7 ACCESS

7.1 INTRODUCTION

This access statement provides details on the proposed residential blocks (A & B) and the associated public realm to facilitate access and use by all people, including disabled people. It also indicates how the design meets the required design standards and follows good practice design standards.

The Centre for Accessible Environments (CAE) are appointed as access consultants for this part of the Hale Wharf project. Our role is to provide advice and guidance to the design team and in particular to Allies and Morrison to ensure an accessible and inclusive environment is achieved.

This access statement has been prepared in support of a planning application to the London Borough of Haringey and its purpose is to describe proposals for access for disabled people and inclusive design.

The developers are committed to providing an inclusive environment and adopting inclusive design principles wherever it is practicable to do so. This includes parking and approach to the buildings, entry and use of the building and surrounding spaces. It is customary at this stage of the design development that some of the detailed internal design may be outstanding, but the principles of inclusive design and exemplary access will remain at the forefront of all design decisions, sitting high on the project agenda. Accessibility will be reviewed at each stage of the project as design detail develops.

7.2 PURPOSE

This statement documents the aspirations and commitment to inclusive design principles, to ensure that access for all is provided, and with particular regard to elderly and disabled people. This includes the everyday needs of people with mobility, physical, sensory and cognitive impairments, and relates to physical features and environmental aspects, alongside the need to create an accessible environment which is managed and maintained accordingly.

An inclusive environment considers the diversity of human need and relies on consideration of good, unsegregated access being incorporated at each stage of a development, from concept and planning, to detail design, construction and post-occupation management and maintenance.

7.3 POLICY AND STANDARDS

The following documents are relevant to the application:

- The London Plan, March 2015 (including the 2015-16 Minor Alterations (MALPs))
- GLA - Housing Supplementary Planning Guidance, March 2016
- Haringey Planning Policy SP2
- The Equality Act 2010
- The Building Regulations Approved Document M: Access to and use of buildings, Volume 1: Dwellings, 2015 edition incorporating 2016 amendments.
- The Building Regulations Approved Document M: Access to and use of buildings, Volume 2: Buildings other than Dwellings, 2015 edition
- The Building Regulations Approved Document K: Protection from falling, collision and impact, 2013 edition.
- BS 8300 2009+A1:2010: Design of buildings and their approaches to meet the needs of disabled people – Code of Practice.
- BS7000-6:2005 Design management systems: Guide to managing inclusive design
- Designing for Accessibility, Centre for Accessible Environments, 2012 edition.

7.3.1 Housing Standards

The residential units have been assessed against, and shown to meet, the most current housing policy specifically:

The London Plan, Policy 3.8 and the Housing Supplementary Planning Guidance (March 2016) which indicates '90 per cent of new build housing should meet Building Regulation requirement M4 (2) 'accessible and adaptable dwellings' with the remaining 10 per cent meeting Building Regulation requirement M4 (3) 'wheelchair user dwellings'.

Haringey Planning Policy SP2 requires 100% Lifetime homes and 10% wheelchair accessible or easily adaptable (these have been converted to Building Regulation Requirements M4(2) and M4(3) in line with the London Plan).

7.4 METHODOLOGY

CAE has a team of experienced access specialists who have reviewed the proposals against required and good practice standards. Our appraisals consider the user journey, from arrival at the site or development, accessing the facilities therein for the purposes of employment, living accommodation or visiting. In addition to safety and ease of access for older people and people with a range of disabilities, consideration is given to safe use by children and families.

The Equality Act is an enabling act and is not prescriptive in terms of building design elements. Equally, the Approved Document to Part M of the Building Regulations and the BS8300 Code of Practice give standards that will achieve reasonable access but there may be other ways as research is always being undertaken, as a result there may be newer innovative ways of achieving the same result.

7.5 SITE ACCESS

7.5.1 Site Constraints

The Hale Wharf site is a long narrow site bounded to the south by Ferry Lane (A503), and edged by the River Lea to the east and west. There is also a 1M height change falling from the southern entry point (Ferry Lane) across the plot where Blocks A and B are situated.

Access to this site is currently restricted and this development will assist with increasing accessibility and permeability through the site.

A comprehensive Flood risk assessment is being undertaken due to the complex water environment around the site. This should not have any impact on the accessibility of the site and buildings.

7.5.2 Vehicular access

Vehicular access is limited within the site and is accessed via Ferry Lane.

Within the overall development there are 58 parking bays provided overall of which 50 are designated for disabled persons i.e. blue badge parking bays. 6 bays are for the existing business barges use and 2 for the car club. 25 of these will be allocated to the wheelchair adaptable units within block B in line with the GLAs Housing SPG.

A parking management plan will be agreed with LB Haringey regarding the allocation of spaces.

Private residential cycling storage is provided to both blocks.

Visitors cycling stands are provided within the wider landscaping.

7.5.3 Pedestrian access

The main pedestrian route into the site is from Ferry Lane. The pavements will be clearly demarcated to ensure there is a safe zone for all users. The provision of appropriate tactile paving will provided at the road crossing/junction and where necessary.

7.6 LANDSCAPING

7.6.1 General levels

There is over a 1m height change across the site. Most of this is addressed at the south end of the site with gently sloping footpaths not exceeding 1:21 gradient and level landing provided every 500mm rise. There is a cross fall across the paving to assist with drainage but this will not exceed 1:40 and will be kept to a minimum.

7.6.2 Footpaths

Pedestrian routes and footpaths will be of a suitable gradient to allow ease of access to all buildings and the site facilities. These will be formed of concrete setts to enable a smooth, firm and slip resistant surface to access the buildings and facilities. These will be designed to provide a minimum width of 1200mm, where they provide access to residential properties only, and 1500mm wide where they are used to access any buildings other than dwellings.

7.7 THE BUILDINGS

Block A is a 21 storey residential building accommodating 141 residential dwellings and located at the southern end of the site. At ground floor there is a commercial unit, the residential entrance lobby, refuse and cycle storage.

Block B is located adjacent to Block A towards the southern end of the site. It is a 16 storey residential building accommodating 108 residential dwellings. At ground floor there is a commercial unit, the residential entrance lobby, refuse and cycle storage and the estate office.

In total 249 dwellings are provided within the of development of which 25 (10%) have been designed to be easily adaptable for wheelchair users and meet Building Regulations M4(3)(a)

7.7.1 Commercial units

Within Block A there is a ground floor commercial unit located to the southern end of the building adjacent to Ferry Lane. Level access into the unit is provided through a pair of double doors. There are no height changes within the unit so level access is provided throughout.

Block B contains a single storey ground floor commercial unit at the Northern end of the building. Level access into the unit is provided through a pair of double doors. There are no height changes within the unit so level access is provided throughout.

The entrance doors to both blocks will provide a minimum clear opening of 1000mm (single leaf) with suitable controls and ironmongery provided. These doors will be either automatic or have low opening forces that meet the requirements of Part M, with a force not exceeding 30N during opening up to 30° and no more than 22.5N from 30° to 60°. Suitable barriers or guarding will be provided where these doors open across the access routes.

7.7.2 Estate Office

The small estate office located in Block B will provide a suitable level of access to all residents and visitors and be provided with a wheelchair accessible WC facility.

7.7.3 Common parts of residential buildings – Blocks A and B

Entrances

A pair of double swing doors are provided to access the entrance lobbies in both buildings. These doors will be either automatic or have low opening forces that meet the requirements of Part M, with a force not exceeding 30N during opening up to 30° and no more than 22.5N from 30° to 60°. All doors provide a level threshold and a minimum of 850mm clear opening through a single leaf.

Cover is provide to the main entrance on both blocks. Block A has a recessed entrance arrangement providing 1400mm deep x 3500mm wide cover. Block B has a balcony above providing a 2200mm deep x 6500mm wide canopy.

Lighting at the entrances is provided with fully diffused luminaires which will be activated automatically by a dusk to dawn timer.

Entry phone systems and controls will be appropriately located between 900 – 1000mm high above finished ground level.

7.7.4 Horizontal circulation

Accessible routes to reach all residential properties are provided throughout the building. All doors provide a minimum clear opening of 850mm, with a 300mm nib to the leading edge and a 200mm to the following edge of the door swing. Communal corridors are 1500mm wide.

7.7.5 Vertical circulation – lifts and stairs

Lifts

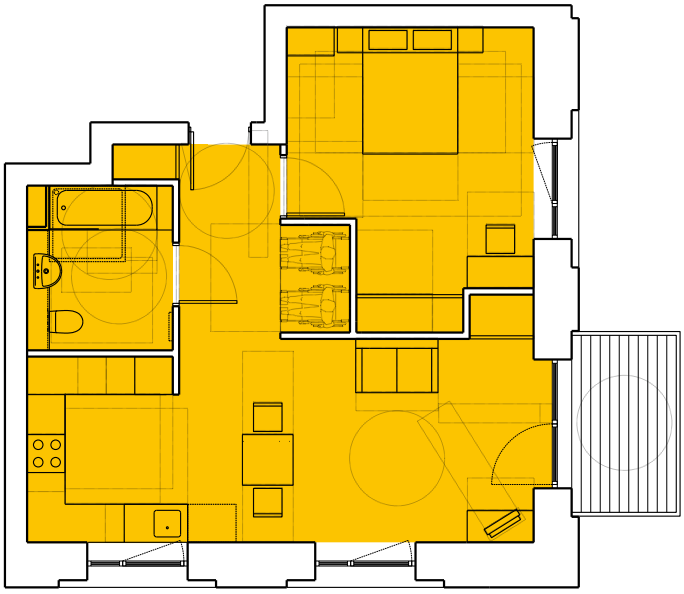
There are 2 passenger lifts within each block serving all floors. These will meet or exceed the requirements of Part M of the Building Regulations and BS EN 8170:2003

- The lifts are a minimum of 1100mm wide x 1400mm deep
- Landings in front of lift providing a minimum 1500 x 1500mm
- A Fire fighting lift is to be provided.

