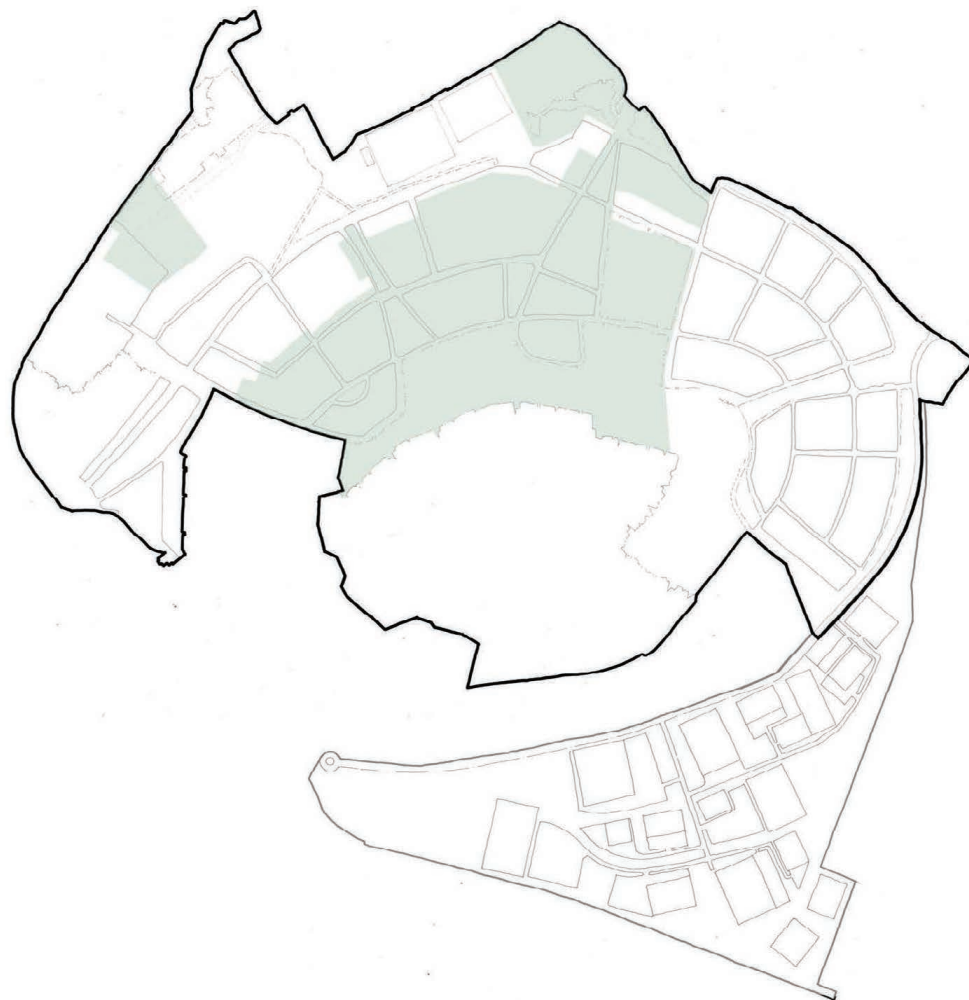


Design Code

GRAVEN HILL DEVELOPMENT COMPANY 2015





STATEMENT ON CODE STATUS & APPLICATION

This Code sets out the design requirements for the northern area of Graven Hill Village as outlined in black on the site plan shown left.

With project delivery expected to last 15 years, it is likely that there will be changes in market perception, Government policy and implementation procedures during this period. The Code will, therefore, be reviewed and refined prior to each phase of development with future versions incorporating a section on 'lessons learnt.'

The current phase of development (Phase 1) to which this initial Code applies is shaded in grey on the plan shown left.

Purchasers of plots within this area will have to demonstrate that proposals comply with the current version of the Masterplan and Code. Their feedback and experiences will be recorded and used to inform any further iterations of this

LEFT

Masterplan showing Code boundary & extent of Phase 1 developments.

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Requirements of plot purchasers



1

VISION
AND
RATIONALE

Introduction

What is the purpose of the design code & how does it relate to the project vision?

RIGHT

Masterplan layout of the Graven Hill Village development proposal

PROJECT VISION

The Graven Hill Village project consists of the redevelopment of 190 hectares of brown-field land to deliver approximately 1800 new homes along with a primary school, employment space, recreational areas, a local pub/restaurant & a small number of local shops.

The Graven Hill Village Development Company's vision for the project is as follows:

- To offer the largest opportunity in the UK for people who want to build their own home. This will be for households of all sizes & will include opportunities for people to build as a group and as individuals.
- To have extensive open space. This is to include woodland, allotments, cycle paths & sports pitches.
- To have a strong sense of character &

identity. Existing features (heritage and landscape) are to be retained & re-invented wherever possible.

