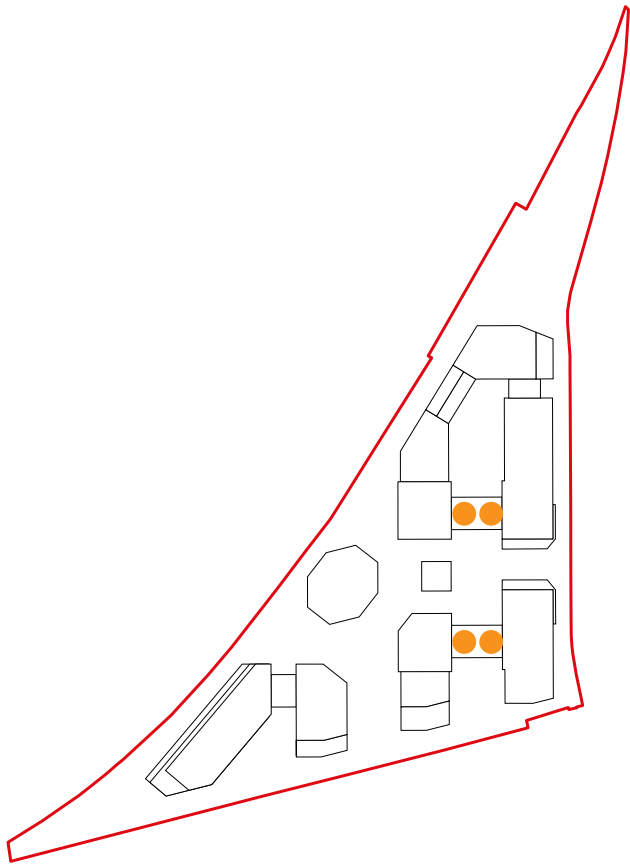


6.12.3 Typical M4(2) 3 bedroom flat

- Dual aspect
- Generous window provision
- Private amenity space off the living room
- Ample storage and generous wardrobe space
- 2 bathrooms
- Entrance lobby minimum of 1500mm wide
- Standard corridor width of 1050mm
- Minimum living room width of 4.5m

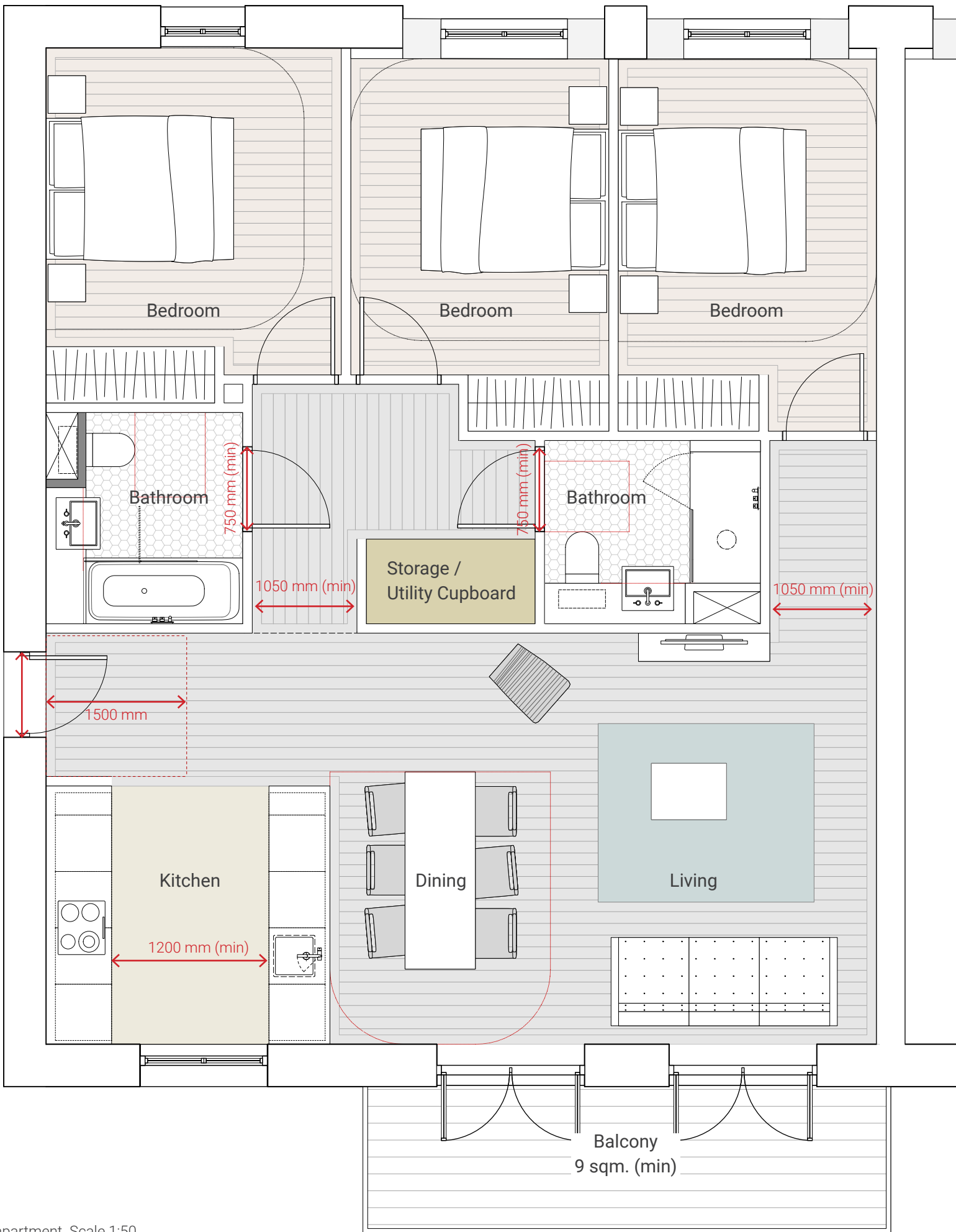


Entrance from
communal corridor



850 mm (min)

1500 mm



3 bedroom M4(2) apartment. Scale 1:50

6.13 Part M4 (3) ‘Wheelchair user dwellings’

To be read in conjunction with individual unit type plans.

10% of the residential dwellings will comply with Approved Document Part M4(3) of the Building Regulations., in line with RBRuT policy:

10% of all private for sale units in the development to comply with Building Regulations requirement M4(3)(2)(a) ‘wheelchair adaptable dwellings’.

10% of all social rented units in the development to comply with Building Regulations requirement M4(3)(2)(b) ‘wheelchair user dwellings’.

The following section covers the specific requirements of M4(3).

Storage

Each wheelchair dwelling layout provides a wheelchair storage (1,100mm x 1,700mm) and transfer space with a clear width of at least 1,200mm.

Storage is provided in accordance with the minimum areas given.

No wheelchair dwellings are multi-storey and as such no provision is required for a through-floor lifting device.

Living, kitchen and eating area

All apartments are single storey therefore the principal living area is on the entrance storey and the minimum internal floor area of the living room, dining room and kitchen meets the figures in table 3.2. The glazing system features a transom that is no higher than 850mm above floor level.

Each wheelchair dwelling features an open plan living, dining and kitchen arrangement and the kitchen has a clear access zone of 1,500mm in front and between all unit and appliances.

The (adaptable) dwellings have worktop runs in accordance with table 3.3 and the layouts demonstrate how the kitchen could be easily adapted to meet the provisions of wheelchair accessible requirements at a future date without significant structural alterations or impact upon the rest of the dwelling.

The accessible dwellings have the full run of worktops required, as stated in table 3.4. The worktop incorporates a 2200 mm minimum continuous section which includes a combined sink, drainer unit and hob. This section is either a height adjustable worktop or a fixed section capable of being fixed at various heights as required.

Bedrooms

Every bedroom provides a 1000mm wide clear access route from the doorway to the window. Every bedroom has a 1,200mm x 1,200mm manoeuvring space inside the doorway but clear of the bed and closed door. The principal double bedroom has a minimum floor area of at least 13.5 sq. m and a minimum width of at least 3m. The principal bedroom also has a clear access zone 1,000mm wide to both sides and the foot of the bed and 1,200mm x 1,200mm manoeuvring spaces on both sides of the bed.

Every other double bedroom has a minimum floor area of at least 12.5 sq. m, a minimum width of 3m and a 1,000mm clearance zone to one side of the bed and in front of all furniture. Every other single bedroom has a minimum floor area of at least 8.5 sq. m, a minimum width of 2.4m and a 1,000mm clearance zone to one side of the bed and in front of all furniture.

