

DARTFORD'S GREEN BELT (LAND SOUTH OF THE A2) TECHNICAL PAPER



**PART OF DARTFORD'S
LOCAL DEVELOPMENT FRAMEWORK**

July 2010

DARTFORD
BOROUGH COUNCIL

CONTENTS

1	Introduction and Policy Context	3
1.1	Purpose and Content	3
1.2	National Policy Context	4
1.3	Regional Policy Context	6
1.4	Local Policy Context	6
1.5	Local Policy Context Overview	6
2	A Portrait of the Green Belt in Dartford	7
2.1	Population	7
2.2	Settlement Pattern	7
2.3	Green Belt	8
2.4	Landscape	8
2.5	Economic Activity	9
2.6	Accessibility	11
2.7	Community Facilities	13
2.8	Housing	14
2.9	Affordability and Affordable Housing in the Green Belt	14
2.10	Major Developed Sites in the Green Belt	18
2.11	Overview – A Portrait of Dartford’s Green Belt	18
3	Development Implications	19
3.1	Introduction	19
3.2	Green Belt Boundaries	19
3.3	Affordable Housing	20
3.4	Overview	21
	Appendices	22
1	Green Belt Boundary in 1958	22
2	Joydens Wood Village Boundary	23
3	Wilmington Village Boundary	24
4	Hawley Village Boundary	25
5	Sutton-at-Hone Village Boundary	26
6	Lane End Village Boundary	27
7	Bean Village Boundary	28
8	Green Street Green Village Boundary	29
9	Betsham Village Boundary	30
10	Southfleet Village Boundary	31
11	Longfield Village Boundary	32
12	New Barn and Longfield Hill Village Boundaries	33
13	Agricultural Land	34
14	History of Planning Applications in the Green Belt	35
14	Travel Time by Car to Dartford Town Centre	37
16	Travel Time by Car to Bluewater	38
17	Travel Time by Car to Ebbsfleet	39
18	Travel Time by Bus to Dartford Town Centre	40
19	Travel Time by Bus to Bluewater	41
20	Village Population and Facilities	42

Figures

1	<i>Coverage of Land South of the A2</i>	3
2	<i>Age Profile</i>	7
3	<i>Population Per Ward</i>	8
4	<i>Economically Active Population in the Green Belt</i>	9
5	<i>Type of Occupation</i>	10
6	<i>Types of Non Residential Permitted Development</i>	11
7	<i>Distance Travelled to Work</i>	11
8	<i>Travel to Work by Car</i>	12
9	<i>Properties Without a Car</i>	12
10	<i>Social Rented Properties</i>	15
11	<i>Housing Need by Size for Common Housing Waiting List Applications</i>	16

Tables

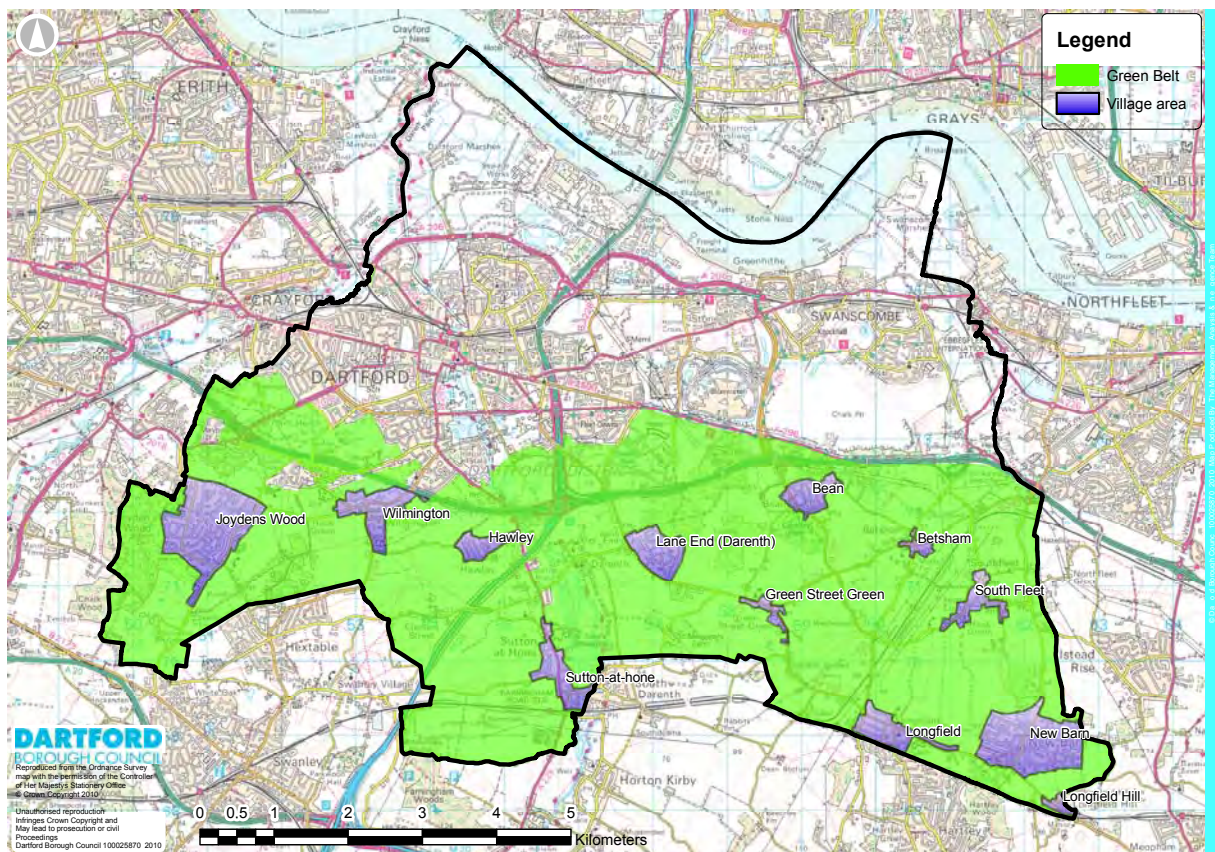
1	<i>Village Facilities</i>	13
2	<i>Housing Types in the Green Belt</i>	14
3	<i>Annual Household income required to purchase by Area – 2006</i>	15
4	<i>Wards Gross Average Household Total Income</i>	16
5	<i>Housing Need by Category and by Size</i>	17

1 Introduction and Policy Context

1.1 Purpose and Content

- 1.1.1 This technical paper has been prepared to inform, and support the preparation of, Dartford's Local Development Framework (LDF). It will contribute towards the development of Green Belt policies in the Core Strategy and the Development Management DPD and will form part of the evidence base to support the Core Strategy.
- 1.1.2 This paper focuses primarily on the communities living in villages south of the A2 and their characteristics, development in the area and the interrelationship with the Green Belt. Other functions of the countryside, such as the natural environment, biodiversity, recreational access, sports and community facilities are considered further in the Open Spaces Technical Paper, the Sports Facilities Technical Paper and the Infrastructure Background Document.
- 1.1.3 This report:
- provides an overview of the policy context;
 - paints a portrait of the rural population and supporting development; and
 - draws out the implications for planning policy arising from the analysis.
- 1.1.4 Figure 1 below shows the area of the Borough that this technical paper relates to. It includes 12 settlements and the Green Belt land located in the south of the Borough. The village boundaries are shown in Appendices 2-12. The A2 is regarded as a broad proxy for the divide between the urban and Green Belt parts of Dartford, although there are valuable parts of the Green Belt north of the A2. This paper therefore covers Green Belt land outside of the urban areas immediately north of the A2 including Dartford Heath but does not include the Green Belt land at Dartford Marshes, Eastern Quarry or St Clements Valley.

Figure 1 Coverage of Land South of the A2



1.2 National Policy Context

- 1.2.1 Planning Policy Statements (PPS) and Planning Policy Guidance Notes (PPG) provide government guidance on the Green Belt and rural development. The applicability of guidance on rural areas is questioned in this paper, due to the urban fringe characteristics of the Green Belt area in Dartford. The rural context is nonetheless covered, so that any issues of relevance can be considered.
- 1.2.2 **PPS1 Delivering Sustainable Development** (January 2005) promotes sustainable and inclusive rural communities by ensuring development is located in existing centres, on previously developed land; where there is adequate infrastructure and good access to facilities by foot, bicycle or public transport.
- 1.2.3 **PPG2 Green Belt** (January 1995) seeks to, amongst other things, protect Green Belt land, check unrestricted sprawl, prevent neighbouring towns from merging, safeguard the countryside from encroachment and assist in urban regeneration. PPG2 stresses that Green Belt boundaries should be altered only in exceptional circumstances. When preparing revised local plans, the Green Belt boundary should be considered in the context of longer term development needs. PPG2 provides a presumption against inappropriate development in the Green Belt, although some exceptions such as for agriculture and forestry, essential facilities for outdoor sports and recreation, limited infilling or redevelopment of major developed sites, limited infilling in existing villages and limited affordable housing for local community needs are deemed acceptable.
- 1.2.4 **PPS3 Housing** (June 2010) seeks to ensure affordability and supply of housing in rural areas. It identifies an affordable housing threshold of 15 dwellings but recognises that lower minimum thresholds can be set. PPS3 supports the allocation of small “rural exception” sites where viable and practical, which provide affordable housing and keep it in perpetuity, so that the needs of village residents or those with existing family or employment connections can be met.
- 1.2.5 **PPS4 Planning for Sustainable Economic Growth** (December 2009) replaces guidance from PPG4, PPS6 and parts of PPS7 and streamlines the planning policies relating to economic development and development in rural areas. It seeks to raise the quality of life and the environment in rural areas by promoting thriving, inclusive and locally distinctive rural communities whilst continuing to protect the open countryside for the sake of its intrinsic character and beauty, landscapes, heritage, wildlife, natural resources and its recreational potential. It recognises the need to strictly control economic development in open countryside away from existing settlements, and encourages new development to be located in or on the edge of existing settlements where employment, housing (including affordable housing), services and other facilities can be provided close together. It supports diversification and the re-use of appropriately located buildings in the countryside (particularly those adjacent or closely related to towns or villages) for economic development. It also identifies the need to remedy any identified deficiencies in local shopping and other facilities to serve people’s day-to-day needs and supports sustainable rural tourism and leisure developments that benefit rural businesses, communities and visitors and which utilise and enrich, rather than harm, the character of the countryside and villages.
- 1.2.6 **PPS5 Planning for the Historic Environment** (March 2010) recognises the need to conserve heritage assets and ensure they contribute to local character.
- 1.2.7 To create sustainable rural communities without compromising the open countryside, **PPS7 Sustainable Development in Rural Areas** (August 2004) seeks a diverse rural economy and revitalised villages, with specific sites for employment, housing and accessible services identified in Local Development Documents. It encourages new development in or near to local service centres that are accessible by public transport and where they will help to improve vitality, accessibility and community value, meet specific local needs and sustain

village communities. It seeks to protect the countryside by strictly controlling new development to those that are related to the rural economy and its workers, whilst at the same time re-using and replacing existing buildings that are closely related to villages for economic development or community uses.

- 1.2.8 **PPS9 Biodiversity and Geological Conservation** (August 2009) recognises the role that biodiversity can play in rural renewal and upgrading people's quality of life.
- 1.2.9 **PPG17 Planning for Open Spaces, Sport and Recreation** (July 2002) supports countryside recreation that can help to regenerate rural economies without impacting upon the openness of the Green Belt. In particular, small scale facilities should be located in, or adjacent to, villages.
- 1.2.10 **The Consultation Paper on a new PPS: Planning for a Natural and Healthy Environment** (March 2010) proposes to streamline and replace the guidance in PPS9, PPG17 and parts of PPS7 with emphasis on conserving and enhancing the natural environment, including the quality, character and value of the landscape, biodiversity, geodiversity and soil within rural areas. It also stresses the need to minimise the impact of development on local amenity, biodiversity and the openness of the Green Belt or the character of the countryside. It promotes access and appropriate recreational opportunities in rural areas to enable urban and rural dwellers to enjoy the wider countryside and supports green corridors that link rural and urban fringe areas to urban green spaces. It also encourages small scale sports and recreational facilities located where they can meet the needs of local communities in, or adjacent to, the rural settlements they will serve.
- 1.2.11 **PPG13 Transport** (April 2001) acknowledges that in rural areas a realistic choice of access may be limited, cars will remain the only real option for travel and that what is appropriate will differ between remote rural areas and rural areas nearer to towns. PPG13 seeks facilities and housing to be located in rural service centres, where they can be sited at accessible locations. PPG13 also seeks a vibrant rural economy and a reduced need for commuting via local employment opportunities, farm diversification, home working and small scale businesses that generate only modest vehicle movements.
- 1.2.12 **The Good Practice Guide on Planning for Tourism** (May 2006) welcomes the provision of facilities for visitors that help to revitalise villages and can support rural services. It specifies that tourist accommodation should be located in, or adjacent to, existing villages.
- 1.2.13 **The Matthew Taylor Review on Rural Economy and Affordable Housing** (2008) found that long term under supply of housing in rural areas is holding rural communities back. It makes various recommendations to Government including a new boost to rural jobs and affordable housing through enterprise hubs, home working and rural exception sites.
- 1.2.14 **The Commission for Rural Communities' State of the Countryside Report** (2007) concludes that rural England continues to experience significant change including net inward migration, an ageing population and a reduction in service availability and accessibility. It also identifies inequities including those who cannot afford to buy a house in rural areas and poor accessibility to services for those who do not have access to a car. Furthermore, rural areas are intrinsically linked to urban areas, with rural housing affordability affected by urban demand, rural household incomes influenced by commuting and economic viability dependent on external demand.
- 1.2.15 **The Affordable Rural Housing Commission's Affordable Rural Housing Report** (2006) acknowledges a shortage of rural affordable homes. Some of its recommendations include ensuring rural affordable housing is part of mainstream policy, using Rural Housing Enablers (RHEs), changing Right to Buy so that subsidised homes remain affordable in perpetuity, encouraging a better supply of affordable housing sites and speeding up the release of brownfield land owned by public authorities.

1.3 Regional Policy Context

- 1.3.1 **South East Plan** (May 2009) policies SP5 and KTG1 retain the Green Belt and protect it from development. There are no changes proposed for the Green Belt south of the A2. Policy BE4 reinforces the community service hub function of small rural towns. Rural employment development is supported in policies RE3, BE4, BE5 and TSR2, including traditional land-based, non land-based, tourism and economic diversification. Residential development is also supported, with policies H2, BE4 and BE5 encouraging rural housing schemes to meet local needs and policy H3 promoting small scale affordable housing in rural areas on sites in or well related to settlements, including on land that would otherwise not be released for development. The South East Plans rural housing provision target for Dartford is 200 homes. Policies KTG7 and T7 maintain separation between settlements and recognise the need to identify urban-rural sustainable transport connections.
- 1.3.2 SEERA's **Regional Monitoring Report** (2008) identifies that access to key services (cashpoints, schools, doctors surgeries) has improved and that average earnings in rural areas have increased significantly. It also suggests that non-land based businesses in rural areas will be important and that pressure for development outside urban areas will increase.
- 1.3.3 SEE-IN's **The Rural South East: An Evidence Base** (March 2008) acknowledges that rural areas in the South East have high levels of income, employment, entrepreneurial activity and educational attainment. It also recognises that there are problems in terms of affordable and appropriate housing, inadequate provision of key services and transport infrastructure, social exclusion and disparity in performance between different rural areas.
- 1.3.4 SEERA's **South East Region Sustainability Framework** (2008) contains a wide range of objectives, some of which are specific to rural areas, including protecting and enhancing the region's countryside and improving accessibility to all services and facilities including the countryside. To measure these the Framework identifies relevant indicators such as percentage of rural households at set distances from key services, number and area of rural sites damaged/destroyed by development and change in landscape character.

1.4 Local Policy Context

- 1.4.1 The **Adopted Dartford Local Plan** (1995) **saved policies** identify the extent of, and make a presumption against development in, the Green Belt (policies S4, GB1, GB2). They set parameters for development in the countryside (policies C1, C2, C3, C5, C7). Policies V1, V2, V3, V4, V5 identify appropriate development in villages, including residential development to meet local needs, small scale businesses and shopping/community facilities and policy R6 identifies local shopping centres at Joyden's Wood, Wilmington, Sutton-at-Hone, Lane End and Longfield.
- 1.4.2 Guidance documents that relate specifically to local rural areas include **Conservation Area Appraisals** of Hook Green, Church Hill, Wilmington, Red Street and Southfleet, **Area of Special Residential Character Appraisals** of Betsham, Green Street Green, Longfield Hill, New Barn and Southfleet and **Area of Special Character Appraisals** of Broadditch Farm, Darenth Road, St John's Jerusalem and Westwood.

