

# BOTTESFORD PARISH

Design Code

AECOM

FINAL REPORT

July 2020

locality

the power of community

## Quality information

Project role	Name	Position	Action summary	Signature	Date
Qualifying body	Bob Bayman	Chair, Bottesford Parish Council	Review		05-06-2020
	Lucy Flavin	Clerk, Bottesford Parish Council			
Researcher	Jimmy Lu	Senior Urban Designer	Research, site visit, drawings	Jimmy Lu	10-07-2020
Researcher	Katerina Koukouthaki	Built Heritage Consultant	Research, site visit	Katerina Koukouthaki	27-01-2020
Researcher	Jing Yuan	Senior Urban Designer	Research, site visit	Jing Yuan	27-05-2020
Researcher	Stela Kontogianni	Graduate Urban Designer	Research, drawings	Stela Kontogianni	11-06-2020
Director / QA	Ben Castell	Technical Director	Revision and approval of Final Draft Report	Ben Castell	22-06-2020
Project Coordinator	John Wilkinson	Project Coordinator	Review	John Wilkinson	08-07-2020

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Introduction

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# 1. Introduction

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This section provides context and general information to introduce the project and its location.

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## 1.1. Introduction

Through the Ministry of Housing, Communities and Local Government (MHCLG) Neighbourhood Planning Programme led by Locality, AECOM has been commissioned to provide design support to Bottesford Parish Council.

The Neighbourhood Plan Steering Group is making good progress in the production of its Neighbourhood Plan which is currently being written. Currently, there are 6 sites allocated in the Melton Borough Council (MBC) Local Plan for over 400 new dwelling units throughout Bottesford Parish; two of those are in Easthorpe. These sites are at various planning application stages, with one (BOT4) already under construction at the time of writing this report. The Parish Council has requested to access professional advice on design guidelines for new developments on these sites, as well as any other development that will come forward.

Design elements of the applications that are of particular concern to the Parish Council include: integration with the historic and rural character of the Parish; flood risks; the

accessibility of new green spaces and SuDS; and the retention of areas of separation to prevent coalescence.

This document provides advice to address the Parish Council's concerns on the aforementioned design elements and must be read jointly with the village extension planning application documents for the allocated sites. It also supports Neighbourhood Plan policies that guide the design of any future development proposals in order to create distinctive places that are well-integrated with the existing settlement.

## 1.2. Objective

The main objective of this report is to develop design guidelines for the Neighbourhood Plan, and to inform the design of future planning applications and residential developments in Bottesford Parish. In particular, it elaborates on key design elements that were agreed with the Neighbourhood Plan Steering Group at the outset of the project, namely:

- Historic character;
- Flood alleviation and SuDS;
- Green spaces; and
- Architectural details and material palette.

## 1.3. Process

Following an inception meeting and a site visit with members of the Neighbourhood Plan Steering Group, AECOM carried out a high-level assessment of the village. The following steps were agreed with the Group to produce this report:

- Initial meeting and site visit;
- Urban design and historic character analysis;
- Preparation of design principles and guidelines to be used to inform the design of the Parish and future developments;
- Draft report with design guidelines; and
- Final report.



Figure 1: Bottesford Parish area, with parish boundary shown in red ©Google Earth.

## 1.4. Area of study

### Location

Bottesford is a civil parish in the Borough of Melton in Leicestershire. It is located in the Vale of Belvoir 11km west of Grantham, 23km east of Nottingham, and 40km north-east of Leicester. It is situated off the A52 between Grantham and Nottingham. The Parish forms the northernmost point of Leicestershire and borders Lincolnshire to the east and Nottinghamshire to the north and west. It includes the village of Bottesford and the distinct settlements of Normanton to the north and Easthorpe and Muston to the east. The nucleus of the main settlement is located between the River Devon and the crossroads formed by Market Street, Grantham Road, Belvoir Road, and High Street. Normanton is located 1.5km north of the junction, and Easthorpe and Muston are located 700m and 2km east of the junction respectively.

The Parish has a railway station with direct links to Nottingham, Grantham, Boston, and Skegness, and is served by the A52 which bypasses the south of Bottesford village. Bus services connect Bottesford to Bingham, Melton, and Grantham. The Parish has a community-run library, a post office, and a medical practice, in addition to a number of shops and businesses, mostly located in the main village. Bottesford has a primary school, Bottesford Church of England Primary School, and a high school, Priory Belvoir Academy. The main employment sites are located north and west of the main settlement, and include the former RAF Bottesford airfield that straddles the Parish boundary to the north.

At the 2011 census the resident population was 3,587 in the Parish, including 3,348 in the built-up area as defined by the Office for National Statistics.

### Designations

The Parish contains 3 Conservation Areas: one that includes the historic core of Bottesford, one in Normanton, and one in Easthorpe that is split into two distinct sections. There is a total of 41 listed buildings and 5 scheduled monuments within the Parish. Non-designated historic buildings, of local merit, are also evident in the Parish.

The most prominent listed buildings and landmarks include:

- The Church of St Mary the Virgin, Bottesford village (Grade I);
- Manor Farmhouse and Easthorpe Manor, Easthorpe (Grade II and scheduled monument);
- The Church of St John the Baptist, Muston (Grade II\*);
- The village crosses, Bottesford and Muston (scheduled monuments); and
- Beacon Hill, a high point that overlooks the Parish to the north of Bottesford village.

In addition, the Parish contains two Sites of Special Scientific Interest (SSSI), Muston Meadow and Debdale Meadow.



Figure 2: Map of Melton Borough, with Bottesford Parish shown in red.



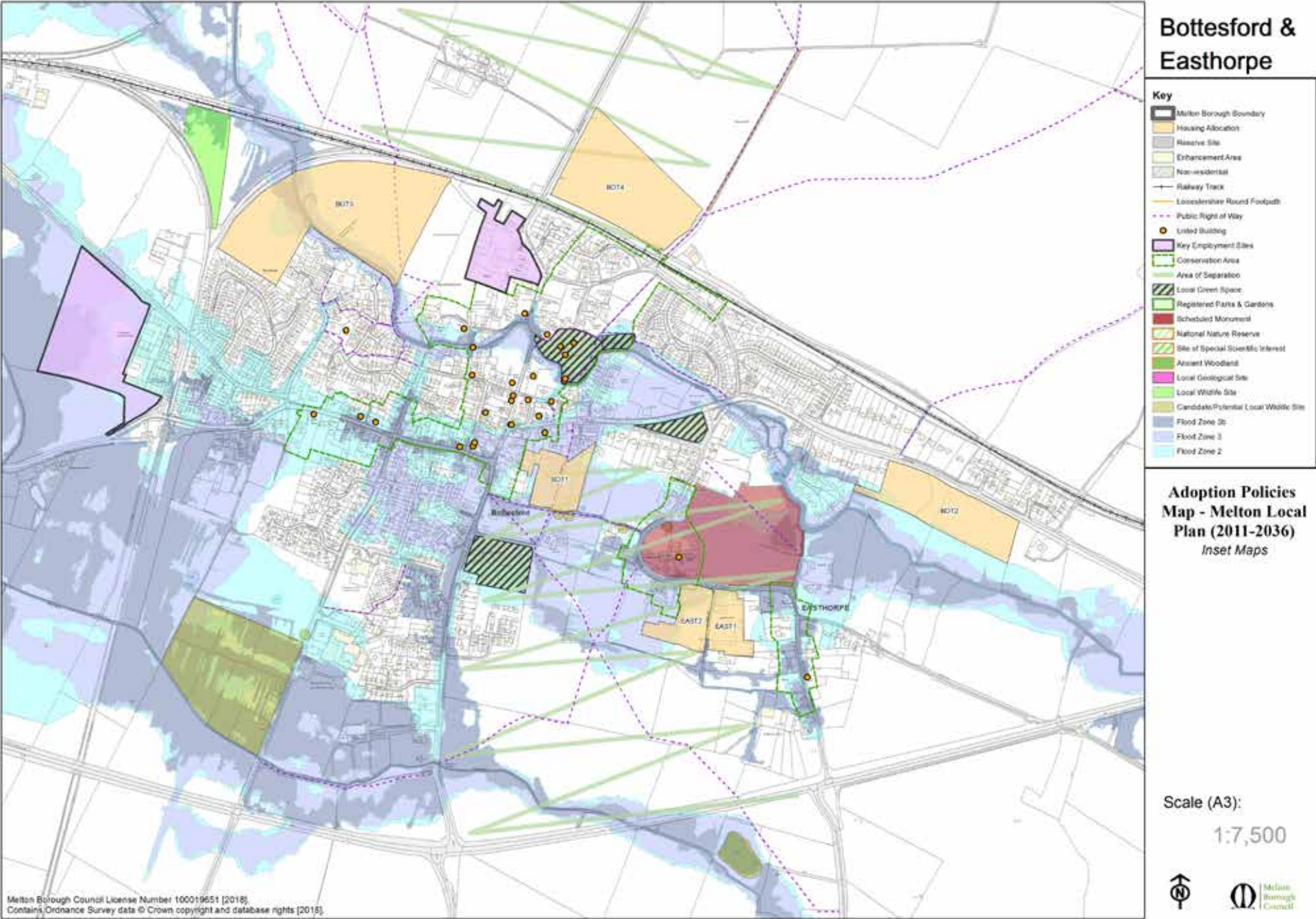


Figure 3: Bottesford & Easthorpe adopted policies map - Melton Local Plan (2011-2036) ©Melton Borough Council.

## 1.5. Historic timeline

- **1086:** Bottesford is mentioned in the Domesday book as a village closely associated with the Counts, Earls, and Dukes of Rutland, as is the neighbouring village of Muston. The names of adjacent hamlets, Easthorpe, Beckingthorpe, and Normanton, indicate a mixed Saxon-Danish-Norse population before the Norman Conquest.
- **13th century:** The Church of St Mary (Grade I, NHLE 1075095) in Bottesford and the Church of St John the Baptist (Grade II\*, NHLE 1360899) in Muston date from the 13th century with later alterations and additions.
- **14th and 15th centuries:** Apart from the medieval churches that survive in the Parish, evidence of the medieval villages includes the market crosses of Muston (Village Cross; Grade II\*, NHLE 1075068) and Bottesford (Market Cross; Grade II, NHLE 1075101), dating from the 14th and 15th centuries respectively.
- **16th century:** The Earl of Rutland Hospital (Grade II, NHLE 1360884) is founded in c. 1590 by the Countess of Rutland, wife of the fourth Earl. It originally gave a home to six elderly local men, who were called Bedesmen and were known for the elaborate uniform they wore to church. The building remains in the same use today.
- **Early 17th century:** Fleming's Bridge (Grade II, NHLE 1075096), a packhorse bridge, was built in sandstone in the early 17th century for the rector, Dr Samuel Fleming. The bridge was built over the River Devon, at the end of Church Street, Bottesford and provides access from the village centre to the Parish church and churchyard.
- **1790s:** The Grantham Canal was built through the Parish in the 1790s. Although initially profitable, the canal closed to traffic in 1935 but retains some navigable sections.

- **1850-1879:** Despite the opening of two railway stations in 1850 and 1879 respectively, the area remained dominated by farming into the 20th century.
- **1883:** The 1880's OS Map shows the historic core of Bottesford with most of the historic roads, High Street, Queen Street and Market Street already in place.
- **1941:** Bottesford Airfield was constructed during the Second World War as a bomber base. There was also an important military fuel depot.
- **Present:** Bottesford significantly expanded in the post-war period. The majority of the new development took place outside its historic core, towards the south, west and north-east. Modern development is also present within the historic core but is more restricted. The hamlets of Normanton, Easthorpe, and Muston have also accommodated some modern development, but remain small with the majority of buildings pre-dating the 20th century.



Figure 4: A sign describing the history of Bottesford near the Old Ford.



Figure 5: Aerial photo of Muston and the A52 ©Bottesford Parish Council.

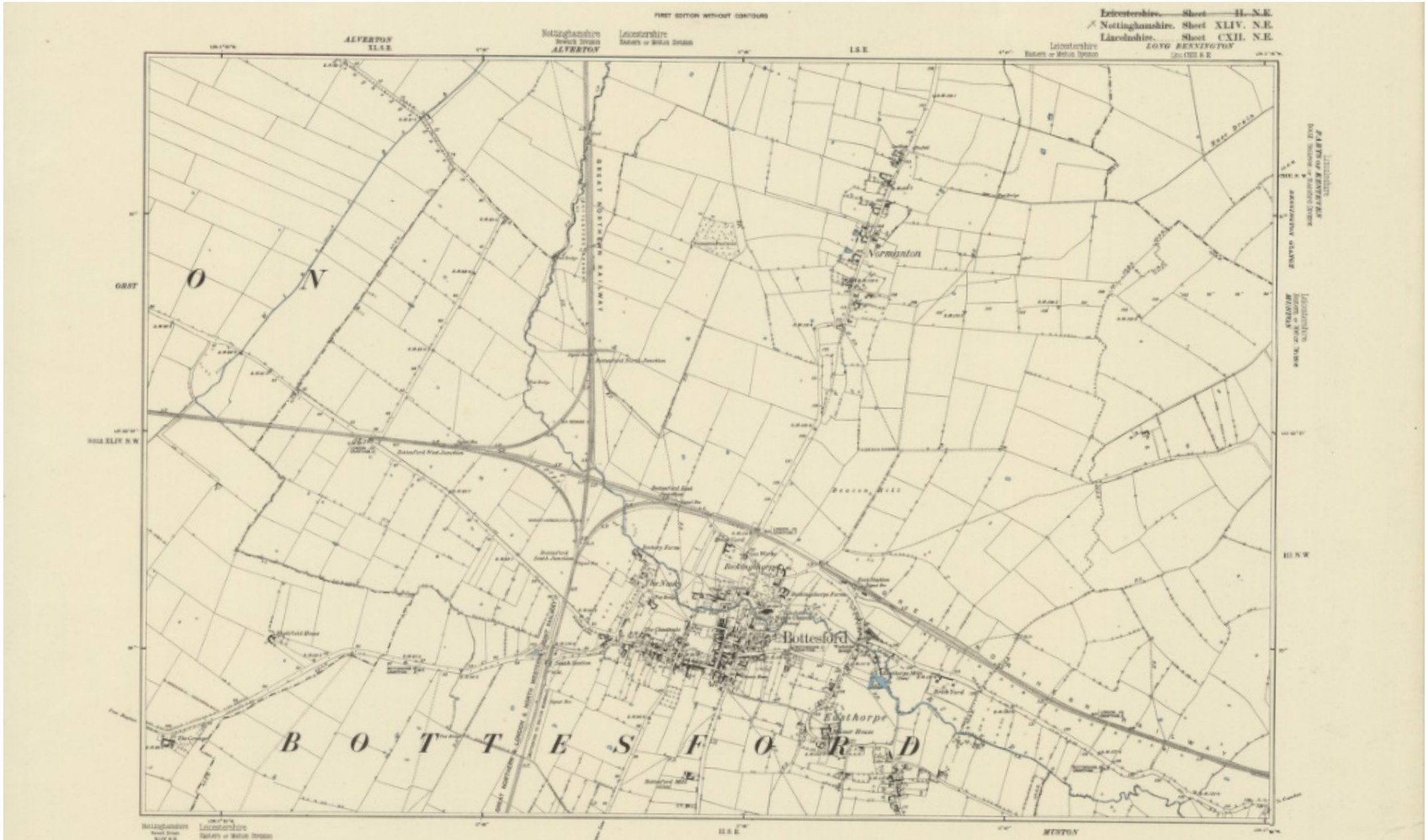


Figure 6: 1883 Ordnance Survey map of Bottesford village and Normanton. Reproduced with the permission of the National Library of Scotland





Local character analysis

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## 2. Local character analysis

This section outlines the broad physical, historical, and contextual characteristics of Bottesford Parish. It analyses the historic and modern settlement patterns as well as views, open spaces, building heights and rooflines, and housing typologies. Images in this section have been used to portray the built form of the Parish.

### 2.1. Settlement pattern and urban form

#### Bottesford Village

The village of Bottesford developed as a fording place on the River Devon and later as a stopping place on the route from Grantham to Nottingham. The medieval history of the village is mainly illustrated by the Church of St Mary and the Market Cross, located just off Market Street. The village developed mainly to the south-west of the Church of St Mary (Grade I, NHLE 1075095), with most historic buildings in the village dating from the 18th and 19th centuries. The village's location at the meeting point of three counties, Leicestershire, Nottinghamshire, and Lincolnshire, contributes to the distinctive character of the village. Traditional local materials include locally quarried ironstone, local bricks, and distinctive blue roofing tiles (glazed pantiles).











Bottesford Conservation Area encompasses the historic core of the settlement, including properties around the High Street, Queen Street, and old Market Place as well as the area to the west of St Mary's Church, around Devon Lane, and the north of the Church, up to the railway.

Within the historic core of Bottesford, there is a mix of properties set against the pavement edge or behind small front gardens. This is particularly evident on the High Street where there is a mix of historic and modern properties. Secondary roads branch off from the High Street, to the north, including Albert Street, Queen Street, and Market Street. These streets have a more intimate character in comparison to the wider High Street.

Notable exceptions to this pattern exist, particularly the Rectory (Grade II, NHLE 1075067) which is located within spacious grounds mostly surrounded by a perimeter wall, at parts constructed of stone and at parts of brick.

The River Devon runs through the northern part of the village around the southern boundary of the churchyard, contributing to the tranquil character of the village. This is more evident in the areas around Fleming's Bridge (Grade II, NHLE 1075096) and the 18th century Footbridge (Grade II, NHLE 1294972) at Devon Lane.

Development in the 20th century and more specifically in the post-war period took place predominantly to the west, south, and north-east of the main historic core. Development in these areas is suburban with uniform buildings set between small front gardens and more spacious back gardens. There is a distinct building line in most of these areas with buildings arranged around loops and cul-de-sacs that restrict permeability.

