Churchfields, Salisbury

Design guidelines and masterplanning

Draft report

November 2021

Delivering a better world

Quality information

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Introduction

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1. Introduction

Through the Department for Levelling Up, Housing and Communities Neighbourhood Planning Programme led by Locality, AECOM was commissioned to provide design support to Salisbury City Council, with a focus on the Churchfields area.

1.1 About this report

This report has been prepared to inform and support the Salisbury Neighbourhood Plan's approach to the Churchfields employment area and the adjacent engine shed site (collectively referred to as 'the site' or 'the area' from now on).

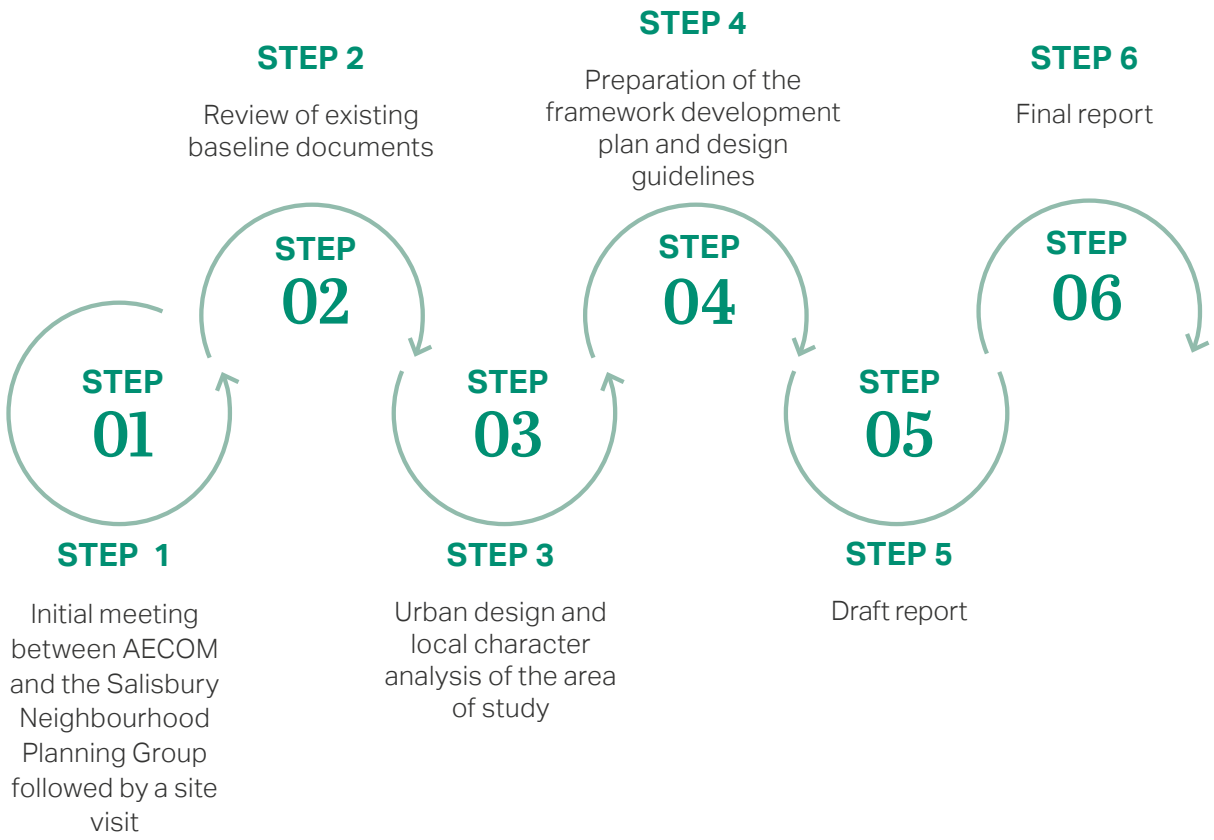
It presents high level vision and development scenarios, all of which are in conformity with the current and emerging local planning policy context. It sets out how the area can evolve to better meet the city's needs for smart employment and housing, contributing to the economy and the need to address climate change. In doing so, it also sets a course for dealing with the some of the area's negative impacts on other parts of the historic city, particularly relating to traffic and air quality.

The report continues to illustrate how the first phases of the development scenarios could be delivered on three initial sites, and to propose a series of design guidelines that will contribute to the smart transformation of Churchfields.

The site is identified for housing-led mixed use development in the adopted Wiltshire Core Strategy and recommended for diversified and intensified employment uses in the Salisbury Central Area Framework (CAF; see section 2.1 below). This document shows how both of these visions could be progressed as part of a gradual and incremental process as redevelopment opportunities arise.

1.2 Preparing the report

The following steps were agreed with the Neighbourhood Plan Steering Group to produce this report, which draws upon policy development and engagement work undertaken by the Group:



1.3 Area of study

The city of Salisbury is in the south east of Wiltshire and is the main centre of south Wiltshire, acting as a focal point for a wide rural catchment stretching into parts of Hampshire and Dorset. The city is located near the edge of the Salisbury Plain and sits at the confluence of five rivers- the Nadder, Ebble, Wylye, Bourne and Avon. Salisbury railway station acts as a regional interchange between the West of England main line and the Wessex main line.

Salisbury is an international tourist destination due to presence of Salisbury Cathedral and the city's proximity to Stonehenge. This brings significant revenue to the city. The city has several museums and markets that attract many visitors, particularly since a café culture has been encouraged around the Market Place.

The Churchfields industrial estate is a well-established commercial area in the south west quadrant of Salisbury's central area. While the area brings jobs and services for the community many local people consider the site to be harmful to Salisbury due to the traffic impacts which cause harm to the air quality and street scene of the central area. This affects the ambiance of the central retail core and the environs of Salisbury Cathedral.

1.4 Project drivers

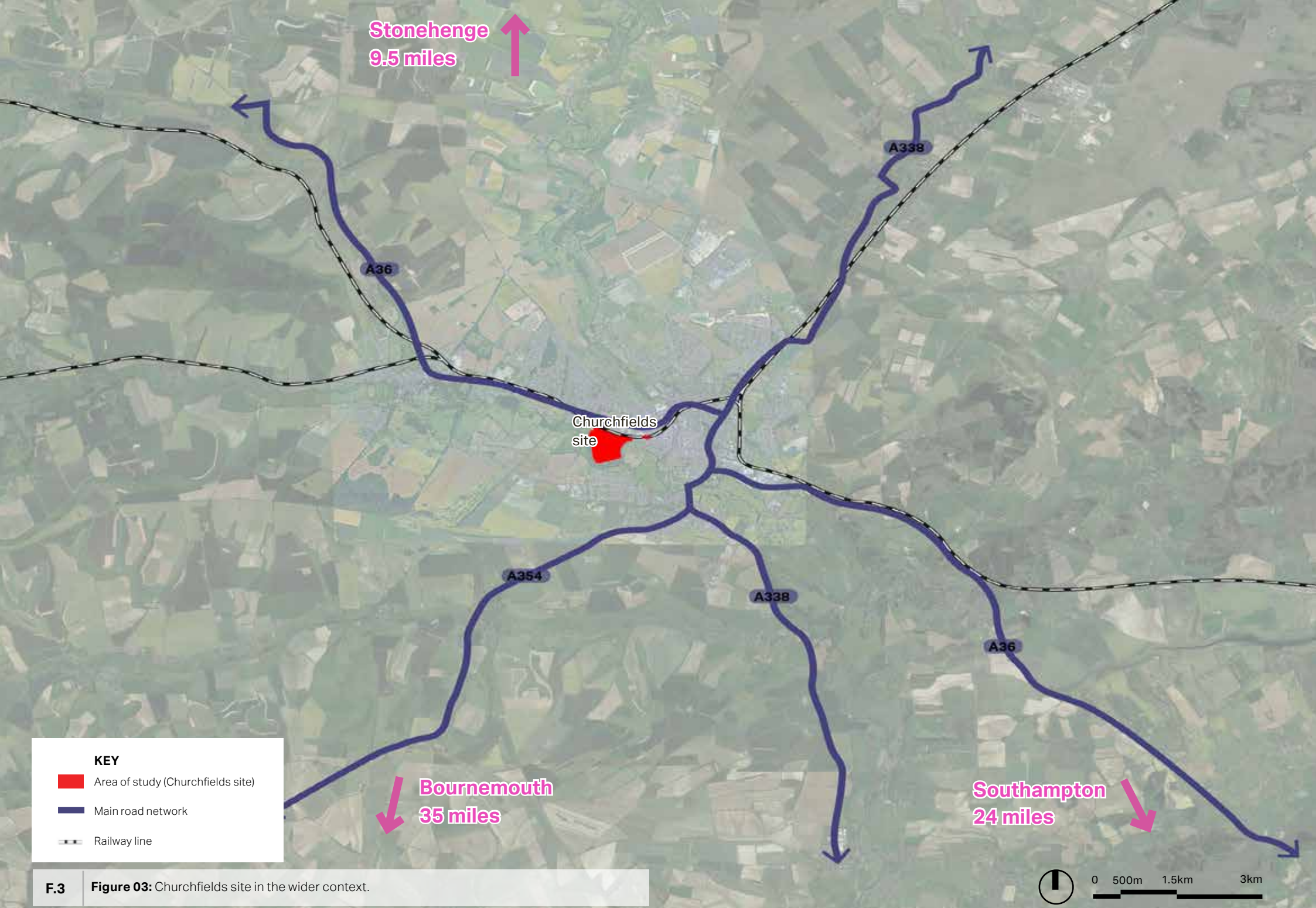
Sensitive, gradual change at Churchfields could bring many benefits to Salisbury, in line with the local planning context (see section 2.1 below) and emerging Neighbourhood Plan.

The principal drivers for change include:

- helping to retain young people in Salisbury with affordable housing and workspaces;
- reducing the impacts on the City Centre of unsuitably large and polluting vehicles; and
- promoting greener ways of living and working in response to the climate emergency.

Figure 01: View to Churchfields site from Stephenson Road.

Figure 02: View along Lower Road with the Engine Shed site to the left and the Churchfields Industrial Estate to the right.



F.3 **Figure 03:** Churchfields site in the wider context.

Baseline study

02

2. Baseline study

This chapter describes the local context and key characteristics of Churchfields site, in relation to a range of factors. It concludes with a summary of the issues and opportunities presented.

2.1 Planning policy overview

The design guidelines in this document accord with the existing policy framework.

The principal site specific policy for Churchfields is within Core Policy 20 of the **Wiltshire Core Strategy**, adopted in 2015. It allocates Churchfields as a mixed use development site with 1,100 dwellings and 5 hectares of employment. Paragraph 5.119 notes that the allocation of other sites in South Wiltshire enable the relocation of businesses from Churchfields.

Core Policy 20 refers to a development template that is included in the Core Strategy's Appendix A. The text under the heading Objectives for the Development is reproduced here:

To develop a housing led mixed use redevelopment of around 1,100 dwellings and retaining 5 ha of employment through a high quality masterplan, which delivers an appropriate sense of place in accordance with the South Wiltshire Design Guide, 'Creating Places' in a sustainable location. This should be done in a manner which complements the existing community and makes a significant strategic contribution to meeting local housing needs of south Wiltshire. Specific issues to be addressed are:

- *project alignment with the Local Development Framework to ensure there is adequate and appropriate land available to allow a successful decant for existing employers in and around Salisbury, so the existing protective policy preventing change of use away from employment can be relaxed;*
- *redevelopment that sympathetically capitalises on the assets of the site, such as proximity to water meadows, town path, Harnham and cathedral views;*
- *masterplanning to be undertaken for both sites [Churchfields and the Engine Shed site] to ensure that the two developments integrate;*
- *providing green links from the east and west of the River Nadder, to contribute towards the environmental and ecological aspirations of the Salisbury Vision;*
- *the incorporation of a central green to act as a focal point and encourage vitality;*
- *a mix of heights of up to six storeys determined by detailed context planning;*
- *planning in and making features of key vista to the cathedral;*
- *to provide an element of carbon neutral homes; and*
- *maximising the site's south facing orientation.*

The Appendix also specifies land uses, which include a 2 form entry primary school and a local neighbourhood centre in addition to the housing and employment.

It is not evident that progress has been made on implementing the policy. The Wiltshire Housing Site Allocations Plan (Feb. 2020) acknowledges that the policy has not been delivered and that the site requires substantial employment uses to decant and is now expected to commence later than envisaged beyond the current plan period of 2026. It is a complex regeneration project that will take time to deliver and will require other sites to enable existing businesses to relocate. (para 4.44)

In August 2020, Wiltshire Council endorsed the **Salisbury Central Area Framework** (CAF). Whilst not adopted as statutory planning policy it will inform the Review Local Plan that is in an early stage of development (confirming on page 48 that "The long-term future of Churchfields will be determined through the review of the Local Plan"). Therefore, it is not one of the strategic policies that the Neighbourhood Plan will need to be in general conformity with to meet the 'basic conditions'; however, the CAF does indicate Wiltshire Council's direction of travel. As such, it forms part of the policy context that the Neighbourhood Plan will need to respond to.

The approach to Churchfields in the CAF is something of a departure from the Core Strategy. It recommends that it is enhanced to "support a diversification of employment generating uses" and continues that this should be sought by:

- promoting the suitable relocation of employment uses, notably high-traffic generators;
- improving the quality of the place to attract start-ups and a greater variety of employment types;
- supporting a higher density employment uses, where appropriate; and
- investigating the relocation of Wiltshire Council's depot.

The CAF approach was reflected in the early **Local Plan Review consultation**, that ran between January and March 2021, suggesting one of the nine priorities for Salisbury to be "improving Churchfields such that it integrates better within the city, particularly for non-vehicular access, and presents a more accessible and attractive location to a greater diversity of businesses".

All of the above outlines a somewhat confused – or, at least, transitioning – policy context for Churchfields.

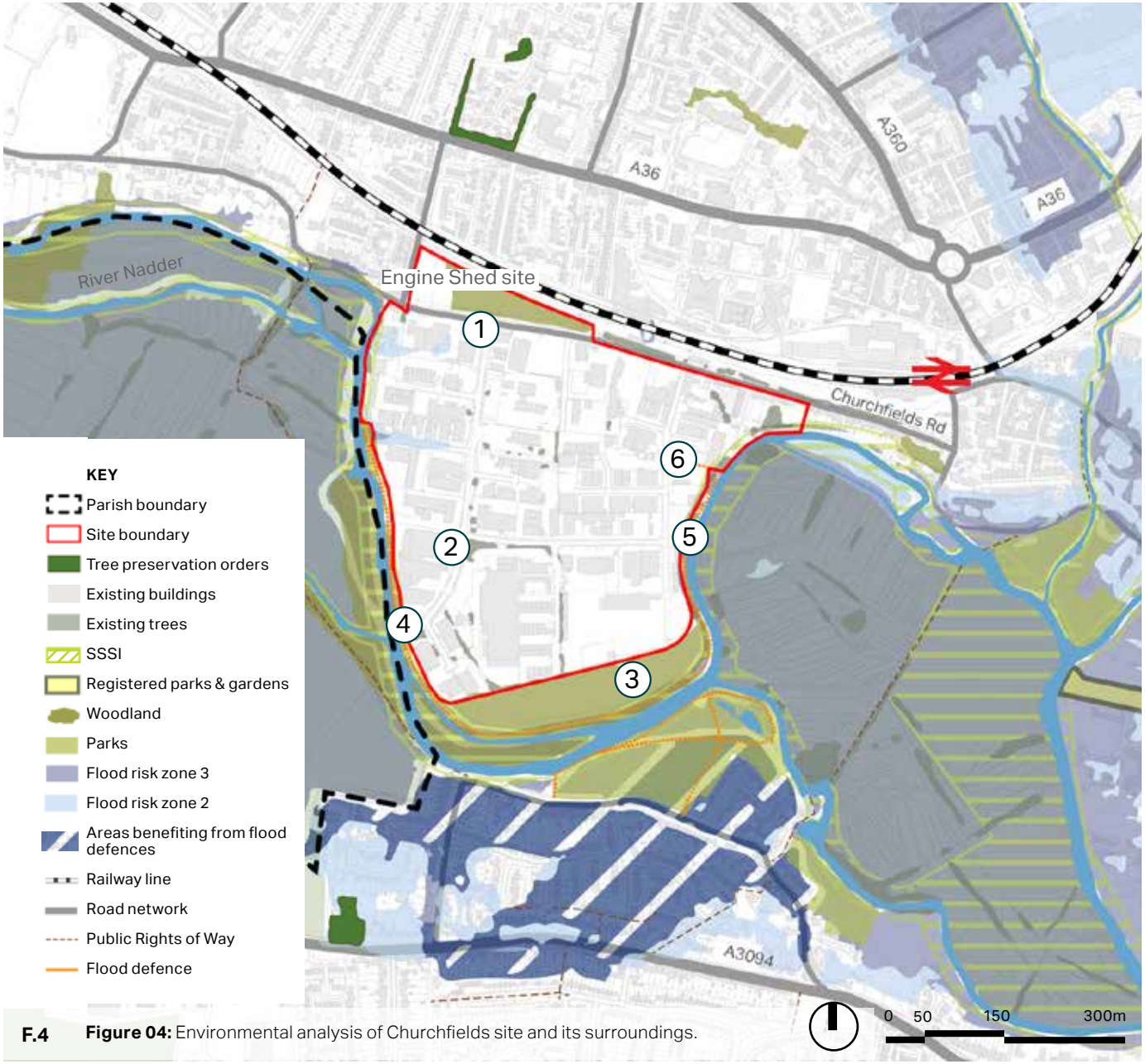
This report seeks to respond to the policy context by proposing a strategy that is in general conformity with the adopted Core Strategy policy, as it must be, but also that aligns with each of the CAF's four recommendations.

