

# **Design Code**

Land on the east side of Forest Road, Piddington, NN7 2DA

# LANDSTRÖM

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Water and Drainage

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Indicative illustration (not to scale)

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Indicative illustration (not to scale)

### o.ı Introduction

This document is submitted in support of an outline planning application for 11 no. serviced plots for self-builders and public open space; to the land and buildings on the east side of Forest Road, Piddington.

The Design Code follows the recommended guidance as established in the National Model Design Code. The guidance establishes the ten characteristics of 'well designed places'.

The design code sets out the specific design requirements for all development on the site which must be complied with and is relevant to the preparation of the site and related infrastructure, the formation of the principal access, on-site infrastructure and all hard and soft landscaping. These are off-plot design requirements. It also determines the key design parameters for the development of all identified building plots. These are on-plot design requirements.

This Design Code is intended to be used by architects, planners, developers and their designers and contractors, and will be a relevant consideration to self builders who want to build their own homes on each of the identified plots. It informs separate 'Plot Passports' for each individual plot to help self builders to understand what they can build on each plot and related information they need to take account of during the construction phase.

Each self-builder will submit an individual reserved matters application, relevant to their plot. The reserved matters application should contain equivalent information to a full/ detailed planning permission for the erection of a new dwelling and any ancillary buildings and associated landscape if necessary.

Reference to the Code will help deliver an attractive, well-designed and integrated project of consistent quality in compliance with the Local Authority's planning policies and related guidance as the design vision for the site.

The Design Code has been developed in accordance with the following guidance

- National Model Design Code
- Piddington Village Design Guide
- South Northamptonshire Design Guide



#### **10 Characteristics of Well Designed Places** (National Design Guide Extract)

Diagram showing the ten Characteristics of well designed places, National Model Design Code

### o.2 Self/Custom Build

#### 0.2.1 Definition

Planning permission for each plot is limited to self or custom-build housing as defined by the Self-build and Custom Housebuilding Act 2015 (as amended), the National Planning Policy Framework and related Planning Practice Guidance. To comply with this restriction, the house must be built or commissioned by its owner and occupied by the owner as their primary residence. Building work can involve the owner building the home themselves, managing the construction, or commissioning the build by making key design and layout decisions, and have it constructed for them by a builder or contractor ready for occupation ('turnkey'). In considering the development of each plot, the Local Authority will need to be satisfied that the initial owner of the home has primary input into its final design and layout. Off-plan housing and homes purchased at the plan stage prior to construction and without input into the design and layout from the buyer do not fall within the legal definition and will not comply with the approved planning permission.

#### 0.2.2 Plot Passports

Purchasers of plots will be provided with a Plot Passport which summarises the design rules for each Plot and provides further information to help guide the development process. Plot Passports do not form part of this Design Code.



# **1.0** Context

#### 1.1 Site Location & Description

The site is located to the southernmost area of the village of Piddington. The site offers excellent pedestrian connectivity to the village, existing PRoW network and wider landscape; including Salcey Forest to the south.

The site is well screened from Forest Road by existing mature hedgerow and hedgerow trees, bound by existing development to the north, mature vegetation to the south and an open boundary to the east.

The layout of the site embodies the informal character of the historic village of Piddington. The site accommodates eleven self-build plots, arranged around an organic shared access. The layout includes pedestrian connectivity to the existing PRoW KM0/40 to the southern boundary of the site.

The eastern portion of the site is to be retained as a public open space, with pedestrian links to the proposed development.



Location plan showing the village of Piddington. The site is bounded by a red line (not to scale)

### 2.0 Use

#### 2.1 Site Layout

The layout of the site embodies the informal character of the historic village of Piddington, accommodating 11 self build serviced plots, arranged around an organic shared access. The self build development provides pedestrian connectivity to the existing PRoW network.

The density and character of the masterplan has been developed as a result of vernacular and contextual studies, with consideration to national, district and local design guides. The character of the development has been carefully developed and builds upon the informal nature of the older village.

The eastern area of the site has been retained as a public open space, connected to the common areas by two pedestrian pathways.



Extract of drawing 272-101, showing an indicative site layout (not to scale)

### **3.0** Common Areas & Public Space

#### 3.1 Pedestrian & Cycle Routes

The site is positioned on the convergence point of the Midshire Way, Northampton Round Long Distances and PRoW KMO/40. The site will further enhance and connect to the existing network, offering onward connectivity to the surrounding landscape, including Salcey Forest to the south.

A new pedestrian footway will be constructed as part of the works to upgrade the site access. The new footway connects the site to the existing pedestrian footway to the east side of Forest Road (see Transport Consultant's design and specifications).

