6 FRONTAGE DEVELOPMENT PRINCIPLES ALONG KEY ROUTES

Introduction

6.1 This section of the design code establishes mandatory development principles which apply to frontage development along the four main movement routes in the LDO area. These main movement routes are given the term ‘relevant highways’ by this design code and are marked in red on the map to the below. They comprise:

- The A414 frontage;
- The Urban Boulevard frontage;
- The Main Employment Avenue frontage; and
- London Road frontage (adjacent with Newhall neighbourhood centre).

6.2 The aim of this section of the design code is to ensure that all development facing these key routes is of a high quality of design.

Design code approach

6.3 The approach of the design code is to provide a set of simple and clear design rules to guide the development along these important frontages.

6.4 A lower degree of design control is applied on fringe and internal development plots positioned away from these identified relevant highway frontages.

Codes by use / typology

6.5 Due to the broad focus of the Enterprise Zone target sectors there is a fairly wide range of potential development and building typologies likely to come forward on the site. These building typologies are likely to have very different design, access and layout requirements. Consequently, one set of design rules cannot be applied generically to all enterprise zone development.

6.6 As a result, the design codes in this section are focused on different office (B1a), research and development (B1b) and industrial (B1c and B2) development.

- Typical small industrial units
- Typical large industrial unit
- Typical office and R&D development
Chapter Structure

Office and research and development buildings

6.7 The first section of this chapter provide design codes which apply to office and research and development frontage buildings located adjacent to a relevant highway (B1a and B1b land uses).

Industrial buildings

6.8 The second section of this chapter provides design codes which apply to industrial buildings (B1c and B2 uses) located adjacent to a relevant highway.

Application

6.9 Where the existing tree belts along the site boundary with the A414 and London Road are retained as a buffer and a new frontage is not created onto the highway, buildings erected next to this existing tree belt will not be considered to be adjacent to a relevant highway.

Massing

6.10 Design Code RH1 on massing applies to all development plots adjacent to a relevant highway.

6.11 The massing principle ensures that the tallest buildings within a plot are located fronting important movement routes (relevant highways). This ensures that buildings provide continuity and enclosure and a strong and well-defined urban character along these routes. It also increases the likelihood of natural surveillance, with buildings more likely front and share a formal relationship with the street.

RH1 - Massing of buildings within development plots adjacent to a relevant highway

The tallest building(s) within a development plot adjacent to a relevant highway must be the building(s) which are positioned adjacent to the relevant highway.
Design codes for office and research and development buildings adjacent to a relevant highway

The following design codes (RH2 to RH7) only apply to office and research and development buildings in B1a and B1b use, where these buildings lie adjacent to a relevant highway.

RH2 - Orientation of office and research and development buildings adjacent to a relevant highway

a) Office and research and development buildings erected adjacent to a relevant highway must be orientated so that they face towards a relevant highway in order to create an active frontage.

b) Facing a relevant highway will demonstrate where the principal elevation of a building (normally containing the main public entrance to a building) is positioned and orientated so that it faces directly towards a relevant highway.

Building orientation on Corner Plots

6.12 On corner plots adjacent to a relevant highway an office or research and development building can be orientated towards either or (ideally) both streets. Design Code RH7 provides more specific design rules for office and R&D buildings positioned on corner plots adjacent to a relevant highway.
6 RH3 - General parking layout principles for office and research and development buildings

Where office and research and development buildings are positioned adjacent to a relevant highway the majority of staff parking to serve these buildings will be located to the rear, behind the frontage building enclosing the highway.

Rationale

6.13 Positioning the majority of staff parking behind office and R&D buildings can ensure that parking areas do not visually dominate the character of the public realm. It also allows buildings to be drawn close to the public highway. This increases natural surveillance and legibility in an area and can significantly enhance the character of the streets. This rationale is illustrated in the conceptual drawings of the Urban Boulevard shown top right.

Limited Frontage Parking

6.14 The potential for limited parking provision along development frontages is permitted by the design code. Some frontage parking will be crucial to ensure ease of access to any disabled parking bays or drop off or set down bays located close to the main entrances of buildings, fronting the street. Parameters for frontage parking are established in chapter 5 and chapter 11.