2.2 Environmental analysis

As the Churchfields site is already a built up area there are few natural environmental constraints currently on the site, with the exception of some groups of trees and an area of overgrown woodland known as the Engine Shed site in the northern area.

The site is surrounded on three sides by the River Nadder with a wooded area to the south of the site. The water meadows to the east and west of the site act as flood plains and are highly susceptible to flooding as they are within flood risk zone 3. The water meadows have ecological and historic significance that contribute to the character of the area.

It is beyond the scope of this report to comment on ground conditions but some levels of contamination are to be expected.



F.4 **Figure 04:** Environmental analysis of Churchfields site and its surroundings.

Figure 05: Overgrown Engine Shed site.

Figure 06: Large green verge along street within the Churchfields site.

Figure 07: Wooded area to the south of Churchfields site.

Figure 08: Footpath leading to the wooded area from Churchfields.

Figure 09: View to the flood plain to the east of the site.

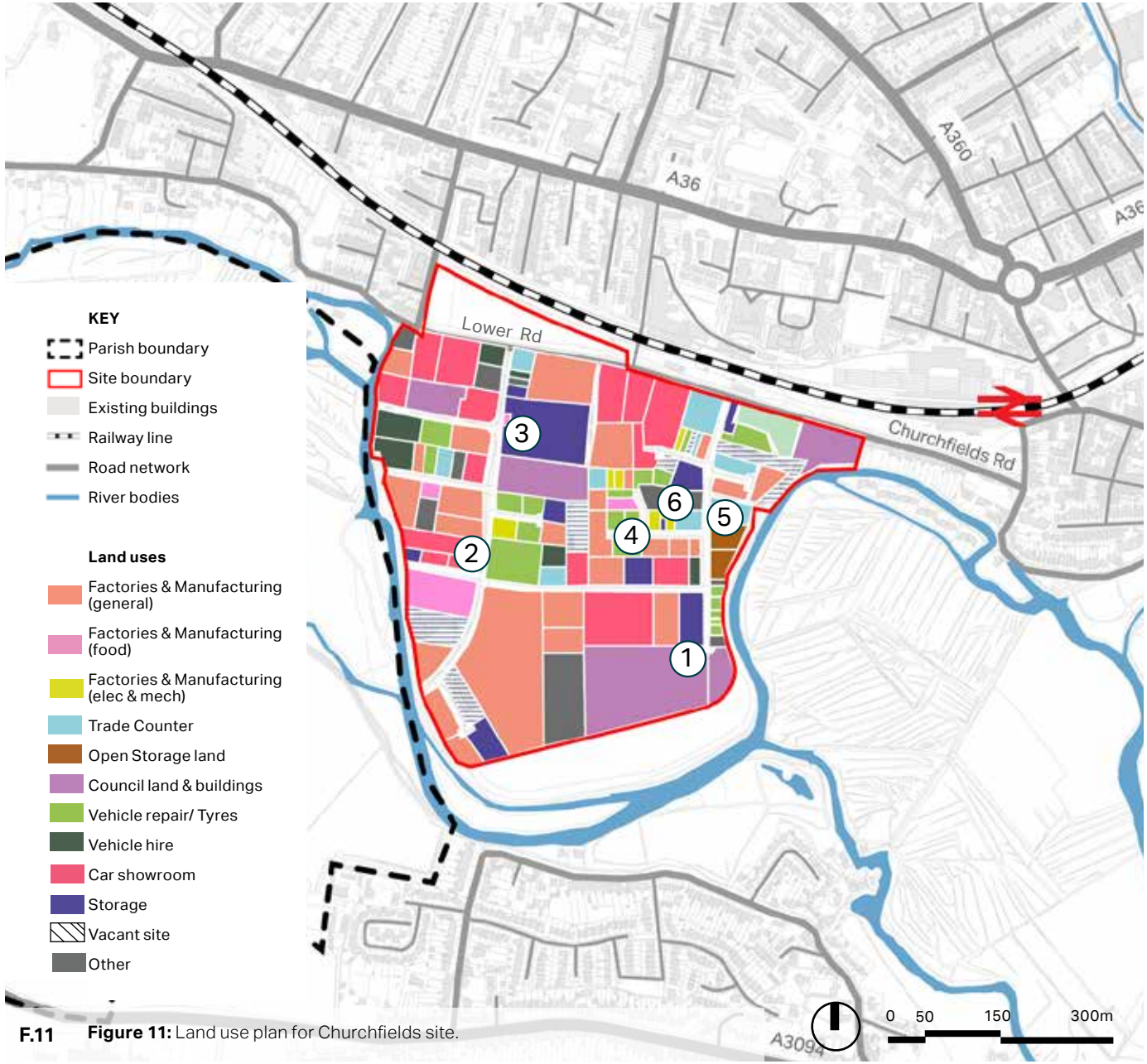
Figure 10: Footpath leading to the southern wooded area.

2.3 Land use

The existing land use plan for the site gives an indication of the multiple uses and plot sizes. One of the most predominate uses, particularly on the south west corner of the site, is factories and manufacturing, which generally have large plots. Towards the north of the site along Lower Road there are a number of car showrooms which benefit from direct access to the highway. The north east side of the site generally has smaller plots with a more diverse range of uses including vehicle repair shops, smaller factories and manufacturing and storage.

There is some land that could be categorised as being underdeveloped, providing an opportunity to intensify land use. The council owned land, largely used for waste processing and as depots, can be used as a catalyst for the redevelopment of the site, freeing up space for more employment or residential uses.

Many of these uses must be serviced by very large vehicles, which cause serious problems in the historic City Centre. These uses may be better sited in less sensitive locations.



F.11 **Figure 11:** Land use plan for Churchfields site.

Figure 12: Recycling centre on council owned land.

Figure 13: Car showroom.

Figure 14: Vacant plot on the north west of the site.

Figure 15: Car repair buildings.

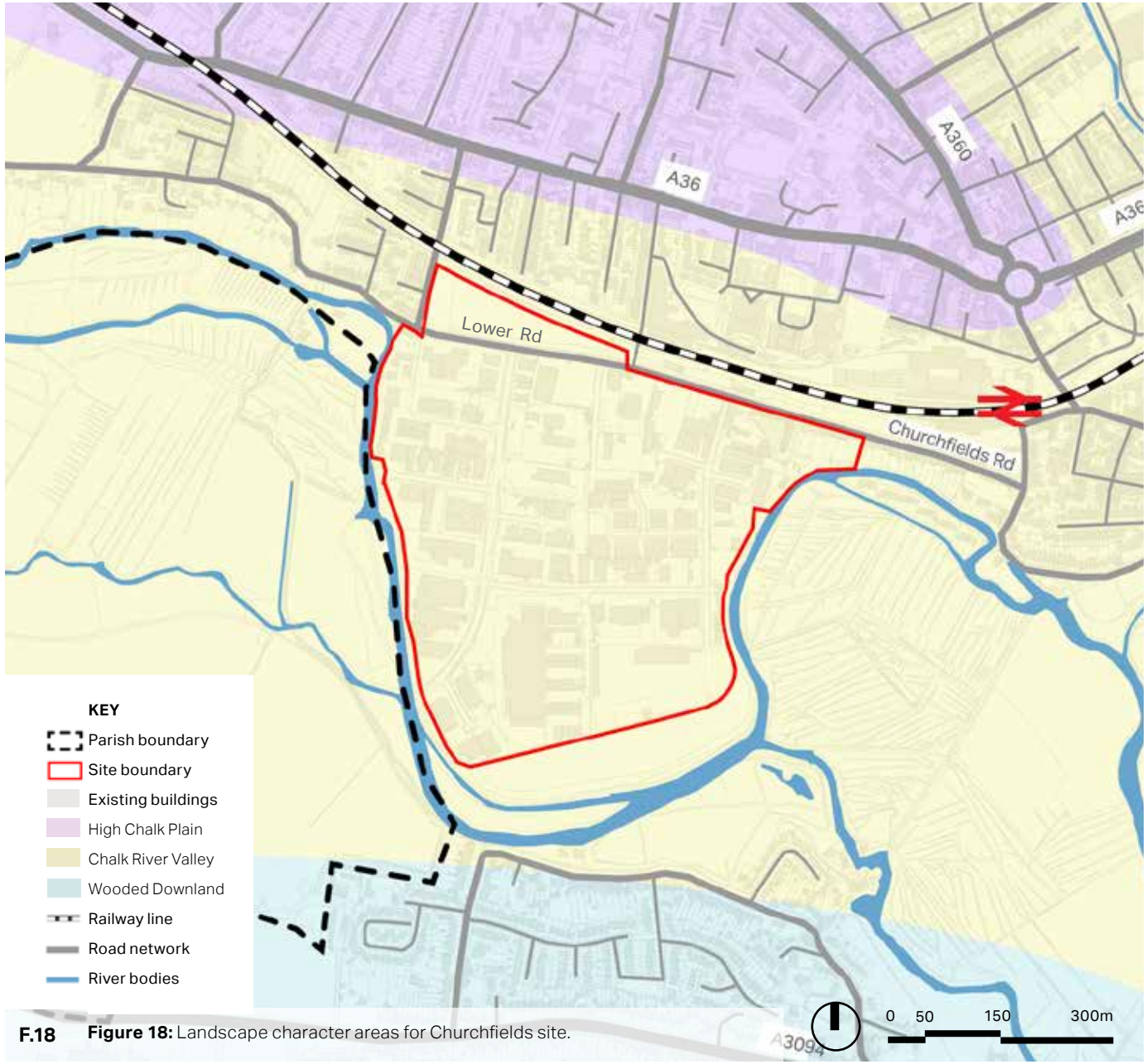
Figure 16: Trades building.

Figure 17: Construction.

2.4 Landscape character

Salisbury can be defined by a number of different landscape character areas, such as the High Chalk Plain to the north, Chalk River Valley to the centre and south, Wooded Downland[1] mainly to the west, as well as Forest-Heathland Mosaic to the east. These areas have been identified by their unique characteristic including, sense of place, local distinctiveness, characteristic wildlife, natural features and nature of change.

More specifically on the Churchfields site, the whole area lies within Chalk River Valley. To the north of the site, a part of the city can be characterised by High Chalk Plain, whilst to the south of the site there is also Wooded Downland.



F.18 **Figure 18:** Landscape character areas for Churchfields site.

1. Wiltshire Landscape Character Assessment, 2005. https://www.wiltshire.gov.uk/media/1008/Chapter-10-Landscape-Character-December-2005-2-0mb/pdf/lca-dec-05-chapter-10.pdf?m=637108900630600000

Landscape Character	Description
Wooded Downland	This landscape type encompasses the Chalk uplands at the south and mid-east of Wiltshire where deposits of Clay-with-Flint overlie the Chalk. Some key characteristics include elevated chalk upland, dominated by Upper Chalk with a capping of Clay-with Flint; strongly rolling landform with gently domed hilltops, dry valleys and dramatic scarps eroded into rounded spurs and deep combes; contrasts between wide open views of rolling downland to large scale rooms of arable farmland enclosed by woodland, to panoramic views of the valleys and plateaus; highly visible historic features such as the Fovant badges and Neolithic hill forts and barrows; open arable fields and woodland blocks and belts which are linked by a network of hedgerows; large rectangular fields with remnant small scall medieval patterns close to villages; historic parks and designed landscapes; and a peaceful and secluded rural landscape with sheltered woodland areas.
High Chalk Plain	This landscape type forms a large area of Wiltshire over a wide band of Upper Chalk Formation. Some key characteristics of this type include large, open and exposed landscape; panoramic views over the surrounding lowlands; steep and incised slopes down to the surrounding river valleys; and rich ecology within the areas of chalk grassland.
Chalk River Valley	This landscape type encompasses the narrow river valleys cutting through the Chalk Uplands of the county. Some key characteristics include strongly enclosed valleys with an intimate scale; level, often narrow valley floors with steep sides; hedgerows and hedgerow trees add to the lush feel of the valleys; lines of poplar trees along ditched and willow pollard; diverse mosaic of land cover and habitats includes meadows, fen and wet woodland on the valley floor; clear fast flowing chalk rivers and streams that form a key habitat; long established villages; isolated Neolithic long barrow burial monuments, Bronze Age round barrows and water meadow channels on the valley floor contribute to the visible archaeology; valley used as transport corridors with major roads and railway lines along valley sides; and rural landscape that is sometimes interrupted by large volumes of traffic.
Forest-Heathland Mosaic	This landscape character is unique to the south east of Wiltshire, defined by the underlying clay, sand geology and the woodland cover that it supports. Some key characteristics of this type include gently undulating landform based on London and Reading Clay Formations and Bagshot Sand; a peaceful enclosed landscape of extensive woodland cover with intermittent views to more open areas; complex landscape comprising of broadleaved and coniferous woodland, wood-pasture, heath, grassland and farmland offering a range of habitats; pastoral and arable fields bounded by full hedgerows and hedgerow trees; Substantial areas of woodlands of diverse and rich ecological value including ancient woodland, beech, high oak and wet woodland; fragments of lowland bog and formerly extensive heath survive; presence of mansions and historic parklands particularly former deer parks; a settled landscape with large villages, frequent small clusters of buildings along roads and a distinctive pattern of dense linear settlement fringing commons to the south; shaded lanes, sometimes sunken, wind their way through the wooded areas, plus the busy A36 passes though the type.