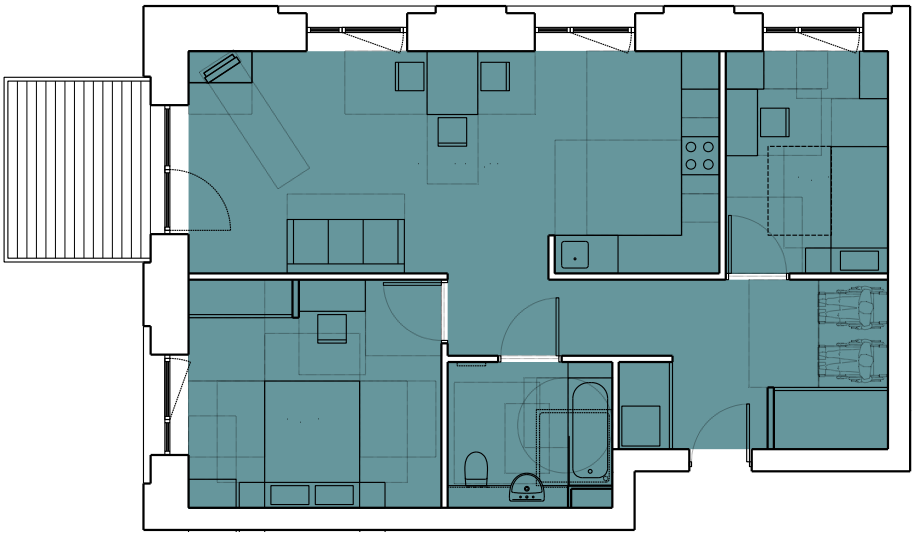
7.7.6 Stairs

There is a protected staircase in each block providing access to all floors.
This is designed to meet the requirements of Part M and K (general access staircase) of the Building Regulations it incorporates the following features:

- Handrails at 900 – 1000mm high with a 300mm extension past the top and bottom riser.
- Maximum height riser of 170mm and minimum goings of 250mm.
- Suitable contrasting nosings
- Maximum 12 risers in a flight
- Widths of at least 1100mm



Illustrative M4(3), 1 bedroom flat layout



Illustrative M4(3), 2 bedroom flat layout

7.8 RESIDENTIAL DWELLINGS

7.8.1 Block A

Residential units

Residential units:
The residential units are located between 1st and 20th floor levels with each floor accommodating a mixture of 1, and 2 bedroomed flats. Access to the residential properties is through a centrally located lobby and then via 2 lifts or a general access staircase.

There are 7 different flat types within the block which are located across all floors. These have been designed and assessed against the Building Regulations Approved Document M, Volume 1, M4(2) Category 2: Accessible and Adaptable dwellings.

The attached documents in Appendix A indicate that the design standards contained within the Approved Document can be achieved across these flat types and within the common circulation areas.

7.8.2 Block B

Residential units

Residential units:
The residential units are located between 1st and 15th floor levels with each floor accommodating a mixture of 1, 2 and 3 bedroomed flats. Access to the residential properties is through a centrally located lobby and then via 2 lifts or a general access staircase.

There are 8 different flat types, within the block, located across all floors. 6 of these flat types have been designed and assessed against the Building Regulations Approved Document M, Volume 1, M4 (2) Category 2: Accessible and Adaptable dwellings.

The remaining 2 flat types (25 dwellings) have been assessed and checked against Approved Document M, Volume 1 and all the requirements of Category 3: Wheelchair user dwellings, M4(3)(a).

7.9 MANAGEMENT ISSUES

To ensure that access is achieved and maintained the following management issues will be

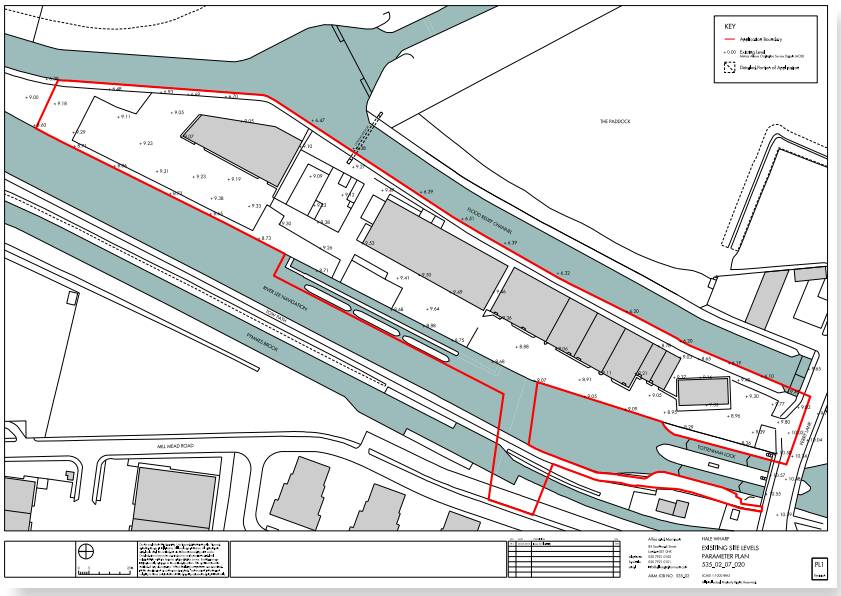
- **External routes** – Ensure footpaths and access routes are kept in good order and clear of obstructions. Leave, ice and snow should be cleared
- **Doors** – ironmongery should be regularly maintained and door closers checked and adjusted as necessary.
- **Vertical circulation** – lifts should be regularly checked to ensure they align with finished floor levels.
- **Surfaces** – should be regularly maintained to ensure there are no slip hazards, Surfaces should be replaced like with like, colour contrast should be maintained during redecoration
- **Lighting** – lighting levels should be maintained across the site and bulbs replaced promptly when required.
- **Security** – any security measures introduced should not conflict with accessibility requirements.

APPENDICES

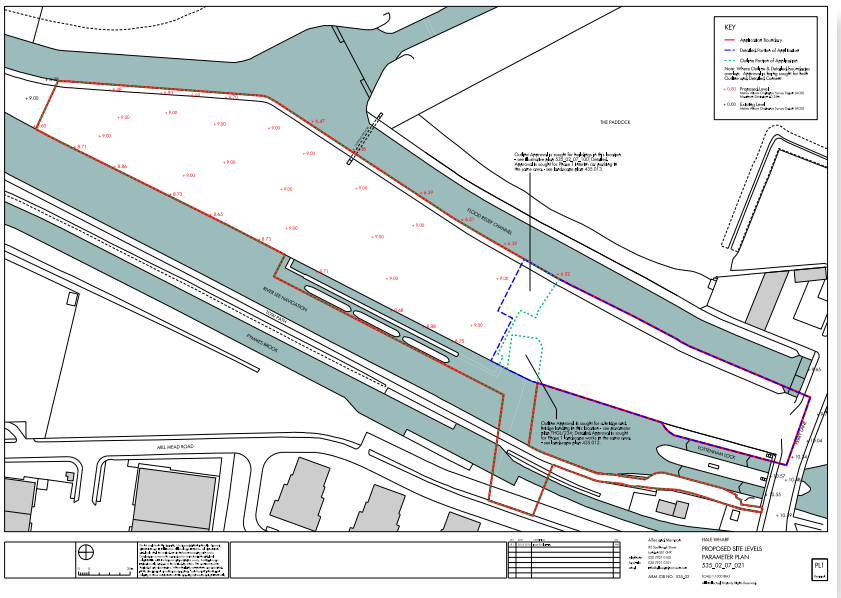
A PARAMETER PLANS

The proposed masterplan illustrated within this document is the result of the design evolution process described in the preceding chapters and is a response to the physical opportunities and constraints of the site as well as social, economic and policy context factors.

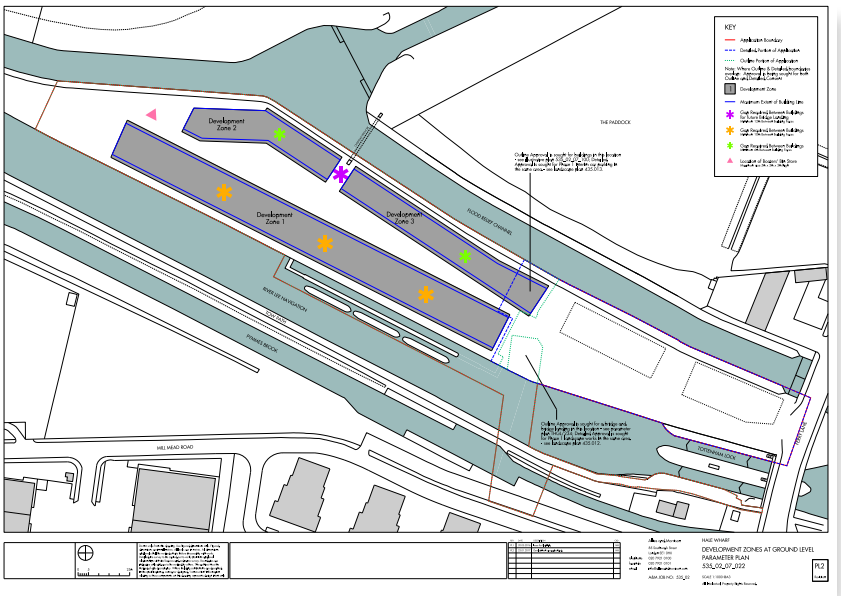
This development is defined by a series of Parameter Plans which provide the parameters for future reserved matters applications in terms of layout, use, landscape, access and scale.