-  Settlement Boundary
-  Conservation Area
-  Scheduled Monument
-  Building Plots
-  Listed Buildings
-  Road Network
-  Railway
-  River
-  Local Green Space
-  Local Wildlife Site

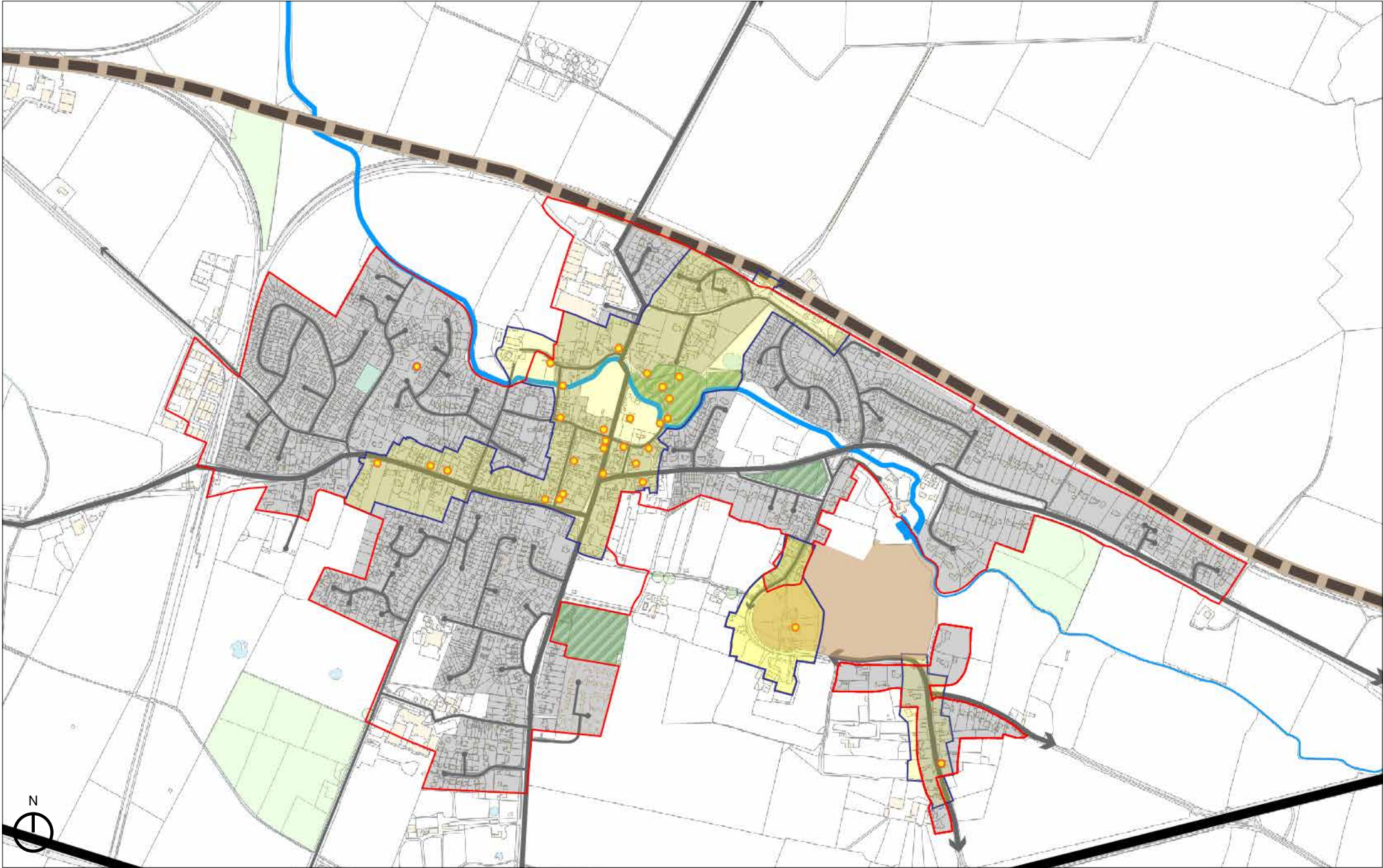







Figure 7: Map of the settlements of Bottesford and Easthorpe showing conservation areas (yellow), local green spaces (hatched), and settlement boundaries (red) ©Melton Borough Council.

## Normanton

Normanton is a dispersed linear hamlet, set around Normanton Lane to the north of the Parish. The settlement is characterised by small clusters of dwellings separated by open countryside and green spaces. Just outside of the village, to the north-east lies the former Second World War Bottesford Airfield, now used as an industrial storage complex. Although the buildings and structures of the complex are not visible from the village, the traffic generated by this operation is evident along the main road, distracting from the rural character of the settlement.

The location of buildings within the village illustrates its organic growth around Normanton Lane. Properties are located against the main street or set back from it, without a distinct building line. Outbuildings at the rear of the main property are common, as are spacious gardens within which these outbuildings are set. Undeveloped green spaces between the buildings contribute to a sense of openness. The village contains a variation of building styles, ages, and materials. The predominant building material is mellow red brick, although there are also some painted brick buildings and some limited natural ironstone. The village however benefits from a variety of roofing materials including slate as well as Bottesford blue and red clay pantiles.

-  Settlement Boundary
-  Conservation Area
-  Building Plots
-  Listed Buildings
-  Road Network

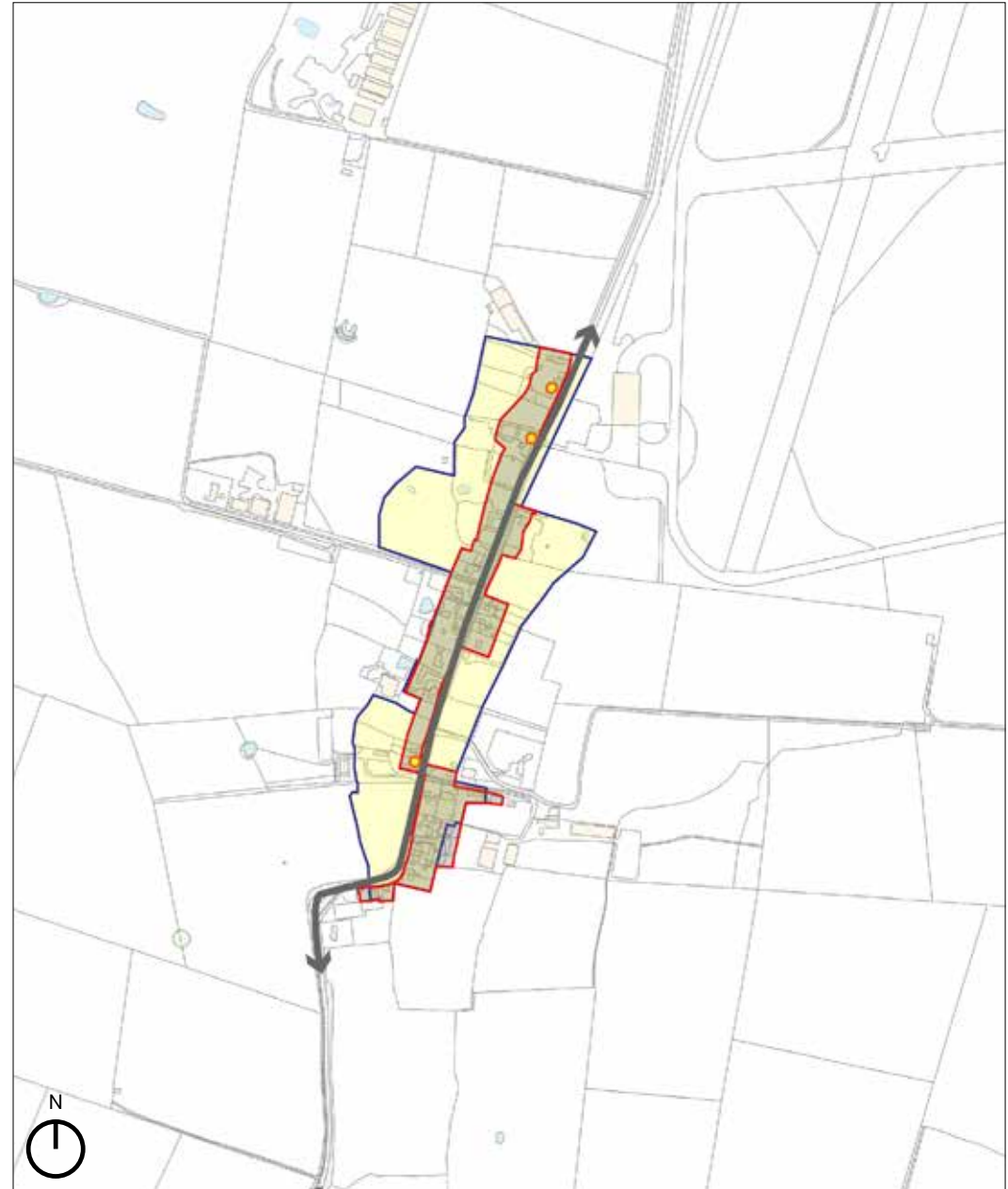











Figure 8: Map of the settlement of Normanton showing conservation areas (yellow) and settlement boundaries (red) ©Melton Borough Council.



## Easthorpe

Easthorpe is a mostly dispersed hamlet of linear form, situated immediately to the south-east of Bottesford village. Historically a separate settlement, the expansion of Bottesford has enclosed the village on both the north and west sides to some extent, although the hamlet has managed to retain its independent identity. Easthorpe Conservation Area is split into two distinct sections: the first encompasses the bend in Manor Road and centres on the Manor House and the Hollies to the west, while the second includes the majority of properties at the top end of Castle View Road to the east. The majority of the buildings in Easthorpe are two storeys, of red brick left exposed, painted white, or rendered. There is a very limited use of natural ironstone and roofing materials are mainly red clay pantiles.

-  Settlement Boundary
-  Conservation Area
-  Scheduled Monument
-  Building Plots
-  Listed Buildings
-  Road Network
-  River
-  Local Green Space
-  Local Wildlife Site

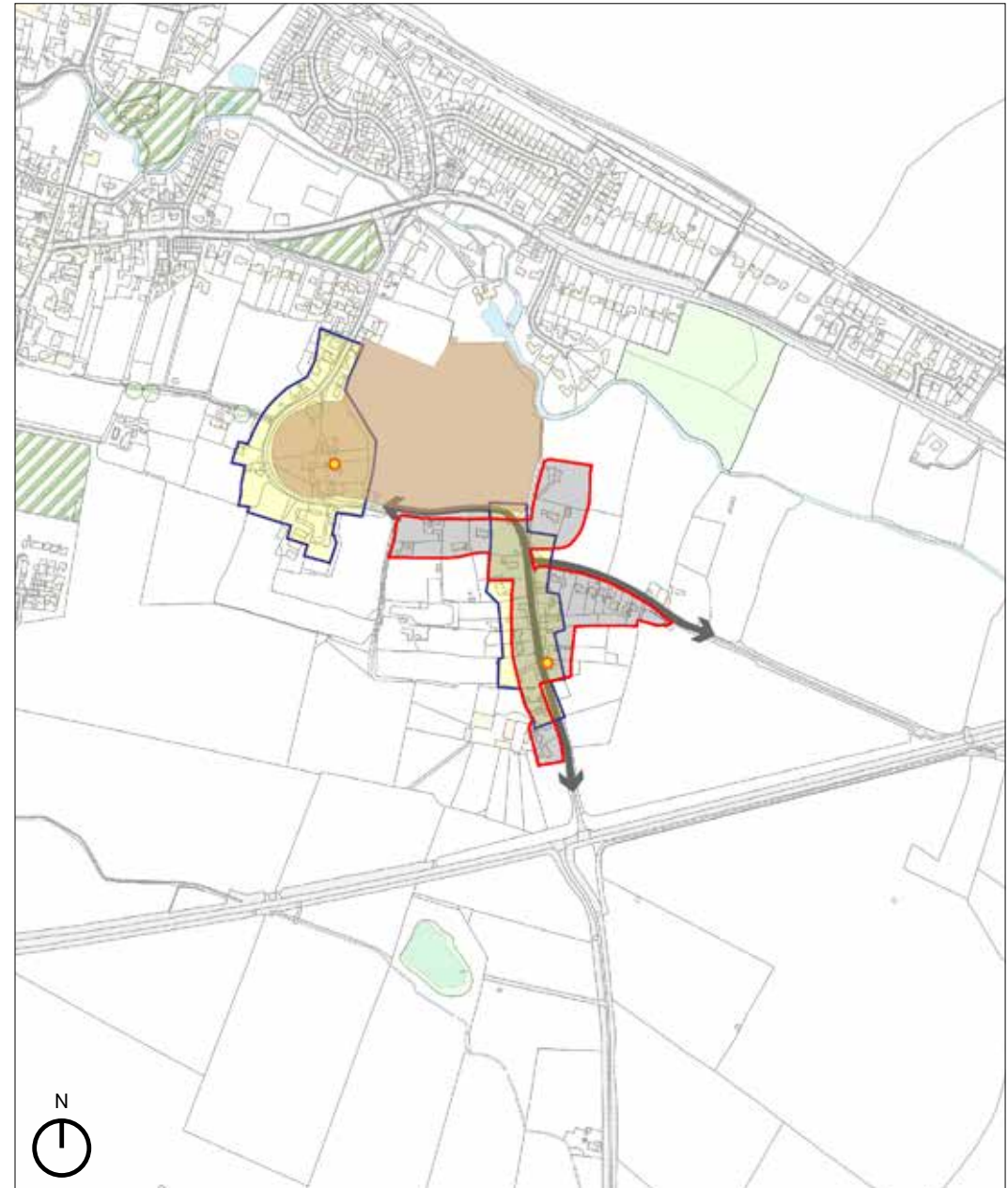










Figure 9: Map of the settlement of Easthorpe showing conservation areas (yellow), local green spaces (hatched), and settlement boundaries (red) ©Melton Borough Council.

## Muston

Muston is located further east from Bottesford village and extends to the south of Grantham Road (A52). Located on both sides of the River Devon, it is visually split into two parts: one part stretches along Main Street and the north of Church Lane, and the other part is along Woolsthorpe Lane. The focus of the hamlet is the Church of St John the Baptist (Grade II\*, NHLE 1360899) which, along with the Village Cross (Grade II\*, NHLE 1075068) are remnants of the medieval settlement. The built-up area consists in a narrow, one-plot deep succession of properties along the roads. As a result, most properties back onto the open countryside. Residential frontages are punctuated by green gaps formed by open fields, the church yard of St John the Baptist, and the Green, giving the settlement a sense of openness.

-  Settlement Boundary
-  Scheduled Monument
-  Building Plots
-  Listed Buildings
-  Road Network
-  Parish Boundary
-  Local Green Space
-  Local Wildlife Site

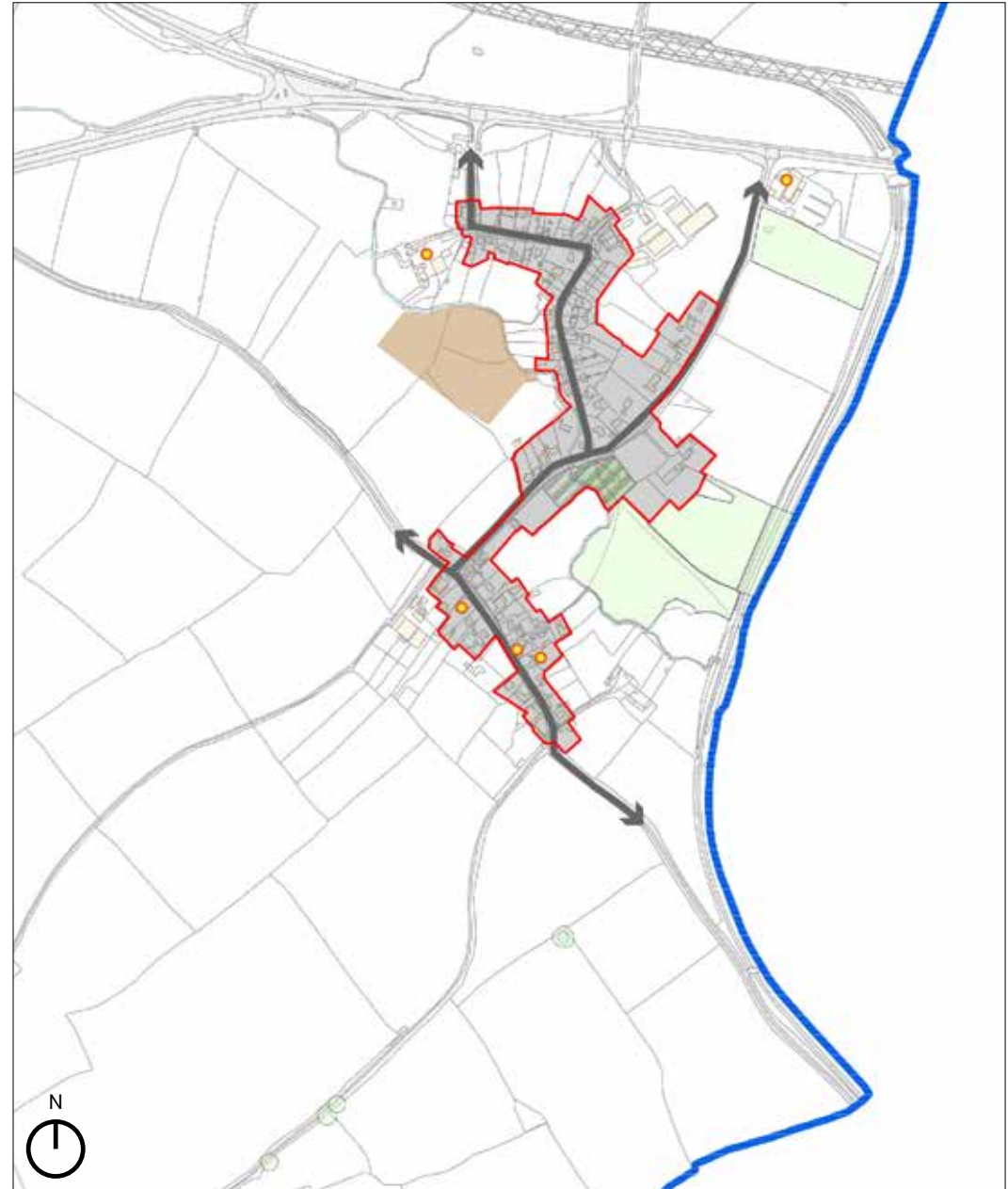


Figure 10: Map of the settlement of Muston showing local green spaces (hatched), settlement boundaries (red), and county boundaries (blue) ©Melton Borough Council.

