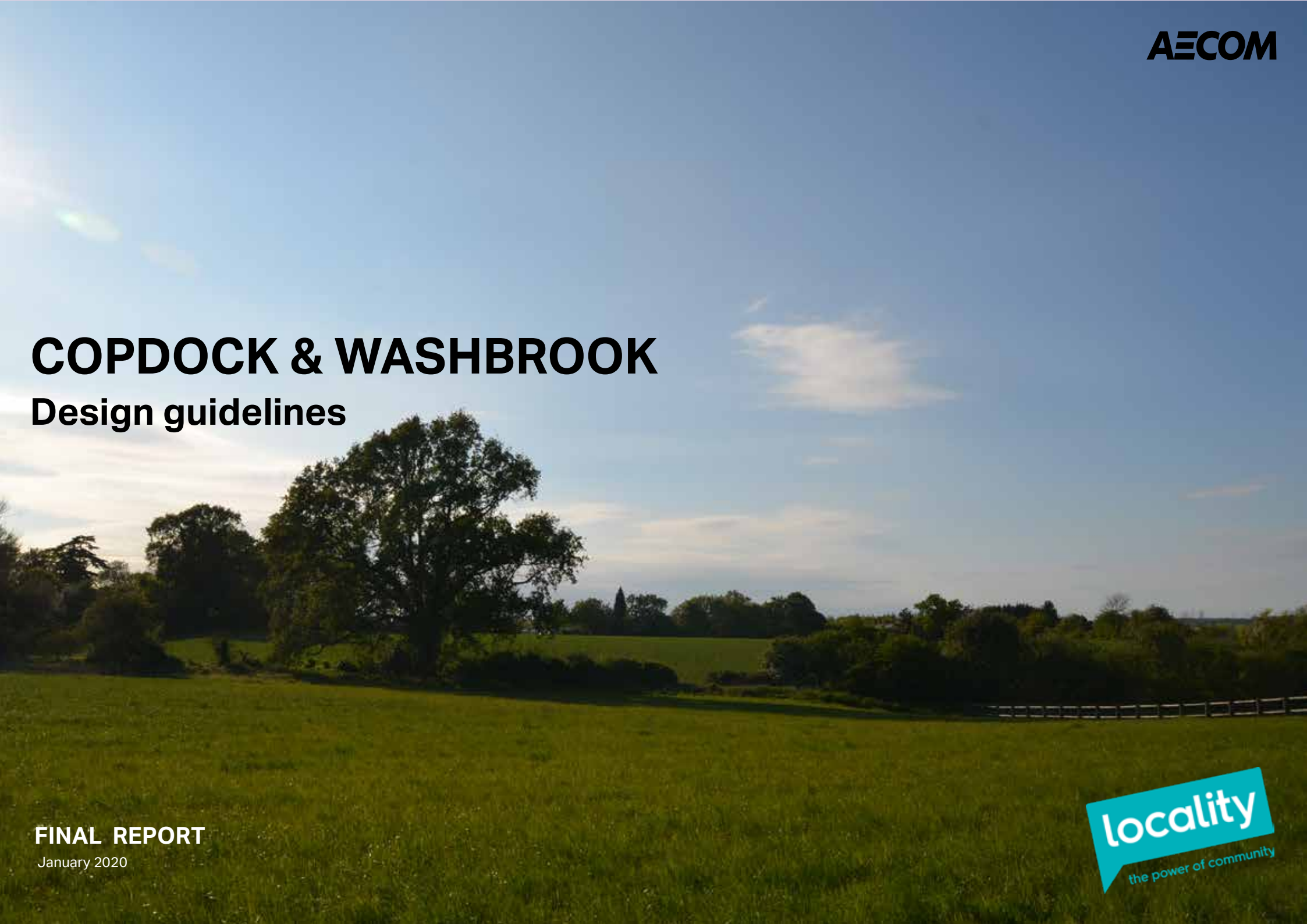


COPDOCK & WASHBROOK

Design guidelines

FINAL REPORT

January 2020

Limitations

This document has been prepared by AECOM Limited ("AECOM") in accordance with its contract with Locality (the "Client") and in accordance with generally accepted consultancy principles, the budget for fees and the terms of reference agreed between AECOM and the Client. Any information provided by third parties and referred to herein has not been checked or verified by AECOM, unless otherwise expressly stated in the document. AECOM shall have no liability to any third party that makes use of or relies upon this document.

Quality information

Project role	Name	Position	Action summary	Signature	Date
Qualifying body	Copdock & Washbrook Neighbourhood Planning Group	Copdock & Washbrook Neighbourhood Planning Group	Review		10.12.2019
Director / QA	Ben Castell	Technical Director	Review		10.12.2019
Researcher	Niltay Satchell	Associate Director	Research, site visit, drawings		10.12.2019
	Stela Kontogianni	Urban Designer			
Project Coordinator	Mary Kucharska	Project Coordinator	Review		10.12.2019

Contents

NB Chapter 4 no longer applies to the 2023 Neighbourhood Plan as the site it refers to is not allocated in the new Neighbourhood Plan

All references to land allocated between Back Lane and London Road should be ignored as the allocation no longer has any status in the emerging Babergh and Mid Suffolk Joint Local Plan (as at March 2023)

Introduction

01

1. Introduction

1.1. Introduction

Through the Ministry for Housing, Communities and Local Government's Neighbourhood Planning Programme led by Locality, AECOM has been commissioned to provide design support to Copdock and Washbrook Parish Council. The support consists of design guidelines based on the character and special qualities of the parish, with particular reference to new housing, as well as masterplanning assistance for a major development site.

The objectives of this report are twofold, and were agreed with Copdock and Washbrook Parish Council at the outset of the project:

Design Guidance

This report provides general design guidance that will influence the form of development in the Neighbourhood Plan Area by advising on how it can reflect local character. The guidance is based upon observations of the character of the area, as analysed in Chapter 2.

Masterplanning Framework

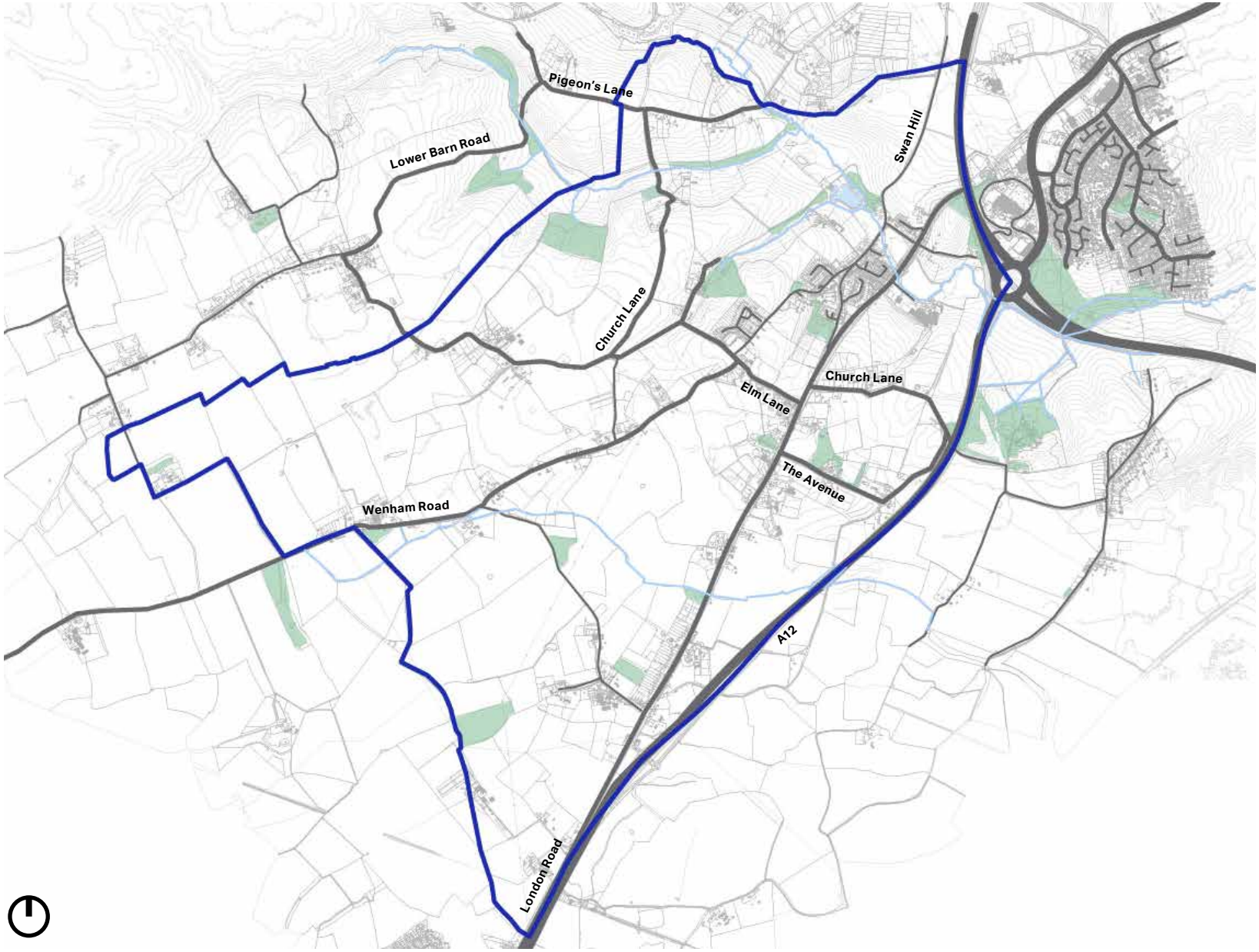
The report outlines masterplanning principles and high level concept plans for large site that is being allocated in the emerging Babergh and Mid Suffolk Joint Local Plan. It is crucial to both existing and future residents that any new development is planned and designed in a way that is sympathetic towards the existing built environment, integrates well with the local major highway and footways, and merits the widest possible community support.

1.2. Process

The following steps were undertaken to produce this report:

- Initial meeting and site visit;
- Desktop research and policy review;
- Preparation of draft design guidance;
- Site analysis and site concept plan;
- Preparation of a draft report, subsequently revised in response to feedback provided by the Copdock and Washbrook Parish Council; and
- Submission of a final report.

Aerial photo of Copdock & Washbrook Neighbourhood Plan Area



KEY

Copdock & Washbrook Parish Boundary and Neighbourhood Plan Area

Road network

Water Feature

Green Feature

Copdock & Washbrook Neighbourhood Plan Area

1.3. The importance of good design

As the National Planning Policy Framework (paragraph 124) notes, 'good design is a key aspect of sustainable development, creates better places in which to live and work and helps make development acceptable to communities'.

Research such as for the Government's Commission for Architecture and the Built Environment, now part of the Design Council[1]) has shown that good design of buildings and places can:

- Improve health and well-being;
- Increase civic pride and cultural activity;
- Reduce crime and anti-social behaviour; and
- Reduce pollution.

Rural character

Footpaths around the village

1. See, for example, The Value of Good Design at: http:/www.designcouncil.org.uk/sites/default/files/asset/document/the-value-of-good-design.pdf

Coloured façades

Good quality boundary treatment

1.4. The area of study

Copdock and Washbrook is a civil parish in Suffolk's Babergh district, just south of Ipswich. The population was measured at 1,114 in the 2011 Census. The Copdock and Washbrook Neighbourhood Plan Area covers the same area as the Parish. It borders the A14 to the north east, the Copdock Interchange, and the A12 to the south east. Neighbourhood settlements include Capel St Mary to the south west and Chattisham to the north west.

The main settlements within the Parish are Washbrook, positioned on the valley sides of Belstead Brook, and Copdock, which holds an elevated position on the plateau. Other smaller hamlets are Mace Green, Washbrook Street and Folly Lane.

The emerging Babergh and Mid Suffolk Joint Local Plan allocates two sites for Copdock and Washbrook's contribution towards the planned growth. This document provides a site analysis and an illustrative masterplan for the Land South East of Back Lane, LA008. The site is located between the main settlements of Copdock and Washbrook and is set to deliver 226 homes. The second site, LA009, is now subject to an outline planning application and it will not be considered further in this report.

Site Ref	Site Description	Area
LA008	Land South East of Back Lane, Copdock and Washbrook	13 ha 226 dwellings

Local Plan site allocation LA008

Local character analysis

02

2. Local character analysis

This section outlines the spatial and contextual characteristics of Copdock and Washbrook. It analyses the pattern and layout of buildings, hierarchy of movement, topography, building heights, and parking as observed during the site visit. The features and characteristics outlined in this section are used as the basis for the design guidance.

2.1. Settlement pattern and urban form

Copdock and Washbrook are evolved from two separate settlements. They both started evolving along the Roman Road (now London Road) as a small settlement with few houses. Washbrook grew towards Back Lane whereas Copdock continued growing with a linear precense along Elm Lane. Both of the settlements developed and established in isolation with St Peter's Copdock Church and St Mary's Washbrook.

The settlement pattern of these villages was significantly influenced by transport routes. The former A12 road that runs through Washbrook and connects to Swan Hill follows the route of the Roman Road. In the Medieval Period it was an important route connecting Ipswich to London. The settlement developed on this route and at the crossing point of the Belstead Brook.

By the end of the 19th century Washbrook experienced small infill development around the crossing and along the main thoroughfare in the village. Alterations to the road layout around the villages had an impact on their urban pattern. In the 1950s the main road was diverted to the south to form the A12 bypass. Around 1960s there was a further growth to the north-west of Back Lane with cul-de-sac developments. In the 1970s there was further cul-de-sac development between Back Lane and A12 bypass which created the broad layout of the villages that can be sen today. A12 bypass was altered again in the 1980s with the construction of the current A12 and A14, turning the old A12 bypass, which is London Road now, into a cul-de-sac at both ends.

KEY

- Copdock & Washbrook Parish Boundary and Neighbourhood Plan Area
- Site allocations
- Road network
- Water Features
- Green Features
- Public Rights of Way

Settlement pattern in Copdock & Washbrook Neighbourhood Plan Area

2.2. Landscape designations

Landscape Setting

Copdock and Washbrook are classified as Hinterland Villages within the Ipswich Fringe. The settlement of Washbrook is located on the southern valley slopes of the Belstead Brook, at the crossing point of the stream course at Washbrook Bridge[1]. The main stream is Belstead Brook which flows in the north of the parish through a well-defined valley. A number of tributary streams feed into the Brook: one south of Washbrook Street and the other at Amor Hall. Both form gentle undulations in the valley sides.

Designations

- Copdock and Waskbrook Parish is covered by National Character Area - (NCA 86) South Suffolk and North Essex Claylands (see Appendix 1).
- The Parish is divided predominately by two landscape types, identified by the Suffolk County Assessment: Ancient Estate Claylands and Rolling Valley Farmlands (see Appendix 1).
- The land in the north of the Parish is associated with the Belstead Brook Valley and is designated as special landscape area (SLA). These are identified the District Council Planning Policy and have been designated locally because of their landscape sensitivity and scenic quality[2].