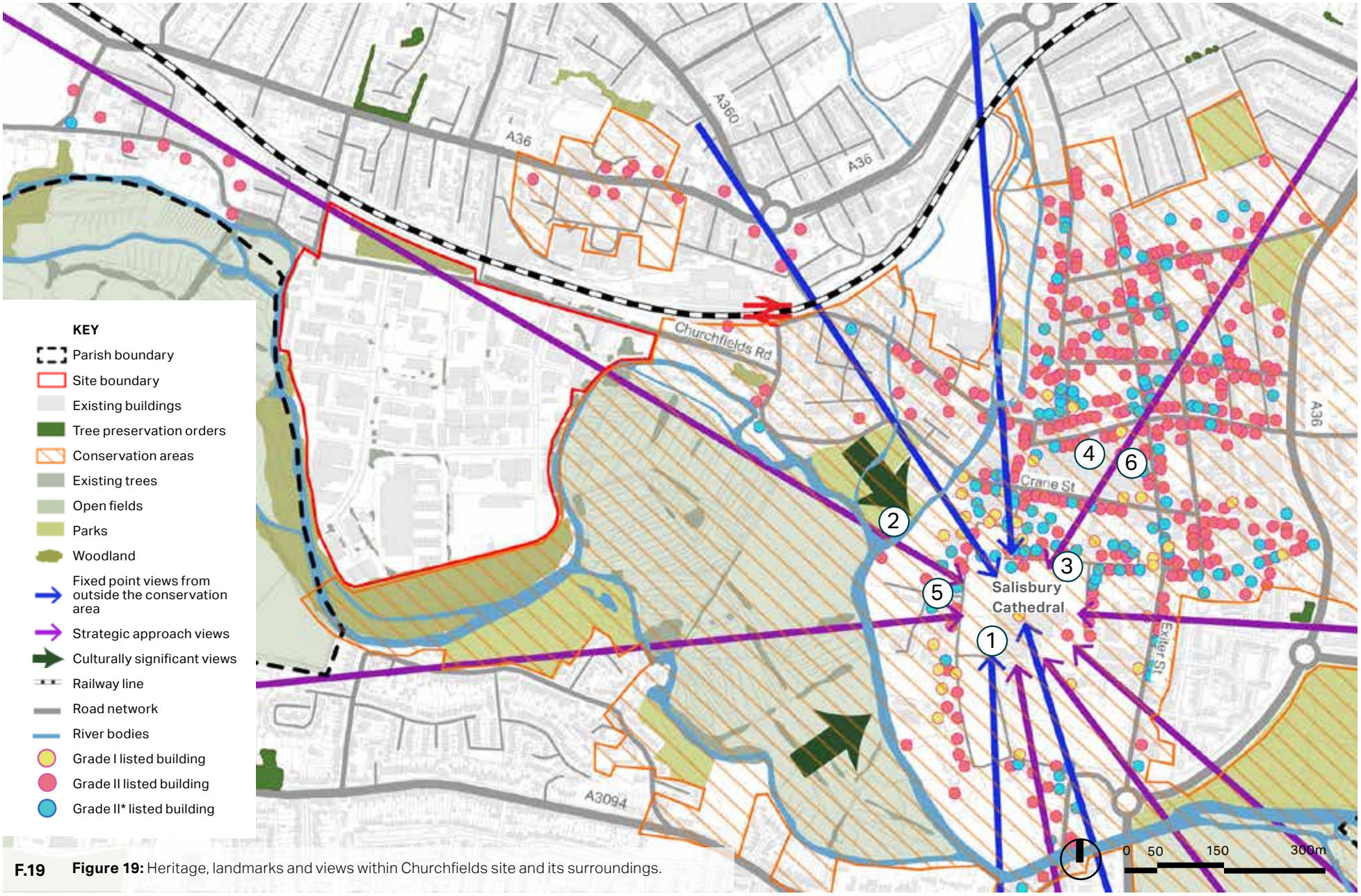
2.5 Heritage, views, and landmarks

Salisbury has a rich history which has resulted in a number of heritage assets across the city. The City of Salisbury Conservation Area lies to the east of the Churchfields site and encompasses the historic core of the city. This area is one of the most well known medieval planned towns in the country, as the town and cathedral were moved from the hill-top site adjacent to the castle at Old Sarum in the thirteenth century. The layout of the city was planned to reflect a grid; however, it does not have a high degree of regularity due to the presence of existing routeways and the desire to accommodate water courses in some streets.

The cathedral, which is a Grade I Listed Building, was built in 1266 and was subsequently added to over time. The cathedral's spire acts a landmark within the city and can be seen from many viewpoints making it an important characteristic that should not be negatively impacted by new development. There is a strategic view that crosses the northern edge of the Churchfields site; therefore, the heights of buildings will need to be restricted in this area in order to protect the view to the cathedral.

There is second Conservation Area to the north of the railway line called Old Manor Hospital and is located 500m from the city centre.

While there are many listed buildings within the city, particularly within the historic core, the Churchfields site does not contain any listed buildings.



F.19 **Figure 19:** Heritage, landmarks and views within Churchfields site and its surroundings.

Figure 20: Salisbury Cathedral, Grade I Listed Building.

Figure 21: Glimpsed view of the cathedral's spire.

Figure 22: Salisbury Cathedral, Grade I Listed building.

Figure 23: View of Market Place.

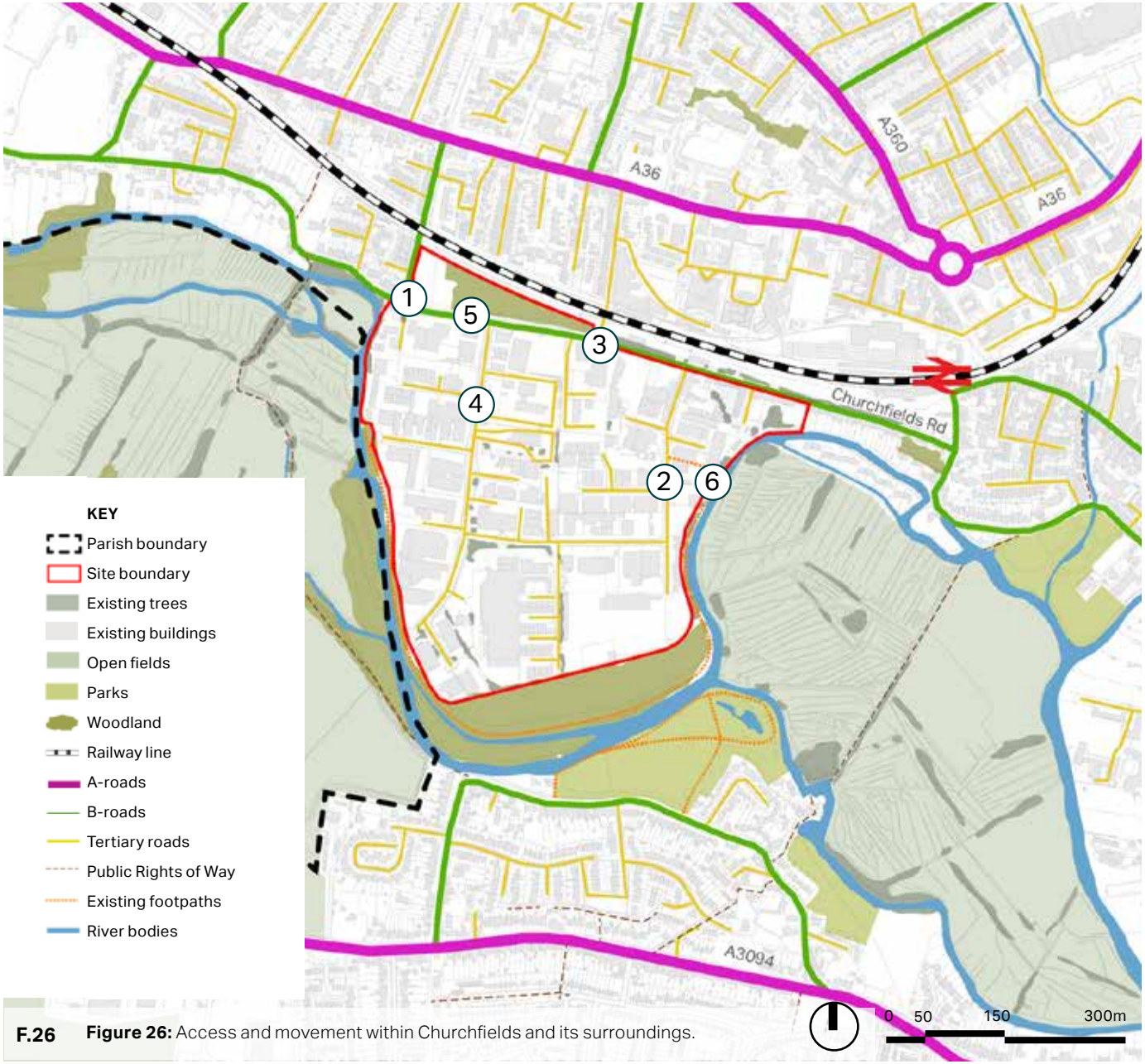
Figure 24: Narrow street within the historic core.

Figure 25: The Guildhall, Grade II* Listed Building.

2.6 Access and movement

The Churchfields site is near the centre of the city and benefits from good public transport links. Salisbury railway station is located in close proximity just to the north east of the site, allowing for easy connections to Bristol and Cardiff to the north, London to the east and Yeovil and Exeter to the west.

Churchfields Road/Lower Road runs through the site and provides the main access points to the industrial estate. This is a busy road with traffic traveling at speed, including HGVs which either have to come from the north passing under the railway bridge at a sharp angle or through the conservation area past Cathedral Close and residential streets. The streets within the Churchfields site are made up of a series of tertiary roads and cul-de-sacs. There is limited free parking due to dropped curbs which can lead to inappropriate parking and restrictions along some roads. The roads are generally wide with a footpath on one or both sides of the street. Furthermore, some of the streets have green verges creating a more pleasant environment for pedestrians.



F.26 **Figure 26:** Access and movement within Churchfields and its surroundings.

Figure 27: Cherry Orchard Lane.

Figure 28: Street within the Churchfields Industrial Estate.

Figure 29: Low bridge with height restriction.

Figure 30: Footpath with green verge within the Churchfields Industrial Estate.

Figure 31: View along Lower Road.

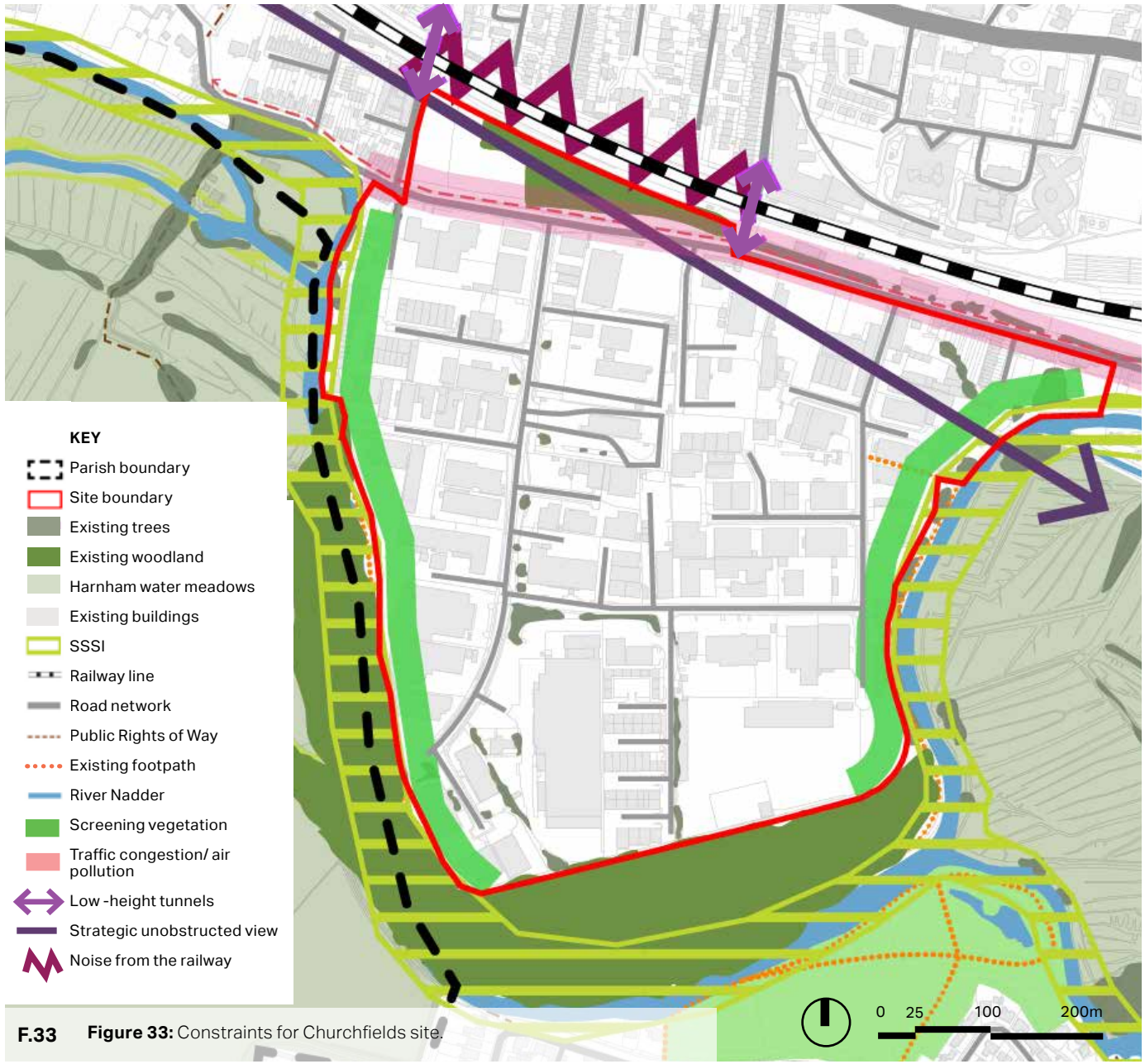
Figure 32: Public footpath to the south of the Churchfields site.

2.7 Summary of constraints

The Churchfields Site has a number of constraints that will need to be considered throughout the masterplanning process. There is a strategic unobstructed view to Salisbury Cathedral which crosses the north of the site; therefore, development in this area will need to be limited in height in order to preserve the view corridor.

Churchfields Road/ Lower Road is a main route used by HGVs due to the low height tunnels under the railway line. This can cause congestion along the road resulting in air pollution and bad air quality in the area. There is also an Air Quality Management Area to the east of the site which covers a large area of the City and is where the effects of air pollution are felt the most. Connectivity around the site is generally good due to the permeable layout of the site, however there is a lack of pedestrian connectivity across the river isolating the site from the surrounding open space and residential areas.

Churchfields also has complex land ownership and multiple existing uses and users. It is assumed that satisfactory alternative premises will be secured for any relocating uses.



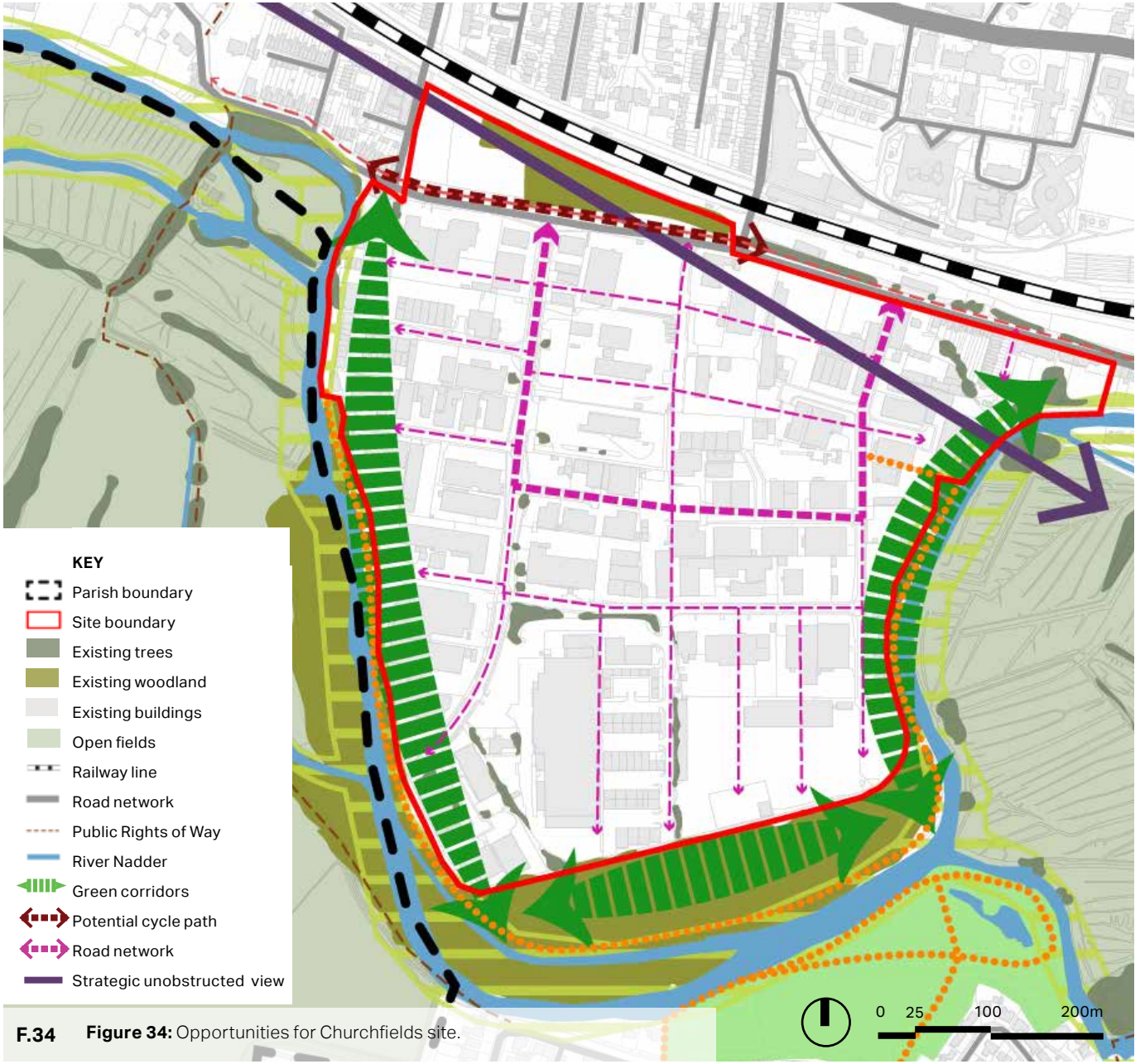
F.33 **Figure 33:** Constraints for Churchfields site.

