AECOM

RUSHMERE ST ANDREW

Design Guidelines and Codes

locality
the power of community

FINAL REPORT

March 2021

Quality information

Prepared by	Checked by
Jimmy Lu	**Ben Castell**
Senior Urban Designer	Director

Revision History

Revision	Revision date	Details	Name	Position
6	30-03-2021	Locality review	John Wilkinson	Neighbourhood Planning Officer, Locality
5	29-03-2021	Final draft update	Jimmy Lu	Senior Urban Designer
4	25-03-2021	Group review	Sylvia Stannard	Rushmere St Andrew Parish Council
3	19-03-2021	Final draft	Jimmy Lu	Senior Urban Designer
2	01-03-2021	Group review	Sylvia Stannard	Rushmere St Andrew Parish Council
1	18-01-2021	First draft	Jimmy Lu	Senior Urban Designer
0	15-01-2021	Report preparation	Hoorieh Morshedi	Graduate Urban Designer

Contents

Introduction

01

1. Introduction

1.1. Overview

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 Rushmere St Andrew Parish Council.

The Neighbourhood Plan Working Group is making good progress in the production of its Neighbourhood Plan which is currently being written. The Parish Council has requested to access professional advice on design guidance and codes to influence the design of new development in the wider Neighbourhood Plan Area, ensuring that it remains sympathetic to the existing built and natural environment.

Design elements that are of particular interest to the Parish Council include the retention of the existing character areas, the protection of natural features, and the preservation of open space to prevent the village of Rushmere St Andrew from blending with the built-up area of Ipswich.

This document provides advice to address the Parish Council's concerns on the aforementioned design elements. 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 and to promote high-quality built forms. The recommendations made in this report are based on observations on the Neighbourhood Plan Area as a whole, but they may be more relevant in some areas of the neighbourhood area than others. Where possible, the report provides specific recommendations for different parts of the Parish. The elements that are more general are referred to as design guidelines. Other elements that are more prescriptive or set out parameters are the design codes.

1.2. Objective

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

- Distinct character areas;

- Natural features; and

- Open space.

1.3. Process

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

- Initial online meeting and virtual site visit;

- Site visit;

- 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: Neighbourhood Plan area

KEY
- Rushmere St Andrew Neighbourhood Plan Area
- Roads
- Railway
- Railway station

Claydon
Akenham
A14
Westerfield
WESTERFIELD STATION
B1067
A1214
Ipswich
A1214
IPSWICH STATION
A1156
DERBY ROAD STATION
A1189
A14
Wherstead
A137
RIVER ORWELL
Woolverston
Nacton
Levington
Kirton
Bucklesham
Brightwell
Newbourne
Hemley
Ramsholt
Waldringfield
Sutton
RIVER DEBEN
Martlesham Heath
Martlesham
A12
Kesgrave
A1214
Rushmere St Andrew
Playford
Little Bealings
Great Bealings
Hasketon
Woodbridge
WOODBRIDGE STATION

0 500m 1Km 2Km

1.4. Area of study

Rushmere St Andrew is a civil parish in East Suffolk. The Parish area has an elongated shape that stretches almost 5 km from north to south. It borders the east of Ipswich, whose town centre is located 3 km west of the Parish.

The Parish can be divided in two distinct character areas separated by Woodbridge Road (A1214). To the north is the historic village of Rushmere St Andrew, which has retained a mostly rural character and remains a distinct settlement separated from the larger Ipswich built-up area by green spaces and open fields. The south of the Parish has been absorbed into the Ipswich built-up area. It is now largely a suburban extension of Ipswich dominated by single-family detached homes, although it has retained access to large areas of open space.

Rushmere St Andrew borders the parishes of Tuddenham St Martin to the north; Playford and Kesgrave to the east; Purdis Farm and Foxhall to the south; and the borough of Ipswich to the west.

The Parish benefits from its proximity to Ipswich for services and infrastructure. The nearest railway station is Derby Road with connections to Ipswich and Felixstowe. It is also served by buses 4, 59, 63, 64, 65, 66, 66A, and 972 providing services to Ipswich Central, Little Bealings, Bixley, Aldeburgh, Melton, Rendlesham, Framlingham, and Martlesham Heath. The main roads in the Parish are Woodbridge Road (A1214) and Foxhall Road. The nearest

junctions with the A12 and A14 are located 3.5 east and 1.5 km south of the Parish boundaries respectively.

Rushmere St Andrew has 5 listed buildings and structures, including the Grade II* St Andrew's Church. In addition, the old village of Rushmere has a number of noteworthy unlisted buildings. Other features include the Rushmere Village Hall and Community Hub, the Water Tower, and Tower Hall. The Parish also has a small commercial cluster on Broadlands Way and Brendon Drive. Noteworthy green spaces in the Parish include Rushmere Heath, Sandlings Local Nature Reserve, and Mill Stream Local Nature Reserve. It is home to two golf clubs, Rushmere Golf Club and Ipswich Golf Club. The Parish is also located close to Foxhall Heath and Brookhill Woods. At the 2011 census the Parish population was 6,185.

Figure 2: Southward view of Ipswich Town FC Training Ground, with Rushmere Golf Course in the background

Local character analysis

02

2. Local character analysis

2.1. Introduction

This section outlines the broad physical, historic and contextual characteristics of Rushmere St Andrew. It analyses the settlement patterns, built forms, street layout, open space, and parking arrangements in the Neighbourhood Plan area. The images in this section have been used to give examples of the character of Rushmere St Andrew.