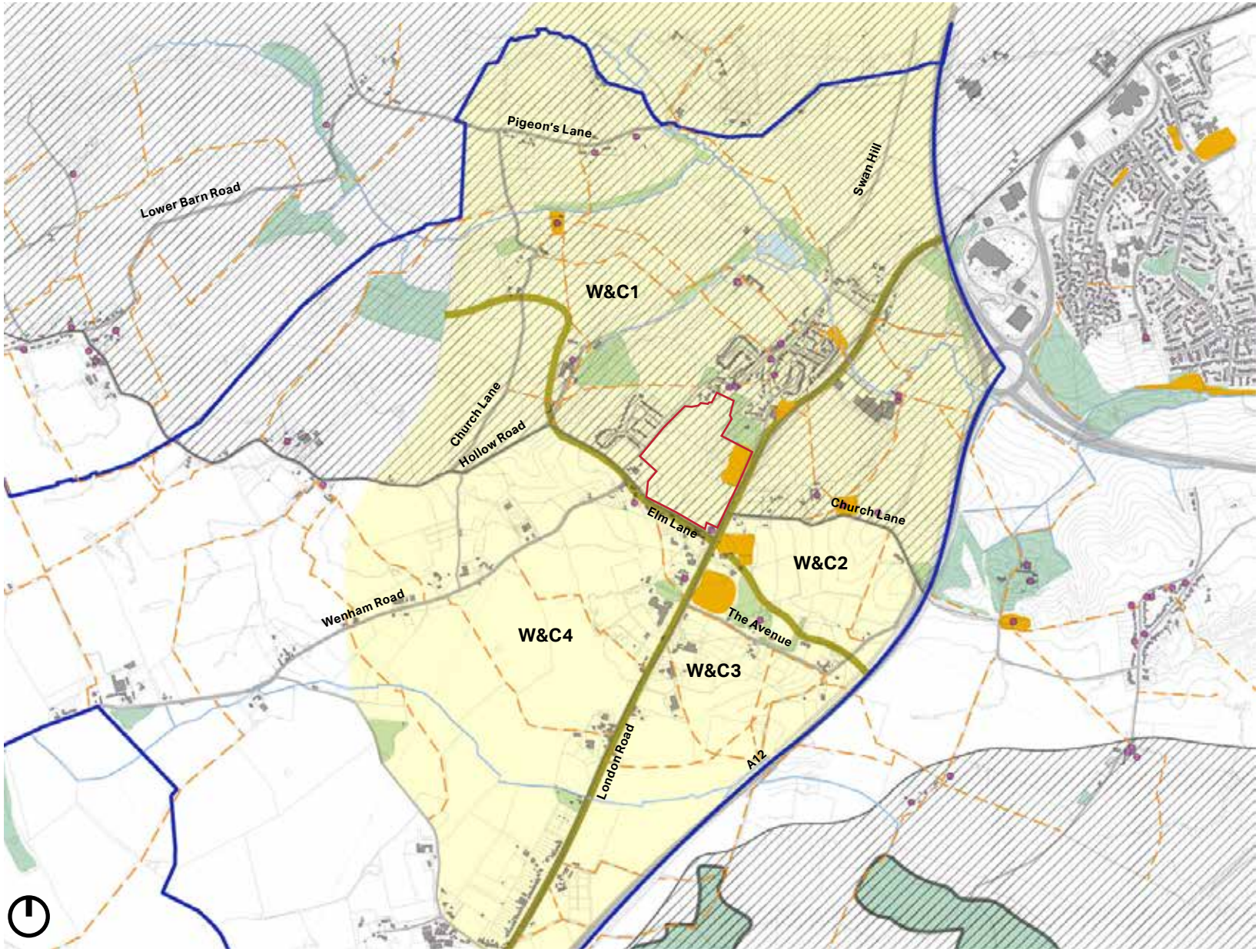
Sensitivities

The Settlement Sensitivity Assessment for Landscape Fringes of Ipswich (Volume 1, July 2018) identifies four peripheral areas to the west of Ipswich. LA008 falls into the peripheral area of W&C1.

W&C1 is a sensitive area due to its high visual quality, created by the undulating topography. The rural valley of Belstead Brook is a significant feature within the area and its value within the local heritage adds to its sensitivity. The valley also plays an important role as a physical and visual buffer from Ipswich. It is advised that the land to the north of Elm Lane is less sensitive to accommodate new development owing to the well-established existing plantation.

1. Copdock and Washbrook Neighbourhood Plan: Landscape Appraisal Draft Report, June 2019

2. The SLA which is illustrated on the opposite map was sourced in this link: https://www.suffolk.gov.uk/planning-waste-and-environment/suffolks-countryside-and-wildlife/designated-areas-of-wildlife-and-landscape/



KEY

- Copdock & Washbrook Parish Boundary and Neighbourhood Plan Area
- Site allocations
- Road network
- Water Feature
- Woodland
- Special Landscape Area (SLA)
- Ancient Woodland
- Local Green Space[1]
- Public Right of Way
- W&C peripheral areas
- Listed Buidlings

0 150 300 450 600

1. Settlement Sensitivity Assessment Volume 1:Landscape Fringes of Ipswich, July 2018

Landscape designations in Copdock and Washbrook Neighbourhood Plan Area

2.3. Key landmarks and views

The following key local landmarks, landscape features and views are identified in Copdock and Washbrook Neighbourhood Plan Landscape Appraisal are summarised here to inform the Masterplanning Framework in chapter 4.

Local landmarks:

1. Washbrook Church of St. Mary, Grade II;
2. Amor Hall, Grade II, located off The Street, Washbrook;
3. Copdock Primary School, a Victorian red brick school located on The Street, Washbrook;
4. Tithe Barn (16th century), Grade II;
5. Copdock Church of St. Peter, Grade II; and
6. Copdock Mill and Mill House, both Grade II.

Important landscape features:

- Pigeon Lane - sunken lane;
- Woods Hill - distinctive hillside and woodland;
- Hollow Road - sunken lane;
- Lime avenue associated with Felcourt; and
- Folly Lane - ancient track.

Nine important views have been identified in the Copdock and Washbrook Neighbourhood Plan Landscape Appraisal:

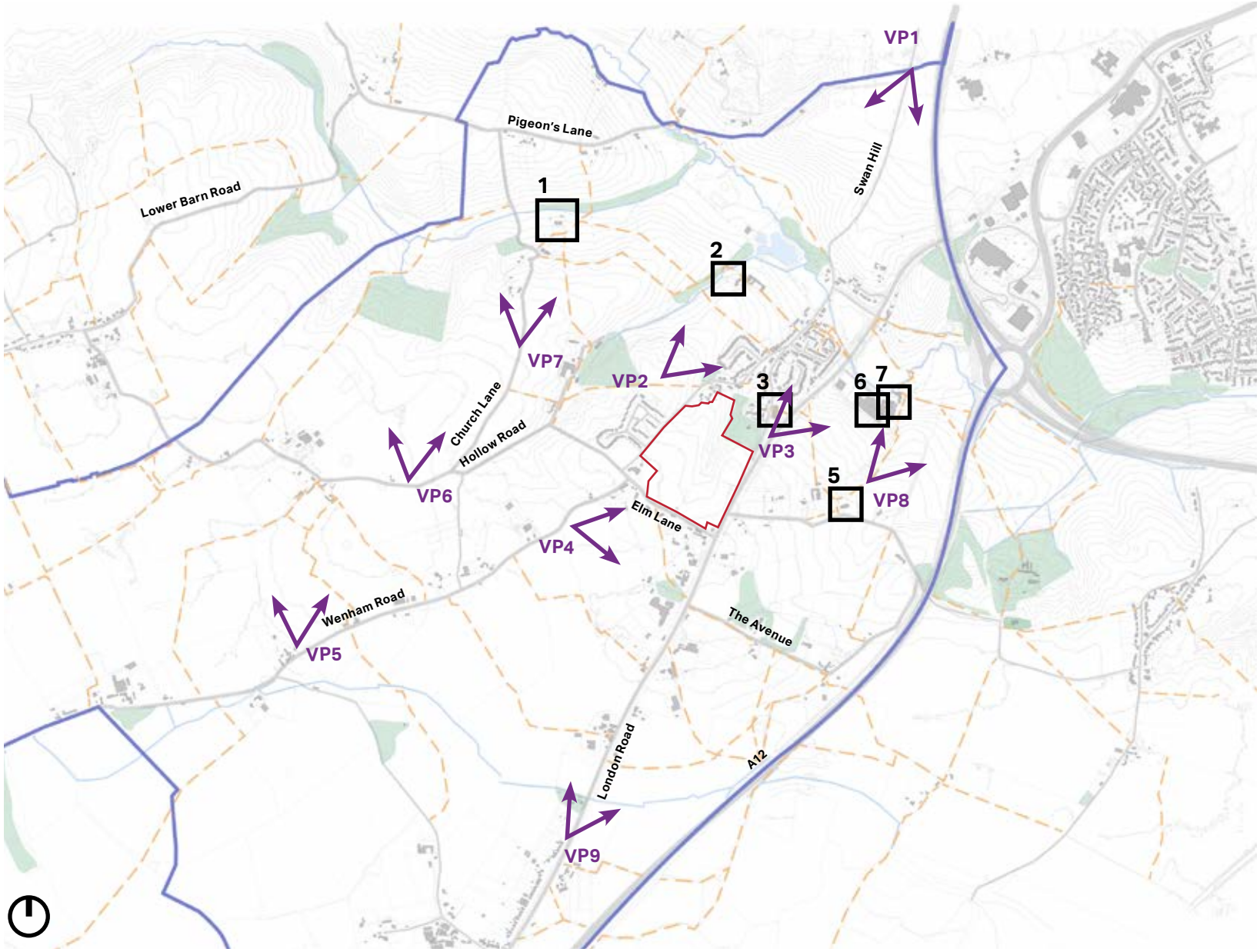
- Viewpoint 1(key view) - Views from the North looking towards Washbrook (Swan Hill);
- Viewpoint 2 - Views from the West towards Washbrook;
- Viewpoint 3 - Views from London Road looking North;
- Viewpoint 4 - Views from Wenham Road looking East;
- Viewpoint 5 - Views from Wenham Road looking North;
- Viewpoint 6 - Views from Chattisham Road looking North;
- Viewpoint 7 - Views from Church Lane looking North;
- Viewpoint 8 - Views from the East towards Ipswich; and
- Viewpoint 9- Views along London Road looking North.

Gateways and focal points

There are three arrival points into Copdock and Washbrook; these gateways are not strongly defined due to existing urban character. The junction of Elm Road and London Road is the southern gateway of Copdock. The presence of the large residential building at the northern side of the junction, which is also a listed building, creates visual interest and a sense of arrival. The junction of Swan Hill, The Street and Chapel Lane is the physical entrance point to Washbrook at the north of the village. However this gateway does not provide a real sense of arrival.

The space along the fork of The Street and Back Lane is an historic focal point where the first houses of Washbrook clustered around. Although there is no propper public space or square, the triangular space created at the meeting point of the Street and Back Lane provides a sense of focal point. As well as the light colour rendered buildings to the north-west, the bus shelter, the mature tree behind the bus shelter and the mature garden hedgerow to the south of it.

The community pub is located at the centre of the village



KEY

- Copdock & Washbrook Parish Boundary and Neighbourhood Plan Area
- Site allocations
- Road network
- Waterfeature
- Green feature
- x Important landmarks
- Public right of way
- VPx Viewpoints

Important landmarks and viewpoints in Copdock and Washbrook Neighbourhood Plan Area

2.4. Green Infrastructure and Open Space

The Parish contains a number of Areas of Open Space as defined in local development plan document[1]. They include:

1. Playing field and cricket pitches east of London Road;
2. Allotments west of London Road;
3. Open space at Fen View housing;
4. Woodland associated with Washbrook Primary School; and
5. Linear area of woodland along Belsted Brook west of the A12.

The NPPF (2018), Section 8 enables communities to identify green areas that are particularly important to them for special protection. It also sets out the criteria for designating LGS sites that are:

- In reasonably close proximity to the community they serve;
- Demonstrably special to a local community and hold a particular local significance; and
- Local in character and are not an extensive tract of land.

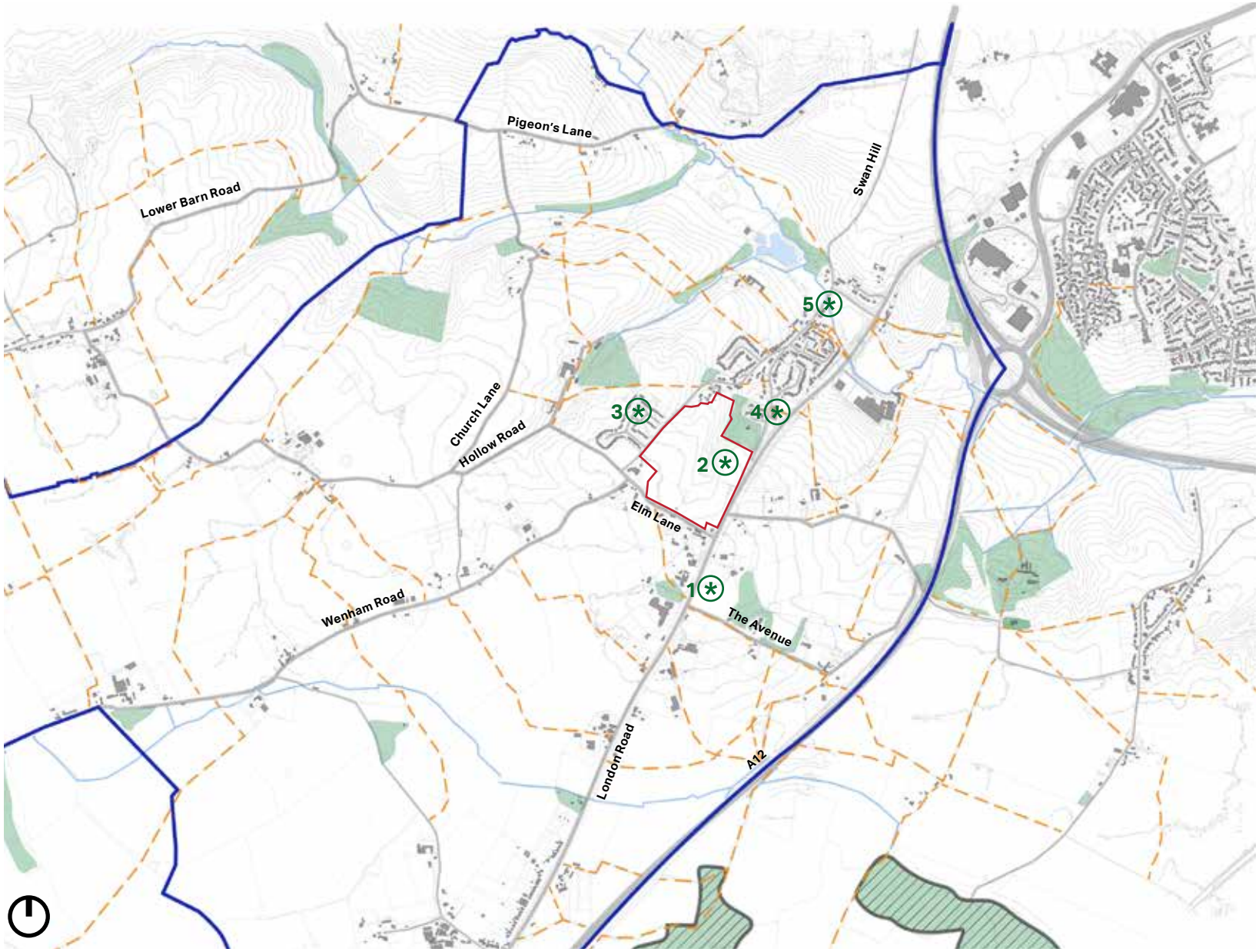
The table below shows the average existing provision of open space in hectares for Copdock and Washbrook. The Sports Club Space has the highest area (6.38 ha). Allotments and Parks and Recreation Grounds have areas of 1.05 and 1.34 ha respectively. The rest of the facilities (Outdoor sport, Play, Cemeteries, Churchyards and Education) represent less than 1 ha of open space.