1.5 Overview

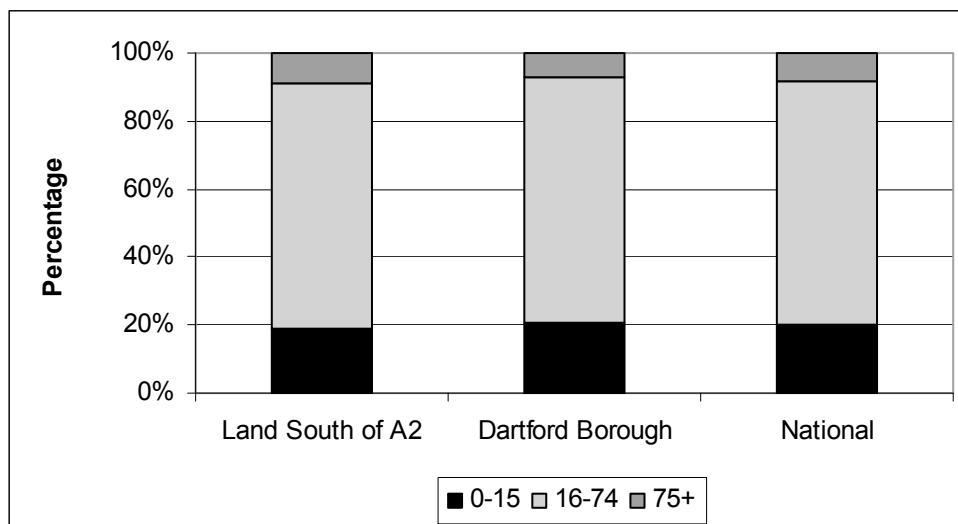
The policy context supports the promotion of sustainable rural communities, with housing, and employment needs addressed and community facilities provided. Development should principally be located within existing villages and on previously developed land, with rural community hubs providing a focus for facilities.

2 A Portrait of the Green Belt in Dartford

2.1 Population

- 2.1.1 To gain a better understanding of the communities living in Dartford's Green Belt, data has been gathered from the 2001 Census Neighbourhood Statistics, desk based studies, field survey work, Council reports and planning applications. Using this data, a number of characteristics have been considered, starting with population.
- 2.1.2 The Green Belt area as a whole accounts for approximately 30% of the Borough's population. It is subdivided into five wards. Population levels within the Green Belt are projected to grow by approximately 1% between 2006 and 2026, although the proportion will reduce to approximately 21% of the Borough's population¹.
- 2.1.3 Figure 2 shows that the age profile of the population in the south of the Borough is older than that for the Borough as a whole but does not differ significantly to that of the national situation.

Figure 2 Age Profile



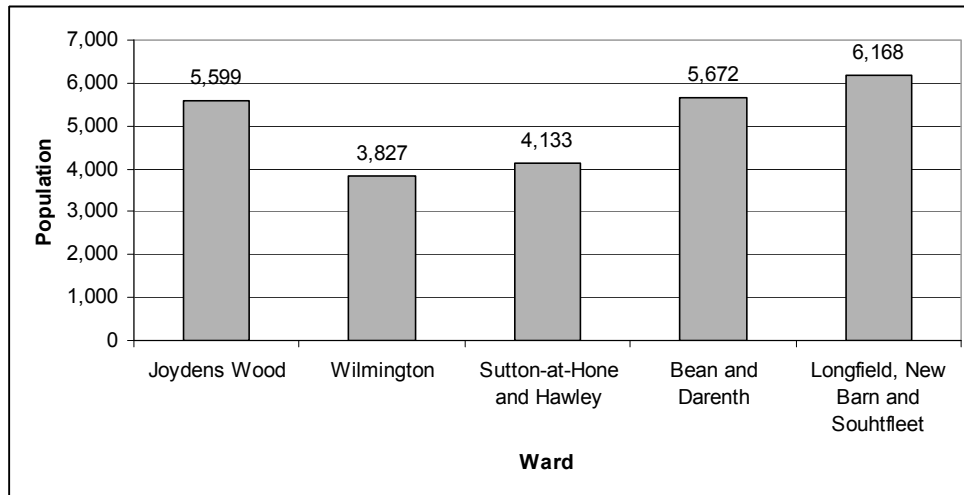
- 2.1.4 The five wards in the Green Belt contain 27% of the Borough's children (aged 0-15), 30% of the Borough's adults (aged 16-74) and 35% of the Borough's elderly people (aged 75+).

2.2 Settlement Pattern

- 2.2.1 The Green Belt area contains 12 villages and a number of other smaller settlements that are relatively evenly spread across the countryside, as can be seen in Figure 1. Figure 3 on the next page shows that the population per ward varies, although this is largely explained by the differences in the size of wards, rather than population density.
- 2.2.2 Distances between villages are small. All villages have neighbouring settlements within 1km or less from their boundary. Longfield and New Barn are within 0.3 kilometres of each other and Southfleet and Betsham are within 0.6 kilometres of each other. Some villages are also located close to village boundaries outside of the Borough, including Hextable, Swanley, South Darenth, Horton Kirby, Farningham, Hartley, Meopham and Istead Rise.
- 2.2.2 Some villages are located so close to the urbanised northern part of the Borough that they can be considered to be urban extensions such as at Wilmington which is only 0.1 kilometre from the edge of the urban area. New Barn, the village located farthest from Dartford's urban area, is situated only 8.6 kilometres away. Two railway stations, at Longfield and Sutton-at-Hone, provide a strong connection with Central London.

¹ Population Change in Dartford Borough 2006-2026, Dartford Borough Council 2010

Figure 3 *Population Per Ward*



2.3 Green Belt

2.3.1 The openness of the land south of the A2 is protected by the Green Belt, which was originally designated in 1958 and covered the western part of the rural Borough up to Betsham and Longfield – see Appendix 1. By 1978, it had been extended to include the remaining eastern part of the Borough. Since then the boundaries on land south of the A2 have remained unchanged. North of the A2, much of the Green Belt designation has been removed over the years. The Draft Core Strategy proposes removal of a significant element of Green Belt land north of the A2 at Eastern Quarry and St Clements Valley in order to meet Thames Gateway growth objectives.

2.3.2 The Green Belt has historically been drawn tightly around villages, to prevent extension of villages, although small infill development is acceptable. Small hamlets, isolated buildings and the identified major developed sites have been washed over by the Green Belt designation. Village boundaries are shown in Appendices 2 – 12.

2.4 Landscape (see also Biodiversity and Landscape Technical Paper)

2.4.1 Dartford is mostly unspoilt countryside, interspersed by 12 villages and other smaller settlements. The landscape in the south of the Borough is gently undulating, with the predominant features being arable fields and woodlands. This area contains three specific landscape types:

- Darenth Downs – gently undulating open arable landscape with some ancient semi-natural woodland;
- Lower Darent Valley – a chalk stream valley meandering through a flat floodplain; and
- Southfleet Arable Lands – open undulating arable landscape and some copses.

There are no national landscape designations, although the southern extreme of the Borough is identified as part of the North Downs Special Landscape Area.

2.4.2 Land to the south of the A2 contributes to the North Kent’s horticultural belt and is an important market garden producer. Appendix 13 shows that the majority of this land is classified as being agriculturally very good or good and only a small proportion is classified as poor (woodlands and the Darent Valley).

2.4.3 There are a number of SSSIs including Farningham Wood and Darenth Wood and a number of sites of nature conservation interest, including:

- Green Street Green Common;
- Sutton-at-Hone Lakes;
- Sutton-at-Hone Churchyard;
- Joydens Wood and Chalk Wood;

- Dartford Heath;
- Rowhill Wood;
- Beaconwood Country Park; and
- Chalk Bank at Longfield.

These sites, and other natural assets such as Ancient Woodlands, trees and undesignated areas of importance for biodiversity and a range of habitats, require protection against development.

2.4.4 Being located close to the urban area, the land south of the A2 can be classified as urban fringe. It is an important resource for the enjoyment of rural and urban residents alike and provides access to the countryside for recreational pursuits. Rural parts of the Green Grid which form attractive destinations for those who seek rural recreation close to home include:

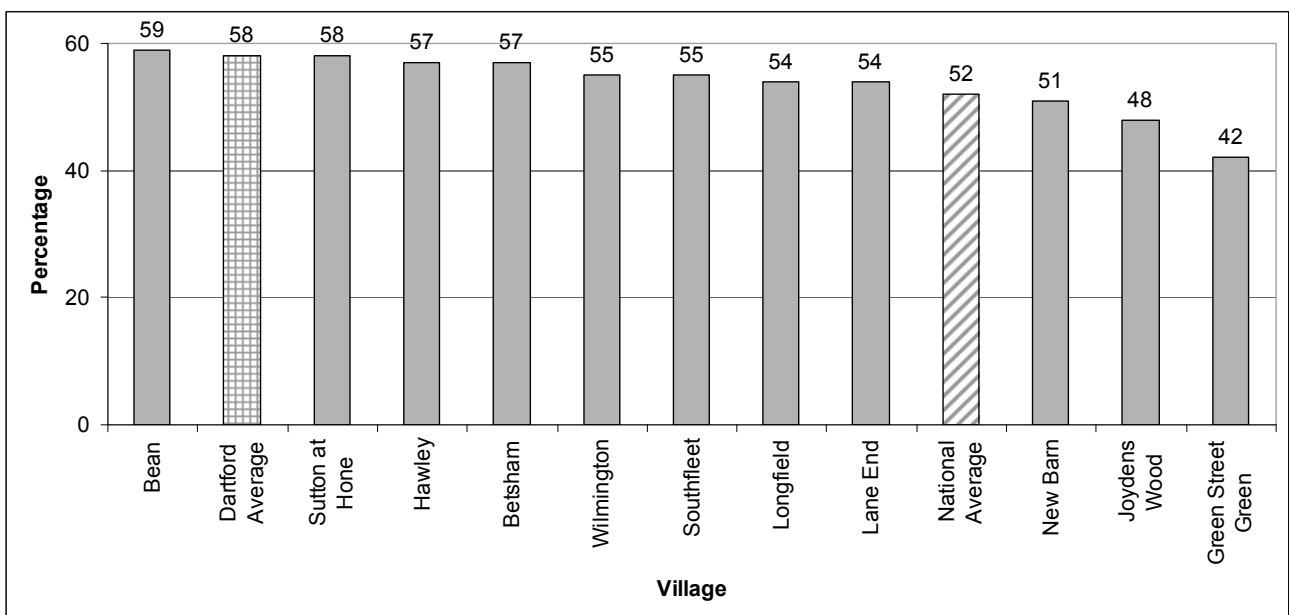
- Dartford Heath;
- Joydens Wood;
- Darent Valley Footpath;
- Darent Country Park;
- Darent Woods;
- Lords and Ladies Woods; and
- Beaconwood Country Park.

2.4.5 Opportunities exist to improve these informal recreation sites and to provide better links to both honey pot sites as well as the countryside in general and to the urban area north of the A2. Of particular importance is the upgrade of the Darent Valley Path which provides a pedestrian and cycle link from the rural area into the heart of Dartford town centre.

2.5 Economic Activity (See also Economy and Employment Technical Paper)

2.5.1 According to the 2001 Census, 74% of Dartford Borough's working age population are economically active and 58% are employed. There are proportionately fewer economically active residents of working age in the Green Belt than for Dartford as a whole. Figure 4 shows this is the case for all villages with the exception of Bean (59%) and Sutton at Hone (58%). Unemployment in the Green Belt wards is generally lower than for Dartford as a whole, with only the ward of Bean having the same proportion of people who are unemployed as the Dartford average of 3%.

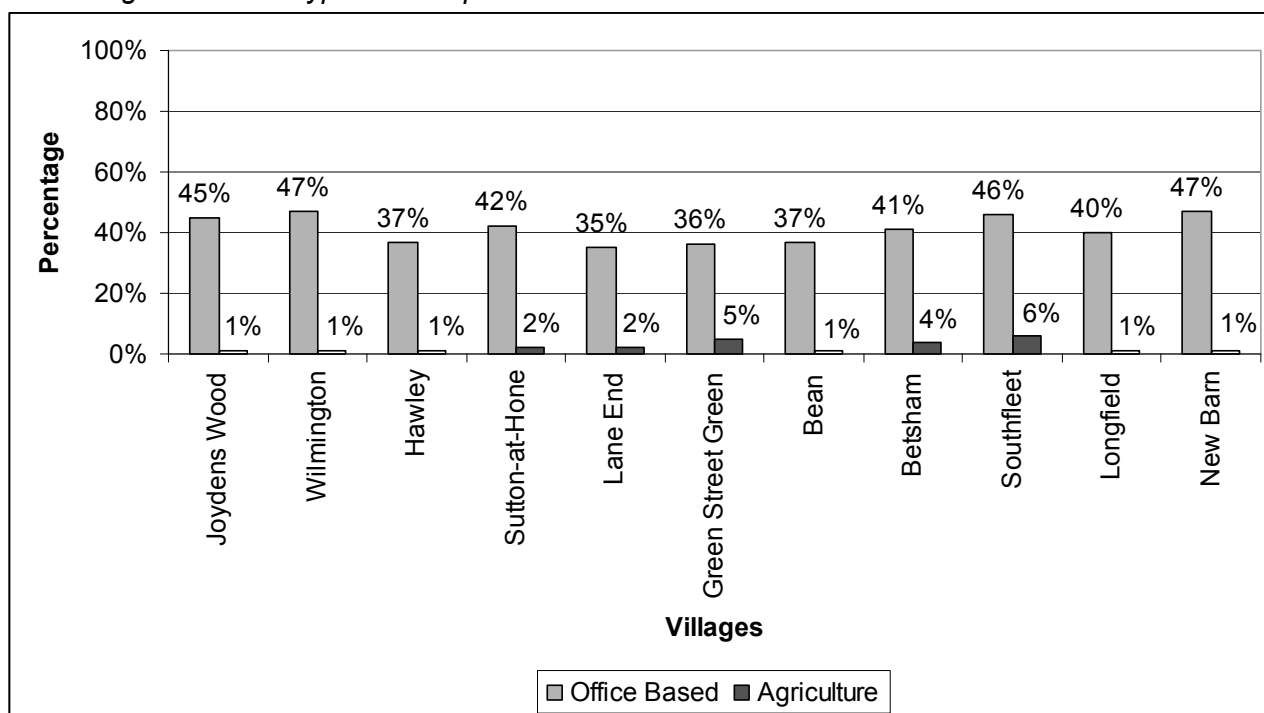
Figure 4 Economically Active Population in the Green Belt



Data source: 2001 Census, % are for those of economically active working age (16-59/64)

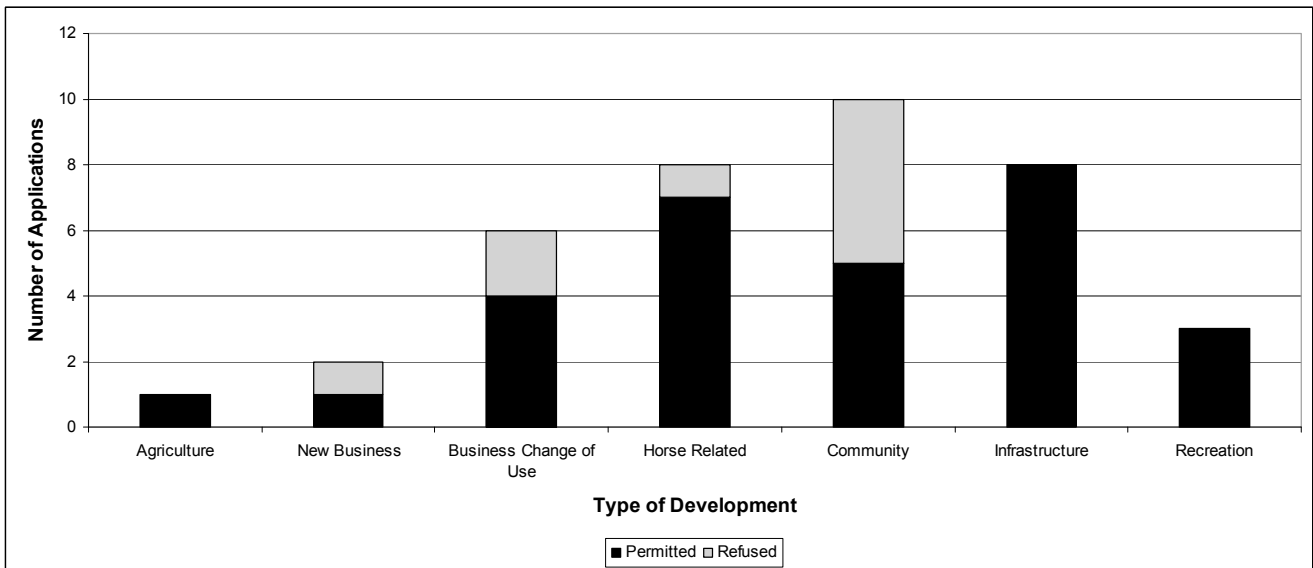
- 2.5.4 Few people rely on the land for their livelihood or work in land based industries. There are no employees working in the fishing industry and only a minority of residents working in mining – mostly in the villages of Sutton-at-Hone and Hawley.
- 2.5.5 The proportion of people who work in agriculture is low, as can be seen in Figure 5. On average, only 1.3% of the working age population (aged between 16 and 74) in the Green Belt work in agriculture/ forestry. Although this is slightly higher than the Dartford average (0.8%), the very small proportion indicates that there is no strong association with a traditional rural economy. There is no evidence to suggest that the agricultural sector will generate higher proportions of jobs in the future.
- 2.5.6 Almost half of economically active residents in the Green Belt are employed in office based sectors, as can be seen in Figure 5. This is similar to the Dartford average of 45%.