2.2. Character areas

The Parish encompasses areas with distinct characters, described hereafter:

The village of Rushmere St Andrew

The northernmost part of the Parish, it remains predominantly rural and is dominated by open fields surrounding the historic village of Rushmere St Andrew. It concentrates the oldest structures of the Parish, including all of its listed buildings, and is its most architecturally diverse area. Open space in the form of fields and sport pitches enables the village to remain physically separate from the built-up area of Ipswich as well as the more suburban areas of the Parish. The historic village core is supplemented by small clusters of more recent infill developments. The large number of mature trees, landscaped hedges, and large planted front gardens help the village retain an open and green character. The limited road network is a mix of rural lanes and short cul-de-sac roads.

Beech Road

The area, located east of Rushmere Common and south of Woodbridge Road, is dominated by mid-20th century detached and semi-detached bungalows with a minority of semi-detached two-storey houses. Vegetation is largely absent from the public realm apart from a few narrow verges and is instead located in private gardens. The area does not contain green spaces but benefits from its proximity with Rushmere Common.

Bixley Estate (north of Foxhall Road)

Located south of Rushmere Common, this area is dominated by suburban tract housing and contains the most recently developed parts of the Parish. Tract housing developments give the area the highest degree of architectural homogeneity in the Parish despite variations in construction materials and forms. Most houses are two-storey detached houses arranged in clusters served by loops and cul-de-sac roads. A small retail cluster at the junction between Broadlands Way and Brendon Drive, next to which is a small group of terraces. The area contains small pockets of green spaces and trails and benefits from the proximity of Rushmere Common, Sandlings Nature Reserve, and Mill Stream Nature Reserve.

South of Foxhall Road

The southernmost part of the Parish, it abuts the northern and western fringes of Ipswich Golf Club and can be divided into different sub-areas. It is dominated by an area of large two-storey houses served by cul-de-sacs distributed along Brookhill Way. This area contains many mature trees that were either retained in the public realm or integrated into private gardens, while boundaries are marked by dense landscaped hedges. Immediately west of this area is a trailer park served by Heathlands Park. Ribbon development can be observed along Foxhall Road, and its western fringe are extensions of an area of detached and semi-detached two-storey tract housing from neighbouring Ipswich.

Figure 3: Map showing the local context.

KEY

- Rushmere St Andrew Neighbourhood Plan Area
- Roads
- Railway
- Railway station
- Site of special scientific Interest
- Local Nature Reserve
- Ancient woodland
- Common land
- Scheduled monument
- Grade II* listed building
- Grade II listed building

WESTERFIELD STATION

DERBY ROAD STATION

The village

Beech Road

Rushmere Heath

Sandlings Nature Reserve

Bixley Estate

Mill Stream Nature Reserve

South of Foxhall Road

Bixley Heath Nature Reserve

Rushmere Road

Playford Road

A1214

A1214

A1189

A1156

Penzance Road

Foxhall Road

Ipswich

Kesgrave

Marlesham Heath

Wherstead

0   250   500m   1km

2.3. Settlement patterns and built forms

The north and south of the Parish present markedly different settlement patterns and built forms.

The northern part is dominated by the village of Rushmere St Andrew, which forms a distinct settlement separated from the larger Ipswich built-up area by open fields, sport pitches, and green spaces. The Street, Holly Lane, and Playford Lane form the main road armature along which the village historically developed. The overall settlement pattern is spacious and informal, with a variety of building forms, setbacks, and plot arrangements. Many plots along The Street have retained prominent mature trees, green hedges, and pockets of greenery. Subsequent 20th and 21st century developments have produced infilling and cul-de-sac arrangements that branch off The Street such as The Limes, Birchwood Drive, Chestnut Close, as well as the different branches of Holly Lane. Of particular note is the eastern branch of Holly Lane featuring semi-detached bungalows clustered around spacious green verges reminiscent of the arrangement of almshouses. Along the southern side of The Street and the northern side of Playford Road, development takes the form of one-plot deep arrangements whereby houses face the road and back onto open space. Most of the area remains rural and undeveloped.

Although the south of the Parish can be divided into three different character areas, all three have many common characteristics. All three have a mostly suburban character and have been absorbed into the greater Ipswich urban area, forming an almost continuous built-up wedge south of the

A1214 from Ipswich to Martlesham. Settlement patterns in the form of ribbon development can be observed along Woodbridge Road and Foxhall Road. Nevertheless, the townscape is dominated by large tracts of detached and semi-detached single-family homes arranged around cul-de-sac roads and loops, a pattern that is particularly visible in the Bixley Estate area. The recent development patterns confer most roads homogeneous in appearance, as the properties that border them employ standardised house types and plot arrangements. Despite the preservation of a number of green pockets and corridors, the southern part of the Parish has a more built-up character. The area is, however, broken up by large green spaces of various nature within or bordering the Parish, notably Rushmere Heath, Ipswich Golf Club, as well as Sandlings and Mill Stream Nature Reserves.

Figure 4: St Andrew's Church, a Grade II* listed building and Rushmere St Andrew War Memorial as Grade II listed building.

Figure 5: Two-storey houses on The Street, Rushmere St Andrew, with sash windows and decorated eaves.

Figure 6: Cottages opposite the old forge with dormers and white-rendered walls.

Figure 7: A detached family house with a large front garden on The Street.

Figure 8: Pink-rendered terraced house on Holly Lane.

Figure 9: Thatched house on Bent Lane.

Figure 10: Rushmere St Andrew Baptist Church on The Street.

2.4. Streets and public realm

The main roads in the Parish are Woodbridge Road (A1214), Foxhall Road, and Playford Road, all of which lead to the centre of Ipswich. Beyond the strategic road network, the street patterns are markedly different between the north and south of the Parish. In the entire Parish, however, dedicated bicycle infrastructure is largely absent, apart from a few shared footpaths connecting local green spaces. Public squares and greens are rare outside of green spaces; the small public space at the junction between Broadlands Way and Brendon Drive appears to be the only square in the Parish.