1 Copdock and Washbrook Neighbourhood Plan: Landscape Appraisal Draft Report,June 2019

Table 11 *Existing provision of open space (hectares) in Parishes (Babergh District)*

Parish	Allotments	Amenity Green Space	Parks and Recreation Grounds (Combined)	*Parks and Recreation Grounds*	*Outdoor Sport (Fixed)*	Play (Child)	Play (Youth)	Accessible Natural Green Space	Cemeteries and Churchyards	Education	Sports Club Space
Cockfield	0	1.57	4.01	4.01	0	0.09	0	18.13	0.71	0.62	0
Copdock and Washbrook	1.05	0	1.74	1.34	0.4	0.08	0	0	0.78	0.62	6.38
East Bergholt	0.83	0	0.45	0	0.45	0.7	0	0	0.42	11.4	0

Reference: Babergh and Mid Suffolk Open Space Assessment table 1



KEY

- Copdock & Washbrook Parish Boundary and Neighbourhood Plan Area
- Site allocations
- Road network
- Water Feature
- Woodland
- Ancient Woodland
- Public Right of Way
- x Areas of Open Space

Green Open Spaces in Copdock and Washbrook Neighbourhood Plan Area

2.5. Housing

Building typology

The map opposite shows that the Parish has a mix of detached houses, semi-detached houses, and bungalows, with small amounts of terraced.

Detached houses can be found along the main road, London Road, as well as on Back Lane. The Street and Pearsons Way also have pockets of detached houses.

Semi-detached houses can be found along the main road, London Road, Back Lane, and in the new development at The Marvens.

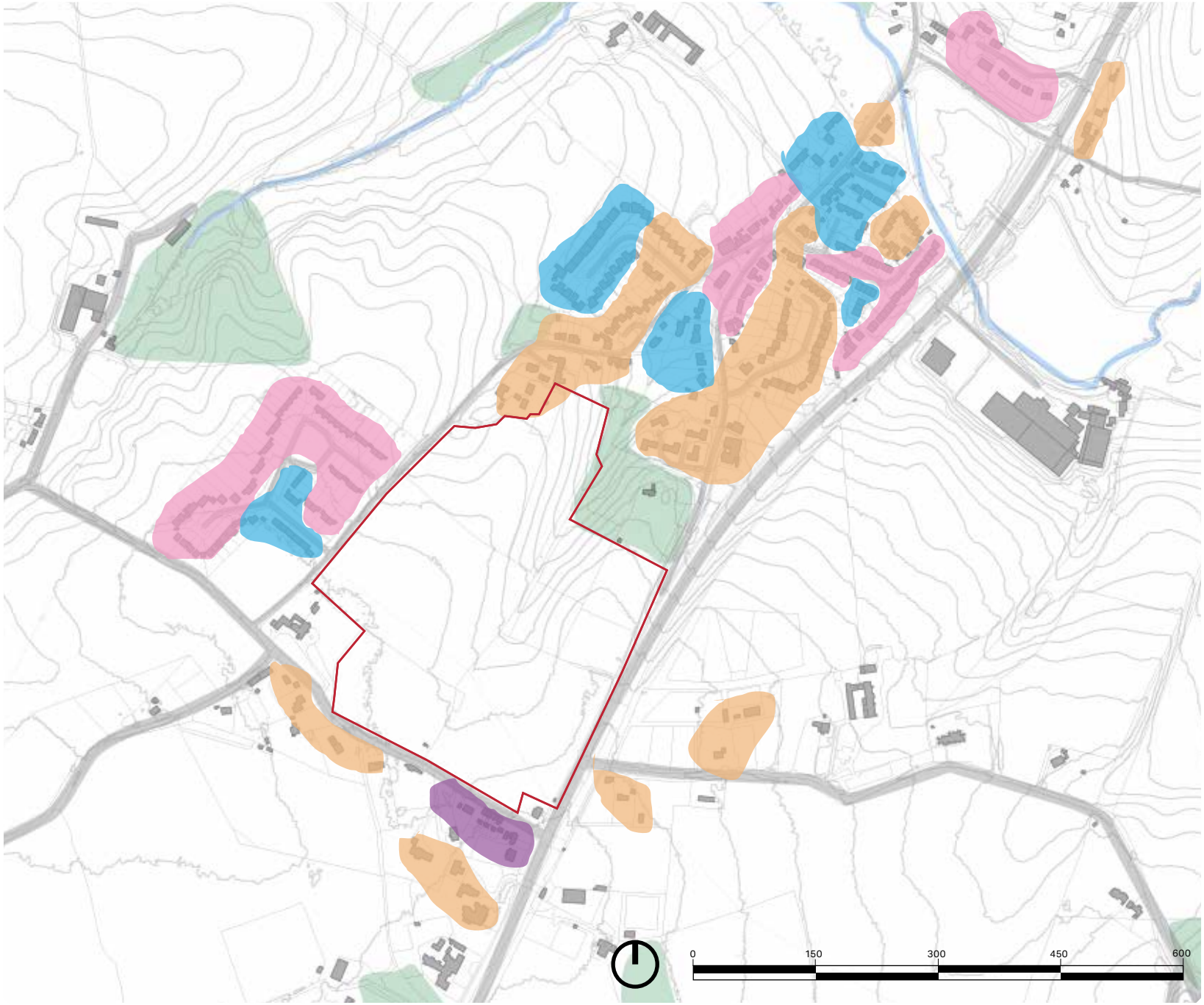
Bungalows are spread around the settlement in pockets that can be found on Back Lane, Pearsons Way, Charlotte's Lane, The Street, and Fen View Lane.

Examples of terraced housing can only be found in Copdock village along Elm Lane.

Example of bungalows in Washbrook

Example of terraced housing in Copdock village

Example of detached house in Copdock village



Housing typologies in Copdock and Washbrook Neighbourhood Plan Area

Building Density

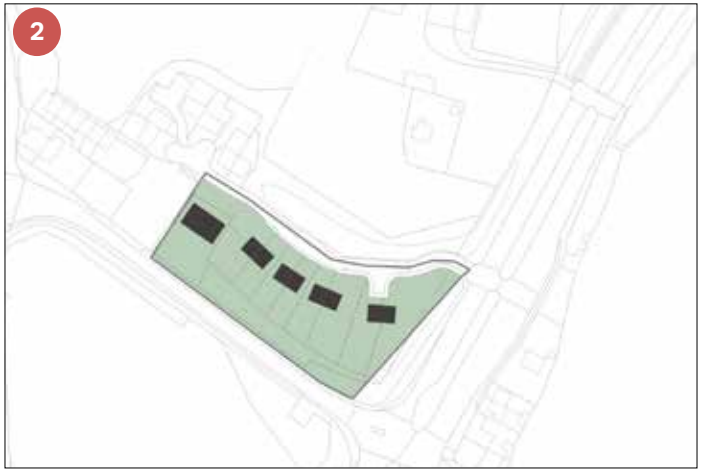
There are different ways to measure housing density. A standard measure, used in this report, is simply the number of dwellings (units) per hectare (dph).

The map opposite shows a narrow range of densities across Copdock and Washbrook - ranging from over 40 dph to below 10 dph. The highest density can be found on Pearson's Way.

In general, Copdock has lower density than Washbrook.

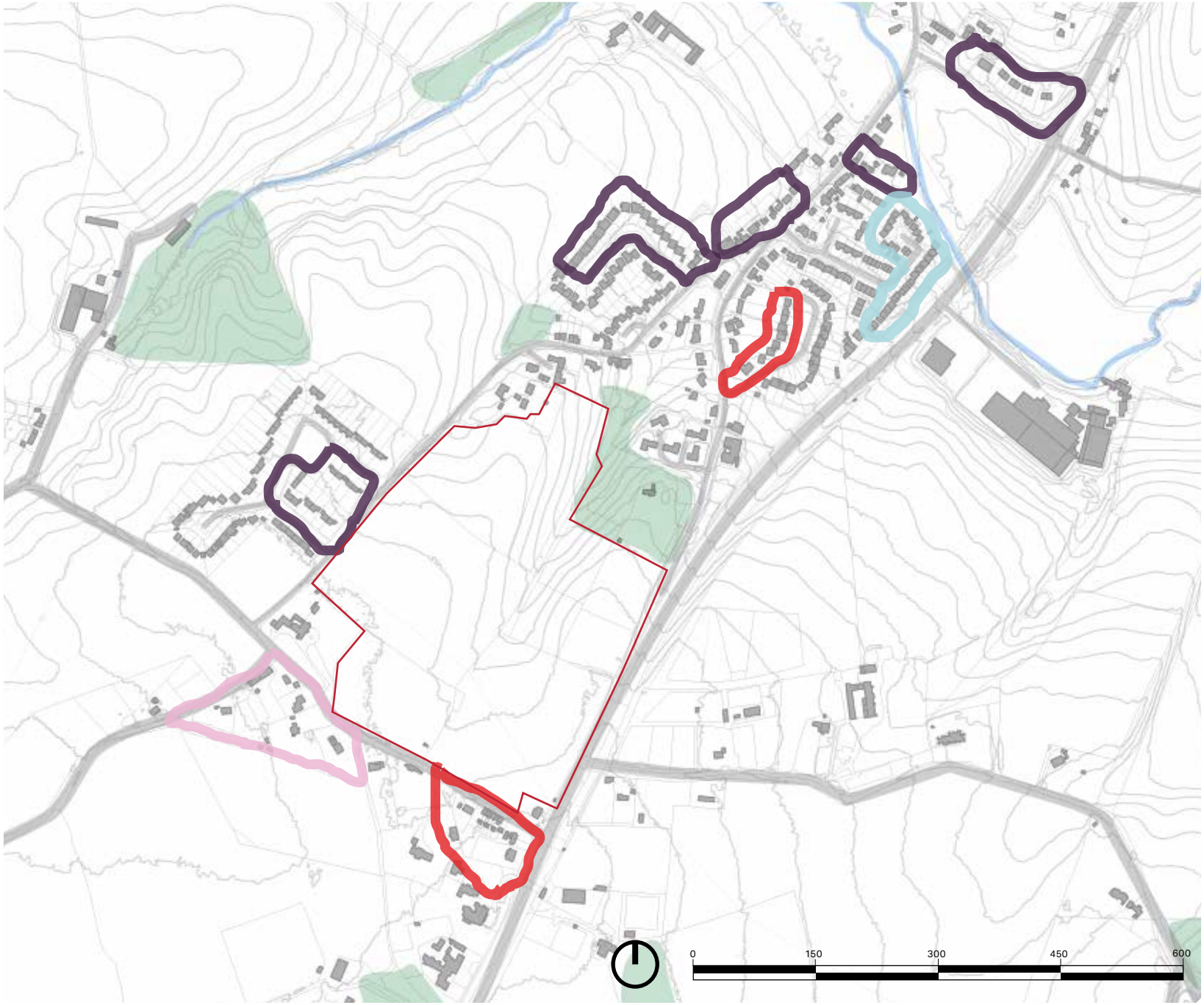
Example of an area with a 41 dph density

Example of an area with a 7 dph density



Example of an area with a 17 dph density

Location map



Housing densities in Copdock and Washbrook Neighbourhood Plan Area

Design guidance

03

3. Design guidance

3.1. Introduction

The aim of this Design Guidance is to ensure that future development considers local character and enhances the existing character and local distinctiveness of Copdock and Washbrook by creating high quality places, thriving communities, and prosperous places to live.

This chapter provides a set of clearly defined principles that can be applied to all new developments. Place-making principles that are fundamental in guiding any development in Copdock and Washbrook are set out in the following pages and include:

- Pattern of Growth
- Views and Landmarks
- Housing Mix
- Legibility and Wayfinding
- Building Lines and Boundary Treatment
- Enclosure
- Biodiversity and Landscape
- Materials and Building Design
- Eco design
- Rainwater Harvesting
- Solar Roof Panels
- Housing Extensions
- Servicing
- Bicycle parking

3.2. Pattern of growth

New developments should respect the existing settlement pattern in order to preserve its character. Copdock and Washbrook are characterised by moderate housing development surrounded by a rural high-quality rural countryside. Thus, ribbon development along lanes that causes the urbanisation of rural lanes should be avoided. In addition, distinct areas of settlement should be respected.

Coalescence - development that visually intrudes upon or physically undermines the sense of separation between the two villages, Copdock and Washbrook, and Ipswich - should be avoided.

The provision of additional public spaces and green amenity spaces must also be considered to preserve the rural character of the village.

Map showing key green features (in asterisk) in relation to the existing settlements

AECOM

3.3. Views and landmarks

Well-designed streets, open space and public realm together with building forms are crucial for places to create their own stories in people's minds. Landmarks and views are the tools to achieve places that are easy to read and allow users to easily orientate themselves.

Landmarks

Landmarks create a visual guide to help users navigate through places and reinforce the sense of identity. They are also used to emphasise the hierarchy of a place. The topography of both Copdock and Washbrook gives the opportunity for important views that influence the location of gateways and the sense of place.

Views and Vistas

Short-distance views broken by buildings, trees, or landmarks help to create memorable routes. The key local views within and around Copdock and Washbrook should be protected where possible. New developments should mitigate the impact on the views by introducing screening plantation. In particular, as mentioned in 2.3 section, there are many viewpoints with the viewpoint 1 being a key screening consideration.

North-west view from the allocated site

South-west view from the allocated site

3.4. Housing mix

All newly developed areas should provide a mixture of housing options that enhance flexibility for their occupants and meets all housing needs. New dwellings should demonstrate an understanding of the scale and detailing of traditional properties in Copdock and Washbrook villages.

This could be a mixture of first-time buyers homes, social housing, shared ownership, social enterprise and privately owned houses. New houses should offer a variety of one, two, three, and four bedrooms suitable to a wide range of household types. It is also important to consider the provision of affordable housing when planning for new development.

Example of a detached house

Examples of semi-detached houses

3.5. Legibility and wayfinding

When places are legible and well signposted, they are easier for the public to comprehend and more likely to both function well and be pleasant to live in or visit. People feel safer when they can easily memorise places and navigate around them. It is easier for people to orientate themselves when the routes are direct, visually articulated by landmarks, and communicate a clear hierarchy of the place.

In Copdock and Washbrook, the pub and the Primary School clearly play this role, as they act as landmarks that help people navigate along The Street.

The pub and the Primary School help with navigation along The Street

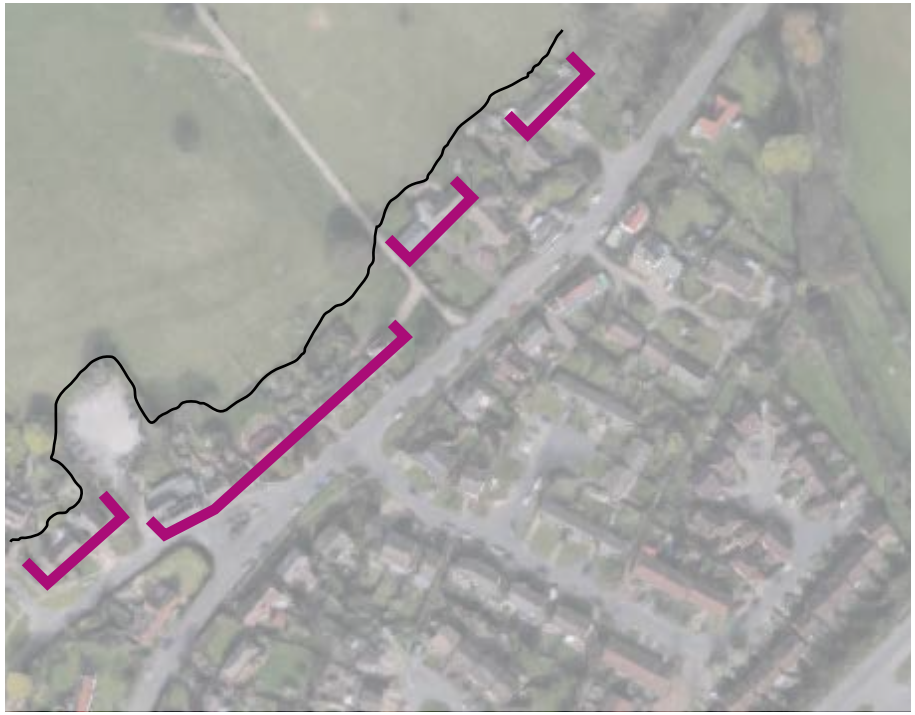
Community pub as a focal point to navigate people around

View of the Primary School

3.6. Building lines and boundary treatment

The use of continuous building lines and setbacks contribute to the overall character of the area and the sense of enclosure of the streets and public spaces.