Within the site boundary, the management of the on-site pedestrian networks will be carried out by the Residents Company but where the improvements are outside of the site boundary, improvement works shall be carried out as part of the S278 works. No cycle routes are proposed as part of the development.

- 1 Midshire Way Long Distance Route
- 2 Northampton Round Long Distance Route
- 3 Footpath PRoW KM0/40
- Vehicular and pedestrian access from Forest Road
- 5 New pedestrian connections from public open space to existing PRoW KM40



### **3.0** Common Areas & Public Space

#### 3.2 Street Geometry & Character

The Piddington Village Design Guide highlights key principles for proposed development. Principles (or parts of) which are relevant to the design response in relation to street geometry and arrangement are highlighted below.

- Properties should be positioned adjacent to the street essentially simple buildings of reasonable scale.
- Enclosure of the street by stone/ brick wall or fences with supporting traditional hedge planting would aid assimilation with the surrounding area.
- Elsewhere the form and layout of new development needs to be carefully considered and should reflect the informal nature of the older village.

The diagram below demonstrates how these key principles have been integrated into the street geometry and design. Self builders on-plot design will be required to serve as an extension to this design language.

A typical separation between frontages

- of dwellings will be no less than 25m (this baseline is established by the build zones)
- 2 A 6m wide, informal shared surface forms the common vehicular and pedestrian accessway.
- 3 Verges provide an informal language, with variation to both sides of the carriageway

 This arrangement indicates a plot where parking would be provided in a forecourt arrangement, sufficient set-back would be required to ensure on-plot parking and turning is achieved.

This arrangement indicates a plot where parking would be provided to the side or even rear of a dwelling, set back allows for a front garden and is closer to the street.

6 Stone or Brick boundary walls in considered locations. A masonry boundary treatment can be used to form the structure of a garage in relevant instances, serving to add a direct building line to the street edge.

Formal hedge, set behind informal verges to reflect the settlement character.



Street Section / Diagram showing street geometry and character (not to scale)

7

### **3.0** Common Areas & Public Space

#### 3.3 Public Open Space

Within the context of the surrounding landscape, the site is elevated but well contained by surrounding vegetation and strongly defined by linear features in the form of Forest Road and the dismantled railway. As a result of this elevated position the site is visible from a number of locations but benefits from enclosure created by surrounding vegetation and built form, which allows it to be well composed within the landscape.

The public open space is located to the eastern extent of the site, with public access from the existing PRoW in the southern part of the site (KM/040) and through the proposed development site from the north.

The boundaries to the south and east of the plots, will be defined by native hedges, that mirror the existing hedgerow pattern of the surrounding rural landscape. Native trees planted within the hedge line will soften the transition between the proposed built form and the rural landscape beyond.

The public open space is to feature meadow grass, bordered by native hedges. Native trees such as Acer campestre, Sorbus aria and Betula pendula are dispersed along the boundary line. A mown grass path will form an informal route through the public open space, providing additional connection through the site.



Diagram showing public open space and common areas within the site (not to scale)

Common access areas within residential development area

Common transition areas between residential development area and public open space

Public open space

### **4.0** Movement

#### 4.1 Junctions and Crossings

The proposed development will be served by the existing, upgraded site access from Forest Road. The site access will be formed in accordance with the Highways Consultant's detailed design. The access will be constructed in accordance with Local authority specifications by an approved contractor, under the appropriate licence.

#### 4.2 Access

Access within the site will be formed by a 6m wide shared surface. Each plot will require clear access of 4.5m width, to facilitate vehicular and pedestrian access and to achieve the required visibility splays. All plots will be accessed from the common shared surface.

The shared surface carriageway will be designed in accordance with Local Authority specifications and will be constructed to a standard which is sufficient to facilitate use by Local Authority refuse vehicles and other emergency vehicles . Further details on the character of the street can be found in section 3.2

- Vehicular and pedestrian access from existing highway; utilising existing site access position.
- 2 Shared surface acting as common vehicular and pedestrian access through the site.
- 3 On-site footpaths to connect into the area of new public open space.
- On-site connections between the area of public open space and the existing PRoW (KM/40) to the southern boundary of the site.
- On-site connectivity to the existing PRoW network allows onward connections to Salcey Forest



## 4.0 Movement

#### 4.3 Car Parking and cycle Storage

As part of the on-plot design, self builders must include, as a minimum, the allowance for allocated parking spaces and cycle storage spaces as specified in the table below.

Due to the nature of the development and character of the existing settlement, visitor spaces are required to be provided on-plot; ensuring that vehicles do not dominate the street scene.