2.8 Opportunities

The site provides a number of opportunities that will form the starting point for the Framework Development Plan introduced in the next chapter. There is an opportunity to use existing infrastructure such as the road network as it is in good condition and provides connectivity around the site.

The existing screening to the east and west of the site can be enhanced to provide adequate screening of the development as well as create green corridors that can provide green space and footpaths for pedestrians. These green corridors can be further enhanced by providing pedestrian and cycle bridges across the river to increase connectivity in and around the site.

While the strategic view to the cathedral restricts the height of the development to the north, the west and south sides of the development have the potential to build higher, up to 4 storeys.



F.34 **Figure 34:** Opportunities for Churchfields site.

Framework development scenarios

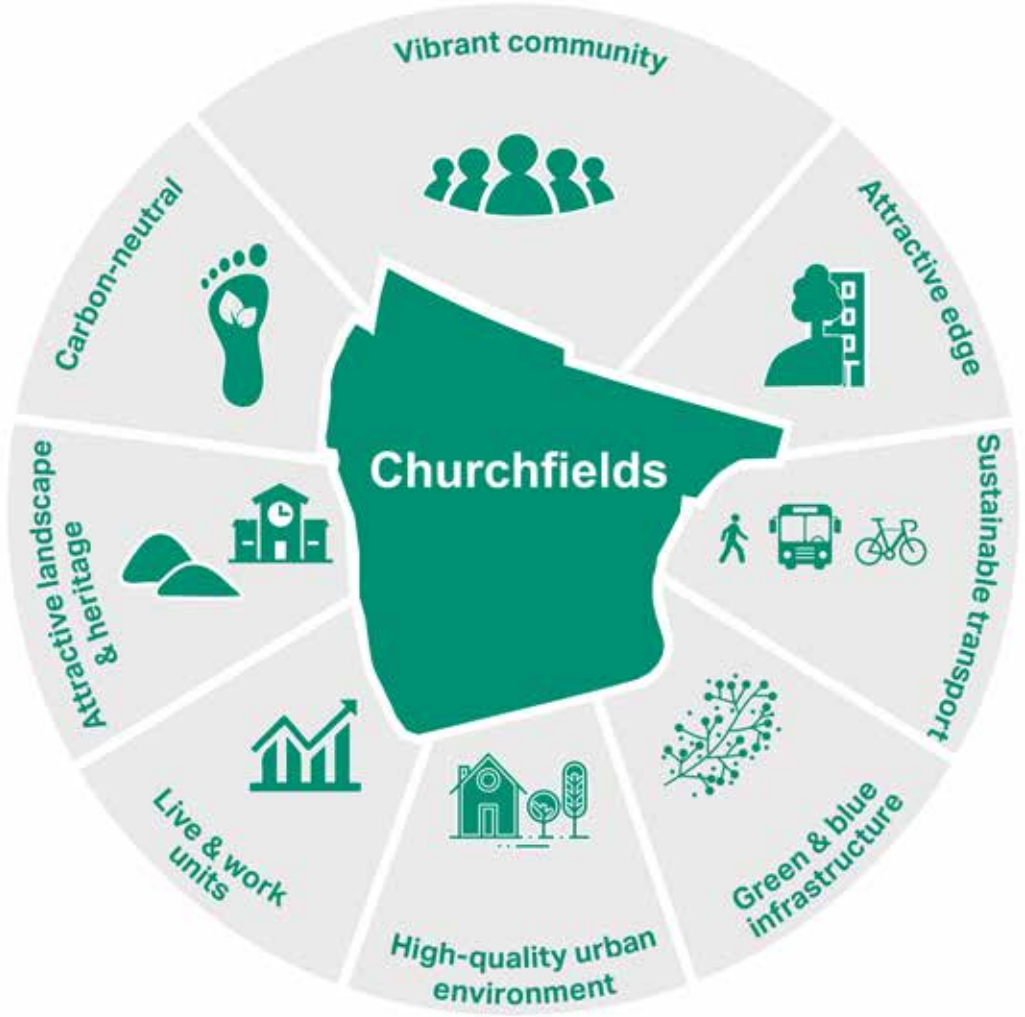
03

3. Framework development scenarios

3.1 Vision for Churchfields

The Churchfields site will be a vibrant, low-carbon, mixed community, characterised by a high quality urban environment that is in harmony with the attractive landscape setting and heritage of the city. It will be an exemplar for sustainable working and living, providing new approaches to transport and green-blue infrastructure. Churchfields will retain and intensify the commercial uses and provide a gradual transition to residential which should co-exist with the commercial land uses. It will be will be a low-car settlement, promoting limited through routes within the development and focusing on walking and cycling, and accessible and competitive public transport opportunities.

Churchfields will be a fantastic place to live and work with an enduring quality of place derived from a well-designed and managed network of green connections and spaces. The development of Churchfields will be a cornerstone for regeneration in the city. It will create a positive relationship between the city and the surrounding open spaces, with a focus on delivering innovative, robust, and replicable examples of climate resilient placemaking and design.



F.35 **Figure 35:** The Vision for Churchfields.

3.2 Objectives

In response to the physical context, the existing policies and the progressive Neighbourhood Plan vision, this section presents two Framework Development Scenarios.

The scenarios identify high-level spatial arrangements exploring the development capacity and extents based on the application of key design parameters and objectives for Churchfields. They showcase two scenarios that focus on different development opportunities, both responding to the sensitive landscape setting and complex land ownership.

The Framework Development Scenarios have been developed using the following overarching placemaking principles:

- Maximise the benefits of the site's location near the centre of the city utilising the existing transport infrastructure such as buses and trains.
- Prioritising sustainable transport options such as walking, cycling, public transport and the use of car clubs to create a low-car neighbourhood.
- Setting a development within an interconnected, easily accessible network of attractive streets, green infrastructure, green corridors, and open spaces to act as wildlife corridors and sustainable transport links;
- Increasing access to the surrounding landscapes;
- Ensuring the streets, public realm, and open spaces are well overlooked to promote safety and security;
- Change that can come forward incrementally as sites become available.
- Incorporating existing landscape features and introducing new ones throughout the development to protect and enhance biodiversity.
- Provision for a cafe and other facilities within the development to create a well rounded community.

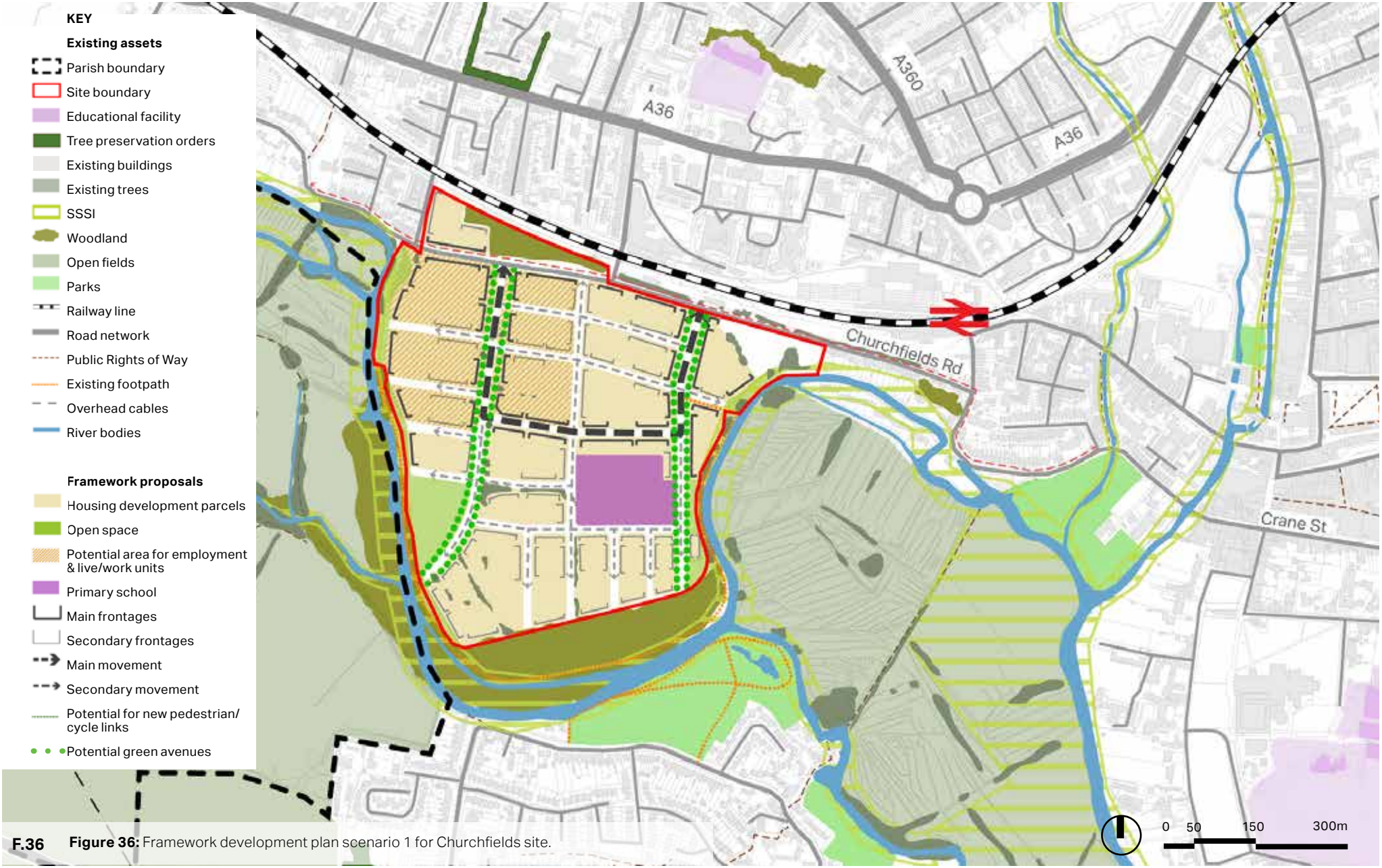
The vision and objects for the site have been used to create two Framework Development Scenarios that are explained in the following sections.

3.2.1 Framework Development Scenario 1

The Framework Development Scenario 1 has a mix of live/work units and residential development to meet the requirements of Core Policy 20 in the Wiltshire Core Strategy 2015. Due to the proposed number of dwellings this scenario provides a centrally located primary school that has direct, easy access to open spaces to the east and west of the school. This is also in the Core Strategy policy. If not needed, it could be a housing plot.

The zone for live/work and employment units have been placed in locations where the buildings can be taller and do not obstruct the important view to Salisbury Cathedral. The rest of the site would be made up of 2-storey residential houses that are screened by the green corridor surrounding the site.

Given the lack of action since the Core Strategy was adopted, it is not expected that this scenario is deliverable, at least in the short term.

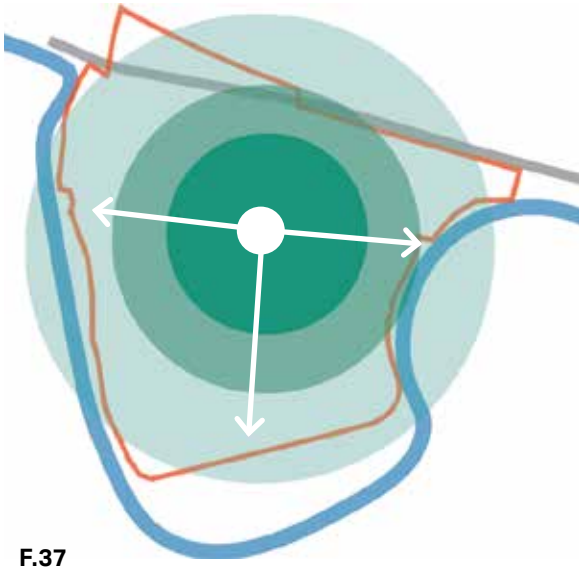


F.36 **Figure 36:** Framework development plan scenario 1 for Churchfields site.

3.2.2 Framework Development Scenario 2

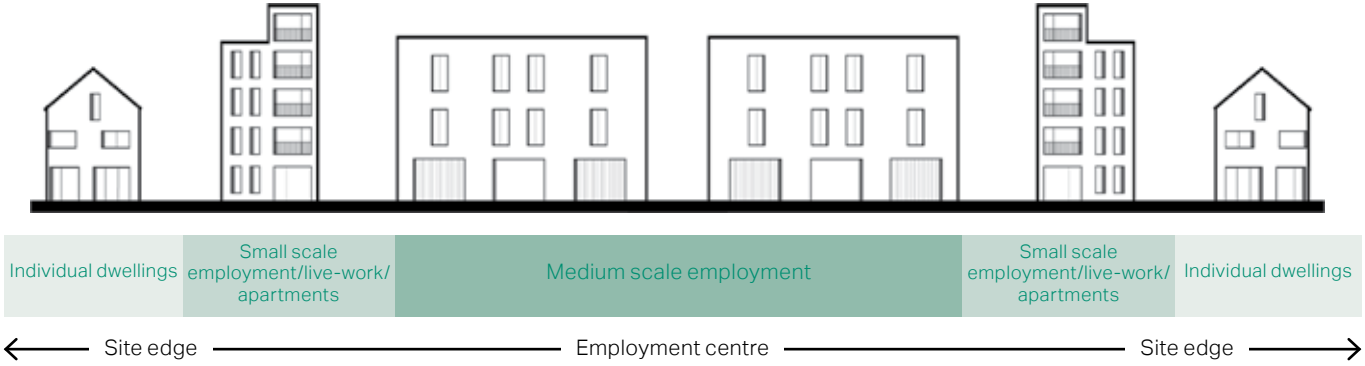
Framework Development Scenario 2 focuses on retaining and intensifying the employment offer, as recommended in the CAF, as well as creating flexibility to allow residential development at the edges of the site or for it to remain as employment land, subject to land becoming available. The central area of the site is the main employment area which can be intensified with sensitive increases in height and density as plots are brought forward for development.

Figure 38 illustrates the transition from the central employment area which has buildings with a larger footprint, to smaller footprint employment and apartments and lastly to residential houses at the edge of the site.