## 2.2. Views and vistas

There are no dramatic views within Bottesford Village. This is due to the flat topography and the low height of development, with properties rising up to two storeys. Views within the village tend to be intimate and enclosed, however; the spire of St Mary's Church is prominent in views within the village but also towards it. The tall spire contributes to a sense of place and local distinctiveness.

Views from the listed bridges; Fleming's Bridge (Grade II, NHLE 1075096; SM, NHLE 1005082) and the Footbridge at Devon Lane (Grade II, NHLE 1294972) are also of note. Views from Fleming's Bridge are localised and include the meandering course of the river framed by views of the Church. Trees and vegetation along the banks of the river contribute to these picturesque views. The Footbridge at Devon Lane (Grade II, NHLE 1294972) runs north from Chapel Street through the ford on the River Devon. Views from the footbridge towards the church are dominated by the spire of St Mary's Church, contributing to a picturesque experience.

Similarly, there are no dramatic views in the hamlet of Easthorpe, with the exception of Manor Road. Here, the visual interest created by the curve of Manor Road around the earthworks of the medieval village (Scheduled Monument, NHLE 1009195) is enhanced by mature trees and historic properties set against the road. These include buildings associated with Manor Farmhouse and Easthorpe Manor (Grade II, NHLE 1180318) and no. 10 Manor Road.

Continuing along Manor Road, the curve into Castle View Road also provides visual interest and offers a view of Bottesford (looking north-west) with the distinctive spire of St Mary's Church.

Muston provides interesting views and vistas both within the settlement and into the surrounding countryside. Church Lane, for example, provides views of the surrounding countryside and the spire of St John the Baptist. The church also provides a strong terminating point for southward views along Main Street. Views of Belvoir Castle can be experienced from Castle View Road, illustrating the historic connection between the parish of Bottesford and the Castle.

Views and vistas in Normanton take in the surrounding open countryside which contributes to its character. The combination of a linear, one-plot deep, and dispersed form of the settlement with a mostly flat open topography enables frequent glimpses into the open countryside from various points along Normanton Lane.

## 2.3. Open spaces

There are a number of open spaces within the settlements, of both landscape and historic value. These include:

- The churchyards of St John the Baptist and St Mary's, incorporating memorials and tombs as well as mature trees;
- The area around the 18th century Footbridge at Devon Lane, with views of the church. The surrounding trees and properties as well as the ford create an attractive scenery within the village;
- The area around the Market Cross (Grade II, NHLE 1075101; SM, NHLE 1017494) and Stocks (Grade II, NHLE 1180323), Bottesford Village. This area, although more built-up than the open layout in the rest of the Parish, is a reminder of the medieval history of the settlement;
- The area around the Village Cross, Muston (Grade II\*, NHLE 1075068); and
- Three Scheduled Monuments.

Although there are no formally defined public open spaces in Normanton, the low density of the settlement and undeveloped fields between existing properties create an openness and establish a strong relationship with the surrounding countryside.

## Landscape designations

There are several sites that have landscape designations within the Parish:

- Debdale Meadow, Muston Special Site of Scientific Interest (SSSI) is located north of Muston and is an example of traditionally managed neutral grassland.<sup>1</sup>
- Muston Meadows SSSI is located south of Muston and contains some of the best remaining examples of neutral clay grasslands in the Midlands.<sup>2</sup>
- Muston Meadows National Nature Reserve is located south of Muston. It is one of the finest meadows in England and is rich in plant life.

In addition, the Parish has three Scheduled Monuments:

- The area around Fleming's Bridge with attractive views of the steeple of St Mary's Church and the River Devon (SM, NHLE 1005082);
- Shifted medieval village earthworks and moat at Easthorpe (SM, NHLE 1009195); and
- A moated grange with fishpond at Muston (SM, NHLE 1360899).

<sup>1</sup> Natural England. Available at: <https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/1001930.pdf>

<sup>2</sup> Ibid. Available at: <https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/1003316.pdf>

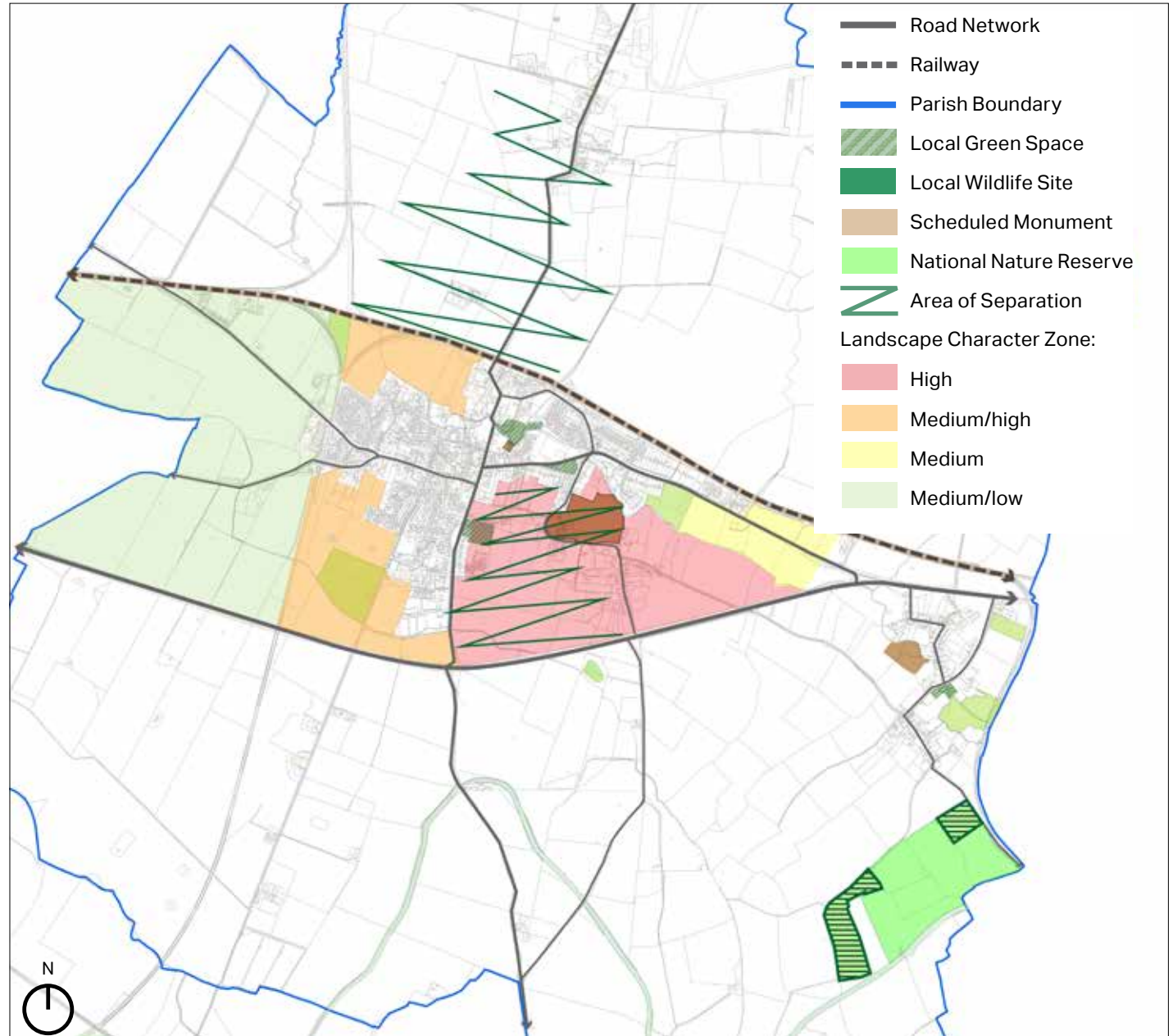


Figure 11: Bottesford landscape designations ©Melton Borough Council.

## Green infrastructure

The villages of Bottesford and Muston are situated in Landscape Character Area (LCA) 2 - Bottesford, and are surrounded by LCA 1- Vale of Belvoir. There is an abundance of green infrastructure assets throughout the Parish.

To the south, the Grantham Canal runs from west to east. The Newark to Market Harborough dismantled railway is located to the west of Bottesford. Together with the River Devon running through Bottesford, they create an ecological network that connects towns and villages in the wider area.

It must be noted that Leicestershire is ranked as one of the poorest counties for tree cover and there is a desire to increase the tree cover in the Parish, for example through new developments.

- Parish Boundary
- - - Railway
- Road Network
- · · Public Right of Way
- Primary Green Infrastructure
  - █ Newark to Market Harborough Dismantled Railway
  - █ Grantham Canal
- Ecological Network
  - █ Woodland, Lowland Meadows
  - █ River Corridor Buffering, Wet Meadows, Floodplain Restoration, and Washland
  - Canal Corridor

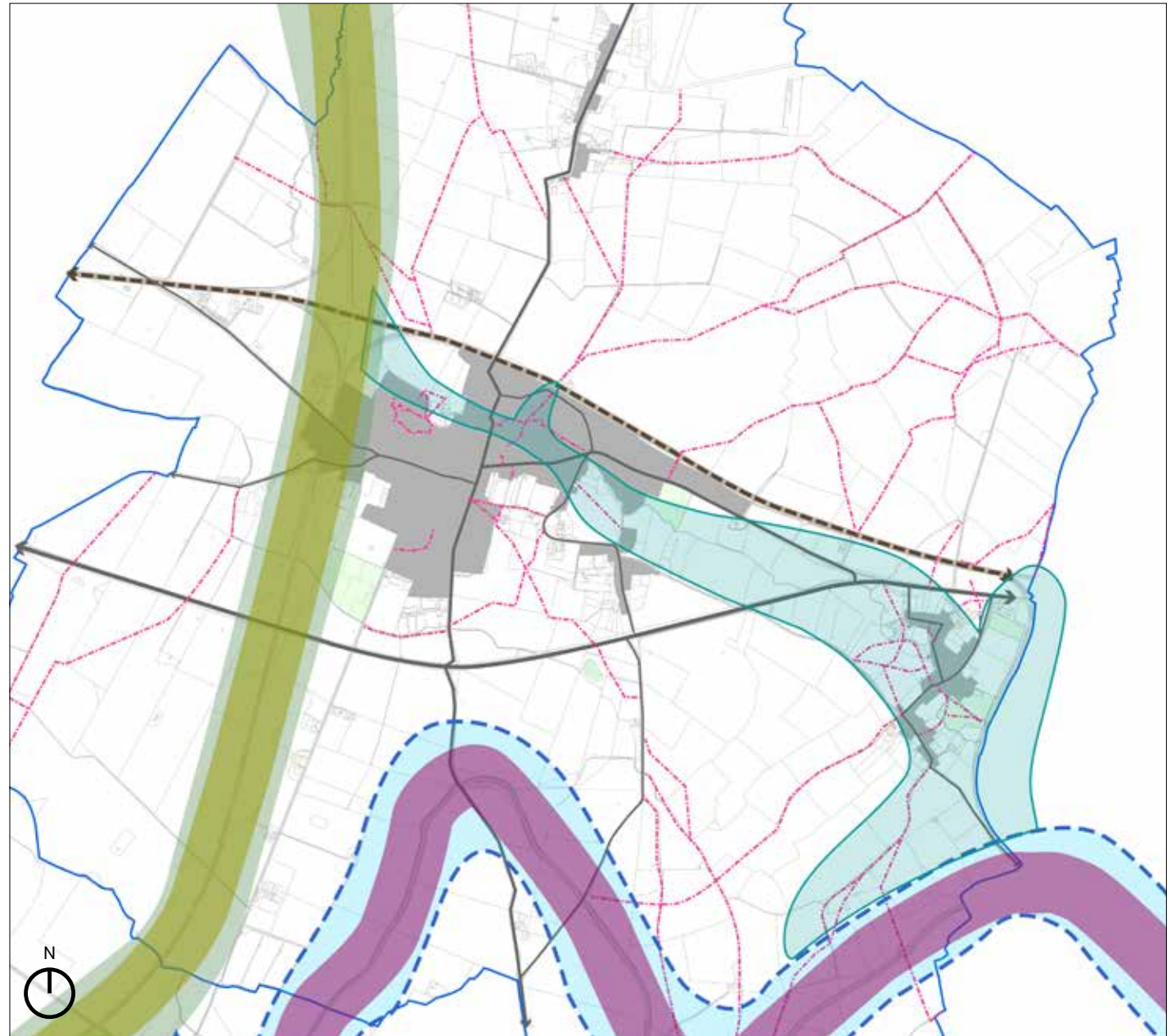


Figure 12: Bottesford green infrastructure ©Melton Borough Council.

## 2.4. Building heights and roofline

The buildings in the Parish are mainly one- to two-storey high. Interchanging sloped, hip, half hip, and gabled roofs offer some variety in the street scene. Due to the variety of building heights and widths, long stretches of uniform rooflines are uncommon, which contributes to the informal rural character of the Parish. The presence of chimney stacks, most prominently in historic properties, adds interest to the roofline. Contrasting with the low height of the buildings in the Parish are the spires of the churches of St Mary's Church and St John the Baptist that dominate views within and towards Bottesford and Muston respectively.

## 2.5. Housing

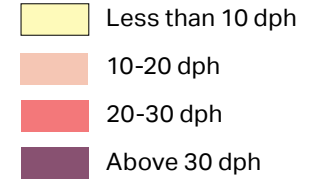
Despite the historic character of the Parish, over half of the housing stock dates from the 20th century. With road links facilitating access to jobs and services in larger settlements within the wider region, the Parish has developed some characteristics of a dormitory settlement, a trend that has been sustained by recent developments on the edges of Bottesford Village.

### Density

There are a number of ways to measure density. A standard measure is simply the number of dwellings (units) per hectare (dph).

The general density of the Parish is between 10-25 dph. The areas of the Parish with the highest density tend to be a mix of semi-detached, bungalow, and flat properties with small and medium sized gardens. Granby Drive is typical of this and has relatively high density.

The lowest density is mainly found around Easthorpe, Muston, Normanton, and the fringes of Bottesford Village. These developments are characterised by larger plots with generous front and back gardens.



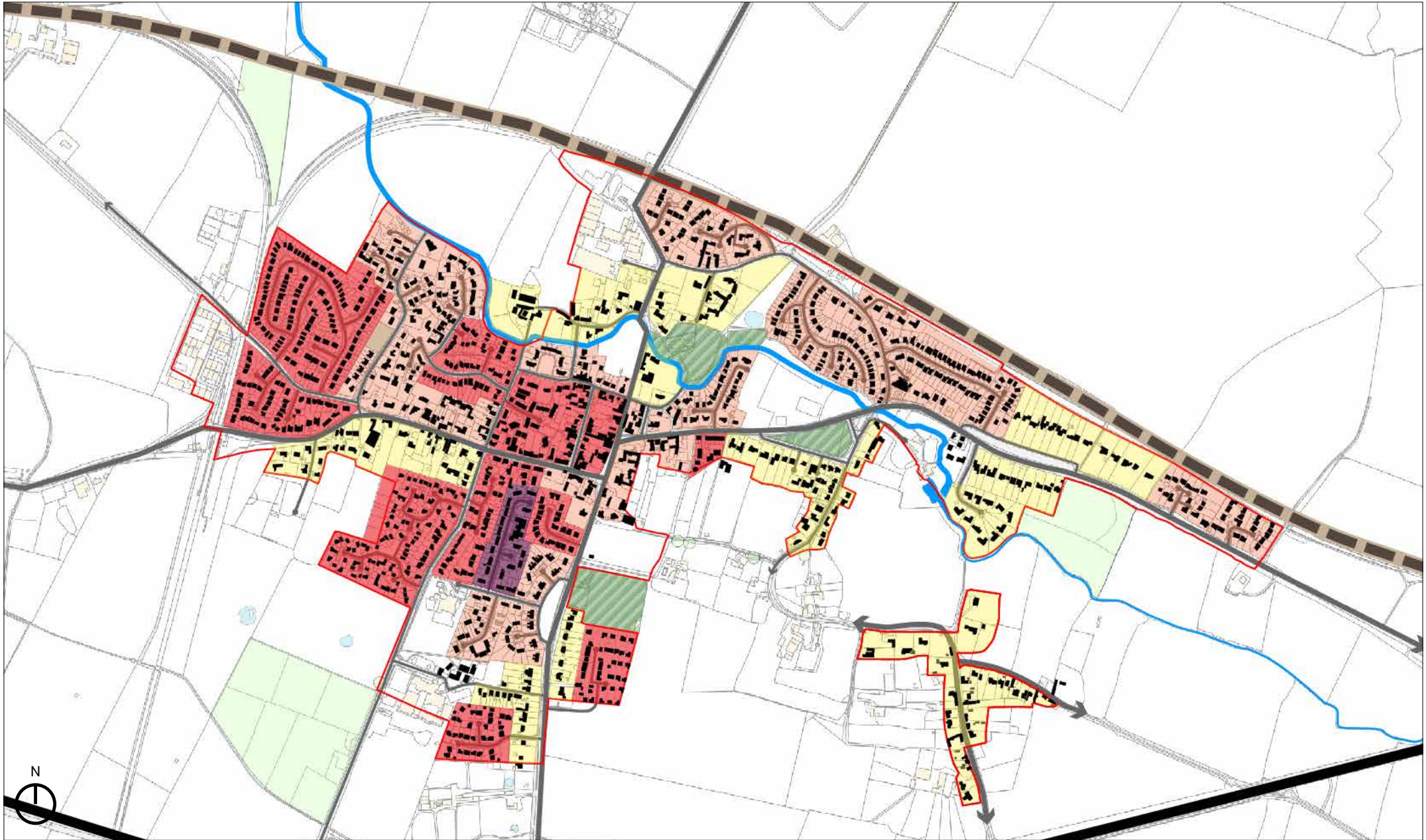


Figure 13: Map of the settlements of Bottesford and Easthorpe showing residential densities expressed in dwellings per hectare (dph) ©Melton Borough Council.