Example of permitted frontage parking via private slip road access

Large areas of staff parking along development frontages is not permitted as this dominates the character of the street and reduces the potential for natural surveillance.
**RH4 - Location of loading and servicing bays for office and R&D buildings adjacent to a relevant highway**

Designated loading, unloading bays and service bays to serve office and research and development buildings positioned adjacent to a relevant highway will be located behind frontage buildings.

**RH5 - Building lines of office and R&D buildings adjacent to a relevant highway**

- The building lines of office and R&D buildings located adjacent to a relevant highway should be aligned broadly parallel to the highway.
- Variations to building lines to allow for projections, recesses, articulation, building entrances and landmark features are encouraged. However, the overall delineation of the building lines should be broadly parallel to a relevant highway.
Rationale

6.15 When building lines and frontage facades are aligned broadly parallel to the street they will enclose the space and significantly enhance the levels of legibility and natural surveillance in an area. This will help to make the street a safer, more attractive, walkable and environment for pedestrians which is easier to navigate through.

Rationale

6.16 Building entrances fronting directly onto the street makes them much easier to locate for visitors and generally improves the legibility of an area. It also helps to generate increased the levels of street activity, vitality and natural surveillance in an area.
RH7 - Office and R&D buildings on designated corner plots adjacent to a relevant highway

On designated corner plots office and research and development buildings should:

a) be located adjacent with the apex or tip of a corner plot in order to act as landmark / gateway features;

b) provide active frontages wrapping around the corner facing both streets to increase natural surveillance;

c) enhance the visual prominence and legibility of a corner location through the provision of special features such as main entrances, massing, architectural features and articulation.

Corner plots are defined on the Map 1 and comprise frontage buildings adjacent to the following junctions:

a. London Road / Urban Boulevard junction.

b. A414 / Urban Boulevard junction.

c. Urban Boulevard / Main Employment Avenue junction.

Because of their high profile, street corner locations are often a suitable place for landmark buildings and the main public entrances to buildings. Corner designations aim to create landmark buildings and well defined gateways into the zone.

Office and R&D buildings on designated corner plots to ‘turn the corner’ by wrapping round both sides of the junction.
Positioning office and R&D buildings close to the apex / tip of a corner plot helps to ensure buildings wrap around street corners and create effective landmarks / gateway features at junctions.

Examples of corner buildings wrapping around a corner (‘turning the corner’) by being placed at the apex of a junction of two roads and providing active frontages facing both streets.

Design codes for industrial buildings adjacent to a relevant highway

The following design codes (RH8 to RH13) only apply to industrial buildings in B1c and B2 use, where these buildings lie adjacent to a relevant highway.
**RH8 - Orientation of single industrial buildings on plots adjacent to a relevant highway**

Where large industrial buildings are provided on single development plot adjacent to a relevant highway they must be orientated so that they face towards and front the relevant highway. This will be achieved by placing main entrances, windows and office uses on the side of the building facing the highway.

Examples of how large industrial buildings on a single site can be successfully orientated towards the street.

Large industrial buildings can still be orientated so that an active frontage is created along a relevant highway. This can be achieved by placing office uses, main entrances and limited parking adjacent to the highway and by locating industrial floorspace, loading and turning space and the majority of staff parking to the rear or side of the building.

**RH9 - Orientation of multiple industrial units on plots adjacent to a relevant highway**

Where a number of small industrial units are provided within the same development plot adjacent to a relevant highway it will not be necessary for buildings to be orientated to face the street.

Where a number of small industrial units are provided adjacent to a relevant highway they will not need to be orientated to face the street and may be orientated to face an internal location within a development parcel.

**Rationale**

6.17 This is because this form of development has specific access and layout requirements which normally necessitate buildings being orientated to face one another, enclosing a central courtyard for loading and vehicle turning (i.e. facing away from the street) with multiple businesses sharing a single access point.

6.18 This form of development will be acceptable providing the requirements of design codes RH10, RH11 and RH12 are met.
RH10 - Placement of ancillary office (B1a) floorspace within industrial and light industrial development adjacent to a relevant highway

a) Where a large industrial building is erected adjacent to a relevant highway any ancillary office (B1a) uses provided within the building should be positioned so that they front or are adjacent to a relevant highway.

b) Where a number of small industrial units (B1c/B2) are provided within a development plot adjacent to a relevant highway it is preferable for ancillary office (B1a) uses within the industrial unit(s) closest to the highway to be positioned so that they are adjacent to the highway (see photos and illustrative examples bottom right).