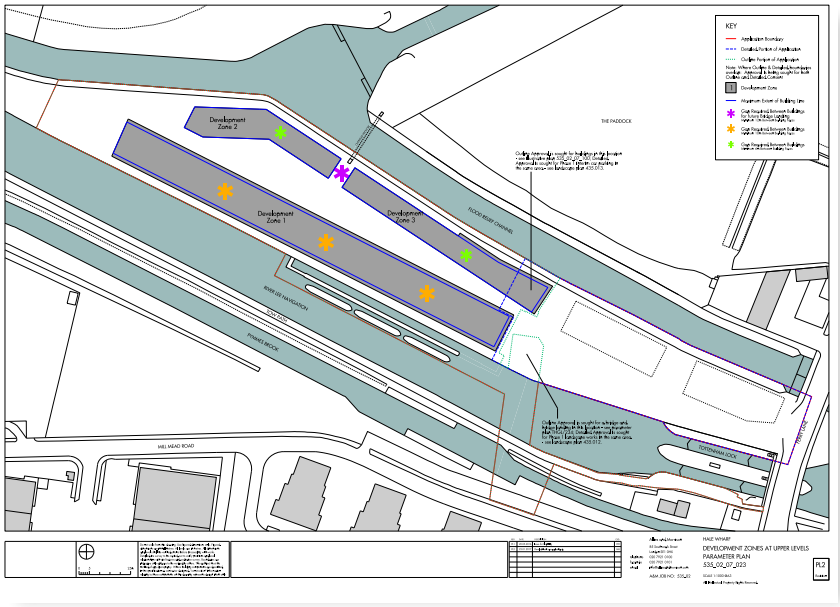
535_02_07_020
Existing site levels



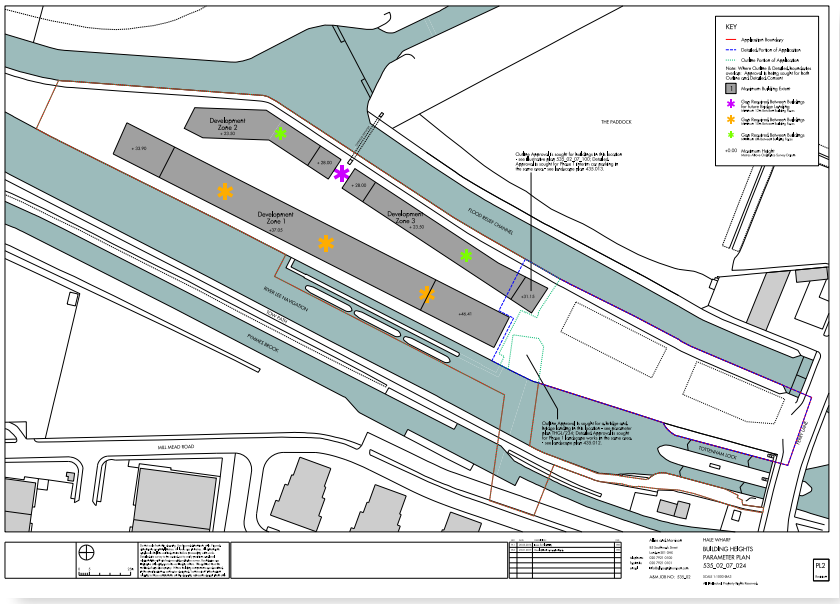
535_02_07_021
Proposed site levels



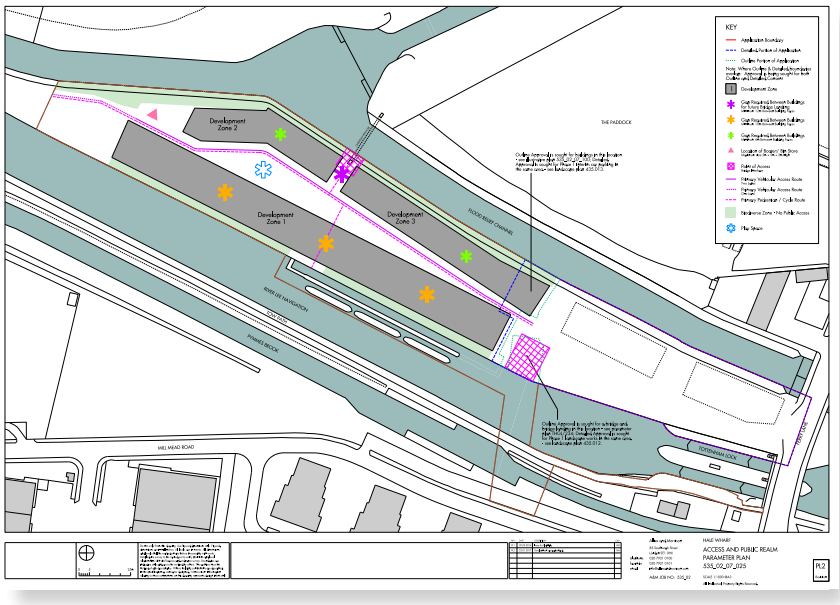
535_02_07_022
Development zones at ground level



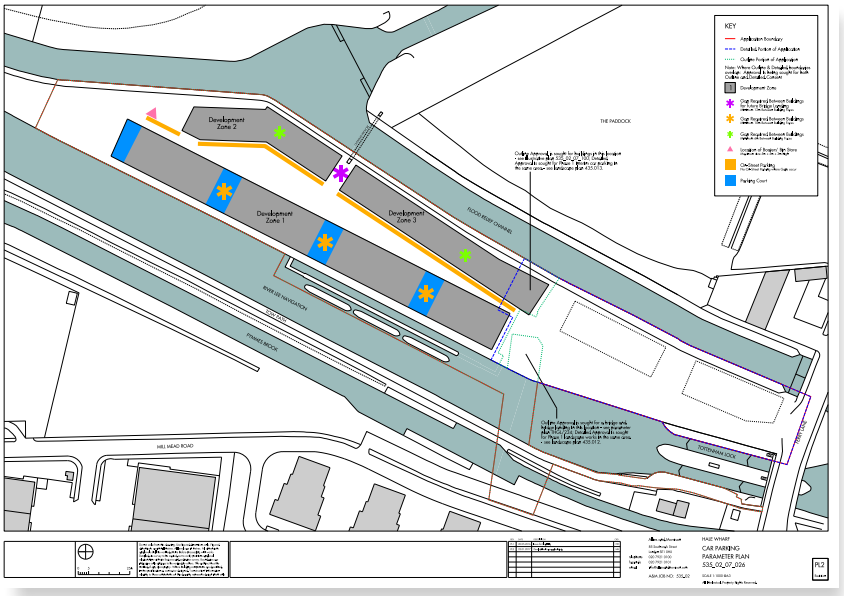
535_02_07_023
Development zones at upper levels



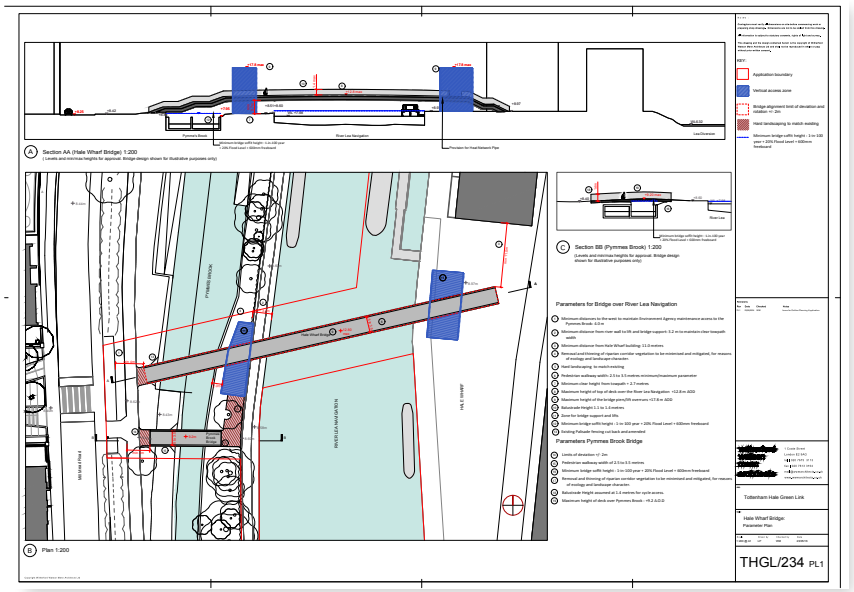
535_02_07_024
Building heights



535_02_07_025
Access and pubic realm



535_02_07_026
Car parking



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Hale Wharf Brides

B RESIDENTIAL DWELLINGS STANDARDS

The attached documents in Appendix B indicate that the design standards contained within the Approved Document can be achieved across these flat types and within the common circulation areas.

Block A – Building Approach
Dwellings – M4(2)

Block B – Building Approach
Dwellings - M4(2) and M4(3)

Hale Wharf - Block A

Optional Requirement M4(2): Category 2 - Accessible and Adaptable Dwellings

Optional Requirement M4(2) will be met when a new dwelling makes reasonable provision for most people to access the dwelling and incorporates features that make it potentially suitable for a wide range of occupants, including older people, those with reduced mobility and some wheelchair users. Please note that the following table contains information extracted from ADM, Volume 1 (2015) and the document 'corrections to the Approved Documents' dated September 2015. Information has been abbreviated and the full guidance should be used referred to in conjunction with this appraisal.

		Studio	1 Bedroom			2 Bedroom		
		Type 1	Type 1	Type 2	Type 3	Type 1	Type 2	Type 3
Section 2B: Private entrances and spaces within the dwelling								
Principal private entrance and alternative entrance								
2.20	The principal private entrance, or the alternative private entrance where step-free access cannot be achieved to the principal entrance, should comply with the following:							
a	There is a level external landing with a minimum width and depth of 1200mm.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	The landing is covered for a minimum width of 900mm and a minimum depth of 600mm.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Lighting is provided which uses fully diffused luminaires activated automatically by a dusk to dawn timer or by detecting motion.	Achievable	Achievable	Achievable	Achievable	Achievable	Achievable	Achievable
d	The door has a minimum clear opening width of 850mm when measured in accordance with Diagram 2.2.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
e	Where there are double door, the main (or leading) leaf provides the minimum clear opening width.	N/A	N/A	N/A	N/A	N/A	N/A	N/A
f	A minimum 300mm nib is provided to the leading edge of the door and the extra width created by this nib is maintained for a minimum distance of 1200mm beyond it.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
g	The depth of the reveal on the leading edge of the door (usually the inside) is a maximum of 200mm.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
h	The threshold is an accessible threshold.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
i	Where there is a lobby or porch, the doors are a minimum of 1500mm apart and there is at least 1500mm between door swings.	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Other external doors								
2.21	All other external doors - including doors to and from a private garden, balcony, terrace, garage, carport, conservatory or storage area that is integral with, or connected to, the dwelling - should comply with provisions d. to i. of 2.20.	Achievable	Achievable	Achievable	Achievable	Achievable	Achievable	Achievable
Circulation areas and internal doorways **Door and hall widths**								
2.22	To facilitate movement into, and between, rooms throughout the dwellings, doors and corridors should comply with all of the following (see Diagram 2.3).							
a	The minimum clear width of every hall or landing is 900mm.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Any localised obstruction, such as a radiator, does not occur opposite or close to a doorway or at a change of direction and is no longer than 2m in length: and the corridor is not reduced below a minimum 750mm width at any point.	Achievable	Achievable	Achievable	Achievable	Achievable	Achievable	Achievable
c	Every door has a minimum clear opening width as set out in Table 2.1.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
d	A minimum 300mm nib is provided to the leading edge of every door within the entrance storey.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Private stairs and changes of level within the dwelling								
2.23	To allow people to move between storeys, and to allow a stair-lift to be fitted to the stairs from the entrance storey above (or the storey below where this contains the bathroom required by the provisions of 2.29), stairs should comply with all of the following:							
a	Access to all rooms and facilities within the entrance storey is step free.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	Level changes within every other storey are avoided where possible.	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c	The stair from the entrance storey to the storey above (or below) has a minimum clear width of 850mm when measured 450mm above the pitch line of the treads (ignoring any newel post).	N/A	N/A	N/A	N/A	N/A	N/A	N/A
d	All stairs meet the provisions of Part K for private stairs.	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Habitable rooms **Living, kitchen and eating spaces**								
2.24	To provide usable living spaces and easy step-free access between a living area, a WC and the principal private entrance, key accommodation should comply with the following:							
a	Within the entrance storey there is a living area (which may be a living room, dining room or a combined kitchen and dining room).	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	A minimum of 1200mm clear space is provided in front of and between all kitchen units and appliances.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
c	Glazing to the principal window of the principal living area starts a maximum of 850mm above floor level or at the minimum height necessary to comply with the requirements of Part K for guarding to windows.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bedrooms								
2.25	To enable a wide range of people to access and use them, bedrooms should comply with all of the following:							
a	Every bedroom can provide a clear access route a minimum of 750mm wide from the doorway to the window.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	At least one double bedroom (the principal bedroom) can provide a clear access zone a minimum of 750mm wide to both sides and the foot of the bed.	Yes - single bed	Yes	Yes	Yes	Yes	Yes	Yes
c	Every other double bedroom can provide a clear access zone a minimum of 750mm wide to one side and the foot of the bed.	N/A	N/A	N/A	N/A	Yes	Yes	Yes
d	All single and twin bedrooms can provide a clear access zone a minimum of 750mm wide to one side of each bed.	N/A	N/A	N/A	N/A	N/A	N/A	N/A
e	It can be demonstrated (for example by providing dimensioned bedroom layouts, similar to the example in Diagram 2.4) that the provisions can be achieved.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Note: For the purpose of demonstrating compliance with these provisions, beds should be of the size set out in the furniture schedule in Appendix D.							
Sanitary facilities **General provisions**								
2.26	All walls, ducts and boxings to the WC/ Cloakroom, bathroom and shower room should be string enough to support grab rails, seats and other adaptations that could impose a load of up to 1.5kN/m².	Achievable	Achievable	Achievable	Achievable	Achievable	Achievable	Achievable
WC facilities on the entrance storey								
2.27	To provide step-free access to a WC that is suitable and convenient for some wheelchair users, and where reasonable, to make provision for showering, dwellings should comply with all of the following:							
a	Every dwelling has a room within the entrance storey that provides a WC and basin (which may be within a WC/ cloakroom or a bathroom)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	In a two or three storey dwelling with one or two bedrooms, the WC (together with its associated clear access zones) meets the provisions of Diagram1.3 and the basin does not impede access to the WC.	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c	In a two or three storey dwellings with three or more bedrooms, the room with the WC and basin also provides an installed level access shower or potential level access shower, and the shower, WC and basin (together with their associated clear access zones) meet the provisions of Diagram 2.5. Examples of compliant WC layouts are shown in Diagram 2.6.	N/A	N/A	N/A	N/A	N/A	N/A	N/A
d	The door opens outwards.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2.28	Where the dwelling provides both an accessible bathroom with a WC and a WC/ cloakroom within the same storey, the WC/ cloakroom may comply with the provisions of Diagram 1.3.	N/A	N/A	N/A	N/A	Achievable	Achievable	Achievable
Bathrooms								
2.29	To provide convenient access to a suitable bathroom, the dwelling should comply with all of the following:							
a	Every dwelling has a bathroom that contains a WC, basin and a bath, that is located on the same floor as the double bedroom, described as the principal bedroom in 2.25 b.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
b	The WC, basin and bath (together with their associated clear zones) meet the provisions of Diagram 2.5. Examples of bathroom layouts are shown in Diagram 2.7.	Achievable	Achievable	Achievable	Achievable	Achievable	Achievable	Achievable