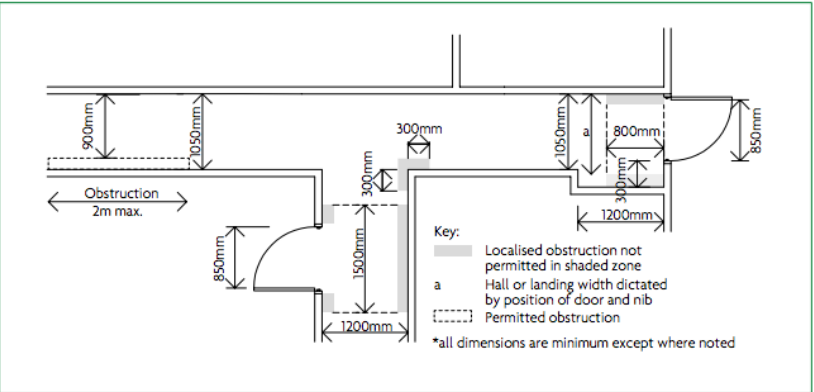


Diagram 3.4 Minimum door and hall widths and restrictions on localised obstructions

Table 3.2 Minimum combined floor area for living, dining, and kitchen space							
Number of bedspaces	2	3	4	5	6	7	8
Minimum floor area m²	25	27	29	31	33	35	37

Table 3.3 Minimum length of kitchen worktop, including fittings and appliances, to be fitted at completion for a wheelchair adaptable dwelling				
Number of bedspaces	2	3 & 4	5	6–8
Minimum worktop length (mm)	4330	4730	5630	6730

Table 3.4 Minimum length of kitchen worktop, including fittings and appliances, to be fitted at completion for a wheelchair accessible dwelling				
Number of bedspaces	2	3 & 4	5	6–8
Minimum worktop length (mm)	6130	6530	7430	8530

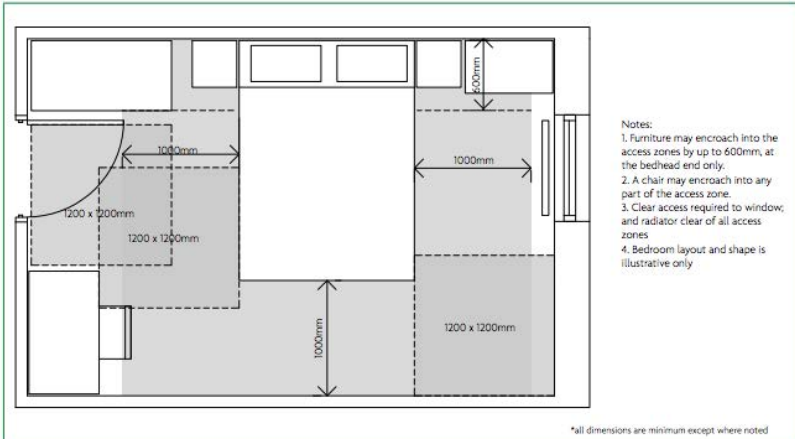


Diagram 3.9 Clear access zones and manoeuvring spaces to principal bedroom

Sanitary facilities

All wheelchair dwellings meet the requirements of table 3.5.

Every wheelchair dwellings provides a wet room on the entrance storey which contains a WC, wash hand basin and installed level access shower and features an outward opening door.

The (adaptable) dwellings have bathrooms which comply with diagram 3.10 and can be easily adapted in future to become wheelchair accessible.

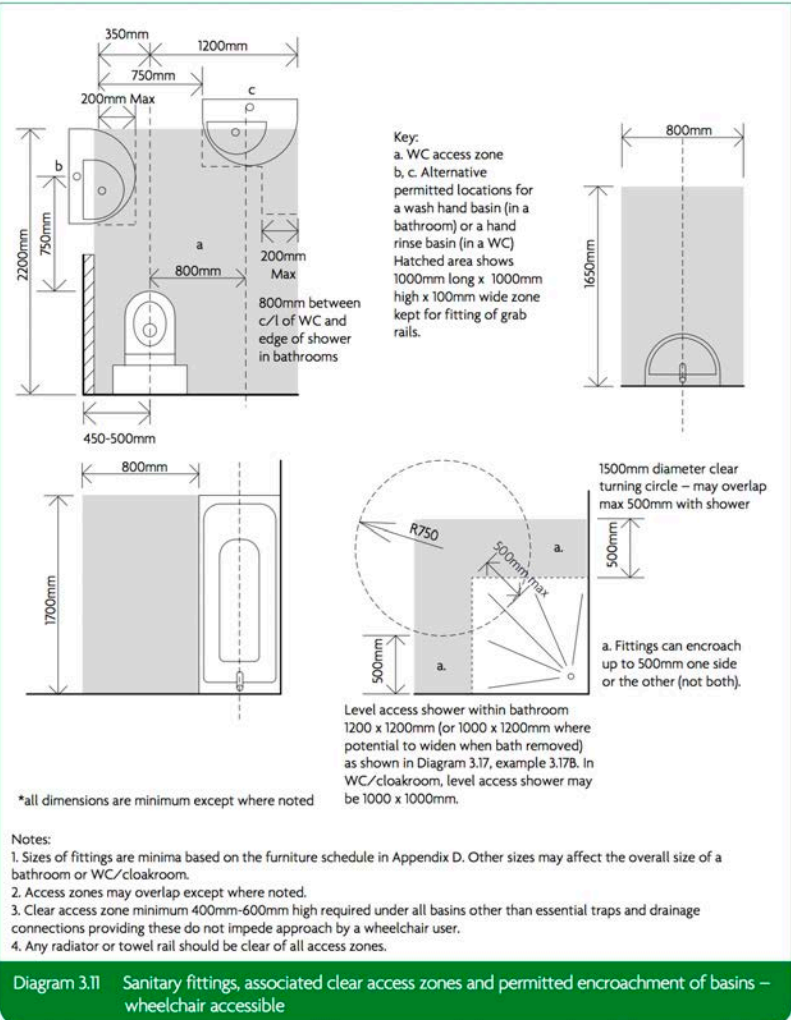
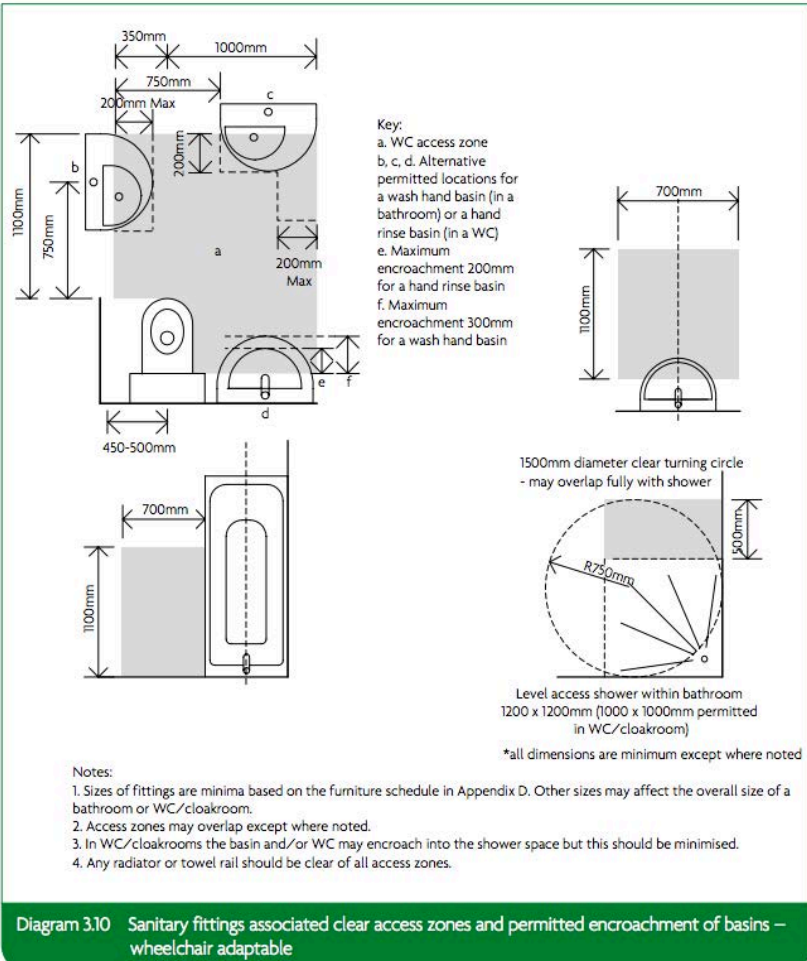
The (accessible) dwellings have bathrooms which comply with diagram 3.11.

All 2 and 3 bedroom apartments have a principle compliant bathroom and a separate compliant en-suite for the master bedroom, with outward opening doors.

All principle bathrooms and en-suites provide a minimum 1500mm clear wheelchair turning circle. This applies to both adaptable and accessible units.