6.19 Placing ancillary office (B1a) adjacent to the public highway can address issues of blank frontages and provide eyes on the street. This will help to increase natural surveillance and ownership over private frontage areas and site entrances.

6.20 Where multiple industrial units are provided within the same development plot, ancillary office floorspace adjacent to the highway will help to provide overlooking at the entrance to an industrial courtyard. Ideally, office windows should wrap around the corners of the building to provide natural surveillance facing the street (see Option A and photo bottom left).

6.21 Blank industrial facades on this side can create issues with dead frontages, which are only permitted when design code RH12 is met.

Rationale

Large-scale, single unit industrial development with ancillary B1a (office) uses positioned on the front face of buildings, providing natural surveillance and overlooking the public highway.

Ancillary office floorspace positioned adjacent to the highway (left photo) can help to provide natural surveillance and overlooking and avoid blank frontages when industrial floorspace is provided adjacent to the highway (right photo).
RH11 – Blank industrial facades

The facades of industrial buildings (B1c and B2 uses) adjacent to a relevant highway must provide a minimum window to wall ratio of 15%. Window to wall ratios will be calculated as follows:

Total sqm of windows / total sqm of façade x 100 = active frontage percentage

The requirements of this design code may only be varied where the requirements of design code RH12 have been met.

Rationale

6.22 This requirement will ensure that there is an appropriate level of natural surveillance of the public realm in the interests of community safety. It also ensures that the negative impact of dead frontages and featureless, blank facades are mitigated along key public routes through the enterprise zone area.

Dead frontages adjacent to the public highway with inadequate landscape screening.

Positioning windows and ancillary office uses adjacent to the highway can avoid large facades of blank frontages.

Illustrative example of industrial facade with a glass to wall ratio of 15%.

Illustrative example of industrial facade with a glass to wall ratio of 30%.

Window to wall ratios will be calculated as follows:

Total sqm of windows / total sqm of façade x 100 = active frontage percentage

An example of how to calculate this requirement is shown by red lines to the left.
RH12 – Landscape screening of blank industrial facades

Blank industrial facades may be provided adjacent to a relevant highway providing the following requirements are met:

a) blank industrial facades must be set back a minimum distance of 5m from a relevant highway; and

b) a soft landscaping buffer strip of a minimum depth of 3m must be provided between any blank façade and the highway boundary. Soft landscaping buffer strips must include trees and evergreen hedges or shrubbery.

Rationale

6.23 Landscape screening of blank frontages helps to create an attractive park light setting and mitigates the negative impact of dead frontages. As can be seen with the building shown to the right in the above photo, blank frontages aligned close to the highway without sufficient landscaping can have a highly detrimental impact on the character of the public realm. Hence why design code RH12 aims to set back such buildings and ensure they are appropriately landscaped and do not have an overburdening impact on the character of the area.

Landscape screening of blank industrial facades will need to be sufficiently dense and include tree planting.

Poor attempts at screening blank industrial facades with landscaping which do not include tree planting will not fulfil the requirements of design code RH12.

Effective street lighting and screening of blank frontages can be achieved by setting buildings and trees slightly back from the public highway.
RH13 - Industrial buildings on designated corner plots

Industrial buildings fronting the highway on designated corner plots should provide either office floorspace, windows, main public entrances or special architectural features adjacent to and fronting the junction. Designated corner plots are shown on map 1 on page 42 and are defined in code RH7.

Rationale

6.24 Placing ancillary office windows, main entrances and special architectural features close to junction corners will help to ensure that some visual articulation and natural surveillance is provided on these high profile locations which can be expected to experience high numbers of passing pedestrian and vehicle traffic.

6.25 This will also increase the legibility of the area by ensuring important corner locations are defined and articulated, rather than being dominated by dead or blank frontages. Well defined corner buildings at these designated corner plots is an integral aim of the masterplan and will help to create landmark / gateway features at key entrances to the enterprise zone area.