House type	1 Bed	2 Bed	3 Bed	4 Bed +
Car Parking	1	2	2	3
Visitor Parking	1	1	1	1
Cycle Storage	1	1	1	1

The table above stipulates the required number of on-plot vehicular parking, visitor vehicular parking and cycle storage. Cycle storage can be provided within a garage or a dedicated structure. If a dedicated structure is to be used, it must be integrated into the on-plot design but may be positioned outside of the build area, subject to detailed design.

A garage cannot be counted as an allocated parking space, unless for larger dwellings (four or more bedrooms) where a **double garage** can be counted as one allocated space.

# 4.0 Movement

#### 4.4 Parking Geometry

- Each parking space should measure at least 2.5m x 5m, and 3.3m in width if adjacent to a solid object.
- A garage should be 3.3m x 6m to be classified as a parking space.
- The ancillary use of the garage should be considered, with additional space provided within the garage to accommodate the required uses.
- The diagram to the bottom right demonstrates an example layout for a four bedroom dwelling;

3no. allocated parking spaces are provided (including the double garage as 1no.) with an additional on-plot visitor's parking space.

The total of 4no. parking spaces are provided whilst remaining adequate turning for vehicles to enter and exit the plot in a forward gear.

#### 4.5 EV Charging

In accordance with the South Northamptonshire Council Parking Standards and Design SPD, all new residential development should provide external wallmounted electric vehicle charging points for each dwelling that is to have a private drive or garage.

- Larger homes, such as those with three bedrooms or more, should consider providing facilities to charge more than one vehicle at once.
- Charging points should be positioned as discreetly as possible, whilst also remaining practical for use. In order to avoid visual intrusion of clutter they should **not** be positioned on principle elevations or elevations facing the public realm.
- Charging points on residential developments should be equipped with AC Level 2 equipment or equivalent.



Indicative Plan Diagram demonstrating how parking could be delivered in a courtyard/front of plot arrangement.

Note : Boundary treatments and hard and soft landscaping to be part of a cohesive design response

# **5.0** Built Form

#### 5.1 Build Areas

Build Areas have been established in relation to each plot's unique geometry, as well as the orientation and position/role of each plot as part of the overall site composition.

Build Areas have been calculated to provide a PAR (Plot Area Ratio) which is consistent with that of the existing settlement.

The footprint of each dwelling (including outbuildings) should not occupy the entire build area and can be positioned anywhere within it; subject to rules on overlooking/plot-plot boundaries and requirements regarding the building line.



# **5.0** Built Form

#### 5.1 Build Areas

The extract of drawing 272-102 depicts the proposed build areas and provides guidance on the following.

- Locations of primary frontages
- Locations of secondary frontages
- Locations of 'special' frontages.

The special frontages have been identified to ensure that the self builder and their design team are meticulous about the design of the 'rear' elevation of the dwelling, in order to provide considered and appropriate frontages to the wider landscape.

Drawing Legend

Green Infrastructure

Built Form Parameter



LANDSTRÖM GEORGE & JAMES

# **5.0** Built form

### 5.4 Privacy and Overlooking

The adjacent diagram demonstrates design principles which are in place to safeguard privacy and overlooking. The geometry of each plot's build area accounts for these basic principles; the plot design team must demonstrate compliance based on the individual dwelling design at reserved matters stage.

- All glazing to the boundary must be obscured unless it is a mimum distance of 15m from the relevant boundary.
- Two storey components must be situated a minimum of 3m from the relevant boundary centreline; thus achieving a minimum separation of 6m between two storey components of neighbouring plots.
- Single storey components must be situated a minimum of 1.5m from the relevant boundary centreline.



Diagram depicted minimum separation distances to plot-plot boundaries (not to scale)

# **5.0** Built Form

### 5.2 Plot Parameter Schedule

Plot Number	Plot Area	Build Area	Maximum Footprint	Maximum Number of Storeys	Maximum Ridge Height	Maximum Eaves Height
1	892m²	258m2	175m²	2	10m	5.5m
2	996m²	254m2	200m <sup>2</sup>	2	10m	5.5m
3	712m²	296m2	200m <sup>2</sup>	2	10m	5.5m
4	1037m <sup>2</sup>	359m2	225m <sup>2</sup>	2	10m	5.5m
5	1064m <sup>2</sup>	455m2	200m <sup>2</sup>	2	10m	5.5m
6	1381m <sup>2</sup>	505m2	275m <sup>2</sup>	2	10m	5.5m
7	1035m <sup>2</sup>	344m2	200m <sup>2</sup>	2	10m	5.5m
8	872m²	325m2	200m <sup>2</sup>	2	10m	5.5m
9	614m²	221m <sup>2</sup>	150m²	2	10m	5.5m
10	629m²	221m2	150m <sup>2</sup>	2	10m	5.5m
11	673m <sup>2</sup>	253m2	150m <sup>2</sup>	2	10m	5.5m

The existing site benefits from a number of existing and retained natural elements; referred to as green infrastructure. The existing green infrastructure is retained and enhanced as an integral part of the self build development.