The northern side of the Parish has a limited network due to the small size of the settlement and its rural character. A small number of rural lanes such as Lamberts Lane and Playford Lane connect the village to the surrounding countryside. The Street is the main road in the village of Rushmere St Andrew and forms its main armature. Despite its relative importance, it is a relatively narrow street with footways only on one side. However, the mature vegetation that frames it helps preserve its informal rural character, despite its proximity to the wider Ipswich built-up area. Short cul-de-sac roads provide access from The Street to small pockets of residential developments at The Limes, Birchwood Drive, Holly Lane, and Chestnut Close.

The design of most streets in the south of the Parish are typical of late 20th and 21st century residential suburban developments. Properties are served by a series of curving loops and cul-de-sac roads with wide radii and regular road widths. Access roads are typically equipped with footways

on both sides of the carriageway, but most cul-de-sacs are shared between pedestrians and vehicles. A minority of streets have green verges along the footways or at street corners and trees in the public realm are few, except along Brookhill Way where mature trees have been integrated into the development. Although a number of footpaths connect residential areas to the neighbouring green spaces, pedestrian interconnection between different cul-de-sac roads is often lacking, resulting in a disjointed pedestrian network that offers few direct routes.

Figure 11: A view toward Rushmere St Andrew Baptist Church. Wide verges separate the road from footpath.

Figure 12: The Street Rushmere St Andrew, the main access to the village of Rushmere St Andrew with a narrow footpath on one side.

2.5. Open space

Despite suburbanisation, the Parish retains various large areas of open space. Most of the remaining open fields are concentrated in the northern part of the Parish. Together with the sport pitches located south of the village, they prevent it from merging physically with the Ipswich urban area and help it retain a distinct and independent character. The abundance of open space in the north of the Parish also creates many opportunities for long-distance views into the countryside from the village, especially northward and eastward. The village itself maintains a number of small green spaces such as St Andrew's church yard, Chestnut Pond, and the allotment gardens located north of the latter. The village also retains green pockets where The Street intersects with The Limes, Birchwood Drive, and Holly Lane. The presence of mature trees and hedges in private gardens also help retain Rushmere St Andrew's rural and bucolic character.

The south of the Parish is more built-up but has a number of large green spaces. Rushmere Common, known as Rushmere Heath/Rushmere Golf Course, is crossed by footpaths that connect with the neighbouring residential areas. Residential areas are punctuated by pocket parks, playgrounds, and green corridors with mature trees and hedges, for example the "green lane" along Bixley Lane. Residents in this area are also within a short distance from large green spaces, located either fully or partly outside of the Parish boundaries, such as Brookhill Wood, Ipswich Golf Club, Mill Stream Local Nature Reserve, and Bixley Heath Site of Special Scientific Interest. The Jubilee Walk is a circular pedestrian route that connects many green spaces in the south of the Parish. It should be noted that Rushmere Common is managed by the Rushmere Common Committee of Trustees and governed by its own set of rules set out by the Commons Act of 2006.

Figure 13: St Andrew's Church yard.

Figure 14: Green space on Birchwood Drive.

Figure 15: Village sign next to Limes Pond on The Street, Rushmere St Andrew.

2.6. Building heights and roofline

Most buildings in the Parish are detached and are one or two storeys in height. Older buildings in the village of Rushmere St Andrew display a variety of roof shapes, orientations, and materials; although many houses have retained the local clay pantile cladding characteristic of Suffolk roofs. The roofline is more uniform in small infill sites in the north of the Parish and larger developments in the south, as a result of a reliance on a limited range of house types in most contemporary developments. More recent developments such as Bixley Farm have more variations in terms of roof shapes, orientation, and material, although the houses remain relatively uniform in terms of bulk. The Bixley Estate area have a number of three storey houses, although these tend to have roof spaces used as not to increase height.

Figure 16: Two-storey building with sash windows and grey slates.

Figure 19: Old cottages with roofs constructed of clay pantile cladding.

Figure 17: Typical two-storey detached building with gabled roof and dormers.

Figure 18: Detached family housing on The Street with clay pantile cladding roof.

2.7. Car parking

Most vehicle parking is off-street in private properties. Most often parking takes the form of driveways, front garden parking, or garage buildings affixed to the side of houses. Parking areas in older properties is most often screened by hedges or masonry walls; however, many of the more recent developments have no screening, which results in a more car-dominated character. A few cul-de-sacs and businesses have parking in small courtyard and surface car parks. A small number of streets have on-street parking; for example, the easternmost branch of Holly Lane has inset parking bays. The most common form of on-street parking, however, is informal kerbside parking.

Figure 20: On-plot parking.

Figure 24: Courtyard parking

Figure 22: Inset parking on Holly Lane.

Figure 23: On plot car parking.

Figure 21: On plot parking on Birchwood Drive.

Design guidelines and codes

03

3. Design guidelines and codes

This section sets out the principles that will influence the design of potential new development and inform the retrofit of existing properties in Rushmere St Andrew. Where possible, images from the Parish are used to exemplify the design guidelines and codes. Where these images are not available, best practice examples from elsewhere are used.

3.1. Introduction

The design guidelines and codes listed hereby are organised under five principles that are particularly relevant to Rushmere St Andrew. They have been generated based on discussions with members of the Neighbourhood Plan Working Group, the virtual site visit and the area analysis included in Chapter 2 of this report, and on good practice relevant to the physical context of the Parish. Some of these are more general and could be used as design guidance within the neighbourhood plan. Other elements that are more prescriptive or set out parameters could form design codes.

3.2. Rushmere St Andrew design principles

3.2.1. Site layout

SL 1. Pattern and layout of buildings;

SL 2. Enclosure; and

SL 3. Gateways and access features.

3.2.2. Well-connected roads and footpaths

WRF 1. Road layout and connectivity;

WRF 2. Improving/ enhancing public rights of way; and

WRF 3. Junctions and pedestrian crossings.