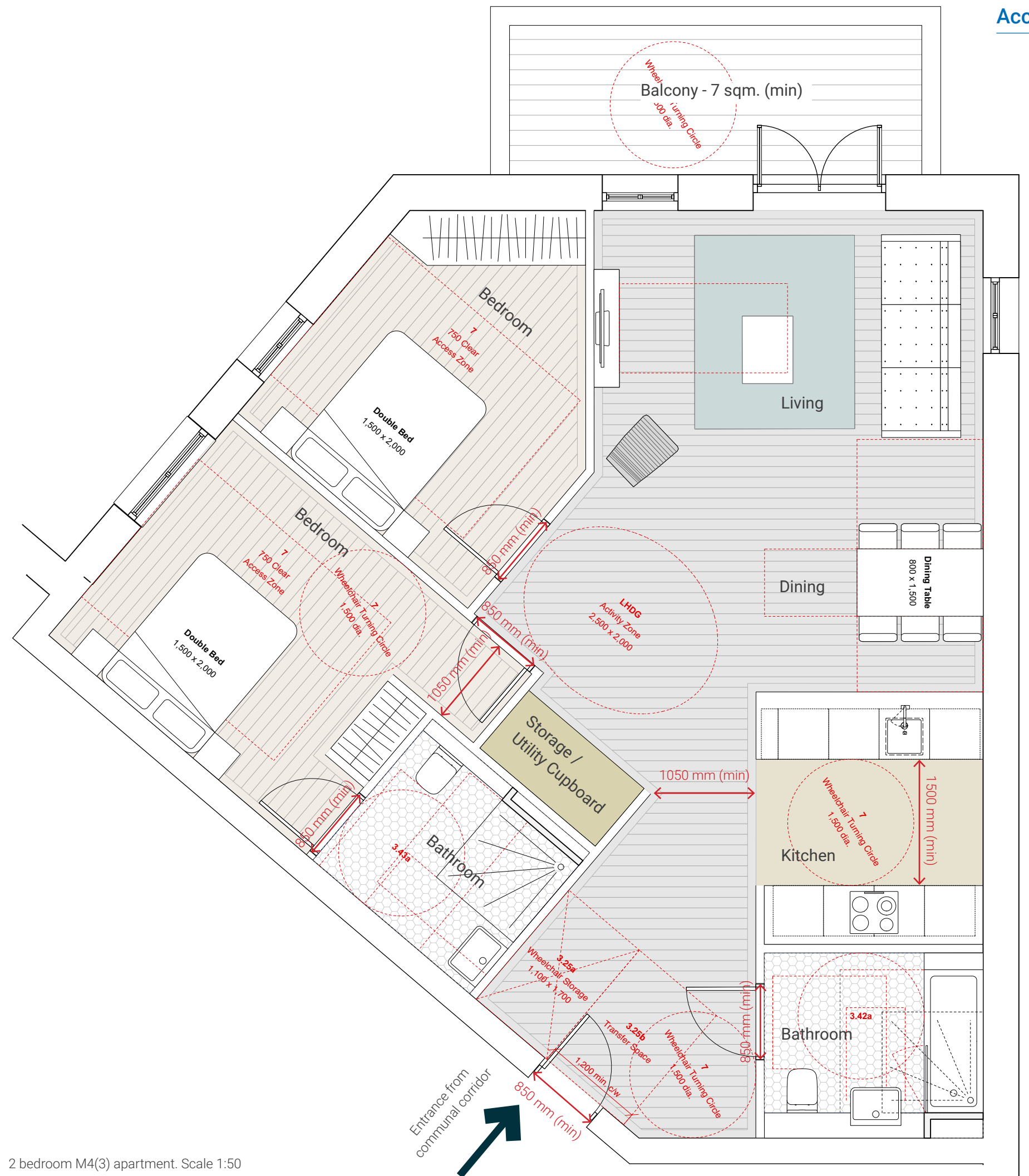
Table 3.5 Summary of minimum requirements for sanitary provision in typical dwelling types (dwellings should also comply with relevant detailed requirements set out in paragraphs 3.36-3.43)

Single storey dwelling (typically a flat or bungalow)	
Occupancy	Typical minimum sanitary provision
2 or 3 bedspaces	Bathroom with level access shower
4 bedspaces	Bathroom with level access shower and separate WC/cloakroom
5 bedspaces or more	Bathroom with level access shower and separate WC/cloakroom (or second bathroom). Wheelchair accessible dwellings must also provide both a level access shower and a bath
Two or three storey dwelling (typically a house or maisonette)	
Occupancy	Typical minimum sanitary provision
2 or 3 bedspaces	Bathroom with level access shower on same level as principal bedroom + entrance storey WC/cloakroom (where bathroom not on the entrance storey)
4 bedspaces	Bathroom with level access shower on same level as principal bedroom and entrance storey WC/cloakroom or second bathroom
5 bedspaces or more	Bathroom with level access shower on same level as principal bedroom and entrance storey WC/cloakroom or second bathroom. Wheelchair accessible dwellings must also provide both a level access shower and a bath



6.13.1 Typical M4(3) 2 bedroom flat

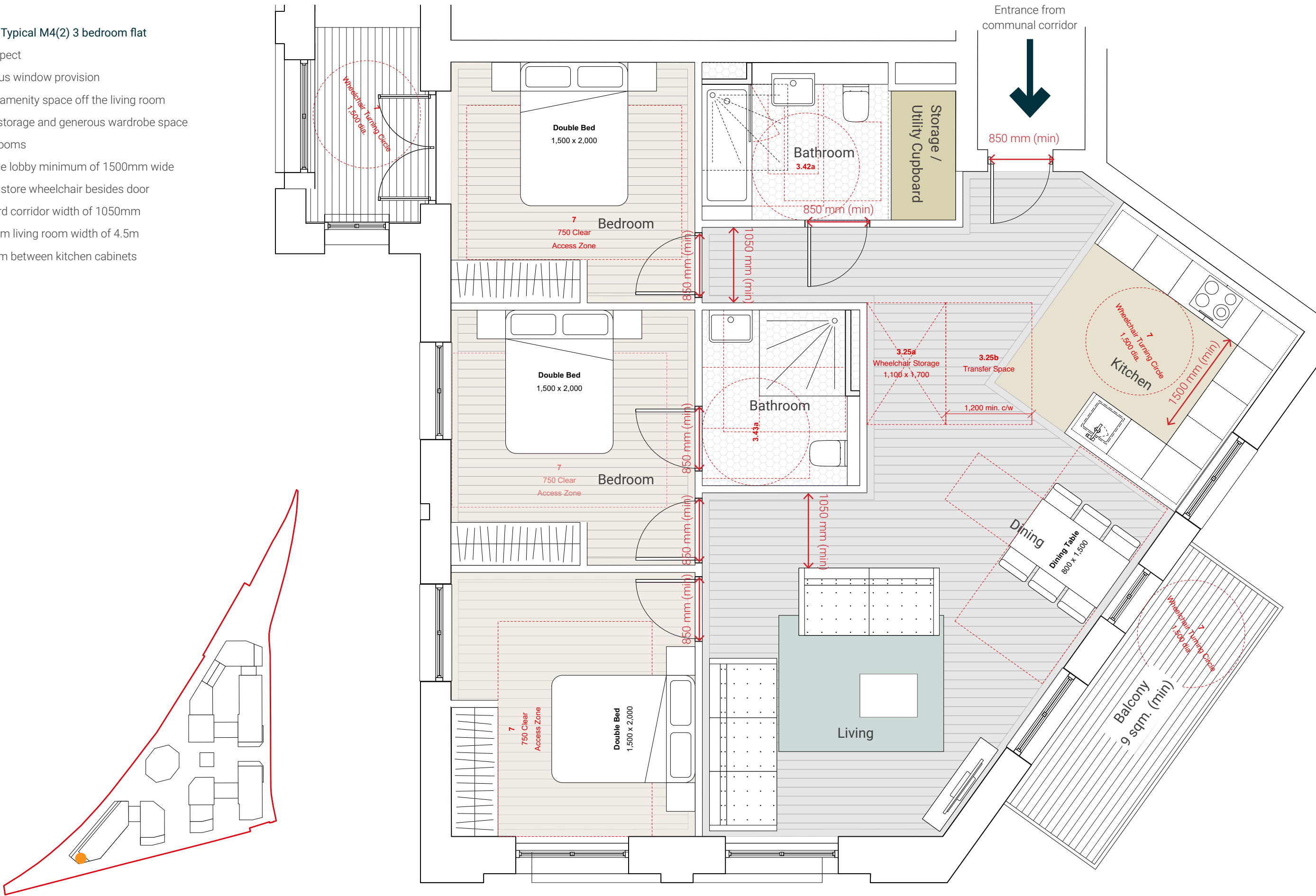
- Generous window provision
- Private amenity space off the living room
- Ample storage and generous wardrobe space
- 2 bathrooms
- Entrance lobby minimum of 1500mm wide
- Area to store wheelchair besides door
- Standard corridor width of 1050mm
- Minimum living room width of 4.2m
- 1500mm between kitchen cabinets



2 bedroom M4(3) apartment. Scale 1:50

6.13.2 Typical M4(2) 3 bedroom flat

- Dual aspect
- Generous window provision
- Private amenity space off the living room
- Ample storage and generous wardrobe space
- 2 bathrooms
- Entrance lobby minimum of 1500mm wide
- Area to store wheelchair besides door
- Standard corridor width of 1050mm
- Minimum living room width of 4.5m
- 1500mm between kitchen cabinets



3 bedroom M4(3) apartment. Scale 1:50

6.14 Multi-level units

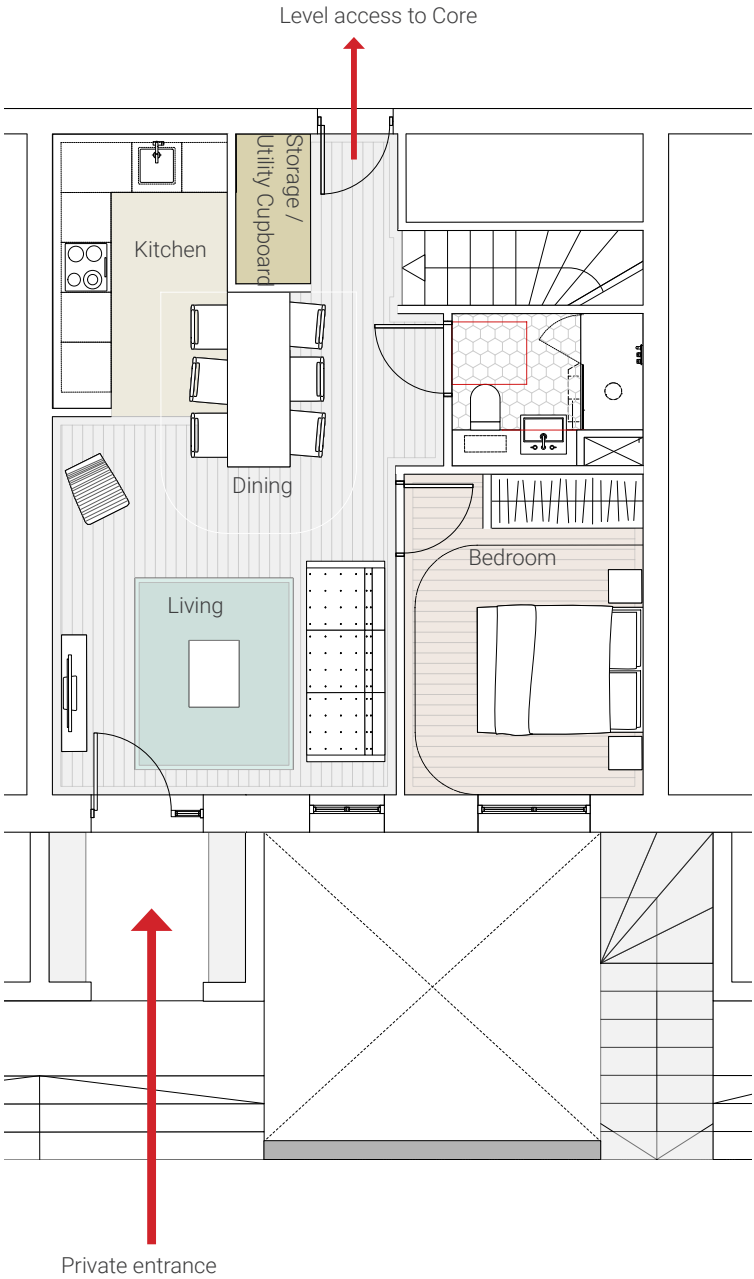
6.14.1 Duplex apartments

There are 6 duplex apartments across the scheme, located within blocks C and D. The typology of these units reference townhouses across the borough.