**Grantham Road, Bottesford Village**

7 dwellings per hectare due to very large plots



Figure 14: Grantham Road, Bottesford Village ©Google Earth

**Granby Drive, Bottesford Village**

36 dwellings per hectare, including apartments



Figure 15: Granby Drive, Bottesford Village ©Google Earth

**Bowbridge Gardens, Bottesford Village**

26 dwellings per hectare, with an open and green character



Figure 16: Bowbridge Gardens, Bottesford Village ©Google Earth

**High Street, Bottesford Village**

25 dwelling per hectare, historic core of the village



Figure 17: High Street, Bottesford Village ©Google Earth

**Hoopers Cl, Bottesford Village**

23 dwellings per hectare, 1990s development with amenity space



Figure 18: Hoopers Close, Bottesford Village ©Google Earth

**Cover Drive, Bottesford Village**

24 dwellings per hectare, new development



Figure 19: The Wickets, Bottesford Village



**Easthorpe**

Fewer than 10 dwellings per hectare

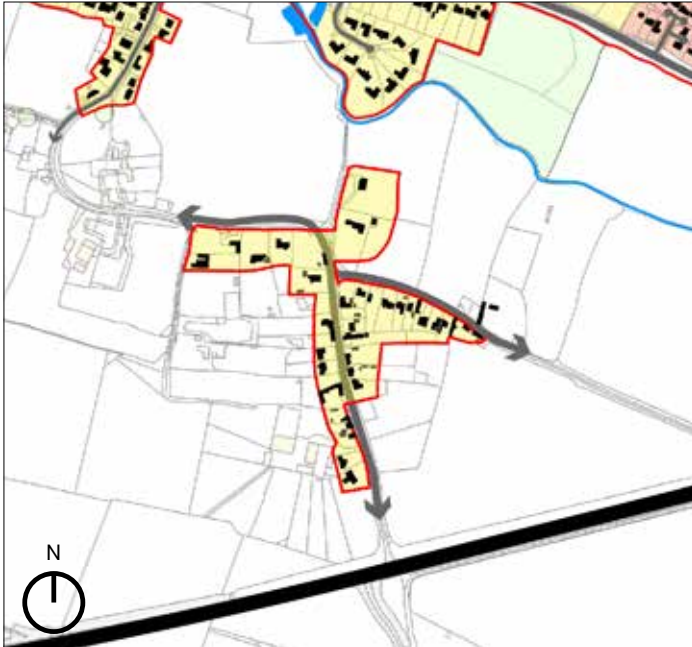


Figure 20: Map of Easthorpe showing residential densities expressed in dwellings per hectare (dph) ©Melton Borough Council.



Figure 21: Castle View Road, Easthorpe

**Muston**

Fewer than 10 dwellings per hectare



Figure 22: Map of Muston showing residential densities expressed in dwellings per hectare (dph) ©Melton Borough Council.



Figure 23: Main Street, Muston

**Normanton**

Fewer than 10 dwellings per hectare



Figure 24: Map of Normanton showing residential densities expressed in dwellings per hectare (dph) ©Melton Borough Council.



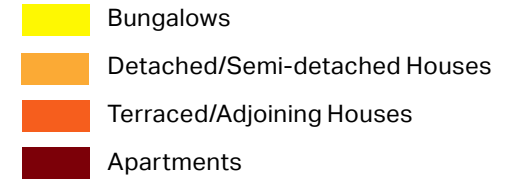
Figure 25: Main Street, Normanton

## Typology

The Parish consists primarily of low-density residential communities. The most frequent typologies are detached and semi-detached houses and bungalows, with a smaller proportion of terraced or adjoining buildings.

In Bottesford Village, the Conservation Area has more adjoining and detached houses built in historical styles with brick and stone. Located outside of the Conservation Area are more post-war developments. These are typical of suburban typologies characterised by repetitions of similar house types arranged into loops and cul-de-sacs with accesses off the main streets, front garden parking spaces, and back gardens. Most of the built fabric here is formed of detached and semi-detached homes as well as bungalows with private amenity spaces. A few apartment buildings are provided as independent living units for seniors.

The outlying villages are composed almost exclusively of detached and semi-detached houses, with few bungalows and terraced or adjoining houses. Contrary to Bottesford Village, they do not have homogeneous post-war suburban developments of any significant size.



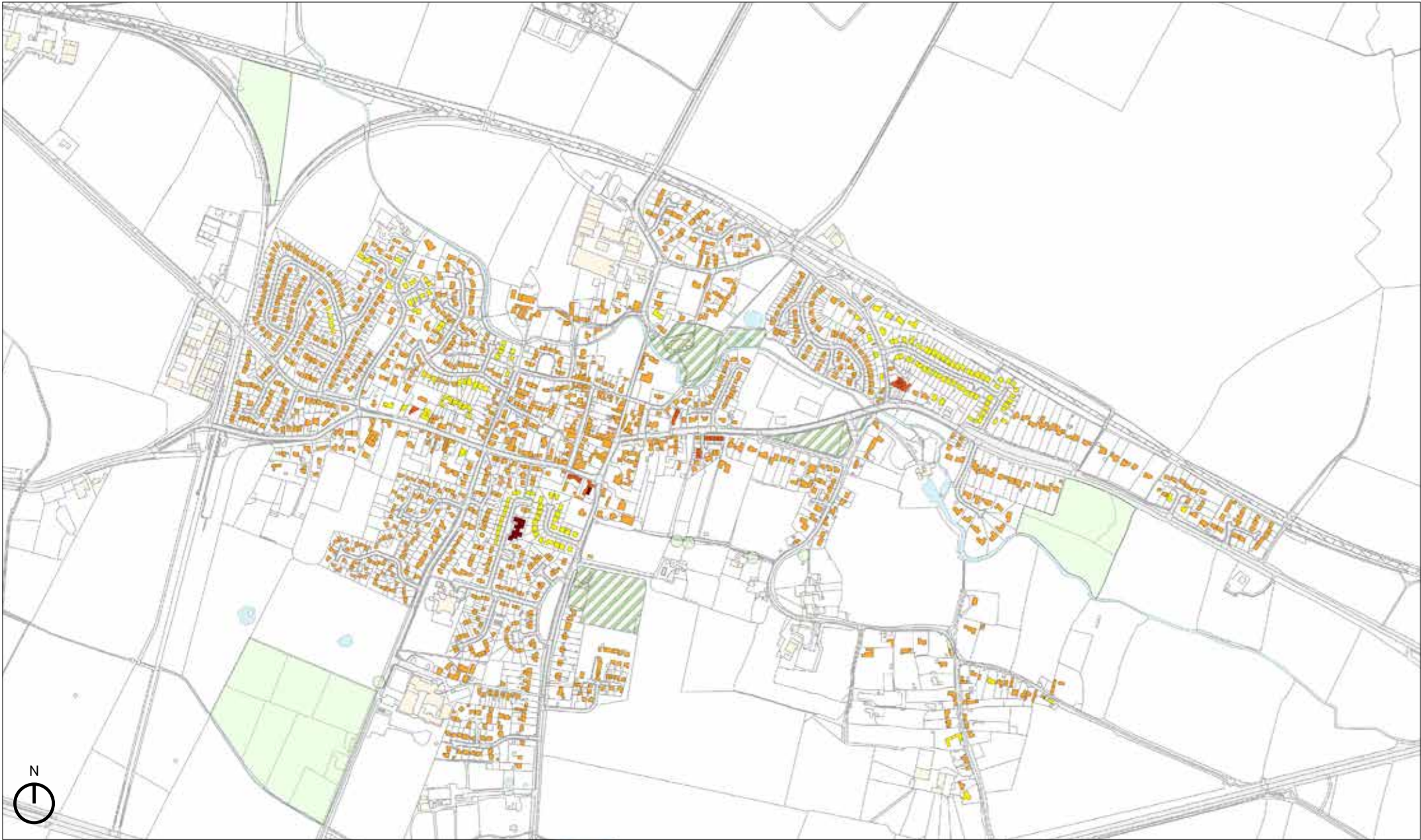






Figure 26: Map showing the housing typologies of Bottesford and Easthorpe ©Melton Borough Council.

-  Bungalows
-  Detached/Semi-detached Houses
-  Terraced/Adjoining Houses
-  Apartments

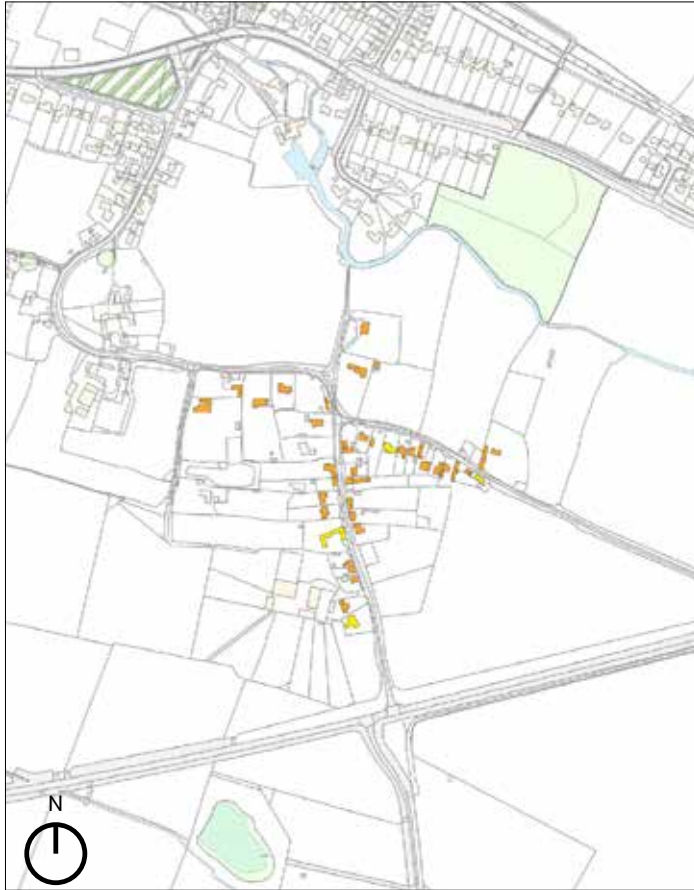


Figure 27: Map showing the housing typologies of Easthorpe ©Melton Borough Council.

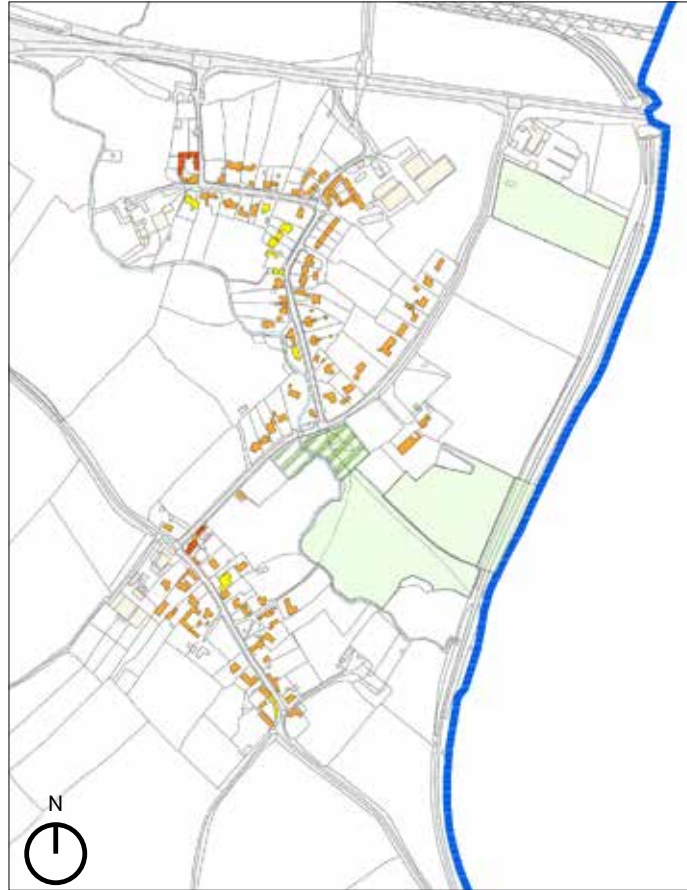


Figure 28: Map showing the housing typologies of Muston ©Melton Borough Council.



Figure 29: Map showing the housing typologies of Normanton ©Melton Borough Council.



Figure 30: Examples of detached bungalows.



Figure 31: Examples of semi-detached houses.



Figure 32: Examples of detached houses.



Figure 33: Examples of terraced and adjoining houses.



Figure 34: Examples of Victorian semi-detached houses.

## 2.6. Architectural details

The Parish is characterised by different building styles dating from the 13th to the 19th centuries as well as extensive modern developments outside of the historic core of the settlements. The area is not characterised by one architectural style or a single character, but rather a mix of different styles with different responses to the street layout and landscape.

It is the more modest houses that contribute to the character of the area. There is a mix of materials with a dominant use of red brick which unifies the settlements. The scale of the buildings tends to be of two storeys with single-storey outbuildings. Single-storey bungalows have been added in the post-war period without dominating the area but diluting its historic character. Although brick is the most typical material and most of the roofs are covered with clay pantiles, local interest is generated through the use of local ironstone and the distinctive blue pantiles. These further contribute to the local distinctiveness of the area. There are some limited examples of thatched roofs including The Thatched restaurant (Grade II, NHLE 1075099) and The Forge on Church Lane, Muston.

Key architectural details include pitched roofs with chimney stacks and symmetrical elevations. Gable roofs facing onto the street are also present in the Parish, contributing to a dynamic roofline and townscape.

Fenestration is varied with a lot of replacements. Casement windows and a few sashed examples survive. There are however a lot of examples where inappropriate materials have been used for replacement windows in historic properties. The most obvious is the use of uPVC. The proliferation of windowless elevations and tall boundary walls in recent developments has not contributed to the quality of the public realm. New developments must therefore include adequate fenestration, including on side elevations, to avoid blank walls.



Figure 35: Clay pantile roof, parapet gable with internal gable-end stacks ©Bottesford Parish Council, 2019.



Figure 36: Façade with bicour bricks laid in Flemish bond; ground floor Yorkshire (horizontal) sash window.



Figure 37: Painted timber door hood, Easthorpe.



Figure 38: Paving details on Fleming's Bridge ©Bottesford Parish Council, 2020.



Figure 39: Side elevations with alternating ironstone and sandstone courses (right) and red brick (left).



Figure 40: Agricultural building with glazed pantile half hip roof and buttressed red brick wall, Normanton.

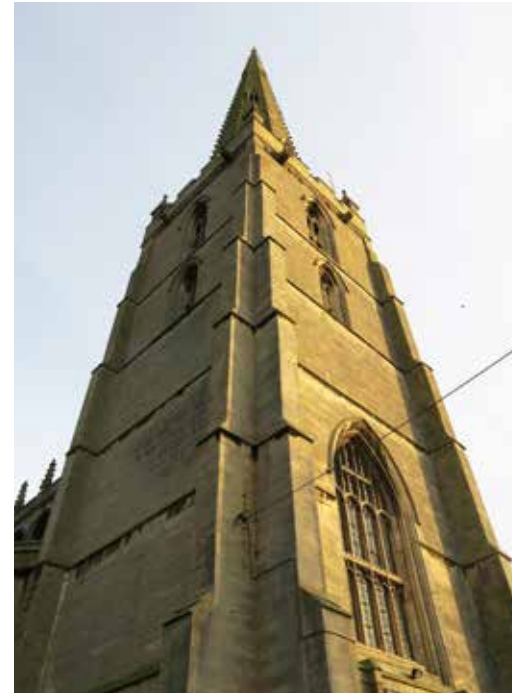


Figure 41: Grade I-listed Church of St Mary the Virgin, Bottesford village, incorporating a tower and spire.



Figure 42: Whitewashed brick gable on Devon Lane and Chapel Street ©Bottesford Parish Council, 2019.



Figure 43: Buildings showing a combination of whitewashed walls (left), red bricks, and ironstone (right), Muston (note: blank walls must be minimised). AECOM



Figure 44: Ironstone and red brick façade, Fleming's Hospital ©Bottesford Parish Council, 2019.



Figure 45: Victorian brown brick house with decorated barge boards, slate roof, and red terracotta ridge and pinnacles, Normanton.







**Design guidelines**

**03**

# 3. Design guidelines

This section outlines key design elements and principles to complement the MBC designated allocations and to consider when assessing any other design proposals.

## 3.1. Introduction

The aim of this document is to ensure that future developments add positively to the local character and enhance local distinctiveness by creating good quality developments, thriving communities, and prosperous places to live.

This chapter provides a set of solid principles that can be applied to all new developments. They supplement the upcoming Melton Borough Design Supplementary Planning Document (SPD), which applicants will be expected to make reference to alongside this document.

The place-making parameters that are considered to be fundamentally important to guide any development in Bottesford Parish include, but are not limited to:

- Development and open space principles;
- Built form, including materials and details;
- Access and movement;
- Vehicle and bicycle parking;
- Eco-design; and
- SuDS.

## 3.2. Development and open space principles

### Patterns of growth and layout of buildings

The Parish owes much of its character to the historic pattern and layout of its buildings and settlements. New developments should respect the particular building and open space patterns of each settlement in order to contribute positively to their character. In particular:

- Any new development in the countryside should be carefully sited to minimise negative impacts on the appearance of the landscape. New buildings should be located away from ridge tops or prominent locations; instead, they should be placed where they can be screened by existing trees or new planting and where there is a backdrop of woodlands so that they do not break the skyline.
- New developments must demonstrate an understanding of the scale, building orientation, enclosure, and façade rhythm of the surrounding built environment to respect its rural character. The historic core of Bottesford, for example, has a more compact layout with quasi-continuous street walls and fewer setbacks. Outlying areas, in contrast, have a greater number of detached houses with more generous front gardens and more variety in building setbacks and orientation.
- New properties should be clustered in small pockets showing a variety of types. The use of a repeating type of dwelling along the entirety of the street should be avoided to create variety and interest in the streetscape, especially due to the absence of historic examples of row houses in Bottesford Parish.