Continuous building lines create a strong distinction between public and private spaces and provide definition to the public realm. Where buildings step back from the building line, this should be designed in order to create usable and attractive spaces.



An illustration from an edge alignment responding to the context of the landscape

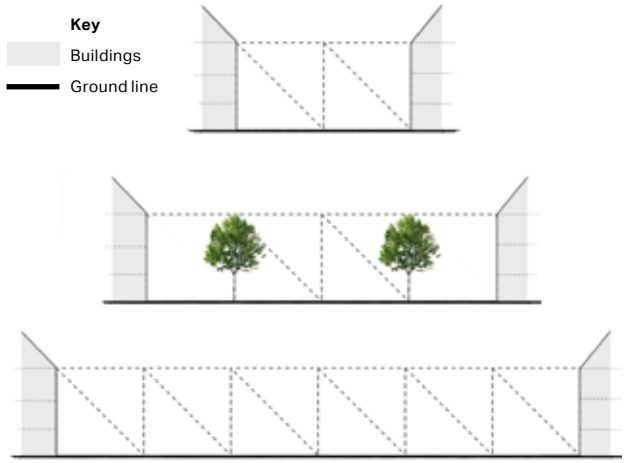
3.7. Enclosure

Focal points and public squares and spaces in new developments should be designed in good proportions. Clearly defined spaces help achieve a cohesive and attractive urban form to create an appropriate sense of enclosure.

The following principles are general guidelines to achieve a satisfactory sense of enclosure:

- An appropriate ratio between the width of the street and height of buildings is needed (see diagram below);
- Buildings should be designed to turn corners and terminate views;
- Generally, building façades should front onto streets. Variation to the building line can be introduced to create an informal character; and
- Terraced buildings must show a variety of plot widths, land uses, and façade depth to create a visually interesting townscape.

An example for 1:1 mews ratio



Images adapted from Urban Design Compendium (Homes England)

3.8. Biodiversity and landscape

New developments must preserve the parish's treasured landscape. The Clayland landscape should be strengthened with appropriate planting and settlement patterns.

Biodiversity and woodlands should be protected and enhanced where possible. Creation of abrupt edges to development with little vegetation or landscape on the edge of the settlement should be avoided.

Wildlife friendly environment

- New developments should aim to strengthen biodiversity and the natural environment. For example, Copdock and Washbrook have a network of rural narrow sunken lanes that should be preserved;
- Existing habitats and biodiversity, particularly local birds and bats, should be protected and enhanced; and
- New development proposals should include the creation of new habitats and wildlife corridors; in the village there are mature veteran oaks in hedgerows and along lanes that need to be preserved.

3.9. Materials and building design

This section showcases the architecture detailing and building materials that contribute to the local distinctive character of Copdock and Washbrook.

New developments can draw inspiration from the varied details of the village's existing architecture that is presented on the next pages.

It is important that any new development positively responds to the character of the area. The idea of welcoming new development at the same time with preserving the architectural style can be challenging.

New housing should be of a style that blends with the existing older houses in the village and respects the listed buildings around the area without resulting in pastiches of historic styles.

There is also a need to introduce innovative eco-friendly designs that fit with the existing architectural styles of the Parish.

Land adjacent to the allocated sites

Respect the existing landscape

Example of a positive fence treatment

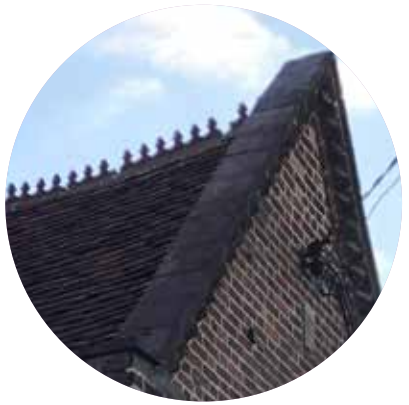
Coloured façades

Quality entrance treatment

New development to fit into the surroundings

House displaying a variery of local building materials

RED BRICK



ROOF DETAILS

COLOURED RENDER

PLANTED, WELL KEPT BOUNDARIES

OFF-ROAD FOOTPATHS

RED BRICK BOUNDARY WALL

3.10. Eco-design

Energy efficient or eco-design combine all around energy efficient construction, appliances and lighting with commercially available renewable energy systems, such as solar water heating and solar electricity.

Starting from the design stage, the passive solar heating, cooling, and energy efficient strategies can be informed by local climate and site conditions.

The aim of these interventions is to reduce overall home energy use as cost effectively as the circumstances allow for. New developments in Copdock and Washbrook should aim for innovative designs and eco-friendly buildings while respecting the architectural heritage and tradition of the Parish.

Example of ecological housing using traditional and contemporary materials

3.11. Rainwater harvesting

Rainwater harvesting refers to the systems that capture and store rainwater as well as those that enable the in-situ reuse of grey water. These systems involve pipes and storage devices that could be unsightly if added without an integral vision for design. Therefore, some design recommendations would be to:

- Conceal tanks by cladding them in complementary materials;
- Use attractive materials or finishing for pipes;
- Combine landscaping/planters with water capture systems;
- Underground tanks; and
- Utilise water bodies for storage.

Soakaways and sustainable urban drainage systems (SUDS) should be used to mimic natural drainage.

Examples of concealed tanks used for rainwater harvesting

3.12. Solar Roof panels

The aesthetics of solar panels over a rooftop can be a matter of concern for many homeowners. Some hesitate to incorporate them because they believe that they diminish the home aesthetics in a context where looks are often a matter of pride among the owners. This is especially acute in the case of historic buildings and conservation areas, where there has been objections for setting up solar panels on visible roof areas. Thus, some solutions are suggested as follows:

On new buildings:

- Design solar panel features from the start, forming part of the design concept. Some attractive options are solar shingles and photovoltaic slates; and
- Use the solar panels as a material in their own right.

On retrofits:

- Analyse the proportions of the building and roof surface in order to identify the best location and sizing of panels;
- Aim to conceal wiring and other necessary installations;
- Consider introducing other tile or slate colours to create a composition with the solar panel materials; and
- Conversely, aim to introduce contrast and boldness with proportion. For example, there has been increased interest in black panels due to their more attractive appearance. Black solar panels with black mounting systems and frames can be an appealing alternative to blue panels.

Solar panels do not need to be obtrusive. Here, they make a positive contribution to appearence by blending with roof tiles.

3.13. House extensions

There are a number of principles that residential extensions should follow to maintain character:

- The original building should remain the dominant element of the property regardless the amount of extensions. The newly built extension should not overwhelm the building from any given point;
- Extensions should not result in a significant loss to the private amenity area of the dwelling;
- Designs that wrap around the existing building and involve overly complicated roof forms should be avoided;
- The pitch and form of the roof used on the building adds to its character and extensions should respond to this where appropriate;
- Extensions should consider the materials, architectural features, window sizes, and proportions of the existing building and recreate this style to design an extension that matches and complements the existing building;
- Side extensions should be set back from the front of the main building and retain the proportions of the original building. This is in order to reduce any visual impact of the join between existing and new; and
- Rear extensions should not have a harmful effect on neighbouring properties in terms of overshadowing, overbearing or privacy issues.

☑

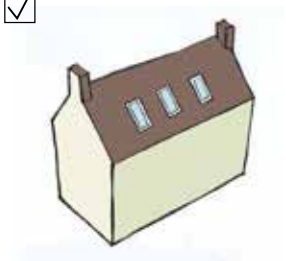
Good example for side extensions, respecting existing building scale, massing and building line.

X

Both extensions present a negative approach when considering how it fits to the existing building. Major issues regarding roofline and building line.

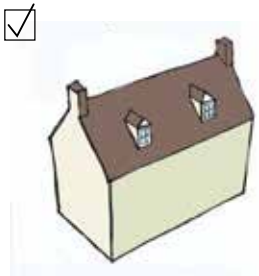
Design treatment in case of loft conversion:

☑



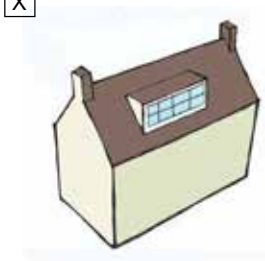
Loft conversion incorporating skylights.

☑



Loft conversion incorporating gabled dormers.

X



Loft conversion incorporating a long shed dormer which is out of scale with the original building.

☑

Original roofline of an existing building.

☑

Loft conversion incorporating gabled dormers.

X

Loft conversion incorporating gabled dormers which are out of scale and do not consider existing window rhythm nor frequency.

3.14. Servicing

With modern requirements for waste separation and recycling, the number of household bins quantum and size have increased. The issue poses a problem in relation to the aesthetics of the property if bins are left without a design solution.

Waste storage, if placed on the property boundary, must be integrated with the overall design of the boundary design. A range of hard and soft landscaping treatments such as hedges, trees, flower beds, low walls, and high-quality paving materials could be used to minimise the visual impact of bins and recycling containers.

The images below illustrate design solutions for servicing units within the plot.

Examples of bin storage

Examples of bin storage

3.15. Bicycle parking and storage

A straightforward way to encourage cycling is to provide secured covered cycle parking within all new residential developments and publicly available cycle parking in the public realm.

For residential units, where there is no on-plot garage, covered and secured cycle parking should be provided within the domestic curtilage. The use of planting and smaller trees alongside cycle parking can be used to mitigate any visual impact on adjacent spaces or buildings.

New development should promote cycling by providing more cycle routes and monitoring the condition of the existing ones.

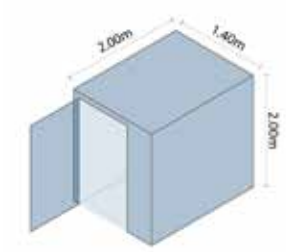
Storage

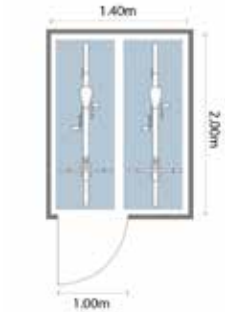
Cycle storage must be provided at a convenient location with an easy access. If it is located in rear gardens, a clear unobstructed access route should be provided. The storage space should be designed for flexible use and well integrated into the streetscape if it is allocated at the front of the house. The storage structure can be either standing alone or part of the main building.

For apartment buildings, cycle parking must be at a convernient location with an easy access. It should be located within the footprint of the building.

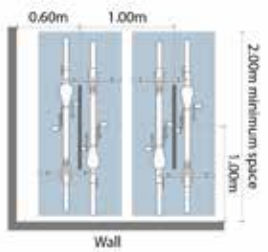
Visitor cycle parking within residential areas should be provided close to the buildings in the form of a suitable stand or wall bar.

For employment, shops and all other non-residential uses sufficient number of open short-term and covered long-term cycle parking should be provided in convenient locations, such as close to main entrances where the parking will be overlooked for both staff and visitors. Cycle parking should be located within a 30 m walking distance of the main building entrance. Short-term cycle parking should accommodate at least 2.5% of peak visitors (minimum of four spaces). Long-term cycle parking should accommodate at least 5% of regular building occupants (minimum of four spaces).

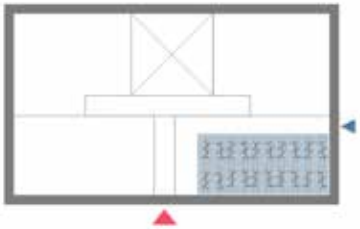




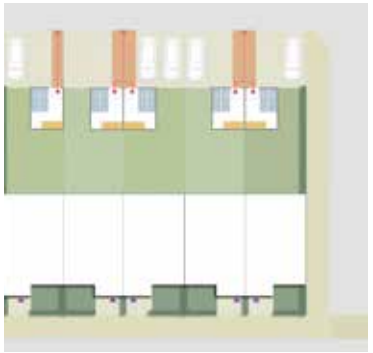
Secure covered cycle store for two bicycles



Sheffield cycle stands for visitor cycle parking



Cycle storage space in an apartment building



Cycle parking and access for terraced houses with rear parking

Cycle parking and access for semi-detached houses with on-plot parking

3.16. New streets

Streets must meet the technical highways requirements as well as be considered a 'place' to be used by all, not just motor vehicles. It is essential that the design of new developments includes streets and junctions that incorporate the needs of pedestrians, cyclists, and if applicable public transport users. It is also important that on-street parking, where introduced, does not impede the access of pedestrians and other vehicles.

Within the settlement boundaries, streets must not be built to maximise vehicle speed or capacity. Streets and junctions must be designed with the safety and accessibility of vulnerable groups such as children and wheelchair users in mind and may introduce a range of traffic calming measures.

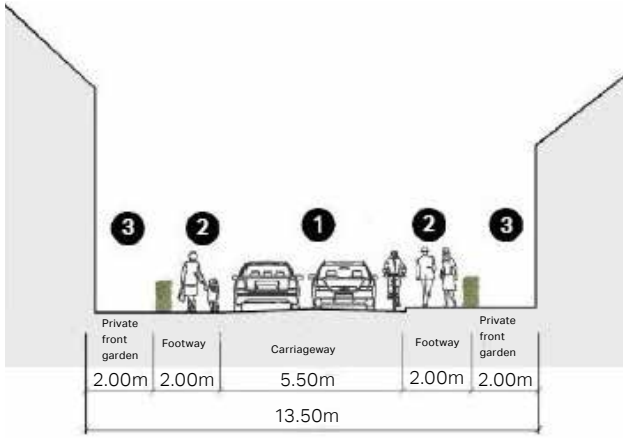
The distribution of land uses must respect the general character of the area and street network, and consider the degree of isolation, lack of light pollution, and levels of tranquillity.

Streets must incorporate opportunities for landscaping, green infrastructure, and sustainable drainage.

The next pages introduce suggested guidelines and design features including a range of indicative dimensions for street types in new residential areas.

Residential streets

- Residential streets have a strong residential character and provide direct access to residences from the secondary roads. They must be designed for low traffic volumes and low speed.
- Carriageways must accommodate two-way traffic and parking bays. These roads must also accommodate footways with a 2m minimum width on either side and must be designed for cyclists to mix with motor vehicles. Traffic calming features such as raised tables can be used to prevent speeding.



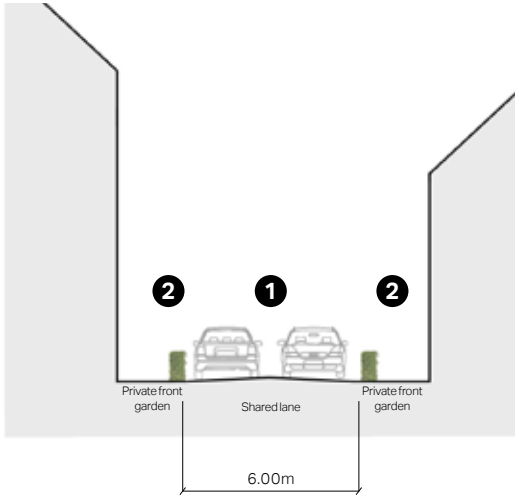
Section showing indicative dimensions for residential streets.