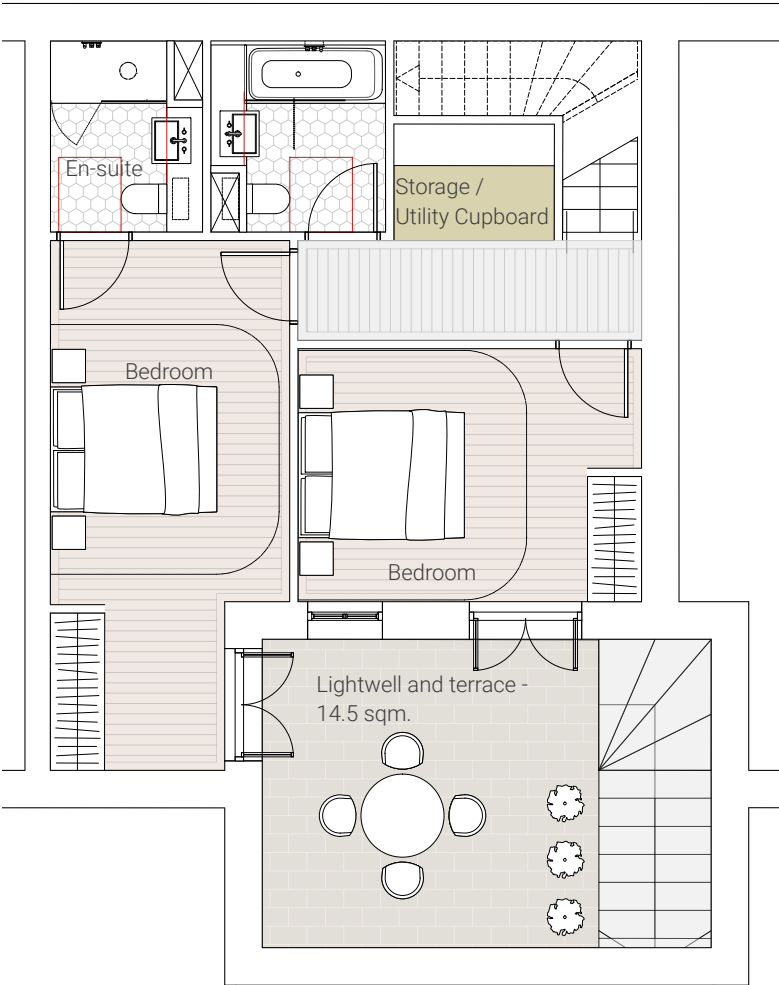
Each of the duplexes has it's own private entrances via steps from the public realm to the front door and down to a private terrace. In each of these instances an additional entrance is located on the upper ground floor at the rear of the apartment providing level access to the communal corridor, core, cycle and refuse store.



Duplex flat along Mount Ararat Road, Richmond



Typical duplex, upper ground floor plan.



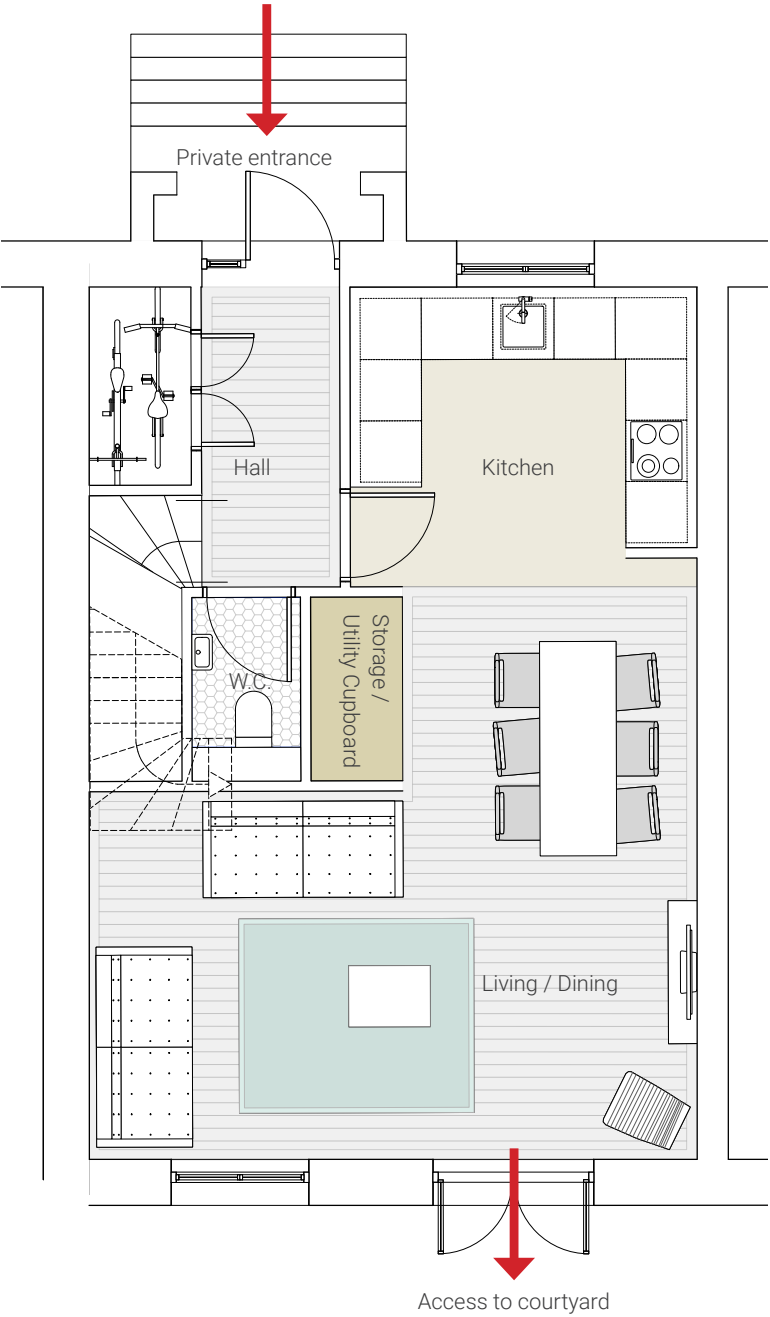
Typical duplex, lower ground floor plan.

6.14.2 Townhouses

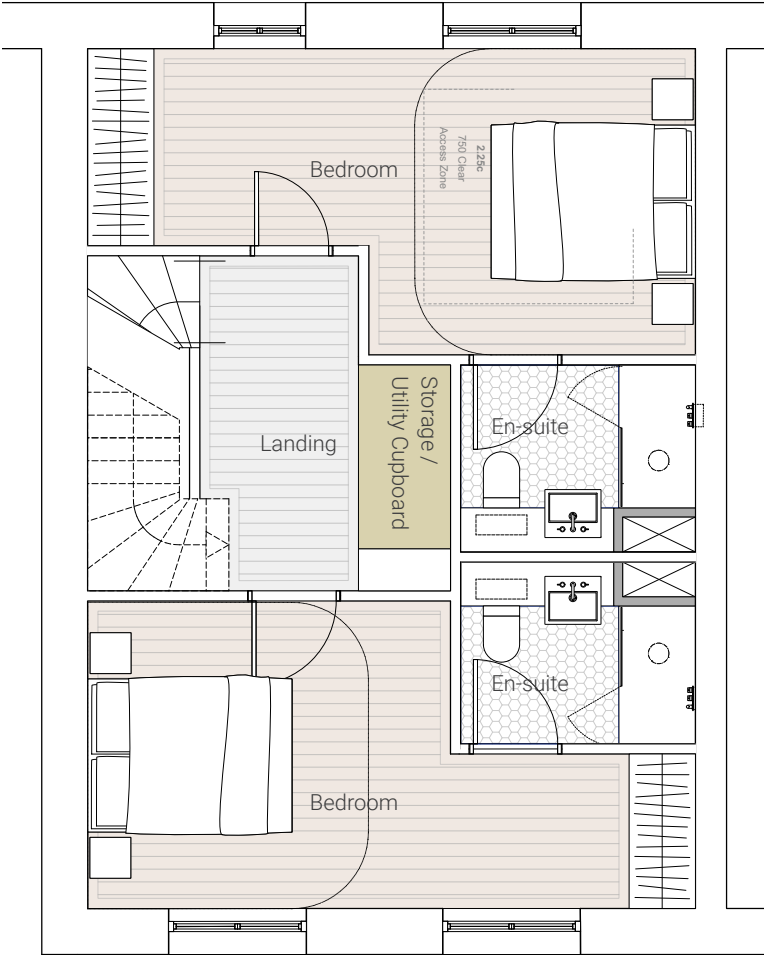
There are 3 townhouses included in the proposals.