- Boundaries such as walls or hedgerows, whichever is appropriate to the street, should enclose and define each street along the back edge of the pavement, adhering to a clear building line that can allow minor variations for each development group. In areas where properties are set back from the edge of the road with small gardens, consideration should be given to the most appropriate site boundaries.
- Where appropriate, new properties should aim to provide rear and front gardens for both environmental and social reasons.
- The layout of new development should optimise the benefits of daylighting and passive solar gains as this can significantly reduce energy consumption.
- Any proposal that would adversely affect the physical appearance of a rural lane or give rise to an unacceptable increase in the amount of traffic, noise, or disturbance would be inappropriate. Developments with a suburban character<sup>1</sup> should be avoided, especially car-dependent layouts based on the monotonous repetition of a uniform building typology arranged along cul-de-sac and loop roads.

The drawing on the opposite page is an illustrative plan of a small hypothetical site that demonstrates site layout best practice principles.

<sup>1</sup> Suburbanisation can be defined as the outward growth of urban development, which may engulf surrounding countryside and settlements. It results in the physical spreading of a settlement into surrounding countryside areas, which puts pressure on greenfield sites and on natural habitats.



Figure 46: Illustrative plan for a small development highlighting many of the elements of the Bottesford code where they relate to the pattern and layout of buildings.

### Bottesford Village

New developments should respect the relatively compact form of the village and the variations in building heights, setbacks, and plot sizes between its centre and periphery. The historic core, for example, has a more unified building line, with fewer front gardens and building setbacks. New roads must also adhere to a legible hierarchy and encourage new pedestrian and cycling connections between different parts of the village. New developments should use materials, signage, road surfaces, street furniture, etc. that are appropriate to the character and rural setting of the village. Those located within or near the Conservation Area should also preserve and where possible enhance its special architectural and historic character.

### Easthorpe, Normanton, and Muston

The smaller settlements in the Parish grew organically, with building patterns shaped by their setting within the landscape. The separation area between Easthorpe and Bottesford Village should be maintained to preserve distinct identities of both settlements, and developments that would result in coalescence between the two areas must be avoided. Muston and Normanton exhibit linear development patterns with most houses set along roads in a one-plot-deep configuration that retain unbuilt gaps of open fields and recreational spaces. Any new development would need to demonstrate an intelligent understanding of the fine-grained alternation between developed and undeveloped sequences.



Figure 47: Street-fronting buildings forming a quasi-continuous street wall without setbacks in the historic core of Bottesford.



Figure 48: Normanton is characterised by a majority of large plots of detached buildings with various orientations and setbacks from the highway boundary, interspersed with green "fingers" of gardens and open countryside.

## Legibility and wayfinding

When places are legible, they are easier for the public to comprehend and 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.

The Church of St Mary in Bottesford Village and the pubs (existing and former) in the village clearly play this role as they act as landmarks helping people to navigate around the village. Other local landmarks in outlying settlements such as corner buildings, village crosses, and mature trees play the same role.

New development should be designed and laid out in a manner that facilitates intuitive orientation and navigation, through appropriate uses of vistas and memorable features. Visual articulations and landmarks can have a significant contribution by clearly establishing a hierarchy of places in people's minds, from specific buildings to blocks, streets, and settlements. New development should also create a good signage and wayfinding system to help people navigate easily around the area.



**Figure 49:** Easily identifiable landmarks such as the Muston Village Cross (left) and the spire of St Mary the Virgin (right) serve as convenient navigation points.



**Figure 50:** Pubs (existing and former) and churches can help with navigation as local landmarks.

## Views and landmarks

Well-designed streets, open spaces, and public realm, together with building forms, are crucial for places to create their own stories in people's minds. Landmarks, vistas and focal points are the tools to achieve places that are easy to read and memorise, thus helping users to easily orientate themselves.

Creating short-distance views broken by buildings, trees, or landmarks helps to create memorable routes. Creating views and vistas allows easily usable links between places. New houses should be oriented to maximise the opportunities for memorable views. Development should be located away from ridge tops, upper valley slopes or prominent locations.

Planning decisions should always attempt to maintain or where possible enhance key views and vistas.

The green gap south-east of the main village centre allows Easthorpe to retain its character as a distinct settlement and enables views into the surrounding countryside through gaps in the existing built-up area. It enables the village to maintain a close link to the countryside and must be preserved from future development.



Figure 51: Southward view of the steeple of St Mary the Virgin across the green gap south of Station Road.



Figure 52: The Church of St John the Baptist, the main landmark in Muston.



Figure 53: Tall trees such as the one at the junction between Toll Bar Avenue and Bowbridge Gardens can also help with orientation.



Figure 54: 14th century Muston Village Cross, a Grade II-listed landmark and Scheduled Monument occupying a high point in Muston.



Figure 55: Long-distance view into the open countryside from Normanton Lane.



Figure 56: View of St Mary the Virgin from the footbridge on Devon Lane.



Figure 57: Eastward view across the area of separation south of Bottesford village.

## Green spaces

- Beyond the agreed Local Green Spaces, there are many and various publicly accessible areas of greenery, including verges and paths. Development adjoining public open spaces, the River Devon, and important gaps should enhance the character of these spaces by either providing a positive interface (i.e. properties facing onto them to improve natural surveillance) or a soft landscaped edge.
- Any trees, verges, or woodland lost to new development must be replaced. Native trees and shrubs should be used to enhance the rural character of the settlements.
- The spacing of development should reflect the historic and rural character of the area (main village or outlying settlement) and allow for long-distance views of the countryside from the public realm, where these are characteristic. Trees and landscaping should be incorporated in the design of new developments.
- Green gaps between settlements and built up areas must be retained to avoid coalescence.
- Landscape schemes should be designed and integrated with the open fields that currently border the village.

The results of the consultation confirmed a desire to maintain and enhance the links to the countryside<sup>1</sup>. New footpaths framed with attractive landscaping can create green corridors between existing and new developments. In particular, opportunities to develop green corridors along the River Devon should also be sought to create new pedestrian connections and reinforce the role of the River as a public amenity.

<sup>1</sup> The Neighbourhood Plan consultation took place in November 2018.



Figure 58: Small green space at the crossing of the ford on Devon Lane.



Figure 59: Green spaces along the River Devon in Bottesford village (left and centre) and Muston (right).





Figure 60: Church yards of St Mary's Church in Bottesford Village (left) and St John the Baptist in Muston (right).

Figure 61: Small green space at the junction of Skerry Lane and Main Street, Muston.



Figure 62: Small central green space next to the Muston Village Cross.



Figure 63: Play area on Church Lane, Muston.

## Trees

Trees are important contributors to the character of a well-established place like Bottesford. They provide ecological, public health, and aesthetic benefits, including:

- Supporting biodiversity, improving the quality of surface water run-off, and reducing flood risks;
- Improving air quality by filtering pollutants and regulating temperatures in built-up areas through shading and evapotranspiration;
- Improving mental health by reducing noise and stress levels and softening the built-up environment; and
- Establishing a sense of place and human scale by creating a more attractive environment, calming traffic, and screening undesirable views.

When planting new trees or retaining existing ones, the following principles should apply:

- New trees should be planted to reinforce the existing canopy and support biodiversity by creating green links. Coordination with the SuDS strategy is required to maximise drainage and stormwater management benefits;
- New trees should be integrated into the design of new developments from the outset rather than left as an afterthought to avoid conflicts with above- and below-ground utilities;
- New trees should be added to strengthen vistas, focal points, and movement corridors. They should however not block key view corridors or prevent natural surveillances;
- Where the edge of a new development is located alongside a major traffic corridor, railway, or protected area, new landscaping and trees should be introduced to provide a soft green buffer;

- To ensure resilience and increase visual interest, a variety of tree species is preferred over a single one. They must be chosen according to climate change resilience, adaptation to local soil conditions, environmental benefits, size at maturity, ease of maintenance, and ornamental qualities;
- Existing tree root zones should be protected to ensure that trees can grow to their mature size. Root barriers must be installed where there is a risk of damaging foundations, walls, and underground utilities; and
- Existing mature trees should be protected and incorporated in the landscape design of new developments.

Regulations, standards, and guidelines relevant to the planting and maintenance of trees are listed below:

- Trees in Hard Landscapes: A Guide for Delivery;<sup>1</sup>
- Trees in the Townscape: A Guide for Decision Makers;<sup>2</sup>
- Tree Species Selection for Green Infrastructure;<sup>3</sup>
- BS 8545:2014 Trees: from nursery to independence in the landscape - Recommendations;<sup>4</sup> and
- BS 5837:1991 Guide for trees in relation to construction.<sup>5</sup>

<sup>1</sup> Trees & Design Action Group (2012). *Trees in Hard Landscapes: A Guide for Delivery*. Available at: [http://www.tdag.org.uk/uploads/4/2/8/0/4280686/tdag\\_trees-in-hard-landscapes\\_september\\_2014\\_colour.pdf](http://www.tdag.org.uk/uploads/4/2/8/0/4280686/tdag_trees-in-hard-landscapes_september_2014_colour.pdf)

<sup>2</sup> Trees & Design Action Group (2012). *Trees in the Townscape: A Guide for Decision Makers*. Available at: [http://www.tdag.org.uk/uploads/4/2/8/0/4280686/tdag\\_treesinthetownscape.pdf](http://www.tdag.org.uk/uploads/4/2/8/0/4280686/tdag_treesinthetownscape.pdf)

<sup>3</sup> Trees & Design Action Group (2019). *Tree Species Selection for Green Infrastructure*. Available at: [http://www.tdag.org.uk/uploads/4/2/8/0/4280686/tdag\\_treespeciesguidev1.3.pdf](http://www.tdag.org.uk/uploads/4/2/8/0/4280686/tdag_treespeciesguidev1.3.pdf)

<sup>4</sup> British Standards Institution (2014). *BS 8545:2014 Trees: from nursery to independence in the landscape - Recommendations*. Available at: <https://shop.bsigroup.com/ProductDetail/?pid=00000000030219672>

<sup>5</sup> British Standards Institution (1991). *BS 5837:1991 Guide for trees in relation to construction*. Available at: <https://shop.bsigroup.com/ProductDetail/?pid=00000000000258384>



Figure 64: A variety of mature trees framing Normanton Lane.



Figure 65: Houses in Easthorpe with mature trees in their front gardens.

### 3.3. Built form

#### Housing mix

The settlements of Bottesford, Easthorpe, Muston, and Normanton have a variety of houses, small and large, ranging from one to two storeys. It is important that all newly developed areas keep providing a mixture of housing to allow for a variety of options and bring a balance to the population profile. A mixed community is important for viability.

The engagement process has shown a desire for 2- and 3-bedroom homes for first-time buyers, resident families and older residents. Bungalows are also needed in the area. New developments should ensure that new housing is targeted towards the needs of the local people. Attracting people from outside to the Parish can also bring vitality, new ideas, and investment.

It is important that new developments also respond to the need for affordable housing for the local population.



Figure 66: Examples of semi-detached houses in Bottesford village.



Figure 67: Example of a detached house in Easthorpe.



Figure 68: Example of a semi-detached bungalow in Bottesford village.

## Building heights/roofline

Creating variety in the roofline is a significant element of designing attractive places. There are certain elements that serve as guidelines in achieving a good variety of roofs:

- The scale and pitch of the roof should always be in proportion with the dimensions of the building itself;
- Monotonous building elevations should be avoided, therefore subtle changes in roofline should be ensured during the design process. Roof shapes and pitches must however employ a restrained palette on a given building; overly complex roofs must be avoided;
- Locally traditional roof detailing elements such as roofing materials, edge treatments, and dormer styles should be considered and implemented where possible in new developments; and
- Dormers can be used as a design element to add variety and interest to roofs. They must be proportional to the mass of the building roof, be vertically aligned to the windows, and be of consistent style across an elevation.

There is a low housing density in the Parish. Properties tend to be one- or two-storey high with decent-sized rear gardens. The views created are wide and one can easily see the open sky. Throughout the Parish, rooflines are irregular. Future developments should follow this tradition and avoid long stretches of similar roof heights and monotonous rooflines.



Figure 69: Slight variations in roof height and orientations in Easthorpe.



Figure 70: Variations in building heights and pitches provide more visual interest to street corners.



Figure 71: Designs with disproportionate or non-local roofs, bulks, and pitches must be avoided.

## Enclosure

Focal points and public spaces in new developments should be designed in good proportions and delineated with clarity. Clearly defined spaces help achieve cohesive and attractive village forms. They also create an appropriate sense of enclosure - the relationship between a given space (lane, street, square) and the vertical boundary elements at its edges (buildings, walls, trees).

The enclosure level of new developments must reflect an intelligent understanding of their surrounding historic environment. The historic core of Bottesford has a higher level of enclosure, with fewer front gardens and buildings that directly front the highway. Outlying settlements such as Normanton and Muston, in contrast, have a greater variety of enclosure levels, but are in general more open than Bottesford village with a higher prevalence of large front gardens and more distinctive building setbacks.

The following principles serve as general guidelines that should be considered for achieving satisfactory sense of enclosure:

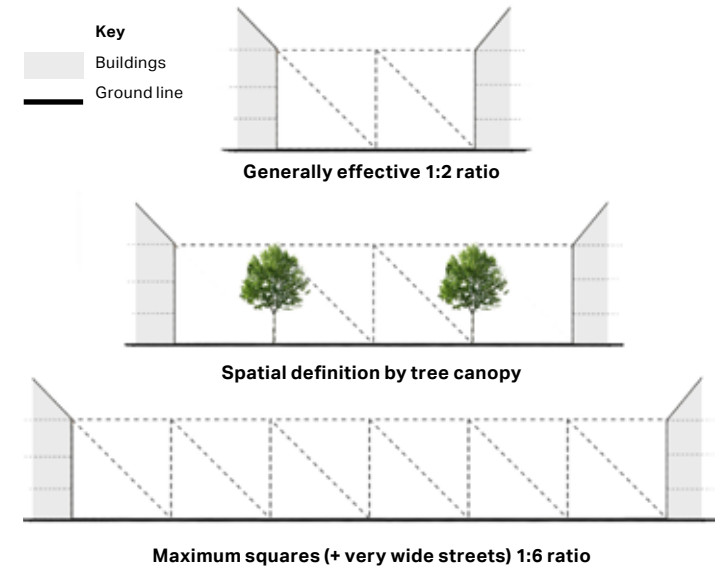
- When designing building setbacks, there must be an appropriate ratio between the width of the street and the height of the buildings (see diagram opposite).
- Buildings should be designed to turn corners and create attractive start and end points of a new street or frontage.
- Generally, building façades should front onto streets. Variation to the building line can be introduced to create an informal character.
- In the case of terraced and adjoining buildings, it is recommended that a variety of plot widths, land use, building heights, and façade depth should be considered during the design process to create an attractive streetscape and break the monotony of the street wall.
- Trees, hedges, and other landscaping features can help create a more enclosed streetscape in addition to providing shading and protection from heat, wind, and rain.



**Figure 72: High levels of building enclosure create a feeling of community in the historic core of Bottesford.**



**Figure 74: The more open character of Muston enables views and direct access into the surrounding countryside.**



**Figure 73: Indicative street sections illustrating different examples of enclosure levels. Images from Urban Design Compendium (Homes England)**



**Figure 75: Variations in enclosure created by different building setbacks and front gardens along Castle View, Easthorpe.**

## Gateway and access features

- Future design proposals should consider placing gateway and built elements to clearly mark the access or arrival to any new developed site. This is particularly important for village extensions at the edge of existing settlements due to their location at the interface between the built-up area and the countryside.
- The sense of departure and arrival can often be achieved by a noticeable change in scale, enclosure, or road configuration. It can also be highlighted by the direct presence of, or view towards an easily distinguishable landmark.
- The gateway buildings or features should reflect local character. This could mean larger houses in local materials with emphasis on the design of chimneys and fenestration, or well-laid and cared for landscape. Besides building elements acting as gateways, high-quality landscaping features could be considered appropriate to fulfill the same role.



**Figure 76: The Grade II-listed footbridge crossing the ford on Devon Lane marks the entrance to the village core. The entrance is highlighted by the singular vehicle crossing of the ford and the green spaces on both sides of the river.**



**Figure 77: Landscaped hedges are used as alternatives to corner buildings to frame the entrance to Belvoir Avenue.**

## Building modifications, extensions, and plot infills

Extensions to dwellings can have a significant impact not only on the character and appearance of the building, but also on the street scene within which it sits. A well-designed extension can enhance the appearance of its street, whereas an unsympathetic extension can have a harmful impact, create problems for neighbouring residents and affect the overall character of the area.

The Planning Portal<sup>1</sup> contains more detailed information on building modifications and extensions, setting out what is usually permitted without planning permission (permitted development) as well as what requires planning permission. Bottesford Parish, for example, contains designated land<sup>2</sup> in the forms of three conservation areas, where planning permission is required.

Some general principles of building modifications and extensions can be found below:

- Extensions must be appropriate to the scale, massing and design of the main building, and should complement the streetscape.
- Alterations and extensions of historic buildings within a conservation area should preserve and where possible enhance the character of the conservation area.
- Extensions are more likely to be successful if they do not exceed the height of the original or adjacent buildings. Two-storey extensions, where appropriate, should be constructed with a pitch sympathetic to that of the existing roof.

<sup>1</sup> Planning Portal. [https://www.planningportal.co.uk/info/200234/home\\_improvement\\_projects](https://www.planningportal.co.uk/info/200234/home_improvement_projects)

<sup>2</sup> Designated land is land within a conservation area, an area of outstanding natural beauty (AONB), an area specified by the Secretary of State for the purposes of enhancement and protection of the natural beauty and amenity of the countryside, the Broads, a National Park, or a World Heritage Site.