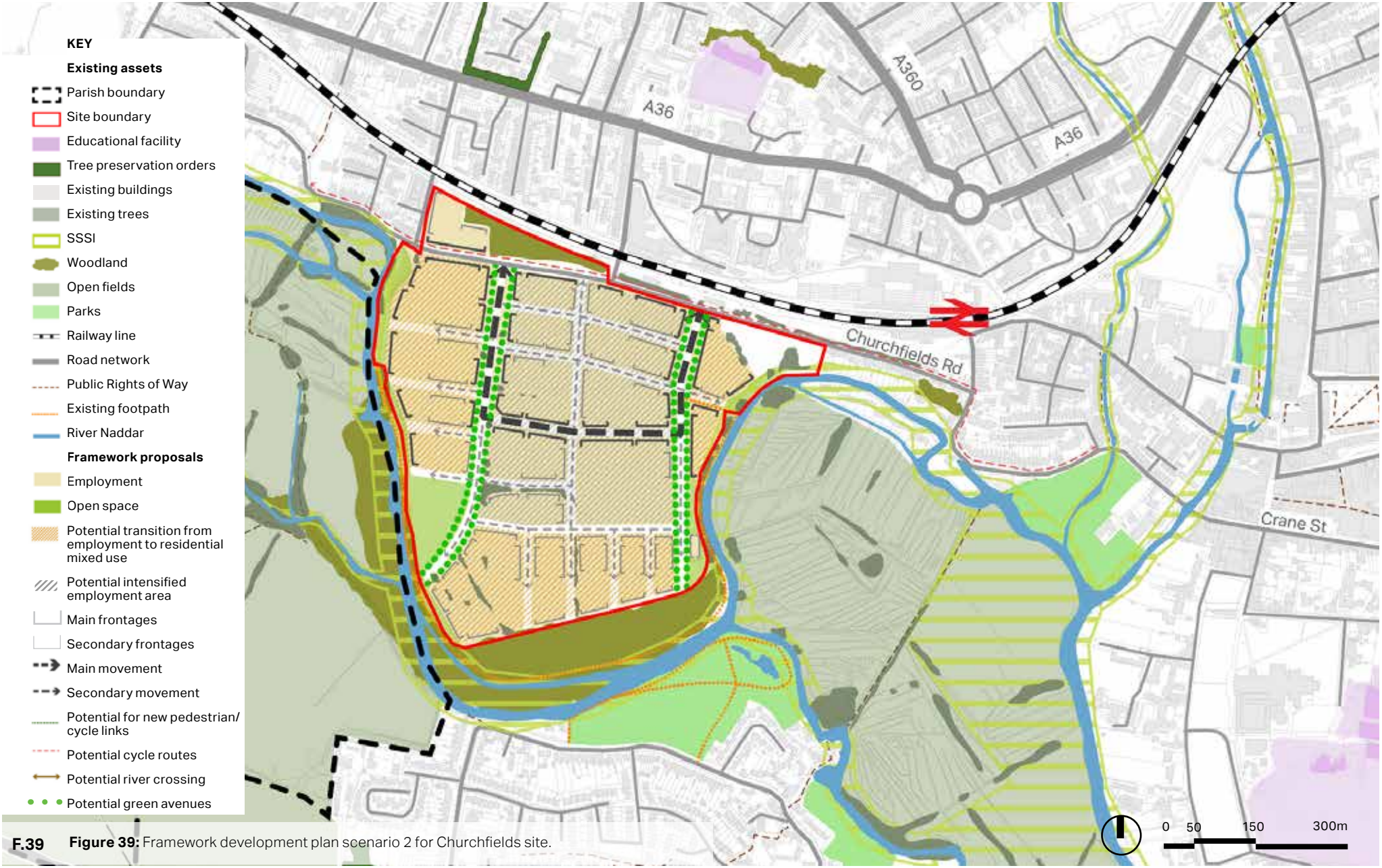


F.37

Figure 37: Conceptual diagram showing the transition from the employment centre to residential at the edge of the site.



F.38 **Figure 38:** Section showing the transition from the employment centre to the residential site edge.



F.39 **Figure 39:** Framework development plan scenario 2 for Churchfields site.

3.3 Building heights

Across the site there are a range of building heights that have been determined by the opportunities and constraints of the site. For example, the eastern half of the site is generally one or two storeys in height to ensure the buildings are not highly visible above the trees that screen the eastern edge from the surrounding meadows and historic core.

The western half of the site generally allows for taller buildings up to four storeys with corner elements that rise to five storeys. Creating taller features at the corners creates local landmarks within the built environment that can make more efficient use of land.

F.40 **Figure 40:** Building heights

Primary development opportunity areas

04

4. Primary development opportunity area masterplans

This chapter provides more detailed layouts for three primary development opportunity areas, which are in principally public ownership and could form phase 1 of redevelopment.

4.1 Introduction

The three opportunity areas shown in figure 41 are owned largely by the local authority and could act as a catalyst for change on the wider site. The three sites include; 1. Engine Shed site, 2. Lower Road site and 3. Stephenson Road site. The masterplans for these three areas take account of their location within the existing industrial estate but have also been integrated into the wider Framework Development Plan for the whole site to ensure it ties in with any future development on the remainder of the site.

F.41 **Figure 41:** Opportunity areas within Churchfields site.

4.2 Lower Road and Engine Shed sites

A key element for the vacant **Engine Shed site** is to create primary frontages along Lower Road and Cherry Orchard Lane to the west. These primary frontages are the starting point for the layout, and from this a perimeter block was implemented to the south of the site with back to back gardens. It is assumed that the necessary earthworks on the frontages will be feasible.

The primary frontages along the existing roads allow for direct access from the houses to the street. Behind the primary frontage on Cherry Orchard Lane to the north, the dwellings have been arranged into a small courtyards, responding to the shape of the remaining site. The houses on this site are all semi-detached, two-storey houses that should be the same scale as the buildings on Cherry Orchard Lane. There is a central street through the site from Cherry Orchard Lane providing access to the dwellings as well as pedestrian access to the green space to the east of the site.

Development is not proposed for the eastern part of the site, which has become heavily vegetated and could be nurtured as a nature reserve, community garden or similar.

The **Lower Road site** has a primary frontage facing the existing Lower Road with access from the street to the car park located behind the building as well as pedestrian access to the buildings from the street. The blocks have been arranged to provide high levels of permeability around the site as well as through the blocks with 2-way street throughout. This site consists of live/work units with each block having 3-4 storey buildings to the front with car parking behind to provide good access to the ground level studios for vehicles and pedestrians. The car parking will serve both the residents who live on the upper floors of the building and the employment uses on the ground floor.

The frontages at the eastern and western edge of the site should have active frontages that have a relationship with the existing streets adjacent to the site. This will ensure that future development of the rest of Churchfields site will be integrated with the Lower Road site creating attractive and well-used streets.

The streets should provide lots of greenery with street trees and green verges along the central north-south and east-west streets. Furthermore, two small green spaces have been created at the centre of the site to provide additional greenery and a place to relax for residents and workers. The car parks should also be interspersed with street trees to ensure the space does not feel car dominated, to provide shading and promote biodiversity.

On both sites, a general north-south alignment of buildings helps to enable low carbon housing by maximising passive solar gain.

F.42 **Figure 42:** Proposed layout for opportunity areas 1 and 2.

4.3 Stephenson Road site

The Stephenson Road site, located in the south east corner of Churchfields and principally used as a Wiltshire Council depot and recycling centre, is envisaged as a predominately residential area with a mix of houses and flats. There is also potential for live/work units on the western edge of the site and a green space that runs along the eastern edge of the site facing out to the countryside and the river.

The northern area of the site located along Stephenson Road has a primary frontage facing the street with semi-detached houses that have direct access to their homes from the street. The width of Stephenson Road can be adjusted to provide inset parking bays interspersed with street trees to ensure there is a sufficient number of parking spaces, but the cars don't dominate the street scene. Behind the primary frontage there are two apartment buildings that are 2-storeys in height so they are in keeping with the surrounding

Figures 43 and 44 show two possible layouts for the southern area of the site, the first has a mixture of houses and flats up to 3 storeys as the heights are not restricted by views to the cathedral. The space surrounding the blocks of flats should be a shared surface for slow moving vehicles to access the residential car parking and pedestrians. The second shows houses in the place of some of the flats.

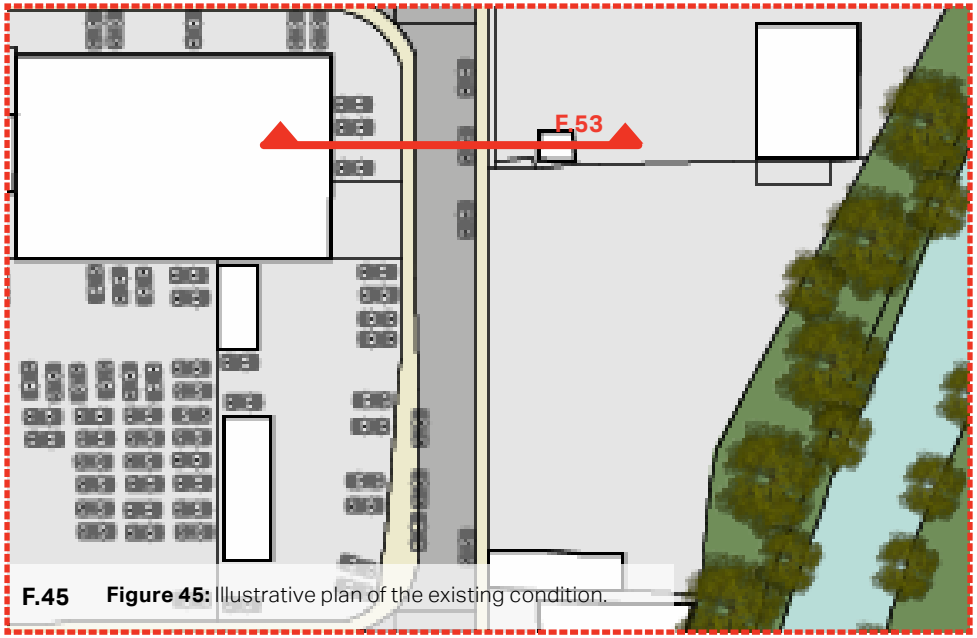
The houses along the southern edge of the site have been orientated to look towards the meadows along an edge lane. The houses have been laid out to form perimeter blocks, offering high levels of security with private gardens.

There are employment or live/work blocks located in front of the houses and flats, providing a transition from the industrial estate to the residential area. These buildings should be orientated to have their primary frontage facing the main road within the development and car parking behind.

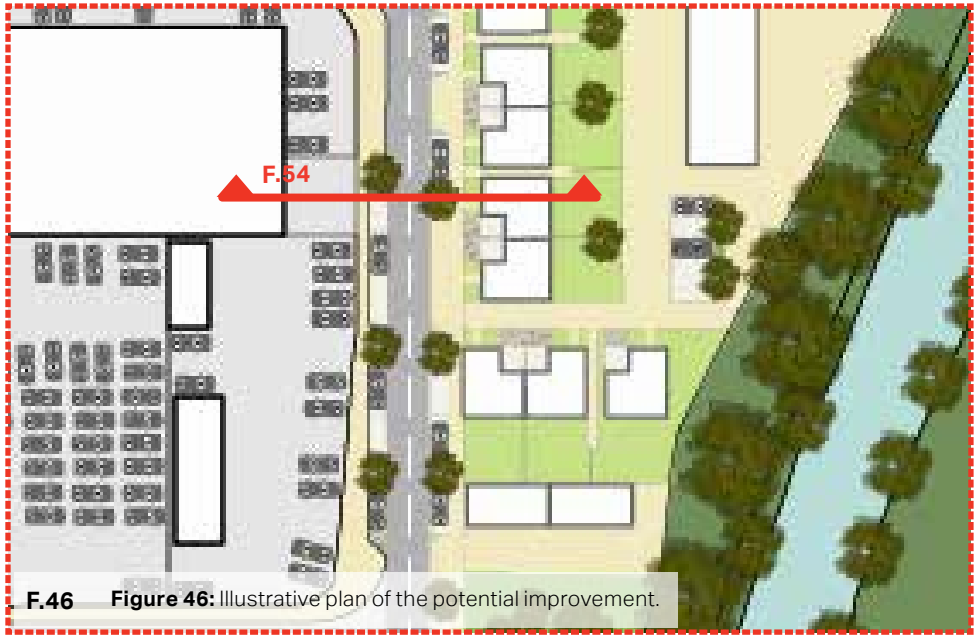
As above, the number of dwellings with a southerly aspect is maximised to reduce energy consumption.

F.43 **Figure 43:** Proposed layout for opportunity area 3 with a mixture of flats and houses.

F.44 **Figure 44:** Proposed layout for opportunity area 3 with more houses and fewer flats.

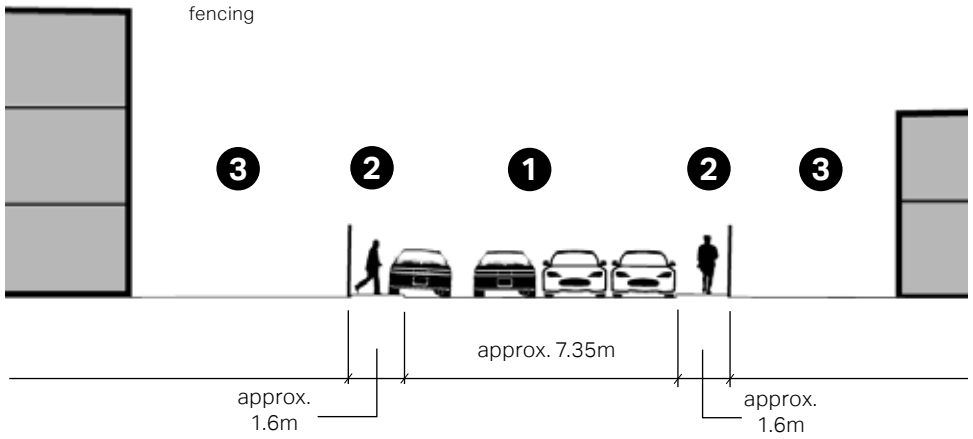


F.45 **Figure 45:** Illustrative plan of the existing condition.



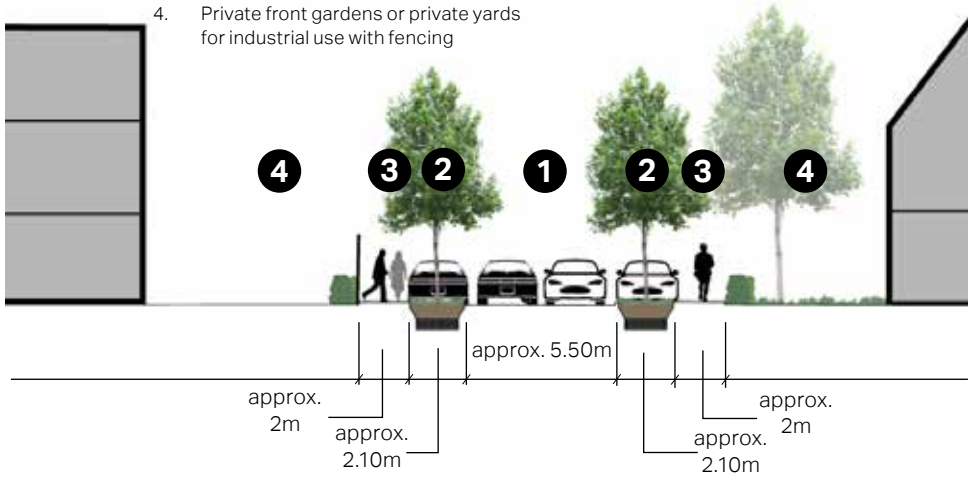
F.46 **Figure 46:** Illustrative plan of the potential improvement.

1. Carriageway
2. Footpath
3. Private yards for industrial use with fencing



F.47 **Figure 47:** Section to illustrate the existing condition.

1. Carriageway
2. Green verges with inset on-street parking and bioretention tree pits
3. Footpath
4. Private front gardens or private yards for industrial use with fencing



F.48 **Figure 48:** Section to illustrate the potential improvement.

Churchfields design guidelines

05

5.1 Introduction

This section introduces a set of design guidelines that are specific to Churchfields. These are based on the baseline study of the site in Chapter 2 as well as national design guidance.

The guidelines are divided into 3 categories, shown on this page. The residential and employment categories are to be applied where relevant, whilst the sustainability category can be applied throughout.

A short introductory text with more general design guidance is provided at the beginning of each section followed by a series of more prescriptive guidelines.

Category	Ref	Title
CH.01 Residential	1	Building blocks
	2	Building typologies, heights and scale
	3	Density and housing layout
	4	Community friendly streets, walking and cycling
	5	Low car development, parking ratio, parking typologies
	6	Materials general for building and public realm
	7	Well designed buildings - architectural principles
CH.02 Employment	8	Intensifying employment uses
	9	Street frontages and plot layout
	10	Site access
	11	Hierarchy of movement
	12	Amenity space
	13	Minimise noise pollution and overlooking
CH.03 Sustainability	14	Minimise energy use
	15	Lifetime and adaptability
	16	Minimising construction waste
	17	Recycling materials and buildings
	18	Reducing car use
	19	Electric vehicle charging points
	20	Servicing

5.2 CH.01 Residential

The guidelines in this section set out the place making and layout principles for the proposed residential elements.

1. Building blocks

At an urban scale, it is important to achieve a good mix of block form and block size, to ensure a good variety of uses within the new parts of the development. All new development will respond to the existing patterns taking cues from existing block sizes, roads and street trees.

A perimeter block structure is proposed for Churchfields site. This typology facilitates vehicular and pedestrian movement, which is important in the case of mixed-use developments, as well as clearly distinguishes between public and private space and favours a continuous overlooking of the street. It can be very efficient in terms of development density.

Some guidelines for these blocks are:

- Buildings on both sides of a street should work together to create visual interests;
- Public and private domains, within and around these blocks, should be defined by locating all front entrances facing surrounding streets. Where live/work units are proposed, private accesses should be at the back leaving the front for public use and activities;
- The blocks either side of the street should resonate to each other (i.e. symmetrical or asymmetrical rhythm);
- A range of building typologies should be accommodated to create a strong sense of place and legible environment; and
- In residential areas, the houses should have back to back rear gardens to offer safety and also avoid creating back gardens along streets.