A detailed strategy, responding to the existing green infrastructure forms part of the outline planning application. The design response includes detailed proposals for new landscape features proposed as part of the development of the site. The details which form part of the outline application broadly cover the following;

- Retention, conservation and enhancement of existing green infrastructure to the site boundaries (namely the southern and eastern boundaries)
- Formation of wildlife corridors to the existing aforementioned site boundaries (including detailed planting specifications and schedules.)
- Hard and soft planting specifications and schedules for all plot boundaries,
- Indicative planting specification and schedule for common areas between plots i.e grass verges and footpath verges
- Planting specifications and schedules for the public open space, including new/reinforced site boundary treatments to the north, east and south.

Self builders will be responsible for implementing site wide soft and hard landscape, as detailed within the outline planning application for the site, relevant to the individual plot. A detailed definition of these works will form part of the Plot Passport.

Self builders will be responsible for providing details of proposed on-plot soft and hard landscape design as part of each plot's reserved matters application. Existing hedgerow and hedgerow trees beyond site boundary

2

2

3

Existing green infrastructure to western and southern boundaries of site, to be retained in full.

Five metre wide wildlife corridor to safeguard existing ecology and wildlife habitats





Diagram identifying existing green infrastructure and wildlife corridors (not to scale)

Five metre wildlife corridors to safeguard existing ecology & wildlife habitats. Wildlife corridors to feature additional planting and to be maintained by the resident's management company.

Where identified, boundaries to the fronts of plots to be formed in a single species hedge with a central post and rail fence to delineate boundary position

Boundaries between plots to be formed by a single species hedge with a central post and rail fence to delineate boundary position.

Boundary between plots and public open space to be formed by a native hedge with a post and rail fence to the plot side.

> Public Open Space featuring wildflower grassland meadow with native shrub and tree planting that mirror the existing pattern of the surrounding rural landscape.



#### 6.1 Site Boundaries

Existing mature vegetation and trees form the boundary to the south and west. The existing green infrastructure is to be retained in full, safeguarding existing ecology and habitats.

A five metre wide wildlife corridor is to be implemented between the existing green infrastructure and relevant plots. The wildlife corridors will provide adequate dark zones in accordance with the ecological requirements. Wildlife corridors will be planted in accordance with the Landscape Architect's design and specification; the maintenance of these areas is to fall under the Resident's Management Company.

New native hedges are to be provided to the eastern, southern and northern boundary of the area of public open space, in accordance with the Landscape Architect's design and specification. The native hedge will provide the transition between public open space and the wider landscape.

The existing site boundary to 99 Forest Road will be reinforced with on-plot planting in accordance with the Landscape Architect's design and specifications. A buffer zone of five metres has been included within the relevant plot geometry to ensure an adequate offset against the existing property, rear gardens and outbuildings.

#### 6.2 Water and Drainage

A site-wide drainage strategy has been submitted as part of the outline planning application to outline the drainage discharge rate, location of drainage routes and connections, as well as attenuation requirements. The drainage strategy for the site utilises the existing infrastructure where possible. A new foul connection to the existing system will be formed whilst surface water will be discharged into the existing wet ditch and wider system.

The drainage strategy requires plot purchasers to design and install on-plot attenuation; requiring plot design teams to consider the volume of surface water run-off generated by the on-plot design.



#### 6.3 Light Pollution

With regard to lighting, in general, measures should include the use of lighting only where absolutely necessary utilising highly directional warm white LED lighting, an example being down spots at 2.5 m high using warm white (2700 K) 8W LED lamps, 550 lumens, 35 degree beam angle. These could be individually activated by PIR sensors on a 5 minute cut off to further reduce their impacts. These will assist in lighting only the areas where lighting is required and minimising light spill either directly or through reflected light. The retained hedges and trees must not be subject to lighting.

'Chapter 4.12. Light pollution' of the South Northamptonshire Design Guide provides detailed guidance on light pollution and relevant mitigation measures.

#### 6.4Trees

All trees are required to be planted in accordance with the Landscape Architect's specification. Trees shown on-plot or within the boundary treatment i.e hedgerow trees are the responsibility of the associated self builder and should be planted and maintained appropriately. An arboriculturist, landscape designer or landscape architect should be consulted to advise on the specification of any new trees provided as part of the plot design/reserved matters application.