3.2.3. Maintaining the local character

MLC 1. Building scale and massing;

MLC 2. Roofline;

MLC 3. Fenestration;

MLC 4. Building line and boundary treatment;

MLC 5. Vehicle parking;

MLC 6. Architectural details; and

MLC 7. Materials and building details.

3.2.4. Quality of place

QP 1. Housing mix;

QP 2. Household extensions; and

QP 3. Mitigating noise pollution.

3.2.5. Sustainability

SU 1. Energy efficient housing and energy production;

SU 2. Biodiversity; and

SU 3. Sustainable drainage (SuDS).

Figure 25: Northward aerial view of Ipswich School Sports Centre

3.2.1. Site layout

SL 1. Pattern and layout of buildings

The existing character in different parts of Rushmere St Andrew must be appreciated when considering potential new development, whatever its size or purpose:

- Where possible, properties should be clustered in small pockets showing a variety of housing types. In new developments, the use of a repeating type of dwelling within a same cluster or along a same street frontage should be avoided. Instead, variations in building heights, widths, and/or depths should be sought to create variety and interest in the streetscape. It is particularly important to achieve such variations in the north of the Parish, which owes its rural character to more irregular building forms and layouts.

- Boundaries such as walls or hedges, whichever is most appropriate to the street, should enclose and define each street along the back edge of the pavement. In Rushmere St Andrew, hedges are preferred to retain the higher amount of greenery.

- The placement and orientation of buildings should form an identifiable building line for each development group. The extent and depth of building setbacks must be sympathetic to the immediate context. For example, smaller building setbacks may be appropriate in the south of the Parish to reflect its more built-up character. In all areas, however, subtle variations are encouraged to add visual interest.

- Properties should aim to provide rear and front gardens, where appropriate, or at least a small buffer to the public sphere, for example, in the form of planting strips where the provision of a front garden is not possible.

- The layout of new development should optimise the benefit of daylighting and passive solar gains as this can significantly reduce energy consumption.

- Interfaces between the existing settlement edges and any new development must be carefully designed to integrate new and existing communities. This is particularly important in the north of the Parish where new residential buildings may face existing residential properties that until now either overlook or back onto open fields.

Figure 26: Two-storey building with low wall boundary treatment.

Figure 27: A detached family house set back with a deep front garden.

The diagram below applies relevant site and building layout principles to a small hypothetical infill site in the Neighbourhood Plan area.

New footpath providing safe and vehicle-free access to increase pedestrian connectivity through the settlement.

New development: back gardens should be minimum 10 m to avoid overlooking.

Unsympathetic views to be screened with landscaping and appropriate building scale.

New developments to provide sufficient front and back gardens.

Building height maximum 2 storeys at eaves

Existing property with front and back gardens

For use of materials see Section MLC 7

Parking area with permeable paving and soft landscaping to minimise car-dominated character and impervious surfaces

Figure 28: Illustrative plan for a small hypothetical development, highlighting many of the elements of the design guidelines where they relate to the pattern and layout of buildings.

The diagram opposite applies relevant site and building layout principles to a hypothetical site that borders existing development on one side and open countryside on another. Due to the mostly flat topography and the rural setting of the village of Rushmere St Andrew, new construction could be visible from long distances. A green buffer consisting of hedges and trees may be used to soften the impact of new extensions and ease the transition with the open countryside. Amenity green spaces could also be incorporated at the site edges. Low-traffic lanes at the perimeter of the development area could be fronted with outward-facing buildings. The back gardens of houses adjacent to existing residences should incorporate green buffers to avoid overlooking issues. New houses that border existing roads should face outward to increase natural surveillance.

Open countryside | Green buffer - hedges and trees | Amenity green space | Low-traffic shared lane | Residential development with street-facing frontage | Planted hedge and tree

EDGE WITH OPEN COUNTRYSIDE

EDGE WITH EXISTING BACK GARDENS

Figure 29: Illustrative section showing the interface between a hypothetical development site and the open countryside (left) and existing properties (right)

SL 2. Enclosure

The level of enclosure of a road or square is determined by its relationship with the vertical elements on its edges such as buildings, walls, and trees. A good sense of enclosure can be achieved by creating clearly defined spaces that produce a cohesive and attractive built form; for example by determining focal points, appropriate building heights, and continuous edges. The following principles should be considered:

- In case of building set-back, façades should have an appropriate ratio between the width of the street and the building height (see diagram opposite). This ratio may vary and may be achieved via the placement of either buildings or landscaping in different parts of the Parish.

- Buildings should be designed to turn corners and terminate views.

- Generally, building façades should front onto streets, and variation to the building line can be introduced to create an informal character.

- In most new developments, a subtle variety of plot widths and depths should be considered during the design process to create an attractive character. The amplitude of such variations should be carefully calibrated; for example, the depth of front gardens is more uniform in the Bixley Estate and Beech Road areas.

- Trees, hedges, and other landscaping features can help create a more enclosed streetscape while retaining the rural character of the north of the Parish. They also provide shading and protection from the natural elements.

Figure 30: In more rural settings, mature trees and landscaped hedges should be used achieve the same enclosure effect as walls and buildings

Figure 31: Trees and other types of green spaces can create a more satisfying level of enclosure while retaining a rural character

Generally effective 1:1 ratio   **Generally effective 1:2 ratio**

Maximum squares (+ very wide streets) 1:6 ratio

Spatial definition by tree canopy

Spatial definition by building height   **Spatial definition by recess line**

Images from Urban Design Compendium (Homes England)

SL 3. Gateways and access features

- Future design proposals should consider placing gateway and built elements to clearly mark the access or arrival to potential developed sites. This is particularly important for developments at the edge of the settlement 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 informally by a noticeable change in scale, enclosure, or road configuration. The gateway buildings or features should, however, reflect local character. They must also not be designed to serve as physical or psychological deterrents to non-residents and instead indicate an access or the continuation of a path.