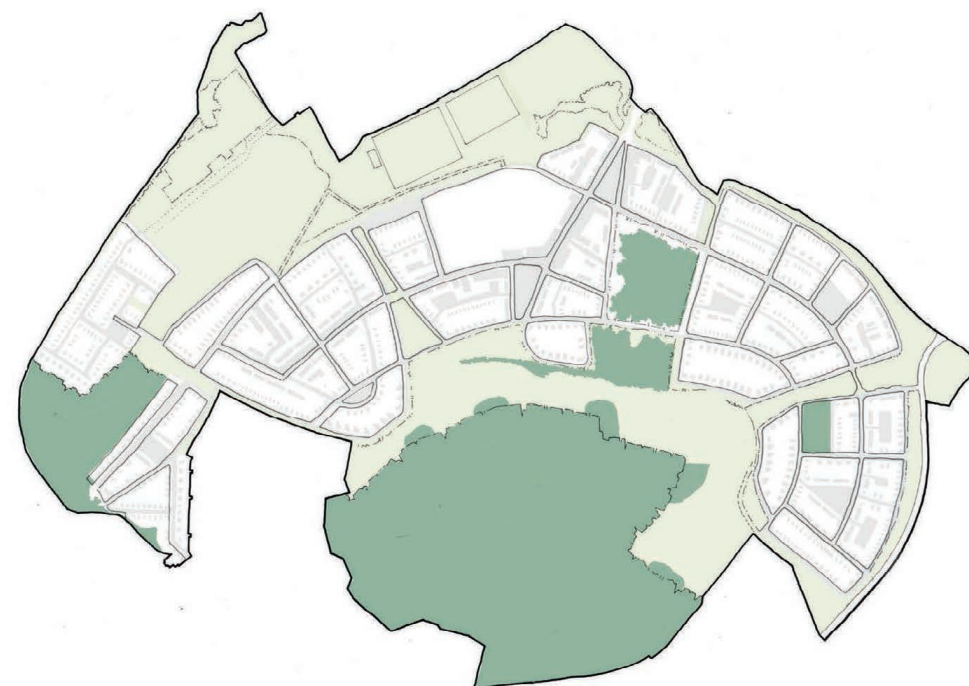
- To provide a strategic location for new employment space. Creating jobs & training for local people & attracting new investment into Bicester are to be explored wherever possible.

PURPOSE OF THE DESIGN CODE

A Masterplan & Design Code has been produced in response to this vision.

Whilst the Masterplan focuses on the majority of technical aspects (such as phasing, mix, street hierarchy etc.) the Design Code's focus is on the desired sense of character & the essential design rules needed to achieve it.

It also serves as a reference point, facilitating the quick resolution of any subsequent planning applications that may be required.



Although addressing different conditions of the development's outline planning approval, these **two** separate documents are entirely interrelated.

STRUCTURE OF THE DESIGN CODE

This section continues to provide an overview of the approach employed & how this has informed the development of 12 'character components' across the site.

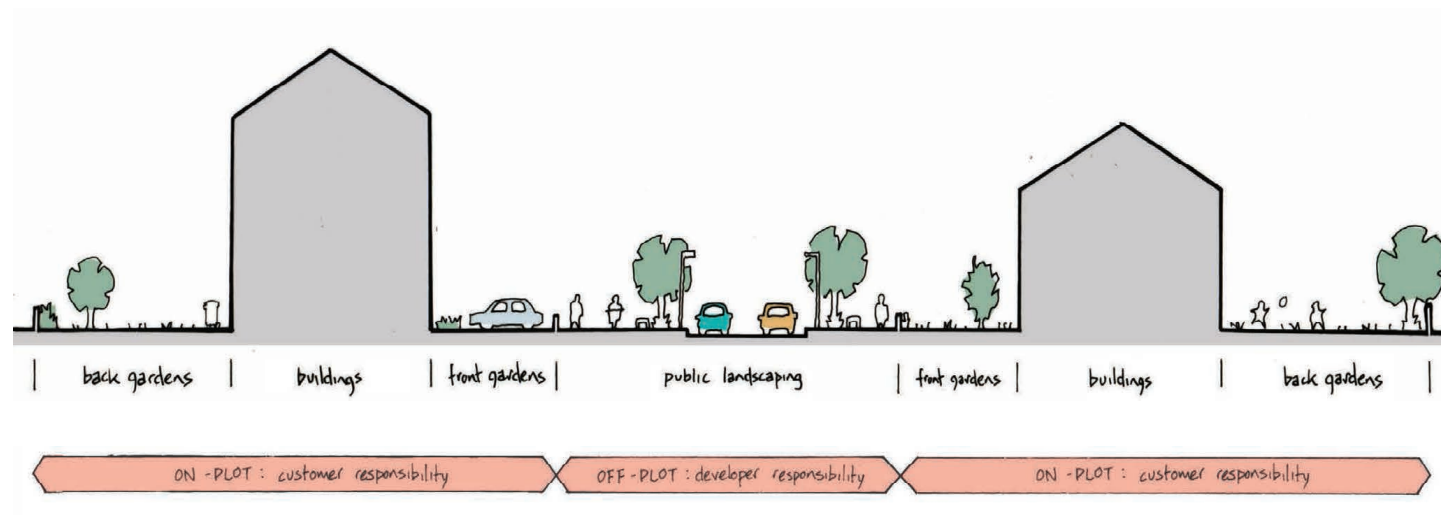
An overview of the proposed self-build process is also given together with a

description of the proposed 'plot passport' documents (essentially snapshot codes for each individual plot).

The second section looks at the requirements for each character component in more detail, describing the qualities desired, the level of design freedom available the design principles to be applied & any other key details needed in order to realise the vision as intended. In doing so, this section aims to provide clarity to all stakeholders including plot purchasers, consultants & suppliers of the options available.

BELOW

Section through
a typical street
showing the extents
of 'on plot' & 'off
plot' features



*What are the overriding
principles that have informed the
development of the Code?*

Coding Approach

The aspiration for Graven Hill is to be the UK's largest self-build scheme where community creativity is encouraged & maximum design flexibility is afforded.

This key visionary driver has informed the need to employ a 'hands off' approach to all 'on-plot' features (for which customers are responsible) wherever possible.