1. **Shared carriageway (neighbourhood traffic). Traffic calming measures may be introduced at key locations.**
2. **Footway.**
3. **Residential frontage with boundary hedges and front gardens.**

Example of a residential street, Cantebury.

Lanes/ Private drives

- Lanes and private drives are the access-only types of streets that usually serve a small number of houses. They must be minimum 6m wide and serve all types of transport modes including walking and cycling, and allow sufficient space for parking manoeuvre.
- Opportunities to include green infrastructure, hedges, and/or private gardens to soften the edges must be maximised.



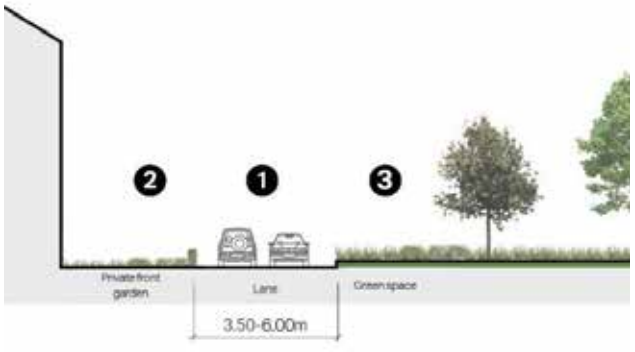
1. **Shared lane (local vehicle access, cyclists, and pedestrians).**
2. **Residential frontage with front hedges and gardens**

Section showing indicative dimensions for lanes and private drives.

Example of a lane/ private drive in Cambridge, with a shared surface for all road users.

Edge Lanes

- Edge lanes are low-speed and low-traffic roads that front houses with gardens on one side and a green space on the other. Carriageways typically consist of a single lane of traffic in either direction and are shared with cyclists.
- The lane width can vary to discourage speeding and introduce a more informal and intimate character. Variations in paving materials and textures can be used instead of kerbs or road markings.



1. **Shared lane (local access) - width to vary.**
2. **Residential frontage with boundary hedges and front gardens.**
3. **Green space.**

Section showing indicative dimensions for edge lanes. The lane width may vary to discourage speeding or provide space for parking.

Examples of edge lanes in Dorchester, with low-speed roads shared between motor vehicles and cyclists, and opportunities for on-street parking (note: some localities may prefer clearly defined footways and parking bays).

3.17. Vehicle Parking

- When needed, residential car parking can be a mix of on-plot side, front, garage, and courtyard parking, and complemented by on-street parking.
- For family homes, cars must be placed at the side (preferably) or front of the property. For small pockets of housing, a rear court is acceptable.
- Car parking design must be combined with landscaping to minimise the presence of vehicles.
- Parking areas and driveways must be designed to minimise impervious surfaces, for example with permeable paving.
- When placing parking at the front, the area must be designed to minimise visual impact and to blend with the existing streetscape and materials. The aim is to keep a sense of enclosure and to break the potential of a continuous area of car parking in front of the dwellings. This can be achieved by means of walls, hedging, planting, and the use of quality paving materials.
- Parking bays and spaces must be designed for easy access by wheelchairs, loading carts, and buggies.
- The following pages outline the residential car parking solutions that can be employed in Copdock and Washbrook.
- Charging points for electric vehicles should be considered.

New garage built with local traditional materials.

Contemporary development with a mix of courtyard parking (centre) and garages (right).

Disabled parking bay in Cambridge with ramp for easy wheelchair access.

Single-family houses with side garages set back from the main building line.

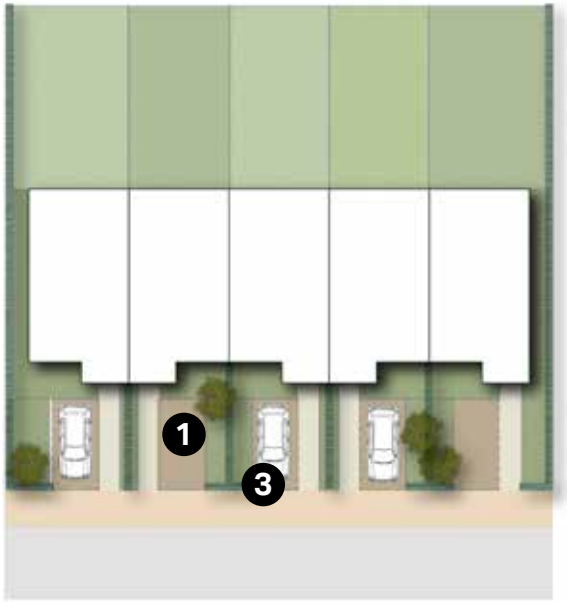
Apartment building with undercroft parking entrance partly screened with landscaping.

On-Plot Side or Front Parking

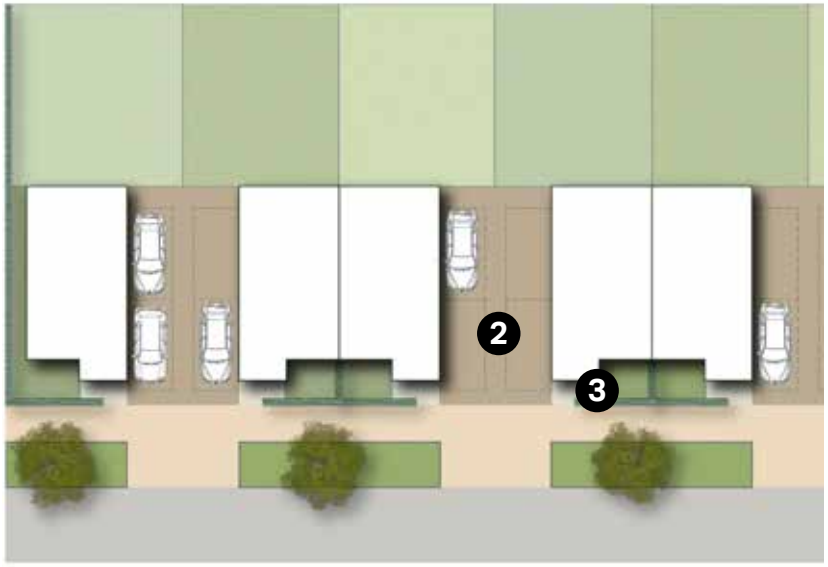
- On-plot parking can be visually attractive when it is combined with high quality and well-designed soft landscaping. Front garden depth from pavement back must be sufficient for a family car.
- Boundary treatment is the key element to help avoid a car-dominated character. This can be achieved by using elements such as hedges, trees, flower beds, low walls, and high-quality paving materials between the private and public space.
- Hard standing and driveways must be constructed from porous materials to minimise surface water run-off.

Informal front and side parking in Cliffe, with landscaped property boundaries preventing a car-dominated character.

1. **Front parking with part of the surface reserved for soft landscaping. Permeable pavement to be used whenever possible.**
2. **Side parking set back from the main building line. Permeable pavement to be used whenever possible.**
3. **Boundary hedges to screen vehicles and parking spaces.**



Illustrative diagram showing an indicative layout of on-plot front parking.

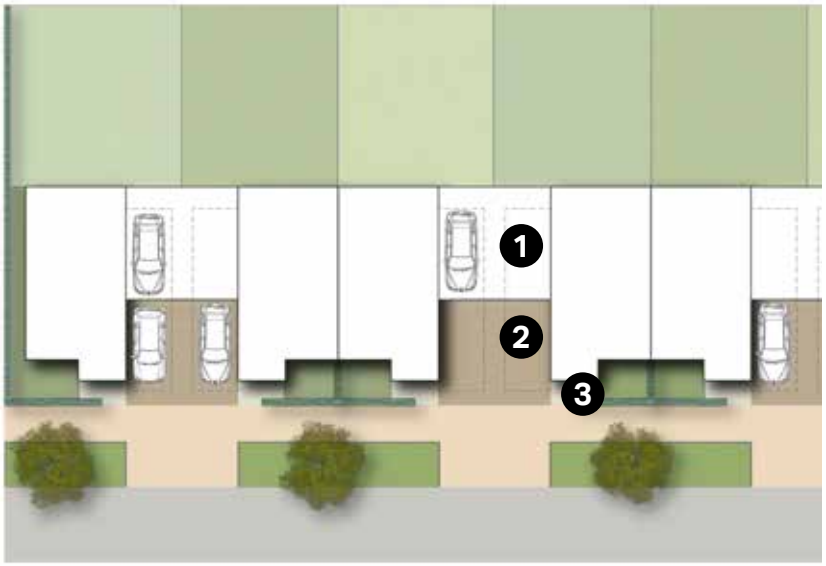


Illustrative diagram showing an indicative layout of on-plot side parking.

On-Plot Garages

- Where provided, garages must be designed either as free-standing structures or as additive form to the main building. In both situations, it must complement and harmonise with the architectural style of the main building rather than forming a mismatched unit.
- Often, garages can be used as a design element to create a link between buildings, ensuring continuity of the building line. However, it should be considered that garages are not prominent elements and they must be designed accordingly.
- It should be noted that many garages are not used for storing vehicles, and so may not be the best use of space.
- Considerations must be given to the integration of bicycle parking and/or waste storage into garages.

Side garages designed as a secondary mass to the main residential building in Copdock.



1. **Side parking set back from the main building line. Permeable pavement to be used whenever possible.**
2. **Garage structure set back from main building line. Height to be no higher than the main roofline.**
3. **Boundary hedges to screen vehicles and parking spaces.**

Illustrative diagram showing an indicative layout of on-plot parking with garages.

This page has been intentionally left blank

3.18. Issues to consider when assessing a development proposal

This section provides a general design principle followed by a number of questions against which the design proposal should be judged. The aim is to assess all proposals by objectively answering the questions below.

Not all the questions will apply to every development. The relevant ones, however, should provide an assessment overview as to whether the design proposal has taken into account the context and provided an adequate design solutions.

The Design Proposal should:

A. Harmonise and enhance existing settlement in terms of physical form pattern or movement and land use.

- What are the particular characteristics of this area which have been taken into account in the design?
- Is the proposal within a conservation area?
- Does the proposal affect or change the setting of a listed building or listed landscape?

B. Relate well to local topography and landscape features, including prominent ridge lines.

- Does the proposal harmonise with the adjacent properties?
- Has careful attention been paid to height, form, massing and scale?
- If a proposal is an extension, is it subsidiary to the existing property so as not to compromise its character?
- Does the proposal maintain or enhance the existing landscape features?
- How does the proposal affect the trees on or adjacent to the site?
- How does the proposal affect on the character of a rural location?

C. Reinforce or enhance the established urban character of streets, squares and other spaces.

- What is the character of the adjacent streets and does this have implications for the new proposals?
- Does the new proposal respect or enhance the existing area or adversely change its character?
- Does the proposal positively contribute to the quality of the public realm/ streetscape and existing pedestrian access?
- How does the proposal impact on existing views which are important to the area?
- Can any new views be created?

D. Reflect, respect and reinforce local architecture and historic distinctiveness.

- What is the local architectural character and has this been demonstrated in the proposals?
- If the proposal is a contemporary design, are the details and materials of a sufficiently high enough quality and does it relate specifically to the architectural characteristics and scale of the site?

E. Retain and incorporate important existing features into the development.

- What are the important features surrounding the site?
- What effect would the proposal have on the streetscape?
- How can the important existing features including trees be incorporated into the site?
- How does the development relate to any important links both physical and visual that currently exist on the site?

F. Respect surrounding buildings in terms of scale, height, form and massing.

- Is the scale of adjacent buildings appropriate to the area?
- Should the adjacent scale be reflected?
- What would be the reason for making the development higher?
- Would a higher development improve the scale of the overall area?
- If the proposal is an extension, is it subsidiary to the existing house?
- Does the proposed development compromise the amenity of adjoining properties?
- Does the proposal overlook any adjacent properties or gardens?

G. Adopt appropriate materials and details.

- What is the distinctive material in the area, if any?
- Does the proposed material harmonise with the local material?
- Does the proposal use high quality materials?
- Have the details of the windows, doors, eaves and roof details been addressed in the context of the overall design?

H. Integrate with existing paths, streets, circulation networks and patterns of activity.

- What are the essential characteristics of the existing street pattern?
- How will the new design or extension integrate with the existing arrangement?
- Are the new points of access appropriate in terms of patterns of movement?
- Do the points of access conform to the statutory technical requirements?
- Do the new points of access have regard for all users of the development (including those with disabilities)?

I. Provide adequate open space for the development in terms of both quantity and quality.

- Is there adequate amenity space for the development?
- Does the new development respect and enhance existing amenity space?
- Have opportunities for enhancing existing amenity spaces been explored?
- Are there existing trees to consider?
- Will any communal amenity space be created? If so, how will this be used by the new owners and how will it be managed?

J. Incorporate necessary services and drainage infrastructure without causing unacceptable harm to retained features.

- What visual impact will services have on the scheme as a whole?
- Can the effect of services be integrated at the planning design stage, or mitigated if harmful?
- Has the lighting scheme been designed to avoid light pollution?

K. Ensure all components e.g. buildings, landscapes, access routes, parking and open space are well related to each other, to provide a safe and attractive environment.

- Has the proposal been considered in its widest context?
- Is the landscaping to be hard or soft?
- What are the landscape qualities of the area?
- Have all aspects of security been fully considered and integrated into the design of the building and open spaces?
- Has the impact on the landscape quality of the area been taken into account?
- Have the appropriateness of the boundary treatments been considered in the context of the site?
- In rural locations has the impact of the development on the tranquillity of the area been fully considered?

L. Make sufficient provision for sustainable waste management (including facilities for kerbside collection, waste separation and minimisation where appropriate) without adverse impact on the street scene, the local landscape or the amenities of neighbours.

- Has adequate provision been made for bin storage?
- Has adequate provision been made for waste separation and relevant recycling facilities?
- Has the location of the bin storage facilities been considered relative to the travel distance from the collection vehicle?
- Has the impact of the design and location of the bin storage facilities been considered in the context of the whole development?
- Could additional measures, such as landscaping be used to help integrate the bin storage facilities into the development?
- Has any provision been made for the need to enlarge the bin storage in the future without adversely affecting the development in other ways?

This page has been intentionally left blank

Masterplanning framework and design code

04

4. Masterplanning framework and design code

4.1. Introduction and background

This chapter looks at the the land south east of Back Lane (LA008) in Copdock and Washbrook, which has been allocated in the Babergh and Mid Suffolk Joint Local Plan (see map opposite).

This section first explores the main development constraints for the site at a high level. It then proposes an illustrative masterplanning option that responds to the policies and development criteria defined by Babergh and Mid Suffolk Joint Local Plan policies as well as the urban design development guidelines presented in the previous chapter.

The process undertaken to inform these studies was:

- Site visits to understand the spatial context;
- Urban design analysis of opportunities and constraints;
- Access appraisal of the site; and
- Preparation of conceptual layout to inform a capacity for guidance on how development may take place.

The following development principles have guided the analysis and recommendations:

- The 13 ha will hold approximately 226 dwellings and the associated infrastructure;
- Design, layout, and landscaping are sympathetic to the close setting of heritage assets;
- Landscaping should repond to the sensitivity of the surrounding landscape;
- The allotments should be retained in situ;
- Provision of new pedestrian and cycle link between the school/The Street and Fen View;
- Protecting Back Lane and Elm Lane from increases in traffic.