- Besides building elements acting as gateways, high-quality landscaping features such as trees and hedges could be considered appropriate to fulfill the same role especially in less built-up areas in the north of the Parish.

Figure 32: The village sign can be used as an arrival point

Figure 33: The location of the Village Hall on Humber Doucy Lane provides a sense of arrival

Figure 34: In Rushmere St Andrew, the entrance to Birchwood Drive from The Street is marked by a small area of greenery rather than buildings

3.2.2. Well-connected roads and footpaths

WRF 1. Road layout and connectivity

Rushmere St Andrew has a variety of roads, most are residential and comprise a mix of rural lanes, cul-de-sacs, and loops. The following principles should therefore be considered:

- New streets, if required, must not only meet the technical highways requirements but also be designed as a 'space' to be used by all, not just motor vehicles. It is essential for developments to have streets designed for the needs of pedestrians, cyclists, and users with limited mobility. Existing roads should be retrofitted for the same purpose, as well as to discourage speeding and increase safety.

- New streets should be linear with gentle meandering to provide interest and evolving views. The network should be legible to help with orientation. Subtle variations in width may also be introduced to discourage speeding and reflect the layout of existing country roads in the north of the Parish. New streets and paths should be laid out in a permeable pattern, allowing for multiple connections and a choice of routes, particularly on foot. Any cul-de-sacs should be relatively short and include provision for onward pedestrian links.

- Access to properties should be from the street where possible.

- The distribution of land uses should respect the general character of the area and road network, and take into account the degree of isolation, lack of light pollution, and levels of tranquillity.

Figure 35: The Street's meandering pattern contributes to Rushmere St Andrew's rural character and provides visual interest and evolving views

Figure 36: Pavement on the north side of The Street

Figure 37: A footpath connecting Broadlands Way and Audley Grove across a small area of open space (© Graham Fellingham, 2021)

Figure 38: A shared path with lighting between Broadlands Way and Audley Grove (© Graham Fellingham, 2021)

KEY

Rushmere St Andrew Neighbourhood Plan area
Roads
Railway
Railway station
PRoW
Footpath
Bridleway
Boat

Rushmere St Andrew

A1214

Rushmere Road

Playford Road

A1214

A1189

Penzance Road

Jubilee Walk

Jubilee Walk

Jubilee Walk

Foxhall Road

A1156

Figure 39: Map showing road networks and pedestrian connections.

AECOM

0   250   500m   1km

WRF 2. Improving/enhancing public rights of way

- All newly developed areas should retain or provide safe, direct, and attractive pedestrian links between neighbouring streets and local facilities. 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 both within and outside of the Parish.

- A permeable and legible pedestrian network at all levels provides people with a choice of different routes, enables easy orientation, and allows pedestrian traffic to be distributed more evenly across the network rather than concentrated along heavily trafficked roads.

- Design features such as barriers to pedestrian movements or gated new developments should be avoided. Footpaths framed by high fences should be discouraged because they are unattractive and are perceived as unsafe due to poor visibility.

- Strategically placed signposts can assist pedestrians and cyclists with orientation and increase awareness of publicly accessible paths beyond the built-up areas. However, new signposts must respect the character of the Parish and avoid creating visual clutter.

- Green spaces in the Parish have an extensive network of footpaths; however, many residential cul-de-sacs at the south lack pedestrian interconnectivity. Opportunities to create footpaths at the end of existing cul-de sacs should be sought, and new developments should increase the connectivity of the pedestrian network where possible.

Figure 40: A footpath north of Chestnut Pond connects the centre of Rushmere St Andrew with the open countryside to the east

Figure 41: A signed footpath near the Church of St Andrew that leads to the south of the Parish. The Water Tower acts as a landmark that allows better pedestrian orientation.

WRF 3. 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.

- 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 Woodbridge Road and Foxhall Road, 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.

Figure 42: 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).

Figure 43: Example of a raised crossing across a main road in Cambridge, with contrasting paving materials and space for low-level planting and street furniture.

- 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.

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 opposite.

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.

Adjusted stopping sight distance at 20 mph

Figure 44: 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
Stopping sight distance (SSD) in metres		9	12	15	16	20	22	31	36	40	43	56
Stopping sight distance adjusted for bonnet length		11	14	17	18	23	25	33	39	43	45	59

Figure 45: Stopping sight distances (SSD) for visibility splays (source: Department for Transport).

3.2.3.Maintaining the local character

MLC 1. Building scale and massing

- The majority of buildings in Rushmere St Andrew do not exceed two storeys in height. Therefore, new buildings in Rushmere St Andrew should be sympathetic in mass, height, and scale to the existing context.

- The bulk and pitch of roofs must remain sympathetic to the tree canopy, the local vernacular, and the low-lying character of the Parish. Subtle variation in height is encouraged to add visual interest, such as altering eaves and ridge heights. Another way to achieve visual interest could be by varying frontage widths and plan forms. The application of a uniform building type throughout a development should be avoided. It is, however, acknowledged that different areas in the Parish have different degrees of uniformity; the northern part, for example, should retain more variety in scale and massing to reflect the architectural variety created by buildings from different construction periods.

- The massing of new buildings should ensure a sufficient level of privacy and access to natural light for their occupants and avoid overshadowing neighbouring buildings. This is particularly important in the north of the Parish where a strong historic character has been retained. In the more built-up parts of the south of the Parish, the scale and massing of new buildings or extensions must be more carefully considered to retain adequate privacy and natural light in neighbouring properties.

Figure 47: Examples of buildings in Rushmere St Andrew demonstrating a variety in scale and massing (© Graham Fellingham, 2021, top left image).