#### 6.5 Biodiversity

A Biodiversity Net Gain Preliminary Design Stage Report is included as part of the outline planning submission for the site. Self builders are required to meet the recommendations of this report whilst maximising further opportunities for biodiversity net gains as part of their on-plot design.

#### 6.6 Ecology

Self builders should include measures to provide enhancements for Bats and Nesting Birds. Details of the recommended measures can be found within the Ecological Appraisal and include, but are not limited to, the following

- Wood-concrete Swallow nests such as the Schwegler Swallow Nest No. 10 (or equivalent) should be installed inside of a building(s)
- Groups of multiple small bird boxes should be installed at a height of least 2 m to provide nesting sites for birds such as House Sparrows.
- House Martin and Swift nests should be provided under the eaves
- Bat panels such as Schwegler Bat Access Panel 1FE, or bat tubes such as the Schwegler 1FR Bat Tube can be incorporated into the building exteriors with little visual impact, or roosts such as the Schwegler Bat Roost 1FQ can be erected after building completion.

The Ecological Appraisal also recommends that self builders provide dead wood piles for invertebrates and external landscape and gardens are designed to ensure free movement for small mammals and hedgehogs.



Indicative Illustration (not to scale)

#### 6.7 Plot to Plot Boundaries

Boundaries between plots will be initially formed by a timber post and rail fence, with subsequent boundary planting to form a native or single species 1.8m/1.2m hedge in accordance with the proposed masterplan and/or Landscape Architect's design and specification.

- Boundary treatments and materials are to be implemented in full accordance with the relevant supporting information.
- No gates are permitted to rear or side boundaries unless where expressly stipulated.
- Boundary responsibilities will be detailed on each Plot Passport.

#### 6.8 Front Boundary of Plots

The front boundary of plots will need to be installed by the self builder after practical completion of their house. The front boundaries consist of a considered combination of hedge, stone/brick wall and timber post and rail fences. In localised instances outbuildings/garages are permitted to occupy a boundary position, thus forming part of the boundary treatment.

- Boundary treatments and materials are to be implemented in full accordance with the Architect's masterplan and the Landscape Architect's design and specifications.
- Masonry detailing i.e. brick bond & coping detail to be provided and secured as part of each individual plot's reserved matters application.
- If fitted, gates to the front boundary should be made of timber to match post and rail fencing and should open inward to prevent blocking the shared access.

#### 6.9 Footpaths and Hard Landscaping

Any footpath on-plot will need to be to a size and gradient in accordance with the building regulations. See Section 5.2.9 for approved hard landscaping finishes.



Photograph taken on Forest Road (Opposite the Spread Eagle P.H) showing a characteristic combination of boundary treatments; timber fencing, brick and stone walls supported by planting and hedging and standalone hedging



### 6.10 Soft Landscaping

All off-plot soft landscaping will be managed by the Residents Management Company.

Soft landscaping is to be installed in accordance with the Landscape Architect's design and specification and broadly covers common areas within the residential area of the site, plot boundaries, wildlife corridors/buffers to existing boundaries, public open space and any specific tree planting required to boundaries which do no fall within the curtailage of a self build plot.

The adjacent image demonstrates an excellent interplay of soft landscaping and built form; achieved as part of a cohesive design.



Self build private house in West-Sussex by George & James Architects

7.1 Design Vision



Indicative Illustration depicting key design principles (not to scale)

7.1 Design Vision



Indicative Illustration depicting key design principles (not to scale)

The design of each dwelling should be undertaken in accordance with the South Northamptonshire Design Guide. The design guidance states that house design, in general, should be a reflection of/interpretation of the local vernacular. The self builders design teams should evidence their approach as part of the reserved matters application.

#### 7.2 Form and Scale

The South Northamptonshire Design Guide establishes parameters for plan depth/ gable widths (maximum of 7.5-8.0m) which are highly characteristic throughout the district. These parameters have been adopted to provide outline guidance for form and scale. Key terminology and rules are shown on the adjacent diagram .

