ha
- Maximum height for residential – 2.5 storeys and located only along the main vehicular routes
- Average building height of 2 storeys for the majority of the residential parcels with 2.5 along the main vehicular routes. 3 storeys were proposed for the village centre and employment area.



Illustrative masterplan for the extant planning permission (approved in 2015)

2.3 DOCUMENT STRUCTURE

FORMAT OF THE PLANNING APPLICATION

This planning application, has been prepared and submitted on behalf of the applicant, Merseyside Pension Fund (MPF), for the redevelopment of the existing defence research complex at Fort Halstead ('the Site').

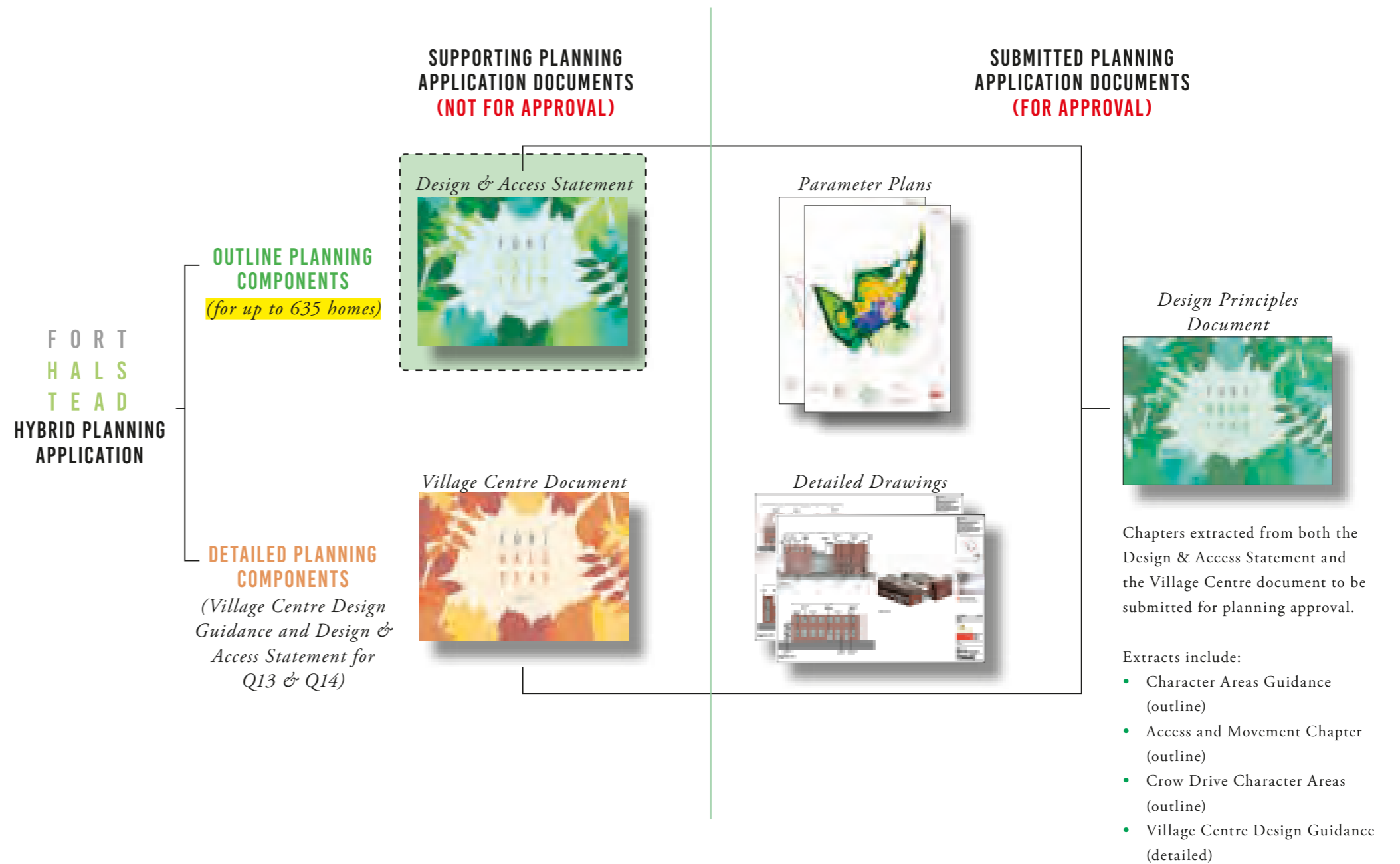
The planning application is a hybrid which comprises some elements submitted in outline and some elements in detail. The aspects of the planning application submitted in outline include a new mixed-use development up to 635 new homes and employment areas. All matters will be reserved, except means of access and the refurbishment of Q13 & Q14 buildings which is submitted for full detailed planning. A Listed Building application is also submitted for Q14.

Specific design guidance which features in both the Outline and Detailed Design and Access Statements, is extracted and compiled into a separate Design Principles Document which is formally submitted for approval as part of the planning application.

In accordance with the Town and Country Planning (Development Management Procedure) (England) Order 2015, the planning application also seeks approval, at this stage, for:

- **Use**
The uses proposed for the development and any distinct development zones identified within the site
- **Amount of development**
The amount of development proposed for each use
- **Access**
The location of pedestrian, cycle, equine and vehicular access points
- **Scale parameters**
The upper limit for all building heights

FORT HALSTEAD HYBRID PLANNING APPLICATION DOCUMENT STRUCTURE



2.3 DOCUMENT STRUCTURE

FORMAT OF THIS DESIGN & ACCESS STATEMENT

To assist those involved in assessing the hybrid planning application this Design and Access Statement (DAS) provides an explanation of the design process undertaken by the consultant team and the factors that have shaped the proposals.

The purpose of the DAS is to fulfil the following requirements as set out in the Town and Country Planning (Development Management Procedure) (England) Order 2015:

- (a) explain the design principles and concepts that have been applied to the development;
- (b) demonstrate the steps taken to appraise the context of the development and how the design of the development takes that context into account;
- (c) explain the policy adopted as to access, and how policies relating to access in relevant local development documents have been taken into account;
- (d) state what, if any, consultation has been undertaken on issues relating to access to the development and what account has been taken of the outcome of any such consultation; and
- (e) explain how any specific issues which might affect access to the development have been addressed.

THIS DOCUMENT IS STRUCTURED AS FOLLOWS:

1.0 The Vision

Setting out the strategic vision of the development, introducing the general objectives wished to achieve with the development

2.0 Introduction & Background

Describing the purpose and scope of this document and a broad description of the site, strategic and local planning context.

3.0 Site & Local Character Assessment

Detailed analysis of the existing site, from its wider context to specific characteristics; recording aspects that could or should shape the development.

4.0 Design Development

How the assessed site constraints and opportunities were development through input from residents and key stakeholders; from the extant permission, through a number of iterations, into the proposed illustrative masterplan.

A more detailed assessment of the stakeholder engagement process is included within the accompanying Statement of Community Involvement (SCI).

5.0 Parameter Plans

A set of plans defining parameters for land use and green infrastructure, building heights, access & movement and demolition. These plans will guide the development for subsequent Reserved Matters Applications.

6.0 Masterplan

A description of the proposed layout of streets, landscape spaces, local facilities and built-form, as well as the response to more technical requirements.

7.0 Character Area Guidance

An explanation of the proposed characters of the site; creating a pleasing variety of distinctive neighbourhoods and spaces across the masterplan.

8.0 Access & Movement

How the Site will be accessed and serviced by all modes of transport as well as a character guide for Crow Drive. Associated changes to the surrounding highways network has also been included.

9.0 Technical Strategies

Setting out the more detailed technical strategies for the Site.

10.0 Delivery

An explanation of proposals for implementation and management, including indicative phasing of development over time.

11.0 Evaluation

Summarising health and sustainability benefits and improvements achieved through the successful completion of the development.

11.0 Conclusion

A summary of the key benefits that the development will bring to Fort Halstead.





3. SITE & LOCAL CONTEXT ASSESSMENT

3.1 SITE LOCATION

The site sits across five parishes (Halstead, Knockholt, Chevening, Dunton Green and Badgers Mount), which are all located within the administrative boundary of Sevenoaks District Council (SDC), Kent.

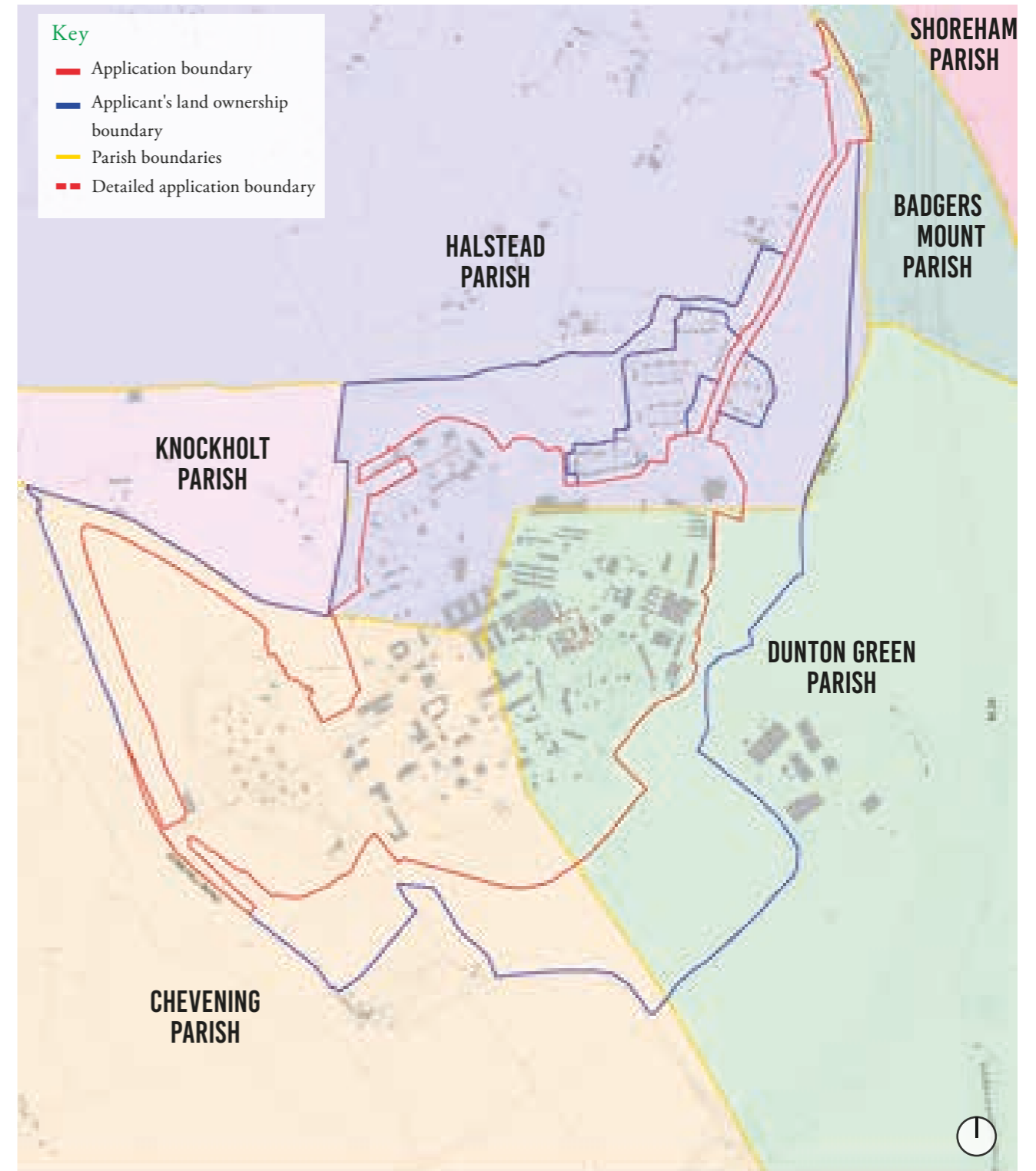
The Site lies within the Green Belt and the Kent Downs Area of Outstanding Natural Beauty (AONB). Originally constructed in the late 19th century as one of a ring of fortresses around London, Fort Halstead now consists of a large amount of hard-standing and numerous office buildings, workshops and laboratories built throughout the twentieth century for the Government's Defence Research Establishment.

A large swathe of open land to the south and west provides long ranging views from the Downs to Canary Wharf; north-west and Sevenoaks; south-east, and to landscape beyond. The developed part of the Site is set within a ring of mature woodland, which screens the existing built development from external views, and provides a secluded environment within a high-quality landscape setting.

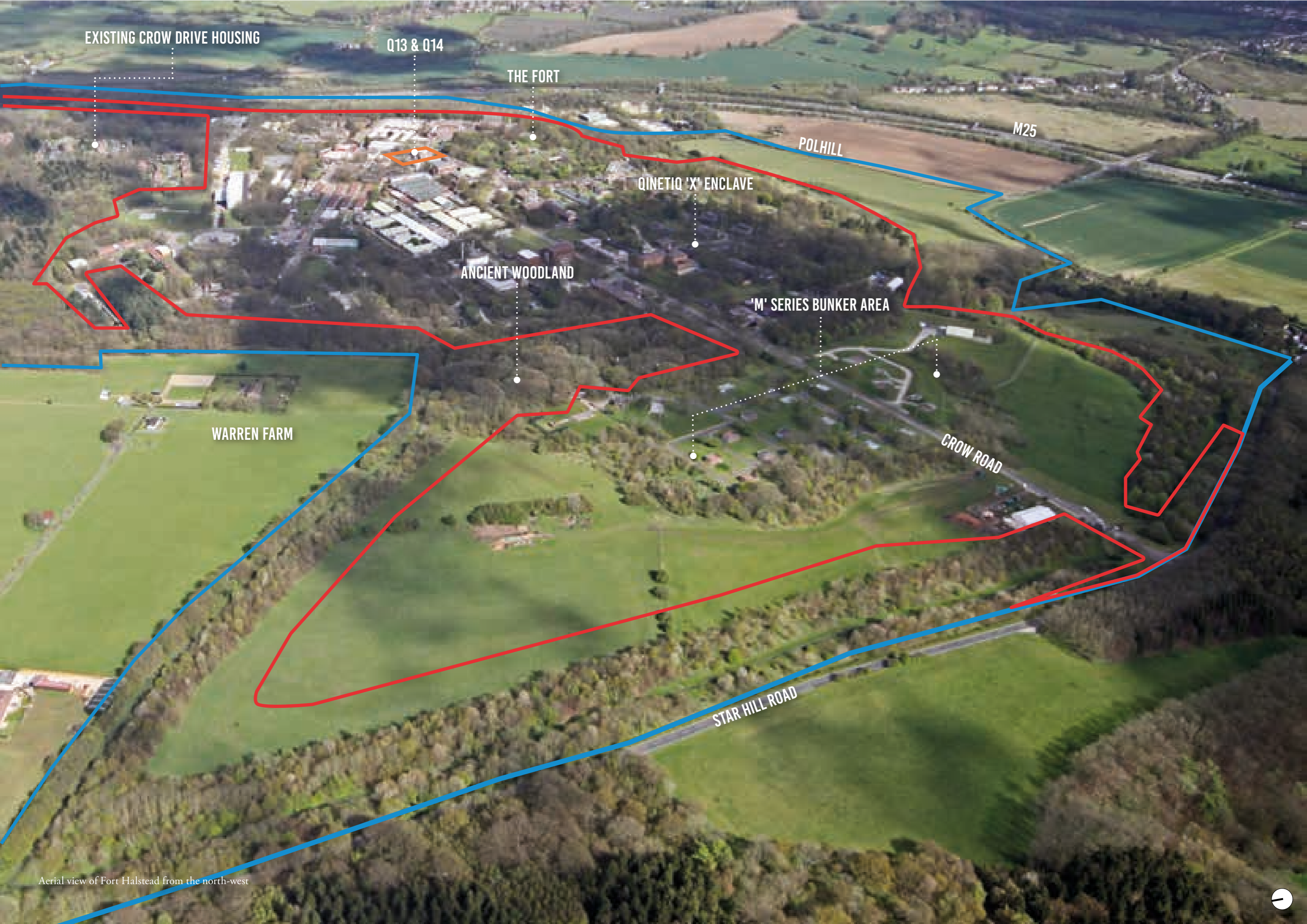
The red line sets the boundary within which all new development, included in this planning application, is proposed. The blue line indicates the area of land within control of applicant. Existing buildings within and around the site, existing roads and borough boundaries are provided for context.



Site Location – wider context



Site location and parish boundaries



EXISTING CROW DRIVE HOUSING

Q13 & Q14

THE FORT

QINETIQ 'X' ENCLAVE

ANCIENT WOODLAND

'M' SERIES BUNKER AREA

WARREN FARM

POLHILL

M25

CROW ROAD

STAR HILL ROAD

Aerial view of Fort Halstead from the north-west

3.2 THE SITE TODAY

THE SITE

The current uses at Fort Halstead were developed before the introduction of planning control. The Site was originally developed as a London Defence Position Fort in the 1890s and then later became a Ministry of Defence (MoD) research establishment, and it is still currently occupied by defence-related industries. The two main occupiers of the Site are Defence Science & Technology Laboratory (Dstl) and QinetiQ. There is currently a mix of office, laboratory and storage buildings on the Site.

The Fort Halstead Site was owned by the MoD until 2006, and was subject to a crown immunity from planning controls. In 2006, Sevenoaks District Council granted a Certificate of Lawfulness of Existing Use or Development (CLEUD) for the existing uses and development on the Site, formalising the planning status of these buildings. The uses and development approved by the CLEUD are for business purposes (including storage/distribution), canteen, energetic material testing and a social club and identifies 81,676 sqm (GEA) of building footprint.

Merseyside Pension Fund acquired the site from the previous Special Purchase Vehicle who owned the site (Armstrong Kent LLP) in 2016.

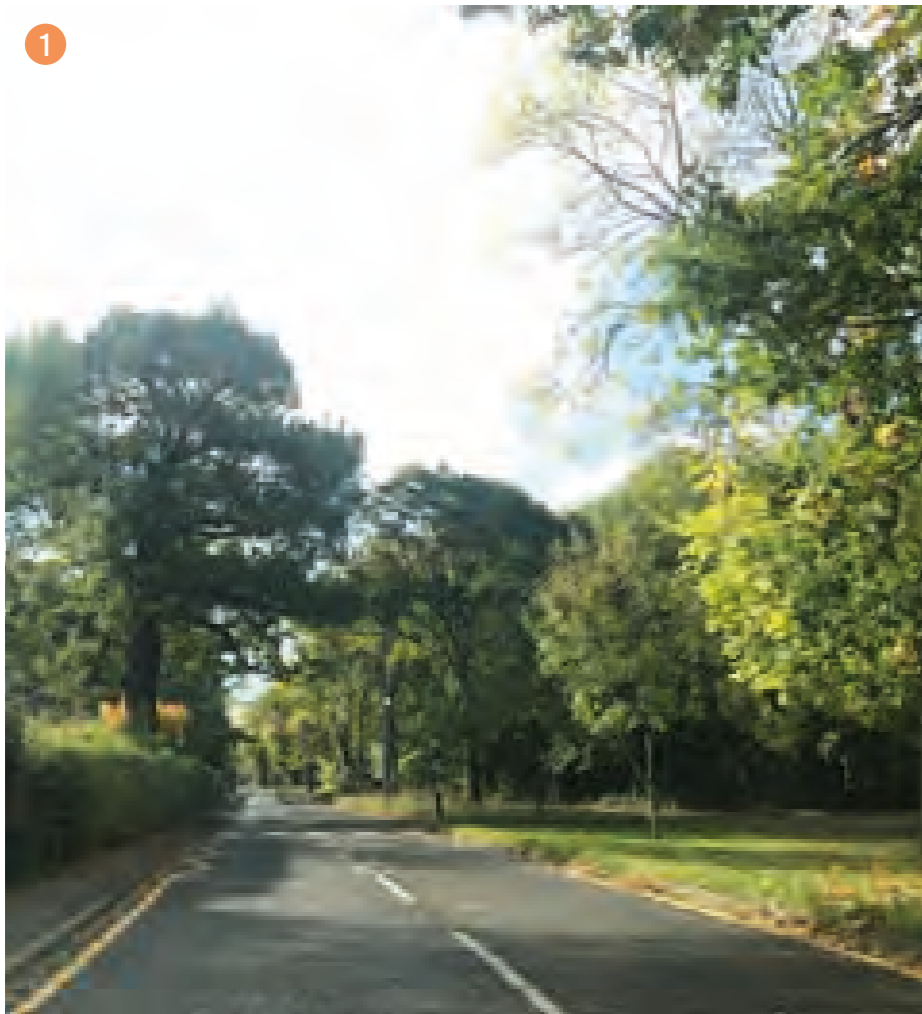
In June 2011, the main occupier of the Site, Dstl, announced its intention to relocate from Fort Halstead to Porton Down and Portsdown West. The relocation is expected to be completed in 2021.

Subject to obtaining the planning permission now sought, QinetiQ wish to remain at the site and occupy a number of retained buildings in a consolidated area (also known as the 'X' enclave) to the south.



Key plan showing photograph location points

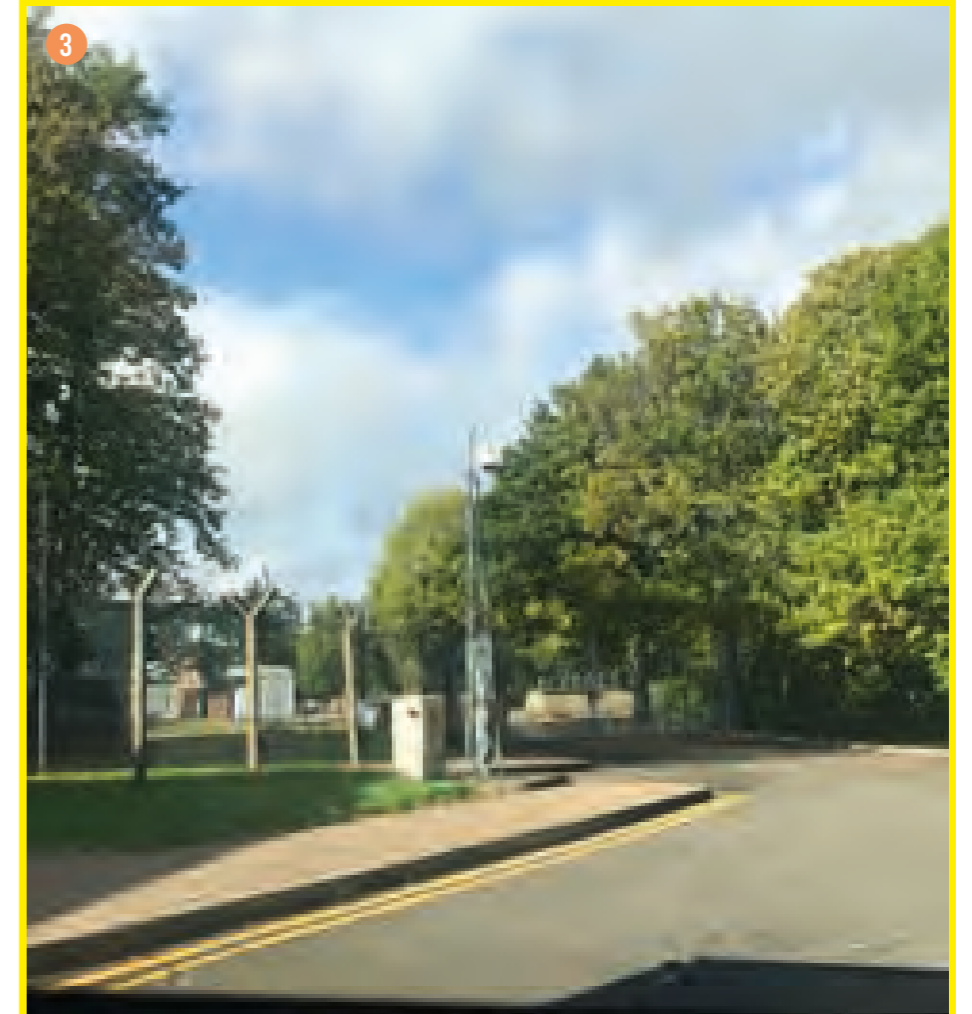
3.2 THE SITE TODAY



View of Crow Drive and existing woodland from Polhill entrance



Existing housing to the north of the site



View looking at entrance to employment from Crow Drive



View from Crow Drive looking west at X2



View from Penney Road looking south-east towards The Fort



View from inside The Fort

3.2 THE SITE TODAY



View of the ground level change next to Q14 Penney building



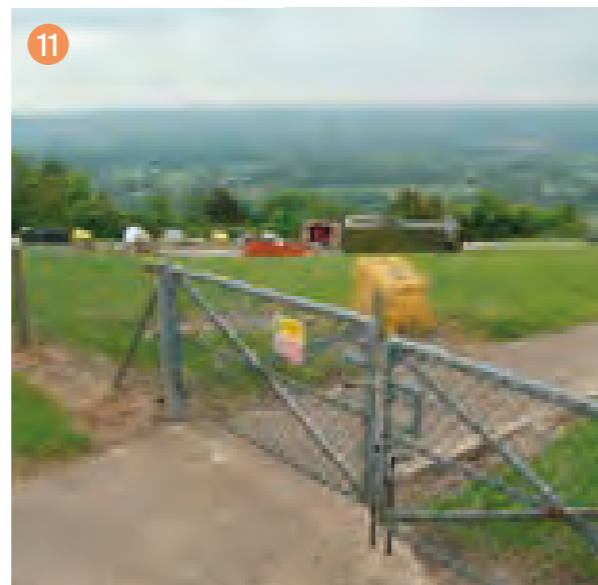
View of the ground level change along Crow Drive



View of bunkers to be retained



View of the Star Hill Road access



View looking south towards Sevenoaks



View of the escarpment from Star Hill Road



View of existing track to the south of The Fort

3.2 THE SITE TODAY

SPECIAL CHARACTER OF THE SITE

The Site has some special characteristics:

1. It is a self-contained previously developed brownfield site, within both the Green Belt and the Kent Downs AONB;
2. It has been a major source of employment to the local and wider areas;
3. It has played a significant role in British military history since the 1890s to the present day;
4. It contains the Fort, which is a scheduled monument, the structure of which remains largely intact;
5. It has four listed buildings (three within the scheduled monument and one outside), which are protected for their historical function rather than their architectural aesthetic;
6. It is enclosed by a ring of woodland, most of which is ancient woodland;
7. It contains an ecologically valuable area of calcareous grassland;
8. It is set at the top of a chalk escarpment and at its perimeter benefits from long-ranging peripheral views to the south, west and north;
9. Public access has been restricted;
10. The buildings within the site have little aesthetic value typically being, unassuming functional low-rise offices, workshops, laboratories and bunkers.
11. The buildings on site are interspersed with internal roads and large areas for parking and access. In recent years a number of buildings have been demolished, leaving large areas of hard standing.