Only those specific features deemed critical to establishing the desired 'sense of place' will be regulated - but nothing else.

Informed by this principle, it is proposed that a concise list of only **6 baseline constraints**

be applied to all plots. These are as follows:

- 1 Build zones
- 2 Maximum building heights
- 3 Boundary heights
- 4 Vehicular access
- 5 Vehicular & cycle parking
- 6 Waste management

Design decisions for all remaining aspects can, therefore, be left to the discretion of plot purchasers (and/or their designers).

Only where absolutely necessary (either due to their visibility or position in the street hierarchy) are more **enhanced constraints**

Sense of Place Definition

A 'sense of place' encompasses a number of aspects, notably the [areas] local distinctiveness, visual quality & propensity to encourage social activity

to be applied. An overview of the levels of control & constraints to be applied to each area is given in the diagram overleaf.

Supported by the Masterplan, this approach is considered to be in accordance with best practice in that it has encouraged the multidisciplinary team to focus less on architectural *style* & more on those lasting elements of design important to 'get right' at the outset (e.g street pattern, ownership boundaries, transport links etc).

This realignment of emphasis is clearly shown by the consideration given to the public space in the subsequent sections.

BELOW

Masterplan showing levels of control across the site.



High Design Freedom

As shown on the diagram above, the majority of the developed areas of the site benefit from a high level of design freedom. **Only baseline constraints will apply to these areas.**

Some Design Freedom

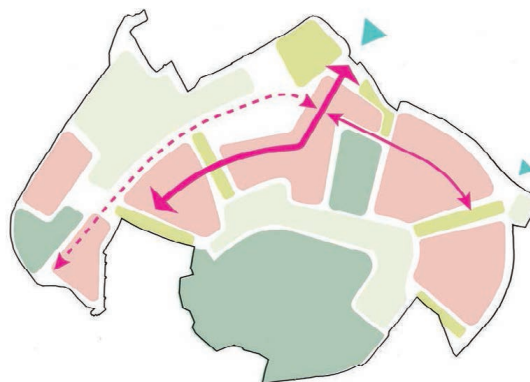
The main arterial routes demand a higher level of control in order to achieve a clearly legible street network. **Some enhanced constraints will apply to these areas**

Low Design Freedom

The village core contains the majority of socio-economic functions &, will, therefore offer least design freedom. The single-aspect fringe streets that face onto key public areas are also less. **All enhanced constraints will apply to these areas.**

BELOW & BELOW RIGHT

Masterplans showing the 2 character concepts that have informed the detail behind the constraints.



Urban Structure

The exact details of the constraints themselves have been informed by the character desired at any specific location.

Rural Structure

The diagram above shows the general arrangement of the two opposing characters across the site, that of an 'urban' structure & that of a 'rural' structure.

These structures are made up from 12 separate component parts (see masterplan overleaf), each exhibiting 'urban' or 'rural' qualities to varying degrees.