Figure 49: Mixed-use perimeter blocks with workshops/studios at the ground floor and housing on top, Hackney Wick (Source: Google Earth).

Figure 50: Residential perimeter block where houses are fronting the street and have back to back rear gardens, Salisbury (Source: Google Earth).

CH.01 Residential

In addition, mews and courtyards can provide interesting and efficient arrangements within development blocks. Buildings can be grouped around an area of open space or a well-landscaped parking area, or a combination of both. They should be flexible and respond to the location and context. They can accommodate a variety of uses such as car parks, service yards, play spaces, open spaces and gardens.

Internal courtyards and mews in Churchfields site should be robustly landscaped with trees, and car parking and other servicing requirements, such as bin storage and other utilities, should not dominate the space. Pedestrian paths should be integrated within design to encourage walking and cycling.

Figure 51: Residential development plots using mews typology.

Figure 52: Photos of the mews with on-street car parking, green verges and footpaths.

2. Building typologies, heights and scale

The scale, form and massing of buildings are important to the character of a place; therefore, the existing context needs to be considered. The aim is to propose a development that reacts sensitively, preserves and enhances the characteristics of a place and its immediate surroundings.

The scale of buildings is also closely related to the buildings typologies. In particular, in Churchfields, an industrial site, the density can vary allowing for a range of typologies between mews, detached and semi-detached to apartments. In addition, the latter, in some cases, will also include mixed uses on the ground floor, keeping a relationship with the industrial character of the site. Therefore, some guidelines on heights and scale for the different typologies are presented below:

Live/work units

This typology, as shown in the Framework Development Plan, is proposed to the west side of the site, where density can go higher considering the existing constraints.

- The position of the workshops/studios should be at ground floor along the street to create active frontages;
- Service and loading space should be located away from the street edge towards the middle or rear of the site;
- Apartments should be stacked on top of workshops/studios to increase living units space provision on the site;
- Heights should not exceed 5 storeys. Subtle variations in height are encouraged to create visual interest; and
- The massing must ensure a sufficient level of privacy and access to the natural light.

Figure 53: Mixed use buildings with retail units at the ground floor and residential uses on the upper floors, Northside Studios, London.

CH.01 Residential

Apartments

This typology can be considered as a transition from employment to residential and away from important views.

- Heights should vary across the site respecting the density. Towards the west side, heights can go up to 5 storeys, while towards the east, where apartments are mixed up with houses, heights should go up to 2 storeys;
- Subtle variations in height are encouraged to create visual interest;
- Buildings should be sympathetic in scale to the surrounding building typologies. Massing should be treated differently when neighouring 5 storey live and work units or 2 storey housing; and
- Buildings should setback from the road to allow for green verges creating a buffer between private and public space as well as minimising the impact of massing on the streetscene.

Houses

This typology is proposed for the lower density development plots, where there is close proximity to open spaces, woodland or green corridors.

- A range of building typologies for housing are proposed; 2, 3 and 4 beds detached, semi-detached, flats on top of a garage and mews. This aims to cover the needs of a wider group of people;
- A variety in frontage widths and plan forms can create different visual results even if the massing and scale are similar; and
- Monotonous repetitions of the same building elevations should be avoided, therefore subtle change in roofline should be encouraged.

Figure 54: 4-storey apartments overlooking the communal green spaces and trees

Figure 55: Semi-detached housing overlooking street trees and footpaths

3. Density and housing layout

New development should comply with the design principles related to enclosure, corner treatment and legibility and wayfinding.

Enclosure helps to clearly define spaces and achieve a cohesive and attractive urban form. Some design guidelines for new developments related to enclosure are:

- Building façades should always front onto streets and public spaces. In the case of long facades, e.g. block of flats with studios/workshops on the ground floor, it is recommended that they are built to the edge of the plot on street frontage to create a cohesive street character and remove the need for fences;
- When designing building setbacks for residential buildings, the façades should have an appropriate ratio between the width of the street and the building height. Those setbacks can also vary to create visual interest;
- Trees, hedges, and other landscaping features can help create a more enclosed streetscape in addition to providing shading and protection from heat, wind, and rain; and
- A clearly defined space should offer differentiation between uses, like changes in texture, colour or paving pattern.

Figure 56: The ratio between the width of the street and the height of the buildings creates a strong sense of enclosure for the people walking by, Salisbury.

CH.01 Residential

Corner treatment is another crucial aspect of a successful townscape. Buildings with at least two public facing façades have double the potential to influence the street's appearance. Therefore, the following guidelines should apply to corner buildings:

- Buildings should be designed to turn corners and terminate views. Corner buildings should have both side façades animated with doors and/or windows. Exposed, blank gable end buildings with no windows fronting the public realm should be avoided;
- If placed at important intersections the building can be treated as a landmark, with respect to the local architecture, and thus be slightly taller or display another built element, signalling its importance as a wayfinding cue; and
- All the façades overlooking the street or public space should be treated as primary façades having some form of street contact (e.g. windows, balconies, or outdoor private space) to encourage activities and maximise natural surveillance.

Figure 57: Building located in the corner has openings on both façades and it is clearly differentiated from the rest in terms of materials

Figure 58: Corner mixed-use building acting as landmark for the area due to its eccentric architecture

An appropriate wayfinding system helps people to better memorise a place and therefore, orientate themselves. Some guidelines for new development related to signage and wayfinding techniques are:

- Buildings which are located at corners, crossroads or along a main road could act as landmarks and play a significant role in navigation. Other elements like public art or a sizeable tree could also help legibility;
- New signage design should be easy to read. Elements like languages, fonts, text sizes, colours and symbols should be clear and concise, and avoid confusion;
- Signage should be strategically located to signalise gateways and access points, creating connections with important places and destinations; and
- Signage elements and techniques should be appropriate to the character of the area and be a nice fit to the existing architectural style and details.

Figure 59: The variety on the materials and the colours on the building façades improves the aesthetics of the place as well as the legibility

Figure 60: Signage to indicate pedestrian/cycle paths offering some information as well as a map of the footpath network

4. Community friendly streets, walking and cycling

It is essential that the design of new development includes streets that incorporate the needs of pedestrians, cyclists, and, if applicable, public transport users. Some guidelines for future development are:

- Streets must incorporate opportunities for street trees, green infrastructure, and sustainable drainage;
- Traffic calming should be achieved by design using landscaping, street parking and building layout, and avoid using the traditional forms of engineered traffic calming like humps, cushions and chicanes;
- Crossing points 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; and
- Sufficient width of footway should be provided to facilitate a variety of mobilities, such as young family with buggies, mobility scooter, wheelchairs, etc. The Department for Transport Manual for Streets (2007)[1] suggests that in lightly used streets, the minimum width for pedestrians should generally be 2m.
- The dimensions of cycle lanes can vary depending on the type of road and the function of the cycle lane[2].

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

1. Manual for Streets (2007). Available at: https://www.gov.uk/government/publications/manual-for-streets
2 Cycle Infrastructure Design (2020). Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/951074/cycle-infrastructure-design-ltn-1-20.pdf


F.61

Figure 61: Positive example of a residential street with inset parking bays


F.62

Figure 62: Footpath within a residential area that creates alternative routes for pedestrians and cyclists

Primary streets

Primary streets are the main accesses to the development and some guidelines for those are:

- Primary streets are the widest roads of the development and they are used as the main routes for utility and emergency vehicles, as well as buses;
- Primary streets must be defined by strong building lines. Primary frontages alongside the road should include taller and more dense developments; and
- The quality of the public realm must be of a high standard and consistent throughout the whole primary road. Street trees and green verges along the road should be provided to contribute to local biodiversity.

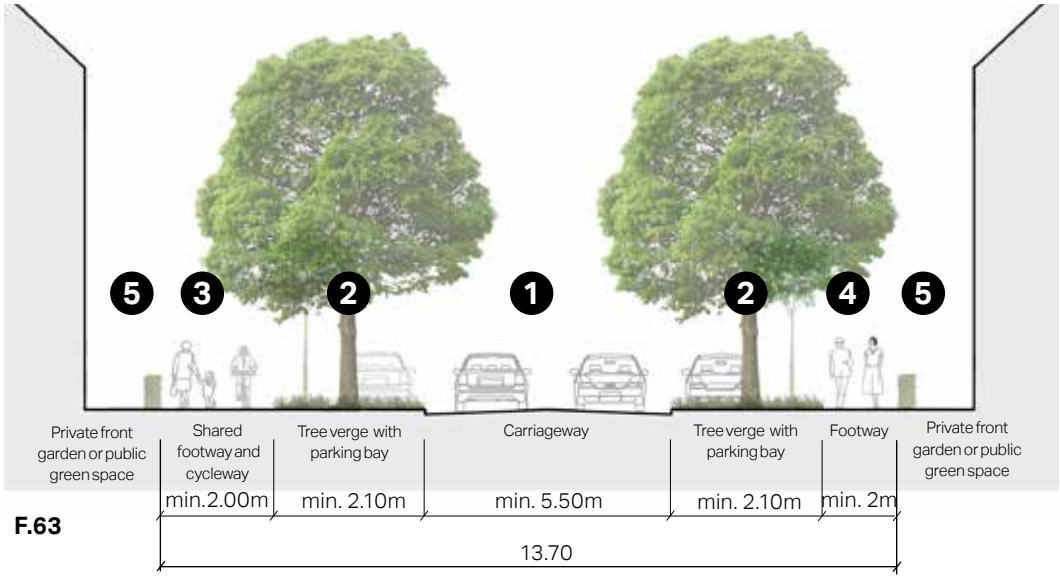


Figure 63: Cross-section to illustrate some guidelines for primary streets.

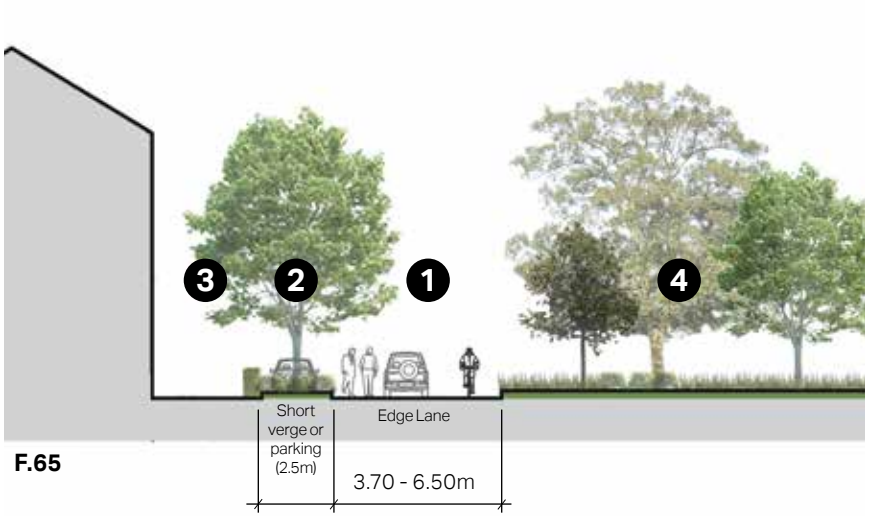
Figure 64: Example of a primary street with street trees and inset parking, Northwest Cambridge.

1. Carriageway.
2. Green verge with tall trees. Parking bays to be inset into the verges to avoid impeding moving traffic or pedestrians.
3. Shared footway and cycleway can provide an opportunity for cyclist to be segregated from vehicle traffic.
4. Footway.
5. Residential frontage with boundary hedges and front gardens or mixed-use building with workshops on the ground floor.

Edge lanes

Any development opposite a green edge should be treated as an edge lane where traffic volume is lower and there is an immediate connection with nature. Some guidelines for edge lanes are:

- Edge lanes are low-speed streets that front houses with gardens on one side and a green space on the other. Carriageways typically consist of a single lane of traffic in either direction, and are shared with cyclists;
- The lane width can vary to discourage speeding and introduce a more informal and intimate character. Variations in paving materials and textures can be used instead of kerbs or road markings; and
- Edge lanes should be continuous providing high level of connectivity and movement. Cul-de-sacs must be avoided.



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

Figure 65: Cross-section to illustrate some guidelines for edge lanes.

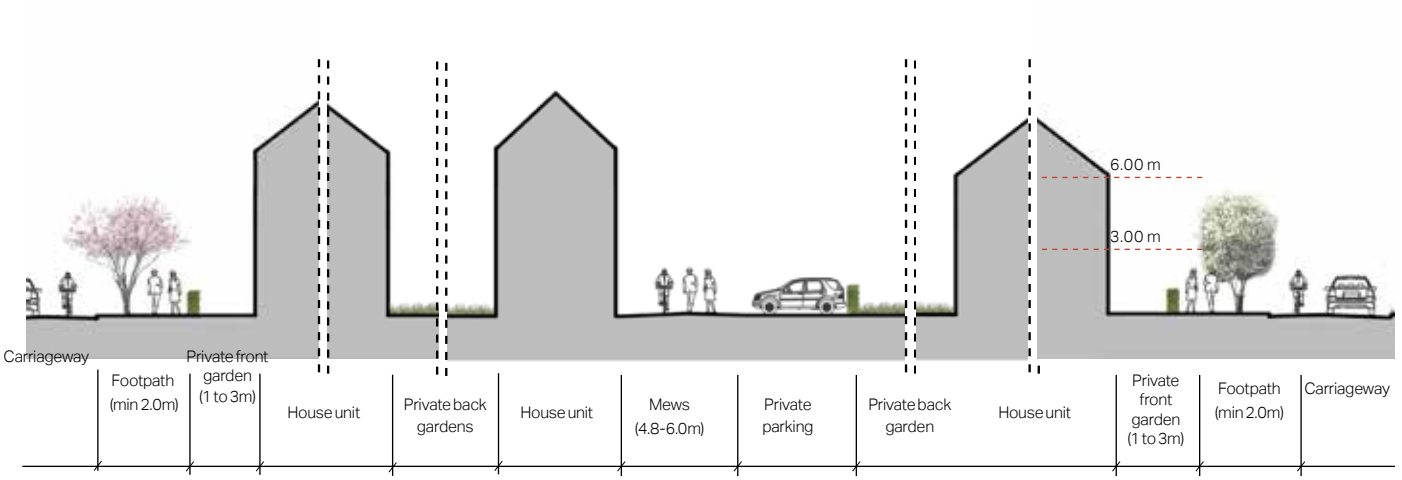
Figure 66: Examples of edge lanes

Mews, lanes and courts

Mews, lanes and courts serve residential buildings within residential blocks. They are designed for local vehicle access only and prioritise pedestrians and cyclists over cars.

Mews, lanes and courts are also used for parking in the form of on-street (parallel and perpendicular) parking, sheltered garages, and car ports. Some guidelines for mews, courts and lanes are:

- The layout can vary to adapt to a variety of residential and parking typologies;
- Opportunities to include any type of green infrastructure must be maximised;
- Traffic calming can be self-enforcing as a result of the placement of buildings and street layout; and
- Footpaths can be integrated and bordered with rich vegetation and plantation.



F.67

Figure 67: Typical mews, cross-section

F.68

Figure 68: Example of mews with on-street parking and street trees

1. Carriageway.
2. Footpath.
3. Residential frontage with boundary treatments
4. Back to back rear gardens.

5. Low car development, parking ratio, parking typologies

Low car developments provide less car parking provision for both residents and visitors than standard developments. This code responds to the vision and objects to create a low-car development which is reflected in the Development Framework Plan, showing how a lower car parking ratio can be achieved using a variety of car parking typologies.

Note that this level of parking is below the WCC parking standards. It applies a discount based on a city location within walking distance of many facilities, including the railway station, and in recognition of the policies on sustainable travel in both the Core Strategy and the emerging Neighbourhood Plan. Some design considerations for low car developments are:

- The car parking ratio for houses could be between 1-1.2 per dwelling and for flats should be 0.5-0.7 per unit;
- Schemes should be designed to minimise the presence of parked cars to ensure the street is not car dominated; and
- Schemes should be designed with high levels of permeability for pedestrians with services in close proximity to encourage walking and cycling.

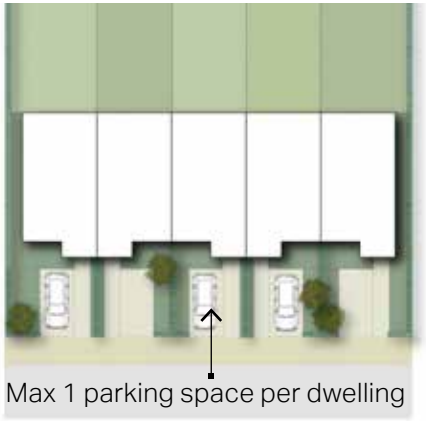
Figure 70: Pedestrian and cycle permeability.