View of a bunker within the Fort



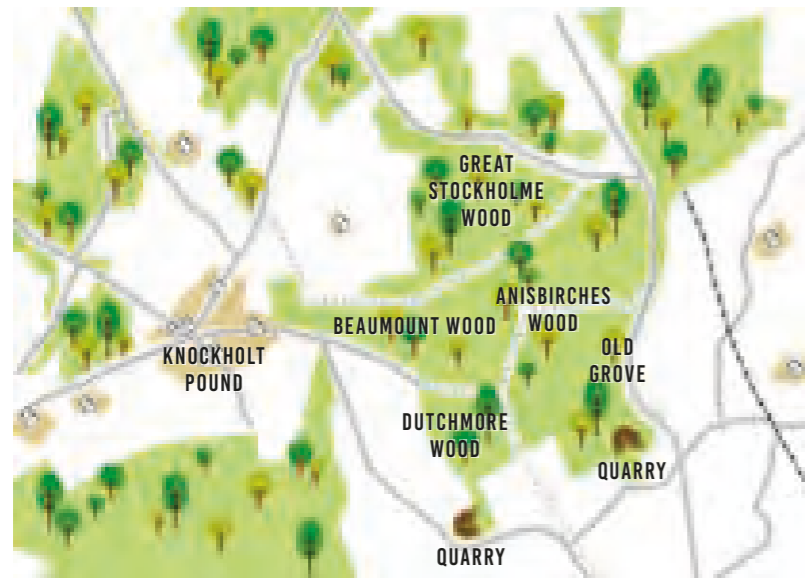
Aerial photograph looking South to the Fort

3.3 HISTORICAL TIMELINE

1800s

WOODLAND AND QUARRY

Before Fort Halstead formed a part of the London Defence Positions, Fort Halstead was covered by woodland.



MAP OF 1895

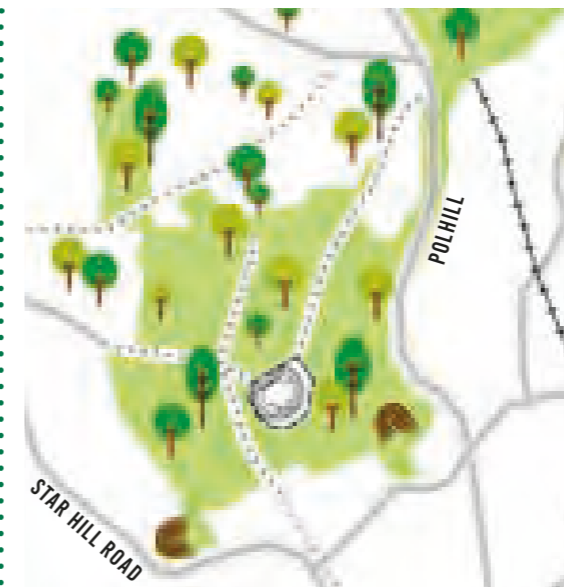
LATE 19TH CENTURY MOBILISATION CENTRE (THE FORT, AREA F)

In March 1889 the London Defence Scheme was announced and 13 sites for mobilisation centres were chosen along a 70 mile stretch of the North Downs. The Fort was designed in 1894 and probably constructed between 1895–7.

Its construction is representative of Great Britain's fear of invasion following the growing naval strength of France and her soon-to-be ally, Russia. Fort Halstead, the largest and most costly of these mobilisation centres, was never used for its intended purpose. It is one of the best preserved examples of mobilisation centres, along with the Reigate Fort and Henley Fort.

1900s

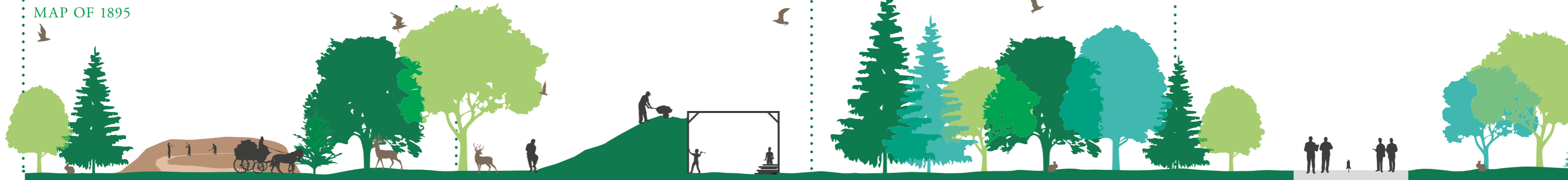
Its construction is representative of Great Britain's fear of invasion following the growing naval strength of France and her soon-to-be ally, Russia.



MAP OF 1909

ROCKET DEVELOPMENT (THE FORT, AREA F)

In terms of national military development during the twentieth century, aviation was of critical importance. British interest in rocketry strengthened and in 1936 the Committee for Imperial Defence gave Alwyn Crow of the Armament Research Department (ARD) the task of developing rockets for anti-aircraft defence, long range attack, air combat and assisted take off units (Crow, 1947). This part of the ARD's work initially began at the Royal Arsenal in Woolwich. However, a remoter site was soon sought due to safety concerns. 1937 Fort Halstead was repurchased by the War Office to accommodate the rocketry work of the ARD. Several of the Fort's casemates and magazines were altered and further buildings were built within the Fort. Following the success of this initial work, in 1938 under the directorship of Alwyn Crow, Fort Halstead became the separate Projectile Development Establishment (PDE). One of the earliest buildings constructed for the PDE was an experimental filling shed (F11), erected in 1938 for filling cordite rocket motors. The pioneering work undertaken by Sir Alwyn Crow at the Fort led to the development of explosive and armament technologies, such as unrotated projectiles which were widely used in the D-Day operations.



3.3 HISTORICAL TIMELINE

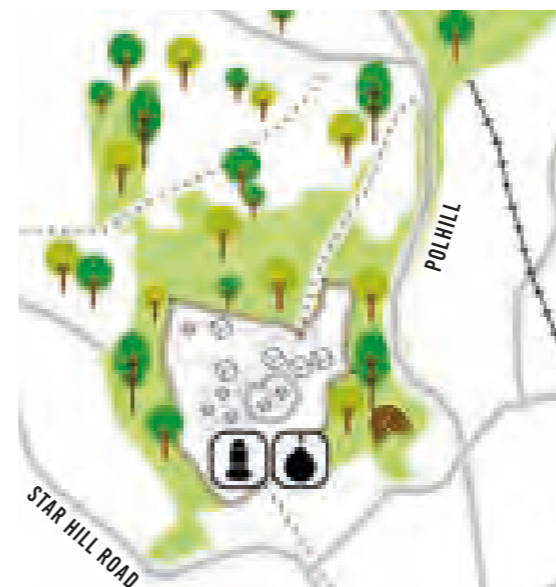
EARLY 1940s

THE SECOND WORLD WAR

During World War II, in order to avoid the Blitz, the Armaments Design Department and Research Department moved to Fort Halstead from Woolwich. The site also accommodated the Ministry of Supply which co-ordinated the supply of equipment to the British Armed Forces. Military and civilian staff at the Fort increased from 1000 to 3000 between 1939 and 1942.

The arrival of these departments at Fort Halstead saw large scale development, which would facilitate the Site's use as a top secret research and development facility.

During the Second World War the Fort saw a succession of significant developments in explosives and armament technology.



MAP OF 1947

PIONEERING WORK INTO ARMAMENTS

Leading up to and during World War II the Fort saw a succession of significant developments in explosives and armament technology. Explosives such as the 'Minols' range and Torpex—used in the destruction of both the Tirpitz and Ruhr dams in the famous Dambusters raid—were developed, as were the explosives for the 22,000lb 'earthquake' bombs. Developments in ammunition included the SR365 incendiary 'tracer' rounds, hollow charge and Armour Piercing Discarding Sabot (APDS) anti-tank projectiles. The successful 17 pounder anti-tank gun and the recoilless Weapon of Magnesium, Battalion, Anti-Tank (WOMBAT) anti-tank gun were also developed at the Fort, as were a range of anti-aircraft guns. Research into armoured fighting vehicles was undertaken, resulting in the development of the Mk 1 and 2 Centurion tanks, with the Mk 3 following in the years after the war.



LATE 1940s

ATOMIC RESEARCH

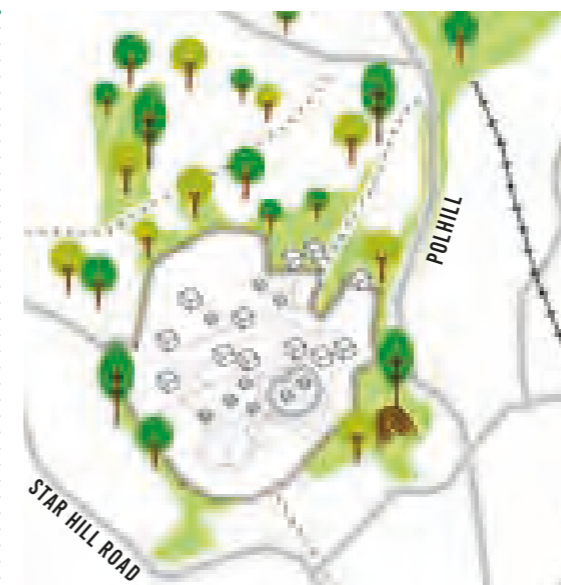
In January 1947, the British cabinet decided to proceed with the development of the atomic bomb under the direction of William Penney, Chief Superintendent Armaments Research (CSAR) at Fort Halstead. Penney was a physicist and had been a leading member of the wartime British Mission to the United States Manhattan Project responsible for creating the first atomic bombs in the world. To mask its true purpose the atomic work was code-named High Explosives Research (HER). The atomic bomb project involved developing the Mark 1 warhead which when assembled in its casing for service was known as 'Blue Danube'. Additional structures for this research were built inside the Fort including the bomb chamber (F16), detonation chamber (F17), a recording laboratory (F18) and casemates (F4 and F8). Existing buildings were also adapted for use as workshops and stores and significant new development occurred to the north-east of the Fort in the Q area. The link between the project and the Fort was top secret and although few records exist, it is understood that Fort Halstead personnel were responsible for developing both

high explosive and electronic detonators for the atomic bomb (Historic England list entry 1412292). Penney's team worked within a secure fenced enclave within the Fort and the group of buildings to its immediate north and west. Q14 is thought to have been used to assemble mock-ups of the UK's first atomic bomb prior to live assembly work at Foulness Island.

As production progressed towards the production of a test weapon new facilities for handling plutonium became necessary. Furthermore, due to the work being spread across a number of test facilities in the UK, which led to confusion of authority and responsibility, it was realised that a single site was required. The Site was considered too small (Automatic Weapons Establishment [AWE]2009), and in September 1949, a WWII airfield near the village of Aldermaston in Berkshire was allocated for the task.

The technological advancements into atomic weaponry made at Fort Halstead and the subsequent creation of her first nuclear bomb allowed Britain to maintain its position in world politics.

1960s



MAP OF 1962

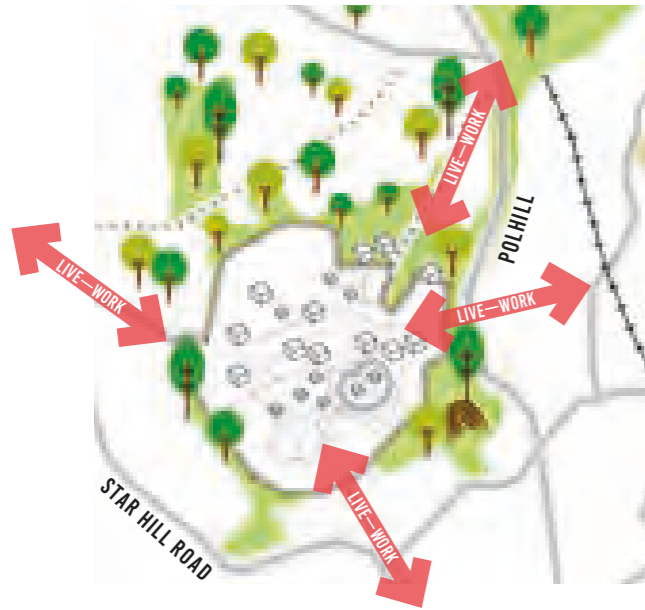
COLD WAR: CAPTURED GERMAN TECHNOLOGY

Following the departure of the HER programme, conventional research continued apace at Fort Halstead. Buildings S4 and S5 were based on the designs of buildings captured by the British T-Force during Operation Surgeon. S4 contained a large water tank used for testing the underwater behaviour of high velocity missiles and S5 housed wind tunnels for use in aero-ballistic research. The technology captured in the months and years after the conclusion of the Second World War allowed the UK to meet the perceived needs of the Cold War and for its armed forces to keep abreast of the technology and weaponry posed by the Soviet Union.

FORT HALSTEAD AND LOCAL VILLAGES

Fort Halstead became a part of the local network of villages as an important employer, with many of its workers living in the local area. The many social clubs at Fort Halstead meant the Site became an integral part of community life.

The homes at Beckman Close, Fort Road and Armstrong Close were constructed in the circa late 1960s through the 1970s to house workers at Fort Halstead. These houses are now privately owned/rented.



Fort Halstead's relationship with surrounding villages has evolved over the years from a defensive fortification to a focus for employment and social activities

Using computer supported war-games to analyse scenarios relating to both military action and civil unrest.

RECENT HISTORY: PUBLIC PRIVATE PARTNERSHIP, THE CREATION OF DSTL & QINETIQ

In 1998, a Strategic Defence Review recommended Public Private Partnership (PPP) as the best way to maximise the strategic value and operational cost effectiveness of the UK's defence research capabilities. Defence Evaluation and Research Agency DERA was split into two organisations, the areas retained by the MOD becoming Dstl in 2001, whilst those that were considered appropriate for fully commercial operation were re-structured and re-created as the QinetiQ Group, a wholly Government-owned UK plc. In 2003, QinetiQ became a public private partnership which was then floated on the stock market in 2006. Dstl continue to supply scientific and technical research and advice for the MOD and other Government departments (Dstl website). QinetiQ provides research, technical advice, technology solutions and services to customers, including the MOD, in the defence and security industries and is now Europe's largest science and technology organisation.



3.4 HERITAGE & ARCHAEOLOGY

THE FORT

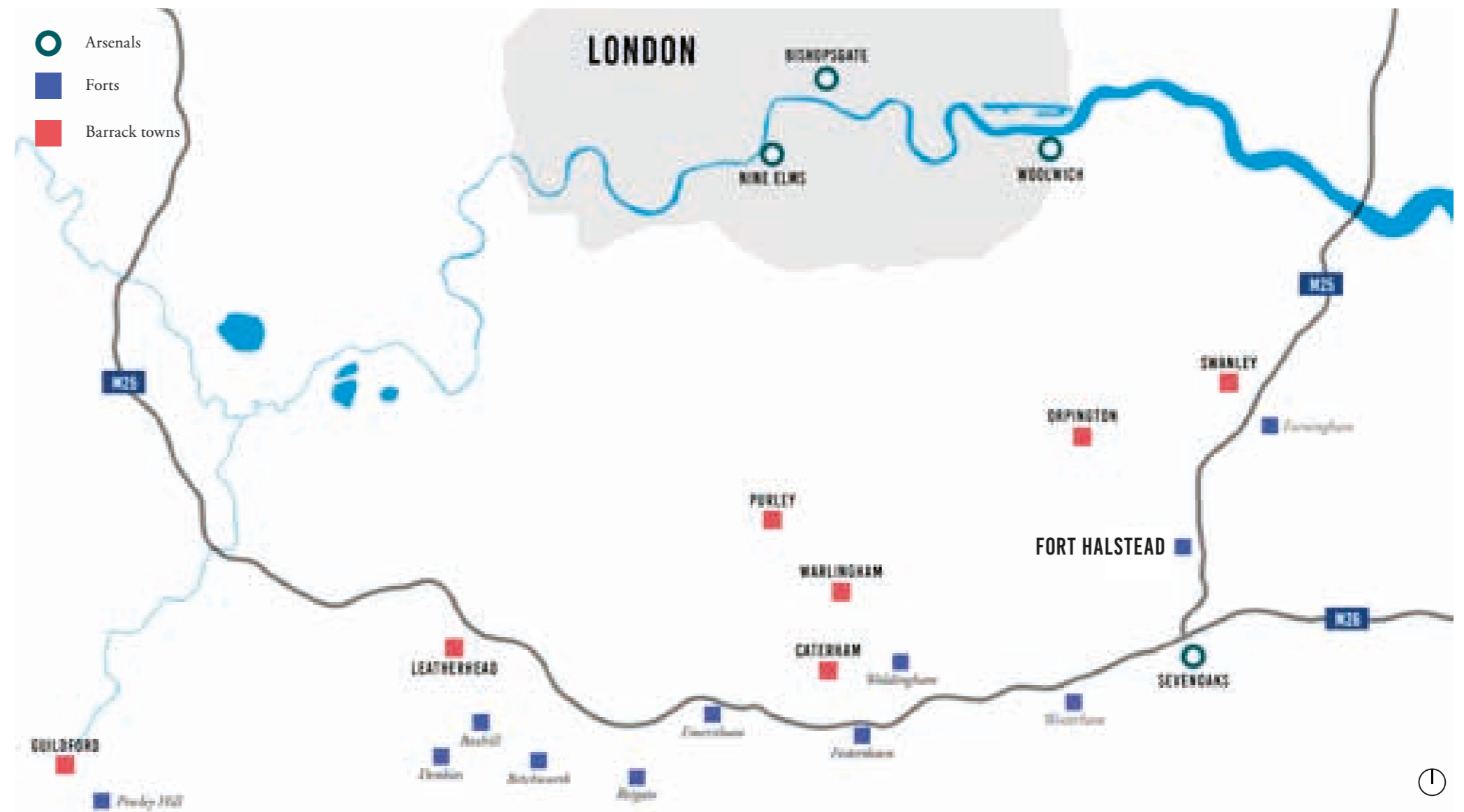
The blue boxes in the graphic to the right represent London Defence Positions. These are late 19th century earthworks that were designed to protect London from foreign invasions landing on the south coast. The origins of these sites can be traced back to 1859, when the Royal Commission on the Defence of the United Kingdom report on Britain’s defences believed that London was practically indefensible. A number of proposals were put forward by senior military figures on how best to boost London’s defence before Parliament settled on using a system devised by General Sir Edward Hamley—the London Defence Scheme. This comprised the construction of simple earthworks for infantry and moveable armaments, located at points along a 70-mile stretch of the North Downs. The London Defence Scheme was announced in 1889 and comprised earthworks that were to be constructed in times of war and supported by permanent works which provided stores and magazines, which were positioned at 5-mile intervals.

In the years following 1889, the ground for the forts, known in this case as mobilisation centres, was surveyed and the land purchased with construction in progress by the mid-1890s. The design of each mobilisation centre varied, though each comprised a piece of ground defined by a rampart, ditch and fence and contained magazines and other accommodation for stores and shelter from bombardment. Their intended use, in addition to holding ammunition and other supplies, was to act as strong points forming an almost continuous line of fortifications joined by trenches that would be rapidly dug on the outbreak of war.

Although the mobilisation centres were constructed in line with new approaches to fortification, which focussed on concealment and shock-absorbing earthworks supported by trenches and shallow redoubts, an approach which had recently yielded success during the Turkish defence of Plevna in Bulgaria during the Russo-Turkish War (1877), the majority do not appear to have been designed for anything more than storage and self-defence. However, the design of those at Fort Halstead and North Weald suggest that they were intended to take an active part in the defence by virtue of their location and their probable ability to mount field artillery and machine guns.

Following initial progress, poor funding after the death of General Hamley in 1893 had slowed the development of the project. Meanwhile, following the Navy Defence Act of 1889, a concerted programme of shipbuilding centred on the dreadnought battleships (the first, HMS Dreadnought, was launched in 1906), had redressed the weakness of the Royal Navy and by the early 1900s the risk of invasion was perceived as negligible.

As a result, at the 85th meeting of the committee on Imperial Defence on 9th March 1906 the London Defence Scheme was officially abandoned. Most of the mobilisation centres were sold off but a few, including Fort Halstead, were retained for ammunition storage.



Protective ring of fortresses around London

3.4 HERITAGE & ARCHAEOLOGY

NATIONAL DEFENCE AND RESEARCH & DEVELOPMENT

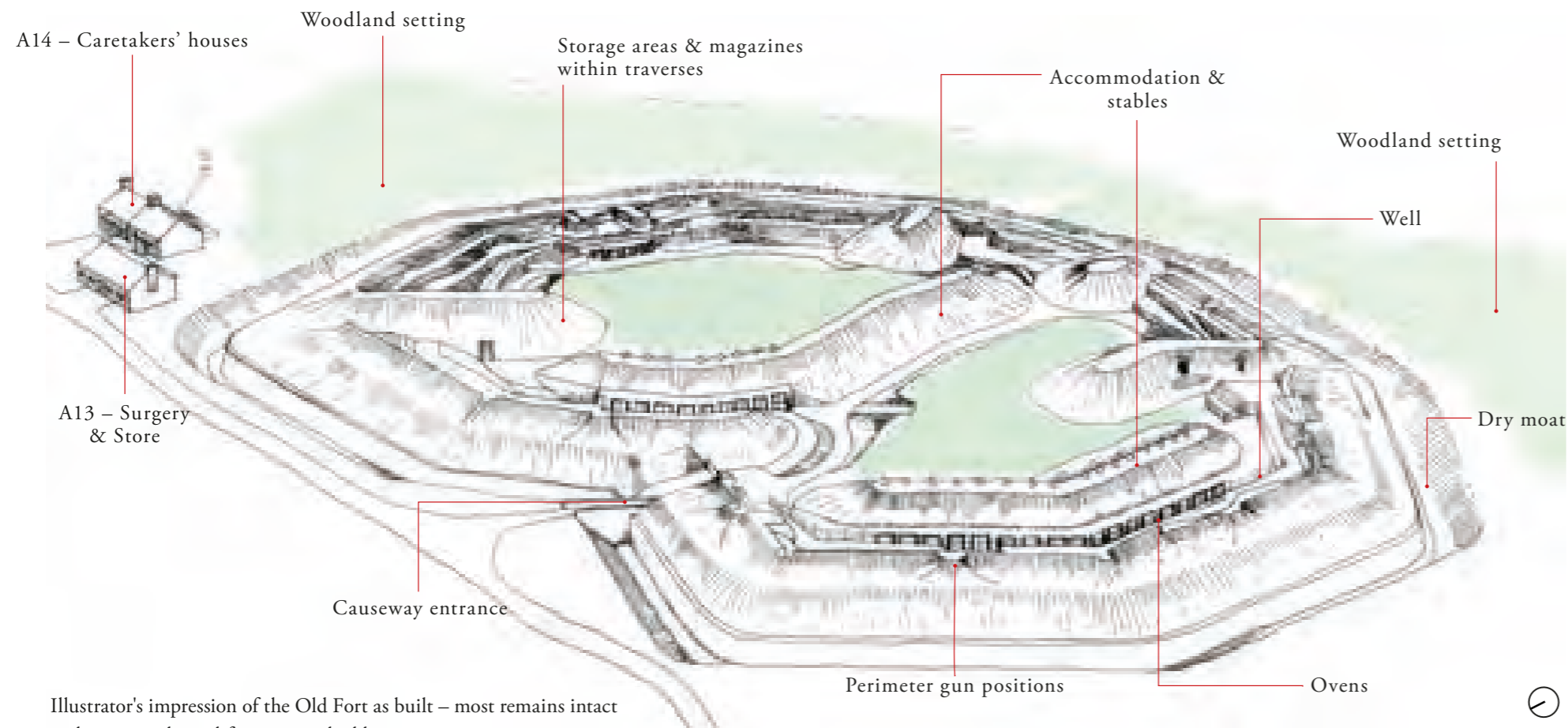
The Site has a long history of research and development. Following the abandonment of the London Defense Positions, the 1930s saw the Fort re-purposed for Projectile Development Establishment, under the direction of Alwyn Crow. Research continued on site following World War II and, in 1947, Fort Halstead became the base for the High Explosives Research team, headed up by Chief Superintendent Armaments Research William Penney. The team went on to develop the trigger for Britain's first atomic bomb.

More recently the Fort Halstead staff have undertaken small munitions projectile and explosive research. Work on forensic science analysis into explosives and counter terrorism have played an important role in maintaining national security:

- During the 1970s and 1980s, staff at Fort Halstead studied the bomb-making capabilities of Northern Ireland's paramilitary organisations.
- Scientists have responded to new threats, including those posed by al-Qaeda.
- Researchers studied how terrorists created their bombs for the attacks on the London transport networks that took place in 2005.

Current Use

The Fort is actively used by the current occupants for storage and small munitions testing. The Fort is listed as a scheduled monument. Buildings F11, F16 and F17 were listed on 21 March 2013.