- The design, materials and architectural detailing of extensions should be high-quality and respond to the host building and the local character of the Neighbourhood Plan area.
- The impact on the space around the building should avoid overlooking, overshadowing, or overbearing.



Figure 78: Extension (foreground) with an appropriate scale to the original building (background) in Bottesford village ©Bottesford Parish Council.



Figure 79: Outbuilding in Muston built in attractive local materials (red brick and ironstone) complementing those of the main building (left).

## Fenestration

- Fenestration on public/private spaces increase the natural surveillance and enhances the attractiveness of the place. Long stretches of blank (windowless) walls should be avoided, including on side elevations. Overall, considerations for natural surveillance, interaction, and privacy must all be addressed carefully.
- The number and size of the windows should be proportionate to each elevation. Because sunlight has an important effect on the circadian rhythm, windows must be of sufficient size and number for abundant natural light.
- Site layout and building massing should ensure access to sunshine and avoid overshadowing neighbouring buildings and gardens. New developments should also maximise opportunities for long-distance views.
- A restrained palette of window styles and shapes must be used across a given façade to avoid visual clutter and dissonance. Within a cluster of buildings, however, diversity in fenestration can add visual interest and avoid monotonous repetitions.
- Necessary window repair or replacement must be sympathetic to the host building and local vernacular, especially within or in proximity to conservation areas. Fenestration must reflect an understanding of locally distinctive features such as window rhythm, scale, proportions, materials, ornamentation, and articulation. This should however not result in low-quality pastiche replica.



Figure 80: House in Easthorpe displaying consistent window alignment and styles while allowing for sufficient variety in their placement.



Figure 81: Housing displaying consistent window alignment and styles in Muston.



Figure 82: Windows in insufficient number and sizes as well as blank (windowless) walls must be avoided, even on side elevations.



## Building line and boundary treatment

The use of well-defined building lines and setbacks contributes to the overall character of the area and defines a sense of enclosure on the streets and public spaces. To respect the existing context, both the building and the boundary feature should be consistent with neighbouring properties while enabling enough variations for visual interest.

Existing hedges, hedgerows trees, and walls should wherever appropriate be retained to contribute to this feeling of enclosure. Additional or replacement hedges and trees should be planted to ensure the continuity of existing hedges and rejuvenate the tree canopy to provide continuity of hedge and hedgerow tree cover.

Locally distinctive landscape features and planting, such as brick boundary walls and hedges of native species, should be used in new developments to define boundaries. On the other hand, close-boarded fencing, ranch-style fencing, and over-ornate metal fences and gates should be avoided, since they create an urban effect that is inappropriate for the rural character of the Parish. Tall masonry boundary walls must also be avoided because they impede natural surveillance and are not characteristic of the area. Materials such as concrete and timber fencing are detrimental to the character of the Parish and must not be employed.



Figure 83: Well-maintained boundary hedges provide effective separation between private and public spheres while maintaining natural surveillance.



Figure 84: Detached houses with boundary treatment defined by low stone wall with vertical coping and planting.

## Materials and building details

The materials and architectural detailing used throughout the Parish contribute to the historic character of the area and the local vernacular. It is therefore important that the materials used in proposed development are of a high quality and reinforce local distinctiveness. Any future development proposals should demonstrate that the palette of materials has been selected based on a solid knowledge of the local vernacular style and traditions. They must also reflect an intelligent understanding of the building details of the historic settlement cores without resulting in low-quality imitations of past styles.

In new developments and renovations, locally sourced bricks or bricks that match the buildings in the surrounding area would be the most appropriate. Particular attention should be given to the bonding pattern, size, colour, and texture of bricks. While red bricks are extensively used in the Parish, stocks bricks are not characteristic of the area and should be avoided. Engineering bricks do not contribute to the historic character of the Parish, however, due to their durability they can be appropriate in some occasions. Generally, for inspiration and appropriate examples, the developers should look at the historic cores of the settlements and the surrounding area. Each development should be designed with the specific location in mind and its immediate surroundings.

This section includes examples of building material that contribute to the local vernacular of the Parish and that could be used to inform future development.



**Red brick**



**Whitewashed brick**



**Red brick and ironstone**



**Red and yellow brick laid in Flemish bond**



**Ironstone and limestone**



**Off-white render**



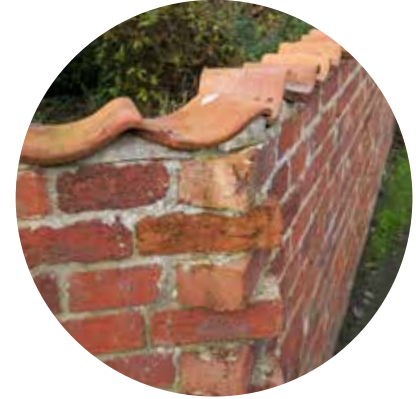
**Ironstone**



**Slate roof**



**Parapet gable with internal gable-end stacks**



**Pantile-capped low red brick wall**



**Clay pantile roof**



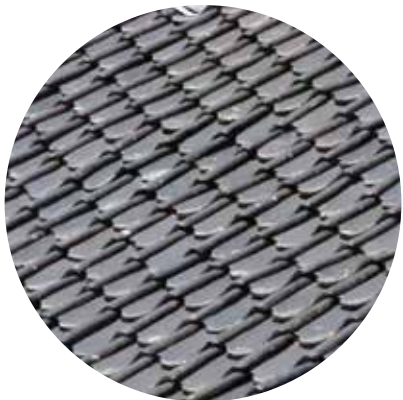
**Hip roof**



**Yorkshire (horizontal) sash window**



**Low stone wall with vertical coping**



**Blue (glazed) pantile roof**



**Half hip roof**



**Multi-pane casement window**



**Landscaped boundary hedge**

### 3.4. Access and movement

- Streets must meet the technical highways requirements as well as be considered a 'place' to be used by all, not just motor vehicles. The design of new developments must include 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 or retained, does not impede the access of pedestrians, cyclists, 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.
- New streets must tend to be linear with gentle meandering, providing interest and evolving views while helping with orientation. Routes must be laid out in a permeable pattern allowing for multiple connections and choice of routes, particularly on foot. Any cul-de-sacs must be relatively short and provide onward pedestrian links.
- The distribution of land uses must respect the general character of the area and street network, and take into account the degree of isolation, lack of light pollution, and levels of tranquillity. Pedestrian access to properties must be from the street where possible.
- Streets must incorporate opportunities for landscaping, green infrastructure, and sustainable drainage. For example, swales could be inserted into the landscaping to address flooding issues. Swales are shallow, broad and vegetated channels designed to store and convey runoff. They are easy to incorporate into landscaping and the maintenance cost is low. Rain gardens are easy to retrofit, and the land take is minimal.

- Where appropriate, some narrow low-traffic streets may be closed to vehicle traffic and transformed into attractive pedestrian- and cycle-only spaces. Service, delivery, and emergency vehicles can be granted access when needed through the means of rising or collapsible bollards.
- The next pages introduce suggested guidelines and design features including a range of indicative dimensions for street types in the new residential areas.

#### Pedestrian and cycle connectivity

- All newly developed areas must provide direct and attractive footpaths between neighbouring streets and local facilities. Streets must be designed to prioritise the needs of pedestrians and cyclists. Establishing a robust pedestrian network a) across any new development and b) among new and existing development is key in achieving good levels of permeability through the settlements.
- Pedestrian paths must be included in new developments and integrated with the existing pedestrian routes. New pedestrian connections between existing developments and blocks must also be sought where appropriate.
- A permeable street network at all levels provides people with a choice of different routes and allows traffic to be distributed in general more evenly across the network rather than concentrated along heavily trafficked roads.
- Design features such as controlled gates to new developments or footpaths between high fences must be kept at a minimum and the latter must be avoided.
- On high-traffic and/or high-speed roads, cyclists must be kept away from moving traffic and parked vehicles as much as possible through the use of traffic calming, physical separation, and road markings and signage. On streets with lower traffic and speed limits no higher than 20 mph, the road can be shared between different modes.



Figure 85: Wayfinding sign showing cycle route numbers in Easthorpe.



Figure 86: Queen's Walk, a mid-block footpath that connects Queen Street with Walford Close, Bottesford.

## 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 where possible and must be designed for cyclists to mix safely with motor vehicles. Traffic calming features such as raised tables can be used to prevent speeding.

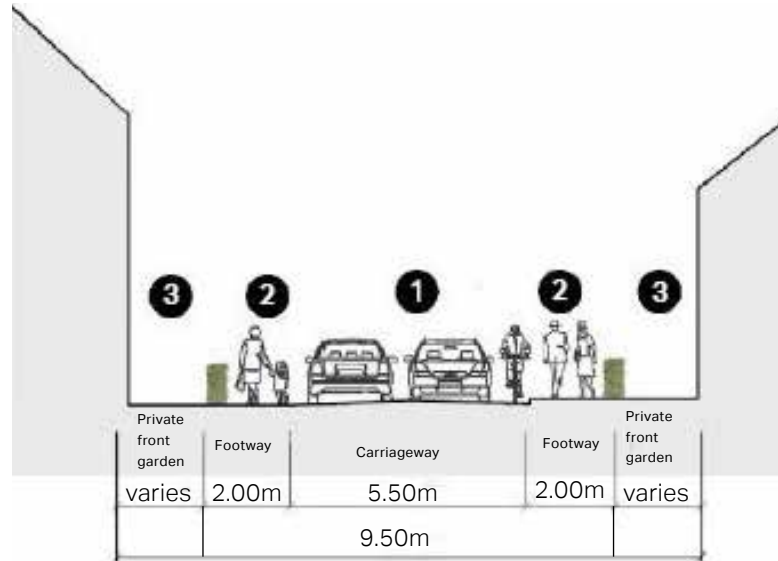


Figure 87: Section showing indicative dimensions for residential streets.



Figure 88: Residential street in Bottesford village. (Note: the use of hedges and soft landscaping is encouraged over concrete or timber walls for boundary treatments).

## 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.
- Note: some local authorities may prefer to maintain pedestrian and vehicle spaces separate to help partially sighted pedestrians orientate themselves. For this purpose, new streets may retain a slight kerb upstand between the footways and carriageways and incorporate contrasting materials and surface textures.

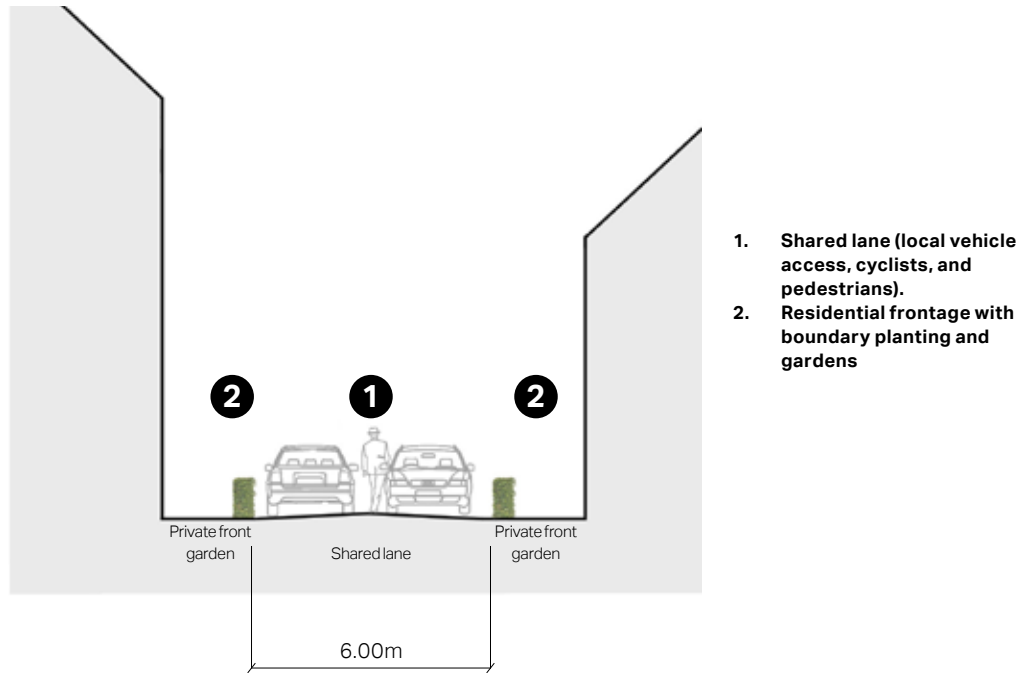
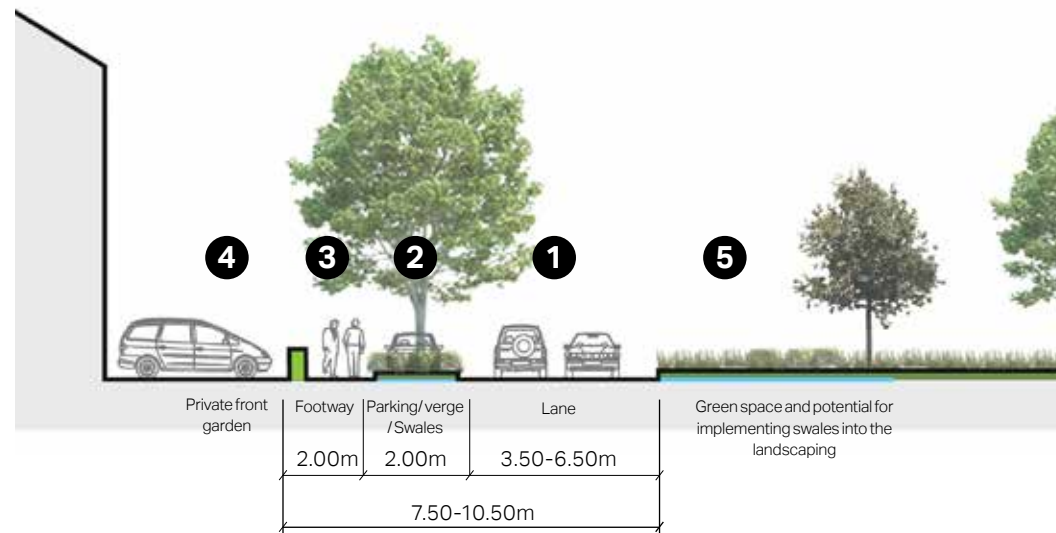


Figure 89: Section showing indicative dimensions for lanes and private drives.

## Edge lanes

- Edge lanes are designed as low-speed and low-traffic roads that front houses with gardens on one side and a green space on the other. Speeding is discouraged by a meandering layout. Carriageways can be reduced to a single lane of traffic in either direction.
- The lane width can vary through the introduction of pinch points to discourage speeding and introduce a more informal and intimate character while maintaining adequate access to service and emergency vehicles. Variations in paving materials and textures can be used instead of kerbs or road markings.
- Swales and rain gardens could be also added into the landscaping to address any flooding issues.



1. Lane (local access) - width to vary.
2. Green verge with trees. The latter are optional but would be positive additions. Parking bays to be interspersed with trees to avoid impeding moving traffic or pedestrians.
3. Footway.
4. Residential frontage with boundary hedges and front gardens.
5. Green space and potential for implementing swales into the landscaping.

Figure 90: Section showing indicative dimensions for edge lanes. The lane width may vary to discourage speeding or provide space for parking.



Figure 91: Examples of edge lanes in Dorchester, with low-speed single-lane roads shared between motor vehicles and cyclists. (Note: Bottesford Parish wishes to maintain a physical separation between pedestrians and traffic to assist elderly peoples, children and visually-impaired pedestrians; the materials and architectural styles shown in the photos are illustrative only).

## Junctions and pedestrian crossings

- Crossing points that are safe, convenient, and accessible for pedestrians of all abilities must be placed at frequent intervals on pedestrian desire lines and at key nodes.
- Junctions must enable good visibility between vehicles and pedestrians. For this purpose, street furniture, planting, and parked cars must be kept away from visibility splays to avoid obstructing sight lines - see table and diagram opposite. Junctions and crossing points may also be surfaced with distinct materials, colours, or textures as additional cues for drivers to use caution when approaching.
- As most collisions happen at junctions, they must be designed to prioritise safety over speed or capacity. Junctions should be designed with sharper corners to prevent vehicles from turning at high speed. Traffic signals, where required, must be timed to enable the elderly, children, and disabled to cross safely.
- Existing roads that border new developments must be retrofitted with additional crossings and safer junctions where required in order to increase accessibility and safety.
- Traffic calming measures should be introduced at crossing points to increase safety and discourage speeding. Along major streets, for example, kerb build outs can be used to reduce pedestrian crossing distances. At junctions with minor roads, the carriageway surface can be raised across a pedestrian crossing to prioritise pedestrian movements.
- Along low-traffic lanes and residential streets, crossing points can be more informal. For example, pedestrians may cross at any section of a street whose surface is shared between different users.
- To assist visually impaired pedestrians and guide dogs, tactile paving must be appropriately placed at crossing points.



**Figure 92: Example of a raised mid-block pedestrian crossing on a 20 mph street on Goldsmith Street, Norwich. (Note: many councils require blister tactile pavers at crossings to guide visually disabled pedestrians and may discourage the use of bollards).**



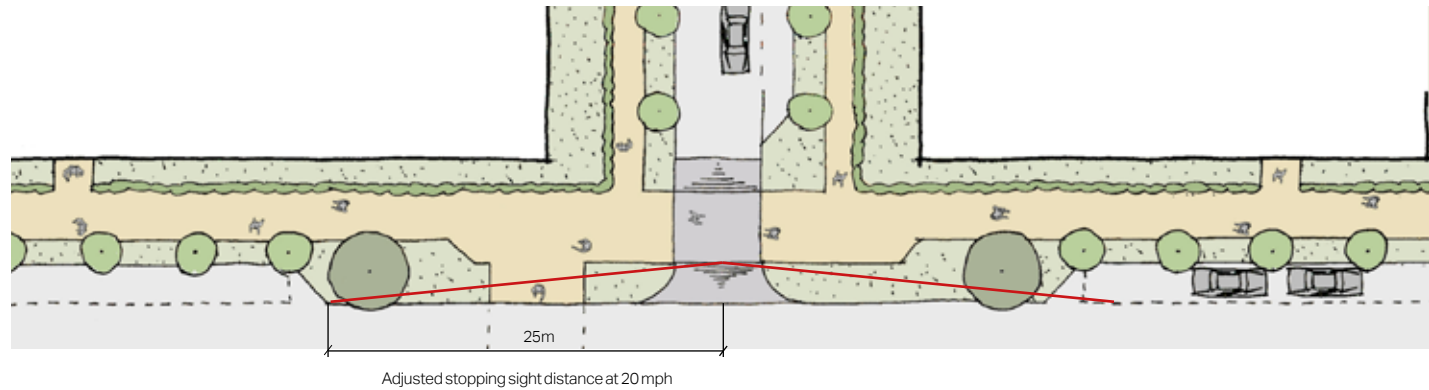
**Figure 93: Example of a raised crossing across a main road in Cambridge, with contrasting paving materials and space for low-level planting and street furniture. (Note: the materials and architectural styles in this photo are indicative only; new streets and buildings in the Parish must use context-appropriate materials).**



The stopping sight distance (SSD) is the distance within 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 Manual for Streets (MfS) are as shown in the table below.