c	Provision for a potential level access shower is made within the bathroom if not provided elsewhere within the dwelling	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Services and controls								
2.30	To assist people who have reduced reach, services and controls should comply with all of the following:							
a	Consumer units are mounted so that the switches are between 1350mm and 1450mm above floor level.	Achievable	Achievable	Achievable	Achievable	Achievable	Achievable	Achievable
b	Switches, sockets, stopcocks and controls have their centre line between 450mm and 1200mm above floor level and a minimum of 300mm (measured horizontally) from an inside corner.	Achievable	Achievable	Achievable	Achievable	Achievable	Achievable	Achievable
c	The handle to at least one window in the principal living area is located between 450mm and 1200mm above floor level, unless the window is fitted with a remote opening device that is within this range.	Achievable	Achievable	Achievable	Achievable	Achievable	Achievable	Achievable
d	Handles to all other windows are located between 450mm and 1400mm above floor level, unless fitted with a remote opening device that is within this height range.	Achievable	Achievable	Achievable	Achievable	Achievable	Achievable	Achievable
e	Either:							
	– boiler timer controls and thermostats are mounted between 900mm and 1200mm above finished floor level on the boiler, or	Achievable	Achievable	Achievable	Achievable	Achievable	Achievable	Achievable
	– separate controllers (wired or wireless) are mounted elsewhere in an accessible location within the same height range.							
	Note: Controls that are part of a radiator or cooker hood are exempt from these provisions.							

Other comments

All requirements can be achieved however some of these items are not shown at this stage and will be subject to detailed design. These are noted as achievable within this report

This audit does not consider the requirements of 2A - Approach to the dwelling as this is subject to detailed landscape design. All requirements will however be achievable.

The following drawings were reviewed for this audit:

DWG 535_02_04_101 P2
DWG 535_02_04_111 P6
DWG 535_02_04_112 P6
DWG 535_02_04_113 P4
DWG 535_02_04_121 P6
DWG 535_02_04_122 P4
DWG 535_02_04_123 P2

Hale Wharf - Block B Category 2

Optional Requirement M4(2): Category 2 - Accessible and Adaptable Dwellings

Optional Requirement M4(2) will be met when a new dwelling makes reasonable provision for most people to access the dwelling and incorporates features that make it potentially suitable for a wide range of occupants, including older people, those with reduced mobility and some wheelchair users. Please note that the following table contains information extracted from ADM,

		1 Bedroom		2 Bedroom		3 Bedroom	
		Type 1	Type 2	Type 2	Type 3	Type 1	Type 2
Section 2B: Private entrances and spaces within the dwelling							
Principal private entrance and alternative entrance							
2.20	The principal private entrance, or the alternative private entrance where step-free access cannot be achieved to the principal entrance, should comply with the following:						
a	There is a level external landing with a minimum width and depth of 1200mm.	Yes	Yes	Yes	Yes	Yes	Yes
b	The landing is covered for a minimum width of 900mm and a minimum depth of 600mm.	Yes	Yes	Yes	Yes	Yes	Yes
c	Lighting is provided which uses fully diffused luminaires activated automatically by a dusk to dawn timer or by detecting motion.	Achievable	Achievable	Achievable	Achievable	Achievable	Achievable
d	The door has a minimum clear opening width of 850mm when measured in accordance with Diagram 2.2.	Yes	Yes	Yes	Yes	Yes	Yes
e	Where there are double door, the main (or leading) leaf provides the minimum clear opening width.	N/A	N/A	N/A	N/A	N/A	N/A
f	A minimum 300mm nib is provided to the leading edge of the door and the extra width created by this nib is maintained for a minimum distance of 1200mm beyond it.	Yes	Yes	Yes	Yes	Yes	Yes
g	The depth of the reveal on the leading edge of the door (usually the inside) is a maximum of 200mm.	Yes	Yes	Yes	Yes	Yes	Yes
h	The threshold is an accessible threshold.	Yes	Yes	Yes	Yes	Yes	Yes
i	Where there is a lobby or porch, the doors are a minimum of 1500mm apart and there is at least 1500mm between door swings.	N/A	N/A	N/A	N/A	N/A	N/A
Other external doors							
2.21	All other external doors - including doors to and from a private garden, balcony, terrace, garage, carport, conservatory or storage area that is integral with, or connected to, the dwelling - should comply with provisions d. to i. of 2.20.	Achievable	Achievable	Achievable	Achievable	Achievable	Achievable
Circulation areas and internal doorways **Door and hall widths**							
2.22	To facilitate movement into, and between, rooms throughout the dwellings, doors and corridors should comply with all of the following (see Diagram 2.3).						
a	The minimum clear width of every hall or landing is 900mm.	Yes	Yes	Yes	Yes	Yes	Yes
b	Any localised obstruction, such as a radiator, does not occur opposite or close to a doorway or at a change of direction and is no longer than 2m in length: and the corridor is not reduced below a minimum 750mm width at any point.	Achievable	Achievable	Achievable	Achievable	Achievable	Achievable
c	Every door has a minimum clear opening width as set out in Table 2.1.	Yes	Yes	Yes	Yes	Yes	Yes
d	A minimum 300mm nib is provided to the leading edge of every door within the entrance storey.	Yes	Yes	Yes	Yes	Yes	Yes
Private stairs and changes of level within the dwelling							
2.23	To allow people to move between storeys, and to allow a stair-lift to be fitted to the stairs from the entrance storey above (or the storey below where this contains the bathroom required by the provisions of 2.29), stairs should comply with all of the following:						
a	Access to all rooms and facilities within the entrance storey is step free.	Yes	Yes	Yes	Yes	Yes	Yes
b	Level changes within every other storey are avoided where possible.	N/A	N/A	N/A	N/A	N/A	N/A

c	The stair from the entrance storey to the storey above (or below) has a minimum clear width of 850mm when measured 450mm above the pitch line of the treads (ignoring any newel post).	N/A	N/A	N/A	N/A	N/A	N/A
d	All stairs meet the provisions of Part K for private stairs.	N/A	N/A	N/A	N/A	N/A	N/A
Habitable rooms **Living, kitchen and eating spaces**							
2.24	To provide usable living spaces and easy step-free access between a living area, a WC and the principal private entrance, key accommodation should comply with the following:						
a	Within the entrance storey there is a living area (which may be a living room, dining room or a combined kitchen and dining room).	Yes	Yes	Yes	Yes	Yes	Yes
b	A minimum of 1200mm clear space is provided in front of and between all kitchen units and appliances.	Yes	Yes	Yes	Yes	Yes	Yes
c	Glazing to the principal window of the principal living area starts a maximum of 850mm above floor level or at the minimum height necessary to comply with the requirements of Part K for guarding to windows.	Yes	Yes	Yes	Yes	Yes	Yes
Bedrooms							
2.25	To enable a wide range of people to access and use them, bedrooms should comply with all of the following:						
a	Every bedroom can provide a clear access route a minimum of 750mm wide from the doorway to the window.	Yes	Yes	Yes	Yes	Yes	Yes
b	At least one double bedroom (the principal bedroom) can provide a clear access zone a minimum of 750mm wide to both sides and the foot of the bed.	Yes	Yes	Yes	Yes	Yes	Yes
c	Every other double bedroom can provide a clear access zone a minimum of 750mm wide to one side and the foot of the bed.	N/A	N/A	Yes	Yes	N/A	Yes
d	All single and twin bedrooms can provide a clear access zone a minimum of 750mm wide to one side of each bed.	N/A	N/A	N/A	N/A	Yes	N/A
e	It can be demonstrated (for example by providing dimensioned bedroom layouts, similar to the example in Diagram 2.4) that the provisions can be achieved.	Yes	Yes	Yes	Yes	Yes	Yes
	Note: For the purpose of demonstrating compliance with these provisions, beds should be of the size set out in the furniture schedule in Appendix D.						
Sanitary facilities **General provisions**							
2.26	All walls, ducts and boxings to the WC/ Cloakroom, bathroom and shower room should be string enough to support grab rails, seats and other adaptations that could impose a load of up to 1.5kN/m².	Achievable	Achievable	Achievable	Achievable	Achievable	Achievable
WC facilities on the entrance storey							
2.27	To provide step-free access to a WC that is suitable and convenient for some wheelchair users, and where reasonable, to make provision for showering, dwellings should comply with all of the following:						
a	Every dwelling has a room within the entrance storey that provides a WC and basin (which may be within a WC/ cloakroom or a bathroom)	Yes	Yes	Yes	Yes	Yes	Yes
b	In a two or three storey dwelling with one or two bedrooms, the WC (together with its associated clear access zones) meets the provisions of Diagram1.3 and the basin does not impede access to the WC.	N/A	N/A	N/A	N/A	N/A	N/A
c	In a two or three storey dwellings with three or more bedrooms, the room with the WC and basin also provides an installed level access shower or potential level access shower, and the shower, WC and basin (together with their associated clear access zones) meet the provisions of Diagram 2.5. Examples of compliant WC layouts are shown in Diagram 2.6.	N/A	N/A	N/A	N/A	N/A	N/A
d	The door opens outwards.	Yes	Yes	Yes	Yes	Yes	Yes
2.28	Where the dwelling provides both an accessible bathroom with a WC and a WC/ cloakroom within the same storey, the WC/ cloakroom may comply with the provisions of Diagram 1.3.	N/A	N/A	Achievable	Achievable	Achievable	Achievable
Bathrooms							
2.29	To provide convenient access to a suitable bathroom, the dwelling should comply with all of the following:						