Figure 5 Type of Occupation



- 2.5.7 All five of the Green Belt wards contain higher proportions of managerial and professional workers than the Dartford average of 35%, with the highest proportions living in the wards of Longfield (47%), Joydens Wood (43%) and Wilmington (43%). The ward of Bean is the only rural ward that has the same proportion of elementary workers as the Dartford average at 20%. Longfield (12%), Joydens Wood (13%) and Wilmington (14%) contain fewer elementary workers. These findings are not surprising given the accessibility to central London from the two railway stations at Longfield and Farningham Road, enabling residents to access higher paid and higher skilled jobs in Central London.
- 2.5.8 Most Green Belt wards have a smaller amount of people with no qualifications than the Dartford average of 28%, with Longfield (25%), Sutton-at-Hone (26%) and Wilmington (27%). However, Bean at 30% and Joydens Wood at 31% have slightly higher proportions.
- 2.5.9 Between 2002 and 2007 a small number of planning applications for non-residential development were submitted, with the majority permitted. Appendix 14 provides further details. Figure 6 shows that there has been some change of use of existing buildings to other business use. Equestrian activity remains popular underlining the recreational role of the countryside. Additionally, a small number of planning consents for recreational use suggest that a small amount of diversification is taking place which may provide some local income and employment, whilst also supporting the recreational needs of local communities.

Figure 6 Types of Non Residential Permitted Development

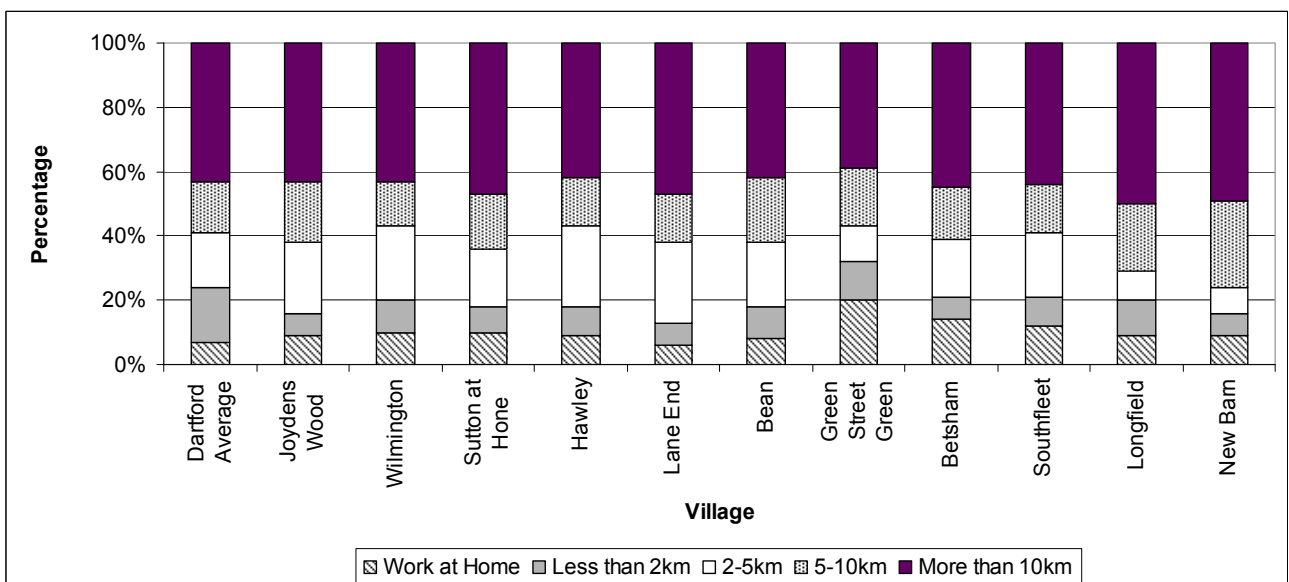


2.5.10 There has been only one planning application for the provision of agricultural facilities between 2002-2007, suggesting that there is limited demand for new agricultural activities.

2.6 Accessibility

2.6.1 The majority of Green Belt residents travel outside of the area for employment. Figure 7 below shows the distances travelled to work from the Green Belt villages. In general, there are higher proportions of residents working at home and also a higher proportion travelling 10km or more to work than the Dartford average. Conversely, there is a lower proportion travelling less than 2km to work. This supports the evidence on the limited economic connection with the local area.

Figure 7 Distance Travelled to Work

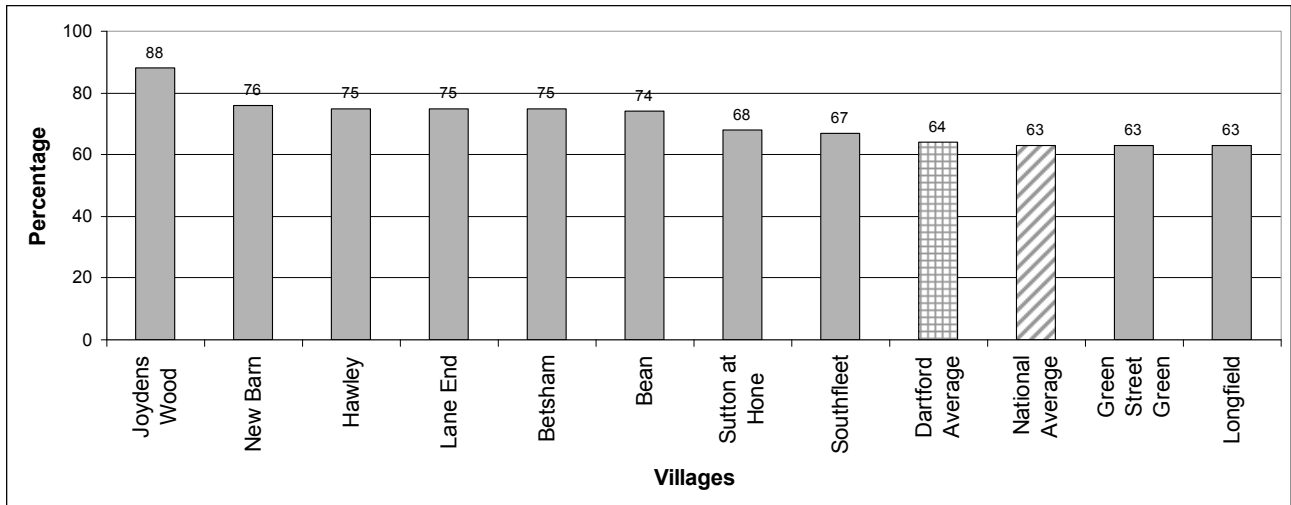


Data source: 2001 census

2.6.2 70% of residents in the rural wards rely on their cars, vans and motorcycles for travel to work and this is higher than the Borough as a whole (64%). Some settlements have a significantly higher rate, such as Joydens Wood (88%), New Barn (76%), Hawley (75%), Lane End (75%) and Bean (74%), as shown in Figure 8 below. The settlements of Green Street Green and Longfield have an average of 63%, less than the Borough average, most

probably as a result of Longfield Rail Station. Travel to work by bicycle in the Green Belt, at 1%, is the same as the Dartford average. Travelling to work on foot is, however, lower at 3-4% as compared to Dartford's average of 8%.

Figure 8 *Travel to Work by Car*

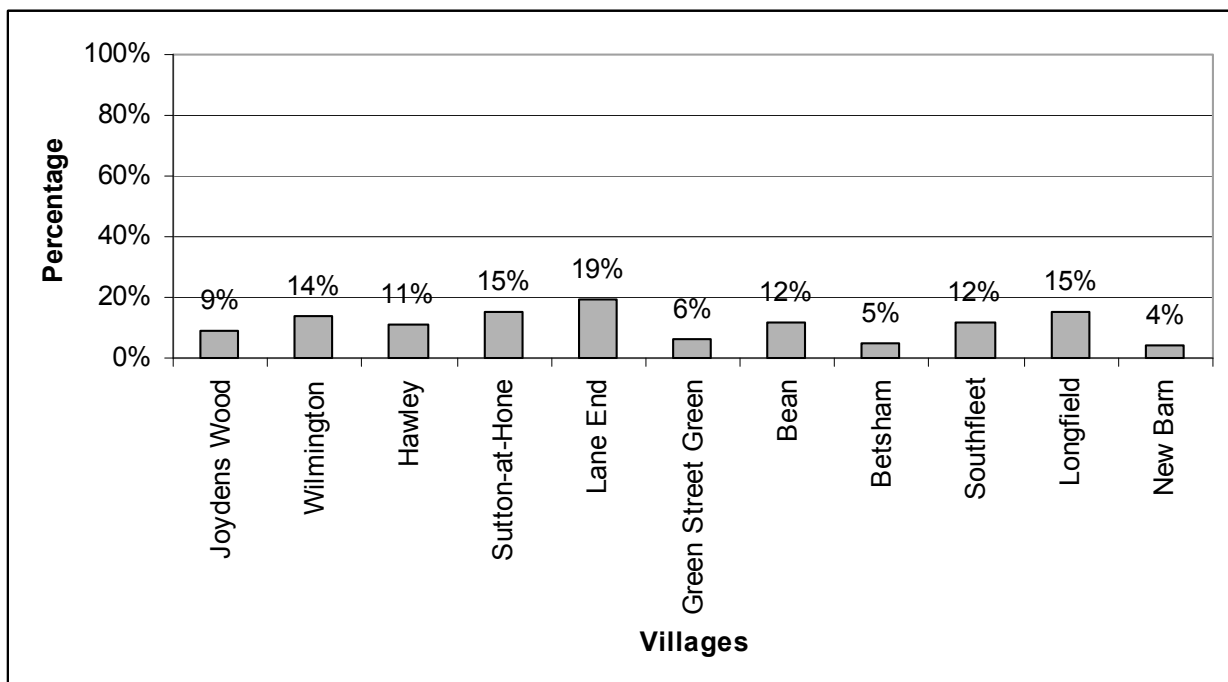


Data source: 2001 census

2.6.3 There is good connectivity between local roads and the trunk road/motorway network. Access by car is quick and convenient. Appendix 15 shows that Dartford Town Centre can be accessed by car from all villages within 20 minutes or less. Bluewater and Ebbsfleet are accessible from all villages by car within 30 minutes, as shown in Appendices 16 - 17. Although the road network links well with the urban area and the motorway network, many of the roads are narrow and have historic landscape value. They are not suited to high levels of traffic or heavy goods vehicles.

2.6.3 Car ownership levels are higher than the Dartford average of 80% and national average of 63%. In particular New Barn, Betsham and Green Street Green have very few residents (4-6%) who do not own a car, as shown in Figure 9. Across Dartford, only a small proportion (2%) of people own 4+ cars whereas all of the rural wards contain higher proportions than this. In particular, 4-5% of the households residing in New Barn, Southfleet and Betsham own 4+ cars.

Figure 9 *Properties Without a Car*



2.6.5 All villages have good public transport accessibility to Dartford Town Centre and Bluewater, with bus travel times that do not exceed 35 minutes. There is on average 2-3 services running through each village. Although buses service all of the villages, the frequency of the public transport varies, with eight villages having only an hourly frequency during the daytime. Appendices 18 and 19 show travel times to Dartford Town Centre and Bluewater by bus. There are two rail stations at Longfield and Farningham Road, providing good accessibility to London and these stations generate significant amounts of out commuting.

2.7 Community Facilities

2.7.1 The type and quantity of facilities differs from village to village. Appendix 20 shows that there is a general correlation between the number of people residing in a village and the number of facilities provided, with the exception of New Barn and Longfield, where correlations are reversed. The survey also shows that in most instances, it is evident that there is a village core where the majority of facilities are concentrated.

Table 1 Village Facilities

	A1				A2	A3	A4	A5	D1						
	Post office	Supermarket	Pharmacy	Other shops	Financial and professional services	Restaurant & Café	Pubs	Takeaways	Doctors / dentists	Library	Village Hall/Public Hall	Day nursery	Primary School	Secondary School	Place of Worship
Longfield	1	2	2	24	10	5	1	4	3	1	1		1	1	1
New Barn	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sutton-at-Hone	-	-	-	11	1	-	1	1	2	1	3		1	-	3
Joydens Wood	1	-	1	11	-	-	-	-	1	1	2		1	-	2
Wilmington	-	-	-	1	-	-	2	-	-	-	2	1	1	3	2
Lane End	-	1	-	3	-	-	1	1	1	-	2		1	-	1
Southfleet	-	-	-	1	-	1	2	-	-	-	2	-	1	-	2
Bean	1	-	-	-	-	-	2	-	2	-	1		1	-	
Green Street Green	-	-	-	1	-	2	1	-	-	-	-	-	-	-	-
Hawley	-	-	-	2	-	-	1	-	-	-	1	1	-	-	1
Betsham	-	-	-	-	-	-	1	-	-	-	-	-	-	-	
Longfield Hill	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-

2.7.2 Table 1 above highlights that Longfield has all of the main health and community facilities and is the largest of the village retail centres. It is the only village that has a sizable supermarket and a range of specialist shops. The vibrancy of this centre is due to the proximity of Longfield Station and the fact that it acts as a central hub catering for a critical mass generated by the larger catchment area of New Barn, Southfleet, Green Street Green and Longfield Hill as well as settlements outside the Borough boundary including Hartley, Meopham and Istead Rise.

2.7.3 All but the smallest villages have a shop, village hall and primary school. The exception is New Barn which, despite its relatively large size, has no facilities at all. However, this is compensated for by its very close proximity to Longfield, which has a good range of services. The Sports Facilities Technical Paper identifies that there is a wide range of

provision for indoor sports in the Green Belt, although facilities are largely dual use community buildings, rather than purpose built.

2.8 Housing

2.8.1 The settlements vary in size from large villages such as Joydens Wood with 2019 households to smaller hamlets such as Green Street Green with 144 households. The average household size of those who reside in villages does not differ significantly from the average household size for Dartford of 2.4 persons per household.

2.8.2 Table 2 shows that there is a higher proportion of detached properties in all wards south of the A2 compared to Dartford's average of 13%. This is particularly so in the wards Longfield (53%), Joyden's Wood (29%), Wilmington (28%), Bean (18%) and Sutton-at-Hone (17%). Conversely, all of the rural wards have a lower proportion of flats and apartments than the Dartford average of 17%, especially Longfield (4%) and Joyden's Wood (1%).

Table 2 Housing Types in the Green Belt

Wards	% Detached	% Semi-detached	% Terraced	% Flats
Joydens Wood	29.24	51.25	13.63	1.49
Wilmington	27.83	43.82	18.79	9.23
Sutton at Hone and Hawley	17.2	45.52	25.74	10.31
Bean and Darent	17.63	40.37	33.02	7.3
Longfield, New Barn, Southfleet	53.3	31.4	10.21	3.84
Dartford	13.18	33.48	35.15	17.05
England	22.77	31.58	26.04	18.05

2.8.3 Council Tax bands can be used as a proxy to estimate the value of people's homes. The most common Council Tax band in many of the villages exceed B and C, the average band for Dartford. This is especially so for the villages of Sutton-at-Hone, Hawley and Bean where the most common band is D, and the villages of Joydens Wood, Wilmington and Longfield where the most common band is E. New Barn village is the most expensive with the majority of properties being in band F, with Southfleet village also containing a high proportion of band F properties.

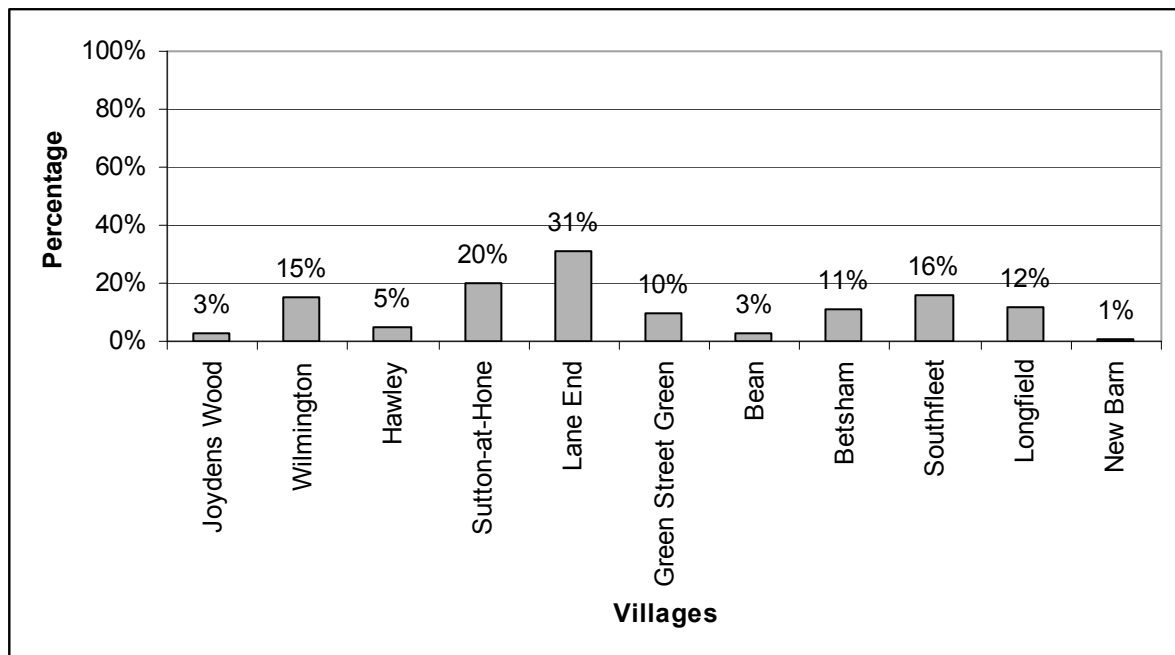
2.8.4 With 189 vacant dwellings located south of the A2, the villages combined contain 25% of the total vacant stock for the Borough (2001 Census), with a vacancy rate below the Borough average.

2.8.5 The highest number (22%) of planning applications in the Green Belt between 2002 and 2007 were for replacement of dwellings or change of use of existing buildings to residential use, closely followed by applications for new dwellings. Applications for replacement dwellings tended to seek larger or extended dwelling sizes. Appendix 14 provides further details of the planning applications history.