The Copdock and Washbrook Neighbourhood Plan Landscape Appraisal sets important aspects to be enhanced, conserved and avoided. The following masterplan illustrates a scheme that maximises the opportunities to achieve these aspects.

"The scheme should enhance and conserve the following:

- *Deeply rural high quality countryside surrounding the settled areas;*
- *Historic buildings within unspoilt rural settings;*
- *Networks of rural narrow sunken lanes;*
- *Views across the wider countryside;*
- *Mix of housing styles within the settlement;*
- *Open space, woodland, and mature trees within the settlements that reinforce sense of place;*
- *The influence of topography in defining clusters in development and distinctive places; and*
- *Subtle undulations in topography giving rise to important views, influencing gateways and sense of place.*

The scheme should avoid:

- *Creating abrupt edges to development with little vegetation or landscape on the edge of settlement;*

- *Housing estates with single housing types that contrast with the eclectic mix of housing styles in the settlements;*
- *Linear developments along lanes that cause urbanisation of rural lanes;*
- *Loss of distinct areas of settlement as a result of ill-sited new developments;*
- *Continued presence of trunk road characteristics at odds with rural settlement;*
- *Developments that, due to their location, alter the setting of Washbrook on the mid to lower slopes of the Belstead Brook;*
- *Changes that visually intrude upon or physically undermine the sense of separation between Washbrook and Ipswich;*
- *Developments that mask the subtle changes in topography;*
- *Additional signage and concrete kerbing on narrow rural lanes;*
- *Introduction of individual dwellings that do not reflect the scale or detailing of traditional properties in the area; and*
- *Developments on the edge of Ipswich that visually intrude into the Belstead Brook and the wider landscape of the Parish. "*

From Copdock and Washbrook Neighbourhood Plan:
Landscape Appraisal Draft Report, June 2019

Site allocation in Copdock and Washbrook Neighbourhood Plan Area

4.2. Site analysis for LA008

LA008 covers approximately 13 ha land. It is bordered by London Road to the south and Back Lane to the north. The site is surrounded by the built up area of Copdock to the south, Washbrook to the north and the residential estate on Dales View to the west.

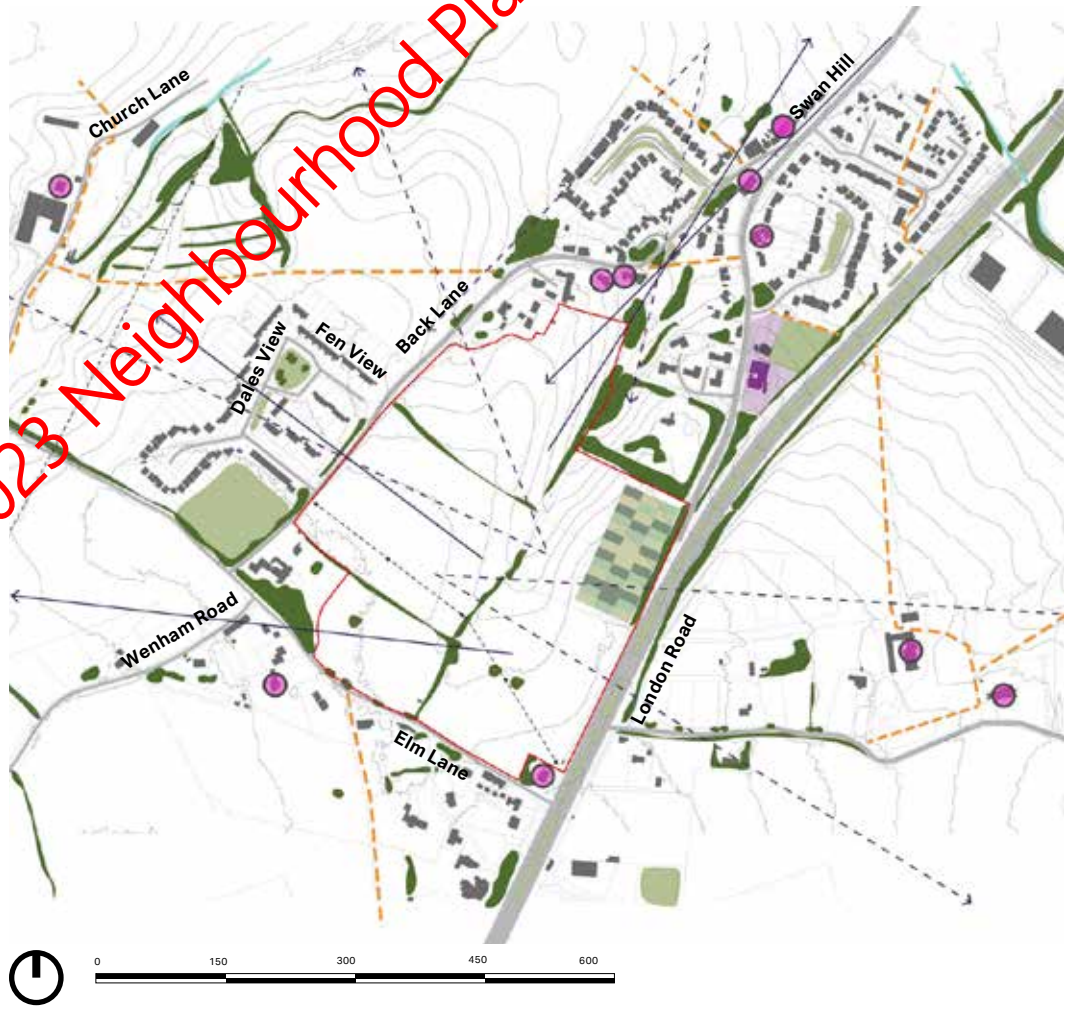
The site has existing vegetation, linear groups of trees, hedgerows and allotments (approximately 1ha in total) which create a fragmented character. There are few views into the site from its immediate vicinity due to the tall shrubs and trees along its edges. However, there are elevated lines of sight into the land from the surrounding area, such as the view from Swan Hill to the north of the site, owing to the undulating nature of the landscape of the area.

LA008 has an undulating topography with a valley in its middle. The rest of the land gently rises from this valley towards Black Lane to the north-west and London Road to the south-east.

The desktop analysis and the site visit have demonstrated that the site does not have major development constraints. However, more detailed technical analysis should be done in order to understand further constraints such as ecology and flooding. In particular, we understand that Anglian Water have a major asset located in the vicinity of site LA008 and should be taken into account in the development process.

KEY

- Site allocations
- Road network
- Areas of Open Space
- Tress
- Hedgerows
- Water feature
- Allotments
- School facilities
- Vista
- Views
- Public Right of Way
- Listed buildings
- Power lines



Site analysis in Copdock and Washbrook Neighbourhood Plan Area - Site A

4.3. Illustrative masterplan

The concept masterplan opposite demonstrates the key principles of the exampler scheme. It proposes to provide 226 residential units, a single primary vehicular access point from London Road, two emergency access points, pedestrian and cycling links, open spaces, children play area and to retain the majority of the existing vegetation and the allotments.

The illustrative masterplan on the following page shows an exampler residential layout for 226 dwellings comprised of mixed housing typologies, potentially including 2 bedroom semi-detached houses, 3 bedroom detached and semi - detached houses and 4 bedroom detached houses.

The key features of the development are listed below:

- A main vehicular access point, from London Road to the south of the site; the proposed emergency access points from Elm Lane and Back Lane are not open to vehicles;
- Legible curvy-linear layout reflecting the meandering road layout of Washbrook, with perimeter blocks and high level of connectivity;
- Pedestrian and cycle network linking the site with the surrounding built up area, the primary school , village hall and cricket club ;
- Provision of continuous active frontages along the all public spaces including open spaces and roads;
- Creating modest front gardens fronting the open space enabling long views to maximise the natural surveillance;
- Responding to the existing topography and level changing by integrating buildings with the existing landform;
- Retaining existing mature trees and hedgerows wherever parctical to be integrated in the open spaces; and
- Responding to the existing views and use vegetation to mediate the impact of the development on the existing landscape.

LA008 Concept Masterplan

Screening plantation and open space to reduce the development impact.

Open spaces fronted by active frontages.

Main access point to the site.

Pedestrian and cycle link through the central open space to connect the new and existing residential areas.

Location for potential attenuation basin.

More informal development edge with larger front gardens for a softer transition between the built environment and the open space.

The existing hedgerows to be retained within the open space.

The existing allotments will be retained within the proposed development.

The existing mature trees will be retained within the open space overlooked by active frontages.

Local play area.

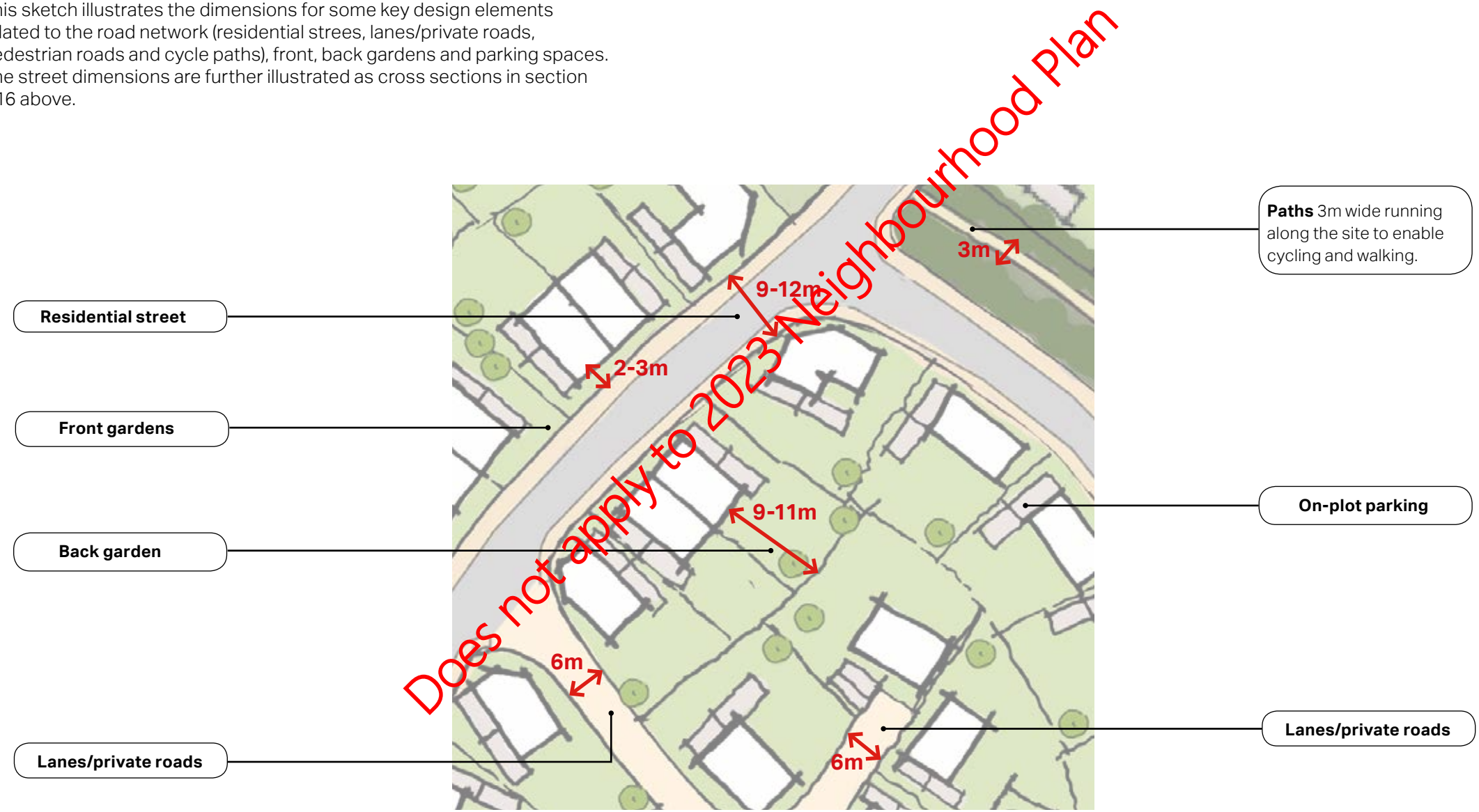
Traffic calming measures appropriate to residential area.

Screening plantation to reduce the development impact.

LA008 Illustrative Masterplan

4.4. Design code diagram

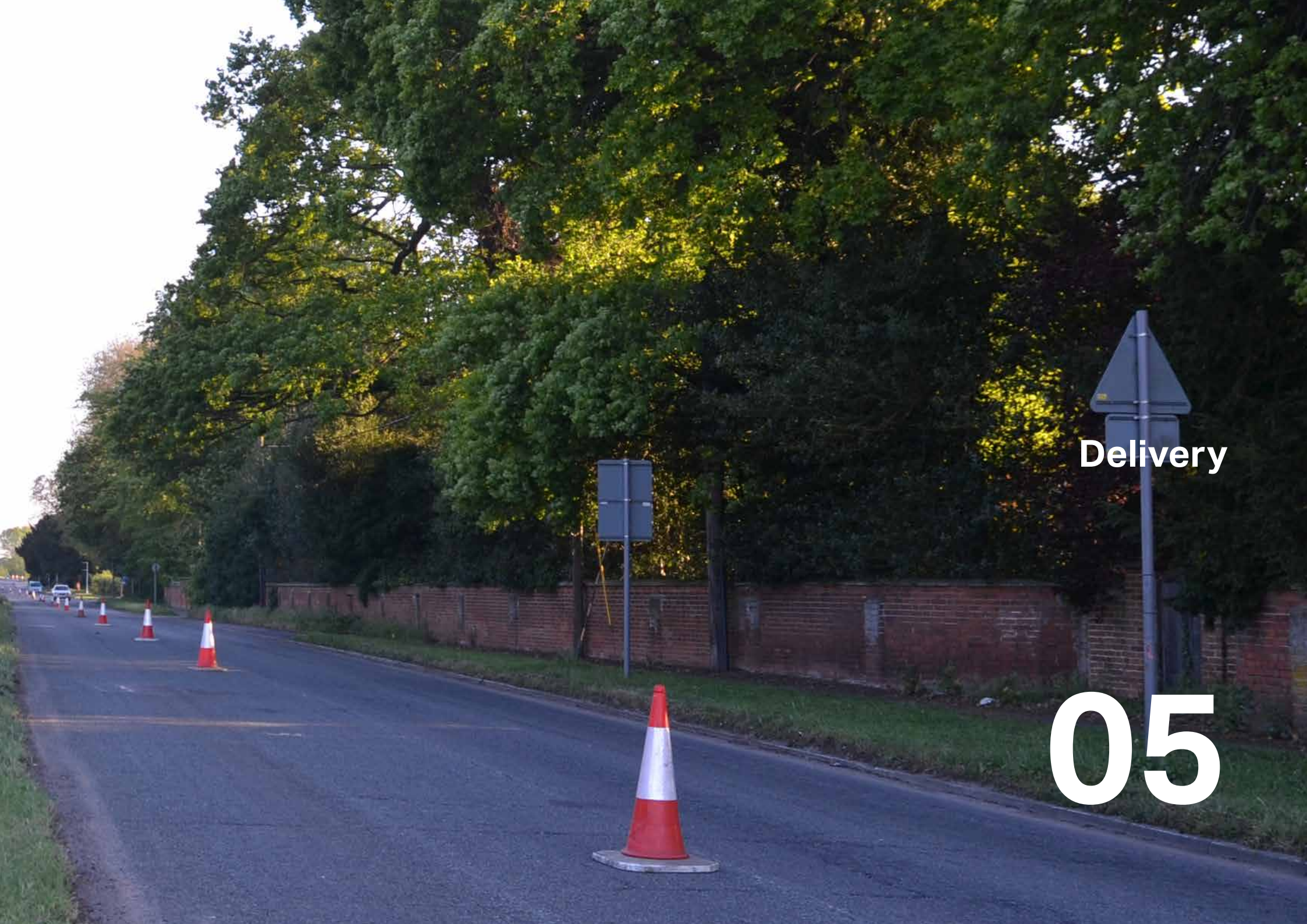
This sketch illustrates the dimensions for some key design elements related to the road network (residential strees, lanes/private roads, pedestrian roads and cycle paths), front, back gardens and parking spaces. The street dimensions are further illustrated as cross sections in section 3.16 above.