a	Every dwelling has a bathroom that contains a WC, basin and a bath, that is located on the same floor as the double bedroom, described as the principal bedroom in 2.25 b.	Yes	Yes	Yes	Yes	Yes	Yes
b	The WC, basin and bath (together with their associated clear zones) meet the provisions of Diagram 2.5. Examples of bathroom layouts are shown in Diagram 2.7.	Achievable	Achievable	Achievable	Achievable	Achievable	Achievable
c	Provision for a potential level access shower is made within the bathroom if not provided elsewhere within the dwelling	Yes	Yes	Yes	Yes	Yes	Yes
Services and controls							
2.30	To assist people who have reduced reach, services and controls should comply with all of the following:						
a	Consumer units are mounted so that the switches are between 1350mm and 1450mm above floor level.	Achievable	Achievable	Achievable	Achievable	Achievable	Achievable
b	Switches, sockets, stopcocks and controls have their centre line between 450mm and 1200mm above floor level and a minimum of 300mm (measured horizontally) from an inside corner.	Achievable	Achievable	Achievable	Achievable	Achievable	Achievable
c	The handle to at least one window in the principal living area is located between 450mm and 1200mm above floor level, unless the window is fitted with a remote opening device that is within this range.	Achievable	Achievable	Achievable	Achievable	Achievable	Achievable
d	Handles to all other windows are located between 450mm and 1400mm above floor level, unless fitted with a remote opening device that is within this height range.	Achievable	Achievable	Achievable	Achievable	Achievable	Achievable
e	Either:						
	– boiler timer controls and thermostats are mounted between 900mm and 1200mm above finished floor level on the boiler, or	Achievable	Achievable	Achievable	Achievable	Achievable	Achievable
	– separate controllers (wired or wireless) are mounted elsewhere in an accessible location within the same height range.						
	Note: Controls that are part of a radiator or cooker hood are exempt from these provisions.						

Other comments

All requirements can be achieved however some of these items are not shown at this stage and will be subject to detailed design. These are noted as achievable within this report.

This audit does not consider the requirements of 2A - Approach to the dwelling as this is subject to detailed landscape design. All requirements will however be achievable.

The following drawings were reviewed for this audit:

DWG 535_02_04_211 P6
DWG 535_02_04_212 P4
DWG 535_02_04_222 P4
DWG 535_02_04_223 P4
DWG 535_02_04_231 P4
DWG 535_02_04_232 P4

Hale Wharf - Block B

Optional Requirement M4(3): Category 3 - Wheelchair User Dwellings

Optional Requirement M4(3) will be met when a new dwelling makes reasonable provision for most people to access the dwelling and incorporates features that make it potentially suitable for a wide range of occupants, including older people, those with reduced mobility and some wheelchair users. (abbreviated) Please note that the following table contains information extracted from ADM, Volume 1 (2015) and the document 'corrections to the Approved Documents' dated September 2015. Information has been abbreviated and the

		Wheelchair Adaptable	
		1 Bed	2 Bed
Section 3B: Private entrances and spaces within and connected to the dwelling			
Principal private entrance and alternative entrance			
3.22	The principal private entrance to the individual dwelling should comply with all of the following:		
a	There is a level external landing with a minimum width and depth of 1500mm and clear of any door swing.	Yes	Yes
b	The landing is covered for a minimum width and depth of 1200mm.	N/A	N/A
c	Lighting is provided which uses fully diffused luminaires activated automatically by a dusk to dawn timer or by detecting motion.	Achievable	Achievable
d	There is a minimum 1500mm clear turning circle inside the entrance area, in front of the door when closed.	Yes	Yes
e	A minimum 300mm nib is provided to the leading edge of the door and the extra width created by this nib is maintained for a minimum distance of 1800mm beyond it. A minimum 150mm nib is provided to the hinge side of the door (to allow for the fitting of a cage to the inside face of the letter box).	Yes	Yes
f	The door has a minimum clear opening width of 850mm when measured in accordance with Diagram 3.2.	Yes	Yes
g	Where there are double door, the main (or leading) leaf provides the minimum clear opening width. A minimum 200mm nib is provided to the following edge of the door and the extra width created by the nib is maintained for a minimum of 1500mm beyond it.	Yes	Yes
h	The door is located reasonably centrally within the thickness of the wall while ensuring that the depth of the reveal on the leading face of the door (usually the inside) is a maximum of 200mm.	Yes	Yes
i	The threshold is an accessible threshold.	Yes	Yes
j	Where there is a lobby or porch, the doors are a minimum of 1500mm apart and there is a minimum of 1500mm between door swings.	N/A	N/A
k	Door entry controls, where provided, are mounted 900mm - 1000mm above finished ground level a minimum of 300mm away from any return corner.	Achievable	Achievable
l	A fused spur, suitable for the fitting of a powered door opener, is provided on the hinge side of the door.	Achievable	Achievable
Other external doors			
3.23	All other external doors - including doors to and from a private garden, balcony, terrace, garage, carport, conservatory or storage area that is integral with, or connected to, the dwelling - should comply with provisions f. to k. of paragraph 3.22 and should have a minimum 300mm nib to the leading edge of the door with the extra width created by this nib extending for a minimum 1800mm beyond it.	Achievable	Achievable

Circulation areas and internal doorways **Door and hall widths**			
3.24	To facilitate movement into, and between rooms, internal halls and doors should comply with all of the following (see Diagram 3.4).		
a	The minimum clear width of every hallway, approach or landing is 1050mm.	Yes	Yes
b	Where the approach to a doorway is not head-on, the minimum clear width of the hallway or approach is 1200mm.	Yes	Yes
c	Any localised obstruction, such as a radiator, does not occur opposite or close to a doorway or at a change of direction and is no longer than 2m in length, as shown in Diagram 3.4. .	Achievable	Achievable
d	Every door has a minimum clear opening width of 850mm, irrespective of the direction of entry, when measured in accordance with Diagram 3.2.	Achievable	Achievable
e	Where an outward opening door is located close to a corner and another door is located on the return wall within 800mm of that corner, the leading edge of an outward opening door is a minimum of 800mm from the corner, as shown in Diagram 3.5, unless a 1500mm turning circle is provided immediately outside the door.	Yes	Yes
f	A minimum 300mm nib is provided to the leading edge of every door.	Yes	Yes
d	A minimum 200mm nib is provided to the following edge of every door.	Yes	Yes
Wheelchair storage and transfer space			
3.25	To enable a person to charge and store up to two wheelchairs and transfer between an outdoor and an indoor wheelchair, a dwelling should have a storage and transfer space which complies with the following.		
a	A minimum 1100mm deep by 1700mm wide space is available on the entrance storey, preferably close to the principal private entrance.	Yes	Yes
b	Is accessible from a space that has a minimum clear width of 1200mm, as shown in Diagram 3.6.	Yes	Yes
c	A power socket is provided within the space.	Achievable	Achievable
d	In wheelchair adaptable dwellings the storage and transfer space may be used for another purpose such as general storage (and doors fitted if required) provided that: - the provisions of paragraph 3.25 can be met without alteration to structure or services, and - the space is additional the minimum requirements for storage, living spaces and bedrooms set out in paragraphs 3.26, 3.31 and 3.35.	Yes	Yes
General storage space			
3.26	To make adequate provision for the storage of household items, general built-in storage space should comply with Table 3.1.	Yes	Yes
Through-floor lifting device provision			
3.27	To ensure that provision can be made for a wheelchair user to access to all parts of a dwelling on more than one floor level, the dwelling should comply with either the requirements of paragraph 3.28 for a wheelchair adaptable dwelling or 3.29 for a wheelchair accessible dwelling.	N/A	N/A
3.28	Where the dwelling is defined as wheelchair adaptable, it should be easy to install a lift. The space for the liftway can, however be used for another purpose (such as storage or part of a habitable room) providing it is demonstrated that the dwelling complies with all of the following.		
a	Any floors, walls and doors that have been installed to allow the potential liftway to be used as storage or for any other purposes could be easily removed without structural alteration.	N/A	N/A

b	Future provision for the liftway is a minimum of 1100mm wide and 1650mm long internally linking circulation areas at every floor level of the dwelling.	N/A	N/A
c	Where walls forming the liftway enclosure are not initially installed, they can be easily reinstated without the need for structural works and would not compromise compliance with this or any other part of the Building Regulations.	N/A	N/A
d	Drawings demonstrate how all the provisions of paragraph 3.29 can be complied with if a suitable lifting device is fitted in the future.	N/A	N/A
e	The space for the future lift installation is not used to meet other requirements and in particular is not included in the minimum living, kitchen and eating area set out in paragraph 3.31.	N/A	N/A
3.29	Where the dwelling is defined as wheelchair accessible, a suitable through-floor lift or lifting platform should be installed and commissioned and the dwelling should comply with all of the following:		
a	There is a continuous liftway a minimum 100mm wide and 1650mm long internally linking every floor of the dwelling.	N/A	N/A
b	The liftway can be entered from the same one of its narrower ends at every floor level.	N/A	N/A
c	A minimum 1500mm clear turning circle, clear of the liftway door when open at 90 degrees, could be provided in front of the liftway door at every floor level, as shown in Diagram 3.7.	N/A	N/A
d	A power socket , suitable for powering the lifting device, is provided close to the liftway.	N/A	N/A
e	The shaft is positioned to allow the lift to run between the circulation areas in every storey of the dwelling (irrespective of the number of storeys).	N/A	N/A
f	Lifting devices should be positioned to allow the lift to run between the circulation areas in every storey of the dwelling.	N/A	N/A
g	Doors are power operated.	N/A	N/A
Private stairs and changes of level within the dwelling			
3.30	An ambulant disabled person should be able to move within, and between storeys. It should also be possible to fit a stair-lift to the stairs from the entrance storey to the storey above (or the storey below where this contains the bathroom required by the provisions of paragraph 3.41). The dwelling should comply with all of the following:		
a	Access to all rooms and facilities within the entrance storey is step free.	Yes	Yes
b	There are no changes of level within any other storey.	N/A	N/A
c	The stair from the entrance storey to the storey above (or below) and any stair within the storey above (or below) has a minimum clear width of 850mm when measured at 450mm above the pitch line of the treads (ignoring any newel post).	N/A	N/A
d	A power socket suitable for powering a stair-lift is provided close to the foot or head of any stair to which a stair lift may be fitted.	N/A	N/A
e	All stairs meet the provisions of Part K for private stairs.	N/A	N/A
Habitable rooms **Living areas**			
3.31	To provide usable living spaces that have a convenient, step free relationship between the living space, WC and principal private entrance, living areas should comply with all of the following.		
a	The principal living area is within the entrance storey.	Yes	Yes
b	The minimum combined internal floor area of the living, dining and kitchen space meets the provisions of Table 3.2.	Yes	Yes