Illustrator's impression of the Old Fort as built – most remains intact and in use with modifications and additions



Historical photograph of part of the original earthworks circa 1950s



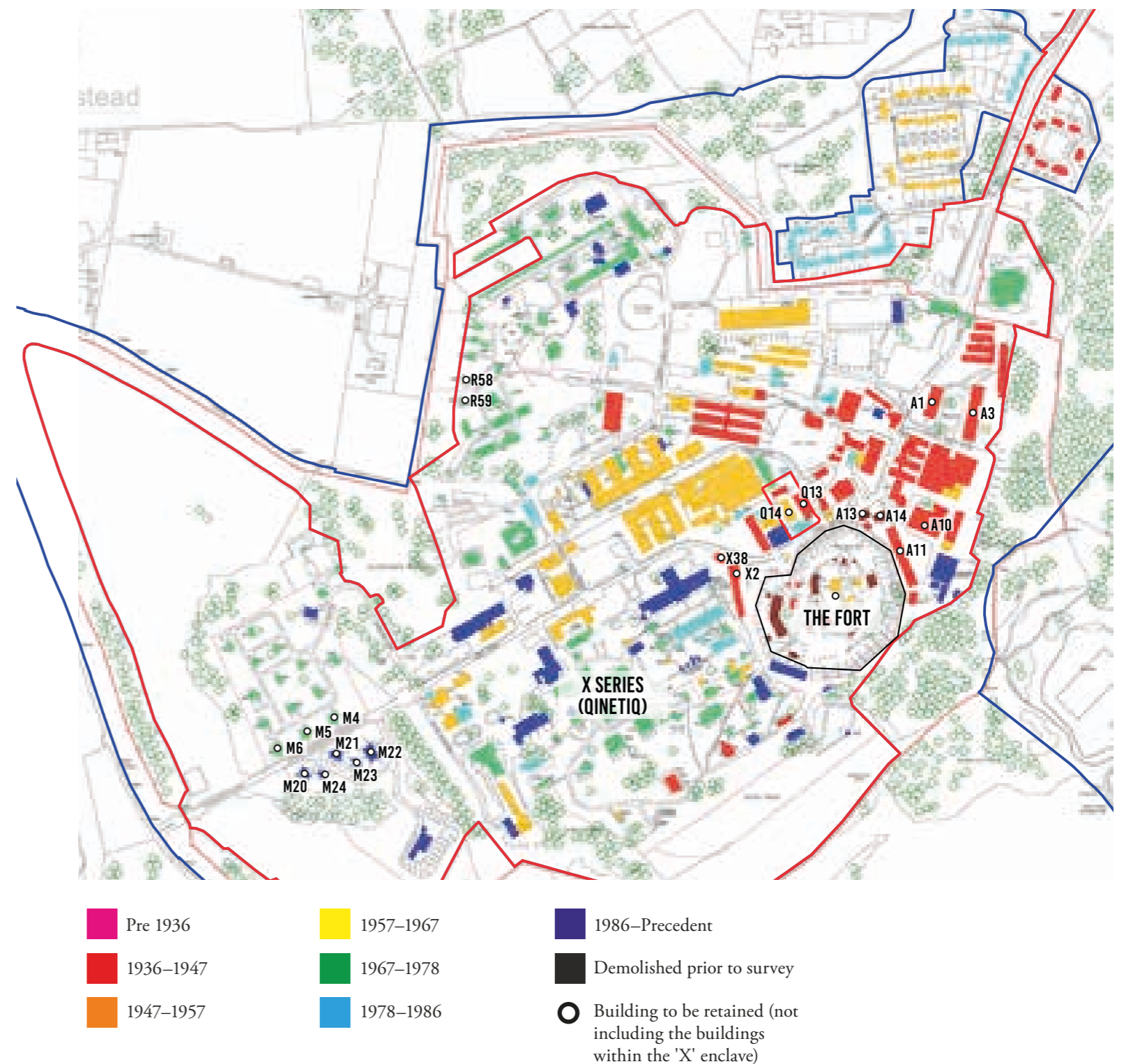
Historical photograph of part of the original earthworks the circa early 1980s

3.4 HERITAGE & ARCHAEOLOGY

BUILDINGS TO BE RETAINED

The table below sets out proposed retained buildings that would be reused within the Fort Halstead village:

ASSET	HISTORIC FUNCTION	BUILT	DESIGNATION
Q14 (Penney Building)	Laboratory block; Workshop, offices	1949–1952	Grade II listed (List Entry Number 1396578)
Q13	Laboratory block (1944); CSAR Chemical lab (1947)	circa 1939	N/A
A1	Drawing Office, CSAR Main Headquarters	1936–1944	N/A
A3	Block A CSAR Office (1947)/Office	1936–1944	N/A
A10	Tube Process Building (1944); CSAR Main Laboratories (1947); Met Phys Chem Lab CSAR (Tube Processing building (1949)	1936–1944	N/A
A11	Block A CSAR Office (1947)/Office	1936–1944	N/A
A13	Tool store; Site Hospital (1947); Winding Workshop; Site Shop; Social Club; Religious services; Photographic department	1896–1906	N/A
A14	Semi detached brick cottages for caretaker and labourer; main surgery (1952); Administrative Offices	Between 1895–1897	N/A
X2	A store in the control of the Chief Engineer of Armament Development (CEAD)(1947); Office	1936–1944	N/A
X3	CSAR Office Block (1947); Shifting house (1944 & 1949); Decommissioned offices	1936–1944	N/A
X38	CSAR Physics Laboratory (1947); Laboratory	1936–1944	N/A
M4, M5, M6	Magazine	1981–1984	N/A
M20, M21, M22, M23, M24	Magazine	1988–1993	N/A
Fort (including all buildings within it)	Mobilisation Centre, Research and test facility	Originally built 1895–1897 with later additions	Fort Halstead Scheduled Monument including buildings F2, F3, F4, F5, F6, F7, F8, F9 and the Second World War Firewatcher's Post (List Entry Number 1004214) Building F11, Grade II Listed (List Entry Number 1412292) Building F16, Grade II* Listed (List Entry Number 1412293) Building F17, Grade II* Listed (List Entry Number 1412293)
R58, R59	Test building	1974-1987	N/A



3.4 HERITAGE & ARCHAEOLOGY



Building Q14/Penney Building (Grade II Listed Building)



Building Q13



Building A14



Building A1



Building A10



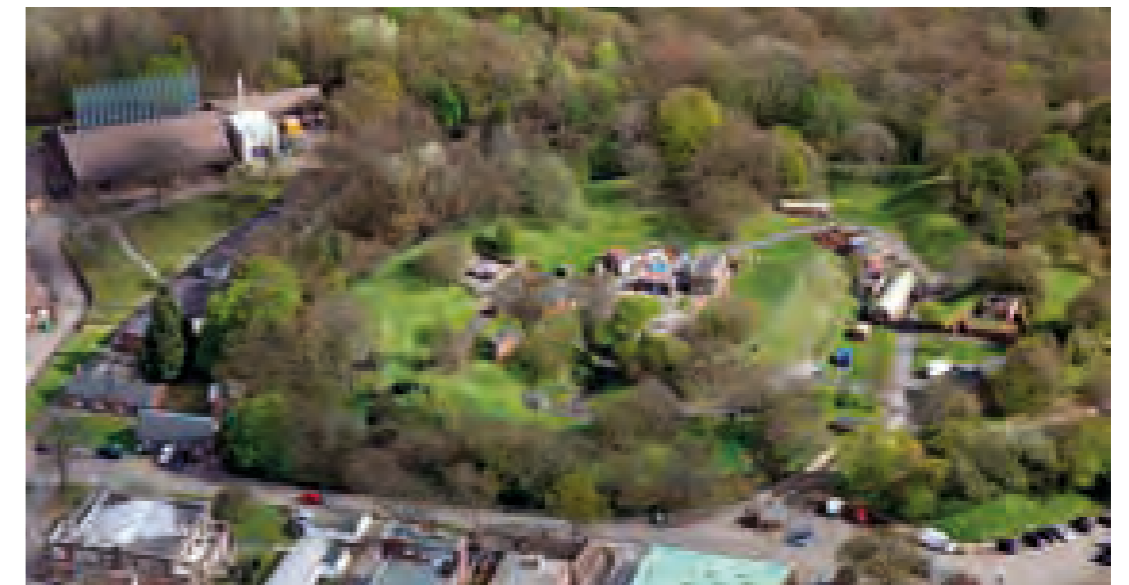
M-Series bunker



Building A3



Building A11



Aerial photograph looking south towards The Fort (scheduled monument)



3.5 LOCAL CHARACTER ASSESSMENT

SURROUNDING SETTLEMENTS

Fort Halstead is situated within a network of villages and settlements mutually inter-dependent, sharing both community facilities and places of employment.

This network includes Otford, Knockholt, Halstead, Knockholt Pound, Badgers Mount, Shoreham and Dunton Green. The network is defined by a range of factors, including the M25, topography and proximity. Most of these settlements lie within or on the edge of the Kent Downs AONB, while Halstead and Dunton Green lie outside of this boundary. Eynsford and Wrotham are both settlements nearby which are of comparable size to Fort Halstead.

A study of these villages and settlements' character has been undertaken and inform the character of the future village at Fort Halstead. The following key characteristics of the surrounding villages have been established:

- Villages are roughly 240–560 homes in size;
- Villages are nestled within the existing landscape;
- Bus connections are infrequent;
- All have some facilities and rely on each other for other facilities;
- Each has a distinct character and sense of community;
- Each is rural in character that is reflected by density.



Villages and settlements surrounding Fort Halstead (NTS)

3.5 LOCAL CHARACTER ASSESSMENT

KNOCKHOLT POUND

Knockholt Pound is located to the west of Fort Halstead and sits on the edge of the Kent Downs AONB boundary. It has approximately 260 dwellings, with an average density of 10 dwellings per hectare.

Settlement Arrangement

Knockholt Pound is grouped around five roads that intersect to form a central triangular section, which has 0.28 ha village green at one end. The village centre is focused around this area and has a few commercial uses but is mainly residential. A recreation ground is located on the village green.

Streets & Landscape

Knockholt Pound has wide streets with sufficient footpath on both sides, unlike other settlements around the site. The streets are domestic in character with semi-continuous frontage and soft landscape insertions between dwellings. The village centre is spacious with a significant proportion of open space. Retail units, pubs and a church enrich the street character of village centre. Most of residential properties don't have a front boundary or have only short stone walls, which allows for interaction between the houses and the streets. Front gardens, particularly on the Main Road, are well maintained, adding value to the street character. There is no on-street parking on Main Street.

Buildings

House types located around the village green and central triangular section are mainly detached and semi-detached, and there are some larger detached houses around the edge of the village. The majority of the houses are wide fronted, two-storey dwellings with a mix of private drives and on-street parking.

The majority of houses are built in a Kentish vernacular style, and red brick is the most common material. However, stucco and ragstone can be found in the village centre elevations.



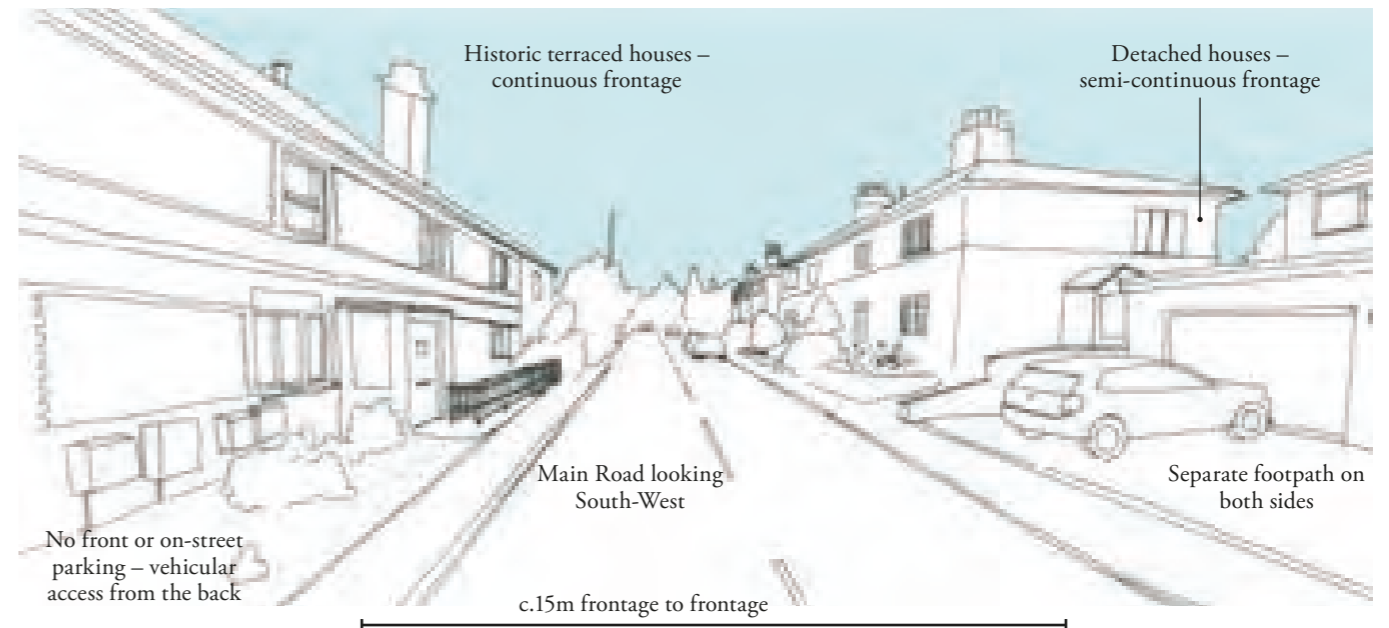
Knockholt Pound



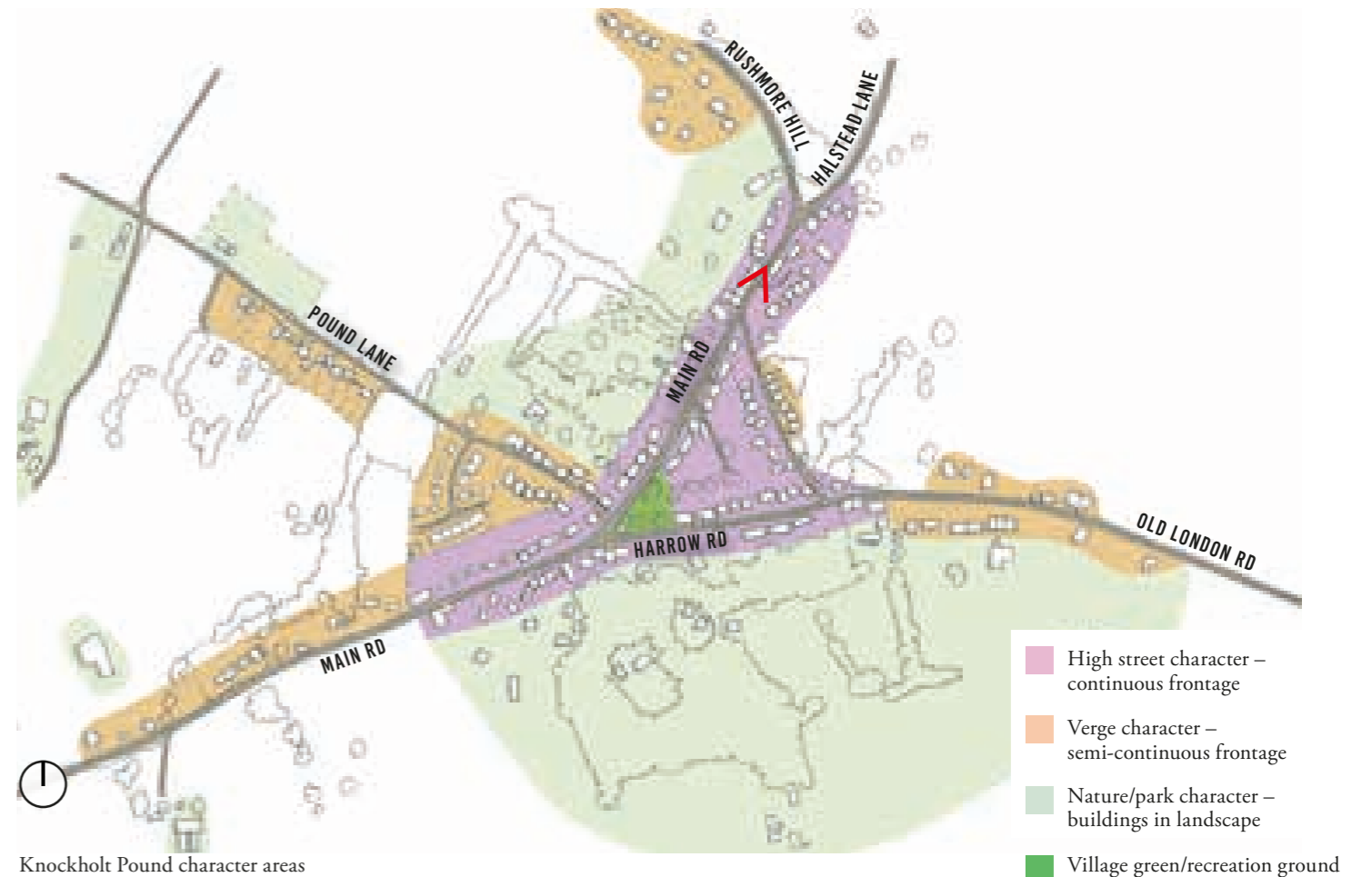
Wide-fronted, semi-detached houses on Main Road



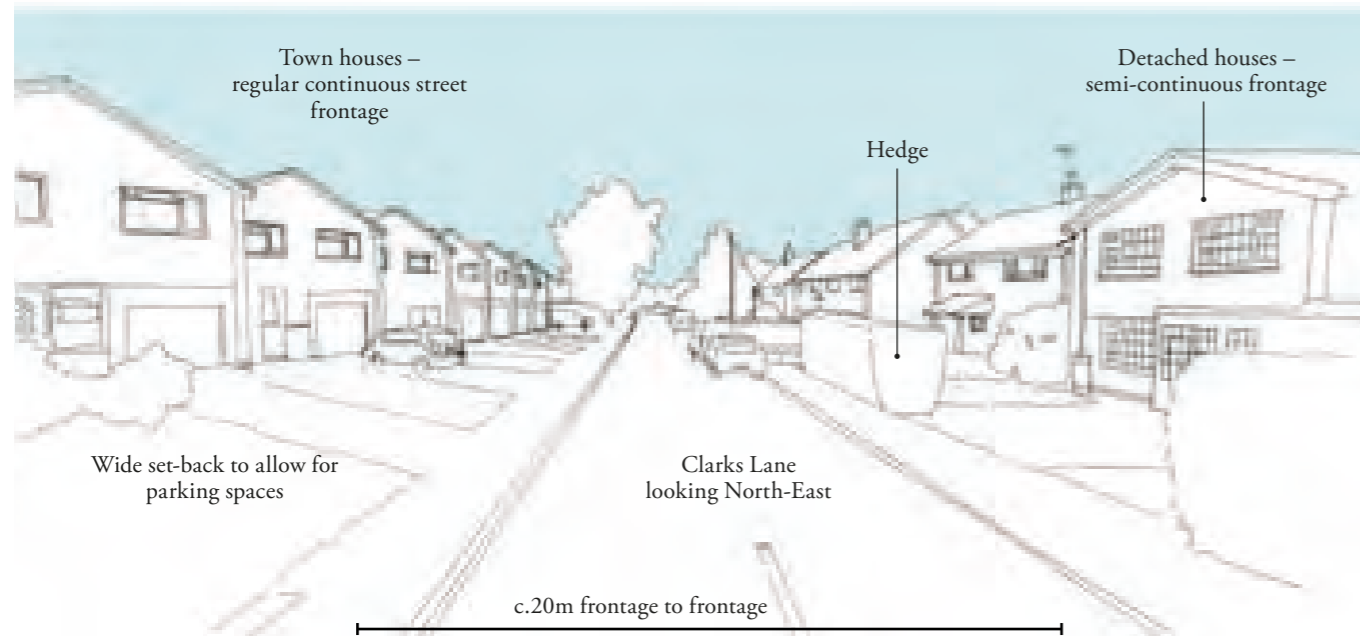
Knockholt Pound village green



Knockholt Pound's Main Road character sketch



3.5 LOCAL CHARACTER ASSESSMENT



Halstead's Clarks Lane character sketch



Halstead character areas



Halstead



Knockholt Road looking North-East



Halstead sign and The Cock Inn pub

HALSTEAD

Halstead is located to the north of Fort Halstead and is outside of the Kent Downs AONB. It lies on the top of North Down, in the woodland. The village has approximately 350 dwellings, with an average density of 13 dwellings per hectare.

Halstead was developed around a 12th century church and the manor house, which has since been demolished.

Settlement Arrangement

Halstead village is arranged primarily along Knockholt Road, with some later cul-de-sac developments running perpendicular to this route. The village centre is focused around the junction of Knockholt Road and Otford Lane and has a few commercial uses but is mainly residential. A recreation ground is located towards the periphery of the village centre.

Halstead has a designated conservation area, covering 3.5 Ha and 6 listed buildings.

Streets & Landscape

Halstead centre consists mainly of 18th and 19th century cottages. Most of the streets are domestic in scale, narrow and enclosed. However, large open spaces and soft landscape between buildings in the village centre create feel of spaciousness. Most of the properties have boundary walls made of flint, or iron railings which reduce the connection between buildings and the street.

Buildings

Houses are mainly semi-detached but there are some terraces located around the village centre with some large detached houses around the edges. The majority of the houses are two storeys and have a mix of private drives and on-street parking.

Most of the properties are built in a Kent vernacular style, with use of flint and local red bricks. White painted timber windows are another traditional feature of Halstead Conservation Area.

3.5 LOCAL CHARACTER ASSESSMENT

OTFORD

Otford is located to the east of Fort Halstead and sits on the edge of the Kent Downs AONB boundary. Lying on at the southern edge of Darent Valley. It has approximately 560 dwellings and c.3200 population, with an average density of 9 dwellings per hectare.

Otford is one of the oldest settlement in Kent. The Pilgrims Way, running through the village centre, is a strategic pre-historic track. The Roman presence is also proven by archeological evidence, such as remnants of Roman villas and bricks. The River Darent played an important part in Otford's history as navigation route and as a trade link. The village reached a peak of prosperity and growth during Tudor times and many of the houses built then have survived. The pond in the village centre is the only listed pond in England. Otford is located next to the first railway, connecting London, Sevenoaks and Bat & Ball. Following its construction in 1860s, Otford's boundaries started to expand and more housing estates were built, particularly on the eastern fringe of the village.

Settlement Arrangement

Otford village is dissected by two key routes, Sevenoaks Road (A225), running north-south and Pilgrims Way running east-west. Later developments with a more suburban character are located closer to Otford train station. The village centre is focused around a 0.12 ha green and duck pond. The village centre has a mix of commercial uses and houses. A recreation ground is located towards the periphery of the village centre.

The village centre has a good variety of civic facilities including St Bartholomew's Church Hall designed by Sir Edwin Lutyens; three schools; a railway station; a village hall and a Heritage Centre. In addition to these facilities there are several craft shops and pubs.

Part of Otford lies within a conservation area that covers 16 ha and includes about 40 listed buildings and a scheduled monument—the Archbishop's Palace.

Streets & Landscape

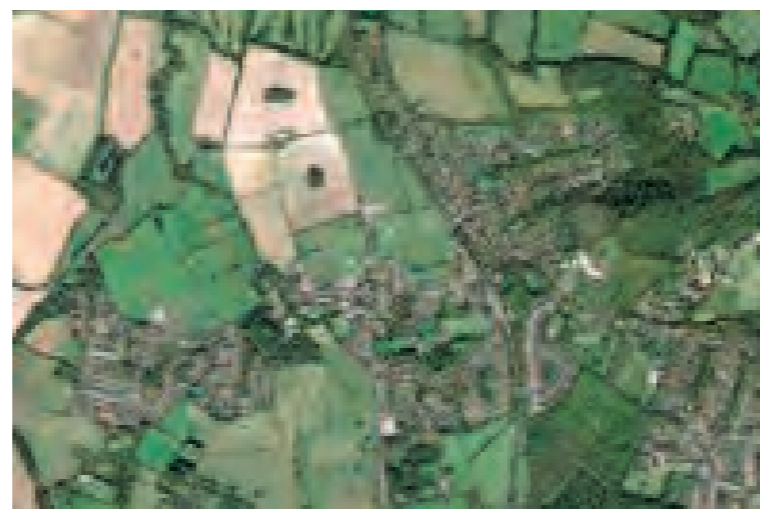
Topography and views towards open landscape play an important part in Otford's identity. Civic and public buildings all contribute to the diversity of street scene.

Street are primarily domestic in character, with small retail outlets and public houses interspersed amongst the residential properties. The High Street is formed by buildings located close to the road, with narrow pavements in front.

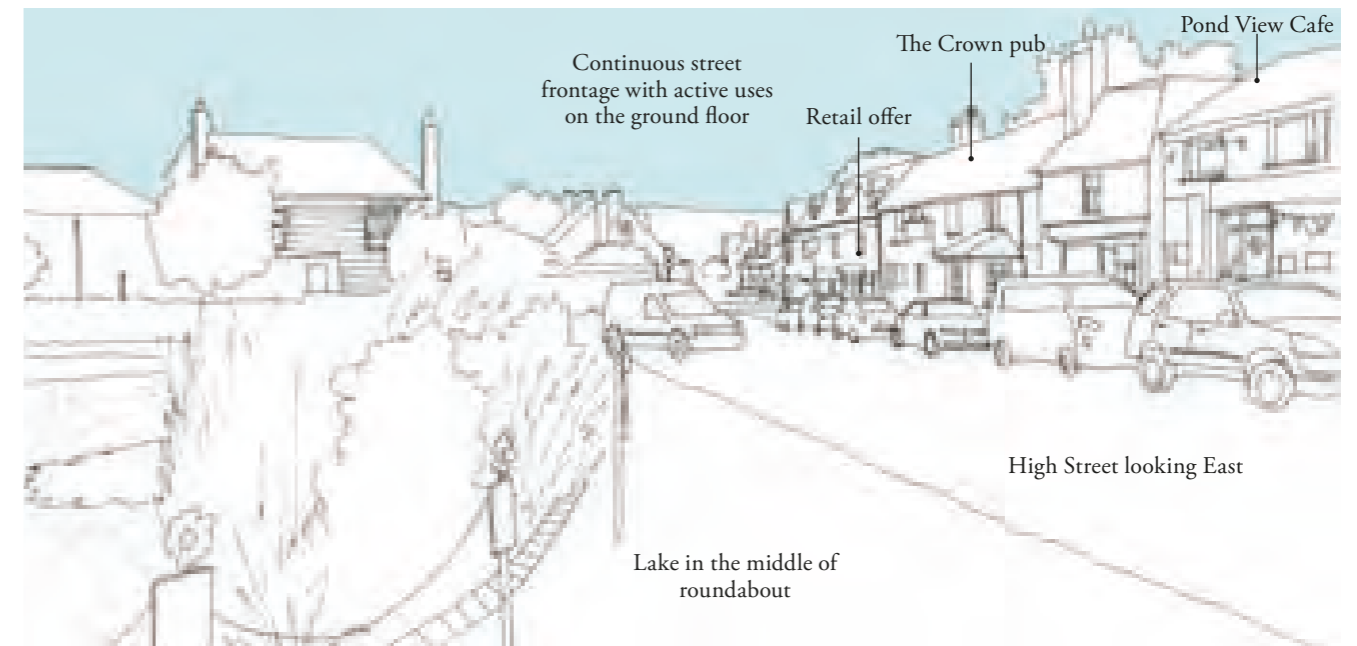
Buildings

The architectural character of Otford mostly fits into the traditional Kentish vernacular. House types range from terraced and semi-detached, located around the village centre, to semi-detached and detached around the edges. The majority of the houses are two storeys with attic space and have a mix of private drives and on-street parking.