- Refer to Section 5.2 for maximum permissible ridge heights.
- 2 Refer to Section 5.2 for maximum permissible eaves heights.
- Roofs should be pitched with an angle in excess of 45 degrees. 50-60 Degrees is typical of the contextual vernacular. Pitched roofs are to be hipped or gabled , with gables having a 7.5-8.0m maximum width. Refer to **Section 7.3 & 7.6**
- Roof features, such as chimneys, dormers and roof lights should be detailed in consistency with the local vernacular. **Section 7.6**
- 5 Designs should consider overlooking from the flank elevations. Refer to **Section 5.4** for further information.
- 6 Garages, Car Ports and Outbuildings can be integrated, attached or detached and should feature pitched roofs or flat green roofs. The maximum eaves height for a attached or detached garage with a flat green roof is 3.0m
  - Vehicular parking for residents and visitors should be provided within the boundary of each plot, in accordance with **Section 4.3-4.5**
  - Waste storage and collection should be provided in accordance with **Section 8.1**. Waste storage should be integrated into the design of ancillary buildings



Diagram showing terminology / parameters for form and scale (not to scale)

#### 7.3 Material Pallete

A cohesive material palette is integral to good design. Materials should reference or be interpretations of the local vernacular and where possible, materials should be of local origin. The diagram below shows permitted materials which are commonplace within the local context. Additional materials can be considered by the plot design team, with justification and evidence provided as part of the reserved matters application.

Materials should be combined into a cohesive material palette and should include and allow for the full range of external finishes, from walls and roof to external door hardware and services penetrations. 'Chapter 3.5. Colour palette' of the South Northamptonshire Design Guide provides detailed guidance in conjunction with an 'Architectural Analysis Checklist'



#### 7.4 External Walls

- External wall materials should be, where possible, of local origin and reflect/be an interpretation of the contextual vernacular
- Handmade clay bricks (flemish or flemish garden wall bond), Limestone/Ironstone and lime render are typical of the local context. More guidance can be found in 'Chapter 4.20. Materials - walls and roofs' of the South Northamptonshire Design Guide.
- Each house should be limited to having two external wall finishes (see below)
- A third wall finish will be acceptable if it has been carefully considered or is a variation of one of the primary wall finishes. The example to the right shows two configurations of painted weather boarding, set against natural coursed stone.
- Green Walls or Living Walls are permitted, their extent and location should be carefully considered.
- The sustainability credentials of external materials should be carefully considered.

#### 7.5 External Windows & Doors

- Window openings and proportions should reflect or be an interpretation of the contextual vernacular. There is a mixture of casement and sash windows in the local vernacular, more guidance can be found in 'Chapter 4.15.1' of the South Northamptonshire Design Guide
- The design of detailing of external windows, doors, openings and resulting reveal, sill and head details should reflect or be an interpretation of the contextual vernacular. Detailed guidance can be found in the South Northamptonshire Design Guide.
- Window finishes should compliment the external wall finishes, forming part of a considered and cohesive material palette. Fenestration is typically finished in off-white within the contextual vernacular.
- Glazing to elevations that directly face neighbouring properties from habitable rooms will need to be obscured unless further than 15m from the relevant plot boundary.



Self build private house in West Sussex by George & James Architects

#### 7.6 Roofs

### 7.6.1 Pitched Roofs

- Roof materials should be, where possible, of local origin and reflect/be an interpretation of the contextual vernacular
- Roof pitch and geometry should reference the local vernacular; in excess of 45°, 50-60° is commonplace with many examples of 55°
- The roof finish and the wall finish may be the same material and/or colour.
- Any flashing required on the roof will need to be lead or other hard metal.
- Any chimneys will need to be formed in a consistent material as the external wall finish. The materiality of chimneys may change dependant on which part of the building they are on, if there are different external wall materials.
- Photovoltaic solar panels need to be carefully selected to integrate within the roof plane to ensure minimal visual intrusion. The use of solar tiles or seamless solar coverings are encouraged, although quality and finish must be in keeping with a cohesive material palette.



Self build private house in West-Sussex by George & James Architects



Self-Build Private house in West-Sussex by George & James Architects

#### 7.6.2 Flat Roofs

- Flat roofs should be used sparingly, on subserviant elements
- Flat roofs should not be used on the primary elevation/streetscene
- All flat roofs over 4m<sup>2</sup> are to be Green roofs. Other material\finishes to flat roofs are allowed to areas less than 4m<sup>2</sup>

#### 7.6.3 Roof Windows

- Roof Windows are not permitted on the primary elevation/streetscene.
- Roof Windows should have an external finish to compliment the roof material.

#### 7.6.4 Dormers Windows & Balconies

- Dormer windows are not commonplace within the local context. There are limited examples of dormers, any design proposals containing the use of dormers would require justification from the design team.
- Balconies are not commonplace within the contextual vernacular. They should not be used on principle elevations/street scene. If used to the rear/private elevations of the building, they should be guarded with a considered railing / baluster design.
- Overlooking and privacy should be stringently considered in regards to the placement of balcony and dormer components.