2.9 Affordability and Affordable Housing in the Green Belt

2.9.1 The proportion of social rented properties in the Green Belt is 11%, below the Dartford average (16%). Figure 10 shows that two of the villages contain significantly higher proportions than this - Sutton at Hone has 20% of its housing stock as social rented and Land End has 31% social rented accommodation. Other settlements contain very few social rented properties, especially New Barn with 1%, Joydens Wood and Bean with 3% and Hawley with 5%.

Figure 10 Social Rented Properties



2.9.2 The Dartford Housing Needs Study and Market Assessment was carried out in 2006 by an independent consultant DCA. This identified a large preference for affordable housing in the Green Belt wards but the data does not distinguish between a preference for affordable housing and a need that is 'internally generated' in these wards. As such, much of this demand is a preference which may arise from outside the area rather than a genuine local need to locate close to work, family or friends.

2.9.3 The DCA study provides some primary survey data about lower quartile housing price, which can be seen in Table 3 below. The data shows the annual household income needed to buy entry-level stock by sub-area, based on a 95% mortgage availability and a 3-times gross income to lending ratio. There is a very mixed picture regarding the difference in incomes required to buy entry-level properties in the Green Belt sub-areas as compared to the urban sub-areas and no clear picture emerges. It seems likely that the higher entry levels in some urban sub areas are a reflection of a predominance of new build properties coming onto the market in those wards, for example in West Hill, Castle and Greenhithe.

Table 3 Annual household income required to purchase by area – 2006

Sub-area	Income thresholds (£)		
	1-bed flat	2-bed flat	2-bed terraced
Stone	28,500	31,700	47,500*
Swanscombe	28,900	38,000	43,800
Joyce Green, Littlebrook, New Town *	29,400 *	30,300	47,200
Castle, Greenhithe	30,100	37,200	47,600
Town	30,900	37,200	45,100
Bean & Darenth, Longfield, New Barn & Southfleet	31,700*	38,000	45,100
Wilmington, Sutton at Hone and Hawley	33,300	36,400	52,800
Princes, Brent *	33,300	38,000*	42,800
Heath, West Hill	38,000	41,200	53,800
Joydens Wood *	no data	no data	55,400*

(Data Source: Dartford Housing Needs Study and Market Assessment, DCA, 2006 : Table 1-2)

* Low Volume of Data

2.9.6 Table 4 below shows the gross average household income in the Green Belt wards, as compared to the Dartford average. This shows that the annual household income in Green Belt wards (£36,064) is 20% higher than that for the urban wards (£29,990), and also 14% above the Dartford average. This reflects the previous demographic and economic analysis in Sections 2.1 and 2.5 and suggests that, generally, affordability will be less of a problem. Despite this, for newly-forming households, gaining entry into the housing market may still be problematic.

*Table 4 Wards Gross Average Household Total Income**

Ward	Weekly wage (£)*	Annual income (£)	Number of Households
Green Belt wards			
Bean and Darenth	680	35,360	2,121
Longfield, New Barn and Southfleet	790	41,080	2,427
Joydens Wood	600	31,200	2,240
Sutton-at-Hone and Hawley	690	35,880	1,663
Wilmington	700	36,400	1,544
Green Belt Average	694	36,064	9,995
Urban Average	577	29,990	25,245
Dartford Average	610	31,712	35,240

(Source: ONS 2001 Census – Wards. *Income: Model-Based Estimates at Ward Level, 2001/02)

2.9.7 An additional issue with regard to affordability in the Green Belt wards, is the lower volume of entry-level properties, due to the dominance of larger properties (detached and semi-detached).

2.9.8 The Common Housing Waiting list records all current applications for social rented housing in Dartford, which can be used to indicate the actual need for affordable housing². Table 5 below shows the current location of applicants applying for social rented houses at October 2008.

2.9.9 Only 8% of applications in the high housing need category were from the Green Belt wards. The vast majority, at 91% were living in the urban area. About one fifth (18%) of those in moderate housing need lived in the Green Belt area, and four fifths (82%) from urban area. In terms of households with low level or no particular housing need, Green Belt applicants made up 14%, and urban applicants made up the remaining 86%.

2.9.10 In terms of the proportion of households with affordable housing needs, the urban area again has a higher proportion than the Green Belt area: about 8.4% of the urban households (2,109 out of 25,245 urban households) are on the common waiting list. The equivalent figure for the Green Belt area is 4.0% (369 out of 9,995 households)³.

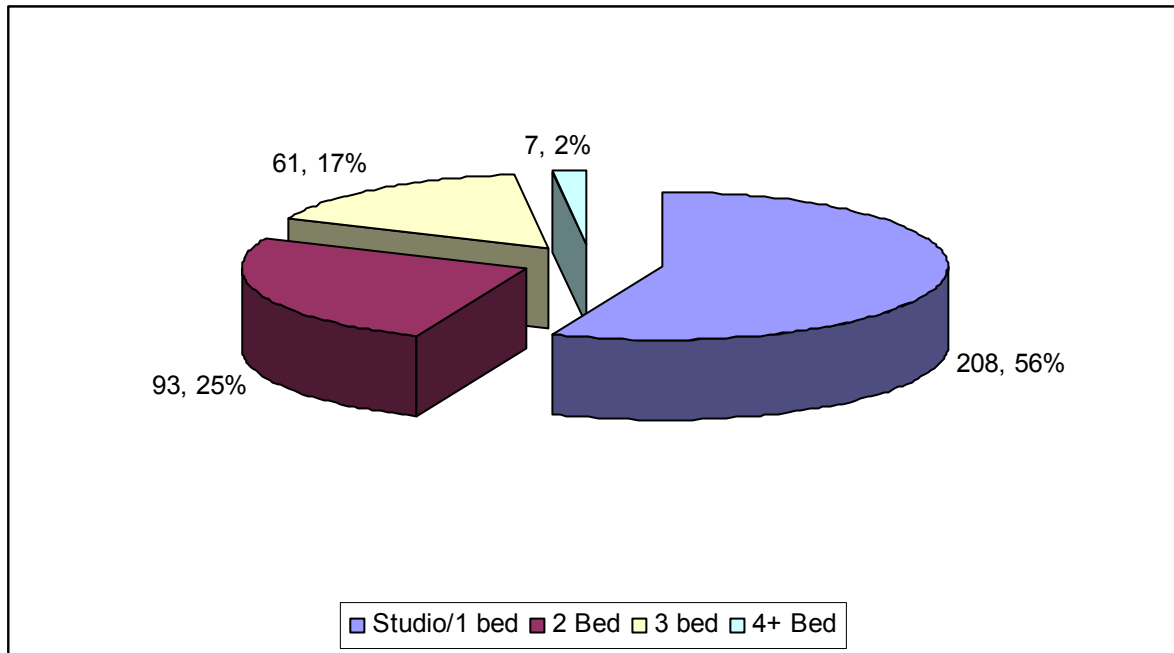
2.9.11 The analysis shows that affordable housing need from the existing Green Belt households is smaller both in number and proportion than those of the urban households.

2.9.12 The common housing waiting list indicates the need for different housing sizes. Among the 369 rural social housing applications, the need for smaller (studio, 1 and 2 bed) properties makes up a dominant 81% (see Figure 11 and Table 5 below).

² Further information about the housing waiting list see DBC, Choice-based Letting Policy, May 2008, downloadable from <http://www.dartford.gov.uk/choice/documents/CBLpolicy2008.pdf>

³ Household numbers are based on 2001 Census data.

Figure 11 Housing Need by Size for Common Housing Waiting List Applications



(Data Source: DBC, CBL applications from within Dartford Borough, October 2008)

Table 5 Housing Need by Category and by Size

Band A : high housing need applications					
	Urban		Rural		Total
0/1-bed	112	84%	11	8%	123
2-bed	129	90%	5	3%	134
3-bed	111	77%	17	12%	128
4+	31	82%	6	16%	37
Sub total	383	83%	39	8%	422
Band B: moderate need applications					
	Urban		Rural		Total
0/1-bed	552	79%	120	17%	672
2-bed	182	78%	40	17%	222
3-bed	60	78%	13	17%	73
4+	10	71%	1	7%	11
Sub total	804	78%	174	17%	978
Band C: low level or no particular housing need applications					
	Urban		Rural		Total
0/1-bed	498	69%	73	10%	571
2-bed	298	77%	46	12%	344
3-bed	113	65%	31	18%	144
4+	8	73%	0	0%	8
Sub total	917	71%	150	12%	1067

(Data Source: DBC, CBL applications from within Dartford Borough, October 2008. Note: data exclude applications from outside the borough.)

2.10 Major Developed Sites (MDS) in the Green Belt

2.10.1 The adopted Local Plan (1995) identifies three former hospital sites and one school site as major developed sites in the Green Belt, in line with Annex C of PPG2 Green Belt (1995). Two of these sites, Darent Valley Hospital and Bexley Hospital, have now been built out. The school site at Axton Chase has planning consent to provide 149 homes with a third of these affordable.

2.10.2 The Mabledon Hospital site (shown in Appendix 6) is the only remaining undeveloped MDS in the Green Belt. The former hospital buildings were set within extensive grounds. The buildings were demolished in 1984 and the site has reverted back to nature. Parts of the site are now of nature conservation value (See Biodiversity and Landscape Technical Paper for further details). Part of the site has been identified as suitable for a crematorium and would fulfil the need for burial/cremation capacity identified in the Borough. A previous development proposal for large scale housing was dismissed at appeal.

2.11 Overview - A Portrait of Dartford's Green Belt

From the analysis of Green Belt area characteristics, a number of conclusions can be drawn:

- **The area has the characteristics of an urban fringe rather than rural area.**
- **There is a low proportion of workers in land based industries and a high proportion of office based workers.**
- **The socio-economic profile of households indicates a greater proportion of managerial and professional workers, higher incomes, lower rates of unemployment and higher skill levels.**
- **Travel to work distances are higher than average for Dartford, indicating a predominantly commuter population.**
- **There is close proximity to the urban area, good accessibility and high car ownership levels. The indications are that the relationship with the urban area is strong.**
- **Villages are in close proximity to one another, with the potential to share facilities. It also means that new development outside village confines would risk coalescence of villages. This is particularly so for Longfield, New Barn and Longfield Hill.**
- **All but the smallest villages, and with the exception of New Barn, have some community facilities, including a shop, primary school and village hall. Longfield has a fuller range of facilities and serves a wider catchment area.**
- **There is a larger than average house size as compared to the urban area, with a high proportion of detached and semi-detached properties.**
- **Whilst entry level housing in the Green Belt generally appears to be more affordable as compared to the urban area as a result of higher incomes, there is a mixed picture as to the ability of newly forming households to access the housing market, partly as a result of the lower amount of entry level homes.**
- **Although there is a high preference for affordable housing in the Green Belt wards, the internally generated need for is significantly lower than in the urban area. The proportion of social-rented housing within the total housing stock is also lower than in the urban area.**

3 Development Implications

3.1 Introduction

3.1.1 The assessment in section 2 presents a picture of a predominantly high-skilled, relatively high income commuter area, with urban fringe characteristics. Given the good links and proximity to the urban area, the majority of residents travel to the urban area for work as well as probably for shopping and leisure facilities. Nonetheless, the majority of villages have local facilities and, Longfield in particular has a good range of these. The age profile is marginally older than the national average but household size is on a par with the Dartford average of 2.4. Population change projections to 2026⁴ suggest a slightly increased population in the Green Belt, with increases in some wards and very small decreases in others. A lack of entry level housing and a relatively low proportion of social-rented housing has been identified. This issue is considered further in Section 3.3.

3.2 Green Belt Boundaries

3.2.1 PPG2 Green Belt (1995) states that Green Belt boundaries should be altered only in exceptional circumstances. Para 2.7 states that at the time of updating existing local plans, existing Green Belt boundaries should not be changed unless alterations to the structure plan have been approved. Whilst the Kent and Medway Structure Plan (2006) has been revoked, Policy SS2 of the Plan provided for the amendment of Green Belt boundaries in Dartford, removing Eastern Quarry and St Clements Valley from the Green Belt. These amendments have been carried through to the Draft Core Strategy. Aside from these amendments, no other changes to the Green Belt boundary were proposed. The Plan identified the particular role of Dartford's Green Belt in preserving the open countryside between Greater London and the urban areas further east; containing the outward growth of Dartford and restricting the expansion of settlements south of the A2 to prevent further suburbanisation and preserve their identity.

3.2.2 The South East Plan (2009) sought the protection of the Metropolitan Green Belt in the Kent Thames Gateway (Policy KTG1) and stated that development should be focused in the urban areas.

3.2.3 An extensive review of the Green Belt was carried out during the preparation of the Adopted Local Plan (1995). The appropriateness of the boundary was tested at length at the local plan inquiries in 1992 and 1993. The Local Plan Review Amended Second Deposit Draft in 2004 (not taken through to adoption), proposed the removal of Eastern Quarry and St Clements Valley from the Green Belt, in accordance with the Kent Structure Plan (1996) Policy MGB2. No other Green Belt changes were proposed.

3.2.4 The review of land availability for housing, employment and other uses, as demonstrated through the Council's Strategic Housing Land Availability Assessment and Strategic Employment Land Availability Assessment (2010) conclude that, with the release of Eastern Quarry and St Clements Valley from the Green Belt, there is sufficient land supply in the urban part of the Borough to meet requirements to 2026 and beyond this date. There is no necessity to release Green Belt on the grounds of need for development land.

3.2.5 The large amount of development proposed in the Dartford arising from its growth area status, increases the need to maintain a strong defence of the Green Belt, so that growth pressures are not diverted away from the urban area, as well as to provide recreational space for the increased urban population.

3.2.6 Representations to earlier rounds of Core Strategy consultation have advocated the release of Green Belt around village boundaries on the basis that this is necessary to ensure sustainable rural communities. The evidence in this paper suggests that the Green Belt

⁴ Population Change in Dartford Borough 2006-2026, Dartford Borough Council 2010

villages are not 'rural' in terms of normal definitions, in that their links are predominantly with the urban area and they can be defined as urban fringe areas. The issues of concern in more remote areas, such as unemployment, low skills and lack of access to facilities, are less relevant in the context of Dartford's Green Belt, although the issue of affordable housing needs further consideration.

- 3.2.7 The assessment of local facilities shows that all but the smallest villages have basic facilities, with Longfield having a more extensive range. It is suggested, through representations, that relaxation of some village boundaries to provide additional housing would assist in supporting village facilities and make the villages more sustainable.
- 3.2.8 The Draft Core Strategy proposes 200 additional homes in the Green Belt over the Plan period. This relates to sites identified in the Strategic Housing Land Availability Assessment. The majority of these will be located in Longfield, with a third as affordable housing. This will support the role of Longfield in providing service facilities for a wider catchment area. Appendix 14 analyses previous planning permissions and estimates a potential windfall supply of 180 units over 20 years, based on past trends. Potential capacity from windfall sites would be in addition to the 200 homes on identified sites. It is not necessary to meet housing requirements and it is assumed that windfall permissions would be policy compliant.
- 3.2.9 Evidence presented at the former Mabledon Hospital site Inquiry (2005), which was accepted by the Inspector, is informative in assessing the amount of additional development necessary to impact on the sustainability of a village. In this case, a village extension of 200 dwellings was proposed. It was concluded that the extension:
- would be too small in itself, to generate a sufficient mix of uses, to create an independent sustainable community;
 - would be unlikely to encourage or enable a more regular bus service or extend the hours of operation or increase the number of destinations;
 - would need to be of a larger scale to enable support for village services, which in turn would cause great harm to the openness to the Green Belt and would result in encroachment into the countryside.
- 3.2.10 This assessment indicates that modest extensions, 200 homes and below, would not be sufficient to generate demand for new facilities and the support for existing facilities may be limited.

3.3 Affordable Housing

- 3.3.1 Section 2 identified the relatively low average level of social-rented housing in the Green Belt. It also identified a much lower level of housing need than in the urban area, particularly for the highest category of housing need. This is possibly a result of the higher income levels and lower levels of deprivation as compared to the urban area.
- 3.3.2 Nonetheless, Table 5 shows that there were 212 households living in the Green Belt in high and moderate categories of need. Further need will arise from newly forming households. Based on past trends from the Council waiting list records, it is estimated that over a 3 year period, 135 social-rented homes would become available as relets. Supply from relets will not be sufficient to address needs.
- 3.3.3 There are a number of options for meeting the shortfall in affordable housing:
1. Additional new supply achieved as part of private housing development through the use of planning obligations: this has the advantage of integration with private housing and, if in accordance with policy, will be predominantly within village boundaries. It will not, therefore encroach on the openness of the Green Belt but will assist in the creation and maintenance of sustainable rural

communities. However, based on past trends (see Appendix 14) a threshold of 15 units is unlikely to yield any significant number of homes, due to the small size of infill sites. A lower threshold would need to be applied to achieve any affordable housing, as allowed for by PPS3 Housing (2010). The Dartford Affordable Housing Viability Study concludes that a threshold of 2 units is likely to be viable in the rural area.

2. Given the proximity of the urban area, the strong connections between the Green Belt and urban area for work and other purposes, as well as the significant supply of affordable housing coming forward, take up of affordable housing in the urban part of the Borough is likely to be a practical option for many Green Belt residents seeking affordable housing. There may be limited exceptions where strong ties with the local village or care arrangements involving family and friends make this impractical.
3. Affordable housing provided on rural exception sites, that is, small sites that would not normally be used for housing, as per advice in PPS3 Housing (2010). This could be explored further, although the potential within existing village boundaries is likely to be very limited. Exceptions sites in the Green Belt may encroach on the openness of the Green Belt and risk coalescence, with the nature of village distribution in Dartford suggesting this is probable in Dartford. Given the particular circumstances of Dartford, an exceptions policy to override Green Belt constraints would need to demonstrate that there are no preferable alternatives.