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. 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.



**Figure 94: Indicative plan of a junction showing a visibility splay at a junction along a 20 mph primary road - see table below for details. Across the major arm, kerbs are built out to shorten pedestrian crossing distances. Across the minor arm, the carriageway is raised along the pedestrian crossing and can be built with contrasting materials for higher awareness.**

Speed	Kilometre 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
<b>Stopping sight distance (SSD) in metres</b>		9	12	15	16	20	22	31	36	40	43	56
<b>Stopping sight distance adjusted for bonnet length</b>		11	14	17	18	23	25	33	39	43	45	59

**Figure 95: Stopping sight distances (SSD) for visibility splays (source: Department for Transport).**

### 3.5. 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. Twin garage parking structures are encouraged but should not be the most prominent features of the properties. They must also not result in excessively small and overshadowed front or back gardens.
- Cars and parking remain necessities for many households; they must however not overwhelm the appearance of properties and street frontages. Car parking design must therefore be combined with landscaping to minimise the visual impact of vehicles.
- Parking areas and driveways must be designed to minimise impervious surfaces, for example through the use of permeable paving.
- When placing parking at the front, the area must be designed to minimise the visual impact of vehicles 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 low walls, hedging, planting, and high-quality paving materials.
- The following pages provide an array of complementary car parking solutions that can be employed in Bottesford village and surrounding settlements.



Figure 96: Houses with front garden parking.



Figure 97: House in Muston with front garden parking and garage converted into storage space (right).



Figure 98: Disabled parking bay in Cambridge with ramp for easy wheelchair access.



Figure 99: Bungalow with front garden parking integrated into a large front garden.



Figure 100: On-street parking on Church Street.

## 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 large 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.



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.**

Figure 101: On-plot side parking in Bottesford village, with landscaped edges and brick paving preventing a car-dominated character. (Note: this is suitable on large plots only).

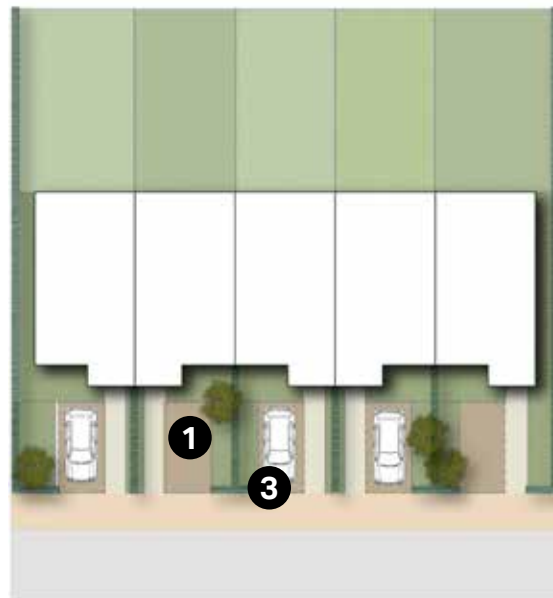


Figure 102: Illustrative diagram showing an indicative layout of on-plot front parking.

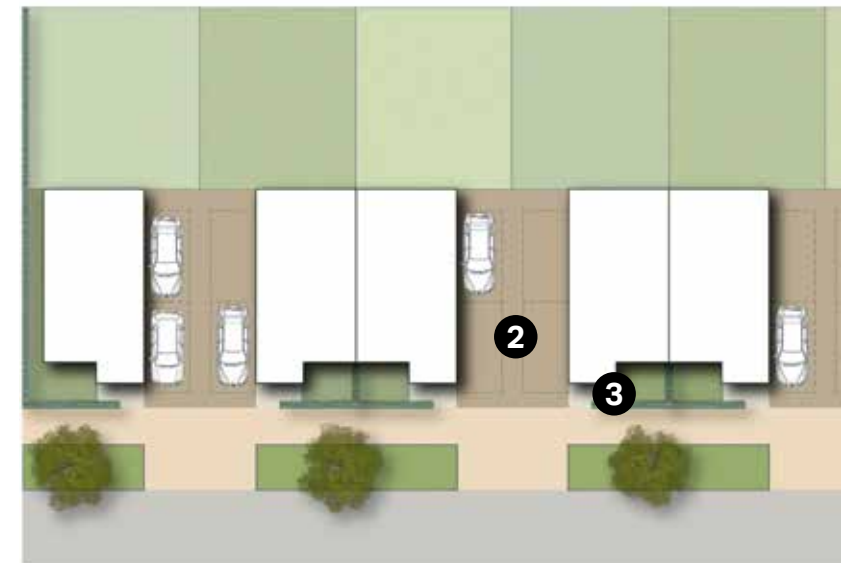


Figure 103: Illustrative diagram showing an indicative layout of on-plot side parking.

## 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, they must complement and harmonise with the architectural style of the main building rather than forming a mismatched unit. They must also not result in excessively small and overshadowed gardens.
- 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, so they must be carefully compared with other vehicle parking options to make the best use of the space available on a given property.
- Considerations must be given to the integration of bicycle parking and/or waste storage into garages.
- The location of garage structures must minimise any loss of light, air, or back garden space, especially in smaller plots.

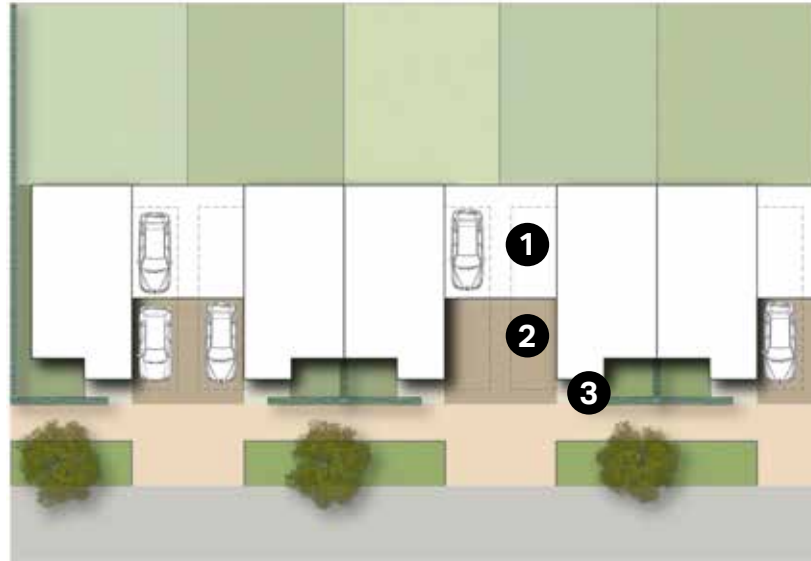


Figure 104: Illustrative diagram showing an indicative layout of on-plot parking with garages.

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.

## Parking courtyards

- This parking arrangement can be appropriate for a wide range of land uses. It is especially suitable for apartments and townhouses fronting busier roads where it is impossible to provide direct access to individual parking spaces. It should be noted that some local authorities may prefer rear parking courtyards over front courtyards.
- Ideally all parking courts should benefit from natural surveillance.
- Parking courts should complement the public realm; hence it is important that high-quality design and materials, both for hard and soft landscaping elements, are used.
- Parking bays must be arranged into clusters with widths of 4 spaces maximum and interspersed with trees and soft landscaping to provide shade, visual interest, and to reduce both heat island effects and impervious surface areas.



Figure 105: Example of parking courtyard, Howitts courtyard @Bottesford Parish Council, 2020.

## Bicycle parking

- 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 garage on plot, covered and secured cycle parking must 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.
- Bicycle stands in the public realm should be sited in locations that are convenient and that benefit from adequate natural surveillance. They should be placed in locations that do not impede pedestrian mobility or kerbside activities.

## Bicycle 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 should be 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.

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

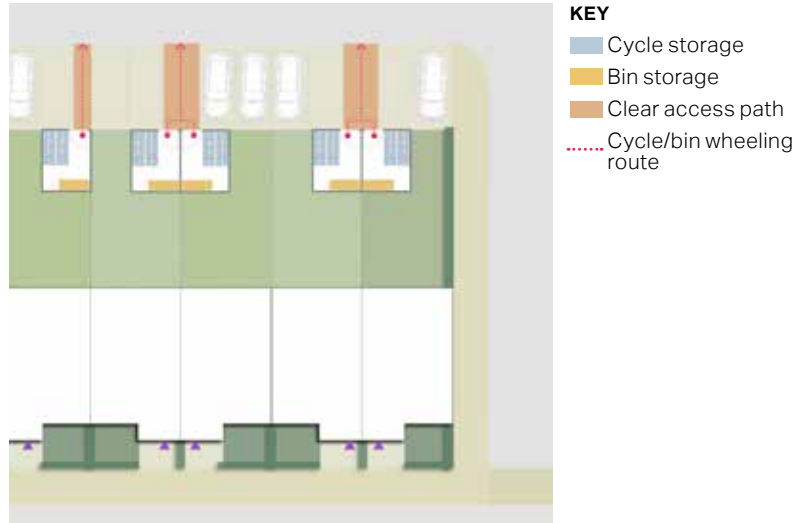


Figure 106: Cycle parking and access for terraced houses with rear parking



Figure 108: Cycle parking and access for semi-detached houses with on-plot parking.



Figure 107: Example of kerbside on-street cycle stands.



Figure 109: Example of public cycle parking (left) and sheltered cycle parking garage (right) in Cambridge.

## Contemporary architecture

Within the Neighbourhood Plan area, there are a few examples of successful contemporary architecture that blend harmoniously with their physical context. It is suggested that this trend continues to further expand with additional eco design features incorporated in future developments. New buildings, when referencing traditional architecture, must however avoid combining elements from too many different architectural styles or employing low-quality imitations of traditional materials. A clear understanding of local and non-local styles and materials is also required.



Figure 110: Contemporary homes on Devon Lane red brick façade and clay pantile half hip roof ©Bottesford Parish Council, 2019.



Figure 111: Rear infill development behind older buildings.

## 3.6. Eco design

### Principles

Energy efficient or eco design combines 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 there are strategies that can be incorporated towards passive solar heating, cooling, and energy efficient landscaping which are determined 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.

It must be noted that eco design principles in themselves do not prescribe a particular architectural style and can be adapted to fit a wide variety of built characters. In fact, it is important that the eco houses built in the Parish complement the traditional local architecture and respect the historic character of the area. A wide range of solutions is also available to retrofit existing buildings, including listed properties, to improve their energy efficiency.<sup>1</sup>

<sup>1</sup> Historic England. <https://historicengland.org.uk/advice/technical-advice/energy-efficiency-and-historic-buildings/>



Figure 112: Examples of ecological housing using traditional and contemporary materials. Note: the architectural style of new eco-houses must adapt to the local context and the (re)use of local materials should be encouraged ©Studio Partington.



## 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 these 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 a lot of objection for setting up solar panels on visible roof areas. Thus, some solutions are suggested as follows:

On new builds:

- 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.



Figure 114: Integration of solar panels on the south-facing pane of the roof of a new house in Lingfield, Surrey.



Figure 113: Use of shingle-like solar panels on a slate roof, with the design and colour of the solar panels matching those of the adjacent slate tiles in Lingfield, Surrey.

## Servicing

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

Waste and cycle 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 on this page illustrate design solutions for servicing units within the plot.



Figure 115: Combined bin and cycle storage in Cambridge.



Figure 116: Example of bin storage using the same cladding as the building.

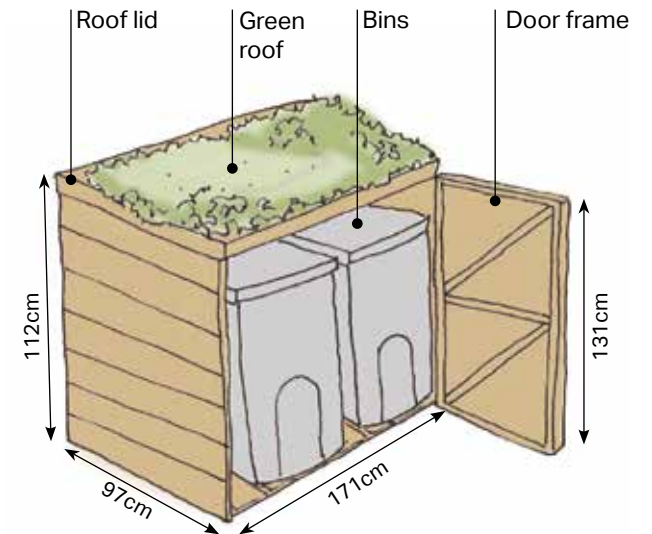


Figure 117: Example of bin storage solution designed to minimise the visual impact of bins and recycling containers.

## 3.7. SuDS

### Definition

The term SuDS stands for Sustainable Drainage Systems. It covers a range of approaches to managing surface water in a more sustainable way to reduce flood risk and improve water quality whilst improving amenity benefits.

SuDS work by reducing the amount and rate at which surface water reaches a waterway or combined sewer system. Usually, the most sustainable option is collecting this water for reuse, for example in a water butt or rainwater harvesting system, as this has the added benefit of reducing pressure on important water sources.

Where reuse is not possible there are two alternative approaches using SuDS:

- Infiltration, which allows water to percolate into the ground and eventually restore groundwater; and
- Attenuation and controlled release, which holds back the water and slowly releases it into the sewer network. Although the overall volume entering the sewer system is the same, the peak flow is reduced. This reduces the risk of sewers overflowing. Attenuation and controlled release options are suitable when either infiltration is not possible (for example where the water table is high or soils are clay) or where infiltration could be polluting (such as on contaminated sites).

The most effective type or design of SuDS would depend on site-specific conditions such as underlying ground conditions, infiltration rate, slope, or presence of ground contamination. A number of overarching principles can however be applied:

- Manage surface water as close to where it originates as possible;
- Reduce runoff rates by facilitating infiltration into the ground or by providing attenuation that stores water to help slow its flow down so that it does not overwhelm water courses or the sewer network;
- Improve water quality by filtering pollutants to help avoid environmental contamination;
- Form a 'SuDS train' of two or three different surface water management approaches;
- Integrate into development and improve amenity through early consideration in the development process and good design practices;
- SuDS are often as important in areas that are not directly in an area of flood risk themselves, as they can help reduce downstream flood risk by storing water upstream;
- Some of the most effective SuDS are vegetated, using natural processes to slow and clean the water whilst increasing the biodiversity value of the area;
- Best practice SuDS schemes link the water cycle to make the most efficient use of water resources by reusing surface water; and
- SuDS must be designed sensitively to augment the landscape and provide biodiversity and amenity benefits.



**Figure 118: Examples of SuDS designed as a public amenity and fully integrated into the design of the public realm in Stockholm, Sweden.**

## Attenuation ponds and detention basins

Attenuation ponds are permanent bodies of water with stormwater storage capacity above the permanent water level. Detention basins are similar to attenuation ponds, but without a permanent pool of water.

Detention basins provide more attenuation storage per unit surface area than attenuation ponds of the same depth, so may be used when space is more limited. However, attenuation ponds are preferred due to the greater amenity and biodiversity benefits offered.

Attenuation ponds must be of a natural appearance to complement the rural character of the site. They can also be of educational benefit to schools and the local community.

Detention basins will be vegetated to provide greater water quality benefits, such as through the removal of sediment. They should be designed to permit alternative uses when not in use, where appropriate.

Attention ponds and detention basins must actively contribute as new public amenities and green spaces. It must be expected that people will interact with the water and landscaping, therefore they must be designed for safe public access and not fenced off.



**Figure 119: Attenuation ponds and detention basins must be integrated into the green space strategy and designed with safe public access in mind so that they do not necessitate fencing. Designs similar to the facility in Bottesford shown in this picture must be avoided because they are dangerous and have unattractive fencing.**



**Figure 120: Detention basin in Cambridge designed for public access.**

## Permeable paving

Permeable paving can be used where appropriate on footpaths, public squares, and private access roads and private areas within the individual development boundaries. In addition, permeable pavement must also:

- Respect the material palette;
- Help to frame the building;
- Create an arrival statement;
- Be in harmony with the landscape treatment of the property; and
- Help define the property boundary.