MLC 2. Roofline

Creating appropriate variety in the roof line 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 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 the roofline should be ensured during the design process. This is especially important in the north of the Parish to reflect the area's architectural variety.

- Locally traditional roof materials and detailing should be considered and implemented where possible in cases of new development, especially in and around historic parts of the Parish.

- Dormers can be used as a design element to add variety and interest to roofs, however, their shape and proportions should match the design of the building.

The design of the roofline must also respond to the topography of the site and its surroundings in relation to inward long-distance views. Potential new developments at the edges of the village of Rushmere St Andrew, in particular, should aim to keep rooflines below the tree canopy.

Figure 48: A two-storey house with alternating roof orientations

Figure 49: A house displaying a mixture of gabled and hipped roofs with a gabled dormer

Figure 50: Aerial photo of Rushmere St Andrew showing the low height of buildings relative to the tree canopy

MLC 3. Fenestration

- Fenestration on public/private spaces increases the natural surveillance and enhances the attractiveness of the place. Long stretches of blank (windowless) walls should be avoided. Overall, considerations for natural surveillance, interaction, and privacy must be carefully balanced.

- 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. New developments should also maximise opportunities for long-distance views.

- Consistent window styles and shapes must be used across a given façade to avoid visual clutter and dissonance.

- In proximity to historic areas, fenestration must reflect an understanding of locally distinctive features such as scale, proportions, rhythm, materials, ornamentation, and articulation. This should, however, not result in pastiche replicas.

Figure 51: A two-storey building with a consistent arrangement of sash windows

Figure 52: A façade with a simple and consistent alignment of windows and gabled dormers.

Figure 53: Leaded casement windows with a half-timbered facade on The Street

MLC 4. Building line and boundary treatment

- Buildings should front onto streets. The building line should have subtle variations in the form of recesses and protrusions but will generally form a unified whole.

- Buildings should be designed to ensure that streets and/ or public spaces have good levels of natural surveillance from buildings. This can be ensured by placing ground floor habitable rooms and upper floor windows facing the street.

- Natural boundary treatments should reinforce the sense of continuity of the building line and help define the street, in a way appropriate to the character of the area. They should be mainly continuous hedges and low walls, as appropriate, made of traditional materials found elsewhere in the village such as local bricks. The use of either panel fencing or metal or concrete walls in these publicly visible boundaries should be avoided. Natural boundary treatments should not impair natural surveillance. Planted hedges are preferred in the village to retain the area's rural character.

- Front gardens should be provided in all but exceptional circumstances.

- If placed on the property boundary, waste storage should be integrated as part of the overall design of the property. Landscaping could also be used to minimise the visual impact of bins and recycling containers.

Figure 54: Planted garden edges can soften the impact of parked cars (© Graham Fellingham, 2021)

Figure 55: Front garden edge treatments with low brick walls and hedges

Figure 56: Aerial photo of Rushmere St Andrew showing different boundary treatments at Bixley Farm

Figure 57: Properties can delineate boundaries with attractive planting even in the absence of front gardens (© Graham Fellingham, 2021)

MLC 5. Vehicle parking

The over-provision of parking spaces is detrimental to the character of a place, especially where parked cars become the dominant visual feature in front of properties. Cars will however remain a necessity for many residents. Measures to ensure that the design of vehicle parking is sympathetic to the public realm are therefore needed:

- Residential car parking should be a mix of on-plot side, front, and garage parking, depending on the appropriate solution for each location. For family homes, cars should be placed at the side (preferably) or front of the property.

- Parking areas and driveways should be designed to minimise impervious surfaces, for example, through the use of permeable paving. Where provided, garages should reflect or complement the architectural style of the main building rather than forming a distractive mismatched unit or dominate the facade.

- Parking at the front of properties should 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 masonry walls and soft landscaping - the latter being more appropriate to preserve the rural character of the north of the Parish.

- It should be noted that many garages are not used for storing cars and may thus not be the best use of space. Considerations should be given to the integration of bicycle parking and/or waste storage instead of garages.

- All new dwellings should have at least one electric vehicle charging point.

- Instances of pavement parking have been observed in the Parish. When not addressed properly, pavement parking can impede pedestrian mobility and emergency vehicle access, and may pose safety challenges by restricting visibility. To discourage pavement parking, low-level planting and street furniture items may be placed at strategic locations. Bollards may also be used, however their design must be sympathetic to the physical context, and an overreliance on bollards is detrimental to the quality of the streetscape.

Figure 60: On-plot parking with garages on Birchwood Drive

Figure 59: Residential on-plot parking with permeable gravel surfacing

Figure 58: Standalone garage structure built with traditional materials

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.

- Boundary treatment is the key element to help avoid a car-dominated character. This can be achieved by using elements such as hedges, horticultural shrub, native trees, flower beds, low walls, and high-quality paving materials between the private and public space. Planted boundary treatments should be preferred for the north of the Parish to retain its rural and less built-up character.

- Hard standing and driveways must be constructed from porous materials to minimise surface water run-off.

- Garage structures, where they are needed, should be of sufficient size to store vehicles but should neither overwhelm nor visually clash with the buildings that they serve. The provision of electric vehicle charging points and bicycle storage space should also be considered in their design.

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 61: Use of hedges and vegetation to soften the impact of parked vehicles on the public realm

Figure 62: Illustrative diagram showing an indicative layout of on-plot front parking.

Figure 63: Illustrative diagram showing an indicative layout of on-plot side parking.

MLC 6. Architectural details

This section showcases some local building details which should be considered as positive examples to inform the design guidelines.