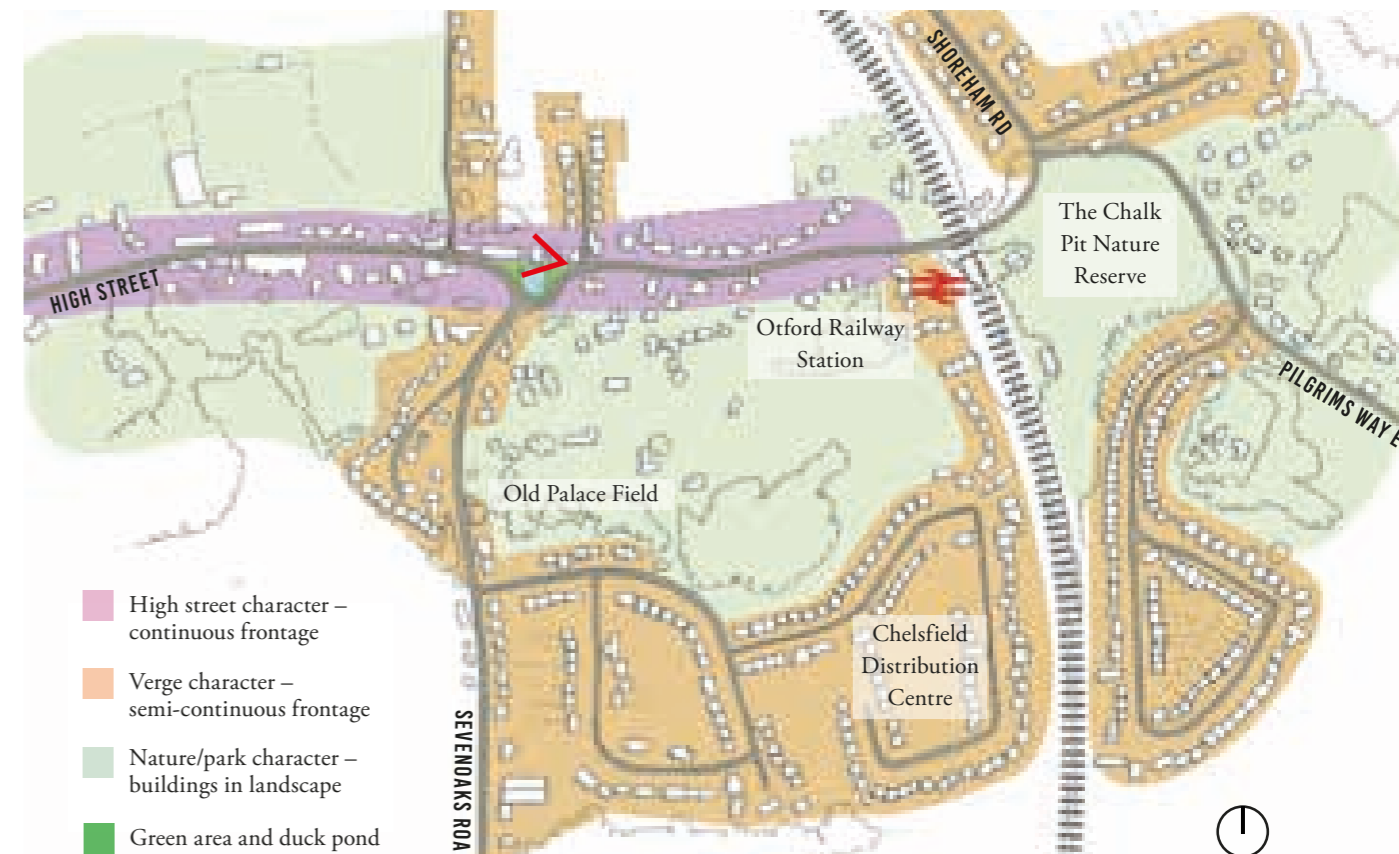
The most common material is red brick, with occasional examples of timber framing and ragstone. Upper floors are often are hanging, particularly on the older buildings.



Otford



Otford High Street character sketch



Otford character areas

3.5 LOCAL CHARACTER ASSESSMENT



Approach from the South to Badgers Mount on Orpington-By-Pass



Pond in the middle of Otford High Street roundabout



St Bartholomew's Church



The Woodman pub built in 16th century



Sevenoaks Road looking north



High Street looking west towards the pond

3.5 LOCAL CHARACTER ASSESSMENT

BADGERS MOUNT

Badgers Mount is located just north of Halstead, sitting on the edge of the Kent Downs AONB boundary and largely in the Green Belt area. It has approximately 240 dwellings, with an average density of 10 dwellings per hectare.

Settlement Arrangement

Badgers Mount is largely linear in structure and lies between the Old London Road and A224 (Orpington-By-Pass), with a more suburban layout to the east around Badgers Road. It has a large commercial use and a village hall to the south, but it mainly consists of residential.

Streets & Landscape

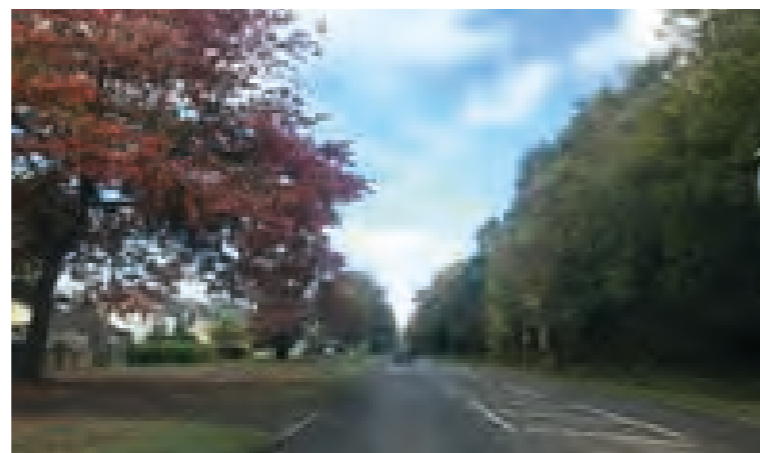
The village does not have a defined centre. Regular semi-continuous street frontages are arranged on London Road and A224. In contrast, on the eastern fringe of the village most of the houses are detached with larger front gardens which gives a more informal, suburban character to this area. Most of the streets don't have pavements.

Buildings

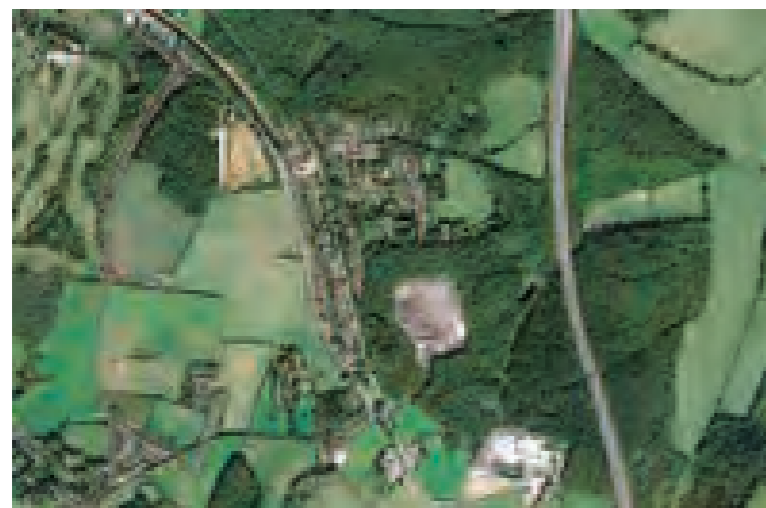
House types are mainly semi-detached and detached with large front and back gardens. The majority of the houses are two storey with private parking and garages.



Detached houses on Badgers Road



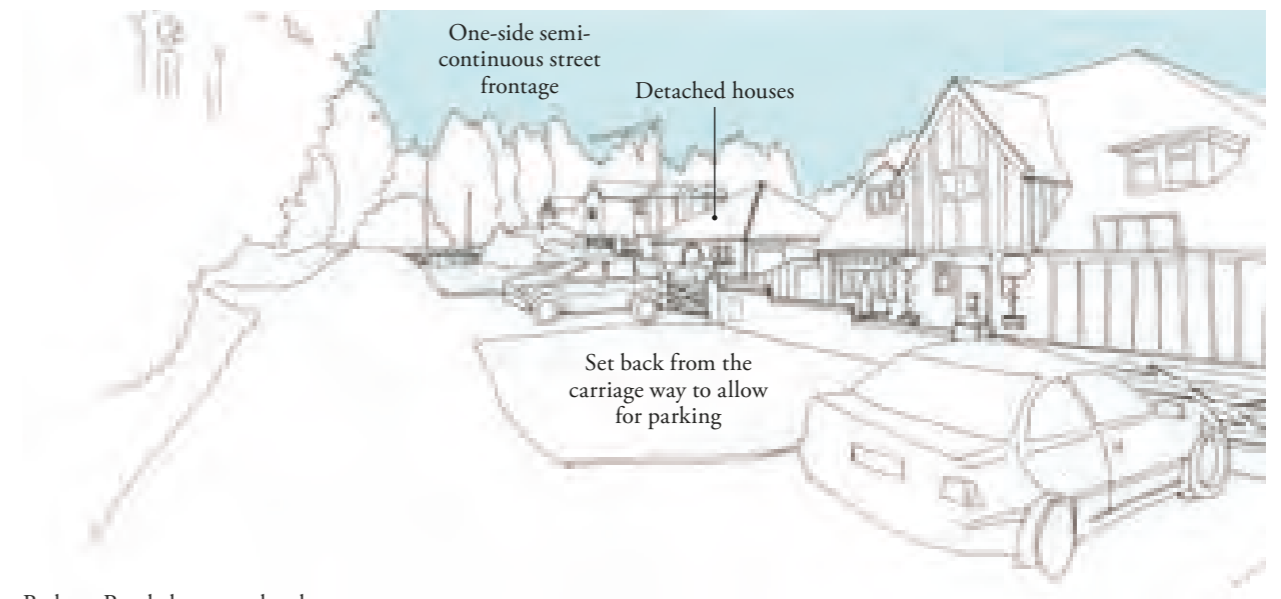
Orpington-By-Pass with wide pavement and green buffer



Badgers Mount



Approach from the south to Badgers Mount on Orpington-By-Pass

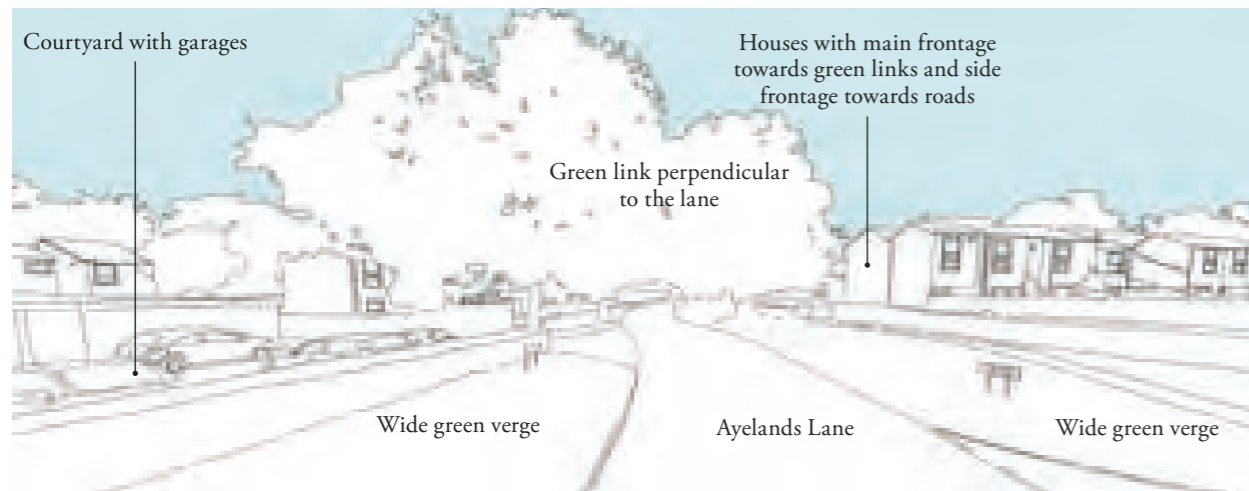


Badgers Road character sketch



Badgers Mount character areas

3.5 LOCAL CHARACTER ASSESSMENT



New Ash Green character sketch



New Ash Green

NEW ASH GREEN

New Ash Green is a village built in the 1970s on a greenfield site in Sevenoaks.

Settlement Arrangement

- The settlement is arranged in 24 neighbourhoods, separated by 'green fingers', but linked by footpaths.
- Its main design concept was to separate cars and pedestrians and integrate nature into the development.
- The village centre is a single connected building bringing together all social and retail uses.

Streets & Landscape

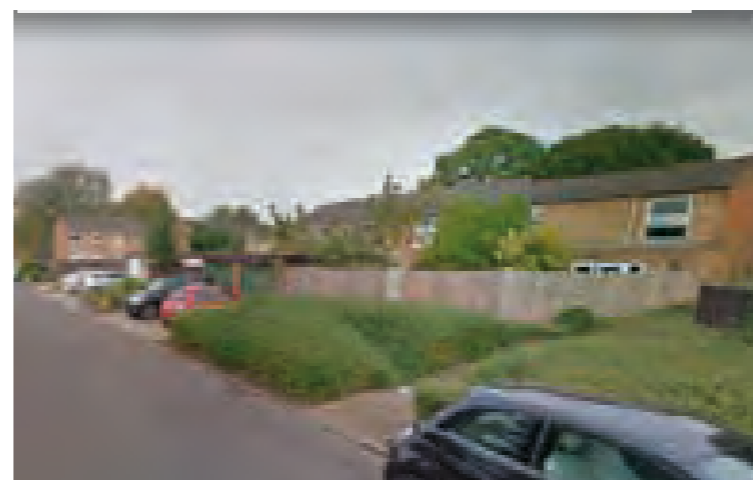
The main house frontages have been designed to face green corridors, while side elevations face the main roads. Vehicular access is located to the back of the properties via cul-de-sacs or courtyards with rows of garages on the sides. Roads have no continuous frontages and no footpaths, but wide green verges on both sides. The pedestrian routes within the development follow the green corridors and are separated from vehicular movements. There is a limited number of through roads, with most properties accessed by courtyards, or cul-de-sacs with roundabouts at the end.

Buildings

Most of the buildings are 2–3 storeys with flat elevations and generous glazing. Balconies are not typical feature for New Ash Green. Roof types vary from flat to traditional gable and shed roofs. Garages are standalone, frequently forming the back gardens' boundaries. Pale brick is the primary material, with the insertion of red or dark brown weatherboarding. Window frames are white.



New Ash Green character areas



House access from the back



Houses fronting green links

3.5 LOCAL CHARACTER ASSESSMENT

SHOREHAM

Shoreham is located to the north-east of Fort Halstead, six miles north of Sevenoaks. It is located in the valley of River Darent and within the Kent Downs AONB boundary. It has approximately 285 dwellings, with an average density of 30 dwellings per hectare.

The exact date of settlement foundation is unknown, however it was first mentioned in the 17th century as a place for court cricket. Shoreham was one of the most bombed location during the World War II, due to the British Army occupying several of its manor houses.

The parish church is considered to be the oldest building in the village, part of it dates back to 11th century. Some of the houses on the High Street date back to 15th century, while most of the village centre was built in the Georgian era, which defines the distinguished character of street frontages.

Settlement Arrangement

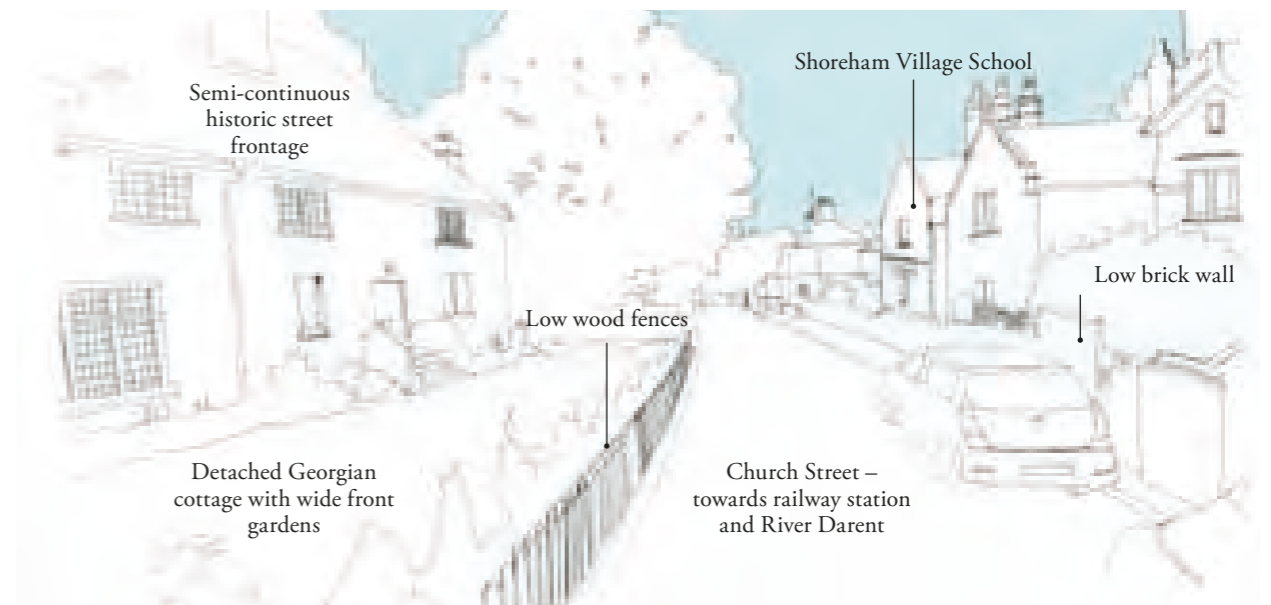
Shoreham village has a linear structure and is arranged along the High Street/Filston Lane and Church Street/Station Road, with some cul-de-sac development from these roads. Its fringes are defined by the railway station to the east and the recreation ground towards the west. All civic and public uses are located on the High Street and includes an aircraft museum, a vineyard, four pubs and tea rooms. Cul-de-sac areas are largely fronted by semi-detached houses.

Streets & Landscape

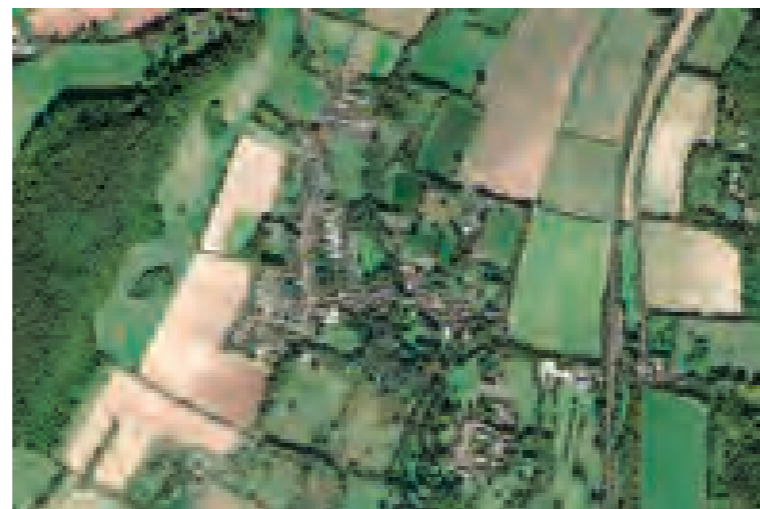
High Street and Church Street have a strong historic character, narrow carriageways and a footpath only on one side. With elements of some Georgian terrace housing, both streets have fragmented street frontages with variable width set-backs and front gardens. Most of the street frontage is formed by 2 storey historic buildings with generous back gardens with front doors onto the main street. Most of the High Street houses don't have garages, therefore there are a significant number of cars parked on the street.

Buildings

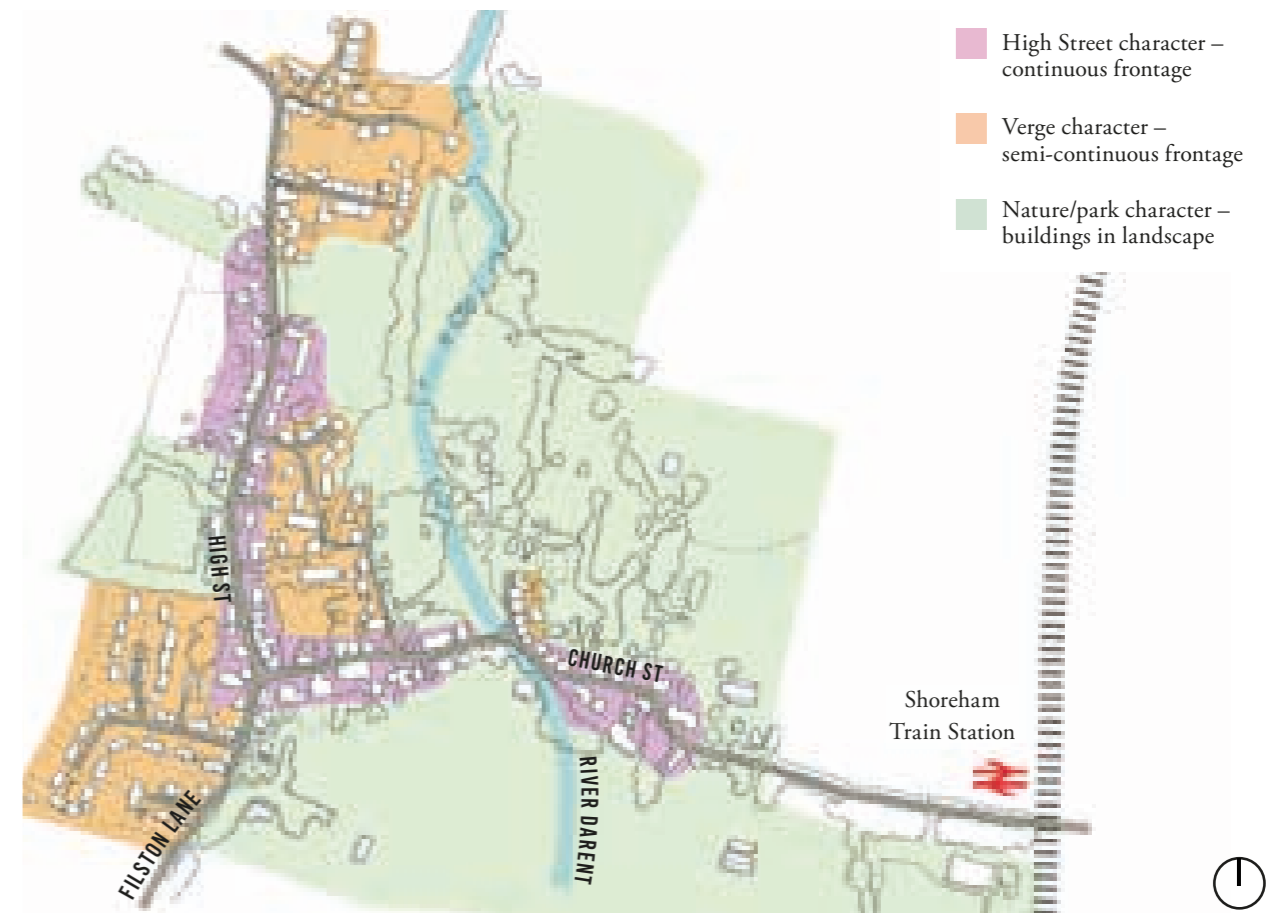
House types range from terraced and semi-detached located around the village centre to semi-detached and detached around the edges. The majority of the houses are two storey and there is a mixture of on-street parking and private parking.



Church Street character sketch



Shoreham



Shoreham character areas

3.5 LOCAL CHARACTER ASSESSMENT



Ye Olde George Inn – 15th century pub on Church Street



Bridge over River Darent



High Street 15th century detached house, Grade II listed



Palmers Orchard, 20th century semi-detached houses



Georgian terraced houses on High Street



Shoreham village shop, High Street

3.5 LOCAL CHARACTER ASSESSMENT

CHIPSTEAD

Chipstead village is located in the Darent valley, to the south of River Darent. It is adjacent to Chipstead Lake, which together with the river defines the character of village's northern fringe. The lake is formed from an excavated sandpit, flooded by the river.

The village lies to the north-west of Sevenoaks and has good transport connections via M25, A24 and Old London Road, although these major transport arteries do not bisect the village. Chipstead is connected to Otford and Shoreham by the Darent Valley Path.

Chipstead was a settlement from Saxon times and a market point ('chepsted') on the pack horse path to London. The village was a key crossing point over the River Darent before construction of Longford Bridge in 1561.

Settlement Arrangement

The settlement grew from the original manor house at Moat Farm, built in the 13th Century.

The topography is a key component in determining the character of the village centre. The ground slopes down from east to west which defines the arrangement of main roads and position of buildings. Double curves of the main street add to the subtle variation between open space and dwellings. A walk down the High Street reveals views to the countryside beyond Chipstead which are glimpsed through the breaks between buildings. Chipstead village centre is a designated conservation area. It includes a large group of listed buildings in Chipstead Square, High Street and the southern end of Chevening Road.

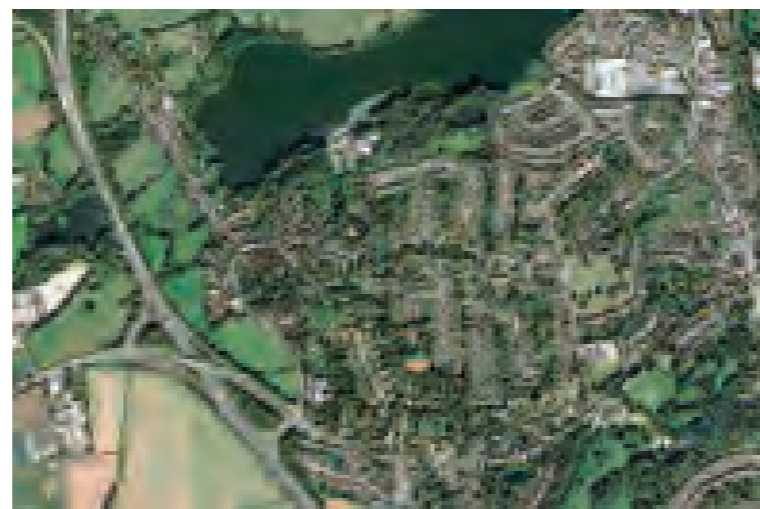
Streets & Landscape

The streets are domestic in character and formed by a wide range of house sizes, including small terraced cottages and a number of large houses. Building heights across the village centre are generally 2 storeys and do not vary significantly. However, there is a contrast of scale mainly defined by houses sitting on the steadily rising terrain along the main streets. The private boundaries are mostly formed by low stone walls or hedges. Due to the low plot divisions, there is a strong relationship between the buildings and the street.

Buildings

The vernacular style of Chipstead architecture is formed by a blend of typical Kentish detailing and materials. Several older dwellings have timber framing at first floor level, which is also replicated in later infill buildings. Moreover, vertical clay tile pattern on first floors and gable ends feature regularly and is typical. Decorative methods for buildings of different ages within the Kent region suggest that there was a local source for these clay tiles. Reddish brown brick is the most common local building material applied with lime mortar, however, there is the occasional stucco façade.

Chipstead demonstrates a variety of building patterns and materials which together with its soft landscape defines the character of the village centre.



Chipstead



High Street character sketch



Chipstead character areas

3.5 LOCAL CHARACTER ASSESSMENT



High Street looking west.



High Street looking west. Ragstone houses enclosing the view



Top of the High Street, Bank House, the George and Dragon and The Rock House



Chipstead Conservation Area



Semi-detached houses on Homedean Road in Chevening neighbourhood



High Street looking towards the listed 18th century Home Farmhouse

3.5 LOCAL CHARACTER ASSESSMENT

WESTERHAM

Westerham lies on a small hill in the North Down valley. The town is surrounded by AONB and Green Belt. The River Darent flows to the south of the town centre. Westerham's setting includes wooded parkland to the south and farmland to the north.

According to the official records, Westerham was established in the 12th century as a small market town. However, the Roman road connecting London to the south, runs close to Westerham and archeological investigations suggest much earlier activities. The town significantly expanded after the introduction of the railway and the Industrial Revolution. Place and building names such as Mill Lane and Brewery Cottages reveals the town's industrial past. Landscape features, such as the restored mill ponds in the town centre, add to the richness of local character. Currently, Westerham is a popular shopping and tourism destination.

Settlement Arrangement

Westerham lies on the A25, which runs east-west through the town, and London Road which connects the town to Bromley. The nearest railway stations are Sevenoaks, Edenbridge and Oxted, all about 4 to 5 miles away.

The modern town centre was formed around small industries and large properties of wealthy families, settling in close proximity to London. In spite of the fact that the last cattle market was held in Westerham in 1960s, the ancient market square continues to be a successful place for a large variety of active uses, retail, food & beverage and small businesses.