c	Glazing to the principal window of this living area starts a maximum of 850mm above floor level or at the minimum height reasonable in achieving compliance with the provisions of Part K for guarding to windows.	Yes	Yes
Kitchen and eating areas			
3.32	The relationship between the kitchen, dining and living areas should be convenient and step-free. Kitchen and eating areas should comply with all of the following.		
a	The kitchen and principal eating area are within the same room, or connected to each other, and located within the entrance storey.	Yes	Yes
b	There is a minimum clear access zone 1500mm wide in front of, and between, all kitchen units and appliances.	Yes	Yes
3.33	Where the dwelling is defined as wheelchair adaptable, in addition to the provisions of paragraph 3.32, the kitchen should comply with all the following.		
a	The overall length of the kitchen worktop meets at least the provisions of Table 3.3.	Yes	Yes
b	Drawings demonstrate how the kitchen could be easily adapted to meet the provisions of paragraph 3.34 and Table 3.4 at a future date without compromising the space in any other part of the dwelling and without the need to move structural walls, stacks or concealed drainage.	Yes	Yes
3.34	Where the dwelling is defined as wheelchair accessible, in addition to the provisions of paragraph 3.22, the kitchen should comply with all of the following (see in Diagram 3.8)		
a	The overall length of the kitchen worktop meets the provisions of Table 3.4.	N/A	N/A
b	The worktop includes a continuous section that incorporates a combined sink and drainer unit and a hob, and all of the following: - The section of worktop is a minimum of 2200mm long; - The section of worktop is either a height adjustable worktop, or is a fixed section capable of being refixed at alternate heights; - There are no white goods (appliances) placed beneath this section of worktop; - This section of worktop provides clear and continuous open leg space underneath (capable of achieving a minimum of 700mm clearance above floor level).	N/A	N/A
c	The sink is not more than 150mm deep and insulation to the underside to prevent scalding of a wheelchair user's leg.	N/A	N/A
d	Taps should be lever operated and capable of easy operation.	N/A	N/A
e	A suitable space has been identified for a built-in oven (with its centre line between 800mm and 900mm above floor level) to be installed.	N/A	N/A
f	A pull out shelf is provided beneath the oven enclosure.	N/A	N/A
g	There is a minimum of 400mm of worktop to at least one side of the oven and fridge or fridge freezer where this is taller than the worktop height (or to one side off a pair of tall appliances where they are located together at the end of a run).	N/A	N/A
h	Water supply to sinks includes isolation valves and flexible tails.	N/A	N/A
i	Drainage is either flexible, or is fixed but easily adaptable to suit worktop heights between 700mm and 950mm above finished floor level.	N/A	N/A
Bedrooms			
3.35	One bedroom should be close to an accessible bathroom suitable for a wheelchair user. All other bedrooms should be accessible to a wheelchair user. Bedrooms should comply with all of the following.		
a	Every bedroom can provide a minimum clear access route, 750mm wide, from the doorway to the window.	Yes	Yes

b	Every bedroom can provide a minimum 1200mm x 1200mm manoeuvring space inside the doorway, clear of the bed and the door (when the door is in the closed position).	Yes	Yes
c	The ceiling structure to every bedroom is strong enough to allow for the fitting of an overhead hoist capable of carrying a load of 200kg.	Achievable	Achievable
d	A principal double bedroom is located on the entrance storey, or the storey above (or below) the entrance storey, has a minimum floor area of 13.5m^2 and is a minimum of 3m wide clear of obstructions (e.g. radiators).	Yes	Yes
e	The principal double bedroom can provide a minimum 1000mm wide clear access zone to both sides and the foot of the bed and in front of all furniture, and a minimum 1200mm x 1200mm manoeuvring space on both sides of the bed (see Diagram 3.9).	Achievable	Achievable
f	Every other double (or twin) bedroom has a minimum floor area of 12.5m^2 and is a minimum of 3m wide.	N/A	N/A
g	Every other double can provide a 1000mm wide clear access zone to one side and the foot of the bed, and in front of all furniture.	N/A	N/A
h	All single and twin bedrooms provide a minimum 1000mm clear access zone to one side of each bed and in front of all furniture.	N/A	Yes
i	Every single bedroom has a minimum floor area of 8.5m^2 and is at least 2.4m wide.	N/A	Yes
	Note: For the purpose of demonstrating compliance with these provisions, beds sizes and furniture should comply with the requirements of the furniture schedule in Appendix D.	Yes	Yes
Sanitary facilities **General provisions**			
3.36	Dwellings should provide suitable toilet and washing facilities. Reasonable provision will vary depending on whether dwellings are wheelchair adaptable or wheelchair accessible. To provide suitable and convenient sanitary facilities, a dwelling should comply with all of the following.		
a	WC facilities are provided which comply with the relevant requirements of paragraphs 3.37 to 3.40, and bathroom facilities are provided which comply with the relevant requirements of paragraph 3.41 - 3.43.	Yes	Yes
b	Any dwelling with four or more bedspaces provides access to a minimum of two WCS in separate bathrooms or WC/ cloakrooms (see Table 3.5).	N/A	N/A
c	Every room that contains an installed level access shower is constructed as a wet room.	Achievable	Achievable
d	All walls, ducts and boxings to every WC/ cloakroom, bath and shower room are strong enough to support grab rails, seats and other adaptations that could impose a load of 1.5kN/m^2.	Achievable	Achievable
e	The ceiling structure to bathrooms and WC/ cloakrooms required by paragraphs 3.36 to 3.40 is strong enough to allow for the fitting on an overhead hoist capable of carrying a load of 200kg.	Achievable	Achievable
f	Where sanitary facilities are wheelchair accessible, WC flush controls are positioned on the front of the cistern on the transfer side and can be easily gripped, e.g. a level flush handle.	N/A	N/A
g	Where sanitary facilities are wheelchair accessible, WC pans should be a minimum of 400mm high.	N/A	N/A
h	Where sanitary facilities are wheelchair accessible, basins and sinks should be wall hung (typically with their rim 770-850mm above finished floor level) and the clear zone beneath basins, services and pedestals is maximised to enable wheelchair users to approach. Ideal this clear some should be in the range 400-600mm from finished floor level.	N/A	N/A
i	Stacks or soil and vent pipes should only be positioned adjacent to WC where there is no practical alternative and should always be on the wall side of the WC.	Achievable	Achievable

	NOTE 2: The provisions of paragraph 3.36 do not apply to sanitary facilities that are additional to the provisions of paragraphs 3.36 to 3.40. NOTE 3: For the purposes of establishing number of bedspaces relevant to these requirements, a bedroom 8.5-12.5m^2 in size is counted as one bedspaces, and equal to or greater than 12.5m^2 as two bedspaces.		
WC facilities on the entrance storey			
3.37	To make suitable and convenient provision for a wheelchair user to use a WC, the dwelling should comply with all of the following.		
a	Every dwelling has, on the entrance storey a wet room (which may be a WC/ cloakroom or a bathroom) that contains a WC, a basin and an installed level access shower and complies with the requirements of either paragraph 3.38 or 3.39.	Yes	Yes
b	Where the dwelling provides both a bathroom and a WC/ cloakroom on the same storey, the WC facility need only comply with the requirements of paragraph 3.40.	N/A	N/A
c	The door to the WC facility opens outwards.	Yes	Yes
3.38	Where the dwelling is defined as wheelchair adaptable, WC facilities should also comply with all of the following.		
a	The WC, basin and shower (and their associated clear access zones) meet the provisions in Diagram 3.10. An example of a compliant design is shown in Diagram 3.12.	Yes	Yes
b	It is demonstrated how the WC/ cloakroom could be easily adapted in future to meet the provisions of paragraph 3.39.	N/A	N/A
3.39	Where the dwelling is defined as wheelchair accessible, WC facilities should also comply with all of the following.		
a	The WC, basin and shower (and their associated clear access zones) meet the provisions in Diagram 3.11. An example of a compliant design is shown in Diagram 3.12.	N/A	N/A
3.40	Where the dwelling provides both a bathroom and a WC/ cloakroom on the same storey, the WC and basin in the WC/ cloakroom (and their associated clear access zones) should as a minimum comply with the provisions shown in Diagram 3.13. Examples of compliant designs are shown in Diagram 3.14.	N/A	N/A
Bathroom facilities			
3.41	To make suitable and convenient provision for a wheelchair user to bathe or use a wheelchair accessible shower, with assistance where necessary, the dwelling should comply with all of the following.		
a	Dwellings with up to four bedspaces should have as a minimum a bathroom that contains a WC, a basin and an installed level access shower with the potential for a bath to be installed above it (unless a bath is provided in addition to the installed level access shower within this bathroom or elsewhere in the same storey).	Achievable	Achievable
b	The bathroom containing the installed level access shower should be located on the same storey as the principal double bedroom described in paragraph 3.35.	Yes	Yes
	NOTE 1: In dwellings with five bedspaces or more, where the provisions of paragraphs 3.42 or 3.43 are satisfied by providing both a bathroom and a shower room, either room (but not both) may be an en-suite bathroom. NOTE 2: Where there is a fully accessible shower room on the same storey as the principal bedroom, a separate room providing the bath need only comply with the requirements set out in paragraph 2.29 for a Category 2 bathroom. NOTE 3: In dwellings with up to four bedspaces it would be reasonable for a bath to be fitted above the installed level access shower at the point that the works are completed.		
3.42	Where the dwelling is defined as **wheelchair adaptable**, it is assumed that most commonly a bath will be installed over a usable level access shower, though this is not a requirement. Wheelchair adaptable bathrooms should also comply with the following.		