Each of the townhouses has it's own private entrances via steps from the access road to the rear. In each of these instances an additional entrance is located on the ground floor providing level access to the communal courtyard.

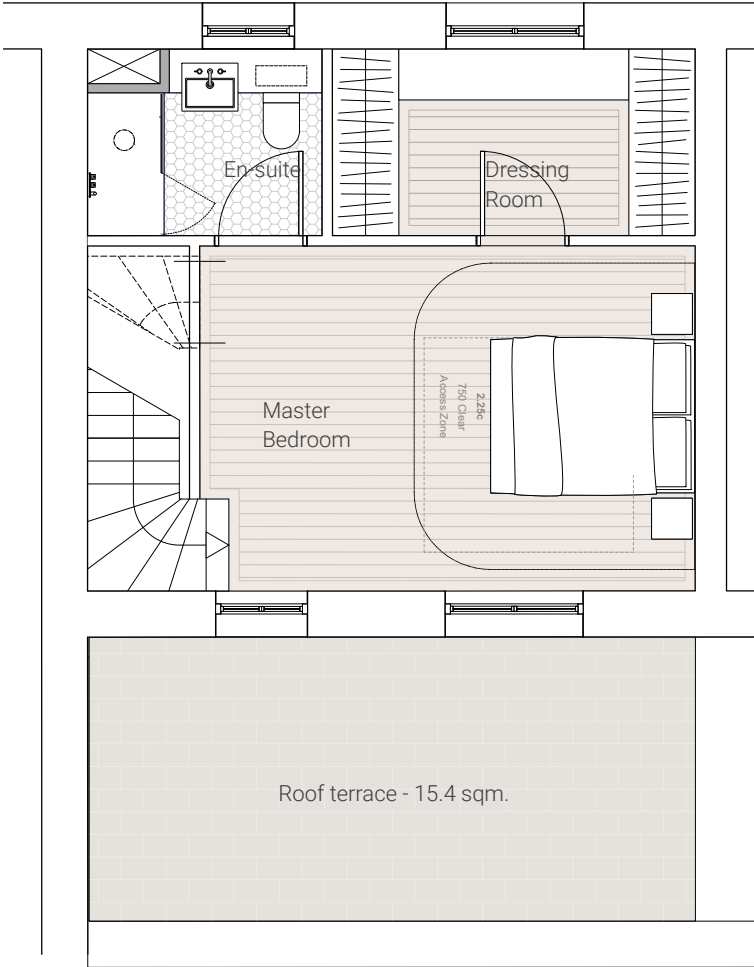
Each townhouse will have a private roof terrace on the 2nd floor, they will also have storage space for bicycles facing the access road.



Typical townhouse, ground floor plan.



Typical townhouse, first floor plan.



Typical townhouse, second floor plan.

Introduction

Context

Design process

Design response

Landscape

Access

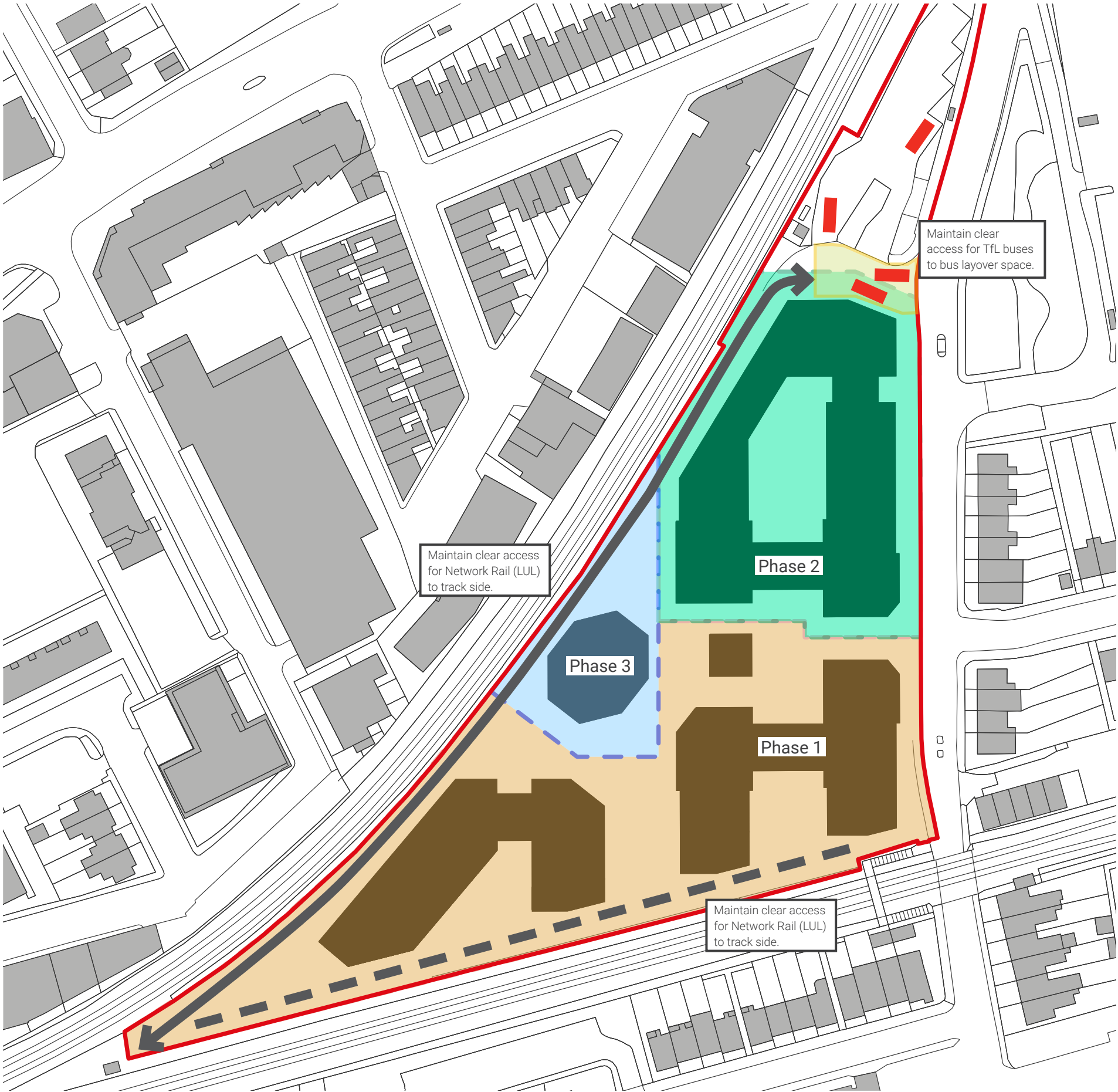
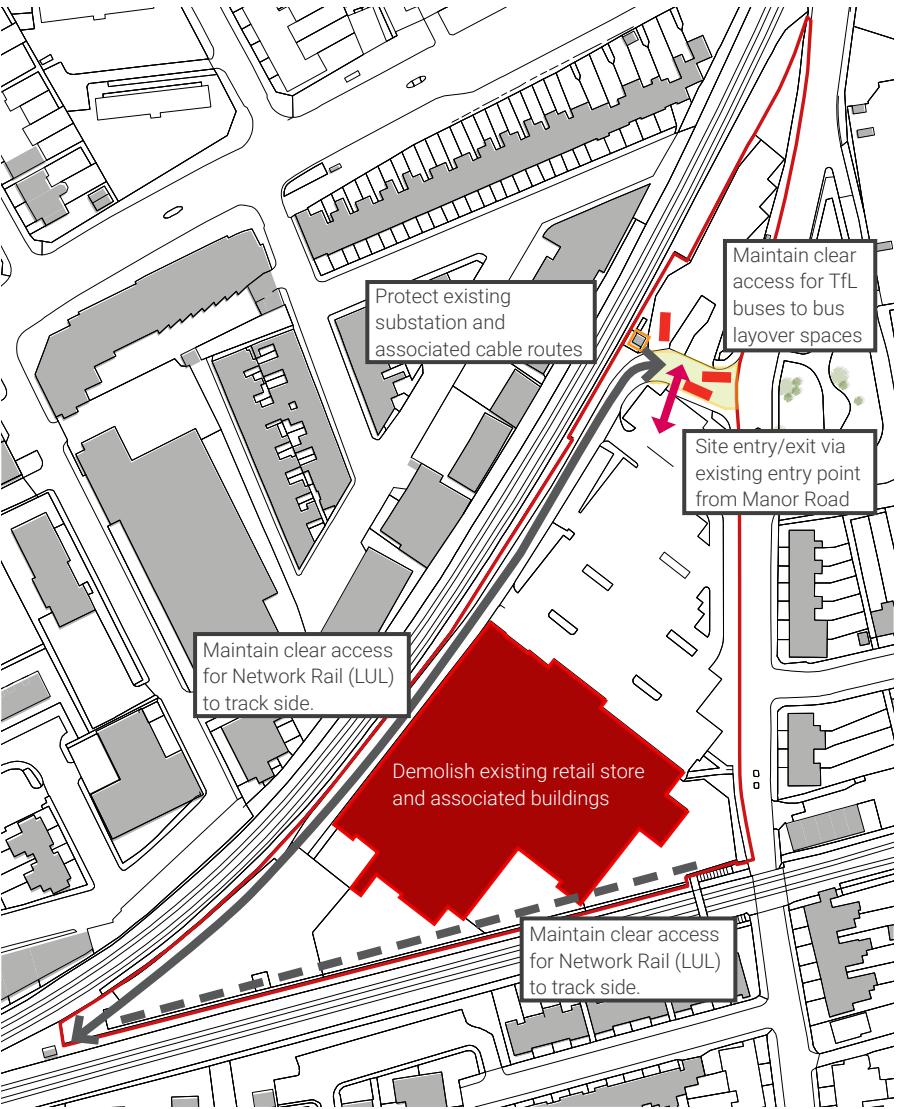
7.0 Appendices

7.1 Phasing

The project is to be delivered in a series of phases, detailed in the diagrams, right.