Figure 69: Shared surface with limited car parking along mews street.

Figure 71: Car parking court with greenery and trees.

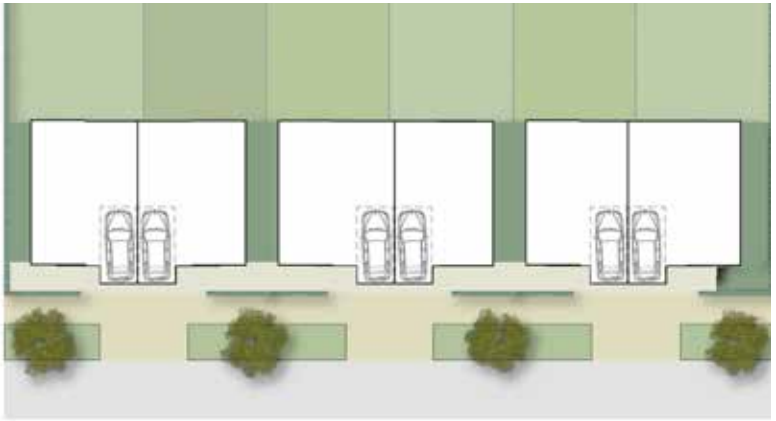
On-plot parking

- On-plot parking can be located to the front or the side of the main building and can be a covered or open car port;
- High-quality and well-designed soft landscaping should be used to increase the visual attractiveness of the parking;
- Boundary treatments such as hedges, trees, flowerbeds and low walls also increase attractiveness and provide a clear distinction between public and private space; and
- Hard standing and driveways must be constructed from porous materials to minimise surface water run-off.



F.72

Figure 72: On-plot front parking.



F.74

Figure 74: On-plot side parking.

F.73

Figure 73: On-plot front parking

F.75

Figure 75: On-plot side parking

Mews and rear street parking

- Rear street and mews parking arrangements are only appropriate for terraced and mews housing typologies;
- Cycle and waste storage should be integrated with garages;
- Rear street parking should service a maximum of 6 units;
- Mews parking should be on-plot, usually in garages; and
- Some informal on-street parking can also be provided, however these should be discretely marked and should not dominate the streetscene.

On-street parking

- A parallel car parking space should be 2.5m x 6m long. There must not be more than 6 spaces in a row without a break.; and
- Potential negative impacts on the streetscene can be mitigated by the use of recessed parking bays with planting in between.

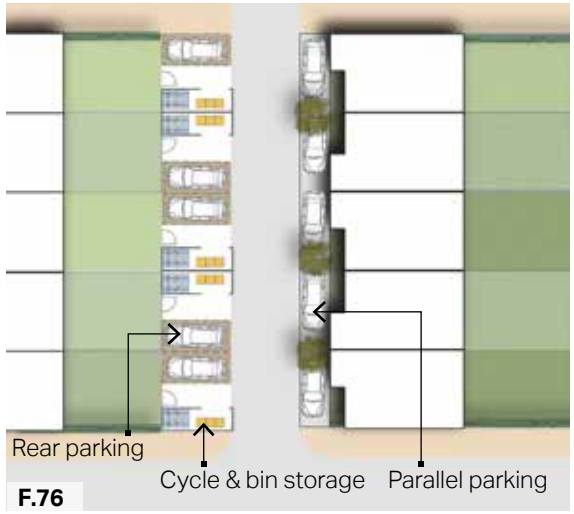


Figure 76: Diagram showing rear street parking.

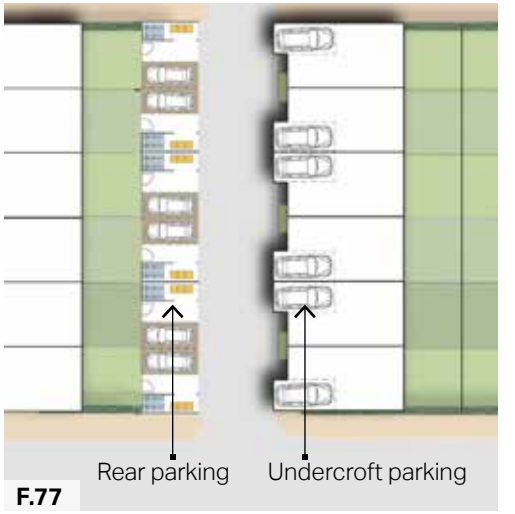


Figure 77: Diagram showing mews street parking.

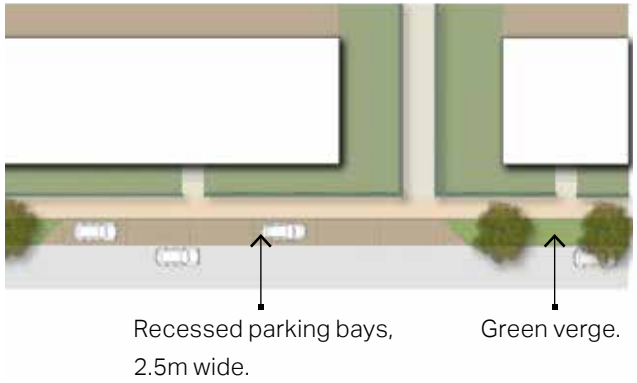


Figure 78: Diagram showing on-street parking.

Figure 79: On-street inset parking bays

Parking court

- This type of parking solution is especially suited to the live/work units and flats, where it is not possible to provide direct access to individual parking spaces;
- Parking courts should benefit from natural surveillance and be well lit at night; and
- Parking courts should be an integral part of the public realm, hence it is important that high quality design and materials, both for hard and soft landscaping elements are used.

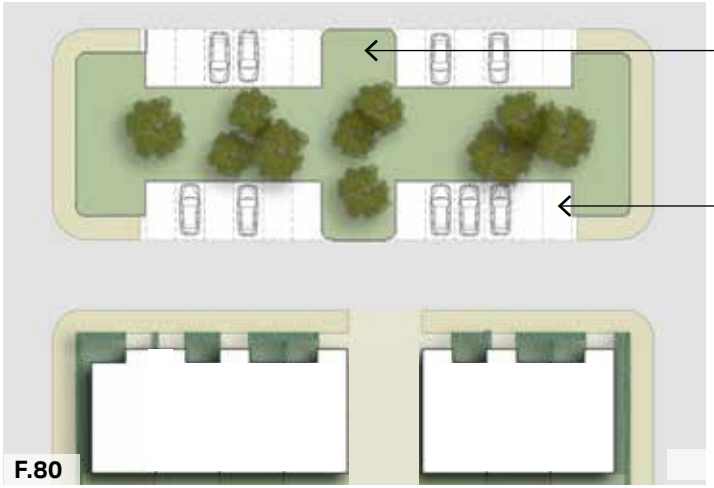


Figure 80: Diagram showing a parking court.

Figure 81: Rear parking using bays and parallel parking

Figure 82: Well overlooked parking court

6. Materials general for buildings and public realm

Local building and public realm materials make a key contribution to the character of the area and provide an important link between the built environment and the city's history. Within the city centre the predominant building materials are brick, timber, mathematical tiles and hanging tiles. Some local examples can be seen in Figure 83.

Old red clay tiles are used for many of the medieval roofs within the city. More recent development also use slate or concrete roof materials.

The public realm within the historic core of the city uses materials such as lias and pennant flagstones, granite, basalt setts and brick pavers. These materials can be used as inspiration for new development to ensure it is in keeping with the existing character and streetscape.

The use of sustainable materials is highly welcomed but they must respect the existing materials palette in the town to conserve the distinctive local character of Salisbury.

In new development locally sourced bricks or bricks that match the buildings in the surrounding area would be the most appropriate. Particular attention should be given to the bonding pattern, size, colour, texture of bricks.

- Development should employ materials and features to conserve and enhance the distinctive local character and heritage in the city;
- Development should use a common palette of locally distinctive vernacular building material;
- Development should also use a common colour palette of locally distinctive tones;
- The use of cheaper or artificial materials that imitate traditional materials should be avoided; and
- Development should maximise the reuse or recycling of materials already on site or locally to minimise the adverse effects generated by construction.

F.83

Figure 83: Existing building and public realm materials and colour palette.

7. Well designed buildings - architectural principles

Building lines

A coherent streetscape can be created by maintaining a consistent building line along the street.

- The building line should generally be consistent forming a unified whole but should allow for subtle recesses and protrusions to provide variety along the street; and
- Boundary treatments should reinforce the sense of continuity from the building line and help define the street.

Roofline

Creating a good variety in the roofline helps contribute the character of a place.

- Rooflines should be well articulated and in proportion with the dimensions of the building with subtle changes to avoid monotonous elevations.

Figure 84: Sense of enclosure created by a consistent building line.

Figure 86: Terraced housing with a consistent building line.

Figure 85: Buildings with a varied roofline and types of roof.

Fenestration

The fenestration as well as detailing and materials of windows along building facades can inform the character of the street. Within the city, there are a variety of window styles with a variety of casement, mullion and bay windows, particularly in older buildings that should be used as guidance for new developments.

- Windows should match the general orientation, proportion and alignment of other windows in the same building as well as those on adjacent properties, reinforcing the continuity of the streetscape;
- Window subdivisions should be arranged symmetrically about the horizontal and vertical areas of the openings. Large panes of glass that are not subdivided should be avoided, as they can distort the visual scale of the building;
- Windows in new developments should have consistent colour, thickness of frame and quality of windows across all elevations; and
- Windows should employ a particular design approach by adopting either a contemporary or traditional style. Contemporary style buildings can have a variety of window designs whereas traditional building styles should have a limited range of patterns.

Figure 88: Consistent window style and symmetrical placement.

Figure 87: Historic windows can vary in size and shape.

Figure 89: Bay windows in the city centre.

Building proportions

The relationship between buildings and its elements can provide visual interest and enhance the local character.

- The proportions of a building's elements should be related to each other as well as the scale and proportion of the building;
- The proportions should be dictated by and respond to the type of activity proposed as well as the composition of the existing streetscape;
- The front elevation of the building must be arranged in an orderly way to avoid creating cluttered facades; and
- Features such as windows, doors and solid walls should create vertical and horizontal rhythms along the facade providing variety.

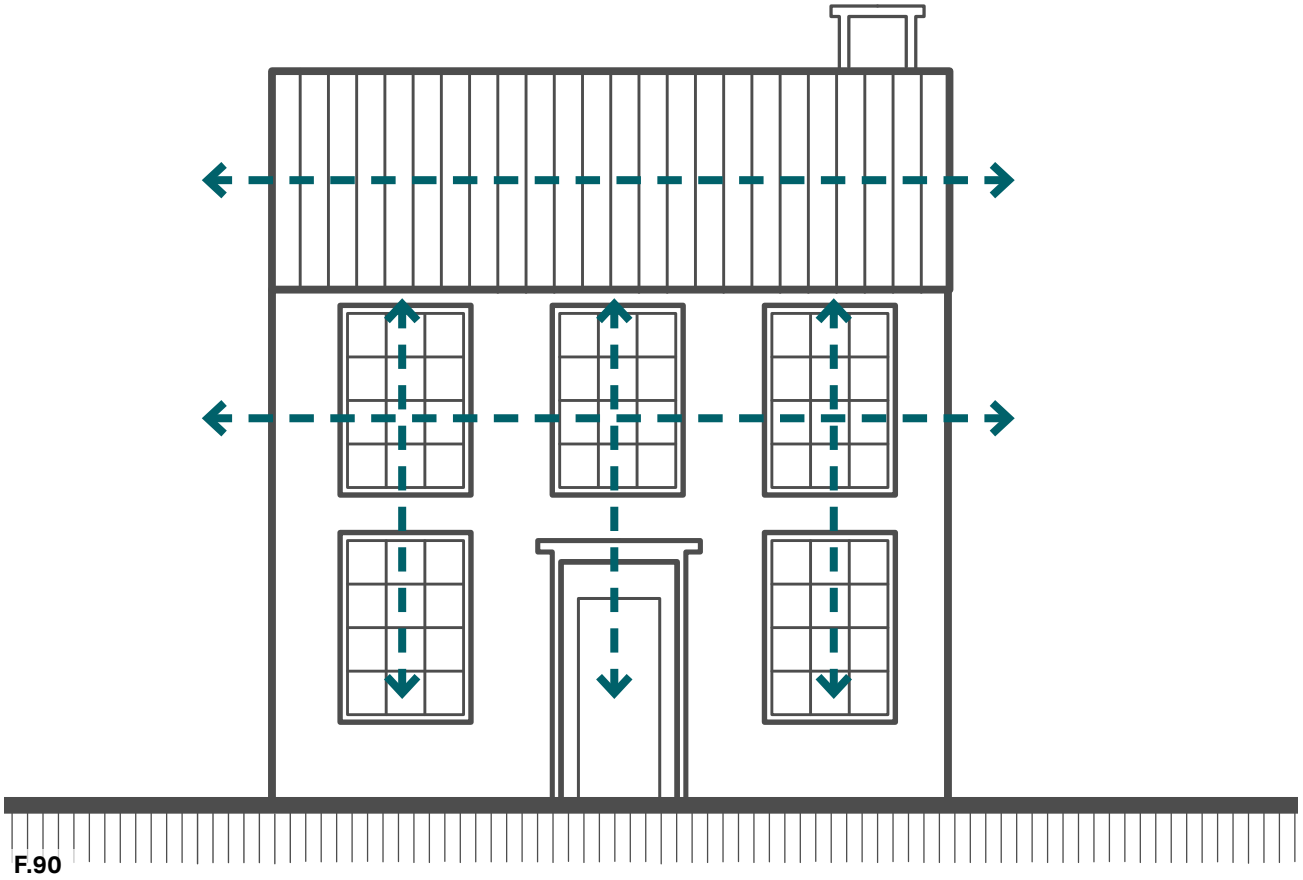


Figure 90: Diagram showing good building proportions.

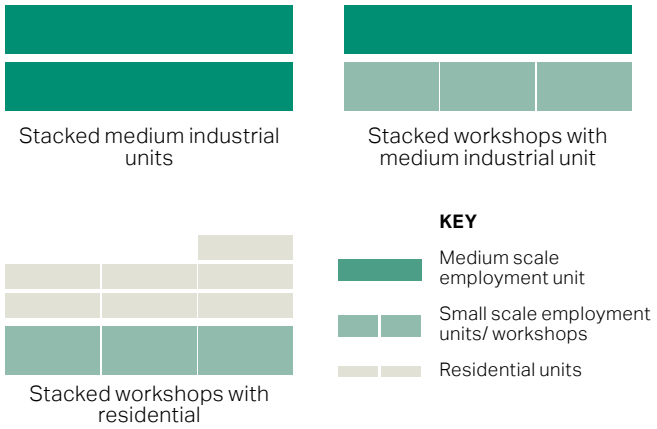
5.3 CH.02 Employment

This section outlines the high level layout and place making principles for employment uses which are the focus of Framework development scenario 2.

8. Intensifying employment uses

Stacking employment uses increases the amount employment floorspace, intensifying the employment offer on each plot.

- The space on each plot should be used efficiently, utilising space right up to the plot boundary;
- Smaller businesses can share a yard space offering flexibility for occasional HGV access;
- To enable businesses to operate on the upper floors a goods lift should be installed; and
- Generous ceiling heights can offer greater capacity which can be used for storage or adding a mezzanine level.



F.91

Figure 91: Diagrams showing different stacking combinations.

F.92

Figure 92: Stacked medium and small employment units, Matchwork Studios, Liverpool, *Source: Place North West*

F.93

Figure 93: Workshop/ studio space at the ground floor with residential above, Caxton Works, Canning Town, *Source: U+I.*

9. Street frontages and plot layout

A positive street frontage is essential for creating a lively and safe neighbourhood. The plots should have an efficient site layout that can accommodate intensified employment uses and create a cohesive street character.

- The employment uses that are the most active, such as workshops should be positioned at the ground floor along the street;
- The ground floor uses along the street should have high levels of visual permeability, creating active frontages;
- Where there is residential the entrances should be located along the street edge providing a positive street frontage;
- Buildings should be located on the edge of the plot on the street frontage to create a strong building line and remove the need for fences; and
- Yard and loading space should be located away from the street edge towards the middle or rear of the site.