Regulations, standards, and guidelines relevant to permeable paving and sustainable drainage are listed below:

- Flood and Water Management Act 2010, Schedule 3;<sup>1</sup>
- The Building Regulations Part H – Drainage and Waste Disposal;<sup>2</sup>
- Town and Country Planning (General Permitted Development) (England) Order 2015;<sup>3</sup>

- Sustainable Drainage Systems - non-statutory technical standards for sustainable drainage systems;<sup>4</sup>
- The SuDS Manual (C753);<sup>5</sup>
- BS 8582:2013 Code of practice for surface water management for development sites;<sup>6</sup>
- BS 7533-13:2009 Pavements constructed with clay, natural stone or concrete pavers;<sup>7</sup> and
- Guidance on the Permeable Surfacing of Front Gardens.<sup>8</sup>

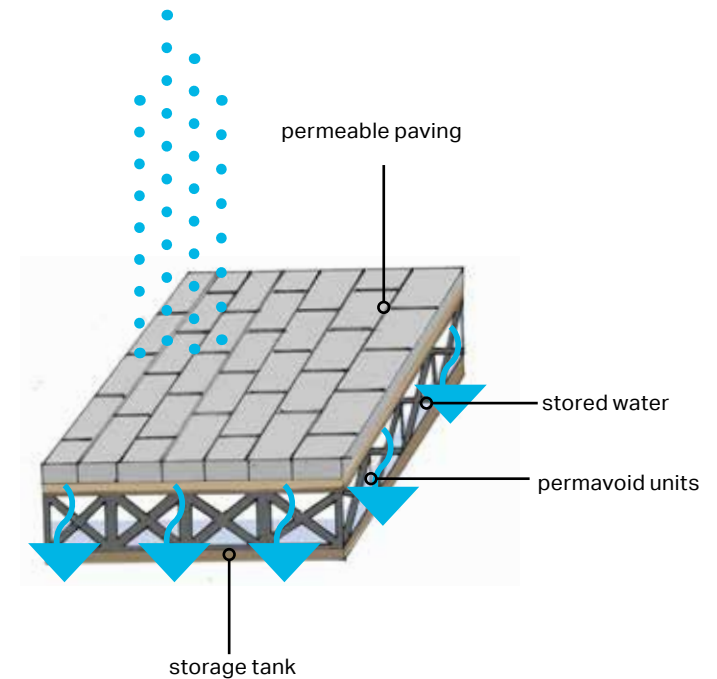


Figure 121: Diagram illustrating the functioning of a soak away

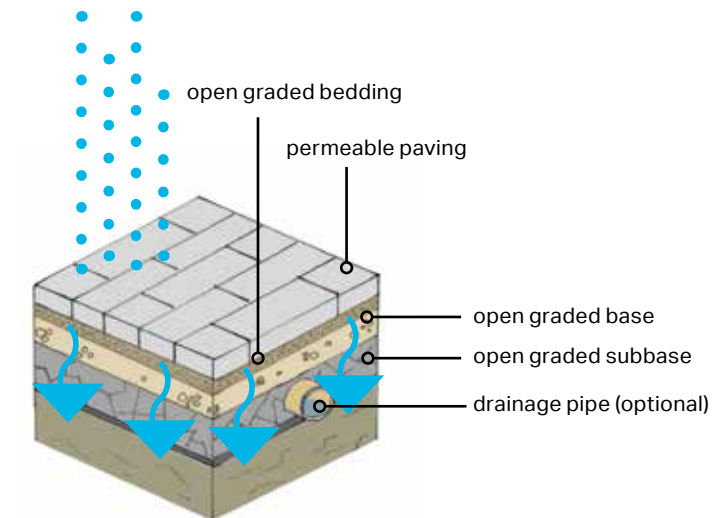


Figure 122: Diagram illustrating the functioning of a soak away

<sup>1</sup> Great Britain (2010). *Flood and Water Management Act, Schedule 3*. Available at: <http://www.legislation.gov.uk/ukpga/2010/29/schedule/3>

<sup>2</sup> Great Britain (2010). *The Building Regulations Part H – Drainage and Waste Disposal*. Available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/442889/BR\\_PDF\\_AD\\_H\\_2015.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/442889/BR_PDF_AD_H_2015.pdf)

<sup>3</sup> Great Britain (2015). *Town and Country Planning (General Permitted Development) (England) Order 2015*. Available at: [http://www.legislation.gov.uk/uksi/2015/596/pdfs/uksi\\_20150596\\_en.pdf](http://www.legislation.gov.uk/uksi/2015/596/pdfs/uksi_20150596_en.pdf)

<sup>4</sup> Great Britain. Department for Environment, Food and Rural Affairs (2015). *Sustainable drainage systems – non-statutory technical standards for sustainable drainage systems*. Available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/415773/sustainable-drainage-technical-standards.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/415773/sustainable-drainage-technical-standards.pdf)

<sup>5</sup> CIRIA (2015). *The SuDS Manual (C753)*.

<sup>6</sup> British Standards Institution (2013). *BS 8582:2013 Code of practice for surface water management for development sites*. Available at: <https://shop.bsigroup.com/ProductDetail/?pid=000000000030253266>

<sup>7</sup> British Standards Institution (2009). *BS 7533-13:2009 Pavements constructed with clay, natural stone or concrete pavers*. Available at: <https://shop.bsigroup.com/ProductDetail/?pid=000000000030159352>

<sup>8</sup> Great Britain. Ministry of Housing, Communities & Local Government (2008). *Guidance on the Permeable Surfacing of Front Gardens*. Available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/7728/pavingfrontgardens.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/7728/pavingfrontgardens.pdf)

## Bioretention systems

Bioretention systems, including soak away and rain gardens, can be used within each development, along verges, and in semi-natural green spaces. They must be designed to sit cohesively with the surrounding landscape, reflecting the natural character of the Parish. Vegetation must reflect that of the surrounding environment.

They can be used at varying scales, from small-scale rain gardens serving individual properties, to long green-blue corridors incorporating bioretention swales, tree pits and mini-wetlands, serving roads or extensive built-up areas.

These planted spaces are designed to enable water to infiltrate into the ground. Cutting of downpipes and enabling roof water to flow into rain gardens can significantly reduce the runoff into the sewer system. The UK Rain Garden Design Guidelines provides more detailed guidance on their feasibility and suggests planting to help improve water quality as well as attract biodiversity.<sup>1</sup>

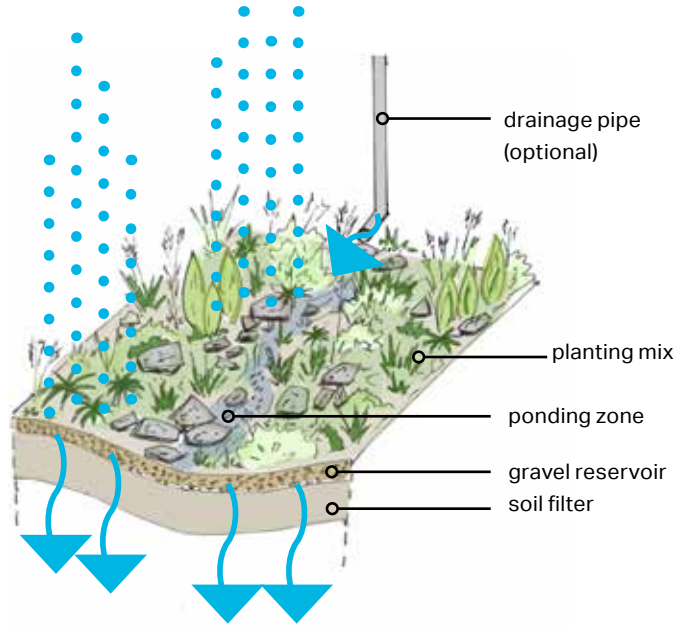


Figure 123: Diagram illustrating the functioning of a rain garden.

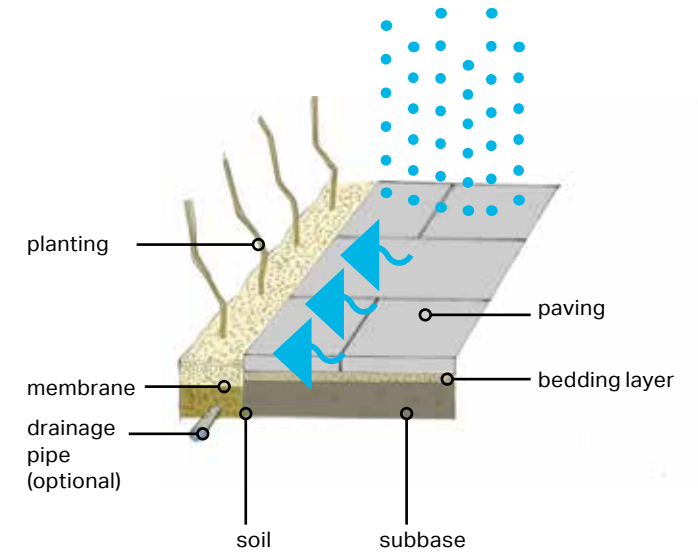


Figure 124: Diagram illustrating the functioning of a soak away garden.

<sup>1</sup> UK Rain Gardens Guide. Available at: <https://raingardens.info/wp-content/uploads/2012/07/UKRainGarden-Guide.pdf>

## Storage and slow release

Rainwater harvesting refers to the systems allowing to capture and store rainwater as well as those enabling the reuse in-situ of grey water. Simple storage solutions, such as water butts, can help provide significant attenuation. To be able to continue to provide benefits, there has to be some headroom within the storage solution. If water is not reused, a slow release valve allows water from the storage to trickle out, recreating capacity for future rainfall events. New digital technologies that predict rainfall events can enable stored water to be released when the sewer has greatest capacity to accept it.

These systems involve pipes and storage devices that could be unsightly if added without an integral vision for design. Therefore, some design recommendation would be to:

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



Figure 125: Examples of water butts used for rainwater harvesting in Reach, Cambridgeshire.

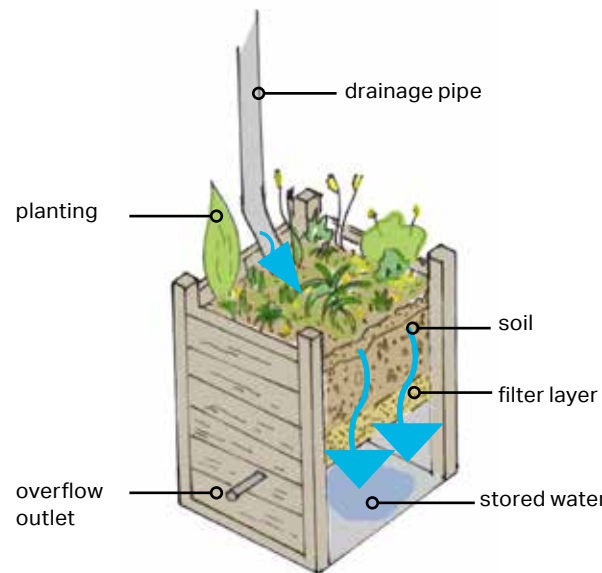


Figure 126: Diagram illustrating the functioning of a stormwater planter.

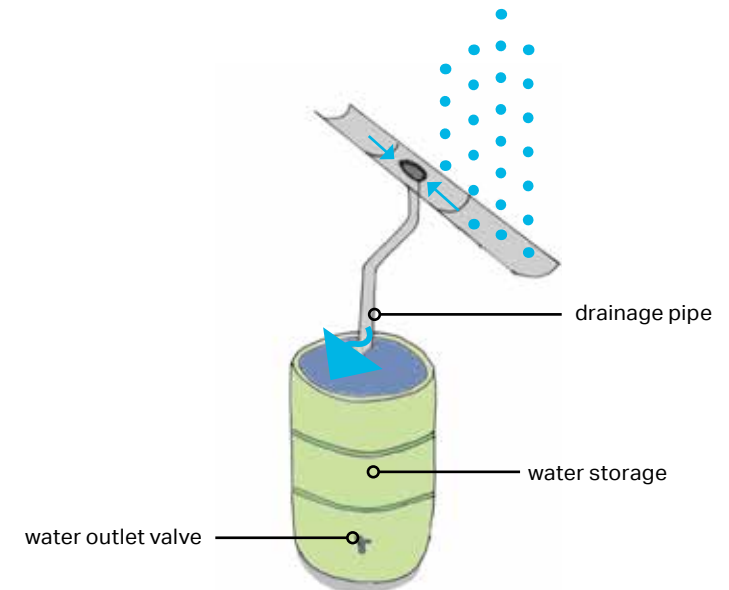


Figure 127: Diagram illustrating the functioning of a water butt.

## Swales

Swales are the preferred option for water conveyance due to their provision of biodiversity and amenity benefits.

Swales should only be used where they can be integrated with the landscape design and their character will suit the surroundings, with soft, natural features providing contribution to biodiversity.

They will be located within development packages to convey surface water to attenuation features.

Due to their open, linear features, crossing points are required where they intersect with access routes, which will require careful design for future maintenance. Therefore swales are better suited to locations where fewer crossing points would be required, such as alongside buffer zones or perimeter roads encircling a development plot.



**Figure 128: Attenuation swale with check dam (© Susdrain). (Note: the design used in this photo is indicative only; new swales in the Parish must employ context-appropriate designs).**



**Figure 129: Roadside swale in Stockholm, Sweden. (Note: the design used in this photo is indicative only; new swales in the Parish must employ context-appropriate designs).**



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### 3.8. General questions to ask and issues to consider when presented with a development proposal

Because the design guidelines of this chapter cannot cover all design eventualities, this section provides a number of questions based on established good practice against which the design proposal should be evaluated. 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 as to whether the design proposal has taken into account the context and provided an adequate design solution.

As a first step there are a number of ideas or principles that should be present in the proposals. The proposals or design should:

1. Integrate with existing paths, streets, circulation networks and patterns of activity;
2. Reinforce or enhance the established village or smaller settlement character of streets, greens, and other spaces;
3. Respect the rural character of views and gaps;
4. Harmonise and enhance existing settlement in terms of physical form, architecture and land use;
5. Relate well to local topography and landscape features, including prominent ridge lines and long-distance views;
6. Reflect, respect, and reinforce local architecture and historic distinctiveness;
7. Retain and incorporate important existing features into the development;
8. Respect surrounding buildings in terms of scale, height, form and massing;
9. Adopt contextually appropriate materials and details;

10. Provide adequate open space for the development in terms of both quantity and quality;
11. Incorporate necessary services and drainage infrastructure without causing unacceptable harm to retained features;
12. Ensure all components e.g. buildings, landscapes, access routes, parking and open space are well related to each other;
13. 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; and
14. Positively integrate energy efficient technologies.

Following these ideas and principles, there are number of questions related to the design guidelines outlined later in the document.

#### Street grid and layout

- Does it favour accessibility and connectivity over cul-de-sac models? If not, why?
- Do the new points of access and street layout have regard for all users of the development; in particular pedestrians, cyclists, and those with disabilities?
- What are the essential characteristics of the existing street pattern? Are these reflected in the proposal?
- How will the new design or extension integrate with the existing street 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?

#### Green spaces, views and character

- What are the particular characteristics of this area which have been taken into account in the design; i.e. what are the landscape qualities of the area?
- Does the proposal maintain or enhance any identified views or views in general?
- How does the proposal affect the trees on or adjacent to the site?
- Has the proposal been considered within its wider physical context?
- Has the impact on the landscape quality of the area been taken into account?
- In rural locations, has the impact of the development on the tranquillity of the area been fully considered?
- How does the proposal affect the character of a rural location?
- How does the proposal impact on existing views which are important to the area and how are these views incorporated in the design?
- Can any new views be created?
- 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?
- Will any communal amenity spaces be created? If so, how will this be used by the new owners and how will it be managed?

**Gateway and access features**

- What is the arrival point, how is it designed?
- Does the proposal maintain or enhance the existing gaps between settlements?
- Does the proposal affect or change the setting of a listed building or listed landscape?
- Is the landscaping to be hard or soft?

**Buildings layout and grouping**

- What are the typical groupings of buildings?
- How have the existing groupings been reflected in the proposal?
- Are proposed groups of buildings offering variety and texture to the townscape?
- What effect would the proposal have on the streetscape?
- Does the proposal maintain the character of dwelling clusters stemming from the main road?
- Does the proposal overlook any adjacent properties or gardens? How is this mitigated?

**Building line and boundary treatment**

- What are the characteristics of the building line?
- How has the building line been respected in the proposals?
- Has the appropriateness of the boundary treatments been considered in the context of the site?

**Building heights and roofline**

- What are the characteristics of the roofline?
- Have the proposals paid careful attention to height, form, massing, and scale?
- If a higher than average building is proposed, what would be the reason for making the development higher?

**Household extensions**

- Does the proposed design respect the character of the area and the immediate neighbourhood, or does it have an adverse impact on neighbouring properties in relation to privacy, overbearing, or overshadowing impact?
- Is the roof form of the extension appropriate to the original dwelling (considering angle of pitch)?
- Do the proposed materials match those of the existing dwelling?
- In case of side extension, does it retain important gaps within the street scene and avoid a 'terracing effect'?
- Are there any proposed dormer roof extensions set within the roof slope?
- Does the proposed extension respond to the existing pattern of window and door openings?
- Is the side extension set back from the front of the house?

**Building materials and surface treatment**

- What is the distinctive material in the area, if any?
- Does the proposed material harmonise with the local materials?
- Does the proposal use high-quality materials?

- Have the details of the windows, doors, eaves, and roof been addressed in the context of the overall design?
- Do the new proposed materials respect or enhance the existing area or adversely change its character?

**Car parking solutions**

- What parking solutions have been considered?
- Are the car spaces located and arranged in a way that is not dominant or detrimental to the sense of place?
- Has planting been considered to soften the presence of cars?
- Does the proposed car parking compromise the amenity of adjoining properties?
- Have the needs of wheelchair users been considered?

**Architectural details and contemporary design**

- If the proposal is within a conservation area, how are the characteristics reflected in the design?
- Does the proposal harmonise with the adjacent properties? This means that it follows the height, massing, and general proportions of adjacent buildings and how it takes cues from materials and other physical characteristics.
- Does the proposal maintain or enhance the existing landscape features?
- Has the local architectural character and precedent 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?





Delivery

04

# 4. Delivery

The Design Guidelines will be a valuable tool in securing context-driven, high-quality development in Bottesford Parish. They will be used in different ways by different actors in the planning and development process, as summarised in the table.

Actors	How They Will Use the Design Guidelines
Applicants, developers, and landowners	As a guide to 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.
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 complied with.
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.



Figure 130: Grade II-listed Providence Cottage.

## **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](http://aecom.com) and [@AECOM](https://twitter.com/AECOM).

## **Contact**

### **Ben Castell**

Technical Director

T +44 (0)20 7798 5137

E [ben.castell@aecom.com](mailto:ben.castell@aecom.com)