a	The WC, basin bath and shower (and their associated clear access zones) meet at least the provisions shown in Diagram 3.10. Examples of compliant designs are shown in Diagram 3.15.	Yes	Yes
b	Drawings illustrate how the bathroom could easily be adapted in future to meet the provisions for a wheelchair accessible bathroom set out in paragraph 3.43 (but need only show either a bath or level access shower, not both).	Achievable	Achievable
3.43	Where the dwelling is defined as **wheelchair accessible**, the bathroom should also comply with all of the following.		
a	The WC, basin, bath (where provided) and shower (and their associated clear access zones) meet the provisions in Diagram 3.11. Examples of compliant designs are shown in Diagram 3.16.	N/A	N/A
b	In dwellings with up to four bedspaces, an installed level access shower is provided as the default but a bath can be accommodated as an alternative if required.	N/A	N/A
c	In dwellings with 5 bedspaces or more, both a useable bath and an installed level access shower are provided (either in one bathroom or in more than one bathroom on the same storey as the principal bedroom). Examples of bathrooms with shower and bath are provided in diagram 3.17.	N/A	N/A
d	The level access shower is positioned in a corner to enable a shower seat to be fitted on one wall, with shower controls fitted on the adjacent wall.	N/A	N/A
e	The bathroom (or bathrooms) provides a minimum 1500mm clear turning circle.	N/A	N/A
Services and controls			
3.44	To assist wheelchair users who have reduced reach, services and controls should comply with all of the following:		
a	Consumer units are mounted so that the switches are between 1350mm and 1450mm above floor level.	Achievable	Achievable
b	Switches, sockets, stopcocks and controls, except controls to radiators, are located with their centre line 700-1000mm above floor level and a minimum 700mm (measured horizontally) from an inside corner, and are not positioned behind appliances.	Achievable	Achievable
c	Kitchen appliances in wheelchair accessible dwellings have isolators located within the same height range.	Achievable	Achievable
d	The handle to at least one window in the principal living area is 700-1000mm above floor level, unless fitted with a remote opening device that is within this height range.	Achievable	Achievable
e	Handles to all other windows are 450mm -1200mm above floor level, unless the window is fitted with a remote opening device that is within this height range.	Achievable	Achievable
f	Door handles, locks, latches and catches are both: - easy to grip and use, and - fitted 850-1000mm above floor level.	Achievable	Achievable
g	Light switches are on individual plates unless wide rocker or full plate fittings are provided.	Achievable	Achievable
h	Switches to double socket outlets are located at the outer ends of the plate (rather than in the centre).	Achievable	Achievable
i	A door entry phone with remote door release facility is provided in the main living space and the principal bedroom.	Achievable	Achievable
j	Suitable provision is made in the principal bedroom to install bedhead controls in the future (comprising a 2-way light switch, telephone and broadband socket, TV ariel and power socket outlets, and the door entry phone provision described above, grouped adjacent to the head of the bed), for example by providing blank sockets, conduit and draw wires.	Achievable	Achievable
k	A main electrical power socket and telephone point are provided together in the main living space.	Achievable	Achievable
l	Taps and bathroom controls are suitable for a person with limited grip to operate and for single handed operation.	Achievable	Achievable
m	Boiler timer controls and thermostats are either mounted 900-1200mm above finished floor level on the boiler, or separate controllers (wired or wireless) are mounted elsewhere in an accessible location within the same height range.	Achievable	Achievable

n	In wheelchair accessible dwellings, radiator controls are mounted 450-1000mm above floor level.	N/A	N/A
Private outdoor space			
3.45	To enable a wheelchair user to use every private outdoor space that is provided, whether a private garden, balcony or roof terrace, outdoor space should comply with the following.		
a	Every outdoor space both: - has a minimum clear width of 1500mm, and - provides a minimum 1500mm level clear turning circle, free of any door swing.	Yes	Yes
b	There is a level or gently sloping path with a minimum clear width of 1050mm to every private refuse, recycling, cycle or other external store.	N/A	N/A
c	Every path terminates in a clear turning circle a minimum of 1500mm in diameter.	N/A	N/A
d	Every gate (or gateway) has a minimum clear opening width of 850mm, a minimum 300mm nib to the leading edge and a minimum 200mm nib to the following edge.	N/A	N/A
e	The door to every private external store that is integral with, or connected to, the dwelling has a minimum clear opening width of 850mm.	N/A	N/A
f	All paved areas have a suitable ground surface.	Achievable	Achievable
Other comments			

All requirements can be achieved however some of these items are not shown at this stage and will be subject to detailed design. These are noted as achievable within this report

This audit does not consider the requirements of 3A - Approach to the dwelling as this is subject to detailed landscape design. All requirements will however be achievable.

The following drawings were reviewed for this audit:

DWG 535_02_04_213 P5

DWG 535_02_04_221 P6

Hale Wharf - Block B Category 2

Optional Requirement M4(2): Category 2 - Accessible and Adaptable Dwellings

Optional Requirement M4(2) will be met when a new dwelling makes reasonable provision for most people to access the dwelling and incorporates features that make it potentially suitable for a wide range of occupants, including older people, those with reduced mobility and some wheelchair users. Please note that the following table contains information extracted from ADM, Volume 1 (2015) and the document 'corrections to the Approved Documents' dated September 2015. Information has been abbreviated and the full guidance should be used referred to in conjunction with this appraisal.

		3 bedroom
		Type 3
Section 2B: Private entrances and spaces within the dwelling		
Principal private entrance and alternative entrance		
2.20	The principal private entrance, or the alternative private entrance where step-free access cannot be achieved to the principal entrance, should comply with the following:	
a	There is a level external landing with a minimum width and depth of 1200mm.	Yes
b	The landing is covered for a minimum width of 900mm and a minimum depth of 600mm.	Yes
c	Lighting is provided which uses fully diffused luminaires activated automatically by a dusk to dawn timer or by detecting motion.	Achievable
d	The door has a minimum clear opening width of 850mm when measured in accordance with Diagram 2.2.	Yes
e	Where there are double door, the main (or leading) leaf provides the minimum clear opening width.	N/A
f	A minimum 300mm nib is provided to the leading edge of the door and the extra width created by this nib is maintained for a minimum distance of 1200mm beyond it.	Yes
g	The depth of the reveal on the leading edge of the door (usually the inside) is a maximum of 200mm.	Yes
h	The threshold is an accessible threshold.	Achievable
i	Where there is a lobby or porch, the doors are a minimum of 1500mm apart and there is at least 1500mm between door swings.	N/A
Other external doors		
2.21	All other external doors - including doors to and from a private garden, balcony, terrace, garage, carport, conservatory or storage area that is integral with, or connected to, the dwelling - should comply with provisions d. to i. of 2.20.	Achievable

Circulation areas and internal doorways		
Door and hall widths		
2.22	To facilitate movement into, and between, rooms throughout the dwellings, doors and corridors should comply with all of the following (see Diagram 2.3).	
a	The minimum clear width of every hall or landing is 900mm.	Yes
b	Any localised obstruction, such as a radiator, does not occur opposite or close to a doorway or at a change of direction and is no longer than 2m in length: and the corridor is not reduced below a minimum 750mm width at any point.	Achievable
c	Every door has a minimum clear opening width as set out in Table 2.1.	Yes
d	A minimum 300mm nib is provided to the leading edge of every door within the entrance storey.	Yes
Private stairs and changes of level within the dwelling		
2.23	To allow people to move between storeys, and to allow a stair-lift to be fitted to the stairs from the entrance storey above (or the storey below where this contains the bathroom required by the provisions of 2.29), stairs should comply with all of the following:	
a	Access to all rooms and facilities within the entrance storey is step free.	Yes
b	Level changes within every other storey are avoided where possible.	Yes
c	The stair from the entrance storey to the storey above (or below) has a minimum clear width of 850mm when measured 450mm above the pitch line of the treads (ignoring any newel post).	Yes
d	All stairs meet the provisions of Part K for private stairs.	Achievable. Stair dimensions not reviewed.
Habitable rooms **Living, kitchen and eating spaces**		
2.24	To provide usable living spaces and easy step-free access between a living area, a WC and the principal private entrance, key accommodation should comply with the following:	
a	Within the entrance storey there is a living area (which may be a living room, dining room or a combined kitchen and dining room).	Yes
b	A minimum of 1200mm clear space is provided in front of and between all kitchen units and appliances.	Yes
c	Glazing to the principal window of the principal living area starts a maximum of 850mm above floor level or at the minimum height necessary to comply with the requirements of Part K for guarding to windows.	Yes

Bedrooms		
2.25	To enable a wide range of people to access and use them, bedrooms should comply with all of the following:	
a	Every bedroom can provide a clear access route a minimum of 750mm wide from the doorway to the window.	Yes
b	At least one double bedroom (the principal bedroom) can provide a clear access zone a minimum of 750mm wide to both sides and the foot of the bed.	Yes
c	Every other double bedroom can provide a clear access zone a minimum of 750mm wide to one side and the foot of the bed.	Yes
d	All single and twin bedrooms can provide a clear access zone a minimum of 750mm wide to one side of each bed.	Yes
e	It can be demonstrated (for example by providing dimensioned bedroom layouts, similar to the example in Diagram 2.4) that the provisions can be achieved.	Yes
	Note: For the purpose of demonstrating compliance with these provisions, beds should be of the size set out in the furniture schedule in Appendix D.	
Sanitary facilities **General provisions**		
2.26	All walls, ducts and boxings to the WC/ Cloakroom, bathroom and shower room should be string enough to support grab rails, seats and other adaptations that could impose a load of up to 1.5kN/m².	Achievable
WC facilities on the entrance storey		
2.27	To provide step-free access to a WC that is suitable and convenient for some wheelchair users, and where reasonable, to make provision for showering, dwellings should comply with all of the following:	
a	Every dwelling has a room within the entrance storey that provides a WC and basin (which may be within a WC/ cloakroom or a bathroom)	Yes
b	In a two or three storey dwelling with one or two bedrooms, the WC (together with its associated clear access zones) meets the provisions of Diagram1.3 and the basin does not impede access to the WC.	Yes
c	In a two or three storey dwellings with three or more bedrooms, the room with the WC and basin also provides an installed level access shower or potential level access shower, and the shower, WC and basin (together with their associated clear access zones) meet the provisions of Diagram 2.5. Examples of compliant WC layouts are shown in Diagram 2.6.	Yes
d	The door opens outwards.	Yes
2.28	Where the dwelling provides both an accessible bathroom with a WC and a WC/ cloakroom within the same storey, the WC/ cloakroom may comply with the provisions of Diagram 1.3.	Yes

Bathrooms		
2.29	To provide convenient access to a suitable bathroom, the dwelling should comply with all of the following:	
a	Every dwelling has a bathroom that contains a WC, basin and a bath, that is located on the same floor as the double bedroom, described as the principal bedroom in 2.25 b.	Yes
b	The WC, basin and bath (together with their associated clear zones) meet the provisions of Diagram 2.5. Examples of bathroom layouts are shown in Diagram 2.7.	Yes
c	Provision for a potential level access shower is made within the bathroom if not provided elsewhere within the dwelling	Yes
Services and controls		
2.30	To assist people who have reduced reach, services and controls should comply with all of the following:	
a	Consumer units are mounted so that the switches are between 1350mm and 1450mm above floor level.	Achievable
b	Switches, sockets, stopcocks and controls have their centre line between 450mm and 1200mm above floor level and a minimum of 300mm (measured horizontally) from an inside corner.	Achievable
c	The handle to at least one window in the principal living area is located between 450mm and 1200mm above floor level, unless the window is fitted with a remote opening device that is within this range.	Achievable
d	Handles to all other windows are located between 450mm and 1400mm above floor level, unless fitted with a remote opening device that is within this height range.	Achievable
e	Either:	
	– boiler timer controls and thermostats are mounted between 900mm and 1200mm above finished floor level on the boiler, or	Achievable
	– separate controllers (wired or wireless) are mounted elsewhere in an accessible location within the same height range.	
	Note: Controls that are part of a radiator or cooker hood are exempt from these provisions.	