Westerham town centre has a designated conservation area, covering c.36 ha with around 100 listed buildings. It includes the Green, St. Mary's Church, part of the southern parkland, and some well-known ancient properties and estates.

Streets & Landscape

The topography of Westerham is a key feature of the town's identity. Views to the open countryside contribute significantly to the town centre's character.

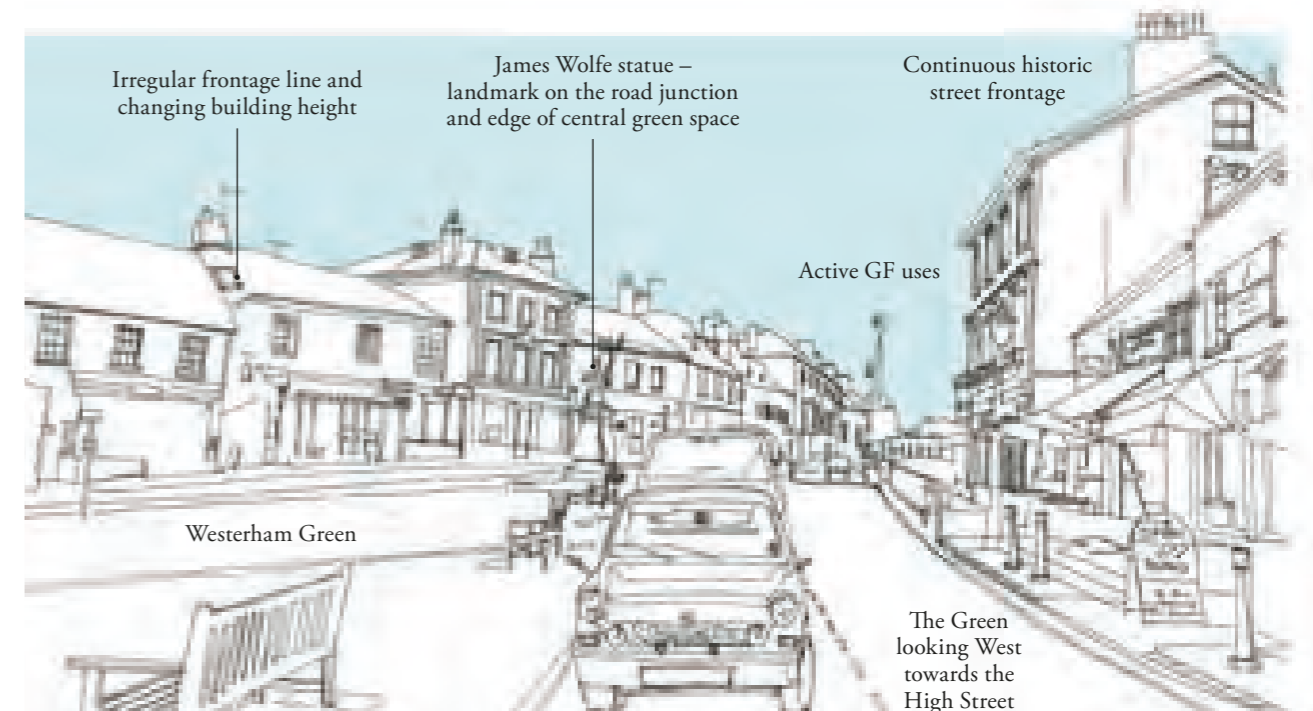
The key spaces in Westerham—the Green and the Market Square—are enclosed by two-three storey historic buildings and the church creating a strong sense of place. They form the ancient town core of Westerham and define its character. The other key town centre streets lie in an east-west direction and have a linear settlement pattern made up of residential, retail and small industry buildings. These uses are connected by smaller passageways and alleys, commonly formed by worker cottages which contribute to the character. Most 20th century development is located to the north-west of town centre.

Buildings

Most of the architectural features in Westerham town centre are traditional Kentish features. The built character of the town centre is defined by a variety of grand houses, small cottages and larger dwellings of different ages. Reddish or brown brick, clay tile hanging, clay roofing tiles and ragstone boundary walls are widely used. Typical buildings features include, chimney stacks - often tall and decorative - and dormer windows inserted into roof slopes. Moreover, decorative arches above the windows and the doors are common in the Westerham Conservation Area. Westerham has many surviving timber framed buildings, adding to the richness of the local architectural character.



Westerham



Westerham Green character sketch



Westerham character areas

3.5 LOCAL CHARACTER ASSESSMENT



The George and Dragon – 16th century coaching house on High Street



High Street – approach to the village centre.



Westerham Green



Pedestrian path connecting London Road to the neighbourhood



Pedestrian crossing on Croydon Road



Westerham Green

3.5 LOCAL CHARACTER ASSESSMENT

NEW DEVELOPMENTS

There are several new developments adjacent to surrounding settlements. This analysis concentrates on two major residential village extensions—Halstead Place in Halstead, and Ryewood in Dunton Green.

Halstead Place

This development is located on the fringe of Halstead village and the construction was completed in 2009. The development provided 20 private and 13 affordable homes. The property size varies from 3 to 6 bedrooms and all houses are 2 to 3 storeys high. The buildings were arranged in traditional Kent ‘farmstead’ courtyards, with balconies overlooking green spaces. All building materials are traditional in appearance with locally sourced brick, flint and timber. The masterplan included a Grade II listed building which was refurbished to residential use. The development was announced the Best New Homes Development in Kent in the 2010 UK Property Awards.



Different parking arrangements at Halstead Place



Apartment block



Carport



Access road

3.5 LOCAL CHARACTER ASSESSMENT

Ryewood

The Ryewood development is located 0.3 miles from Dunton Green train station, in close proximity to Dunton Green high street. The site is adjacent to Sevenoaks Wildlife Reserve. The construction works were completed in March 2018 and the development provides 700 homes, including apartment blocks and 2 to 4 bedroom houses. The masterplan includes a large amount of open space, landscape features and play areas. The height varies from 2 to 4 storeys. Parking is provided on-street and in undercrofts of apartment blocks and private houses.



4 storey apartment block with front garden and on-street parking



Various roof height and building offset create an interesting street frontage



Main street with apartment blocks and terraced houses



3 storey apartment block with shared parking courtyard

SUMMARY

Comprehensive analysis of the more recent developments led to a number of key findings:

- The developments are very different in density and scale, with a more countryside organic character at Halstead Place and a more urban identity at Ryewood.
- The main building material is locally sourced brick.
- Halstead Place responds better to the historic character of the area.
- Although both masterplans note that landscape plays an important role in the development it is evident that Halstead Place has a more generous provision of open space. Streets at Ryewood offer little soft landscaping.
- Due to the higher density, Ryewood has a more continuous and regular street frontage whilst Halstead Place has a more organic structure.
- The parking arrangement significantly influences street character in both developments. Halstead Place provides more covered parking or garages, whereas in Ryewood most of the cars are parked on-street in front of the properties, leaving little space for front gardens or public green spaces.

3.5 LOCAL CHARACTER ASSESSMENT

LOCAL CHARACTER SUMMARY

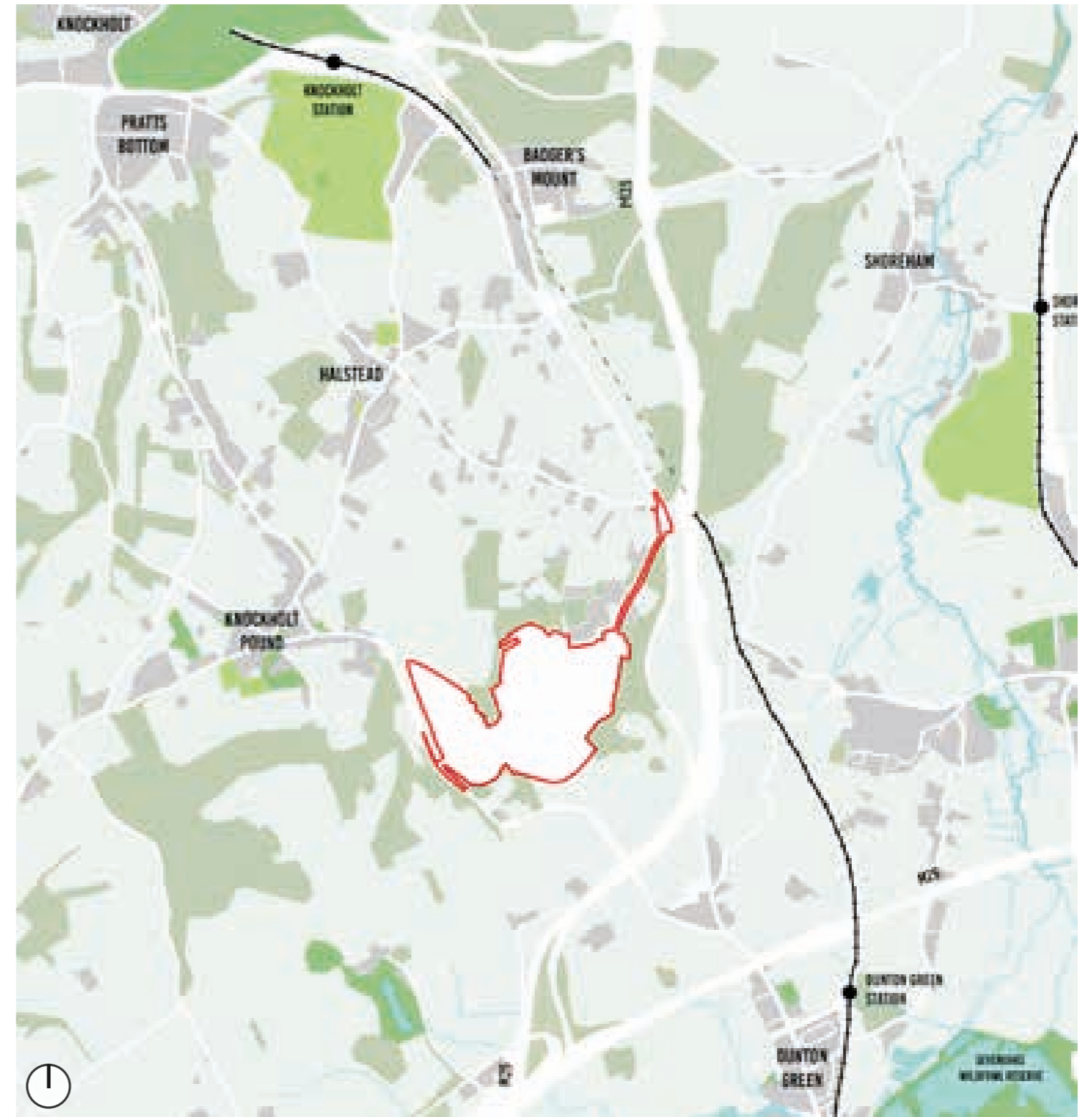
Comprehensive analysis of the surroundings settlements of Halstead, Otford, Westerham, Knockholt Pound, Shoreham, Chipstead, Badgers Mount and Otford led to a number of key conclusions, as captured in the adjacent summary.

While Kentish vernacular style can be seen as a unifying character in all of the settlements examined, each one has its own identity and different focal points such as an ancient church, a duck pond or remnants of a key building.

Common Features:

- Linear structure to the majority of village centres developed along ancient routes.
- Topography as a key component of settlement form and identity.
- Rich building heritage as evidenced by a number of conservation areas in the examined village centres.
- Well maintained front gardens and soft landscape features that enhance the high street character.
- Consistent palette of locally sourced building materials—red brick, clay tiles, timber and white stucco.
- White painted wooden window frames and tall, decorative chimney stacks are common details.
- River Darent and other water features are key components of the identity of each village.
- Low stone walls or green hedges are a predominant boundary treatment and allow for interaction between buildings and the street.
- The density and continuity of street elevations fragment significantly away from settlement centres.

These key features have been used to inform the design proposals at Fort Halstead and are explained later in this document.

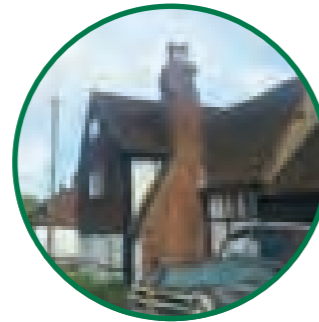


3.5 LOCAL CHARACTER ASSESSMENT

ARCHITECTURE



Large number of heritage buildings in historic centres



Kentish vernacular style is evident even in more recent developments

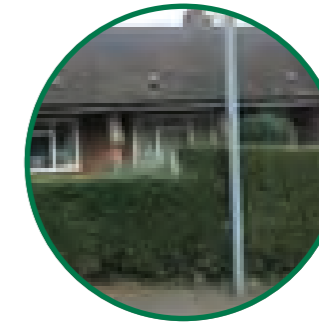


Consistency in townscape across most of the villages

BOUNDARY TREATMENT

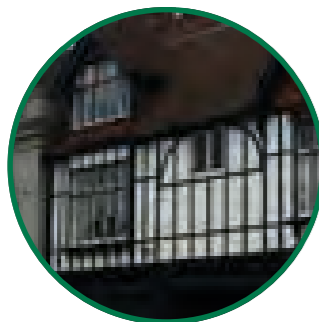


Low stone walls or no boundary treatment are common within historic cores



Green hedging between private and public spaces

MATERIALS



Timber frame historic elevations



Local sourced reddish brown brick

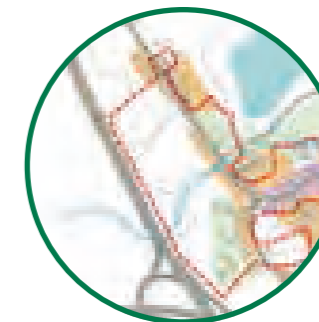


Hanging clay tiles

URBAN FORM



Dense local centres especially in villages with historic cores



Linear arrangement of local centres along main streets
Water arteries and topography play key roles in settlement development

LANDSCAPE



Most of the villages have a water feature in the centre



Well maintained landscape and public realm



Village greens are located only in two settlements. Some of the villages also have open church grounds

DENSITY & LOCAL CENTRE



Dense local centres especially in villages with historic cores
Diversity in dwelling scale: from grand manor houses to little cottages



Continuous frontage character along High streets with variety of retail, civic and residential buildings

3.6 ACCESS & CONNECTIONS

CURRENT TRANSPORT PATTERNS














The current site uses already generates a substantial demand on the existing transport network. It is understood that there are currently circa 500 jobs (400 DSTL/QinetiQ, 100 contractors) on-site, reduced from 710 in 2018 (650 DSTL/QinetiQ staff, 60 contractors). Although this number is quite variable and has been as high as 1,200 jobs in the recent past (2008). Historically, it is believed that staff numbers reached approx. 4,000 workers during the 1970s, although at that time employees were brought by bus to the Site from a variety of locations. As DSTL slowly exit their operations from the Fort Halstead site, the number of jobs on site are diminishing.

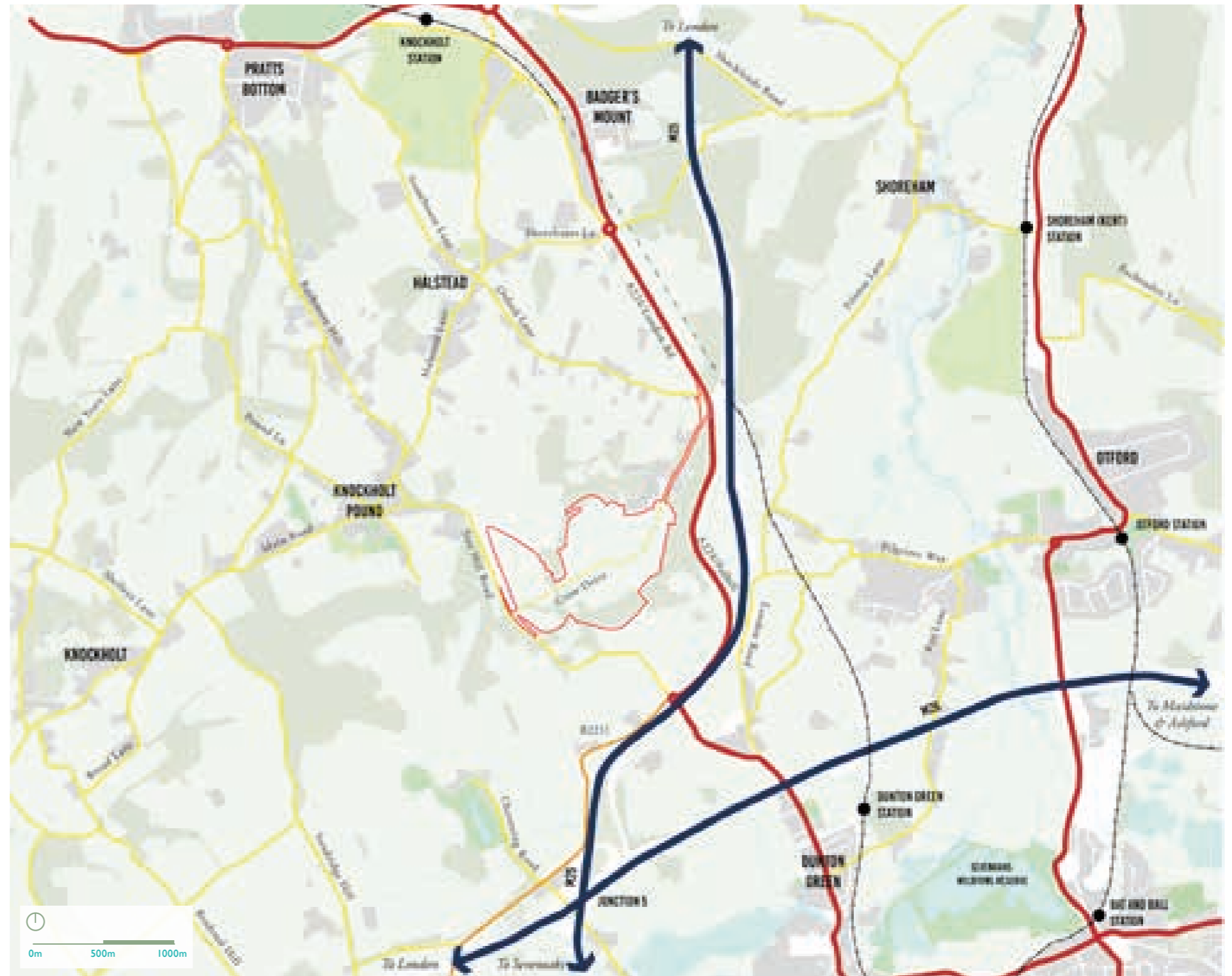
Most people travelling to and from the Site do so by car, either as drivers or passengers. The introduction of the Dstl peak-period shuttle bus to Orpington and Knockholt stations attracted reasonable support from employees of both Dstl and QinetiQ, but private car use continues to dominate.

Traffic surveys undertaken in 2008, when there were around 1,200 employees on site, identified the number of car trips generated as well as their distribution between the two points of access into the Site. The site generated about 430 car trips during the busiest hour, the morning peak, between 08:00 and 09:00, with approximately 87% of these trips using the main site access.

Of the small number of trips using the secondary access, almost all of them used it as a convenient route to/from Sevenoaks. Virtually no trips turned into the secondary site access from the north (Knockholt Pound/Rushmore Hill). Traffic currently generated by the Site is slightly lower, reflecting the reduction in employees at site as Dstl relocates its activities, around 340 car trips during the same busiest hour, but the pattern remains the same.

Key

- | | | | |
|---|--|---|---------------------|
|  | Site |  | Motorways |
|  | Built areas of surrounding settlements |  | A roads |
|  | Farmland |  | B roads |
|  | Woodland |  | Other Roads |
|  | Public open space |  | Crow Road (private) |
|  | Playing fields/leisure |  | Railway |
| | |  | Railway station |



Connections – Existing Roads

3.6 ACCESS & CONNECTIONS

HIGHWAY CONNECTIONS

The Site has two established points of highway access. The main access is from the A224 London Road/Polhill via Otford Lane but there is also a secondary access from Star Hill Road, used primarily during the peak periods. Due to the nature of the current and historic uses on site, access to the Site remains strictly controlled, and there is no unrestricted movement between these two access points at present. A visitor car park is provided outside of the security barrier, and is accessed from the A224. This means that employees of both Dstl and QinetiQ are able to use either access point to enter/leave the Site but that the small residential community and visitors to the Site are restricted to use the main access onto Otford Lane/A224.

The highway network has the following characteristics:

- The A224 is a single carriageway road. To the north it provides access to the M25 (junction 4), to Orpington via Badgers Mount, and to Bromley via Old London Road and the A21. To the south it provides the main access route into Sevenoaks.
- Within the vicinity of the Site the A224 is subject to a 50 mph speed limit. The road has lighting infrastructure and facilities but, at the time of writing, it is currently unlit because the lights were switched off for a research experiment. The A224 has limited footway provision: to the north of the Site there is a footway on the east side of the carriageway, and to the south there are no footways.
- The Star Hill Road access provides a convenient means of access to the local villages of Knockholt and Knockholt Pound. It also provides an alternative route towards Dunton Green and Sevenoaks. It is a relatively narrow rural lane with no footway or lighting, but is an existing bus route.

The highway network surrounding Fort Halstead is relatively free of congestion, even at peak times. Traffic surveys have been undertaken in 2014, 2017, 2018 and 2020, and these indicate that the local road network, including the A224 and A21 are operating well within their link capacities. Baseline junction assessments have also been undertaken which suggest that there are no major highway capacity issues at any of the junctions within the immediate vicinity of the Site. Only the junction of A224/A21/M25 link road is nearing capacity at peak times. Furthermore, our observations suggest that Junction 4 of the M25 is also operating within capacity in observed scenario.

The main traffic hotspots in the area have been highlighted by the Sevenoaks District Transport Strategy and are:

- A224/A25 Riverhead roundabouts;
- A21/A25 Bar and Ball traffic lights; and
- M25 Junction 5

These junctions are all relatively distant from the Fort Halstead site. The Sevenoaks District Transport Strategy also notes that congestion at the two A25 junctions is restricted to the peak hour with no spreading of congestion to other time periods. It also notes that traffic congestion at these junctions is, at least in part, related to the lack of east facing slip roads providing access between the A21 and the M26.



Pilgrims Way



Local lanes

3.6 ACCESS & CONNECTIONS

BUS CONNECTIONS

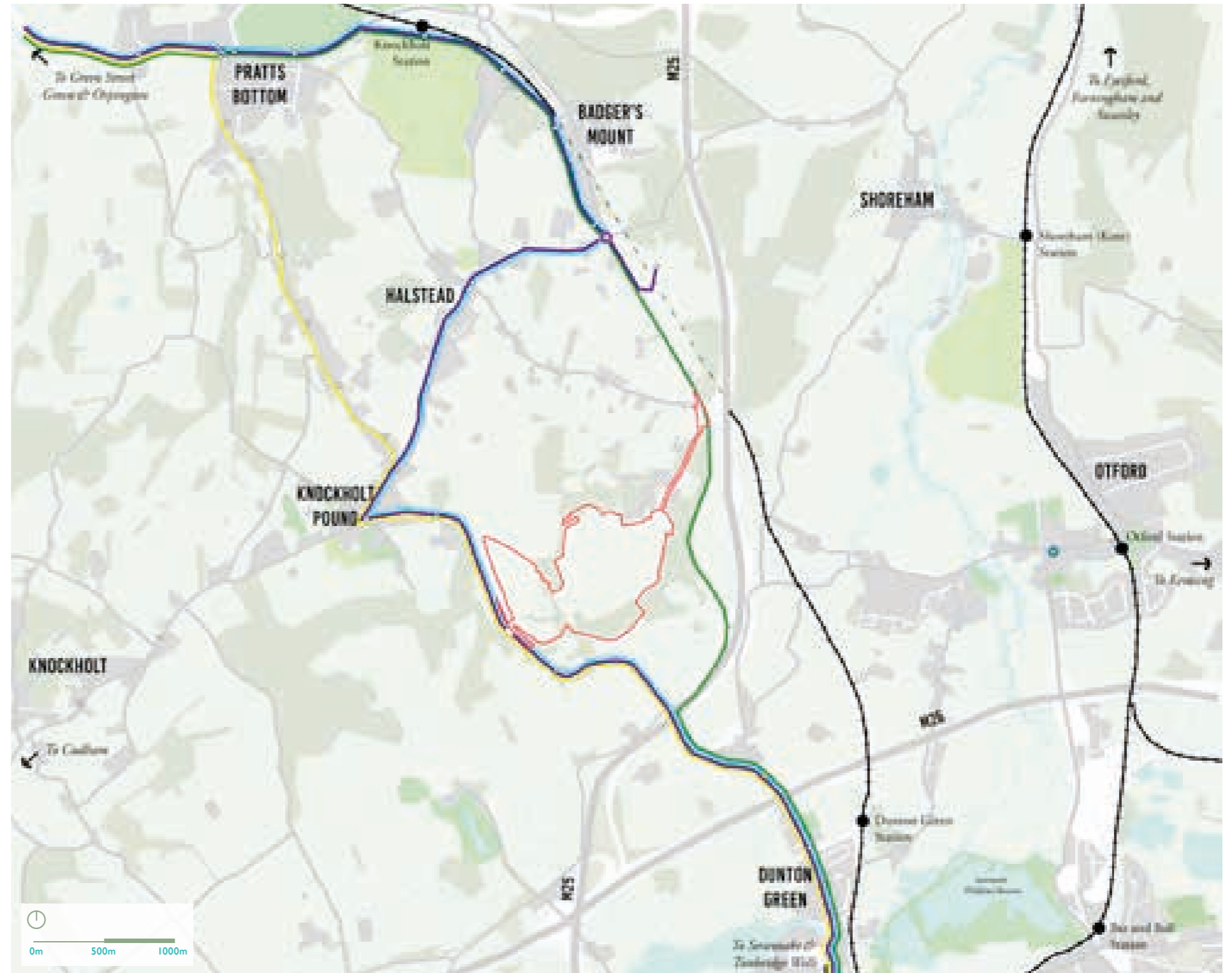
DSTL currently runs a private peak period shuttle bus between the Site and Knockholt and Orpington railway stations. There are three buses during the morning peak and three during the evening peak, with the service being operated by Go Coach.

There are bus stops near both southern and northern entrances on Star Hill Road and Polhill. It is served mainly served by route 431 on Star Hill Road and 6 other bus routes running on school days.