A further aspect that has been considered in establishing appropriate constraint



Circular Railway

Water Towers

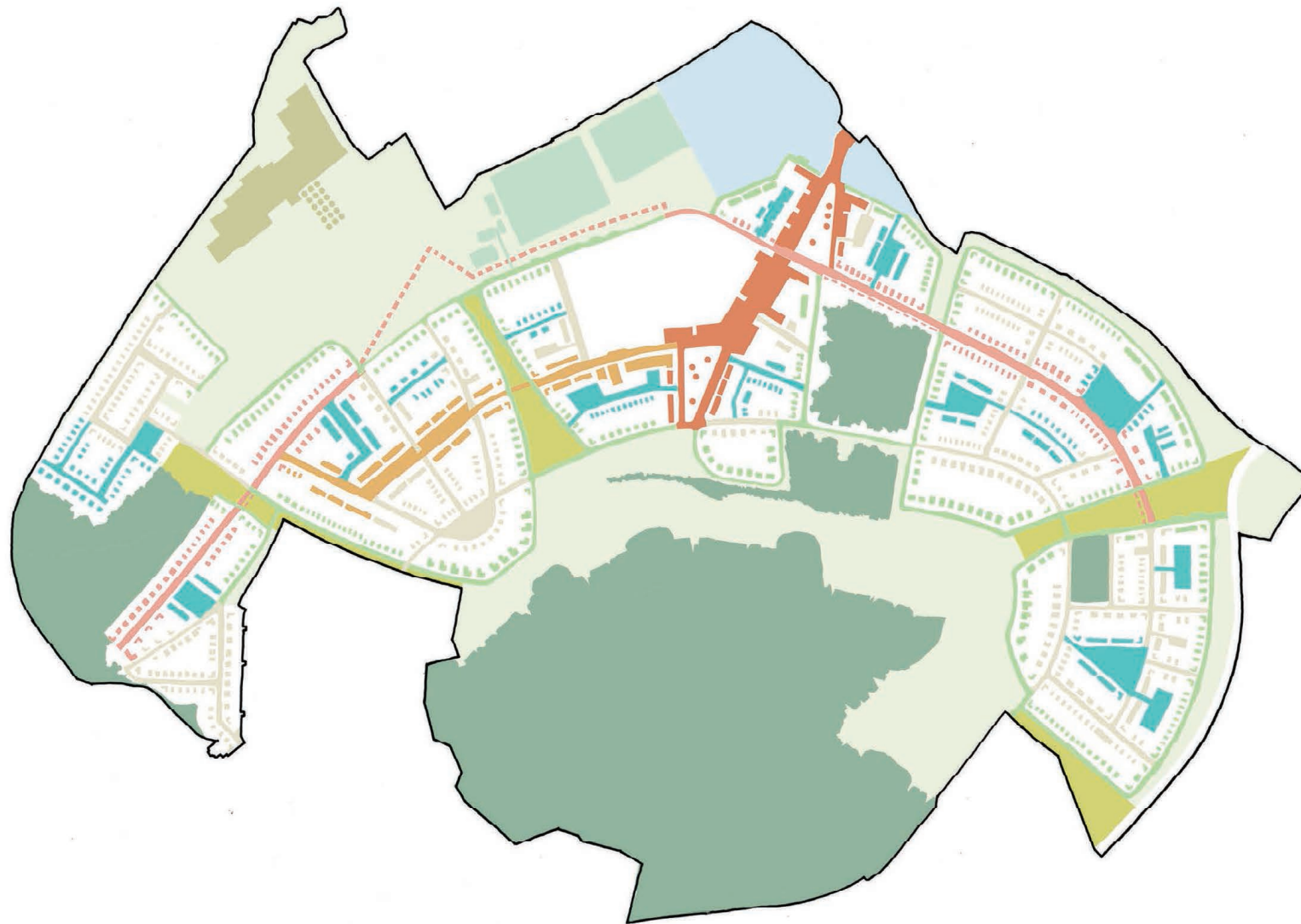
EWS Ponds

Concrete Plinths

Potential Buildings to Retain

particulars is that of the site's military history as a former WW2 logistics base. A major focus in developing all proposals has been to 're-invent' & incorporate as many existing military features as possible. These bold celebrations of Graven Hill's history are scattered throughout, providing continual 'reminders' that link the scheme together as a whole.

The level of control, extent of rural/urban qualities & concentration of military features of a given area have together dictated the constraints proposed. These constraints (& their associated plans) are given in the subsequent sections of this report..



- 1 Gateway Park
- 2 Village Centre
- 3 Tree-lined Boulevard
- 4 Community Streets
- 5 Urban Lanes
- 6 Circular Railway
- 7 Swale Parks
- 8 Rural Lanes
- 9 Meadows
- 10 Woods
- 11 Allotments
- 12 Sports Grounds

LEFT

Location of the 12
character components
across the site

The Self-Build Process

THE DELIVERY TIMELINE shown right summarises the processes involved in the sale of plots & construction of self-build homes across the site. A total maximum delivery of period of 32 months from plot reservation to plot completion is proposed, consisting of a 6 months design stage, a 2 month 'Golden Brick' stage & a 24 month 'Build-Out' stage.

Plot purchasers will be expected to submit information to the Graven Hill Development Company at each stage (e.g. building designs, specifications etc) & to complete the activities required within the timescales provided.

All designs must accord with the parameters set out in the Design Code, the Masterplan & the Outline Planning permission. The proposed 'Plot Passports' (see overleaf) will act as key reference points throughout the process.

RIGHT

Proposed self-build delivery process & timescales

For any enquiries relating to this Code or the self-build process, please get in touch on...

☎ **01295 753700**

✉ **info@gravenhill.org.uk**

or visit our website: www.gravenhill.org.uk

1

Reserve Plot

Start 6 month Design stage

After reading the Design Code & choosing the most appropriate location in terms character & level of design freedom, the next step will be to obtain a 'Plot Passport' (see overleaf for more detail). If the plot offers the features desired, a plot reservation can then be made at which point the 6 month Design stage will commence.

2

Exchange of Sales Contract

Start 2 month Golden Brick stage

Detailed designs are to be submitted to the Graven Hill Village Development Company (GHVDC) within 6 months of submitting a plot reservation. Once designs are approved in accordance with the relevant Plot Passport, the Exchange of Sales Contract will be completed, commencing the Golden Brick stage whereby foundations will be constructed up to base course (Golden Brick) by GHVDC.

3

Completion of Sales Contract

Start 24 month Build-Out stage

Following the Golden Brick stage, the Completion of Sales Contract will take place. The remainder of the unit must be built within 24 months of this date.

Below is a list of documents that have informed the content of this Code and may be of use when producing detailed designs.

Oxfordshire County Council (2011) *Parking Standards for New Residential Developments*, Oxfordshire County Council, UK

DCLG (2007) *Manual for Streets*, Thomas Telford, UK

DCLG (2015) *Technical Housing Standards, Nationally Described Space Standard*, DCLG, UK

Secured By Design (2014) *New Homes: 2014*, SBD, UK

AMEC (2011) *Redevelopment of MOD Bicester: Design & Access Statement*, DIO, UK

Glenn Howells (2015) *Materplan Development*, GHVDC, UK

Cherwell District Council (2015) *Local Plan 2011 - 2031*, Cherwell District Council, UK

CLICK HERE

to be taken to our

Design Library

PLOT ASSIGNED TO: XXXXXXXXXXXX

Graven Hill

Cherwell

DISTRICT COUNCIL
NORTH OXFORDSHIRE

PLOT PASSPORT

ROAD NAME

0005

Main FEATURES

Plot Number: 0005

Unit Type: Detached

Price: £XX,XXX

Local Character: Rural Lanes

Plot Area: 526 m2 / 0.13 acre

Max. GIA: 124 m2

■ Build zone

■ Extent of plot & dimensions (metres)

⊞ No. of on-plot car parking spaces

⊙XX Max. building height (metres)

— Front boundary

▶ Access



Rules of your build

Note: This is a 2 sided document that needs to be read in full.