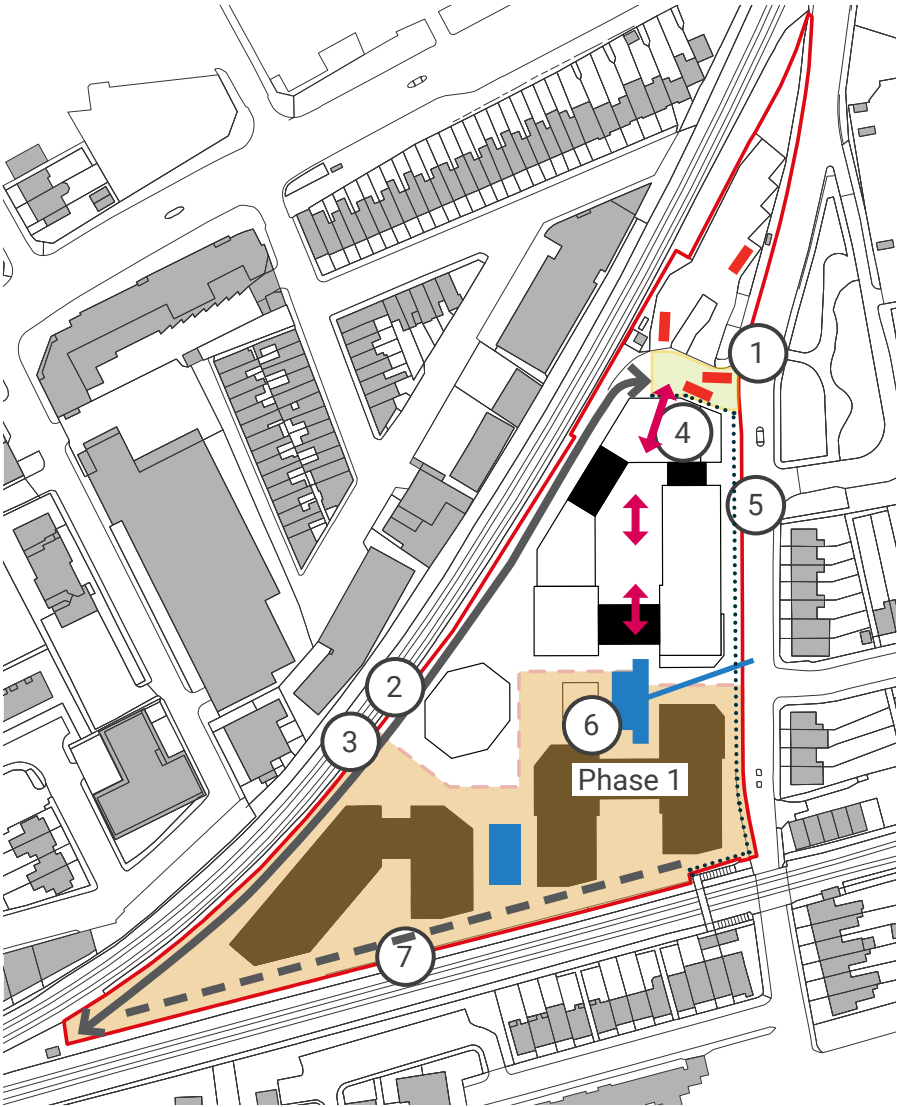
- We will enforce that working hours for the construction works will be restricted to those agreed with the Council.
- Safety is our main concern. The site will be fully hoarded to ensure no unauthorised access or injury to a member of the public.
- We will insist that the main contractor will provide 24-hour security and that deliveries to/from the construction site will be carefully managed by the main contractor.

Demolition and enabling plan



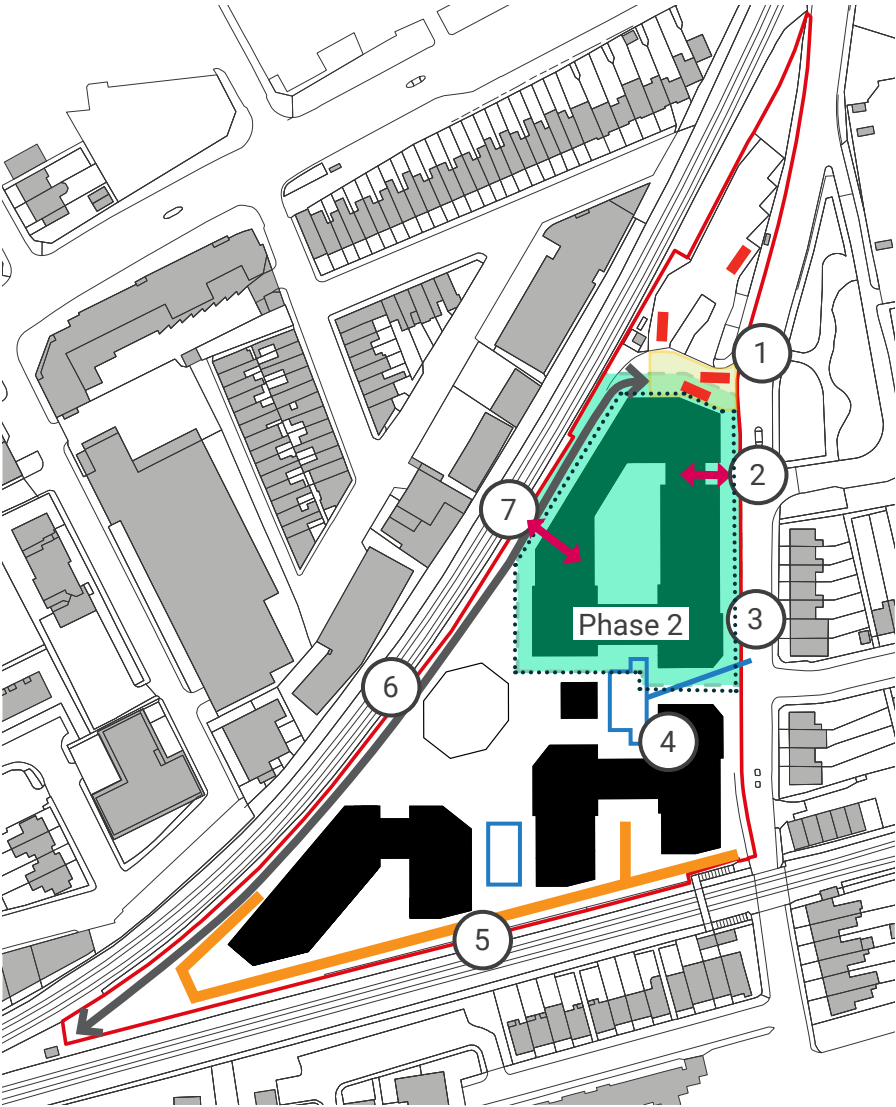
Overall phasing strategy

Phase 1 including access road and utilities



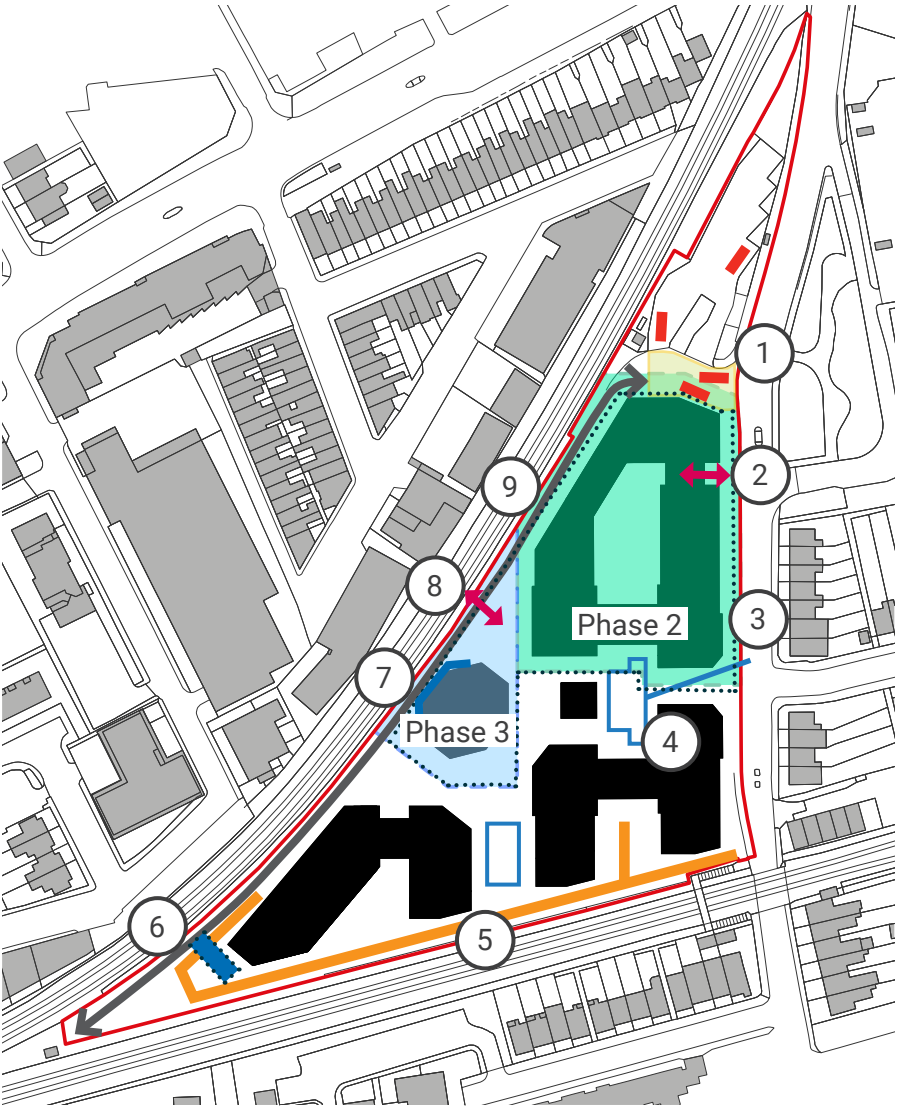
1. Maintain clear access for TfL buses to bus layover space.
2. Maintain clear access for Network Rail (LUL) to track side.
3. Phased construction of new access road whilst maintaining track side access for Network Rail/LUL.
4. Site entry/exit via existing entry point from Manor Road
5. Site hoarding line retaining public footway
6. Phase 1 construct drainage infiltration crates and drainage connections
7. Maintain clear access for Network Rail to track side.