#### 7.6.5 Downpipes & Roof Accessories

- Gutters and downpipes will be of cast iron/PPC aluminium or equivalent. No uPVC is permitted. The profile and style of these elements should be carefully considered.
- Concealed detailing is encouraged where contemporary interpretations of vernacular forms are proposed.
- Soffits and fascias should match the detailing of the local vernacular. These details should be simple and be proportionate to the language and role of the building.

#### 7.7 Architectural Accessories

- Wall mounted accessories such as lighting, security systems and lettering/numbering should be carefully considered to ensure a continuity of finish is achieved across elements which may be sourced from differing manufacturers.
- Colour, tone and finish should form part of the cohesive material palette.

#### 7.8 Building Services

- The extent and location of building services penetrations should be carefully integrated into the design of the house. It is encouraged to use a System 3 (MEV) in lieu of System 1 or a System 4 (MVHR) to minimise penetrations to the external facade.
- The layout and position of services penetrations i.e. vent terminals and flues. Should be carefully coordinated
- The material of services penetrations should be consistent with the cohesive material palette



External light fitting in a considered finish and tone.



Bell Push integrated into stonework feature, rather than an afterthought.

### 7.9 Hard Landscaping

The following materials are acceptable for use

- Natural stone, such as pale grey Granite Setts laid.
- Tegular/Permeable Block Paving in Grey or Brindle tones. The South Northamptonshire Design Guide states that Red and Buff finishes are to be avoided , alongside contrasting decorative bands or patterns.
- Loose gravel of a vernacular type (i.e. Limestone chippings) is acceptable if used in a stabilisation grid. There
  must be a minimum of 5m of bound surface between the gravel and the carriageway, to prevent overspill. The
  bound surface can be in tegular/permeable block paving, tarmac or natural stone setts.

The diagrams below show indicative arrangements for hard surfaces in two typical instances. Plot design teams will be required to justify turning/vehicle tracking geometry and should provide relevant design details and specifications for hard landscaping/surfacing alongside planting and soft landscaping.



Tegular Block Paving in light grey (bound surface)



Local Limestone Chippings (loose surface)



Granite Setts (bound surface)



Indicative Plan Diagram showing indicative hard surface arrangement; parking to side (not to scale)

6x6m Turning area Loose Surface Brick wall integrated into landscape design, garage to provide boundary treatment as continuation of brick wall Parking Bays

Native Hedgerow

Bound Surface

Indicative Plan Diagram showing indicative hard surface arrangement ; parking to forecourt (not to scale)  $% \left( \left( {{{\rm{D}}_{\rm{s}}}} \right) \right)$ 

# **8.0** Homes & Buildings

#### 8.1 Waste Storage and Collection

Provision should be made for discrete bin storage, ideally within private rear gardens. The storage of bins to the front of dwellings can result in visual clutter which can substantially detract from the character and perceived quality of the street scene.

- Room for three 240 litre wheeled bins and a 25 litre kitchen caddy should be provided in such a way that all of the bins are accessible.
- Bin storage areas must be within 30m of an entrance to the home.
- 25m is the maximum distance permissible from the dwelling to the bin collection point. This should be achievable without passing through a building. This route should be suitable for wheeling a bin along (1.5m wide), without narrow tight corners and have a maximum gradient of 1 in 12, one step is permissible if unavoidable.
- The location of the bin storage area should be considered. In the shade or undercover and away from windows or vents is preferred, whilst not obstructing any accesses.
- Consideration should be given to the potential impact upon neighbouring properties.

Requirements are taken from the South Northamptonshire Design Guide

# **8.0** Homes & Buildings

#### 8.2 Services & Utilities

The table below outlines the required work to be completed up to the plot boundary prior to any development on plot being undertaken. Final connections to each house should be arranged by the relevant self builder and completed prior to occupation.

Utility	Supplier	Services Supplied to the Boundary of each plot	Making the Final Connection on-plot		
Electricity	TBC	Each plot shall be provided with a temporary (upgradable) site supply, or pre-laid ducting with draw cords and a reserved network capacity for a minimum of 24Kvh	The self builder will be responsible for instructing the Electricity Supplier to install and connect their property upon completion.		
Water     TBC     Each plot shall have a target supply of 0.6L/S via a 32mm p supplied to the plot boundary		Each plot shall have a target supply of 0.6L/S via a 32mm pipe supplied to the plot boundary	The self builder will be responsible for the final run of supply pipe from the meter location at the site boundary to their plot and onwards to their house.		
Telecommunications	TBC	Each plot shall be provided with a duct capped at the plot boundary	Each self builder will be required to extend the capped duct to an external mounted terminal box provided by the telecommunications provider as part of the final connection.		
Foul Drainage	TBC	Each plot shall be provided with a below ground, capped connection for foul water drainage at the front boundary.	Each self builder will be required to design, test and make final connection to the plot boundaries capped connection in compliance with Building Regulations.		
Surface Water Drainage	TBC	Each plot shall be provided with a below ground, capped connection for surface water drainage at the front boundary.	Each self builder will be required design, test and make final connection to the capped connection in compliance with the Building Regulations. Self builders are required to provide on- plot SUDS design including attenuation with final flow control devices to restrict discharge flows to 0.21/s s		