1 2 car parking spaces must be provided on the plot at 2.4m x 4.8m in size. The position of on plot parking bays is flexible and to the discretion of the plot purchaser. The position of vehicular access is fixed and must be located as shown on the above plan.

2 Your home must be built within the 'build zone' and not exceed the max. permissible Gross Internal Area (GIA) stated for each individual plot. The footprint of your home does not need to fill the entire area & can be positioned anywhere within it. Gross Internal Area is defined on the reverse of this page.

3 Your home must achieve Passivhaus certification with Code for Sustainable Homes Level 4 water usage.

4 Front boundary treatment to be Beech or Coppice Dogwood hedging to a max. height of 1100mm.

5 A min. area of 50% of the plot frontage (the area between the highway and your front wall) must be permeable (i.e. grass / shrubs / gravel etc.).

6 Provision for bin stores and the secure storage of min 2 bicycles must be allowed for on the plot. These should be considered within the design.

7 Your home must be no more than 8.1m in height. This equates to approximately 2 storeys.

8 This plot is for one detached unit with a max. of 3 bedrooms. The merging & subdivision of plots is not permitted.

9 Permission will not normally be required to home work or run a business from the property, provided that the dwelling house remains a private residence first and business second. Issues which may give rise to the need for planning permission include whether home working or a business leads to notable increases in traffic, disturbance to neighbours, abnormal noise or smells.

10 No works or storage of materials may be undertaken outside the curtilage of your plot without requisite permissions first being obtained. These areas are subject to adoption either by the Highways authority or District Council.

11 No build: form is permitted within 1m of the plot boundary (the area to which your ownership extends). This is to retain a maintenance zone between plots and allow bins, cycles etc. to be moved from the rear of the plot to the front.

This plot passport relates to the design of your home. There are additional conditions that are statutory (i.e. legislation) & mandatory within your agreement: for sale & deed of transfer which you must adhere to. Therefore please ensure that you refer to these before proceeding with design work on or offsite fabrication or construction. This includes conditions relating to health & safety, site working hours, deadlines for completing your home & consideration of neighbouring properties.

SUBJECT TO PLANNING APPROVAL

Plot Summary

Design Rules

List of relevant design rules from the Code, Masterplan & Outline Planning Permission

Regulatory Plan & Key

Detailed plan illustrating the main design rules associated with a particular plot

A PLOT PASSPORT is, in essence, a succinct inventory of the design parameters associated with a particular plot. It will act as a key reference point for a plot purchaser, capturing all relevant information from the Outline Planning permission, Masterplan & Design Code in an easily understandable & readily accessible format.

The current proposed layout & content of these documents is shown opposite.