LA008 Indicative dimensions for key design elements (not to scale)

This page has been intentionally left blank


Village hall &
playing fields



Delivery

05

5. Delivery

5.1. Delivery Agents

The design guidelines will be a valuable tool for securing context-driven, high quality development in Copdock and Washbrook. They will be used in different ways by different actors in the planning and development process, as summarised in the table below:

Actor	How they will use the design guidelines
Applicants, developers and landowners	As a guide to the community and Local Planning Authority expectations on design, allowing a degree of certainty – they will be expected to follow the Guidelines as planning consent is sought. Where planning applications require a Design and Access Statement, the Statement should explain how the Design Guidelines have been followed.
Local Planning Authority	As a reference point, embedded in policy, against which to assess planning applications. The Design Guidelines should be discussed with applicants during any pre-application discussions.
Parish Council	As a guide when commenting on planning applications, ensuring that the Design Guidelines are followed.
Community organisations	As a tool to promote community-backed development and to inform comments on planning applications.
Statutory consultees	As a reference point when commenting on planning applications

5.2. Deliverability

The National Planning Policy Framework (paragraph 35) emphasises that a proportionate evidence base should inform plans. Based on a 'positive vision for the future of each area; a framework for addressing housing needs and other economic, social and environmental priorities; and a platform for local people to shape their surroundings' (see paragraph 15). Policies should be 'underpinned by relevant and up-to-date evidence. This should be adequate and proportionate, focused tightly on supporting and justifying the policies concerned, and take into account relevant market signals' (paragraph 31). Crucially planning policies 'should not undermine the deliverability of the plan' (paragraph 34).

Neighbourhood Plans need to be in general conformity with the strategic policies in the corresponding Local Plan. Where new policy requirements are introduced (that carry costs to development) over and above Local Plan and national standards it is necessary to assess whether development will remain deliverable. The principles and guidance set out in this document and within the Neighbourhood Plan's policies are aligned with national policy and non-statutory best practice on design.

The values and costs of construction between new developments and within new developments will vary based on location, situation, product type, design (architecture, placemaking etc.) and finish; and the state of the market at the point of marketing the properties. The guidelines herein constitute place making principles and guidance to help interpret and apply the statutory policies within the Neighbourhood Plan. Good design is not an additional cost to development and good placemaking can result in uplifts in value.

Appendices

Appendices

Appendix 1: Landscape designations

National Character Area 86 (NCA 86)

The South Suffolk and North Essex Clayland National Character Area covers the four counties of Suffolk, Essex, Hertfordshire and Cambridgeshire. It stretches from Bury St Edmunds in the north-west to Ipswich in the north-east. It then embraces the Colchester hinterland before encompassing the urban areas of Braintree and Chelmsford in the south. It is an ancient landscape of wooded arable countryside with a distinct sense of enclosure. The overall character is of a gently undulating, chalky boulder clay plateau, the undulations being caused by the numerous small-scale river valleys that dissect the plateau. There is a complex network of old species-rich hedgerows, ancient woods and parklands, meadows with streams and rivers that flow eastwards. Traditional irregular field patterns are still discernible over much of the area, despite field enlargements in the second half of the 20th century. The widespread moderately fertile, chalky clay soils give the vegetation a more or less calcareous character. Gravel and sand deposits under the clay are important geological features, often exposed during mineral extraction, which contribute to our understanding of ice-age environmental change[1].

The National Character Area (NCA) for the Suffolk and Essex Claylands (86) is very rich in arable plants: 83 out of 121 rare and threatened plants in the UK have been recorded since 1987, giving a total Important Arable Plant Area (IAPA) score of 386. This is one of the highest scores in the country, and as a consequence the Suffolk and Essex Claylands NCA should be prioritised for conservation measures[2].

1. http://publications.naturalengland.org.uk/publication/5095677797335040

2. NE515:NCA Profile: 86 South Suffolk and North Essex Clayland, Natural England, Plantlife

Ancient Estate Claylands[1]

This landscape chatacter type can be found in eastern Suffolk. Some of the key characteristics are:

- Dissected Boulder Clay Plateau;
- Organic Pattern of field enclosures;
- Straight boundaries where influence of privately owned estates is strongest;
- Parklands;
- Enclosed former greens and commons;
- Villages with dispersed hamlets and farmsteads;
- Distinctive estate cottages;
- Timber framed buildings; and
- Ancient semi-natural woodland.

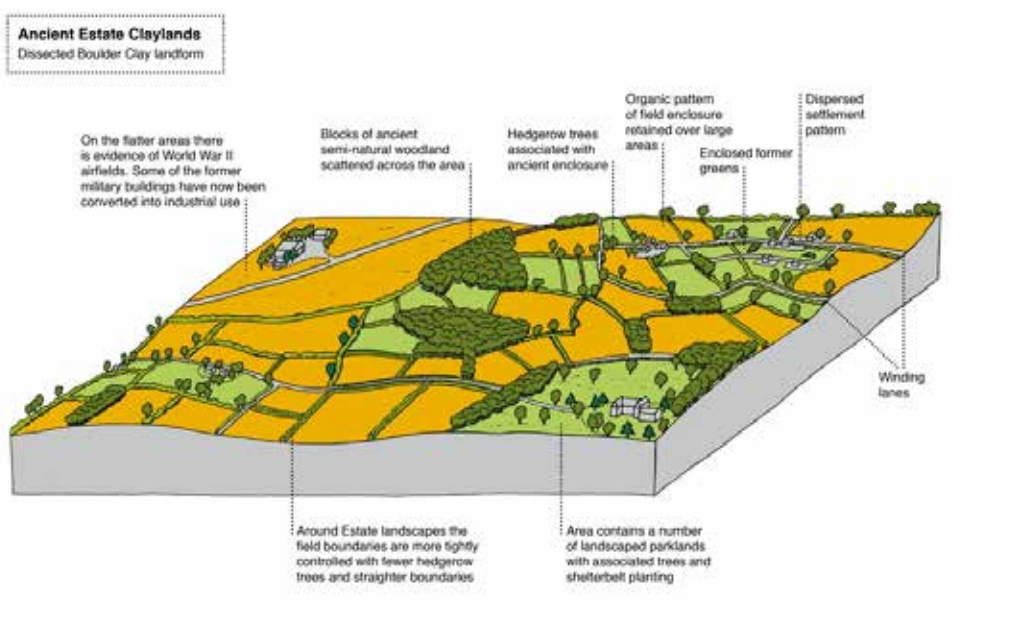


Diagram as exemplar for Babergh Villages and Towns

Location

This landscape character type occurs in eastern Suffolk on the indented edge of the central clay plateau. The rivers draining east and south have divided the edge of the plateau into a series of 'fingers' and this landscape is found on those residual areas of plateau.

Visual Experience

Despite the reasonably well-wooded landscape the plateau landform means that the views are open and can be long. However, the comprehensive network of winding lanes and tall hedges means that other areas can be much more intimate.

1. http://www.suffolklandscape.org.uk/userfiles/pdfs/Descriptions%202010/1%20Ancient%20Estate%20Claylands.pdf

Rolling Valley Farmlands

The description[2] of this landscape type highlighted the following:

'This landscape has small and medium sized fields on the valley sides with an organic form which was created by the piecemeal enclosure of common arable and pasture lands'.

Key characteristics[3]

- Gentle valley sides with some complex and steep slopes;
- Deep well drained loamy soils;
- Organic pattern of fields smaller than on the plateaux;
- Distinct areas of regular field patterns;
- A scattering of landscape parks;
- Small ancient woodlands on the vallley fringes;
- Sunken lanes;
- Towns and villages with distinctive mediaeval churches;
- Industrial activity and manufacture, continuing in the Gipping Valley; and
- Large, often moated houses

Location

This landscape character type occurs in two main parts of the country:
The Stour valley from Cattawade and Manningtree upstream to Haverhill and Kedington, including the tributary valleys of the Newmill Creek (to Little Wenham), the Brett (to Hitcham and Thorpe Morieux), the Brad (to Lavenham), the Box (to Edwardstone), the Chad Brook (to Brockley) and the Glem (to Wickhambrook).

The valley of the lower Gipping from Sproughton upstream to the southern edge of Needham Market, and those of its western tributaries: the Belstead Brook (including the Spring and Flowton Brook, to Elmsett) and The Channel (to Great Bricett).

Visual experience

This is a rich and varied landscape with its concentration of prosperous medieval towns and villages, contrasting with the smaller and less glamorous settlements of the surrounding plateaux. The steeper valleys and sunken lanes contrast clearly to most of the other valley networks in the county.

This landscape type embraces some of the most famous views and sites of Suffolk, East Anglia and England. The Stour valley is internationally renowned as 'Constable Country'.

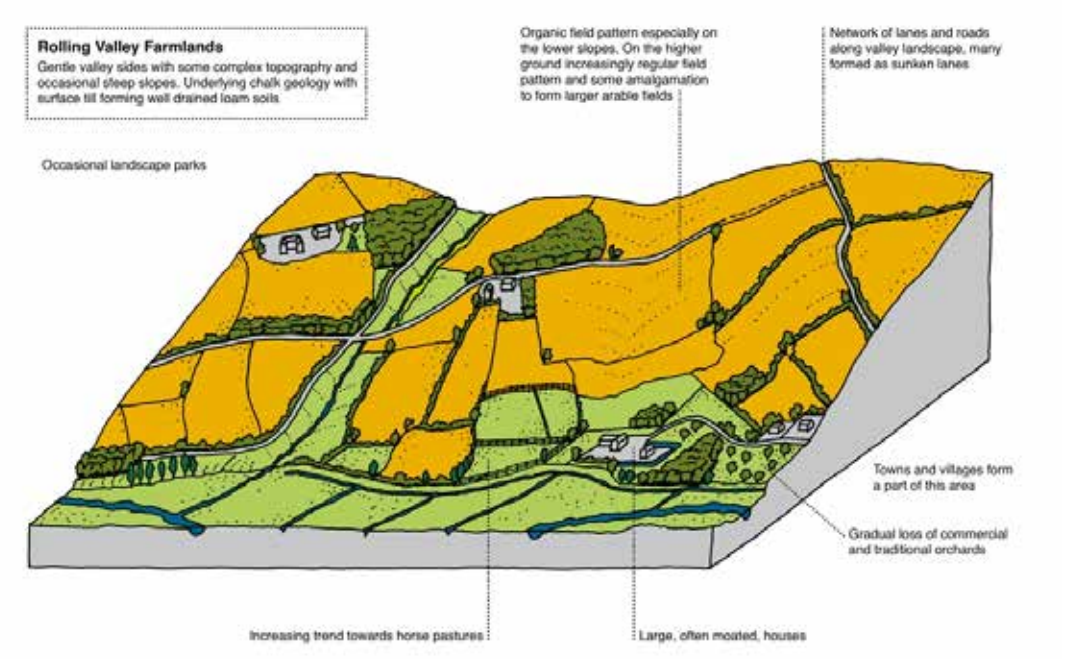


Diagram as exemplar for Rolling valley farmlands

2. Copdock and Washbrook Neighbourhood Plan: Landscape Appraisal Draft Report, 2019
3. http://www.suffolklandscape.org.uk/landscapes/Rolling-valley-farmlands.aspx

Appendix 2: Site accessibility review

Introduction

This note provides a summary of Site LA008 within the Copdock and Washbrook Neighbourhood Plan area in Suffolk, in terms of its proposed vehicular access and accessibility by other modes of transport, including sustainable and non-motorised modes. The site is allocated for residential development within the emerging Babergh and Mid Suffolk Joint Local Plan (dated 13th June 2019).

The following aspects have been considered within the review:

- Highway standards/ guidance: a review of relevant guidance to determine visibility and access requirements for the site.
- Existing conditions: a review of the existing highway conditions in the vicinity of the site to inform considerations within regards to vehicular access.
- Vehicular site access: an initial review of potential vehicular access points into the site and an appraisal of junction visibility based on observations. This includes an assessment of the number of vehicular accesses likely to be required for the total anticipated number of dwellings, in accordance with the Suffolk Design Guide for Residential Areas.
- Sustainable travel: an initial review of pedestrian/ cycle links including consideration of accessibility/ distances to village amenities, schools and closest bus stops.
- Any additional considerations of the site with regards to transport.

It should be noted that the appraisal of the accessibility potential of the site is subject to confirmation of highway boundaries and the extent of land within the control of the promoters of the site and/ or agreement with third party land owners.

Highway Standards

Visibility Requirements

Manual for Streets (MfS) sets out requirements for Stopping Sight Distances (SSDs) in areas where 85th percentile speeds are up to 60kph (37mph). For areas where speeds are above this, the recommended SSDs in the Design Manual for Roads and Bridges (DMRB) are more appropriate. Where sites are currently located in more rural areas (and therefore Manual for Streets may not necessarily be appropriate), visibility splays have also been considered in accordance with DMRB.

The stopping sight distance (SSD) is the distance from which drivers need to be able to see ahead and stop from a given speed. The SSDs for various speeds between 16-60kph (10-37mph) as held within MfS are as shown in Table 1.

Table 1: Derived SSDs for Streets (figures rounded)

Speed	Kilometres per hour	16	20	24	25	30	32	40	45	48	50	60
	Miles per hour	10	12	15	16	19	20	25	28	30	31	37
SSD (metres)		9	12	15	16	20	22	31	36	40	43	56
SSD adjusted for bonnet length. See 7.6.4		11	14	17	18	23	25	33	39	43	45	59
		Additional features will be needed to achieve low speeds										

Source: Manual for Streets (MfS) Table 7.1

The distance back along the minor arm from which visibility is measured is known as the X distance; MfS states that an X distance of 2.4m should normally be used in most built-up situations, as this represents a reasonable maximum distance between the front of the car and the driver's eye.

The Y distance represents the distance that a driver who is about to exit from the minor arm can see to his left and right along the main alignment and is outlined as the SSD in Table 1 above. Therefore, in accordance with MfS, the required visibility splay for a junction within an area where 85th percentile vehicle speeds are 30mph is 2.4m x 43m.

The DMRB is used primarily for the design of motorway and trunk roads, however, it can be used as a guide for areas where vehicles speeds are likely to be in excess of 60kph (37mph) and for rural areas where Manual for Streets may not be considered appropriate. In terms of visibility at priority T-junctions, DMRB TD 42/95 provides information on the 'Y' distance required along a major road based on its design speed. This is shown in Table 2 below.