10. Site Access

Easy and direct access to each plot for both pedestrians and vehicles should be provided and where possible there should be separate access points for different uses.

- A dedicated pedestrian entrance should be provided directly from the street in order to segregate servicing and pedestrian routes; and
- Sites that have multiple sides facing the street can have more than one access, which will help separate the access for different uses.

Figure 94: Active frontages with an employment use at ground floor with residential above, Northside studios, *source: proplist.*

CH.02 Employment

11. Hierarchy of movement

Promoting active modes of transport such as walking and cycling is important, however within an employment area this needs to be balanced with the need for HGVs in order to avoid conflict with other road users.

- HGV routes should be identified and be connected to the strategic network as efficiently as possible;
- Different modes of transport can be separated or the types of vehicles using particular routes can be limited;
- Where possible, businesses should work together to consolidate deliveries reducing HGV movement; and
- Cycle and pedestrian routes to public transport links should be legible, safe and direct.

12. Amenity space

Amenity space should be located in close proximity to workers and any residents providing them with easy access to open space.

- Public spaces should be well designed and located in convenient places that are accessible for pedestrians and cyclists; and
- Green roofs can be used to provide amenity space as well as contribute to urban greening.
- Amenity spaces should be designed to be hard wearing whilst providing maximum greenery and should be accompanied with management strategies that ensure that they retain their quality.

Figure 95: Uhlmann factory with a roof terrace, *source: Barkow & Leibinger Architects.*

Figure 96: Factory redevelopment with landscaping and seating, Barnstaple, *Source: LHC Design.*

13. Minimise noise pollution and overlooking

When the employment buildings are located near residential ones it is important to minimise the noise and ensure the residential buildings are not overlooked to ensure privacy.

- Acoustic mitigation measures can be introduced to residential blocks such as triple glazing, and non opening windows and mechanical ventilation.
- A buffer can be created between residential and employment uses with ancillary uses such as parking or cycle storage.
- Employment and residential units can be orientated to minimise overlooking of yard space. Where this is not possible, a decking structure can be constructed over the yard to reduce visual and noise issues.
- Employment buildings can use top lighting to reduce the need for windows overlooking residential units.

Figure 97: Light from the roof reduces the need for windows on the top floor, Sackler Building, *Source: Helene Binet.*

Figure 98: Warehouse with lighting from roof, Vitsoe HQ, *Source: Dirk Lindner.*

5.4 CH.03 Sustainability

Sustainability principles should accord with the latest national and local guidances, with proposals the exceed them encouraged.

14. Minimising energy use

Buildings contribute almost half (46%) of carbon dioxide (CO2) emissions in the UK. The government has set rigorous targets for the reduction of CO2 emissions and minimising fossil fuel energy use.

There is a good number of energy efficient technologies that could be incorporated in buildings.

The use of such principles and design tools is strongly encouraged to futureproof buildings and avoid the necessity of retrofitting.

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

Figure 101 illustrates an array of sustainable design features. Those on the top show the features that should be strongly encouraged in existing homes, while those on the bottom show additional features that new build homes should be encouraged to incorporate from the onset. Many of the measures can also apply to commercial buildings.

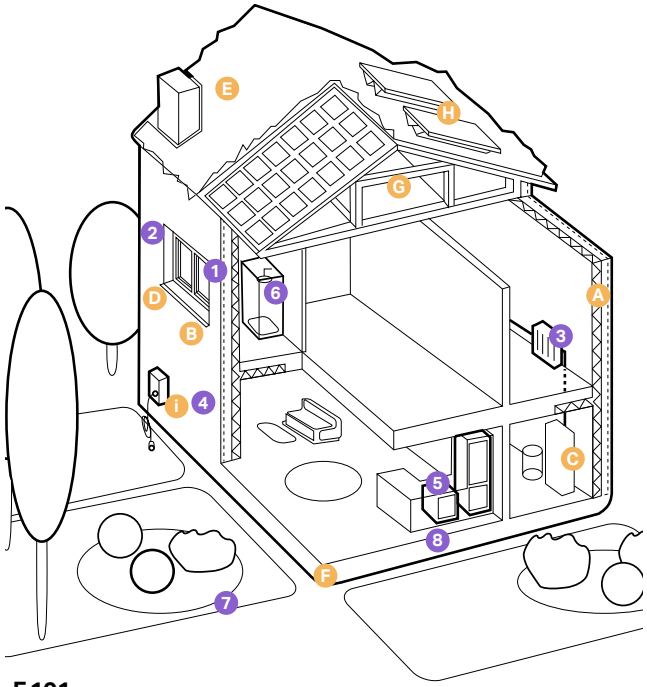
15. Lifetime and adaptability

The fastest route to building a functional, supportive, neighbourly community is to build homes that people can and want to live in for most of their lives instead of having to move every time domestic circumstances change.

'Lifetime' homes means designing in the flexibility and adaptability needed to allow for easy incorporation of wheelchair accessibility, addition/removal of internal walls, and ease of extension - both vertically and horizontally. This is particularly important for the aged, infirm or expanding/ contracting families who may be dependent on nearby friends and family for emotional and physical support.

Figure 99: Use of shingle-like solar panels on a slate roof, with the design and colour of the solar panels matching those of the adjacent slate tiles.

Figure 100: Positive example of an industrial building that makes optimum use of light through the roof design.



F.101

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

Additional features for new build homes

- A **High levels of airtightness**
- B **Triple glazed windows and external shading** especially on south and west faces
- C **Low-carbon heating** and no new homes on the gas grid by 2025 at the latest
- D **More fresh air** with mechanical ventilation and heat recovery, and passive cooling
- E **Water management and cooling** more ambitious water efficiency standards, green roofs, rainwater harvesting 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 car charging point**

Figure 101: Diagram showing low-carbon homes in both existing and new build conditions.

16. Minimising construction waste

As part of the environmental management system it is important that the waste generated during construction is minimised, reused within the site or recycled.

Developers should plan to re-use materials by detailing their intentions for waste minimisation and re-use in Site Waste Management Plans. The actions that this plan will include are:

- Before work commences, the waste volumes to be generated and the recycling and disposal of the materials will be described;
- On completion of the construction works, volumes of recycled content purchased, recycled and landfilled materials must be collated;
- Identify materials used in high volumes; and
- The workforce should be properly trained and competent to make sure storage and installation practices of the materials is done under high standards.

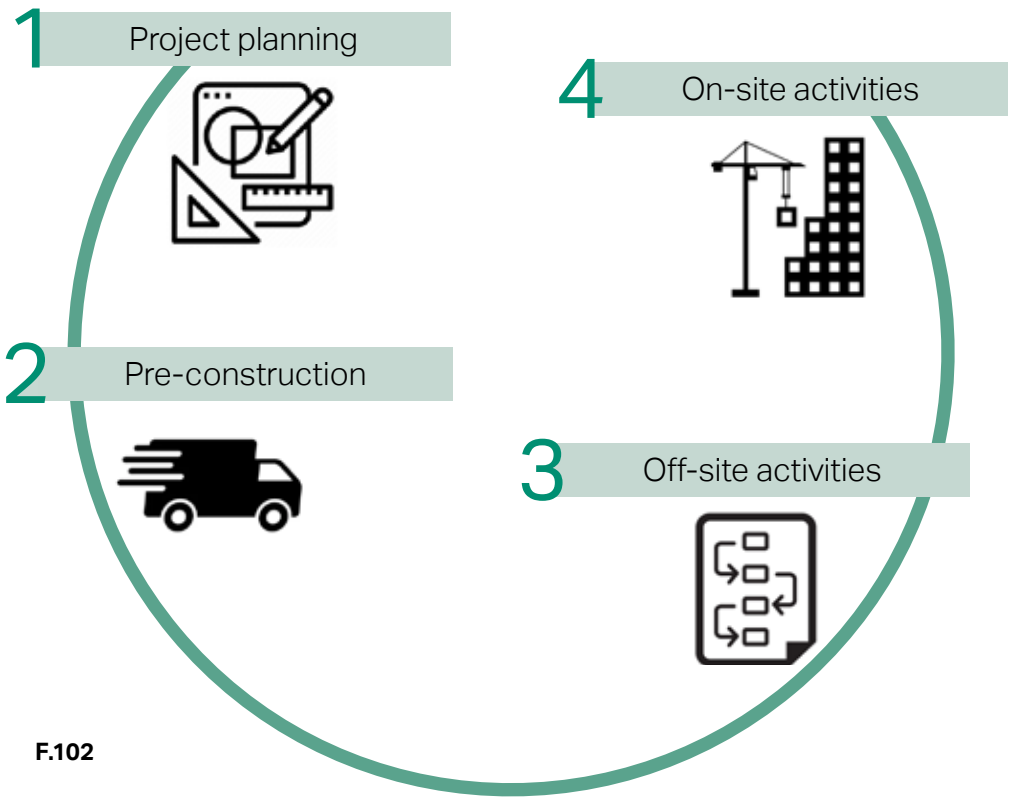


Figure 102: Diagram to illustrate the 4 main stages where waste management practices can be implemented.

17. Recycling materials and buildings

To meet the government's target of being carbon neutral by 2050, it is important to recycle and reuse materials and buildings. Some actions for new development are:

- Reusing buildings, parts of buildings or elements of buildings such as bricks, tiles, slates or large timbers all help achieve a more sustainable approach to design and construction;
- Recycling and reuse of materials can help to minimise the extraction of raw materials and the use of energy in the production and transportation of materials; and
- Development should also maximise the re-use of existing buildings (which often supports social, environmental and economic objectives as well).

F.103

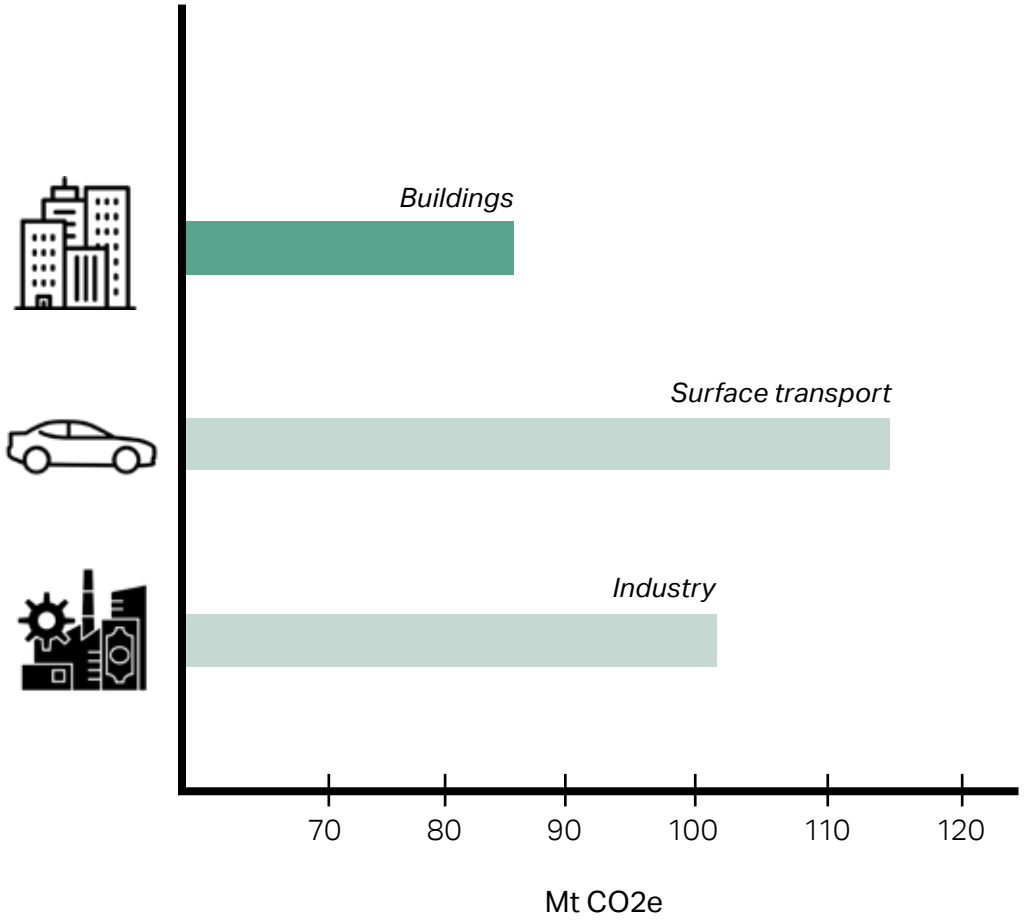
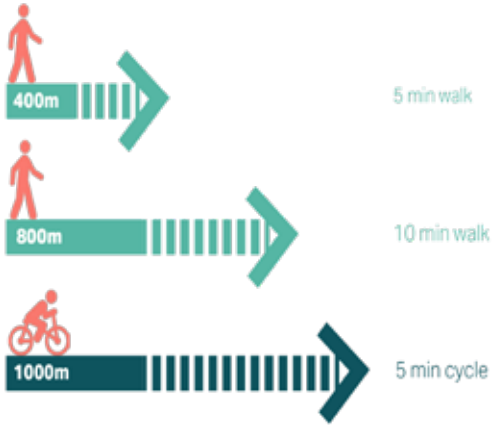


Figure 103: Diagram to illustrate that buildings are the UK's third biggest source of greenhouse gases (Source: Historic England. Link: https://historicengland.org.uk/whats-new/news/recycle-buildings-tackle-climate-change/).

18. Reducing car use

New development should promote alternative ways of transportation and aim to reduce the car use. Some actions for new developments are:

- Design schemes should not require the use of a car to reach local facilities or enjoy a high quality of life. This will help to reduce traffic, pollution and road accidents as well as having a positive environmental impact for all the community;
- Design schemes should encourage healthy activities such as walking and cycling through a good network of footpaths and cycle routes. This will also improve social interactions and neighbourliness; and
- Design schemes should propose local facilities that are in close proximity to public transport, and include attractive, safe pedestrian and cycling routes, to help reduce car usage without reducing car accessibility or car ownership.



F.104

Figure 104: Diagram to illustrate some principles for walkable places. It is good practice to plan new homes within a 400 metres walking distance (= 5 minutes) of bus stops and within 800 metres (= 10 minutes) of convenience store or community building.

F.105

Figure 105: Pedestrianised area (square) with workshops/ studios and shops on the ground floor and residencies on the upper floors

F.106

Figure 106: Pedestrian path along the canal encourages walking and movement with active uses on the ground floor and residencies on the upper floors

19. Electric vehicle charging points

New development should cater for electric vehicles on both on-street and off-street car parking spaces. Some guidelines for each typology are:

On-street car parking

- Car charging points should be provided next to public open spaces;
- Where charging points are located on the footpath, a clear footway width of 1.5m is required next to the charging point, for a wheelchair user and a pedestrian to pass side-by-side; and
- Charging points should be located in a way that are not blocked by petrol or diesel vehicles.

Off-street car parking

- Mounted charging points and associated services should be integrated into the design of new developments; and
- Cluttered elevations, especially main façades and front elevations, should be avoided.

Figure 107: Examples of on-street car charging points.

Figure 108: Examples of off-street mounted car charging points.

Servicing

With modern requirements for waste separation and recycling, the number and size of household bins has increased causing issues with the aesthetics of properties. Some guidelines for future development are:

- Bins should be located away from areas used as amenity spaces;
- Create a specific enclosure of sufficient size for all the necessary bins. Cycle storage could also be integrated;
- Bins should be placed within easy access from the street and, where, possible, open on the pavement side to ease retrieval;
- Bins should be placed as close to the dwelling's boundary to the public highway, such as against wall, fence, hedge but not in a way as to obstruct pedestrian and vehicle movements; and
- The materials palette should be referred in order to select suitable materials for enclosures.

Figure 109: Example images showing bins are stored in the front of the house in a discrete way.

Figure 111: Live/ work units with bin storage at the front of the building.

Figure 110: Example images showing bins are stored at the rear of the house in a discrete way.

Figure 112: Positive example on how to conceal the presence of bins in back gardens.


Delivery
06

6. Delivery

The Design Guidelines and Masterplan for the Churchfields Site will be a valuable tool in securing context-driven, high quality development for the Churchfields area. They will be used in different ways by various actors in the planning and development process, as summarised in the table.

Actors	How they will use the design guidelines
Applicants, developers, & 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 Guidance and masterplan should be discussed with applicants during any pre-application discussions.
City Council	As a guide when commenting on planning applications, ensuring that the Design Guidelines and Masterplan 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.

Table 01: delivery

About AECOM

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