2

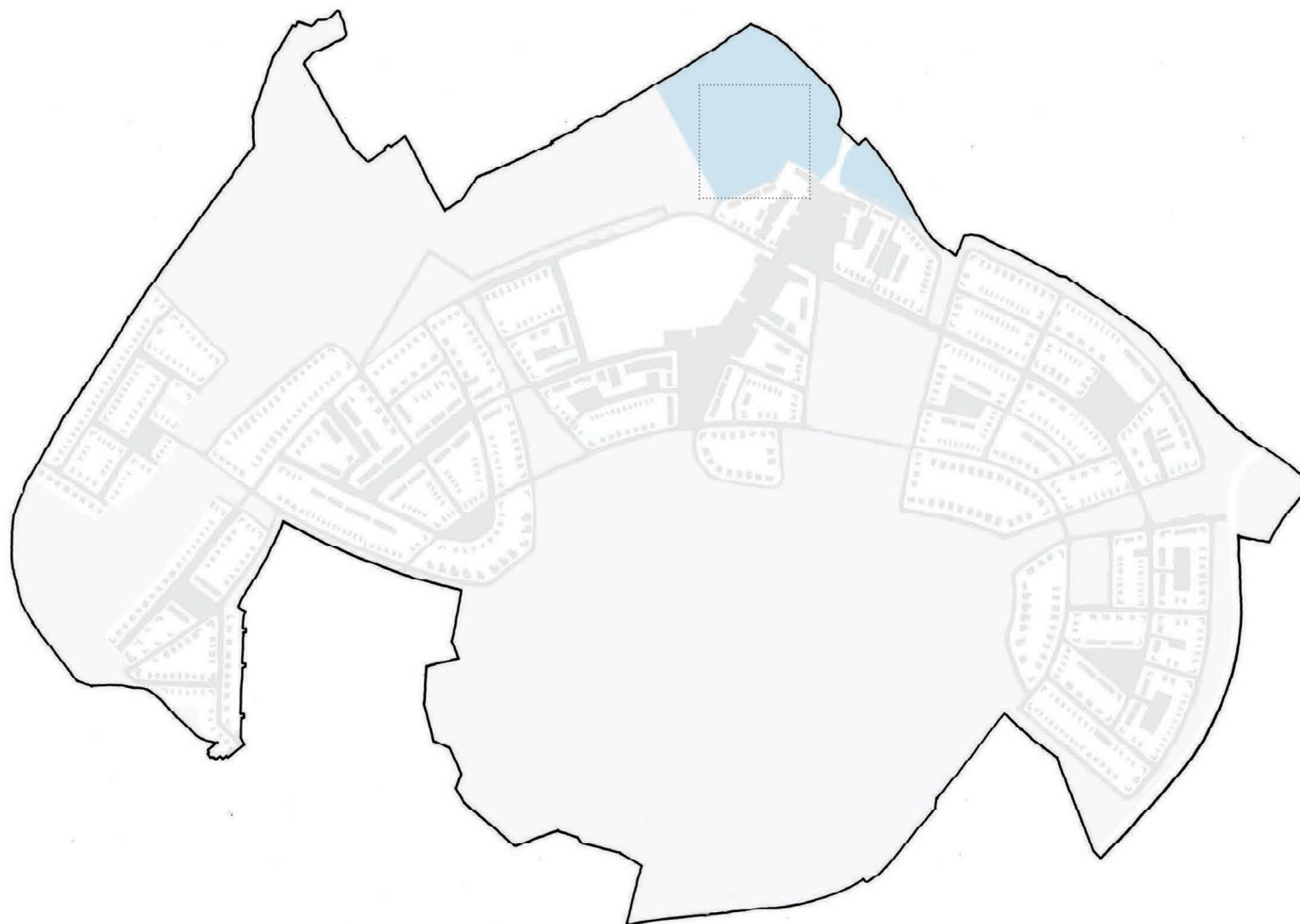
THE
REQUIREMENTS

Gateway Park

*Large wetland habitat
beside main site entrance*

● RURAL ● LOW DESIGN FREEDOM





ABOVE
Location of
Gateway Park.
Dashed box
shows extent of
plan on page 12

Overview

LOCATION

The 'Gateway Park' is a key amenity space located immediately adjacent to the main A41 entrance. It serves to provide a welcoming transition space upon arrival that celebrates the site's extensive natural landscapes.

CHARACTER & MANAGEMENT

The intention is to create a lush & informal park containing swales, ponds & marginal planting. The park will be owned & managed by Cherwell District Council.

Longer, meadow-like grasses will be located on higher banks that link to the surrounding meadows. Walk & cycle routes are to be as visually unobtrusive as possible, adopting meandering layouts, minimum widths (as appropriate) & natural finishes (e.g. decomposed granite) in order to retain the character desired. Timber boardwalks will add interest along routes, protect the habitats below & create ideal spots for wildlife watching.

DESIGN FREEDOM

As a strategic amenity, the Gateway Park does not at this stage offer opportunities for community design.

The potential for later involvement with the on-going management, use & evolution of these spaces is to be explored

Case Studies

BELOW Discrete timber boardwalks, such as that pictured below at an estuary in New Zealand, provide visually unobtrusive recreational routes, their elevated profiles protecting the habitats below.



ABOVE The nature reserve at Otmoor, Oxfordshire demonstrates the naturalistic treatment proposed for the attenuation ponds within the Gateway Park.

The unencumbered backdrop, informal marginal planting & meandering water bodies offer a serene environment for spotting wildlife.



FAR LEFT
Estuary, New Zealand,
taken from:
<http://goo.gl/t7bC4E>

ABOVE
RSPB Otmoor,
Oxfordshire:
<http://goo.gl/27H84o>



Principles

Essential design principles required for delivery of intended character

ABOVE

Indicative plan showing a typical area of the Gateway Park. N.B. variations will exist elsewhere

OFF PLOT (DEVELOPER)

1 Hard Landscaping

Footpaths & Boardwalks

Design to be as visually unobtrusive as possible

Boardwalks to be simple design of a natural finish. Elevated to minimise impact to habitats below. Handrails only where necessary

2 Soft Landscaping

Shared Cycle/ Pedestrian Paths

Design to be as visually unobtrusive as possible

Marginal

Informal design of predominantly native species

Amenity Grass

Mown for multifunctional uses

Longer Grass

To contain wildflower species

Shrubs

Informal arrangement of native species

Trees (Existing)

To be retained

Trees (New)

Fluid arrangement of native species to support wildlife flight paths, pollard management

Water Bodies

Retention ponds as part of SUDS

3 Lighting

Any

Not applicable. Wetland Park is to remain unlit

4 Furniture

Benches, Bins

Design to be as unobtrusive as possible (e.g. weathered timber finish)

5 Management

Amenity, Attenuation Pond & Ecology Pond Strategy

To be managed by Cherwell District Council

Presumption in favour of dead wood retention (subject to safety inspections)

Report & undertake repair and replacement of trees, planted areas & grass once cause of loss/damage has been established

Removal of undesirable woody and herbaceous species from planted areas and grass sward

Removal of leaves and fallen woody material to suitable recycling facility

Remove litter, foreign materials from ponds generally to ensure flow/capacity is not impeded

Annual removal of marginal & aquatic vegetation to ensure acceptable area of open water remains visible

Bi-annual cutting of selected grass areas with regular cutting of remaining areas