BUS ROUTE	OPERATION DAY	FREQUENCY
3	Monday–Friday	Every two hours
Orpington – Halstead – Knockholt Pound – Sevenoaks		
3A	School days only	Twice a day
Ramsden Estate – Knole Academy – Trinity School		
3B	School days only	Twice a day
St Paul's Cray – Knole Academy – Trinity School		
3C	School days only	Twice a day
Chelsfield – Knole Academy – Trinity School		
3D	School days only	Twice a day
Knockholt – Knole Academy – Trinity School – Sevenoaks		
T3	School days only	Twice a day
Knockholt – Badgers Mount – Sevenoaks – Tonbridge		
TW6	School days only	Twice a day
Badgers Mount – Knockholt – Riverhead – Chipstead – Tunbridge Wells Schools		

Key

-  Site
-  Roads
-  Bus route 413 and T3
-  Bus route 413A and 413D
-  Bus route 413B and 413C
-  Bus route TW6
-  Bus stop
-  Railway
-  Railway station



Connections – Existing Bus Routes

3.6 ACCESS & CONNECTIONS

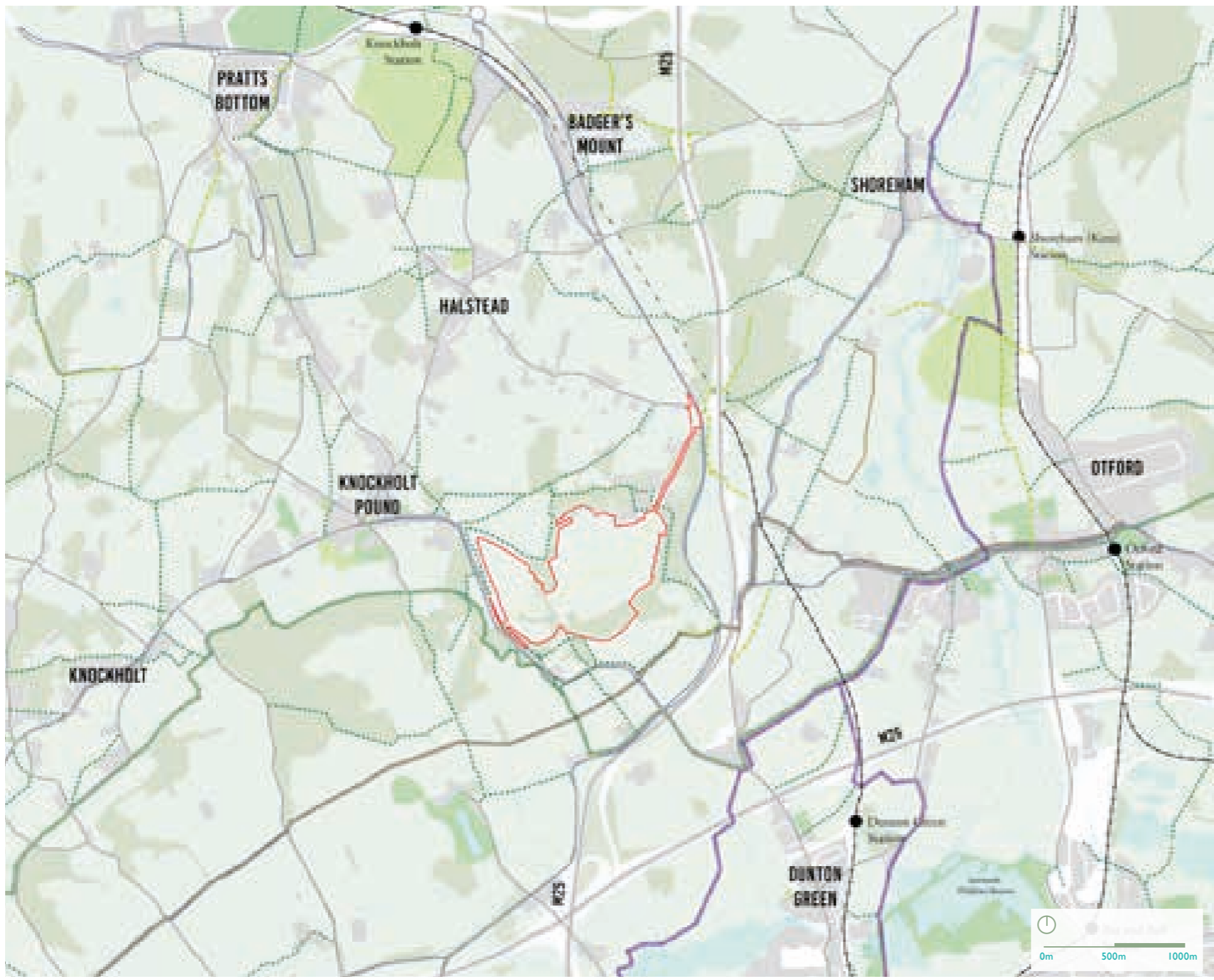
WALKING AND CYCLING CONNECTIONS

Although existing pedestrian and cycle links to the existing Fort Halstead site entrances are relatively poor, there are a number of footpath links and rights of way, including a direct link to the North Downs Way, surrounding the Site which provide a good connection to the countryside. This network of leisure routes are generally unsurfaced and unlit and are therefore not suitable as commuter/school access routes.

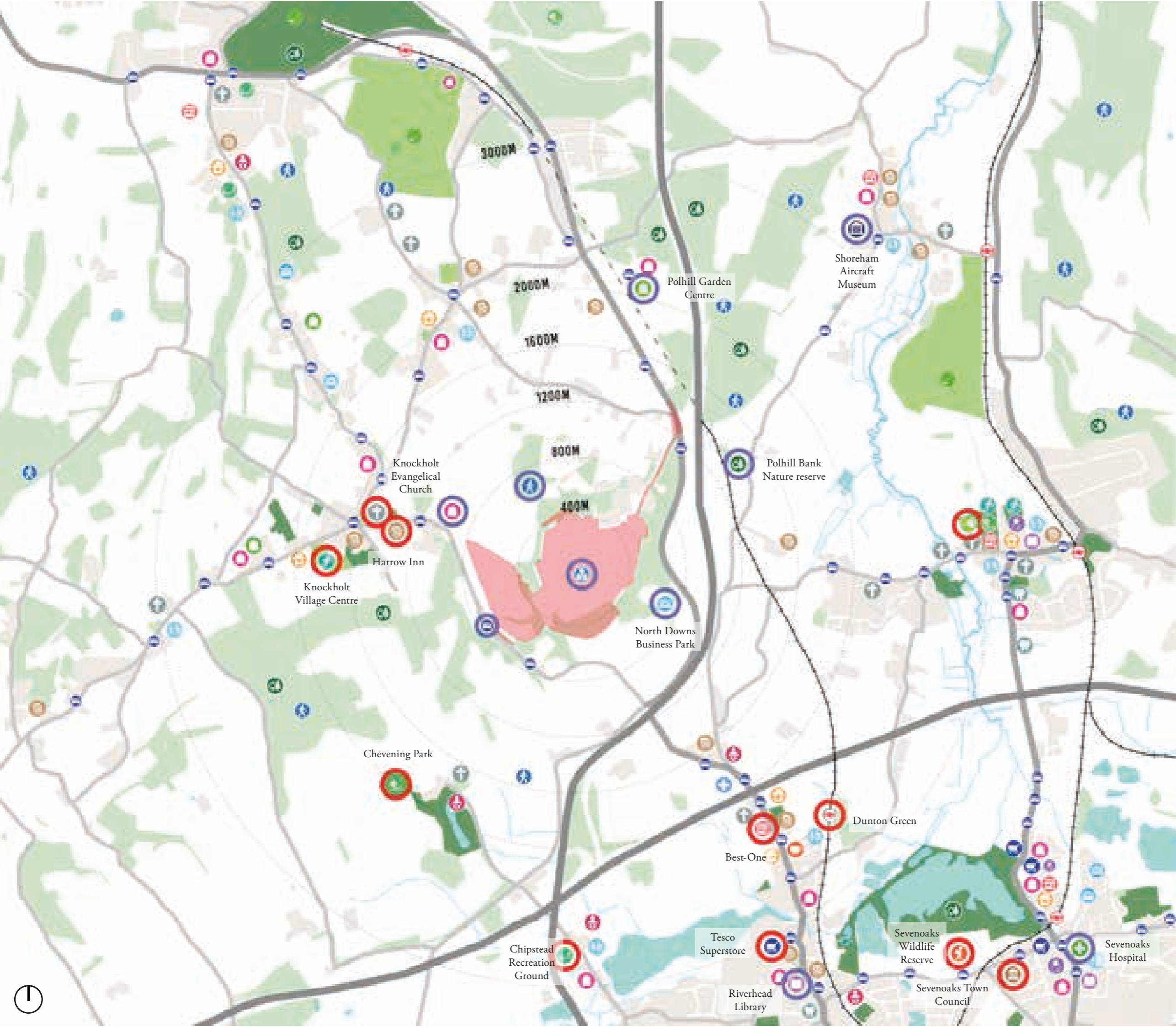
Existing pedestrian routes by type:

- Access to Knockholt Pond is via Star Hill Road. This is a relatively narrow country lane with no dedicated footways or lighting. There is also an existing public right of way that links the Site to the junction of Star Hill Lane/Birchwood Lane, much closer to the centre of Knockholt Pond. This is also unsurfaced and with no lighting;
- Access to Halstead is via Otford Lane which is also a narrow, unlit country lane;
- The A224 London Road to the north of Otford Lane has a footway on its east side and this provides a safe pedestrian access to existing facilities that are located along that road. These include two restaurants and a new furniture shop close to the junction with Otford Lane. Further to the north, the footway also provides access to the large Polhill Garden Centre.

There are also relatively limited cycle facilities. Since the Site is located on top of a chalk escarpment, there is a steep hill to negotiate in order to access the Site from Sevenoaks. However, the cycle route to Knockholt station is relatively flat, and there are advisory cycle lanes on Old London Road, one of the few existing cycle facilities within the district.



Connections – Existing Cycle and Footpaths



-  Allotments
-  Playground or kickabout area
-  Bus stop
-  Local park/green space
-  Local centre
-  Village or community hall
-  Town Hall
-  Pub
-  Train station
-  Access to green network
-  Nursery
-  Primary school
-  Surgery/pharmacy
-  Playing fields
-  Secondary school
-  Supermarket
-  Industrial estate
-  Major natural green space
-  Golf
-  Major employment area
-  Vet
-  Hospital
-  War Memorial
-  Church
-  Library
-  Retail
-  Garden Centre
-  Dentist
-  Cafe
-  Nearest facility of strong accessibility
-  Nearest facility of weak accessibility



3.7 LOCAL FACILITIES



Illustrative recommended accessibility criteria – adapted from ‘Shaping Neighbourhoods for Local Health and Global Sustainability’.



Current accessibility to relevant local facilities from Fort Halstead

LOCAL FACILITIES

The diagrams illustrate how the site meets accessibility criteria benchmarked against best practice guidelines established through evidence-based research (see Barton, H.S Grant, M. Guise, R. 2010. “Shaping Neighbourhoods for Local Health and Global Sustainability.” (2nd edition) Routledge: Abingdon).

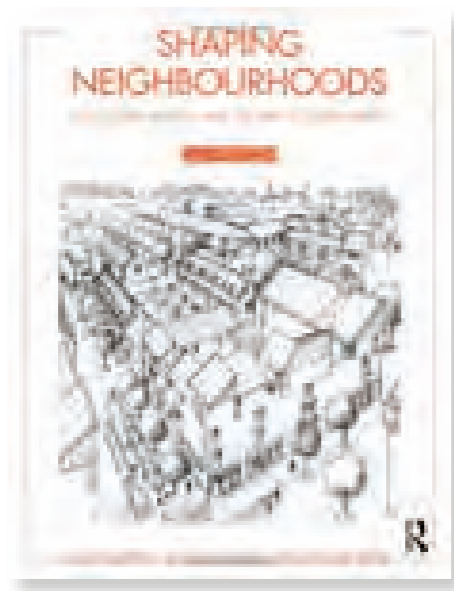
The top left diagram illustrates a range of recommended distances to key local facilities and services, and the top right diagram illustrates the extent to which they are accessible from Fort Halstead. Arrows in blue indicate that these services are already accessible. Arrows in red or orange indicate they are not easily accessible or that accessibility could be improved. For the purposes of this assessment distances were measured as the crow flies from the centre of the application site.

THE ASSESSMENT

The assessment illustrates that overall there is good accessibility to a wide range of services, with particularly strong accessibility to key facilities such as the primary school, train station, supermarket and natural green space. There is good potential to enhance accessibility to facilities such as local parks/green space and allotments by including these as part of the village. However it is unlikely to be possible to enhance weak accessibility to district level facilities such as the hospital since this is a factor of their distance from the site.

IMPROVED ACCESSIBILITY

The bottom diagram shows that the proposed uses within the new village at Fort Halstead, particularly within the village centre, will significantly improve accessibility to a range of facilities and services, benefitting both new and existing residents and employees in and around Fort Halstead. This is indicated by green arrows and their short length.



- ← Ideal accessibility
- ← Strong accessibility
- ← Weak accessibility
- ← Future accessibility



Future accessibility to relevant local facilities from Fort Halstead to be improved by the proposed village

3.8 AONB & LANDSCAPE CONTEXT

LANDSCAPE CHARACTER & LAND USE

The Sevenoaks District Landscape Character Assessment (2017) provides analysis of landscape character at the local level. The Site is within the Knockholt and Halstead Wooded Downs Landscape Character Area (LCA) and Chevening Scarp LCA, the key characteristics of which include large arable fields on flatter ground; extensive areas of woodland; and the steep chalk scarp with a mosaic of woodland and pasture.

The character of the landscape surrounding the Site is heavily influenced by the topography of the North Downs chalk escarpment and the lower-lying Darent River valley to the south. In both these landscapes, there is a strong vegetative network throughout. There are also a number of historic parklands in the surrounding landscape.

Settlement and infrastructure is also a key feature of the local landscape. Settlement ranges from small villages, such as Badgers Mount and Sundridge; larger villages/towns, such as Westerham and Wrotham; and the principle urban areas of Sevenoaks and Orpington. Transport links include the M25, M26, A25 Westerham Road, and A21 Sevenoaks Bypass.

The character of the Site itself is reflective of a military research complex. A range of industrial type buildings are scattered throughout the Site. They are typically low-rise buildings 1–3 storeys in height, with a number of taller buildings and structures within the Site. The buildings are interspersed with internal roads; large areas of hard standing used for parking/access; smaller storage buildings and bunkers; and areas of amenity grassland and mature trees. Woodland is also a key characteristic of the Site, surrounding the built-up area and providing enclosure. Much of the woodland is classified as ‘Ancient Woodland’ that has existed since 1600AD.

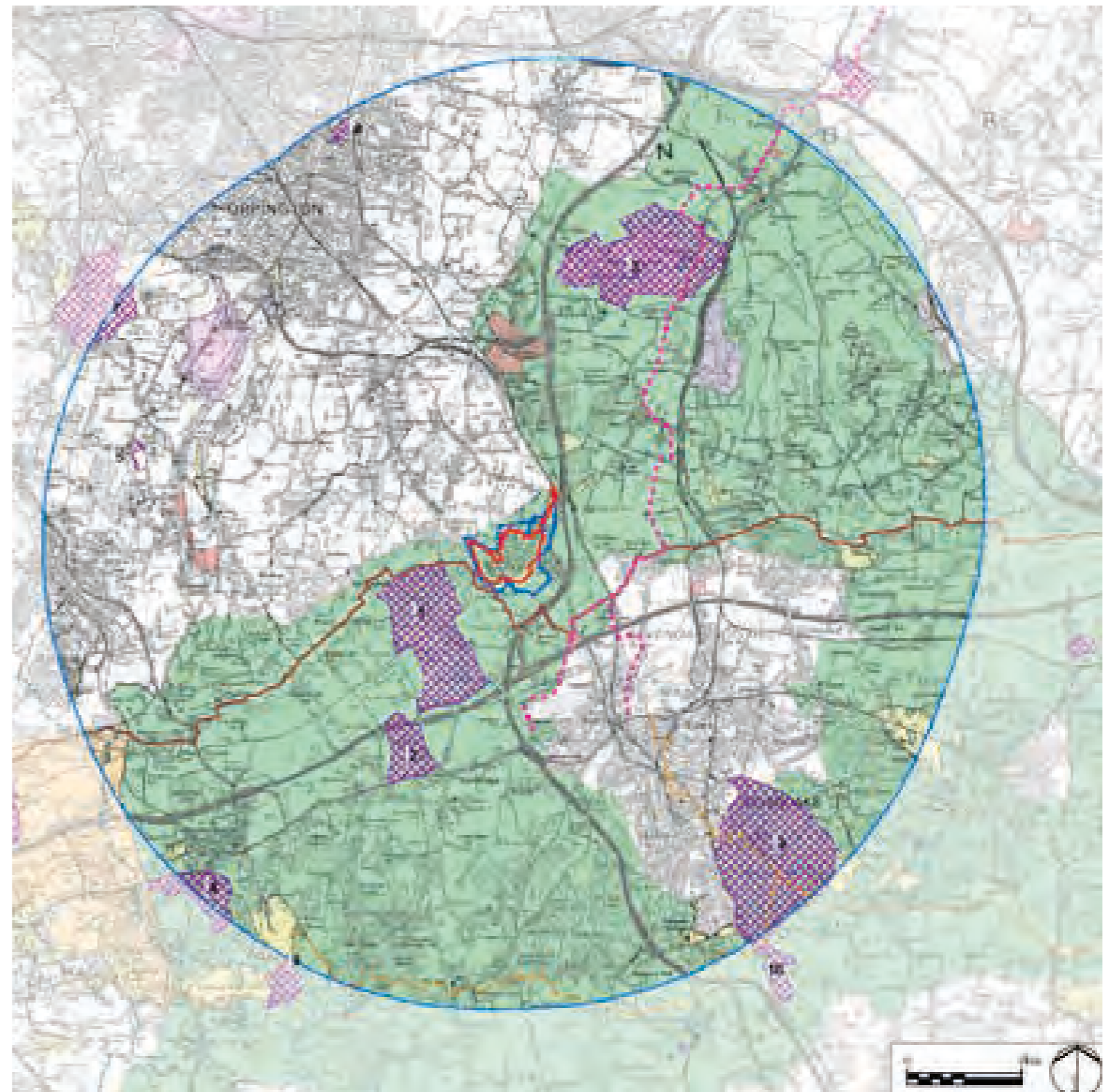
The Site is within the Kent Downs Area of Outstanding Natural Beauty (AONB). This is a designation afforded to landscapes that are of national importance and provides a legislative obligation to ‘conserve and enhance the natural beauty’ of the landscape.

Key

-  Site
-  Wider survey
-  7.5km radius around site
-  Kent Downs AONB
-  Surrey Hills AONB
-  Registered park & garden
-  Country parks
-  Open access land (CROW Act) (inc. Registered Common Land and Open Country land)
-  Woodland Trust sites
-  North Downs National Trail
-  Darent Valley Path
-  Greensand Way
-  Tandridge Border Path

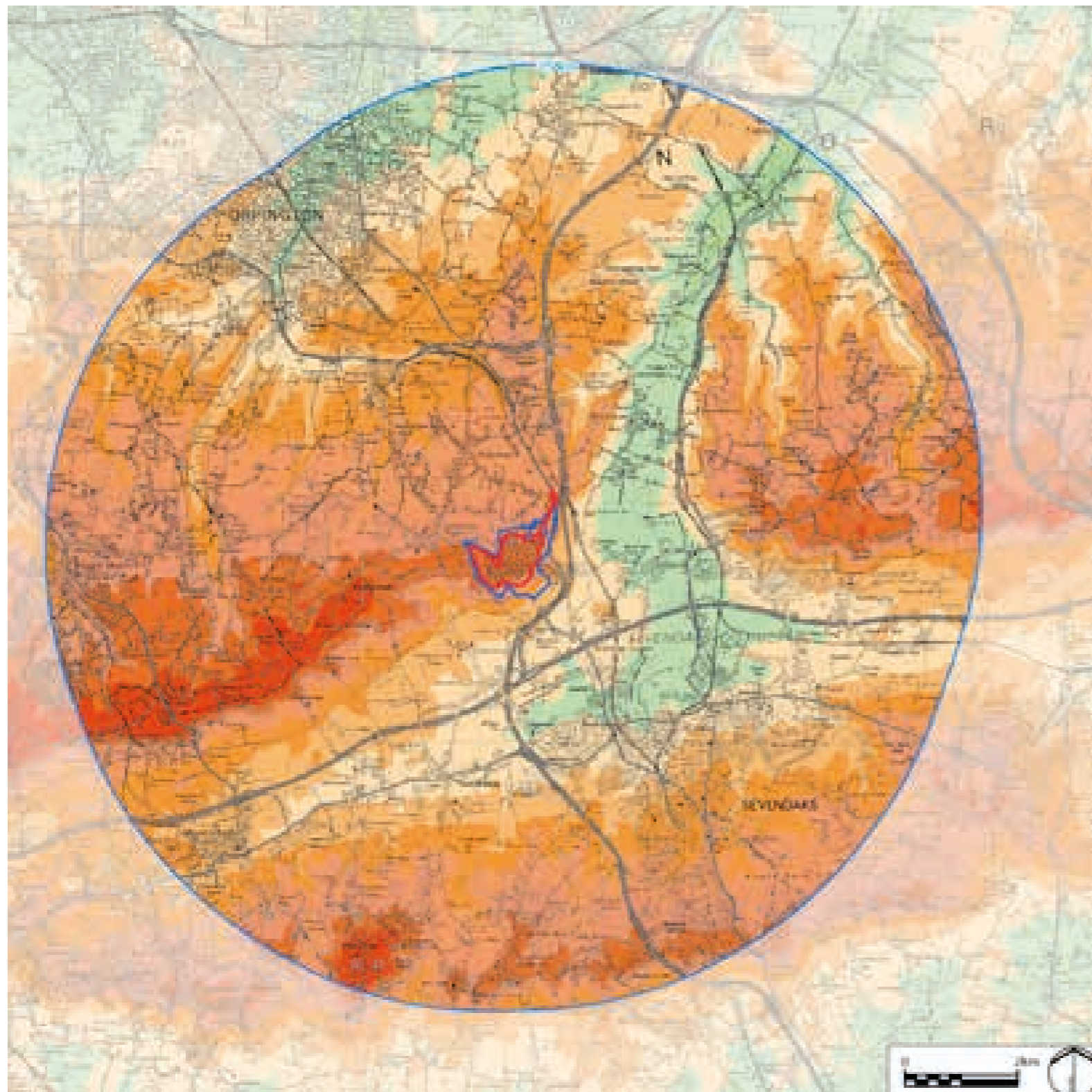
List of registered parks & gardens noted on diagram:

1. Chevening (II*)
2. Combe Bank (II*)
3. Lullingstone Castle (II)
4. Knole (I)
5. Down House (II)
6. Squerries Court (II)
7. Holwood Park (II)
8. Priory Gardens (II)
9. Chartwell (II*)
10. Riverhill House (II)



Landscape Character Plan

3.8 AONB & LANDSCAPE CONTEXT


















Topography – wider context

TOPOGRAPHY

The topography of the area is dominated by the escarpment to the south to the Site, forming a highly visible distinct landscape feature. The southern and eastern side of the Site consist of steep sloping ground; with the built area located on relatively flat higher ground, gently sloping down to the north and east.

A former chalk quarry is adjacent to the south east of the Site, accessed from Lime Pit Lane. This distinct landscape feature comprises of a 30m high chalk cliff face.

Key

 Site	 275m–300m	 125m–150m
 Wider Survey	 250m–275m	 100m–125m
 7.5km radius around site	 225m–250m	 75m–100m
	 200m–225m	 50m–75m
	 175m–200m	 25m–50m
	 150m–175m	 10m–25m



View of scarp slope along the southern site boundary

3.8 AONB & LANDSCAPE CONTEXT

VISUAL CONTEXT

The majority of the Site is visually well contained by the perimeter woodland, although there is a break in the woodland along the southern boundary. As such the vast majority of the existing buildings within the Site are not visible, with the exception of some of the taller structures, which protrude above the woodland, and some smaller buildings that sit on the edge of the scarp.

The chalk escarpment slope in the south of the Site is visually prominent where it forms backdrop in views from the Darent Valley. The scarp slope is also visible from certain locations within Sevenoaks and from rising land to the south of Sevenoaks.

The majority of views from within the Site are contained by the perimeter woodland. In these views, buildings of the defence research complex form the main composition of views, arranged in a military camp layout with Crow Drive forming the main visual axis in an east to west orientation. Buildings are utilitarian in appearance and of little aesthetic value.

From the southern area of the Site, on the chalk escarpment, wide panoramic views are possible across the Darent valley to Sevenoaks and countryside beyond. From the western end of the Site, within the area of open space, there are views northwards towards London. However, it should be noted that the majority of the Site is not publicly accessible.

As part of the Landscape and Visual Impact Assessment (LVIA), a range of representative viewpoints have been considered. From four of the viewpoints—as illustrated by the photographs opposite—visualisations have been prepared, which are included in Section 6 of this document.