Table outlining plot services and utilities

# **8.0** Homes & Buildings

8.3 Sustainable Design

The South Northants Design Guide describes an 'Energy Hierarchy' as follows,

Energy Reduction
Reduce the amount of energy used.
Energy Efficiency
Find more efficient ways of using energy.
Renewable Energy
Energy generated with the least environmental impact.
Low Carbon Energy
Low carbon technologies, including ground/air/water source heat pumps.
Conventional Energy
Exploitation of conventional resources

Designers are encouraged to follow building philosophies such as;

Passivhaus https://www.passivhaustrust.org.uk/

### 8.3.1 Energy Efficiency

The South Northamptonshire Design Guide states 'The construction design of a building should consider the following energy efficient approaches and technologies'

- Improved air-tightness to minimise heat loss (although some ventilation will be required);
- Natural ventilation will reduce dependence on mechanical air handling systems;
- Controlled ventilation which responds well to solar gain. Areas subject to high solar gain should have their own zone temperature control;
- Maximised fabric insulation to reduce space heating demand to as low a level as possible – ensuring that the levels of fabric insulation in walls, floors and roofs is as high as possible;
- Responsive heating and lighting controls;
- Efficient lighting and fittings that do not permit the use of non-efficient lighting;
- Efficient electrical appliances;
- Efficient heating and hot water systems;
- Reduced thermal bridging

Homes will be required to comply and exceed the requirements of Approved Document L, Conservation of fuel and power, Volume 1: Dwellings, 2021 edition incorporating 2023 amendments.

#### 8.3.3 Renewable Energy

For residential developments, the most appropriate low carbon and renewable energy types are:

- Micro-wind Turbines
- Biomass and CHP
- Solar (photovoltaic and solar water heating)
- Ground and Air Source Heat Pumps

#### 8.3.4 Sustainable Water Consumption

Water efficiency and re-use measures will be incorporated to achieve a low consumption rate of 110 litres per person per day (Local plan policy BN7a)

- Dual flush toilets
- Low water use spray or aerated taps
- Water saving white goods
- Installation of garden water butts

#### 8.3.5 Material Specification

Material specification should consider the following when specifying materials:

- Local supplies to reduce the energy used by transport;
- Materials that require low energy for manufacture;
- Recycled materials;
- Renewable materials such as timber this maintains biodiversity, productivity and ecological processes;
- Using construction materials such as brick, concrete and stone which can store heat will reduce heat loss and release.

### 9.0 Resources

#### 9.1 Water and Drainage

The drainage strategy for the site utilises the existing infrastructure where possible. A new foul connection to the existing system will be formed whilst surface water will be discharged into the existing wet ditch and wider system.

#### 9.1.1 Surface Water & On-Plot Attenuation

The drainage strategy requires plot purchasers to design and install on-plot attenuation, such as a geocellular attenuation crate or similar with a flow control device to restrict discharge flows to 0.21/s.

This approach allows the use of the existing infrastructure and encourages plot purchasers and design teams to consider the volume of surface water run-off generated by the on-plot design. Such methods or reducing surface water run-off are listed below

- Green or Blue roof construction
- Rainwater harvesting for internal use (i.e. Flushing Toilets)
- Rainwater harvesting for irrigation (i.e. Water Butts)



Extract of Drainage Strategy With Indicative Attenuation (not to scale)

### 10.0 Lifespan

#### 10.1 Stewardship

Self builders will collectively manage and equally own the area outlined in Figure 27 as a Residents' Management Company. The Residents' Management Company will be responsible for shared amenities, including:

- New Site Entrance and site access road
- Site Boundaries
- Hard and soft landscaping and surfacing to common areas
- Boundary treatments within common areas
- Public open space
- Wildlife corridors

The Residents' Management Company will be set up by solicitors, appointed on the Landowner's behalf, and then handed over with adequate funds available and third party contracts in place to complete these works as listed. A payment by the Landowner into the Residents' Management Company to cover 'off-plot works' will be required at time of plot purchase. Everything post-sale must be handled by the Residents' Management Company, which will be the effective landowner of the off-plot areas at that point in time onwards.



#### LANDSTRÖM

GEORGE & JAMES