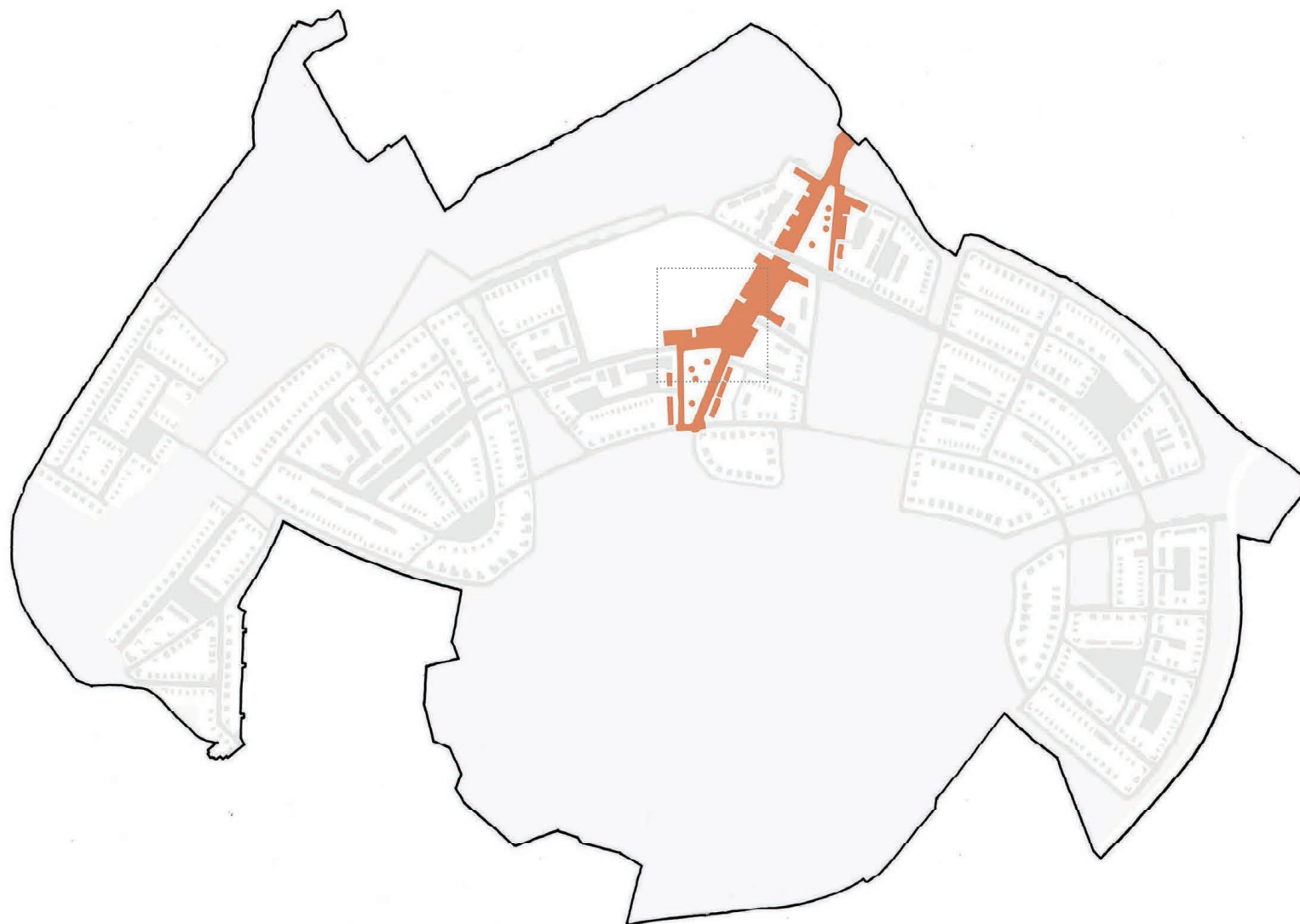
Watering, weed control & general management of trees, woody & herbaceous planting during establishment period & beyond

Village Centre

*Socio-economic hub at
the heart of the site*

● URBAN ● LOW DESIGN FREEDOM





ABOVE
Location of the
Village Centre.
Dashed box
shows extent of
plan on page 17

Overview

LOCATION

The Village Centre consists of a north-south strip of high density development that adjoins the main site entrance off the A41. All principle routes converge within this space containing the majority of site facilities (including shops, offices & public greens).

CHARACTER & MANAGEMENT

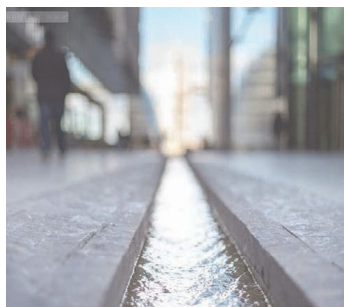
The treatment of the Village Centre serves to root the development within the local context. Accordingly, a vernacular & simplified streetscape (e.g. material palettes & minimal signage) that reflects the character of nearby village high streets is to be adopted. The two 'greens' that flank the central commercial core provide important areas of public open space for events & social gatherings. These spaces are to adopt natural & informal treatments that 'anchor' the Village Centre to the surrounding wild landscape.

Freeholders/leaseholders will be responsible for the management of buildings, Oxfordshire County Council for all features within the highway & Cherwell District Council for all elements within the two greens.

CONTROL

As the socio-economic heart of the site, the Village Centre will be subject to the highest level of design control with plots subject to all enhanced constraints. To bring localised elements of architectural vibrancy, a number of 'rogue' plots that remain uninhibited by increased controls are proposed

Case Studies - General Principles



ABOVE A linear 'water rill' set flush into the footway at More, London, creates a playful focal point along a busy movement corridor.

A similar feature is to run along the entire length of the northern village green, creating a unique sense of arrival & a visible connection between the main site entrance & commercial core.

ABOVE RIGHT A simple & accessible paved area provides a multi-use space for a variety of community activities e.g. markets. A similar ad-hoc space is proposed along the eastern edge of the southern green where vehicular use will be restricted on event days.

RIGHT The village centre at Dickens Heath demonstrates a simplified streetscene of restrained material palettes & minimal signage as here desired. N.B. a shared surface is not proposed & buildings forms are expected to be more varied.