Multi-pane sash windows and decorated eaves on a white-rendered house on The Street

Detail of a clay pantile roof with gabled dormers

A rendered one-storey detached house with gabled dormers

House with an extension (right) clad in traditional local materials (black weatherboarding and clay pantiles)

AECOM

Use of flint with red brick capping on a low wall

Hipped clay pantile roof with chimney stacks

Gabled roof with upper storey oriel windows

Pink-rendered property at the junction between Holly Lane and The Street

View toward St Andrew's Church and the war memorial

Detached houses built with yellow bricks

MLC 7. Materials and building details

The materials and architectural detailing used throughout Rushmere St Andrew contribute to the local character of the area. 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 an understanding of the surrounding built environment. In particular, locally sourced bricks or bricks that match the buildings in the surrounding area should be given preference. Attention should be given to the bonding pattern, size, colour, and texture of bricks.

This section includes examples of building materials that contribute to the local character of Rushmere St Andrew and which could be used to inform future development.

Red brick in Flemish bond

Flint wall with red brick capping

Yellow brick

Painted weatherboarding

Pink render

Half-timbered façade

Thatched roof

Clay plaintile roof

Multi-pane casement window

Low brick boundary wall

Chimney stack at gable end

Gabled dormer

Leaded casement window

Boundary hedges

Clay pantile roof

Hipped dormer

Multi-pane sash window

3.2.4.Quality of place

QP 1. Housing mix

Rushmere St Andrew has a variety of houses, small and large, ranging from one to two storeys. Because of the large variety in house types, the following should be considered:

- All newly developed areas should 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.

- It is particularly important that developers provide a greater range of smaller homes, as well as a mix of house types which will improve the choice and affordability of homes.

- New development should ensure that a range of sizes and types of dwelling are provided for the needs of different groups in the community. Encouraging the building of houses that could sustain first-time buyers and extended families on the same site, and homes suitable for residents to downsize to.

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

Figure 64: A mixture of houses should be encouraged in any new development

Figure 65: Detached houses with garages on Laburnum Gardens

Figure 66: A two-storey building with well-kept front garden on Birchwood Drive

Figure 67: Aerial view of Mill River and its surrounding environment

QP 2. Household extensions

- The original building should remain the dominant element of the property regardless of the amount of extension. The newly built extension should not overwhelm the building from any given point.

- Extensions should not result in a significant loss to the private amenity area of the dwelling.

- Designs that wrap around the existing building and involve overly complicated roof forms should be avoided.

- The pitch and form of the roof used on the building adds to its character and extensions should respond to this where appropriate.

- Extensions should consider the materials, architectural features, window sizes and proportions of the existing building and recreate this style to design an extension that matches and complements the existing building.

- In case of side extensions, the new part should be set back from the front of the main building and retain the proportions of the original building. This is in order to reduce any visual impact of the join between existing and new.

- In case of rear extensions, the new part should not have a harmful effect on neighbouring properties in terms of overshadowing, overbearing or privacy issues.

- Extensions should not be made right up to boundary line (plot boundary).

- The impact of extensions on the provision of off- and on-street parking should be considered.

- In most areas, excluding Conservation Areas, many extensions are covered by permitted development[1].

☑ Good example of side extension. The addition of the new part respects the building's mass character and roofline.

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

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

QP 3. Mitigating noise pollution

Mitigating the adverse impact of traffic noise is important to achieve a calm atmosphere. There are some principles that should be sought to achieve this aim:

- The impact of traffic noise will need to be addressed in development proposals, ensuring there will be no adverse effects after mitigation.

- Site promoters will be expected to provide suitable noise mitigation which could include, for example, noise barriers, double-glazed windows, planting, or non-residential buildings where appropriate.

- Dwelling should be oriented such that habitable rooms and gardens are located furthest from noise sources.

Distracted noise

Reflected noise

Transmitted path

Transmitted noise

Noise receiver   Barrier   Noise source

Figure 68: Diagram showing sources of noise pollution

3.2.5. Sustainability

This section introduces energy efficient technologies and strategies that could be incorporated in buildings, landscapes and neighbourhoods.

SU 1. Energy efficient housing and energy production

Low-carbon home

Energy efficient or eco design combines all-round 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 retrofit of existing buildings with eco design solutions should also be encouraged.

The aim of these interventions is to reduce overall home energy use as cost effectively as the circumstances permit. The final step towards a high-performance building would consist of other on-site measures towards renewable energy systems.

It must be noted that eco design principles do not prescribe a particular architectural style and can be adapted to fit a wide variety of built characters. A wide range of solutions is also available to retrofit existing buildings, included listed properties, to improve their energy efficiency.

Figure 69: Diagram showing low-carbon homes in both existing and new build conditions (adapted from Commission on Climate Change)

Existing homes

1 **Insulation**
in lofts and walls (cavity and solid)

2 **Double or triple glazing with shading** (e.g. tinted window film, blinds, curtains and trees outside)

3 **Low- carbon heating** with heat pumps or connections to district heat network

4 **Draught proofing** of floors, windows and doors

5 **Highly energy- efficient appliances** (e.g. A++ and A+++ rating)

6 **Highly waste- efficient devices** with low-flow showers and taps, insulated tanks and hot water thermostats

7 **Green space (e.g. gardens and trees)** to help reduce the risks and impacts of flooding and overheating

8 **Flood resilience and resistance** with removable air back covers, relocated appliances (e.g. installing washing machines upstairs), treated wooden floors

New build homes

A **High levels of airtightness**

B **More fresh air** with mechanical ventilation and heat recovery, and passive cooling

C **Triple glazed windows and external shading** especially on south and west faces

D **Low-carbon heating** and no new homes on the gas grid by 2025 at the latest

E **Water management and cooling** more ambitious water efficiency standards, green roofs and reflective walls

F **Flood resilience and resistance** e.g. raised electrical, concrete floors and greening your garden

G **Construction and site planning** timber frames, sustainable transport options (such as cycling)

H **Solar panel**

I **Electric vehicle charging point** also known as EV charging point

Solar roof panels

The aesthetics of solar panels on 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, so that they form 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.