Phase 2



1. Maintain clear access for TfL buses to bus layover space.
2. Site entry/exit via Manor Road - possible relocation during superstructure works.
3. Site hoarding line retaining public footway.
4. Phase 1 drainage optional.
5. Maintain safe and secure clear access for occupants of early phases.
6. New access road operational for access to Phase 1 with area kept clear for LUL/ NR access.
7. Potential site entry/exit from new access road.

Phase 3



1. Maintain clear access for TfL buses to bus layover space.
2. Site entry/exit via Manor Road - possible relocation during superstructure works.
3. Site hoarding line retaining public footway.
4. Phase 1 drainage optional.
5. Maintain safe and secure clear access for occupants of early phases.
6. Possibly need to use this or another area as a turning head for delivery vehicles to Phase 3
7. Protection required for user of access road.
8. Site entry/exit from new access road.
9. New access road operational for access to phase 1 with area kept clear for LUL/ NR access.

7.2 Sustainability

Hoare Lea have prepared both a Sustainability Statement and Energy Statement in support of this application.

A summary is provided below.

Building Materials

A palette of high quality materials have been proposed for the development. The BRE's Green Guide to Specification will be used to ensure that A-rated materials make up the majority of a material elements where practicable.

Water

Water use will be reduced as much as possible mainly through the specification of efficient sanitary ware and water efficient fittings. All dwellings will be designed to comply with the requirements of Building Regulations Part G, and water use will be set at 105 (litres/person/day).

Water Recycling

Sustainable irrigation systems will be incorporated into the landscaping design to ensure a strong ecological value of the site is withheld throughout its life cycle. The design proposal includes an external drainage irrigation board underneath all landscaping areas in the development to enable collection and recycling of the rainwater which falls on the landscaped areas.

Energy

The proposed development will be powered using air source heat pumps to minimise impact on local air quality and reduce carbon emissions.

Sustainable Urban Drainage Systems (SuDS) Measures

The site will aim to implement sustainable drainage systems (SuDS) to aid the collection, storage and treatment of the surface water prior to discharging from site.

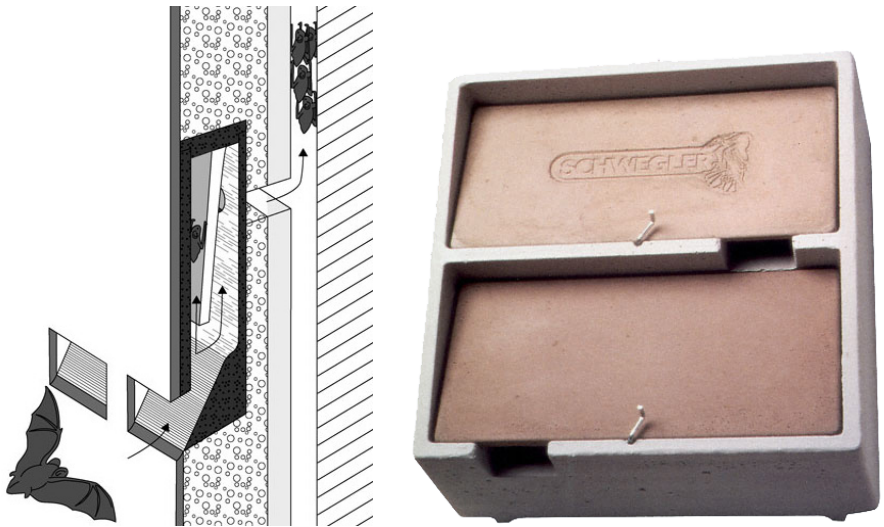
The inclusion of attenuation tanks below the new public square and within the southern landscaped areas will ensure minimum surface water run off and reduce the risk of flooding in the future.

Blue roofs are proposed across all roofs.

Biodiversity

Green/brown roofs are proposed on all roofs where there is no requirement for plant. This will incorporate a mixture of wildflower species as well as herbs and grasses.

We also intend to propose high level bat boxes along the southern elevation, facing the railway line following feedback from our ecologist. The design for these will be developed at the next stage.



Example schwegler bat box



Green roof example

7.3 Sustainability checkpoint assessment


Stage 0		
Guidance		
<p>Obtain information about the site and / or structures for constraints and opportunities</p> <p>‘Awareness’ stage and setting the sustainability context for the project.</p> <p>Review client requirements to distil their sustainability aspirations and the expected building lifespan against which capital costs should be balanced against costs in use.</p> <p>Identify potential for cost effective enhancement of client aspirations.</p> <p>Review options for formal assessment of aspects of sustainability and/or energy performance (e.g. BREEAM, LEED, Passivhaus). If the project is a component of a larger scheme, ensure that targets support and are consistent with any overarching sustainability assessment methodologies. Establish timetable for associated assessor appointment and early stage actions.</p> <p>Client to consider appointing or identifying a client sustainability advocate (in senior management position) and/or appointing a sustainability champion in the design team.</p> <p>Assess environmental opportunities and constraints of potential sites and building assets including sufficient iterative modelling to support conclusions of feasibility studies.</p> <p>Initial consultation with stakeholders, identification of local planning sustainability requirements and appraisal of existing building, social, transportation, water, energy, ecological and renewable resources, including the need for pre-construction or seasonal monitoring or surveys.</p> <p>Commission surveys of existing buildings to be retained (including condition, historic/ townscape significance, materials and components for recycling), services, noise, vibration, renewable energy resources, ecology, geology, etc. as required) to inform the brief.</p> <p>Identify potential funding sources and their eligibility criteria.</p> <p>Review relevant current and emerging EU, national and local sustainability policy and legislation and analyse implications on build, environmental and performance targets.</p> <p>Identify and understand final occupants’ needs to help to establish user patterns, energy profile and performance standards required.</p> <p>Client to consider the formal adoption of a Soft Landings approach to the project (www.bsria.co.uk/services/design/soft-landings/).</p> <p>Client to consider appointing a Soft Landings champion.</p> <p>Client to consider merits and protocols of using a building information model (BIM) to help deliver sustainability aims.</p>		
Sustainability checkpoint	Check	Comments
Has the site information letter been sent, any response entered onto the site information record and disseminated to other consultants?		
Ensure that a strategic sustainability review of client needs and potential sites has been carried out, including reuse of existing facilities, building components or materials.		

- Completed
- Partially complete (see comments)
- Not complete (see comments)

Sustainability checkpoints are from RIBA Plan of Work 2013 and guidance notes originate from the 2011 Green Overlay to the RIBA Outline Plan of Work, supplemented with Assael Architecture’s procedural guidance.

Guidance notes and checkpoint assessments are for the attention and implementation of the entire project team, including the client, and should be part of all stage reports.

Stage 1		
Guidance		
<p>Obtain screening letter from planning authority to verify sustainability requirements.</p> <p>Include a simple description in the brief of the internal environmental conditions the client requires.</p> <p>Involve the client’s facilities management team and review past experience (good and bad) in a spirit of openness in order to set environmental and performance targets that are useful, measurable, challenging but achievable and unambiguous. Targets should include both regulated and unregulated energy.</p> <p>Develop water efficiency strategies to establish similarly robust performance targets.</p> <p>Agree how to measure performance in use, what incentives there will be to achieve performance objectives and what action is appropriate if anything falls short.</p> <p>Develop potential energy strategies for the site including iterative estimated energy demand calculations, options for renewables and implications on building/ site design (e.g.sufficient plant space).</p> <p>Set out SUDS and surface water retention requirements.</p> <p>Develop a brief for specialist environmental sub-consultants (e.g. wind monitoring consultant, ecologist).</p> <p>Consider Climate Change Adaptation criteria and future performance standards.</p> <p>Set out any future uses or reconfiguration to be accommodated.</p> <p>Ensure that competence of potential design team members matches the client’s sustainability aspirations. The team should be balanced, with members of similar competence and commitment and with complementary contracts of engagement.</p> <p>Client to start the Site Waste Management Plan (SWMP) to enable designers to record decisions made to reduce waste as the project progresses.</p>		
Sustainability checkpoint	Check	Comments
Has the site information letter been sent, any response entered onto the site information record and disseminated to other consultants?		
Confirm that formal sustainability targets are stated in the Initial Project Brief.		
Confirm that environmental requirements, building lifespan and future climate parameters are stated in the Initial Project Brief.		
Have early stage consultations, surveys or monitoring been undertaken as necessary to meet sustainability criteria or assessment procedures?		Yes sustainability consultant appointed.
Check that the principles of the Handover Strategy and post-completion services are included in each party’s Schedule of Services.		
Confirm that the Site Waste Management Strategy has been considered.		Yes waste consultant appointed.