LEFT
Water rill at More,
London:
<http://goo.gl/Bmdr85>



ABOVE Neutral, restrained & accessible hardscape on Gough Street in San Francisco. All street clutter (e.g. cycle stands, lighting columns, benches, bins etc.) is confined to a 'functional strip' that separates vehicular from pedestrian zones in order to maintain clear & legible routes for passing traffic. Intermittent street trees also sit within this strip, adding a welcome dose of greenery to the otherwise hard, urban treatment of this space.

ABOVE LEFT
Fiesta at Wodd St,
London, from: <http://goo.gl/UDknN7>

BELOW LEFT
Dickens Heath, Solihull:
<http://goo.gl/dkOYH3>

ABOVE
Gough Street, San
Francisco:
<http://goo.gl/HwFBC8>

Case Studies - Village Green Principles



ABOVE

Photo of central green at
RAF Bicester Heritage.

ABOVE RIGHT

Normand Park, London:
<http://goo.gl/D31zTc>

RIGHT

Jubilee celebration,
West Sussex:
<http://goo.gl/EHQ90E>



ABOVE LEFT The central green at RAF Bicester Heritage exemplifies an informal social space with military features, including a discernible grassy mound of a former wartime bunker.

LEFT The communal greens are to provide flexible spaces for community occasions, specifically the southern green which is intended for use as a 'spill-out' zone for market street events.

ABOVE Normand Park in London demonstrates the naturalistic treatment intended for both greens. Long, tufty, meadow-like grasses & informal tree layouts offers opportunities for picnics, socialising & creative play



Principles

*Essential design principles required
for delivery of intended character*

ABOVE

Indicative plan
showing a
typical area of the
Village Centre

n.b. variations
will exist elsewhere

1 Hard Landscaping

- Carriageways
- Pedestrian zones

2 Soft Landscaping

- Cycleways
- Incidental planting
- Street trees
- Village Greens

3 Lighting

- ✓ Play Areas
- ✓ Columns

4 Furniture

- ✓ Benches, Bins & Cycle Stands

5 Management

- ✓ Streetscape Strategy

6 Baseline Principles

- Rogue Plots
- Building Zone

Max. Building Height (m)

- ✓ Boundary Heights

- ▶ Vehicular Access

- Vehicular & Cycle Parking

Waste Management

7 Enhanced Principles

- ✓ Specific Boundary Treatments

- ✓ Material Palettes

- XX Min. Building Height (m)

- Position of Main Facade(s)

OFF PLOT (DEVELOPER)

6m macadam with rolled silver-grey granite chippings. Change in texture to demarcate bays..

Concrete ground flags. Flush 225mm silver-grey conservation kerbs to plot boundaries.

1.75m macadam with rolled silver-grey granite chippings. 75mm splayed kerb upstand to footways

Informal planting design with wildflowers.

To be planted in pits & be min. 15m high after 25yrs

To be informal & naturalistic with wildflowers & meandering paths. Mown edges to carriageways to provide 'spill-out' spaces for events. Designs to deliver a visually strong & distinctive statement.

Naturalistic design..

Standard columns with LED lantern units.

Robust & functional design. Min. of 39 commercial & 235 residential cycle stands to be provided..

Watering, weed control & general management of public amenity to be undertaken by Cherwell District Council. Management of highway to be undertaken by Oxfordshire County Council.

ON PLOT (CUSTOMER)

Only 'baseline' principles apply to these plots.

Portion of plot that may be developed
n.b. all facades that face onto the public realm must incorporate windows.

Total building height (including roof) must not exceed upper values shown on plan.

See enhanced principles below.

Driveway access must be located as shown.

No. of vehicle bays shown must be provided. Min. of 2 secure cycle spaces/dwelling must be provided.

Bins should not be visible from the street & are to be kept in bin stores or within rear gardens.

Front boundaries to be max. 0.9m high brick wall or railings. Side/rear boundaries to be max. 1.5m high wall with max. 0.4m trellis over.

See material options overleaf.

Total building height (including roof) must not fall below lower values shown on plan.

Main facade(s) of building must be constructed on line shown (n.b. optional line for commercial units to cater for 'spill-out' areas if desired). Bay windows/porches/balconies must not protrude more than 1.5m beyond this line.

Facades



LIMESTONE

White/blueish grey to match local pale oolitic limestone.



0505 Y20R



0505 Y30R



1005 Y20R



1010 Y30R



1010 Y20R



BRICK OPTION 1

Deep red/orange to match traditional local brick type



1510 Y20R



BRICK OPTION 2

Deep pink/orange with kiln marks to match bricks of military buildings



2010 Y20R



BRICK OPTION 3

White painted brick of any type

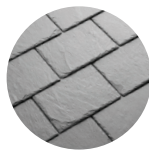
RENDER OPTIONS

Choice of 8 NCS colours as shown above to match tones found within local limestone.



3000N

Roofs



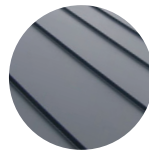
SLATES

Natural or dark grey fibre-cement slates



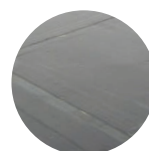
TILES

Any variety of red plain clay tile



STANDING SEAM

Medium/dark grey standing seam metal roofing



FLAT ROOF OPTIONS

Felt, EPDM or Fibreglass

Material Palette



The proposed palette proposed for plots within the Village Centre has been informed by the historical architecture of Bicester, local village high streets & the existing military buildings of the immediate site context.

Please note, samples may need to be submitted to the Graven Hill Development Company for approval.



ABOVE

Photo of archetypal buildings at Bicester town centre

LEFT

Photo of Signal Box at Graven Hill