3.3.5 With the relatively limited need for affordable housing in Dartford's Green Belt, it is considered that this can be met through a combination of relets of existing social-rented stock, a small additional supply coming forward as part of private development sites within village boundaries, as well as take-up of the significant projected affordable housing supply in Dartford's urban area.

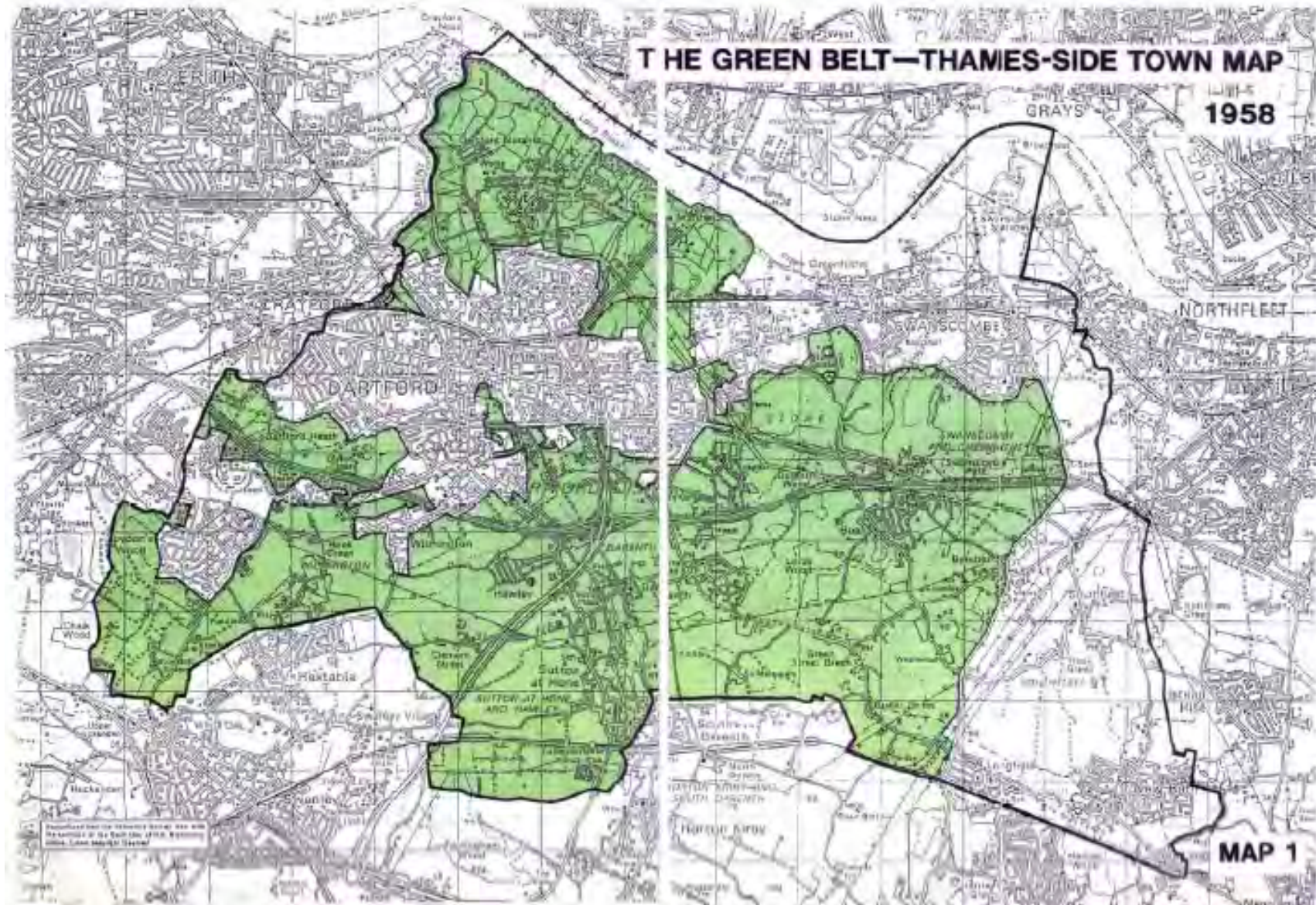
3.4 Overview

Having considered the evidence, this technical paper concludes that:

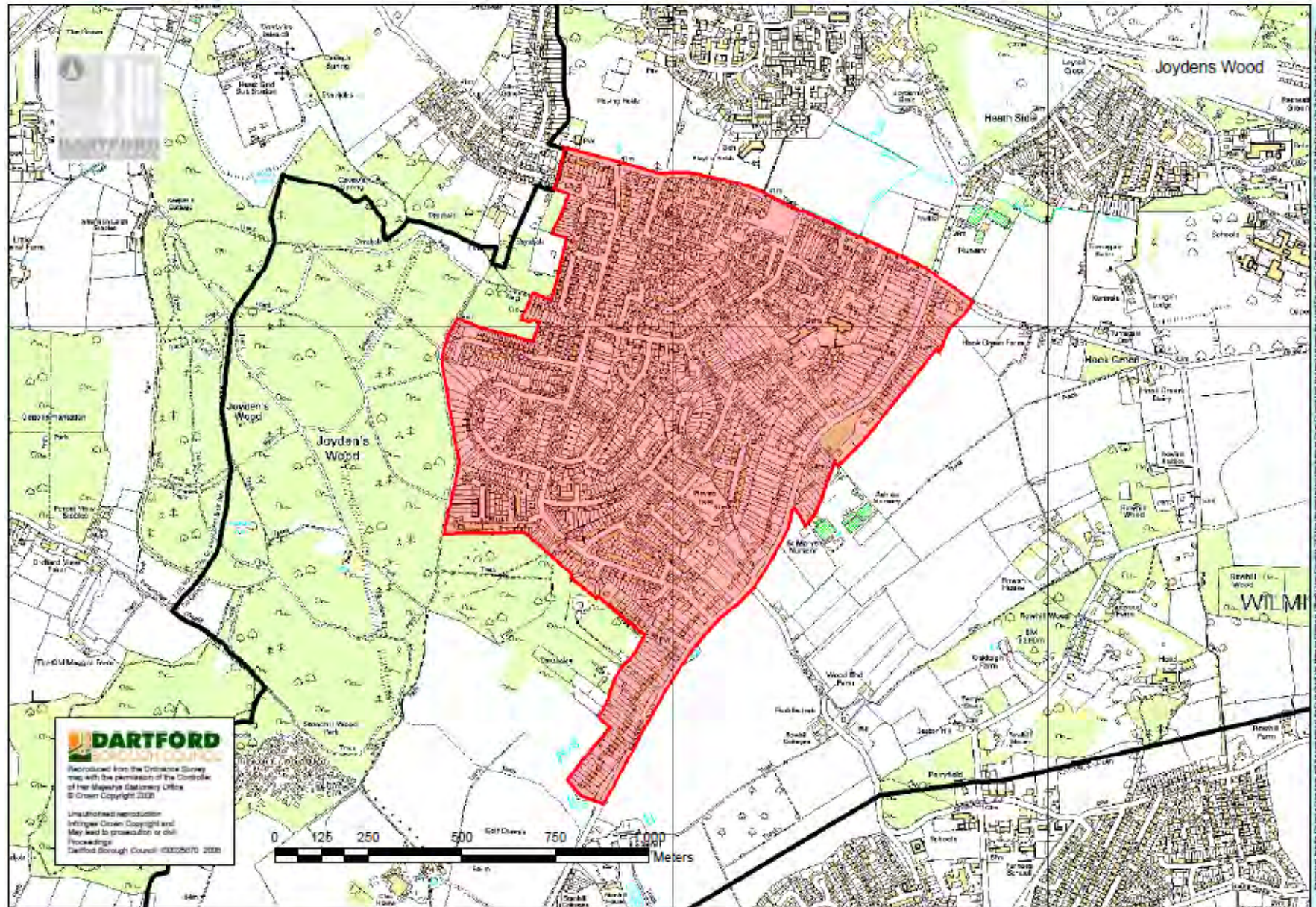
- **After allowing for the release of Eastern Quarry and St Clements Valley from the Green Belt, there is strong justification for protection of the remaining Green Belt.**
- **No further alterations to Green Belt and village boundaries are required.**
- **Development should be limited to infill within villages. Village extensions are unlikely to make a significant impact on the sustainability of villages.**
- **Affordable housing for Green Belt residents can be met in a variety of ways. A rural exceptions policy is unlikely to be necessary.**

Appendices

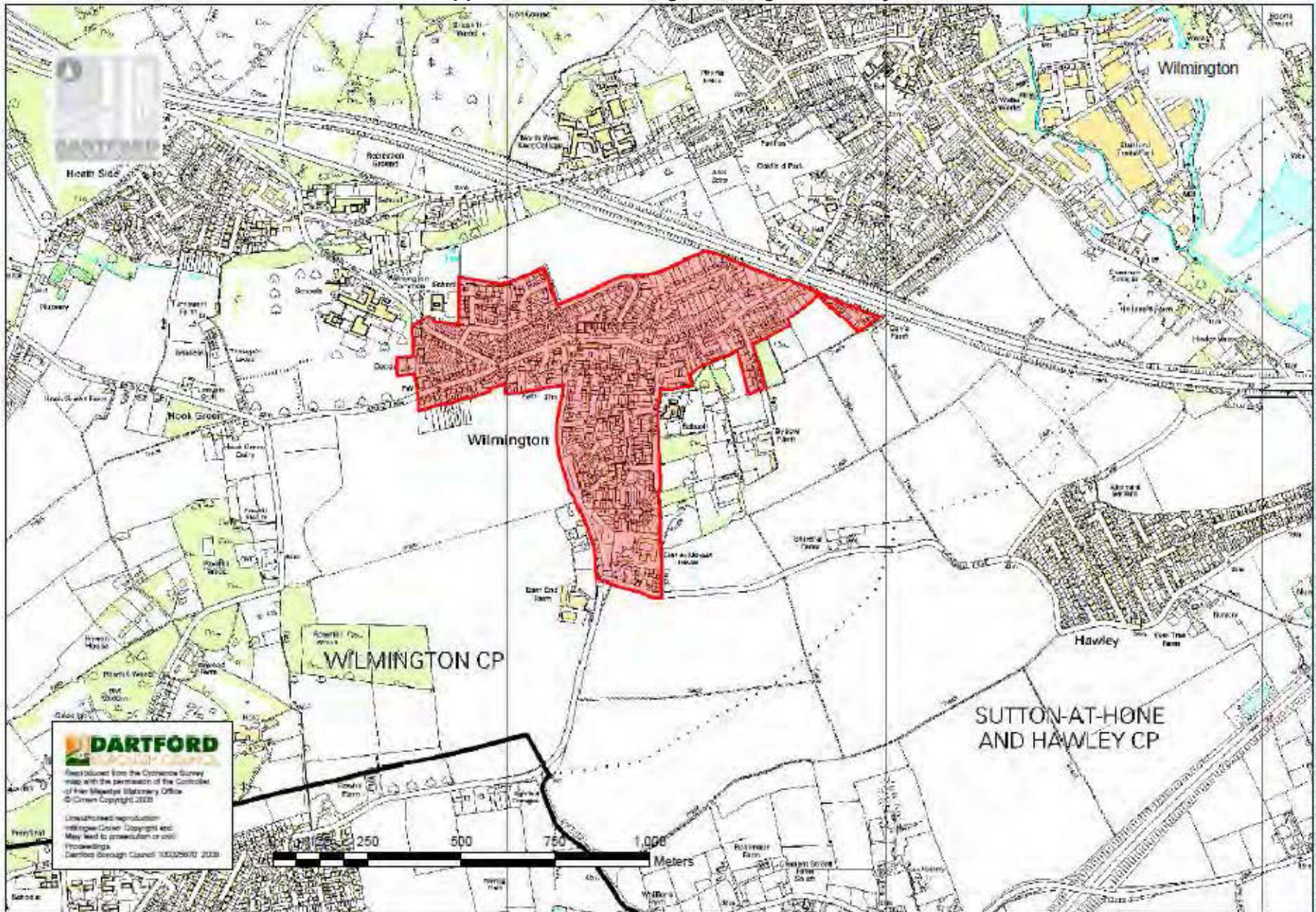
Appendix 1 Green Belt Boundary in 1958



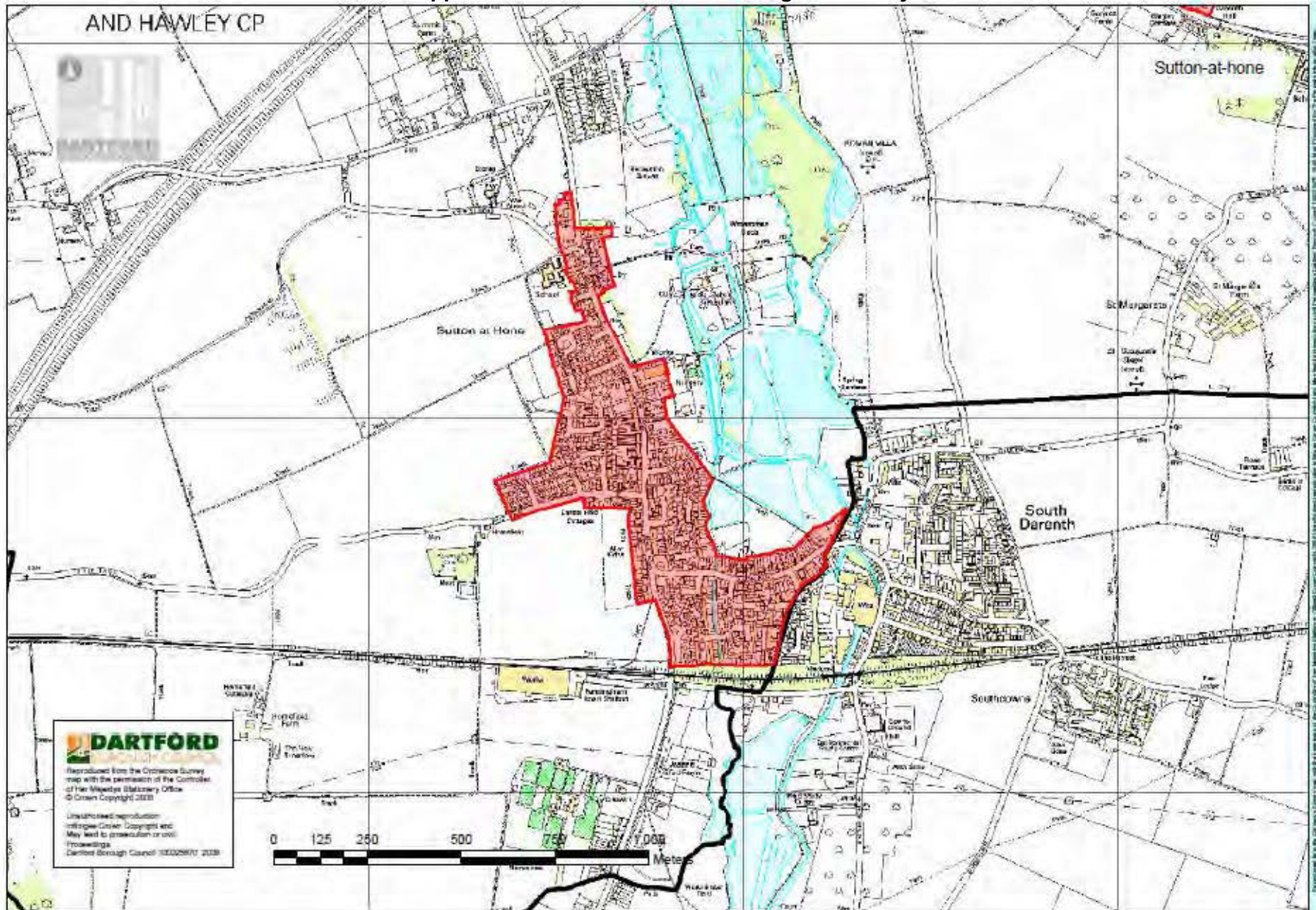
Appendix 2 Joydens Wood Village Boundary