VIEWS FROM THE SITE



View from within the eastern areas of the Site, looking east along Crow Drive



View from within eastern area of the Site, looking north across open space and towards London



View from within the southern part of the Site, looking south across the chalk escarpment and towards Sevenoaks

3.8 AONB & LANDSCAPE CONTEXT



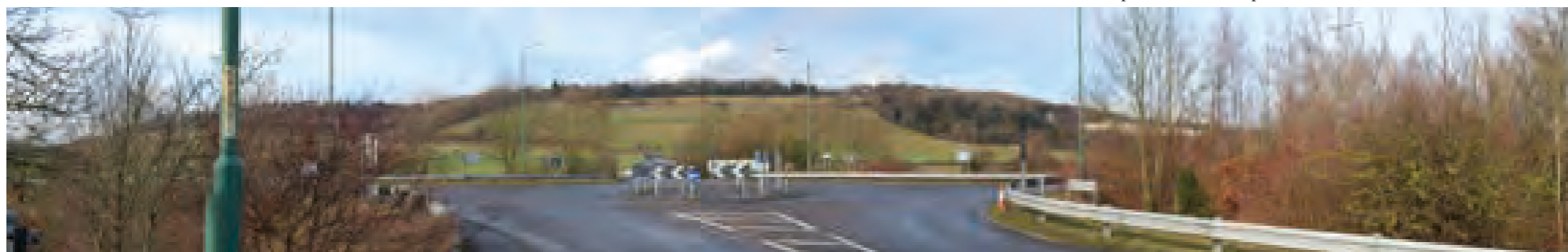
View west toward the site from PRoW SR60 (near Otford) (LVIA Representative Viewpoint 11)



View south towards the site from Otford Lane (LVIA Representative Viewpoint 7)






View north-west towards the site from London Road, Sevenoaks (LVIA Representative Viewpoint 14)



View north towards the site from Morants Court Road (LVIA Representative Viewpoint 6)



- Key**
-  Site
 -  Wider Survey
 -  Photo view point Location (from which AVR is prepared)

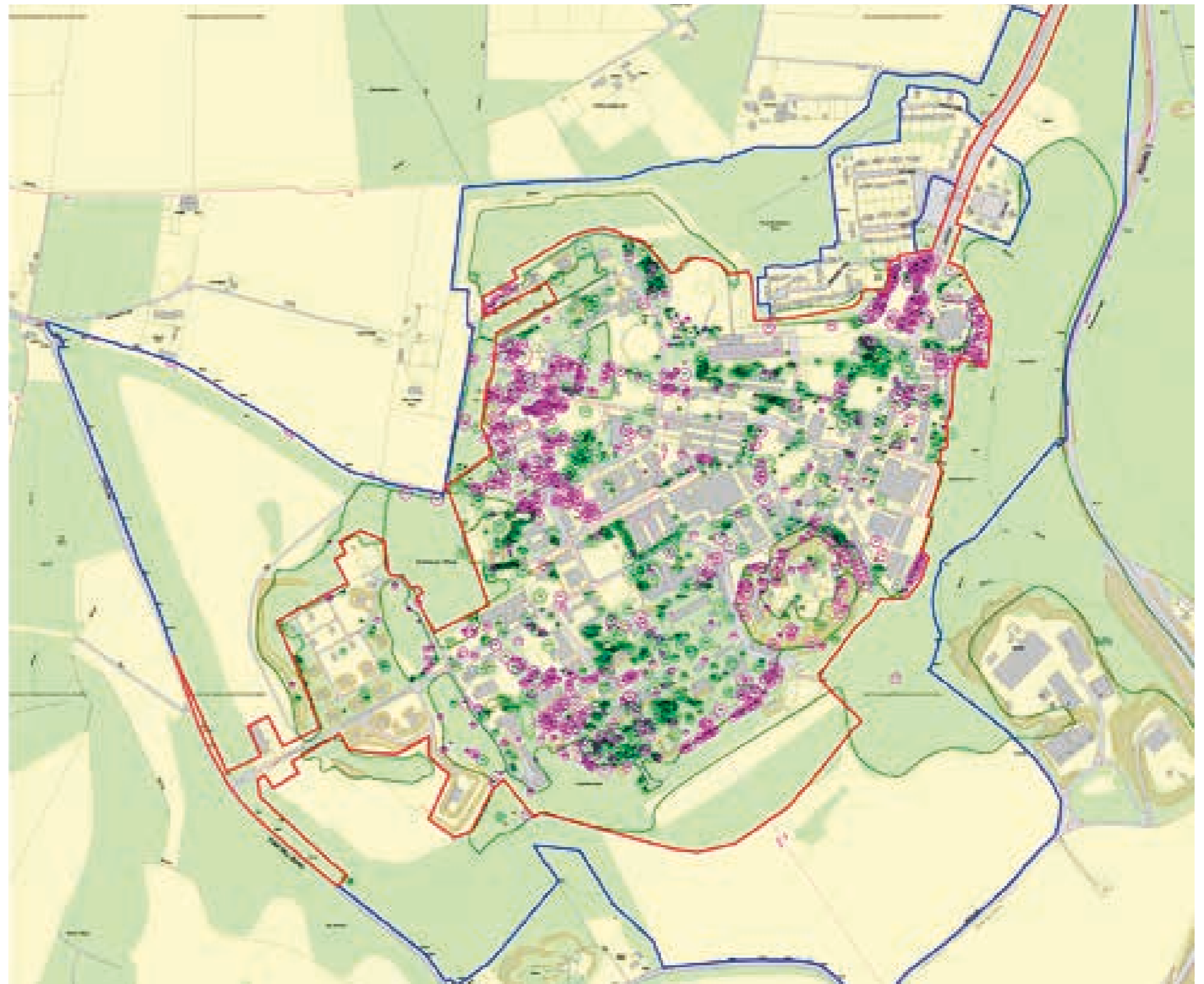
3.8 AONB & LANDSCAPE CONTEXT

EXISTING TREES AND WOODLAND

The Survey Area contains native and naturalised scattered trees of all ages and species dominated by English oak, sweet chestnut, silver birch and common ash. The whole site is included within woodland Tree Preservation Order 4 (2016). The site is surrounded on all sides by woodland which has either been planted or existed originally as Ancient Replanted Woodland and Ancient and Semi-Woodlands which has provided screening of the Fort Halstead site.

Centrally, tree cover is scattered around the complex of buildings and was generally found to be of high to moderate quality with mature canopy proportions which would have provided camouflage from aerial view during the site's military presence. Trees had generally been managed in a sympathetic manner with minimal intervention which had resulted in a large proportion of high-quality trees with few notable defects. The trees surveyed were generally in good health and exhibited minor defects such as minor deadwood and small hanging branches.

- Key
- Category A tree
 - Category B and C trees



3.8 AONB & LANDSCAPE CONTEXT

LANDSCAPE OPPORTUNITIES

Based on our understanding of the landscape and visual context, we identified some key principles which should guide the design of the Site.

These include:

- 1 Ensure development occupies the same area of the existing military/defence research facility and does not result in major changes to topography.
- 2 Carefully consider the design of new development and ensure that individual and groups of mature trees are retained within areas of open space.
- 3 Retain and enhance heritage assets within the site, including the Fort, which is a scheduled monument.
- 4 Creation of a village centre at the heart of the development at intersection of key routes and the fort.
- 5 Ensure that no development occurs on the visually exposed scarp slope, and retain and enhance existing areas of chalk grassland.
- 6 Retain and enhance existing areas of open space.
- 7 Retention of key views and vistas south, across the chalk escarpment and towards Sevenoaks, and north towards the city of London.
- 8 Retain and enhance existing woodland and shelterbelts, and carefully consider the building heights to ensure that they are not generally visible above the perimeter woodland.
- 9 Retain existing public rights of way in and around the site.
- 10 Increase the understanding and enjoyment of the site through public access and interpretation.









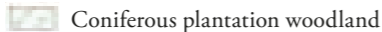



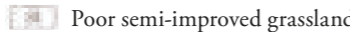


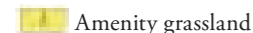



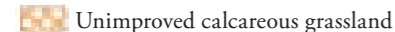

3.9 ECOLOGY

The Site and wider survey area have been subject to a comprehensive suite of baseline ecological surveys in 2018/19, and an updated Ecological Walkover and Updated Badger Survey in 2020. These provided an update to a previous suite of survey data collected for the site between 2006 and 2013, and allowed the status of nature conservation sites, habitats and protected/notable species at the Site to be assessed.

No European or UK statutory nature conservation sites fall within a 2 km radius of the Site. There are, however, six non-statutory nature conservation sites within 2 km, in addition to 81 parcels of listed ancient woodland. 17 of these ancient woodland areas occur within the wider Survey Area.

The Site and wider Survey Area are known to support a varied mosaic of ecologically valuable habitat types, most notably areas of ancient woodland, other mature woodland and calcareous grasslands. The site also supports a number of populations of protected and notable fauna, including roosting and foraging bats, breeding and wintering birds, badgers, dormice, reptiles and invertebrate species.

Key (Right)

- | | |
|---|---|
|  Site boundary |  Tall ruderal |
|  Scattered scrub |  Broad-leaved semi-natural woodland |
|  Scattered trees |  Broad-leaved plantation woodland |
|  Fence |  Coniferous plantation woodland |
|  Native species-rich hedge and trees |  Mixed plantation woodland |
|  Species-poor defunct hedgerow |  Poor semi-improved grassland |
|  Species-poor intact hedgerow |  Other habitat: built-up area with scattered trees present in abundance throughout site |
|  Amenity grassland |  Target notes: |
|  Semi-improved neutral grassland | 1. Species rich calcareous grassland within fence |
|  Semi-improved calcareous grassland | 2. Species rich calcareous grassland outside fence |
|  Unimproved calcareous grassland | 3. The Fort |
|  Bracken | 4. Verges of SI present in abundance throughout site |
| | 5. Semi-natural ancient woodland |



Habitat Map

3.10 DRAINAGE & UTILITIES

DRAINAGE & GROUND CONDITIONS

Existing site records show that surface water is collected by means of a piped drainage network to a series of outlets at the low-lying periphery of the site. These outlets facilitate dispersal of water to undeveloped land including woodland where it is allowed to dissipate through evapotranspiration. The nearest surface watercourse to the Site is Twitton Brook, situated approximately 1km east of the Site on the opposite side of the M25.

According to Environment Agency's flood risk mapping, the Site is not located within a floodplain therefore the risk of fluvial flooding is classified as low.

According to the Government's Long Term Flood Risk Information, small pockets of the site are at risk from surface water flooding. The data used to influence this information relies on an interpretation of landscape features, particularly if they are low lying, and does not take into account existing engineered drainage arrangements. Although no evidence of surface water flooding has been brought to light, the effectiveness of the existing drainage system has not been proven so a nominal risk of flooding is thought to remain. There are no public surface water sewers in the vicinity of the Site. The existing site relies on a pumped system for foul water disposal to the nearest public foul on Polhill Road, east of the Site.

The British Geological Survey map, along with the intrusive site investigations, show that the Site is underlain by clay with flints underlain by the Upper Chalk (up to 40m thick), Middle Chalk (up to 80m thick) and Lower Chalk (up to 80m thick). A thin covering of Made Ground overlies the natural soils, typically to a depth of 1m, up to a maximum of 4m locally. The Made Ground is generally described as silty clay, with some ash/clinker and occasional building rubble.

The Chalk is a Principal Aquifer; however the Site is not located within a groundwater Source Protection Zone.

There are also no public water supply abstractions recorded within 1km of the Site. A review of data suggests that groundwater is likely to be encountered at a depth of 100m to 120m below ground level. Overall it is considered that the underlying groundwater quality is likely to be of good quality.



Existing Surface Water Drainage (NTS)

RESIDENTIAL WATER SUPPLY

The water supply to each of the existing residential properties is fed from the main DSTL site infrastructure. Potable water is supplied via underground cold-water tanks located within the secured DSTL area near the North-West corner where the Thames Water main feeding the site enters. The underground tanks which are replenished by the incoming Thames Water supply also feed the buildings on the DSTL site.

The water supply to the residential properties is metered in four locations:

- Serving: 1–20 Armstrong Close Plus the Officers Club
- Serving: 17–46 Fort Road
- Serving: 1–16 Fort Road
- Serving: 1, 3, 5 & 7 Crow Drive and 1–7 Beckman Close

From the metering points the water is distributed to each property via underground pipework.

The management of the common parts of the existing residential areas is split between two companies who are billed by DSTL for the water used as measured by the meters. This cost is passed on to each of the residential properties as part of their service charges.

FIRE MAINS

As part of the installation of Thames Water supplies to the existing residential properties, new roadway fire hydrants will be installed.

This will provide the required fire hydrant coverage to the existing residential properties to allow the existing private Fire Hydrant system fed from the existing DSTL infrastructure to be abandoned.

DRAINAGE

The existing foul drainage system serving the existing residential properties has been adopted by Thames Water, therefore no further works are envisaged for the part of the system serving the existing residential properties.

RAINWATER DRAINAGE

The existing system of soakaways / run off, will be retained for the existing residential properties.

ELECTRICAL SUPPLIES

The existing residential properties all have metered supplies directly from UKPN, therefore the responsibility to maintain the electrical supply to the residential properties is with UKPN and thus there will be no change in this responsibility.

TELECOMS

There is no anticipated change to the telecoms network in the area of the existing residential properties.

3.11 CONSTRAINTS

- Application boundary
- Blue line boundary

Existing woodland
The Site is surrounded by dense mature woodland which visually contains the site.

Ancient woodland and buffer
A significant amount of the existing woodland is designated as ancient woodland which requires a non-developable buffer of at least 15m.

Individual trees with a high potential for retention
There are a large number of high quality mature trees which are located in-between existing buildings and areas of hardstanding. These trees will need to be retained where possible.

Crow Drive
The historic alignment of the main vehicular route to be retained as much as possible.

← The retention of long views to Sevenoaks to the south and London to the north.

Visually sensitive area of chalk grassland to the south of the site, along on the escarpment.

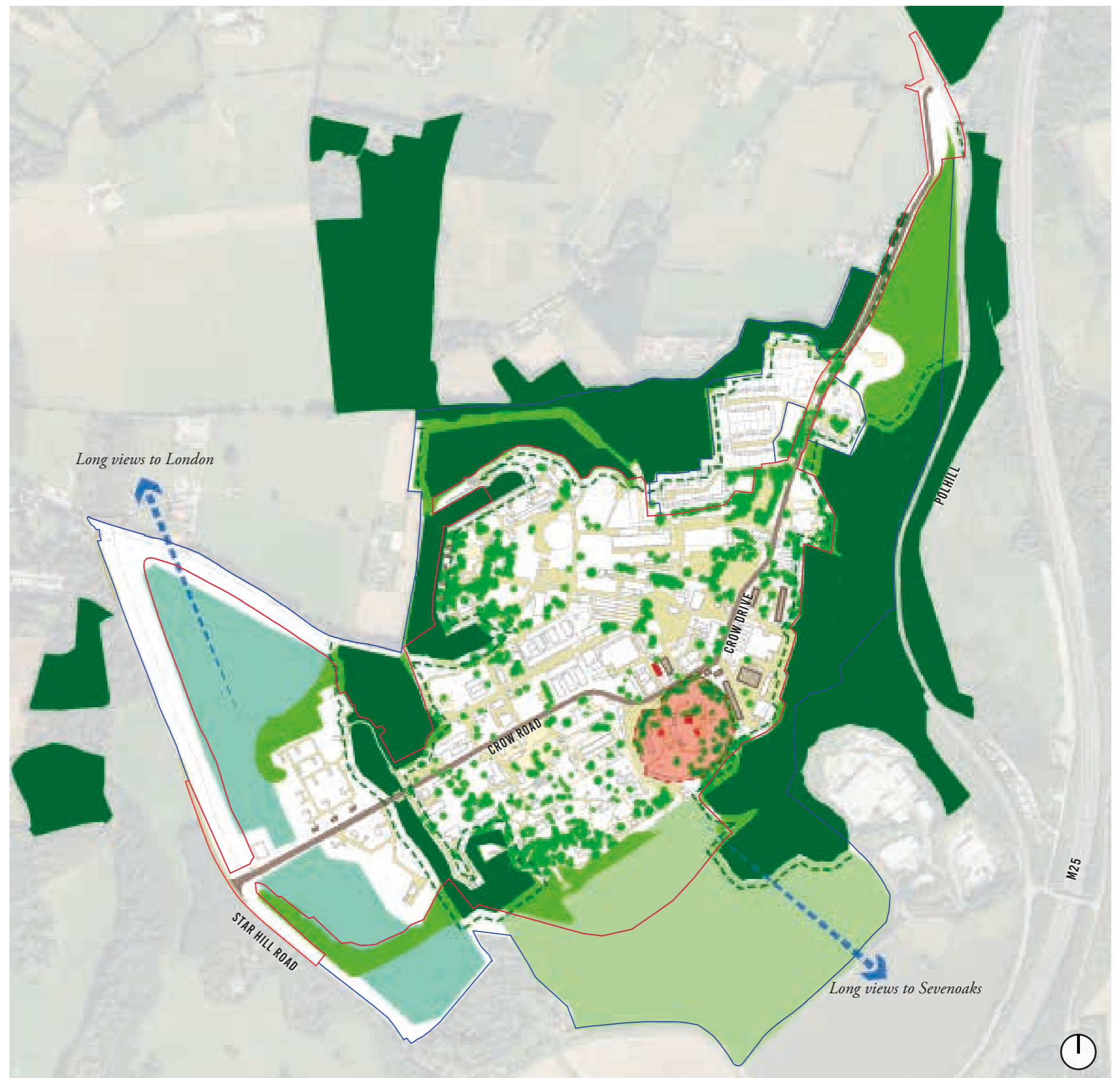
Area of sensitive and ecology rich open landscape to the west.

Significant amount of hardstanding and existing built form.

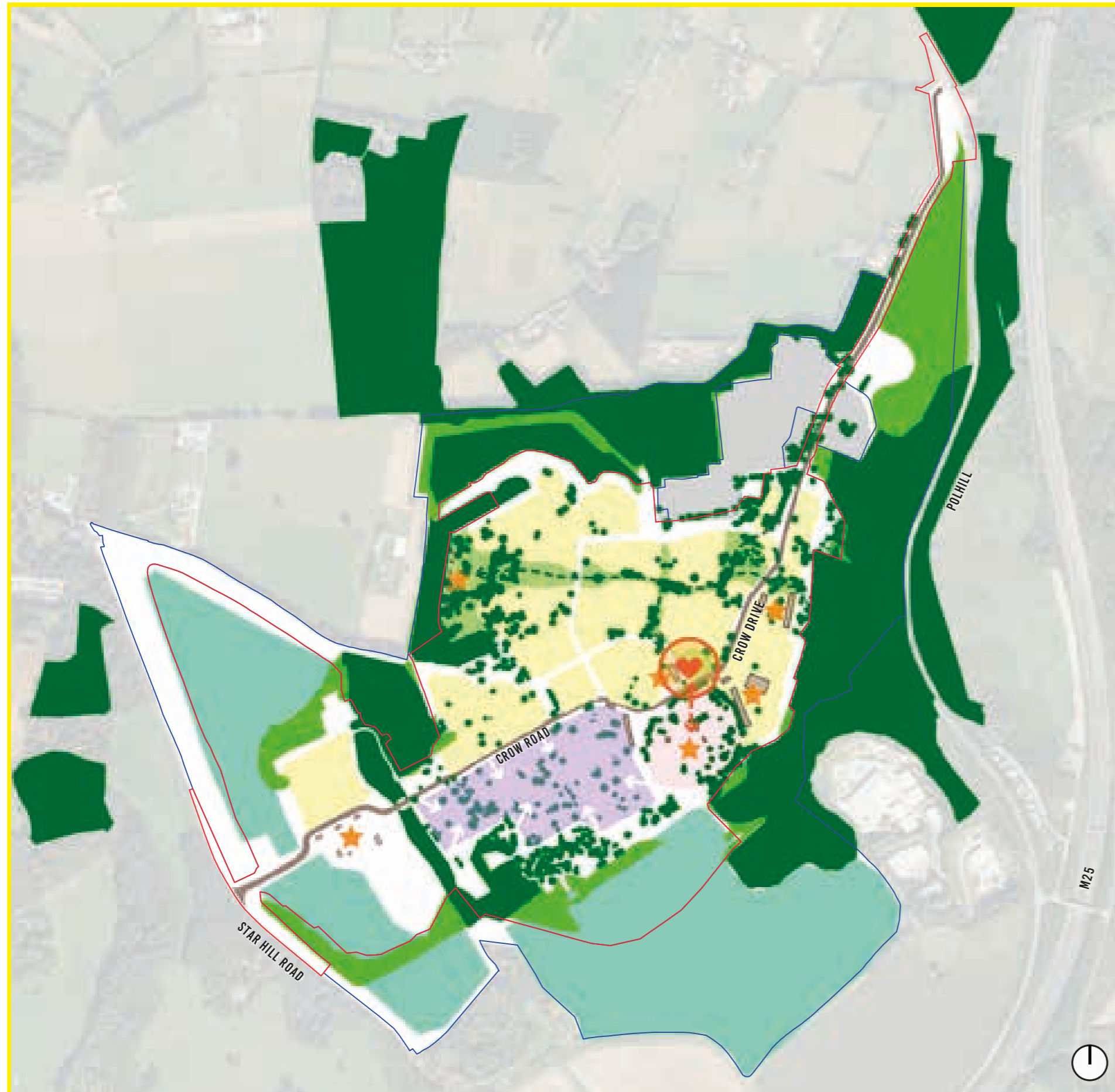
The Fort (scheduled monument).

Grade II listed buildings
Includes buildings within the Fort and the Penney Buildings (Q14).

Buildings to be retained
Other buildings of historic and architectural interest will also be retained which include: Q13, Q1, A13, A14, M4, M5, M6, M20–24, A1, A3, A10, A11, X2 and X38.



3.12 OPPORTUNITIES



- Application boundary
- Blue line boundary
- Retain QinetiQ on site**
Consolidate QinetiQ to the south of the site contained by woodland and a secure boundary.
- Retain and refurbish existing buildings**
Buildings of historic and architectural interest to be retained in addition to the restoration of the scheduled monument, allowing the opening up the Fort to the public.
- ★ **Create a heritage trail**
Linking the areas of historic interest with a heritage trail for both residents and visitors.
- ♥ **Create a new village heart**
Locate a new mixed-use village centre at the heart of the Fort Halstead village linking the Fort and the listed and retained buildings.
- ← **A green infrastructure network with new central green link**
Create a range of new open spaces creating opportunities for recreation, biodiversity enhancement and drainage, including central east-west green link which will connect all the retained high quality trees and encourage walking and cycling in the development.
- Enhance existing landscape and maintain sensitive views**
Enhance the landscape character to the west and south of the site, and open up long views to London and Sevenoaks
- Developable areas on brownfield areas**
Development parcels to be located on existing brownfield developed areas, with the character areas responding to the landscape context and the existing built areas.
- Improve accessibility**
Open the site up to be publicly accessible with a network of new footways and cycleways.





4. DESIGN DEVELOPMENT

4.1 COMMUNITY CONSULTATION

OVERVIEW OF CONSULTATION PROCESS

The proposed masterplan scheme has been consulted through an extensive pre-application process over the past two years, involving detailed discussions with SDC's Planning Department in addition to statutory and non-statutory consultees. In various instances meetings and/or discussions have been held with these consultees including the KCC as the Highways Authority and Local Education Authority, Historic England, Lead Local Flood Authority and Kent Downs AONB Board. Full details of the consultation process can be found in the Statement of Community Involvement (SCI) prepared by CBRE. Additionally further information on pre-application engagement is set out in the accompanying Planning Statement, also prepared by CBRE.

PUBLIC CONSULTATION EVENTS

As part of the consultation process, a series of public consultation events was undertaken in January 2019, at 'The Canteen' (Building N10), Fort Halstead, Crow Drive:

- SDC Members (10th January 2019)
- Immediate Local Residents of Crow Drive (11th January 2019, 3pm–7pm)
- Wider Public Consultation (12th January 2019, 11am–3pm)

Invitations were issued in December 2018 to Members, with invitations to local residents, local Councillors and Parish Councillors issued in January 2019.

Meetings were held with the immediate site neighbours (residents of the housing off Crow Drive) ahead of the main public consultation event in January 2019. These households were also contacted with the offer of a meeting with the applicant and project team in a separate session.

A series of exhibition boards were presented, which set out the context and rationale for the proposals. Members of the project

team were available to discuss the proposals, respond to any queries and receive feedback which may inform the proposals prior to submission of the planning application.

Across the two main consultation events, approximately 200 people attended, including local Councillors. The majority of attendees were from the settlements of Halstead, Knockholt and Badgers Mount.

Questionnaires were available for attendees to complete and provide optional feedback on their thoughts regarding the proposals. In total, 64 questionnaires were completed most of which were completed at the consultation events. In addition to questionnaires, written responses were received including from Parish Councils.

CONSULTATION WEBSITE

A consultation website was launched in December 2018 at <https://www.jtp.co.uk/projects/fort-halstead>. The website URL was advertised on the exhibition flyer alongside a freephone number for further information if required. Comments from the community were welcomed at the following email address: community@jtp.co.uk, with comments encouraged to be submitted 4th February 2019.

However, the website remains open and comments were accepted up until submission of the planning application.

The website features the exhibition boards as well as a synopsis of the proposals, the background to the planning application and previous community engagement.



Exhibition flyer



Consultation website

4.1 COMMUNITY CONSULTATION

PROJECT ELEMENTS	VERY IMPORTANT	IMPORTANT	NOT VERY IMPORTANT	NOT IMPORTANT	DON'T KNOW/ NO ANSWER
1. Preserving and enhancing the site's environmental value and AONB setting	83%	13%	–	2%	3%
2. Ensuring the site remains viable as an employment providing a range of business accommodation to attract new employers	47%	31%	11%	6%	5%
3. Creating a balanced community including a mix of housing types (affordable/over 55s/ smaller affordable properties combined with a range of community facilities	42%	31%	11%	13%	3%
4. Creating specialised spaces to help retain local employers	33%	38%	19%	6%	5%
5. Improving foot, cycle and public transport connections to the town centre	66%	20%	3%	6%	5%
6. Recording and interpreting the town's history	45%	42%	6%	2%	3%
7. Including a new 'Village Centre' with a mixed range of uses and the refurbishment of the Grade II Listed Building	41%	23%	14%	19%	3%
8. Including 700 new homes to meet local housing need and support employment	13%	23%	13%	44%	8%

PROJECT ELEMENTS

The local community were encouraged to rate certain key project elements in relation to a scale from 'very important' to 'not important'.

The responses from the local community to the left indicates that the importance of demonstrating these principles mirrors that of the project team and have been taken forward throughout the proposals.

The vision for the proposals has been formulated by the feedback from the public consultation process. It is intended that the vision will positively respond to issues that members of the public identified as important considerations for the application. The proposals will deliver:

- Secure a viable, sustainable and vibrant long-term future for Fort Halstead that recognises its unique qualities and heritage;
- Regenerate a major employment site providing a range of employment opportunities and create a new village community which complements the existing network of surrounding settlements;
- Provide a range of high-quality new homes and affordable housing which respond to the District's needs;
- Ensure development is sensitive to its rural setting and will not have an adverse impact on the natural beauty, character and tranquillity of the Kent Downs AONB;
- Achieve a balance of uses that will create a high-quality 'place' with its own identity, providing new homes, jobs, community facilities and open space to be enjoyed by the wider community.

KEY THEMES

The local community were encouraged to identify important issues for the site and to be addressed in the planning application, as well as provide general commentary. Key themes which emerged in the feedback received are outlined adjacent.

Residential

A substantial number of responses supported the provision of affordable housing on site to meet local need. Comments on the number of houses proposed were raised, although these were typically made in the context of the impact on the local infrastructure and environment designations.

A mix of housing types across the development to support a balanced community generally was supported by the local community, with various comments welcoming two and three bedroom units.

Responses which featured design commentary were concerned that the proposed density and building heights were too high in respect of the AONB and Green Belt.

Response

Affordable housing is to be provided as part of the proposals. A specific affordable housing mix or tenure is to be agreed as part of the hybrid planning application, to meet identified need at a specific point in time, in consultation with SDC's Housing Officers.

The housing mix is not proposed to be fixed as part of the hybrid planning application. It is proposed that the development will provide a mix of house types and tenures, ranging from 1 to 4 bedroom properties.

The proposals have been carefully designed in respect to the local environment and policy designations. Character areas have been developed through consultation with the Council to create distinct areas whilst positively complementing the surrounding area. Higher density development is directed towards the Village Centre, whilst lower density development is to be provided towards the edges of the site. Character Area Design Guidance is submitted as part of the planning application, and will ensure that appropriate design and density is established at each plot.

Maximum building height parameters have been set across the development, which have been carefully considered to correspond to the existing landscape, sensitivities and views from the surrounding area. Taller buildings are to be located around the Village Centre, with other mixed use and residential buildings typically ranging from two to three storeys. A Landscape and Visual Impact Assessment has been prepared to accompany the planning application.

4.1 COMMUNITY CONSULTATION

Transport and Highways

General feedback referred to the cumulative impact arising from the development on the existing road network surrounding the site; and that the current infrastructure is unable to accommodate an increase in the number of dwellings.

The local community raised that the secondary access at Star Hill should be limited to emergency access only for vehicles and for pedestrians and cyclists to reflect that approved in the previous 2015 outline planning permission.

Support was received for encouraging and promoting sustainable transport methods, including suggestions of new bus routes to service the site.

Response

The applicant has liaised with KCC Highways on the proposed accesses, and the proposals have been designed with careful configuration to ensure the main vehicular access into the site remains via Crow Drive and Polhill. It is recognised that Star Hill access in the 2015 outline planning permission was restricted, however through discussions with KCC and to meet their masterplanning design principles, the proposals include the existing Star Hill access as a secondary access to the site.