Green roofs

Green roofs are increasingly accepted and often can be seen integrated in new building design. Whether the roof is partially or completely covered with vegetation, their design should follow some design principles such as:

- Plan from the start;

- Easy to reach and maintain;

- To complement (where applicable) the surrounding landscape;

- To help integrate the building with the countryside; and

- Design comprehensively with other eco design features such as water harvesting and pavements.

Figure 70: Green roof combined with solar panels

Figure 71: Example of shingle-like solar panels on a slate roof, with the design and colour of the solar panels matching those of the slate tiles

Rainwater harvesting

Rainwater harvesting refers to the systems which allow the capture and storage of rainwater, as well as those enabling the reuse in-situ of grey water. These systems involve pipes and storage devices that could be unsightly if added without an integral vision for design. Therefore, it is recommended that design incorporate one or more of the following methods:

- Consider the collection of rainwater from other surfaces, such as outbuildings or raised paved areas.

- Concealment of tanks by cladding them in complementary materials;

- Use of attractive materials or finishing for pipes;

- Combination of landscape/planters with water capture systems;

- Use of underground tanks; and

- Utilisation of water bodies for storage.

Water tank

Gravity flow from tank to services

Gravity flow from tank to garden

Water used for gardening, car washing etc.

Pump

Main tank (In concrete)

Figure 72: Diagram showing the rain harvesting process.

Figure 73: Local examples of tanks used for rainwater harvesting.

Permeable pavements

Permeable pavements enable rainwater to seep into the ground, thus reducing impervious surfaces and stormwater runoffs. They should not only perform their primary function which is to let water filter through but also:

- Respect the local material palette;

- Help to frame the building;

- Be easy to navigate by people with mobility aids;

- Be in harmony with the landscape treatment of the property; and

- Help define the property boundary.

Permeable stone bedding

Large permeable stone

Original soil

Planting area

Membrane percolation

Concrete paver

Drain

Base level

Figure 74: Permeable paving and considerations diagram.

Figure 75: Examples of permeable paving.

SU 2. Biodiversity

- Biodiversity has a critical role in a dynamic ecosystem. Landscape design should consider and provide habitats for biodiversity migration.

- Existing habitats and biodiversity corridors should be protected and enhanced.

- Gardens and boundary treatments should be designed to allow the movement of wildlife.

- Plant species selection should incorporate a broader range of native and non-native species.

SU 3. Sustainable drainage system (SuDS)

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.

- 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:

- Creative surface water management such as rills, brooks and ponds to enrich the public realm and help improve a sense of well-being and offer an interaction with nature[1];

- 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;

Figure 76: Bughouse.

Figure 77: Frog habitat corridor.

- 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.

drainage pipe (optional)

planting mix

ponding zone

gravel reservoir

soil filter

Figure 78: Diagram illustrating the functioning of a rain garden

planting

paving

bedding layer

membrane

drainage pipe (optional)

soil

subbase

Figure 79: Diagram illustrating the functioning of a soak away garden

Figure 80: Examples of SuDS designed as a public amenity and fully integrated into the design of the public realm

Servicing

With modern requirements for waste separation and recycling, the number and size of household bins have increased. The 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. 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 image and diagrams on this page illustrate design solutions for servicing units within the plot.

Roof lid   Green roof   Bins   Door frame

112cm   97cm   171cm   131cm

Bin storage design, minimising the visual impact of bins and recycling containers.

Figure 81: Example of bin storage using a palette similar to the building.

Figure 82: Bin storage design solution.

3.3. Checklists

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

A brief reference to general design principles and questions will be mentioned before the main part of the design guidance with reference to Rushmere St Andrew.

The guidelines developed in the document focus on residential environments. However, new housing development should not be viewed in isolation. Considerations of design and layout must be informed by the wider context, considering not only the immediate neighbouring buildings but also the townscape and landscape of the wider locality.

The local pattern of streets and connectivity, building traditions, materials and natural environment should all help to determine the character and identity of a development, recognising that new building technologies are capable of delivering acceptable built forms and may sometimes be more efficient. It is important with any proposal that full account is taken of the local context and that the new design embodies the 'sense of place' and also meets the aspirations of people already living in that area.

As a first step, there are a number of design principles that should be present in any proposals. As general design guidelines, new development should:

- Respect the existing settlement pattern in order to preserve the character. Coalescence - development should be avoided;

- Integrate with existing paths, streets, circulation networks;

- Reinforce or enhance the established character of streets, greens and other spaces;

- Harmonise and enhance the existing settlement in terms of physical form, architecture and land use;

- Retain and incorporate important existing features into the development;

- Respect surrounding buildings in terms of scale, roofline, height, form, and density;

- Enhance and reinforce the property boundary treatments;

- Adopt contextually appropriate materials and details;

- Provide adequate open space for the development in terms of both quantity and quality;

- Incorporate necessary services and drainage infrastructure without causing unacceptable harm to retained features;

- Ensure all components e.g. buildings, landscapes, access routes, parking and open space are well related to each other; and

- Aim for innovative design and eco-friendly buildings while respecting the architectural heritage and tradition of the area whilst also integrating them with future development.

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?

Local 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 space be created? If so, how this will 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(s) 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, and 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 extensions, 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 details been addressed in the context of the overall design?

- Does 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?

Figure 83: Aerial view of landscape around the Parish and surrounding.

Delivery

04

4. Delivery

The Design Guidelines and Codes will be a valuable tool in securing context-driven, high-quality development in Rushmere St Andrew. 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 and Codes 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 84: View of agricultural fields toward the north of the Parish

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

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

aecom.com