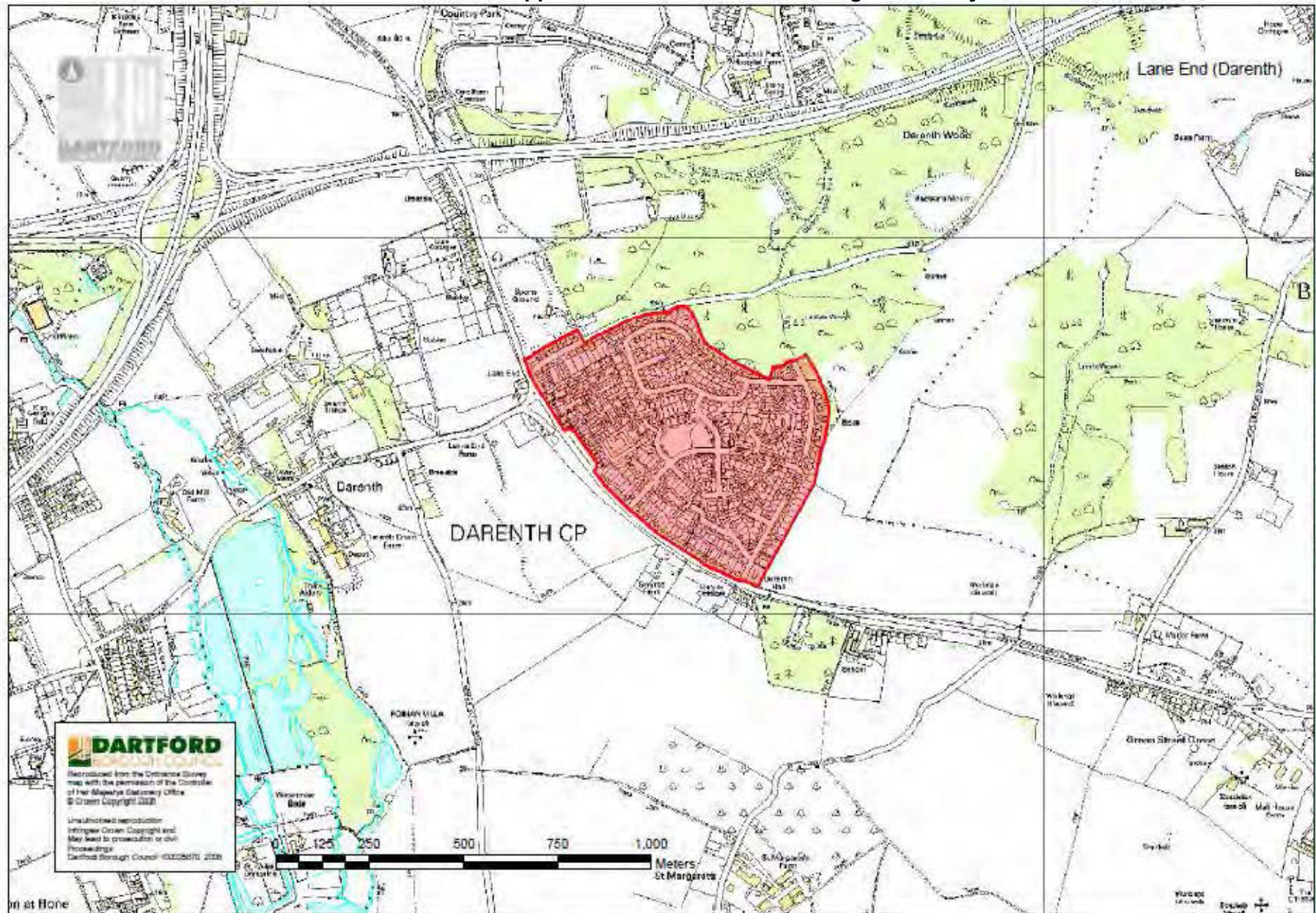
Appendix 3 Wilmington Village Boundary



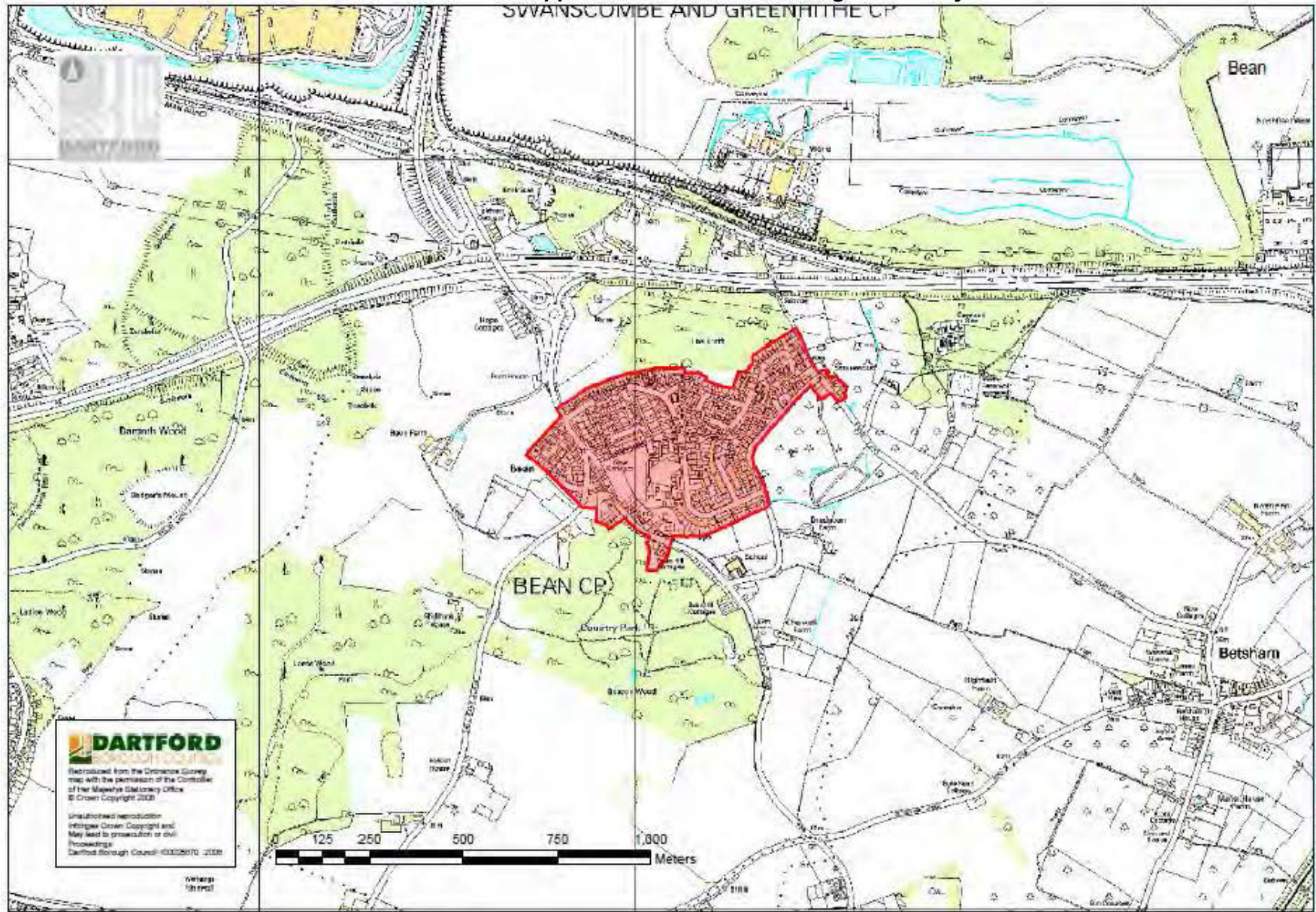
Appendix 5 Sutton-at-Hone Village Boundary



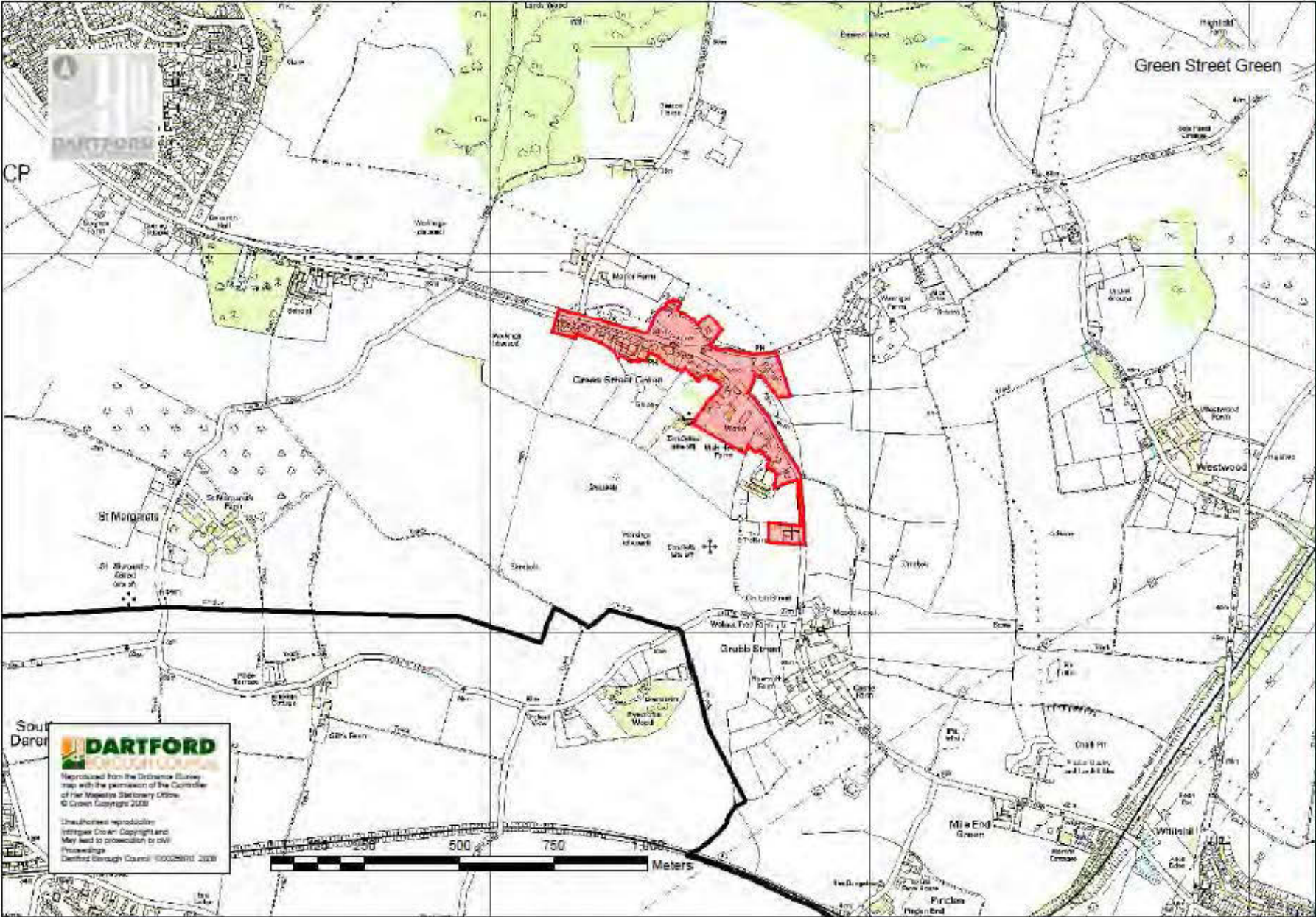
Appendix 6 Lane End Village Boundary



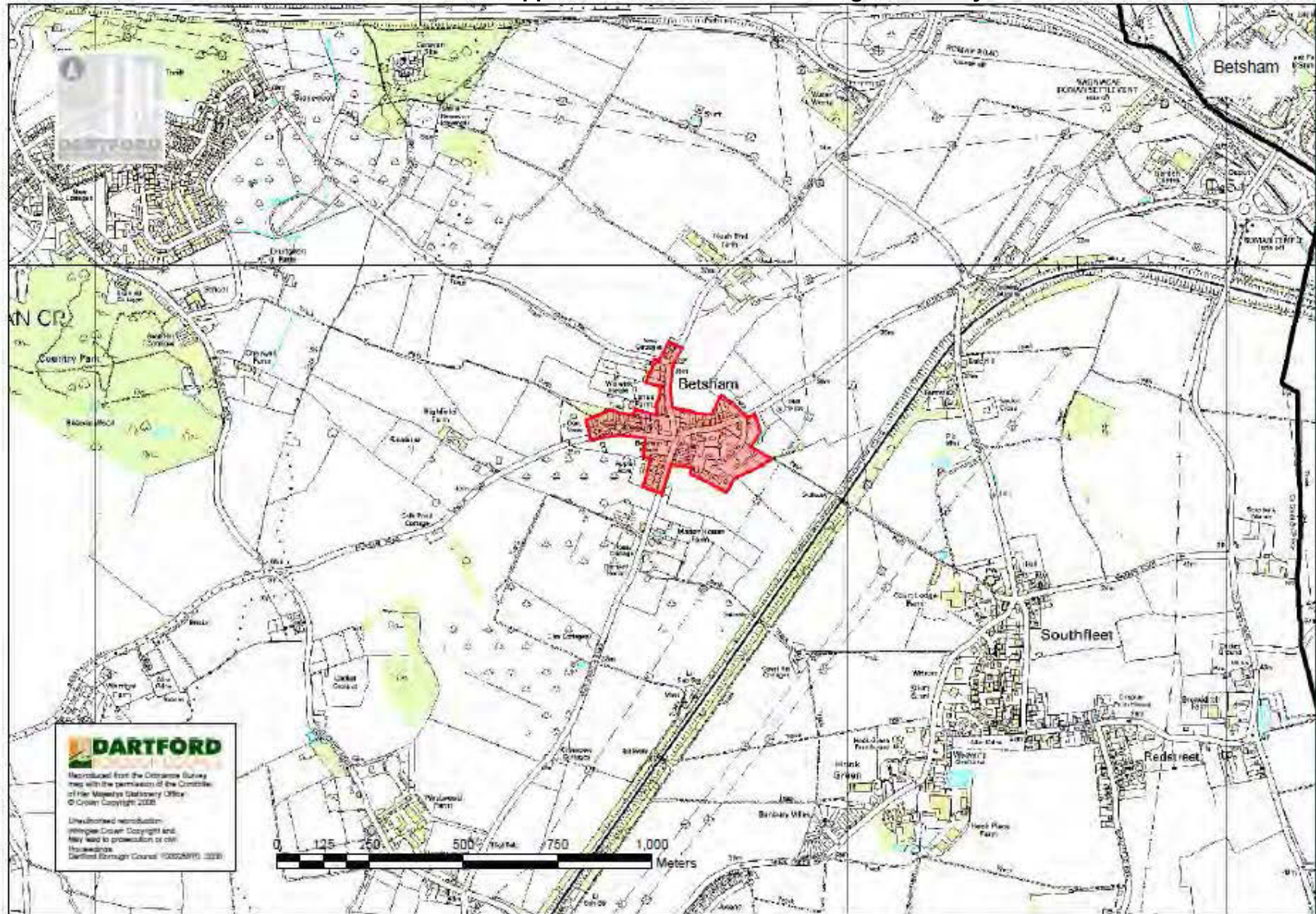
Appendix 7 Bean Village Boundary



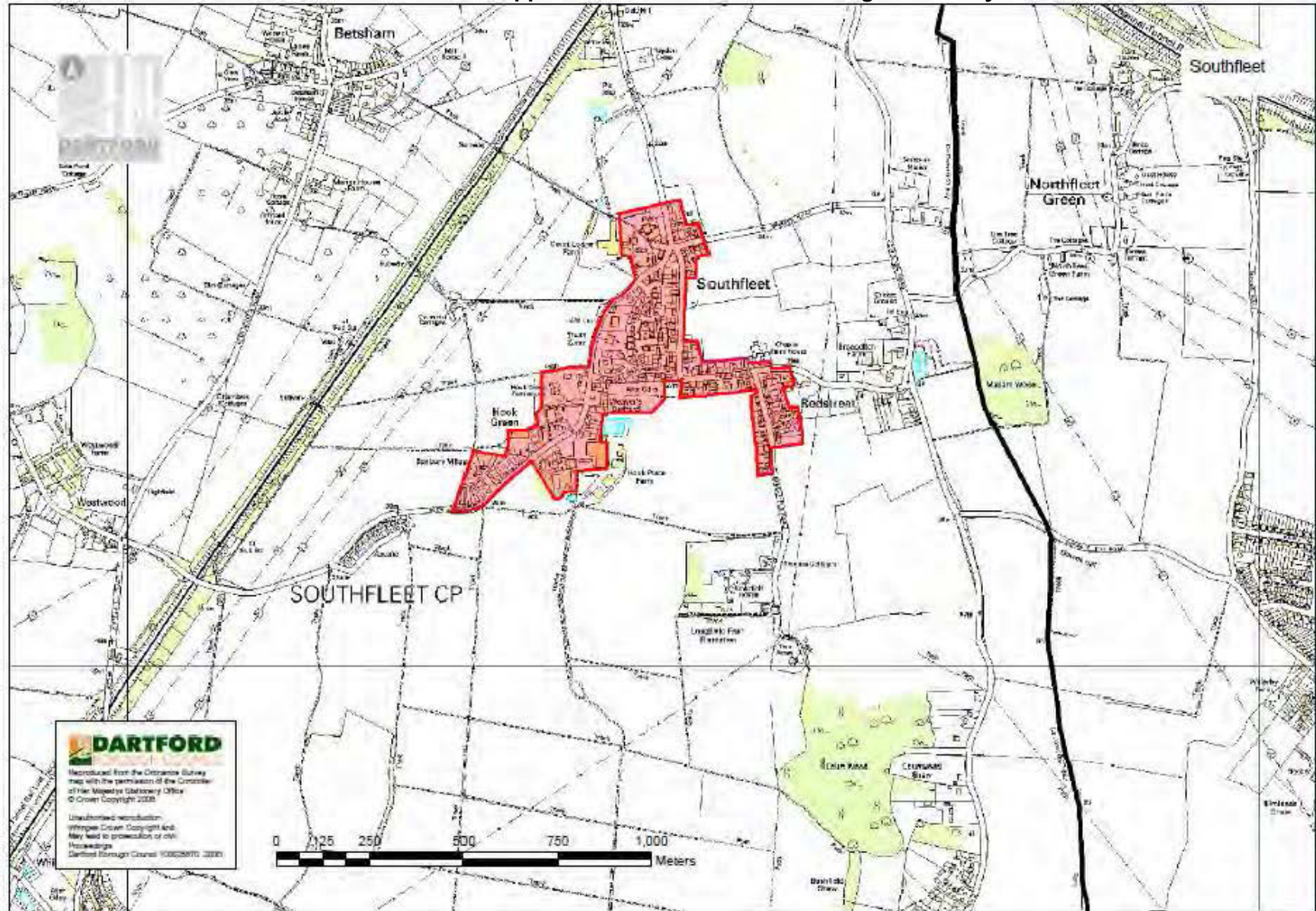
Appendix 8 Green Street Green Village Boundary