The parameter plans have been designed to minimise traffic flows through Star Hill, including designing the internal network to convolute the route to access, locating new commercial development towards the Polhill access and pedestrianising parts of the Crow Drive/Crow Road alignment.

A Transport Assessment accompanies the planning application and concludes that the proposed development will not have significant residual impacts on the transport network in both construction and occupation. The assessment also details a series of measures to minimise transport related impacts of the development, including highways, pedestrian, cycle and public transport improvements.

The proposals have been designed to promote sustainable transport methods, with pedestrian and cycle movement prioritised across the site. As part of the proposed public transport improvements, the existing 431 bus service will be diverted to enter the site and a new community bus service is proposed.

Employment

The proposals for the provision of employment floorspace were generally positively received, with comments raised on the importance of retaining QinetiQ and their integration into a new development. A few responses referenced that the development should be employment-led with further clarification was sought on the type of employment uses which would come forward.

Response

The proposals support increased employment opportunities and local economic growth. The applicant has engaged with QinetiQ throughout the application design process with the proposals reflecting their future relocation within the site and their retention as a key employer in the area.

The proposals comprise new business areas for flexible accommodation for offices, light industrial and research and development, which will enable a range of businesses to come forward. An Innovation and Education Hub is proposed and will provide a variety of employment opportunities, with exact uses to be determined through separate Reserved Matters applications.

The proposals maintain the level of employment provision granted in the 2015 permission.

The Environment

Preserving and enhancing the environmental value and AONB setting of the site was a key theme throughout the public consultation feedback. Comments referenced that the proposals should respect the AONB setting and Green Belt designation, with a suggestion that an Environmental Management Plan should be included.

A number of responses also raised consideration of light pollution from the proposals on the natural environment and support for the protection of existing wildlife.

Response

The proposals have been sensitively designed to minimise the impact of the proposed development on the existing habitats on site, and to integrate into the surrounding natural landscape and enhance the existing habitats. The landscaping strategy has been prepared to create an attractive environment supported by high quality green infrastructure serving ecological, landscape and recreational functions. A Framework Ecological Management Strategy has also been developed through the Environmental Impact Assessment work and is submitted in support of the application.

Key landscape features within the site including ancient woodland, areas of chalk, semi-improved and neutral grassland will be retained and enhanced through active management. Development is proposed to be integrated into the landscape with robust buffers, ensuring the views of the site from elsewhere in the AONB will not be impacted. An AONB report has been prepared to accompany the planning application and concludes that the potential effects from the development proposals will be beneficial.

In respect of potential light pollution, a Lighting Assessment accompanies the planning application and concludes that the proposals would not have any significant adverse impacts on the surrounding environment.

The ecology strategy for the site has been prepared on the premise of three concepts: retention and enhancement of important habitats, maintaining the favourable conservation status of flora and fauna and green infrastructure and ecological connectivity.

Local Infrastructure and Amenity

Comments received raised concerns on the capacity of existing services in the area such as GPs, schools and community facilities, and the impact an increased number of houses in the area would have on the local infrastructure.

Generally, there was support for the provision of new facilities within the proposed development.

Response

Following the public consultation event, the applicant has progressed discussions with Kent County Council Education and an area of land has been identified to be safeguarded for a 1 form entry Primary School. The provision of a school would be subject to further engagement with stakeholders and KCC, with safeguarded land identified to accommodate the school, playing fields and ancillary car park.

A new Village Centre is proposed as part of the outline component of the planning application with a range of uses applied for which includes D1 and D2 uses. Detailed proposals for this area would be subject to separate Reserved Matters applications, with flexibility in the outline planning proposals for different community facilities, which could include healthcare floorspace and early years provision. In addition to community services, the village centre will also incorporate amenities including a shop/café and recreational space.

4.1 COMMUNITY CONSULTATION

Heritage

Responses received generally supported retaining the historical interest and heritage of the site, with support for the opening of the Fort for public use.

Response

The significant history associated with the Fort is recognised through the proposals, and as a Scheduled Monument, the Fort has been positively integrated into the development. The proposals will ensure the long-term maintenance of the Fort and its setting, supporting its refurbishment and change of use to a Historic Interpretation Centre to create a visitor attraction open to the public.

Land Contamination

Responses received raised the risk of land contamination on site given its current and previous uses, and if development can be supported on site.

Response

A Ground Investigations Report has been prepared in support of the planning application. Due to the historic uses on site, localised ground contamination has been identified, and an outline remediation strategy has been prepared.

Services and Utilities

A number of responses received identified the existing services and utilities as a key issue to be addressed. Comments suggested upgrading the existing services including the water supply, gas and electric.

Response

A Utilities Statement has been prepared and accompanies the planning application which sets out the utilities and services to be installed and retained for the new proposed development. Discussions have been held with the respective providers to ensure sufficient capacity to accommodate the new development.

Extensive discussions have been held with Thames Water in respect to the water supply and proposed wholesale replacement of the system. New Thames Water distribution will serve the entire site, supplying all new and existing buildings.

The water supply for the existing residential properties on Fort Road, Armstrong Close and Beckman Close is currently supplied on site, however these properties are outside the ownership of the applicant. It is proposed that the Thames Water supply is to be taken to the boundary of the third party land, whilst the applicant cannot commit to continuing the supply across the land outside its control, this will be for the relevant land owner to facilitate the subsequent connections.

POST EXHIBITION

Following the public exhibition, the team undertook a collaborative design development process working with SDC, KCC and other key stakeholders which explored alternative designs to address some of the concerns which emerged from the consultation process.

4.2 MASTERPLAN EVOLUTION

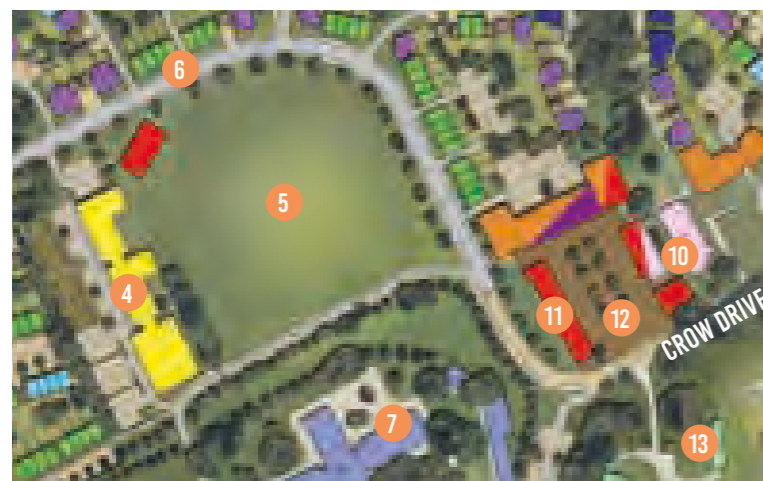
The following section illustrates the evolution of the masterplan and documents the key design moves in response to feedback from each stage of the consultation process. Further details on the evolution of the village centre design can be found in the accompanying Village Centre document.

1. EXTANT PERMISSION (2015)

450 HOMES

AVERAGE DENSITY: 34 DPH

- Retention of existing high quality trees with a single east-west green swathe.
- A mixed-use village centre around retained buildings Q1, Q12, Q13 & Q14.
- A hotel overlooking a large central green, with Crow Drive realigned around the green.
- Star Hill access proposed for emergency access only.
- QinetiQ retained on site and consolidated to the south of Crow Drive with a new purpose-built building.
- Employment area to the east of the site, retaining A1, A3, A10, A11, A13 and A14.
- Average building height of 2 storeys for the majority of the residential parcels with 2.5 along the main vehicular routes. 3 storeys were proposed for the village centre and employment area.



Illustrative village centre masterplan



Illustrative masterplan

Key

- 1 Existing settlement
- 2 Green link
- 3 Mixed-use village centre
- 4 Hotel
- 5 Village green
- 6 Realigned Crow Drive
- 7 QinetiQ
- 8 New QinetiQ building
- 9 New employment area
- 10 Retained Q13, Q14 & Q12 buildings
- 11 Retained Q1 building
- 12 Village Square
- 13 The Fort

4.2 MASTERPLAN EVOLUTION

2. PUBLIC EXHIBITION & DESIGN REVIEW PANEL (DRP) (JAN/FEB 2019)

700 HOMES

AVERAGE DENSITY: 38 DPH

- In response to SDC's requirement to provide additional housing numbers on existing allocated and previously developed sites, the masterplan looked into accommodating an additional 250 homes.
- Following a more detailed tree survey, the green spaces were rationalised in the extant masterplan and gained an additional 4.5 Ha of developable area for residential use.
- Inclusion of the 'M' series bunker area and helipad for residential use.
- Relocation of some of the employment use to the Village Centre, making the village centre more viable and vibrant.
- More B1a (office) & B1b (research & product development), less B1c (light industrial) and removal of B2 (general industry) uses in the new Innovation Hub.
- Village Green has been reduced and relocated to allow for better configuration of Village Centre, stronger North–South connection and additional mixed-use area.
- A mixed-use centre around the retained Q1, Q13 & Q14.
- Maintain the existing road infrastructure and downgrade a section of Crow Drive to a bus/pedestrian/cycle only route.
- Star Hill entrance opened as a secondary access to the site.



Illustrative village centre masterplan



Illustrative masterplan

Key

- 1 Green link
- 2 Mixed-use village centre
- 3 Village green
- 4 Employment use
- 5 QinetiQ
- 6 Retained road infrastructure
- 7 Downgraded section of Crow Drive to a bus/pedestrian/cycle only route.
- 8 Star Hill access
- 9 Additional housing areas
- 10 Village square
- 11 Refurbished Q13 & Q14
- 12 Refurbished Q1
- 13 The Fort

4.2 MASTERPLAN EVOLUTION

3. FOLLOWING THE DESIGN REVIEW PANEL (FEB 2019)

750 HOMES

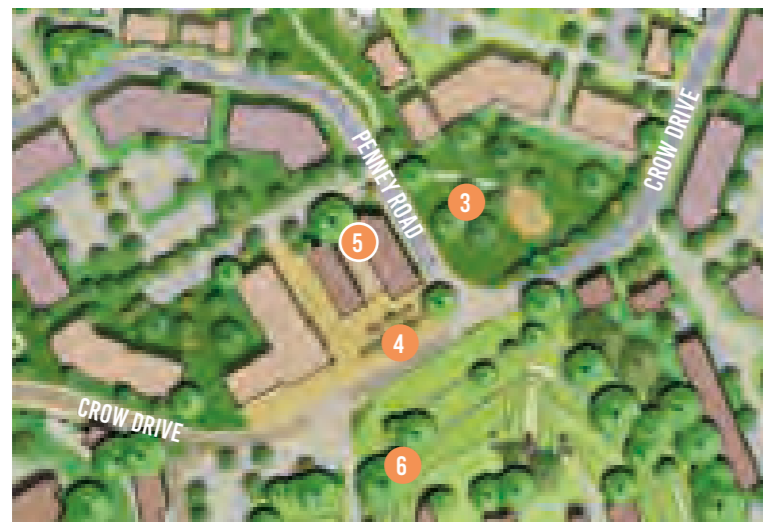
AVERAGE DENSITY: 43.6 DPH

The following design comments were raised by the DRP panelists:

- The proposed residential density was not deemed high enough to support the viability of a bus route.
- Safe pedestrian/cycle links should be available to every home e.g. to reach the village centre without crossing a road.
- Linear nature of the village centre and green was not a strong enough concept.

As a result, the following changes were made to the masterplan:

- Introduction of a new character area using an innovative house type, to allow for higher density, low rise housing around the village centre.
- The village centre and green area rearranged around the junction of Crow Drive and Penney Road, which also provides a better relationship with adjacent Innovation Hub.
- Q13 & Q14 to terminate the vista at the end of Crow Drive and provide a more suitable backdrop to the village green.



Illustrative village centre masterplan



Illustrative masterplan

Key

- 1 Innovative house type for higher density housing
- 2 Mixed-use village centre
- 3 Village green
- 4 Village square
- 5 Refurbished Q13 & Q14
- 6 The Fort

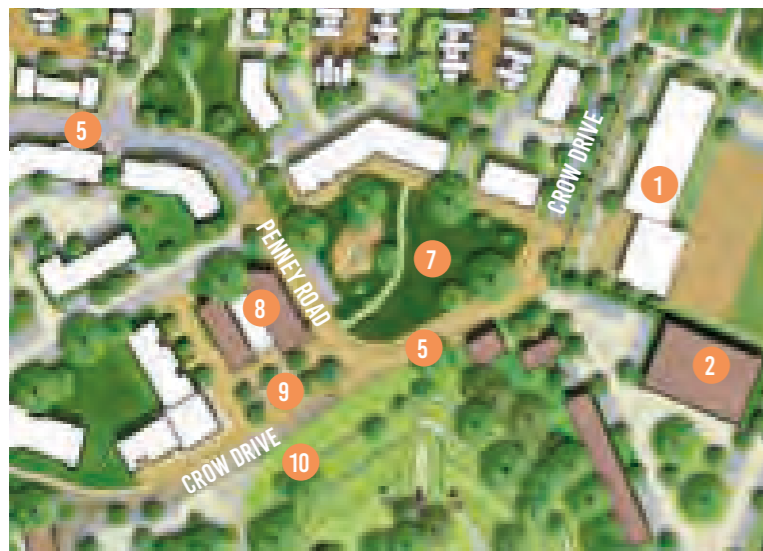
4.2 MASTERPLAN EVOLUTION

4. HYBRID PLANNING SUBMISSION (SEPT 2019)

750 HOMES

AVERAGE DENSITY: 43.6 DPH

- Following conversations with SDC and KCC, there was a new requirement to accommodate a 1 form-entry primary school at Fort Halstead. A new primary school with a separate drop-off area is proposed within the Innovation Hub area and opposite the village centre and green.
- Retention of building A10 within the employment area.
- Following feedback from KCC Highways regarding the straight nature of Crow Drive near Star Hill, it was advised that Crow Drive was diverted around the existing bunkers to slow down potential traffic from Star Hill access.
- Detailed traffic calming measures were developed with KCC Highways along the full length of Crow Drive and the proposed secondary street.



Illustrative village centre masterplan



Illustrative masterplan

Key

- 1 Land safeguarded for 1FE Primary School
- 2 Refurbished A10
- 3 Realignment of Crow Drive around the bunker area
- 4 Bunker area
- 5 Traffic calming measures
- 6 Mixed-use village centre
- 7 Village green
- 8 Refurbished Q13 & Q14
- 9 Village square
- 10 The Fort

4.2 MASTERPLAN EVOLUTION

5. HYBRID PLANNING APPLICATION AMENDMENTS (APRIL 2020)

635 HOMES

AVERAGE DENSITY: 38.35 DPH

Following the hybrid planning submission in September 2019, several objections were submitted from both statutory and non-statutory consultees, with particular concerns regarding the number of homes and density proposed on site. In consultation with Statutory Consultees including Historic England, KCC etc, the proposed number of units has reduced from 750 homes to 635 homes, with an average density of 38.35 dph. Below lists specific changes to the masterplan to reduce the number of proposed homes on site:

- Removal of homes on the helipad site
- Reduced the extent of buildings to retain more trees
- Reduced the proposed density in the village mews areas
- Reduced the proposed building heights of residential parcels

Further consultation with KCC regarding the carriageway width and traffic calming measures along Crow Drive and the proposed secondary street.

- Width of Crow Drive carriageway increased from 6.25m to 6.75m.
- A new bus loop proposed at the Star Hill access and enhanced community bus service.



Illustrative village centre masterplan



Illustrative masterplan

Key

- 1 Helipad site
- 2 Village mews character area
- 3 Reduced building heights
- 4 Crow Drive traffic calming measures
- 5 New bus loop



4.3 DESIGN PRINCIPLES

The masterplan design principles and concept has been developed as a response to the site analysis work summarised in the constraints and opportunities plans, close collaboration with SDC and feedback from the community engagement process. The masterplan concept identifies four principles which encapsulate the key strategic and physical aspects of the site and come together as an integrated plan which is developed in more detail on the following pages.

ENVIRONMENTAL

Restoring the landscape and protecting the surrounding ancient woodland

- Retain existing woodlands and its buffers
- Maintain the open character of visually and ecologically sensitive areas to the south and west
- Retain key groups of existing trees and create weaving east-west and north-south green links.

CULTURAL

Discovering the history of Fort Halstead

- Retain the schedule monument (Fort) and open up to the public as a visitor attraction.
- Refurbish and re-use the listed and existing buildings in the village centre through detailed planning.
- Connecting the retained buildings around the site with an interpretation/heritage trail.



From industrial to natural...



From history to heritage...

4.3 DESIGN PRINCIPLES

ECONOMIC

An economic hub of continued innovation, opening the doors to new businesses

- Consolidate QinetiQ to the south of the site contained by woodland and a secure boundary.
- Inviting new businesses with employment areas to the east and near the village centre to create a new frontage to QinetiQ area.
- The mixed-use village centre, including business hub, focused around the retained buildings at the heart of the development.



From secluded to inviting...

SOCIAL

An intriguing and open site for a people of all ages to enjoy

- Create a sense of arrival with Old Grove Place from Polhill, and the gateway hamlets from Star Hill.
- Utilise the existing road infrastructure, to reflect the history of the site and its former use.
- Downgrade a section of Crow Drive to a safe bus/pedestrian/cycle only route.
- Create a network of circular slow movement routes in and around the site.



From concealing to revealing...

CONCEPT MASTERPLAN



A unique village with a living and working community.





5. PARAMETER PLANS

5.1 LAND USE & GREEN INFRASTRUCTURE

The following parameter plans form a key part of the outline planning application and will be formally approved as part of the planning permission. The plans set out the proposed parameters for key design elements of the masterplan as follows:

- Land Use & Green Infrastructure
- Building Heights
- Access and Movement
- Demolition

As this is a hybrid application, it is not yet possible to define the precise nature of the scheme, so the parameter plans provide an agreed framework that will inform the detailed design of the Fort Halstead masterplan as it comes forward over time. An important aspect of this is that the plans include a degree of flexibility, where appropriate, in order to accommodate changing circumstances, and the accompanying notes set out the extent of tolerance in each specific case. The illustrative masterplan in Chapter 6 demonstrates one way in which these parameter plans could be interpreted, but is subject to variation as described.

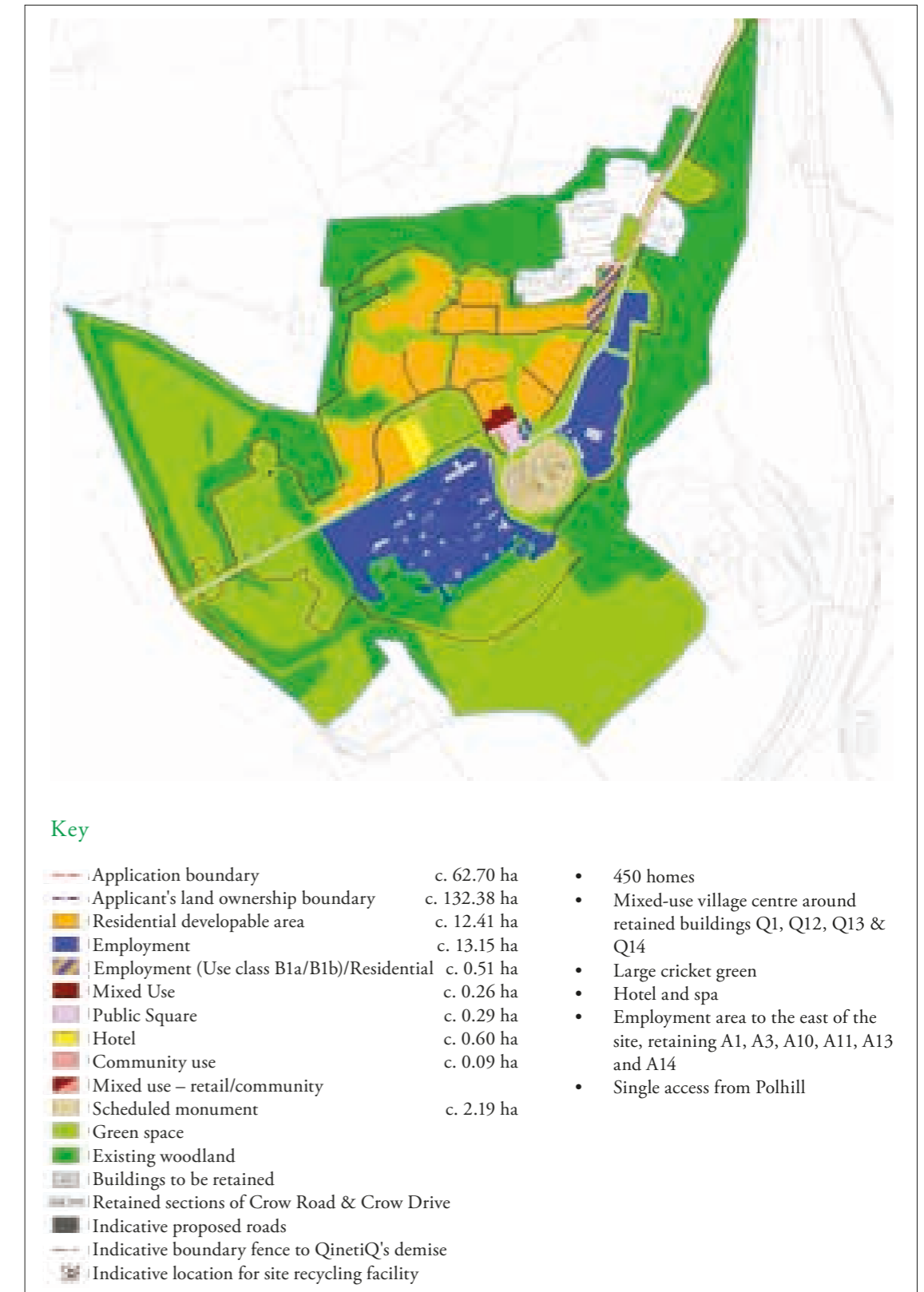
Development will occur in phases (as set out indicatively in Chapter 10). Each reserved matters application when it comes forward will be assessed against the approved parameter plans helping to ensure consistency and compatibility between different phases. The parameters are also necessary to ensure that the masterplan is implemented within the scope tested in the Environmental Statement.

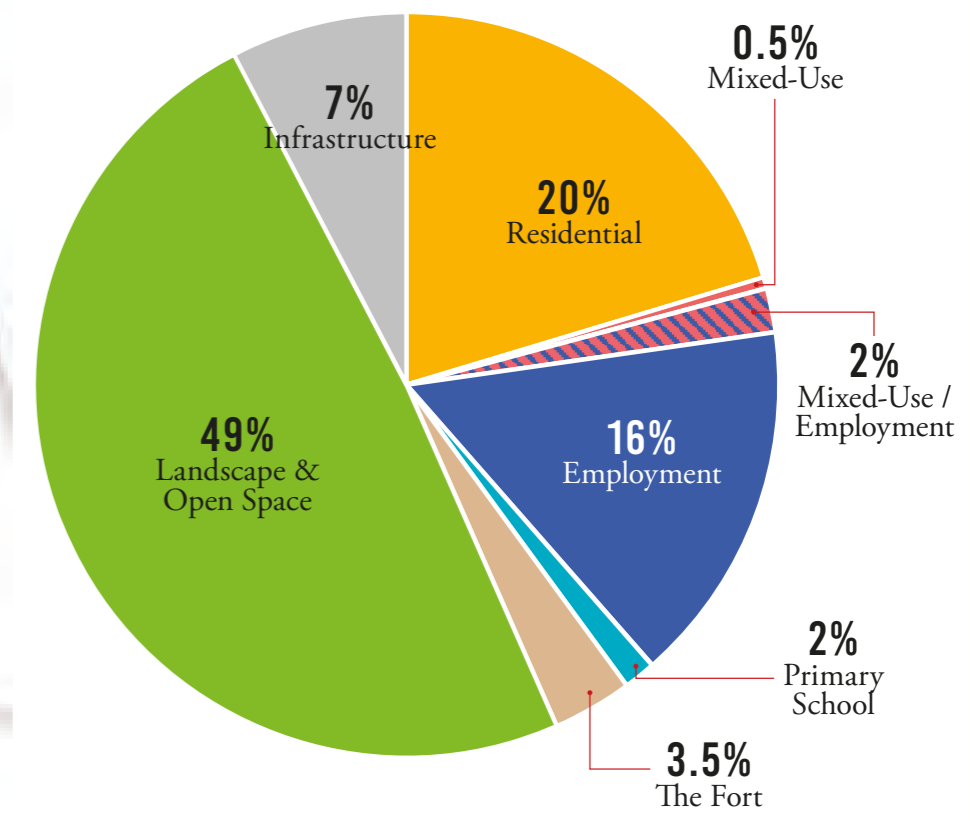
The plan on the opposite page illustrates the location and maximum extent of land proposed for the uses to be provided on site.

- The orange areas denote the proposed residential uses (Use Class C3) including affordable homes, doorstep play, and could include extra-care or elderly care accommodation.
- The blue areas denote both existing and proposed employment areas ('B' Use Classes)
- The dark red area denotes the mixed-use village centre which has the potential to include a range of uses including retail (A1), food and drink (A3-A5), Business Hub/office (B1), residential (C3), health centre (D1) and associated car parking. An indicative detailed design for the village centre can be found in the Character Areas section and in the Detailed DAS.
- The blue and dark red hatched area denotes where either mixed-uses or employment use may be located.
- Adjacent to the village centre is a proposed primary school.
- Surrounding the developable areas is a network of various public open spaces.

KEY	USE	AREA (HA)	AREA (ACRES)	%
	Residential	14.75	36.45	20%
	Employment	11.92	29.46	16%
	Mixed-Use / Employment	1.44	3.56	2%
	Mixed-Use (incl. employment, retail, community and residential use)	0.37	0.91	0.5%
	The Fort	2.62	6.47	3.5%
	Land safeguarded for Primary School	1.06	2.61	2%
	Landscape and Open Space (incl. public open space, the Village Square, Village Green, existing woodland and ancient woodland, woodland buffers, community recreation area, existing chalk grassland, ecologically enhanced grassland/mitigation zone, SuDS and play area etc.)	36.64	90.54	49%
	Infrastructure (incl. road infrastructure and car park)	5.63	13.91	7%
APPLICATION BOUNDARY TOTAL		74.42	183.90	100%

2015 EXTANT PERMISSION





Key

- Application boundary
- Applicant's land ownership boundary
- Existing buildings for retention
- Proposed vehicular routes
- Scheduled monument (The Fort)
- Residential
- Mixed-use
- Employment
- Employment / mixed-use
- Primary School / Employment
- Village square
- Hardstanding
- Village green
- Public open space (incl. woodland buffer, SuDS, children's play area)
- Community recreation area
- Existing woodland
- Existing ancient woodland
- Ecologically enhanced grassland/mitigation zone
- Existing chalk grassland
- Indicative bat barn location
- Indicative local equipped area for play (LEAP)
- Indicative location for a Multi-Use Games Area (MUGA)
- Indicative location for SuDs ponds*

Notes:

All land uses can deviate +/-3m within the application boundary, subject to on-site constraints.

*The shapes and sizes of the ponds as shown on the plan are indicative only.