Table 2: 'Y' Visibility Distances from the Minor Road based on Design Speed

Design Speed of Major Road (kph)	'Y' Distance (m)
50	70
60	90
70	120
85	160
100	215
120	295

Source: DMRB TD 42/95 Table 7/1

Suffolk Design Guide for Residential Areas (SDGRA) - Access Requirements

The Suffolk Design Guide for Residential Areas (2000) specifies the following:

- A 'Major Access Road' is a 'residential road with footways that would not normally serve more than 300 dwellings and may give shared direct access to dwellings.'
- 'For Major access roads serving more than 150 and up to 300 dwellings:
  a) Two points of access should be provided to the part of the site being served and the road layout should conveniently connect those points of access.
  b) Where only one point of access is available the road layout should form a circuit and there should be the shortest practicable connection between this circuit and the point of access. This should always form the stem of a T-junction – usually with a Local Distributor Road.'
- 'From the point of view of safety and the need to consider access in emergencies, not more than 150 dwellings will normally be served by a single means of access.'
- A 'Minor Access Road' is a 'residential road with footways that provides direct access to dwellings and parking spaces but would not normally serve more than 100 dwellings.'
- 'Minor access roads serving more than 50 dwellings should normally be through-roads or looped. Cul- de-sacs serving such numbers must have a footpath link with other roads that could be used by vehicles in an emergency.'
- A 'Shared Surfaced Road' is a 'residential road without footways that would not normally serve more than 50 dwellings if looped or 25 in the form of a cul-de-sac.'
- A 'Shared Driveway' is an 'unadapted paved area that may serve the driveways of up to five dwellings.'

Existing Highway Arrangements

London Road

London Road is a dual carriageway road which runs in a southwest-northeast direction, is subject to a 50mph speed limit (subject to review) and runs between A12 Junction 32B to the southwest and Copdock and Washbrook to the northeast. The carriageway is subject to no waiting restrictions, is partially street lit (it is unlit to the and contains two running lanes in each direction in the vicinity of the site, as well as a footway along the north-western side of the carriageway. London Road also contains bus stops on both sides which are served by bus routes 93, 93A and 93C. The carriageway has a slight downhill gradient from the southwest to the northeast along the south-eastern frontage of the site. At peak times, the road is used by a rat run by commuters seeking to avoid the main A12 trunk road.

Elm Lane

Elm Lane comprises the minor arm of a priority T-junction with London Road just to the southwest of the site, where Elm Lane forms a give-way with the London Road northeast-bound carriageway. The junction includes a right turn refuge within the central reservation allowing vehicles to travel between Elm Lane and the London Road southwest-bound carriageway.

Elm Lane is a single carriageway road which runs in a southeast-northwest direction and is subject to a 30mph speed limit. The carriageway is approximately 4.2m in width (allowing two cars to pass) and is fronted by several residential dwellings on the south-western side. There are no footways along Elm Lane and the carriageway is generally unlit except for in the vicinity of the junction with London Road.

Back Lane
Back Lane forms the minor arm of a priority T-junction with Elm Lane approximately 420m to the northwest of London Road. Back Lane is a single carriageway road which runs in a southwest-northeast direction and runs from the junction with Elm Lane in the southwest towards the centre of Copdock to the northeast. The carriageway is approximately 4.7m wide adjacent to the proposed development narrowing, to 3.5m and a blind bend (insufficient for two cars to pass) towards the north-east. It is subject to a 30mph speed restriction and has a significant downhill gradient from the south-west to the north-east along the north-western frontage of the proposed site. There are no footways directly along Back Lane and the carriageway is generally unlit except for in the vicinity of the junction with Fen View, which serves a number of residential dwellings.

Traffic Flow Data (London Road)
The Department for Transport (DfT) conducted a manual traffic count on London Road on Tuesday 25th September 2018. The traffic count was carried out in the vicinity of the junction with Elm Lane which is adjacent to the southern corner of the site.

A summary of the results is provided in Table 3 below, including the Annual Average Daily Flow (AADF) which reflects an estimate of the average number of vehicles that travel along London Road on an average day of the year. The results are split by direction, northbound (NB) and southbound (SB).

Mode	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)			AADF		
	NB	SB	Total	NB	SB	Total	NB	SB	Total
Cyclists	*2*	*2*	*4*	*5*	*4*	*9*	*19*	*12*	*31*
Motorcyclists	1	0	1	2	5	7	33	31	64
Cars/ LGVs	502	264	766	460	296	756	3,674	2,344	6,018
HGVs	15	14	29	15	2	17	112	63	175
Total (exc. cyclists)	**518**	**278**	**796**	**477**	**303**	**780**	**3,819**	**2,438**	**6,257**

Source: DfT Manual Count Site 942113

The above indicates that there are approximately 13-14 two-way vehicle movements per minute during each of the weekday peak hours, with a greater flow in the northbound direction. The majority of vehicles are light vehicles, with approximately 3% comprising HGVs.

Collision Record (Crashmap)
Personal Injury Accident (PIA) data has been examined using the freely available Crashmap website for the roads in the vicinity of the sites including London Road, Elm Lane and Back Lane. The PIA data covers the most recently available three year period between 2016 and 2018.

A total of two collisions (both classified as slight in severity) occurred within the vicinity of the site. One incident occurred on Back Lane, to the northeast of the site, and involved a single vehicle. The other incident occurred on Elm Lane, to the southwest of the site, and involved a collision between two vehicles. These PIAs occurred under separate circumstances and at different locations.

In view of the above, there does not appear to be any existing accident patterns or clusters within the vicinity of the site.

Site Allocation
Site LA008 is 13 hectares in size and has been allocated for approximately 226 dwellings (with associated infrastructure) within the Joint Local Plan. The site is currently occupied by agricultural land/ fields, with a small area at the eastern extent used as allotments. The location of the site is illustrated in Figure 1 below.

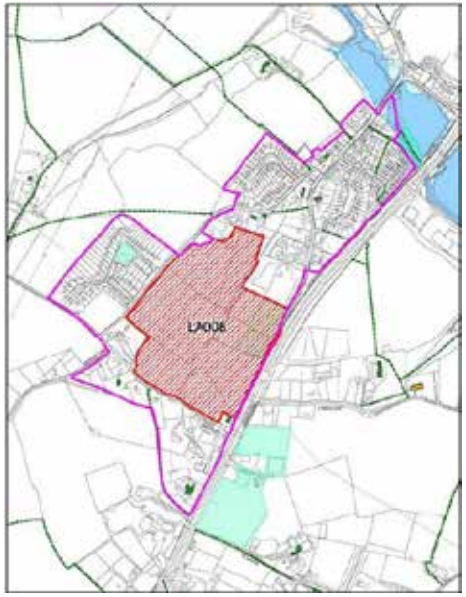


Figure 1: Site LA008
Source: Joint Local Plan – Preferred Options (Reg 18) – July 2019

Vehicular Access

The site is bound to the southeast by London Road which, within the vicinity of the site boundary, is a relatively straight dual carriageway road subject to a 50mph speed limit. It is therefore considered that minimum visibility splays of 2.4m x 160m (DMRB) would be required at any point of site access on London Road. The parcel is also bound to the southwest by Elm Lane, and Back Lane to the northwest, both of which are single carriageway roads subject to a 30mph speed limit.

An existing agricultural access into the site is situated on London Road opposite the junction with Church Lane, and approximately 100m to the northeast of the junction with Elm Lane. An existing access for the allotments is also situated on London Road, approximately 100m to the northeast of the agricultural access. It is understood that the allotments are to be retained as part of any proposals.

The anticipated dwelling yield for Site LA008 (as per the emerging Babergh and Mid Suffolk Joint Local Plan) is 226 dwellings. It is considered that these dwellings could be served by a primary point of site access on London Road (with the internal road layout forming a circuit as per the Suffolk Design Guide), with an additional point of emergency access on Elm Lane and/ or Back Lane given that the site will serve more than 150 dwellings. There is the potential to provide the primary access on London Road approximately 60m to the northeast of the existing agricultural access. It appears from on-site observations that a visibility splay of 2.4m x 160m (DMRB) would be achievable to the right from this point of access on London Road (see Figure 2 below).

Figure 2: Visibility to the right (northeast) on London Road

The access arrangements on London Road should consider the provision of a right turn refuge to provide vehicular access to/ from the southwest-bound carriageway. There is an existing break within the central reservation which could be utilised as part of these arrangements. The site access road (within the site) should take the form of a Major Access Road and the primary route within the development site should comprise a circuit with footways on both sides.

Whilst an alternative site access could be provided at the location of the existing agricultural access on London Road, this would result in a crossroads arrangement with Church Lane. It is therefore considered that any proposals for site access at this location would need to carefully reviewed with respect to road safety. This location may otherwise offer a suitable location for an emergency access, potentially in the form of a left in/ left out type arrangement.

Notwithstanding the above, there may be the potential to provide a point of emergency access on Back Lane approximately 60m to the northeast of the Back Lane/ Fen Lane junction. It appears from on-site observations that visibility splays of 2.4m x 70m (in accordance with MfS and DMRB) would be achievable in each direction from this point of access on Back Lane (see Figures 3 and 4 below). The access should be positioned a suitable distance away from the bend located to the northeast to ensure visibility is maximised.

Figure 3: Visibility to the left (southwest) on Back Lane

Figure 4: Visibility to the right (northeast) on Back Lane

There may also be the potential to provide a point of emergency access on Elm Lane approximately 230m to the northwest of its junction with London Road, where it appears that visibility splays of 2.4m x 43m (in accordance with MfS) should be achievable in each direction subject to cutting back vegetation. The location of such an access should take into consideration the position of existing driveways on the south-western side of the carriageway.

Indicative Trip Generation

An indicative trip generation has been compiled for the site based on the potential ('aspirational') delivery of 226 dwellings. All person trip rates have firstly been obtained from the TRICS database (version 7.6.1) based on sites comprising privately owned houses. The 2011 Census database has then been examined to identify the existing travel patterns of residents (main mode of travel) living within Copdock and Washbrook using the 'Method of travel to work' (QS701EW) dataset for the corresponding Lower Super Output Areas (LSOAs). The existing mode share has been applied to the all person trip generation to provide a forecast of travel patterns at the site. The results are presented below in Table 4.

Table 4: Indicative Trip Generation for LA008

Travel Mode	Share	AM Peak (08:00-09:00)			PM Peak (16:00-17:00)			Daily (07:00-19:00)		
		Arr	Dep	Total	Arr	Dep	Total	Arr	Dep	Total
Car Driver/ Motorcyclist	81.5%	35	140	175	103	55	159	711	722	1,433
Car Passenger	4.3%	2	7	9	6	3	8	38	38	76
Bus (i.e. route 93)	2.8%	1	5	6	4	2	5	24	24	49
Rail*	2.6%	1	4	6	3	2	5	22	23	45
Cycle	1.6%	1	3	3	2	1	3	14	14	28
Walk	6.7%	3	12	14	9	5	13	59	59	118
Other	0.6%	0	1	1	1	0	1	5	5	10
Trip Generation (226 dwellings)	**100%**	**43**	**173**	**216**	**127**	**68**	**195**	**873**	**887**	**1,760**
Trip Rate (per dwelling)		*0.191*	*0.762*	*0.953*	*0.561*	*0.301*	*0.862*	*3.862*	*3.922*	*7.784*

*likely to reflect rail trips at Ipswich station e.g. to/ from Norwich or London

Source: TRICS (version 7.6.1) and 2011 Census data (LSOAs E00152255-E00152258 inclusive)

The results show that a residential development on the site could be expected to generate up to 175 two-way vehicular trips during the worst-case peak hour. It is considered that the forecast increases on London Road would need to be considered as part of any scheme to demonstrate that these movements could be safely accommodated.

Access by Sustainable Modes

An existing footway (which is typically less than 1m in width) runs alongside the north-western side of London Road and therefore the south-eastern boundary of the site. This footway runs towards The Street to the northeast which provides access to Copdock Primary School and the village centre. The footway also provides access to a bus stop approximately 40m to the north-east of the Elm Lane junction which is served by bus routes 93, 93A and 93C running to/ from Colchester and Ipswich. This existing pedestrian route will need to be retained and may require improvement/ widening as part of any scheme to link the site with existing facilities and to ensure continuous pedestrian access is provided into the village centre, bus stops and schools.

National Cycle Route 1 runs along Elm Lane at the south-western boundary of the site which provides cyclists with a link towards the centre of Ipswich and smaller villages nearby. A short section of shared cycle/ footway (approximately 2.3m in width) is situated on the north-western side of London Road to the northeast of the Elm Lane junction (as part of the route) which links with a facility allowing cyclists to cross to the south-eastern side of the carriageway. There are however no pedestrian crossing

facilities within the vicinity of the site on London Road, such as to allow pedestrians to travel to/ from the bus stop on the south-eastern side of the carriageway.

Although Elm Lane is signed as a 'Circular Walk' (local walking route) and provides access to a public footpath approximately 230m to the northwest of London Road, there is no footway provision and pedestrians are therefore required to walk within the carriageway. There are also no pedestrian facilities at the Back Lane/ Elm Lane priority junction. A short section of footway runs between the Fen View junction and the cul-de-sac on the north-western side of Back Lane, but not directly alongside the carriageway. Whilst there is an existing bus shelter on the north- western side of Back Lane in the vicinity of the junction with Fen Lane, it is unclear whether this is currently served by any bus routes.

Approximate walking distances to existing facilities within the village (from the centre of the site's eastern boundary on London Road) are outlined below in Table 5.

Table 5: Walking Distances between the site and Existing Facilities (from London Road)

Facility	Preferred Max. Distance	Approx. Distance from Site
Copdock Village Hall	800m	200m
Bus stops (adjacent/ opposite Elm Lane)	400m	60m (northeast-bound) 130m (southwest-bound)
Copdock Primary school	2,000m	400m
Copdock and Washbrook Pre-School	2,000m	460m

There are no secondary schools situated within Copdock or Washbrook which would otherwise potentially be accessible within an acceptable walking distance of the site. The table therefore demonstrates that the site is considered to be within an acceptable walking distance of existing facilities and amenities within Copdock and Washbrook. Residents would also have the potential to make use of bus routes 93, 93A and 93C to travel to/ from alternative facilities and amenities within Ipswich or Colchester.

Additional Transport Considerations

Vehicle speeds along London Road (alongside the site boundary) are relatively high given the 50mph speed limit, dual carriageway layout and rural nature of the area. The downhill gradient from the southwest to the northeast also has the potential to increase northeast-bound vehicle speeds and this should be considered as part of the visibility requirements from any point of access considered on London Road. Nonetheless, the presence of the new 'more urban' development frontage onto London Road would mandate appropriate traffic calming measures on the adjacent carriageway.

It is considered that visibility splays of 2.4m x 43m cannot currently be achieved at the Elm Lane/ Back Lane junction due to existing overgrown vegetation and the presence of a brick wall and 2m fence to the east side. It is therefore considered that this should be cut-back to ensure that adequate levels of visibility are achievable on this part of the network, including to support any proposals to provide emergency access on Back Lane and/ or Elm Lane.

It is considered that improved pedestrian facilities would need to be provided in support of any proposals including links to/ from the village centre and to/ from the bus stop on the south-eastern side of the London Road carriageway. It is likely that any proposed footways on Elm Lane and Back Lane would need to be provided within the site to avoid narrowing the existing carriageway widths. Furthermore, contributions towards improved bus services (such as the frequency of existing bus routes) may be required by the local authority as part of any development on this site.

This page has been intentionally left blank

About AECOM
AECOM is built to deliver a better world. We design, build, finance and operate infrastructure assets for governments, businesses and organizations in more than 150 countries. As a fully integrated firm, we connect knowledge and experience across our global network of experts to help clients solve their most complex challenges. From high-performance buildings and infrastructure, to resilient communities and environments, to stable and secure nations, our work is transformative, differentiated and vital. A Fortune 500 firm, AECOM had revenue of approximately $17.4 billion during fiscal year 2016. See how we deliver what others can only imagine at aecom.com and @AECOM.

Contact
Ben Castell
Techincal Director
T +44 (0)20 7798 5137
E ben.castell@aecom.com

Niltay Satchell
Principal Urban Designer
T +44 (0)20 78214283
E niltay.satchell@aecom.com

aecom.com