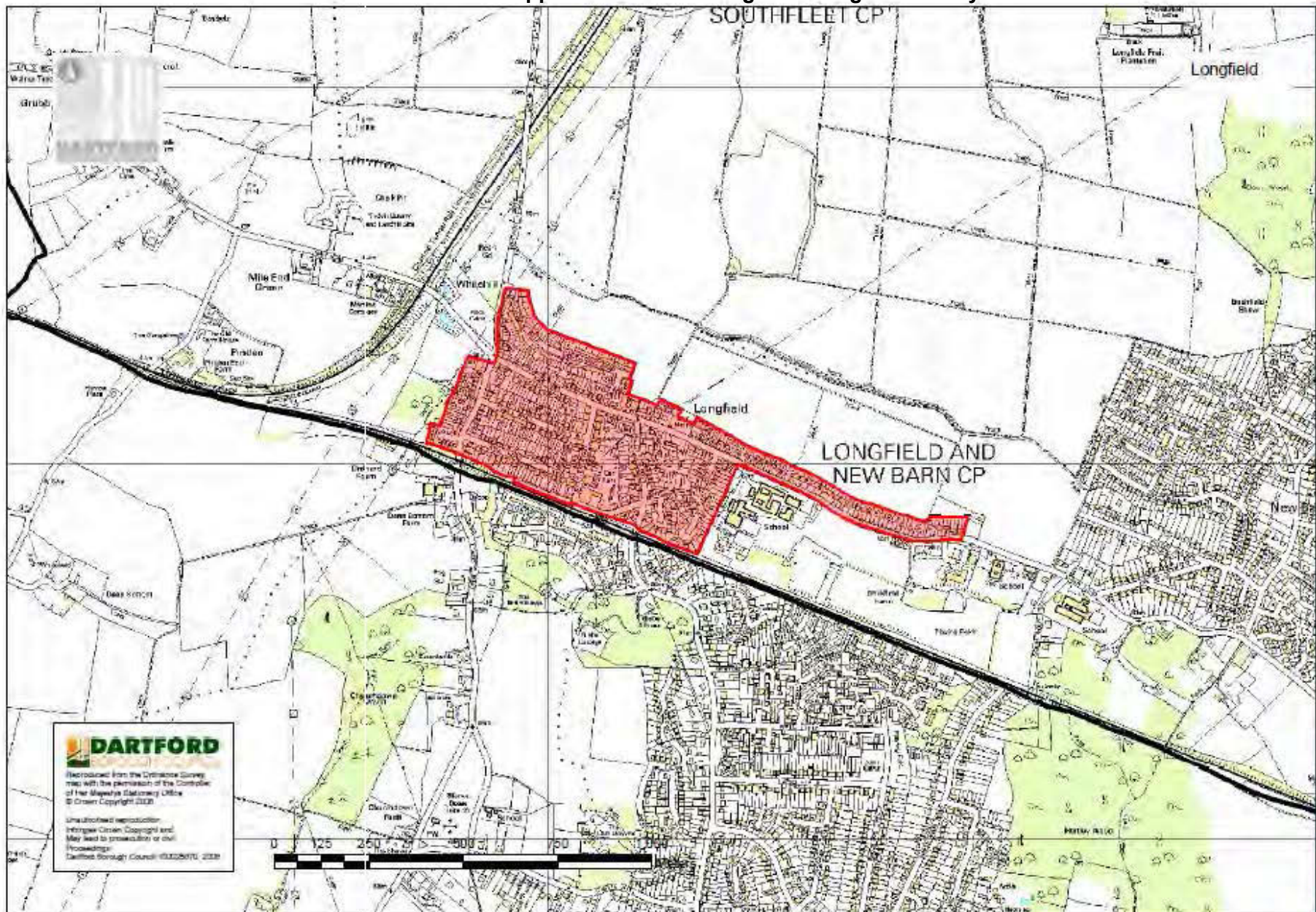
Appendix 9 Betsham Village Boundary



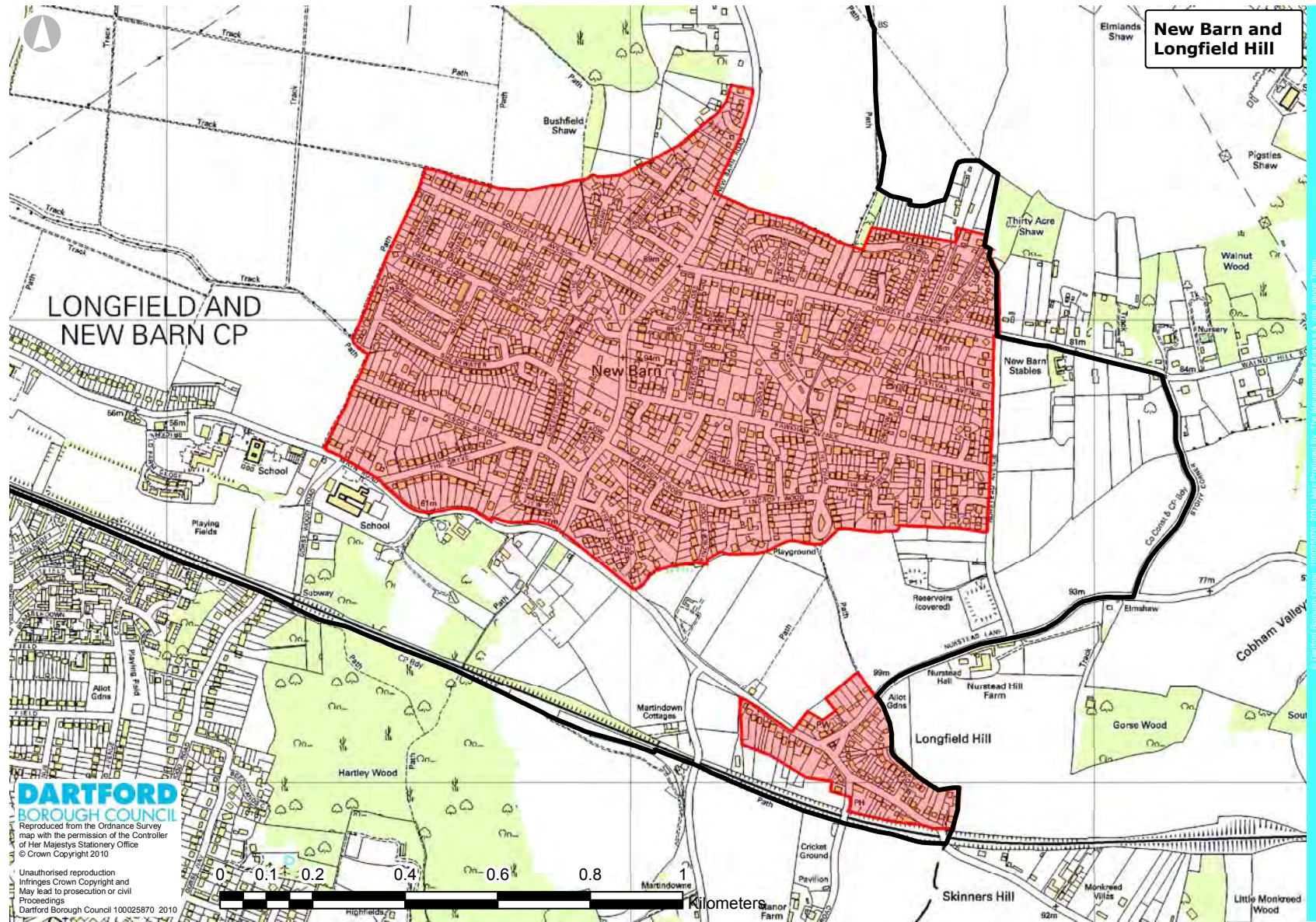
Appendix 10 Southfleet Village Boundary



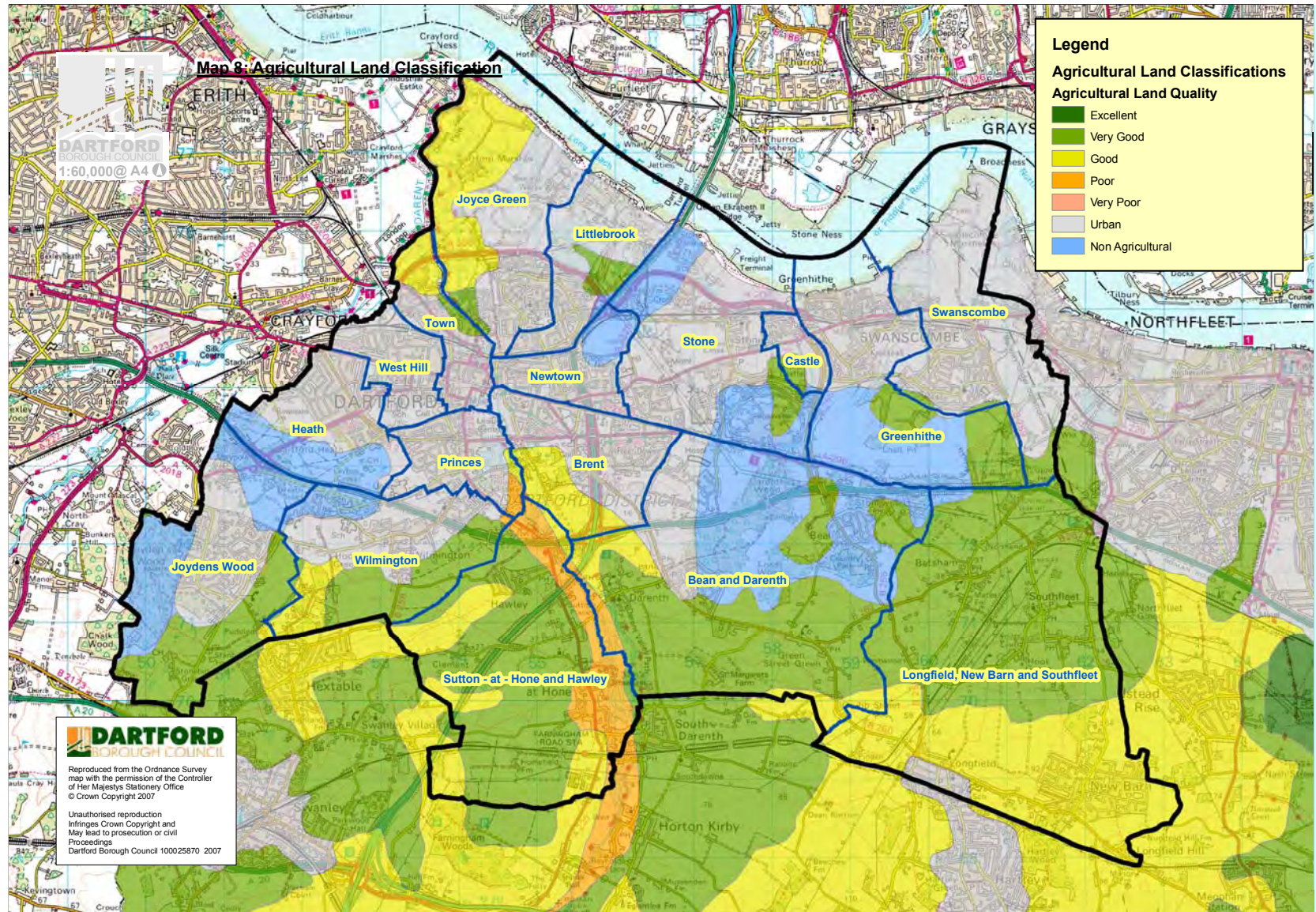
Appendix 11 Longfield Village Boundary



Appendix 12 New Barn and Longfield Hill Village Boundaries



Appendix 13 Agricultural Land



Appendix 14 History of Planning Applications in the Green Belt

Table 1 *Planning Applications within the Green Belt south of the A2 from April 2002 to March 2008*

Type	Permitted		Refused		Total
	Number	%	Number	%	Number
Commercial and retail related	10	91%	1	9%	11
Business and industry related	12	100%		0%	12
Residential (excluding extensions and other minor domestic applications such as window, fence, amenity land, or access)	42	54%	36	46%	78
Community related development	13	93%	1	7%	14
mixed use	1	50%	1	50%	2
Extension (including building extensions, loft conversion, garage and porch – permanent structures)	794	90%	93	10%	887
Others (including minor applications such as window, fence, balcony, greenhouse, amenity land or access; also including change of previous planning conditions)	134	85%	23	15%	157
TOTAL	1006	87%	155	13%	1161

Table 2 *Planning applications for residential development within the Green Belt south of the A2 (April 2002 – March 2008)*

C3 development		Planning applications					Number of dwellings permitted		
		Permitted		Refused		total	Created	Lost	Net
		number	%	number	%	number			Gain
New infill residential	1 unit	12	33%	24	67%	36	12		12
	>= 2 units	6	75%	3	38%	8	19		19
	all	18	40%	27	60%	45	31		31
Replacement		15	65%	8	35%	23	30	15	15
Conversion (change of use)		5	100%	0	0%	5	4	1	3
Conversion & Extension		4	80%	1	20%	5	7	3	4
mixed use incl. residential		1	50%	1	50%	2	2		2
Grand total		43	54%	37	46%	80	74	19	55

- New dwellings were permitted largely as infill development or replacement and intensification applications (46 units, 84% of total net dwelling number).
 - Nearly half of the new units were permitted at four sites: the site at Joydens Wood (Land Rear of 49-59 Tile Kiln Lane) created 8 additional dwellings (2004); redevelopment of Sutton Court Farm at Sutton-At-Hone led to additional 9 houses

(2006); demolition and redevelopment of the Betsham Service Station site yielded additional 4 houses (2002). 3 flats were permitted at 20/20A Old Bexley Lane in Maypole (2003).

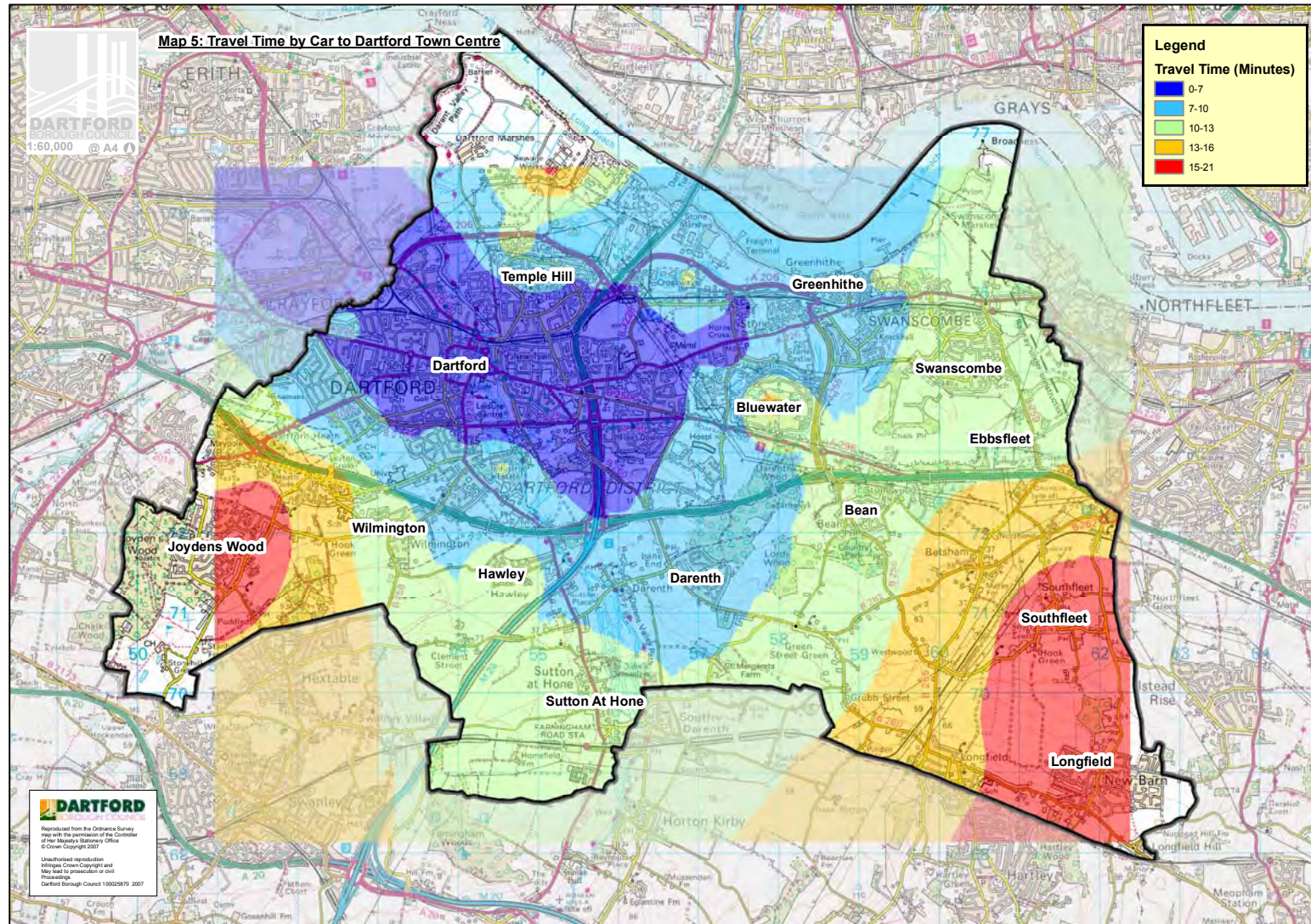
- There were 4 smaller infill developments (2 in Wilmington, 1 in Longfield, 1 in Joydens Wood) of 2 dwellings each (in 2002, 2007 and 2008).
 - The rest of the permitted new dwellings were either through single infill or intensification by replacing one house with two.
- There has been a refusal rate of 60% for applications for new residential development. Many of these were refused due to over development and adverse impact on the local character. Other reasons included failing to satisfy parking requirements, issues of access and highways safety, or impact on residential amenity. Two applications were refused partly because of failing to make a 50% affordable housing contribution.