Other comments

All requirements can be achieved however some of these items are not shown at this stage and will be subject to detailed design. These

This audit does not consider the requirements of 2A - Approach to the dwelling as this is subject to detailed landscape design. All requirements will however be achievable.

The following drawings were reviewed for this audit:

DWG 535_02_04_233 L P1

DWG 535_02_04_233 U P1

C HALE WHARF LIGHTING DESIGN CODE

HALE WHARF LIGHTING DESIGN CODE

The following parameters and design performance standards are required by lighting installations at the proposed development.

Environmental Parameters

All new lighting arrangements for both construction and permanent lighting shall be designed to adhere to best practice recommendations with respect to obtrusive light parameters: light spill, sky glow and glare potential. Standards referenced include:

- CIBSE Lighting Guide 9: *Lighting for communal residential buildings* (LG9).
- International Commission on Illumination. *Guide on the Limitation of the Effects of Obtrusive Light from Outdoor Lighting Installations*. 2003. CIE 150.
- Institute of Lighting Professionals (ILP). *Guidance Notes for the Reduction of Obtrusive Light*. 2011. GN01.
- BS EN 5489-1 *Code of Practice for the Design of Road Lighting* (2013).
- BS EN 13201-2 *Road Lighting – Part 2: Performance Requirements* (2015).
- CIBSE/SLL *Lighting Guide 6 – The Outdoor Environment* (2016).

Recommendations for limitations for light going beyond a property line or reaching windows (light spill), contributing to additional ambient light which obscures the night sky (sky glow) or views of a lamp source which may cause discomfort or disability for the eye at night (glare potential) are based on the area that new lighting will be installed in. The design targets are typically made with respect to the lighting conditions of the local area, the application site is considered to be within an environmental zone of low district brightness (E2).

Table 1 indicates the design parameters given within ILP GN01 for permanent lighting that the proposed development will adhere to; these allow for the limitations listed for an environmental zone of low district brightness (E2).

Table 1: Environmental Lighting Parameters

Metric	Parameter	Target
Sky Glow	Upward Light Ratio (ULR)	2.5%
Light Spill	E average (lux)*	pre-curfew 5 lux post-curfew 1 lux
Glare (Luminaire intensity)	Intensity (candelas (cd))*	pre-curfew 7.5kcd post-curfew 1kcd
Building Luminance	Luminance (average, candela/m^2)	5cd/m^2

Design Approach

Table 2 indicates the light levels in accordance with the British Standards for various area uses that have a requirement for permanent lighting.

Table 2: Proposed Development Target Light Levels

Area Uses	E(average, maintained lux)	Uniformity
Site Access	10	0.40
Car Parking	5	0.25 (min)
Building Entrances	50	-
Pathways	5	0.20
Pedestrian Bridge Stairs	30 (on treads) planned	0.5
Pedestrian Bridge Deck	30	0.5

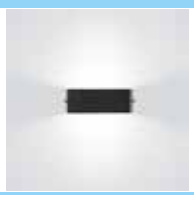
Lighting associated with landscaping is expected to form the largest component of exterior lighting, and is to be delivered in accordance with the lighting proposed on Landscape Proposal Plan 435.010 and 435.012 or similar; this lighting is limited to the open plaza space adjacent to the Hale Village Green Link Bridge (HVGLB) access, which has a requirement for lighting.

Multi-height illuminated columns are proposed in this space, with the maximum height to be 6.5m. The majority of new lighting on approach routes is to be low level illuminated bollards.

Lighting in relation to building perimeter, car park and shared surface access has not been proposed as part of the landscape plans. A design palette of proposed luminaires has been provided that gives a minimum specification which seeks to limit light spill, sky glow and glare through the use of controlled optics or requiring the use of spill and glare mitigating accessories such as baffles, shields, and louvres .

Table 3 sets out the sample palette based on the anticipated proposed development requirements; combining technical design with the architectural vision. The sample lighting palette has been set out to both provide a sufficient level of lighting for vehicular and pedestrian safety and to minimise the effects of obtrusive lighting on the surrounding environment. The selection displays a luminaire palette of simplistic style and function; providing a controlled, energy efficient lighting design. The final lighting design may deviate considerably in style and arrangement, yet still adhere to or improve upon the lighting metric performance requirements stipulated below.

Table 3: Sample Lighting Palette

Column Mounted Street Light	Wall/Building Mount	Building Entrance	Building Entrance Feature	Low Level
				
Bega 9499	Bega 6854	Bega 6977	Bega 2359	Bega 8659
Column mounted LED luminaire with asymmetric/street optics and full-cut downward light distribution. Remote photoelectric cell option; Sealed to IP66	Building mounted LED luminaire with asymmetric optics and full-cut downward light distribution. Remote photoelectric cell option; Sealed to IP65	Building canopy entrance mounted LED downlight luminaire with wide optics and baffled lamp source. Remote photoelectric cell option; Sealed to IP65	Building wall mounted LED luminaire with shielded lamp source and feature up/down lighting effect for mounting within structure access recess or downlight only for unprotected walls Remote photoelectric cell option; Sealed to IP65	In grade mounted illuminated bollard with full-cut downlight, wide optic, and single directional output. Remote photoelectric cell option; Sealed to IP65
Lamp: LED 38W Light Colour: 4000K Light Output: 4320 lm Column Height: 5.0 - 7.0m	Lamp: LED 40W Light Colour: 4000K Light Output: 3000 lm Mounting Height: 2.4 - 4.0m	Lamp: LED 7.4W Light Colour: 3000K Light Output: 780 lm Mounting Height: Below 3.0m	Lamp: LED 10.5W Light Colour: 3000K Light Output: 1120 lm Mounting Height: Below 3.0m	Lamp: LED 13.6W Light Colour: 3000K Light Output: 1080 lm Mounting Height: Below 3.0m

Building Lighting – Perimeter, Security and Decorative

External lighting for decorative effects of building facades or external balcony spaces will not occur.

Functional lighting for building perimeters will be full horizontal cut-off luminaires installed with 0° tilt and flat glass lenses, using back reflectors and internal baffles, as necessary or similar. For decorative lighting, luminaires with shielded lamps and good light control are preferable. Mounting height will be human scale (less than 3.0m) and kept to a minimum.

Car Park/Access Roads

Streetlight style full horizontal cut-off luminaires installed at 0° tilt with flat glass lenses, back reflectors, internal baffles, and a controlled pattern of direct illumination or similar will be installed. Maximum column heights will be set within the range of 4.0m to 6.0m for car park areas, and the access road column heights within a 5.0m to 7.0m range.

Landscape

Landscape lighting will be kept to a minimum to ensure the final lighting solution complies with all obtrusive lighting and ecological requirements.

In instances where landscape lighting beyond that shown on the Landscape Proposal Plans 435.010 and 435.012 is appropriate, low-level lighting utilising fittings of less than 1.5m in mounting height will be used.

An equipment palette consisting of illuminated bollards, spotlights, and marker lights with internal baffles and low output sources can also be used to provide useful light and subtle effects that enhance an exterior space. However, these must be subject to separate controls from dedicated functional lighting, and must be switched off by the local or agreed curfew time.

The final design of Hale Wharf contains a mixture of landscape elements and proposed built structures which obstruct some views and lighting effects to receptors. It is assumed that the landscape and lighting plans will follow proposals which incorporate the following elements:

- The majority of mature plantings and landscape along the proposed application site boundary and banks will be retained taking into account those trees that have been identified for removal as part of the proposed development's construction.
- Lighting in the majority of exterior spaces is not proposed with the exception of the plaza area adjacent to the Link Bridge, with reference to Landscape Proposal Plan 435.010 and lighting leading up to the plaza which will be comprised of bollards.

Hale Village Green Link Bridge

Lighting of the bridge deck is at low level and consists of lighting integrated into the handrail. Luminaires are specified as part of the HW1-PB1 D&A Material Lighting document which have strict light management and provide illumination only of the deck and access stairs.

Higher light levels are required for lift access, and lighting will be provided at a higher level relative to the ground than with the bridge deck surfaces. Luminaires are to be mounted to the structure and be directed down. The proposed luminaire will have strict light control and will be mounted above lift doors.

Lighting of access paths leading to the bridge are at low level in the form of an illuminated bollard.

Selected luminaires have full horizontal cut-off characteristics including flat glass lenses, back reflectors and internal baffles, as necessary, and be installed with 0° tilt. This will help to reduce potential glare, sky glow, light spill and minimise visual intrusion to sensitive receptors.

The lighting level for the bridge's stairs should be lit according to Table 4 of BS5489-1:2003, section 10.6, in which it recommends 30 lux average maintained (minimum 15 lux) for 'open' stairways. The lighting should be designed to distinguish the treads and risers, and the lighting effects should be sensitive to the surround area, i.e. provide a low level localised lighting treatment.

The design should incorporate automated timeclock dimming controls to optimise the design to provide minimum levels of light.

Building Lighting – Internal Lighting

New lighting designed as part of base build installation in residential units is expected to follow conventional means and provide either a mounting position for personalised lighting for residents or include recessed lighting within the ceilings.

Interior Luminaire and Lamp Selection - Any surface or suspended unshielded light bulb should not exceed 600 lumens of output.

Interior Luminaire and Lamp Selection - Any surface or suspended luminaire with shielded light bulb should not exceed 2,000 lumens of output.

An Interior Perimeter Zone is required with no fixed lighting within a 1-metre zone of the external glazing to avoid direct illumination through the glazing.

Allies and Morrison

85 Southwark Street
London SE1 0HX
telephone +44 20 7921 0100
web alliesandmorrison.com
email info@alliesandmorrison.com

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Canal & River Trust