Table 3 *Consented Residential Development on Windfall Sites*

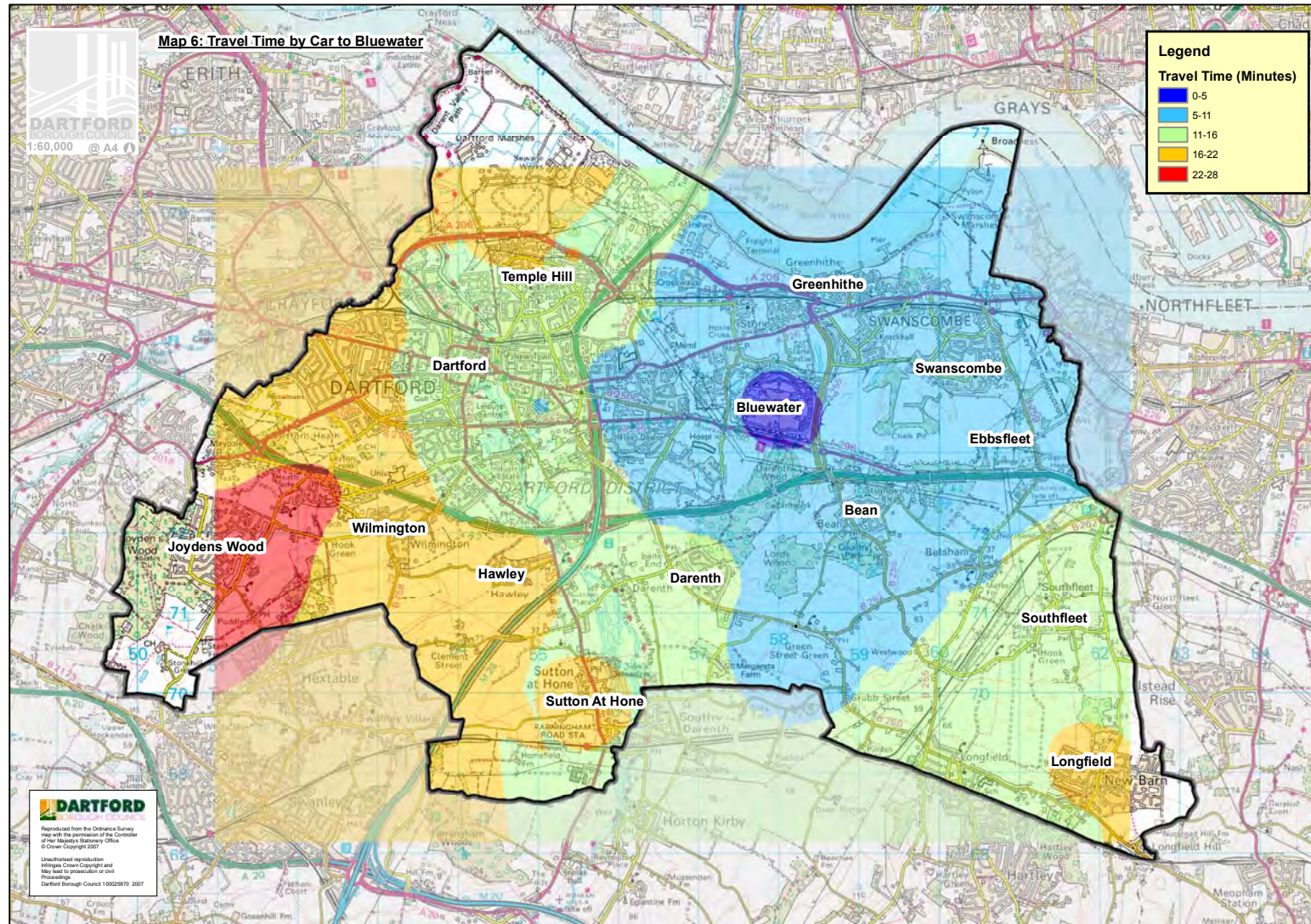
Year	Infill	Replacement	COU	Conv & Ext	Mixed use	Number of windfall dwellings
2002						
Q2,Q3,Q4	4	4	2	0	2	12
2003	1	0	2	0	0	3
2004	13	0	-1	0	0	12
2005	2	0	0	0	0	2
2006	4	9	0	3	0	16
2007	3	1	0	1	0	5
2008 Q1	4	1	0	0	0	5
Total	31	15	3	4	2	55
annual average	4	2	0	1	0	9

- Based on historic trends of an average of 9 dwellings per annum, windfalls on small sites within Green Belt settlement boundaries could provide a supply of 180 new dwellings over the period of 2006-2026. This estimate may need to be treated with caution, as the number of dwellings fluctuates from year to year (see Table 3).
- This is in addition to a projected supply of 200 dwellings based on sites identified in Dartford's Strategic Housing Land Availability Assessment.

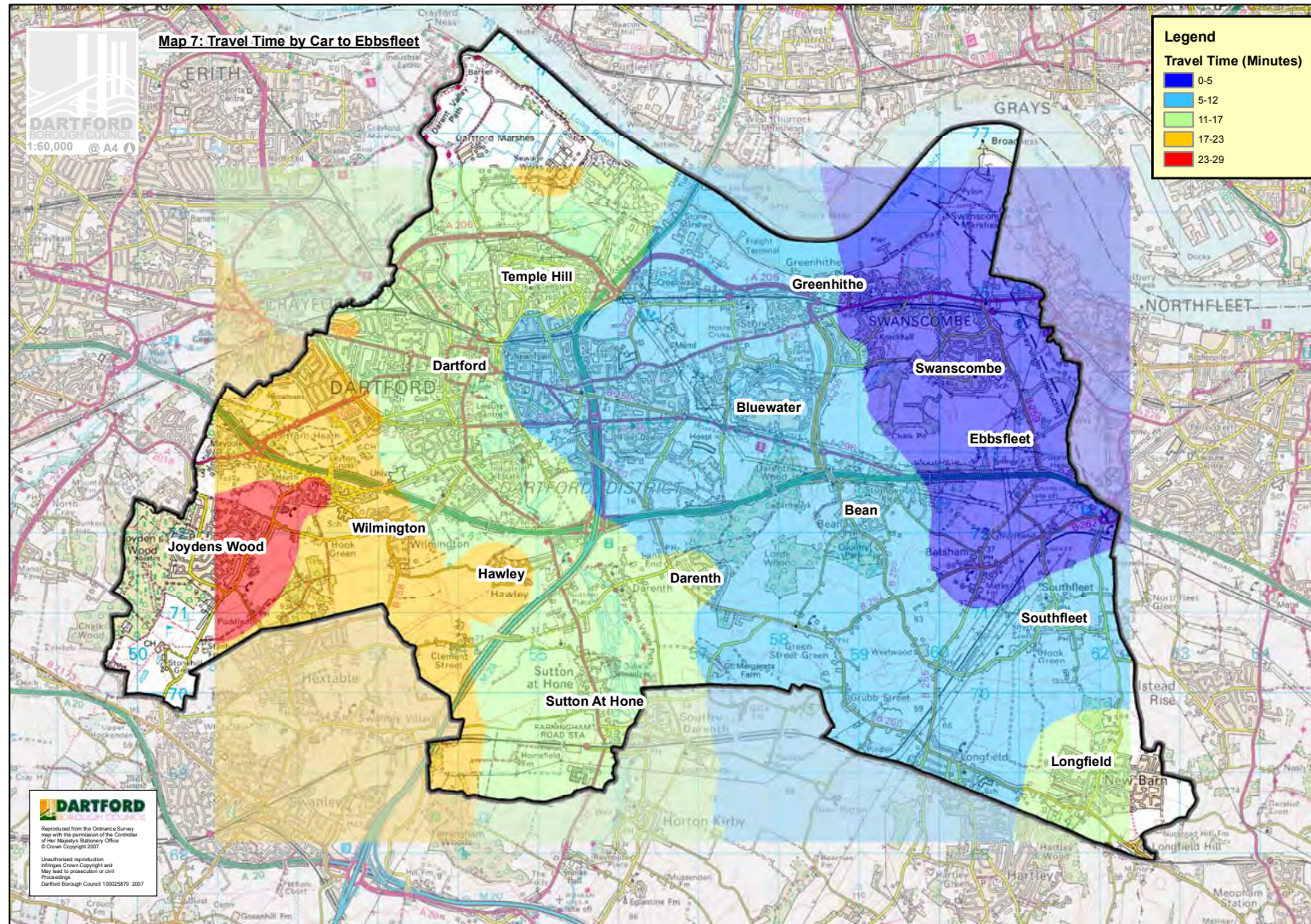
Appendix 15 Travel Time by Car to Dartford Town Centre



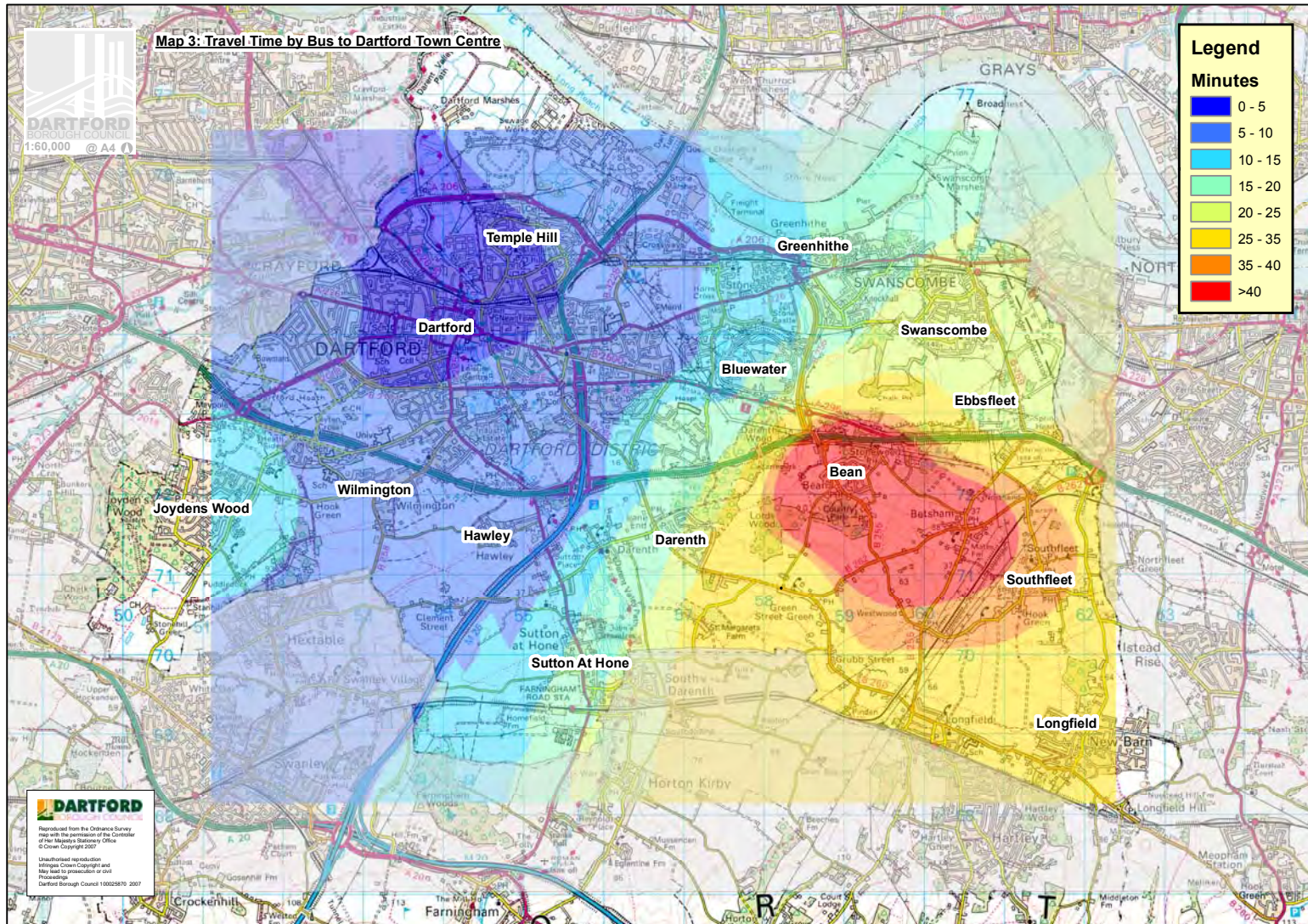
Appendix 16 Travel Time by Car to Bluewater



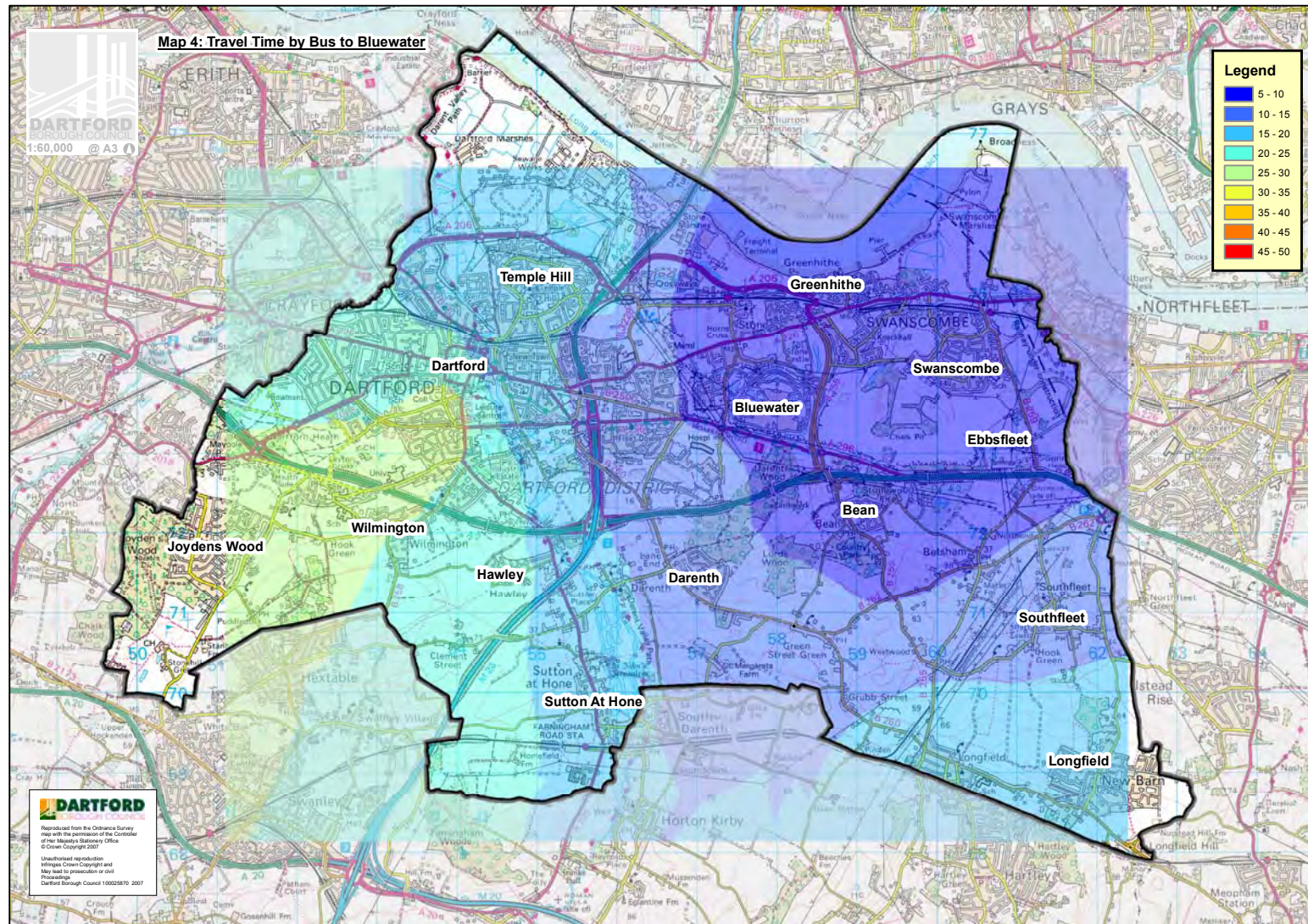
Appendix 17 Travel Time by Car to Ebbsfleet



Appendix 18 Travel Time by Bus to Dartford Town Centre



Appendix 19 Travel Time by Bus to Bluewater



Appendix 20 Village Population and Facilities