Stage 2		
Guidance		
<p>Set out site scale environmental design criteria (e.g. solar orientation, overshadowing, SUDS, waste).</p> <p>Consider the design of the space between buildings as well as the buildings themselves.</p> <p>Consider the need for and scale of private, semi-private and public external space.</p> <p>Establish maximum plan depths to achieve desired levels of natural ventilation, daylight and view.</p> <p>Design for buildability, usability and manageability.</p> <p>Consider the impact of complexity of form on thermal performance, airtightness, and inefficient/wasteful use of materials.</p> <p>Establish an appropriate glazing proportion and shading strategy for each orientation to provide good levels of daylight while avoiding excessive glare, solar gain or heat loss.</p> <p>Establish appropriate element thicknesses to achieve U-values required by energy strategy.</p> <p>Check that materials and construction approach will provide a level of thermal mass that is appropriate to the environmental design strategy.</p> <p>Refine and review design decisions to minimise quantity of materials used and to minimise construction waste (for guidance, see www.wrap.org.uk/designingoutwaste).</p> <p>Review the embodied impacts of materials and construction approach in the context of the building's lifespan.</p> <p>Avoid design solutions that inhibit adaptation and alternative use of the building or its components and materials.</p> <p>Take particular care to avoid short- and long-term damage to retained traditional building fabric from ill-considered upgrade interventions.</p> <p>Ensure that design implications of any components essential to the success of a sustainability strategy are understood across the design team (e.g. space for fuel deliveries and waste handling, roof collector area and orientation, location and size of rainwater harvesting tanks, SUDS attenuation, etc.).</p> <p>Refine energy and servicing strategy, incorporating energy efficient services design and design techniques.</p> <p>Carry out sufficient compliance or advanced modelling to prove the design concept before freezing the design (e.g. SBEM/SAP/PHPP (Passivhaus Planning Package) or dynamic modelling).</p> <p>Audit the emerging design against project's sustainability agenda and targets.</p> <p>Set up a programme of intermediate evaluations and reality checks involving stakeholders and key users as well as the design team.</p>		
Sustainability checkpoint	Check	Comments
Confirm that formal sustainability pre-assessment and identification of key areas of design focus have been undertaken and that any deviation from the Sustainability Aspirations has been reported and agreed.		
Has the initial Building Regulations Part L assessment been carried out?		
Have 'plain English' descriptions of internal environmental conditions and seasonal control strategies and systems been prepared?		
Has the environmental impact of key materials and the Construction Strategy been considered?		
Has resilience to future changes in climate been considered?		

7.4 London Mayor’s Housing SPG compliance matrix

With reference to: Housing SPG March 2016, London Plan 2016 Implementation Framework

The Mayor of London’s 2016 Housing SPG sets out 41 standards that apply to all new housing in London under policy 3.5 of the London Plan. The compliance schedule below assesses this proposal in relation to these standards:

The Interim London Housing Design guide 2010(LHDG) is now superseded by the SPG.

Standard		Compliance	Comments
Defining good places			
1	Development proposals should demonstrate: a) How the design responds to its physical context, including the character and legibility of the area and the local pattern of building, public space, landscape and topography. b) How the scheme relates to the identified character of the place, to the local vision and strategy or how bolder change is justified in relation to a coherent set of ideas for the place expressed in the local vision and strategy or agreed locally.		Refer to Design and Access Statement
2	Development proposals should demonstrate: a) How the scheme complements the local network of public spaces, including how it integrates with existing streets and paths. b) How public spaces and pedestrian routes are designed to be overlooked and safe, and blank elevations onto the public realm at ground floor have been avoided. c) For larger developments, how any new public spaces including streets and paths are designed on the basis of an understanding of the planned role and character of these spaces within the local movement network, and how new spaces relate to the local vision and strategy for the area.		
Communal and public open space			
3	Development proposals should demonstrate that they comply with the LPAs’ open space strategies, ensuring that an audit of surrounding open space is undertaken and that, where appropriate, opportunities to help address a deficiency in provision by providing new public open spaces are taken forward in the design process.		
4	Where communal open space is provided, development proposals should demonstrate that the space: <ul style="list-style-type: none">• is overlooked by surrounding development;• is accessible for disabled people including people who require level access and wheelchair users;• is designed to take advantage of direct sunlight;• has suitable management arrangements in place.		
Play space			
5 (& policy 3.6)	For developments with an estimated occupancy of ten children or more, development proposals should make appropriate play provision in accordance with the Mayor’s Play and Informal Recreation SPG.		Development provides on-site play provision for 0-11 yr old children. Children aged 12+ are to use local facilities within 800m of site.









Key

- Fully compliant
- Partially compliant (see comments)
- Not compliant (see comments)

Standard		Compliance	Comments
Density			
6 (& policy 3.4)	Development proposals should demonstrate how the density of residential accommodation satisfies London Plan policy relating to public transport access levels (PTALs) and the accessibility of local amenities and services, and is appropriate to the location		
Residential mix			
7 (& policy 3.8)	Development proposals should demonstrate how the mix of dwelling types and sizes and the mix of tenures meet strategic and local need and are appropriate to the location.		
Entrance and approach			
8	All main entrances to houses, ground floor flats and communal entrance lobbies should be visible, clearly identifiable, and directly accessible from the public realm.		Block C, core B accessed via shared surface to the eastern edge of the site. Al other cores front new public square or have frontage along Manor Road.
9	The distance from the accessible car parking space of standard 18 to the home or to the relevant block entrance or lift core should be kept to a minimum and should be preferably level or where level is not possible, gently sloping (1:60 – 1:20) on a suitable ground surface.		All parking spaces have level access. Minimum parking paces provided on site (3% of units). Distance from parking spaces to apartments in excess of 18m.
Active frontages			
10	Active frontages should be maximised and inactive frontages minimised on the ground floor of buildings facing publicly accessible space, in order to provide natural surveillance and activity.		All commercial frontage concentrated at entrance and most public areas of the site. Ground floor residential units raised above ground level and screened with planting to provide privacy.
Access			
11	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’.		All market tenure flats meet the M4 (2) specification with 10% of all affordable units meeting the M4 (3) specification.
Shared circulation			
12	Each core should be accessible to generally no more than eight units on each floor.		
13	An access core serving 4 or more dwellings should provide an access control system with entry phones in all dwellings linked to a main front door with electronic lock release. Unless a 24 hour concierge is provided, additional security measures including audio-visual verification to the access control system should be provided where any of the following apply: <ul style="list-style-type: none">• more than 25 dwellings are served by one core, or• the potential occupancy of the dwellings served by one core exceeds 100 bed spaces, or• more than 8 dwellings are provided per floor.		24hr concierge.

Standard		Compliance	Comments																																				
14	Where dwellings are accessed via an internal corridor, the corridor should receive natural light and adequate ventilation where possible.	<div></div>																																					
15	All dwellings entered at the seventh floor (eighth storey) and above should be served by at least two lifts.	<div></div>																																					
16	It is desirable that every wheelchair user dwelling is served by more than one lift.	<div></div>																																					
Car parking																																							
17	<div>The maximum standards set out below should be the basis for considering planning applications</div> <div><table><tr><td colspan="4">Table 6.2 Car parking standards</td></tr><tr><td colspan="4">Parking for residential development</td></tr><tr><td></td><td>PTAL 4 or less</td><td>PTAL 3 or less</td><td>PTAL 2 or less</td></tr><tr><td>Suburban</td><td>100-200 cu/ha 30-40 cu/ha 30-40 cu/ha 30-40 cu/ha</td><td>100-200 cu/ha 40-60 cu/ha 40-60 cu/ha 40-60 cu/ha</td><td>100-200 cu/ha 40-60 cu/ha 40-60 cu/ha 40-60 cu/ha</td></tr><tr><td>Urban</td><td>100-200 cu/ha 30-40 cu/ha 30-40 cu/ha 30-40 cu/ha</td><td>100-200 cu/ha 40-60 cu/ha 40-60 cu/ha 40-60 cu/ha</td><td>100-200 cu/ha 40-60 cu/ha 40-60 cu/ha 40-60 cu/ha</td></tr><tr><td>Central</td><td>100-200 cu/ha 30-40 cu/ha 30-40 cu/ha 30-40 cu/ha</td><td>100-200 cu/ha 40-60 cu/ha 40-60 cu/ha 40-60 cu/ha</td><td>100-200 cu/ha 40-60 cu/ha 40-60 cu/ha 40-60 cu/ha</td></tr></table></div> <div><table><tr><td>Maximum residential parking standards</td><td>4 or more</td><td>3</td><td>1-2</td></tr><tr><td>number of beds</td><td>up to 2 per unit</td><td>up to 1.5 per unit</td><td>less than 1 per unit</td></tr><tr><td>parking spaces</td><td></td><td></td><td></td></tr></table></div> <div><p>Notes:</p><ul style="list-style-type: none">All developments in areas of good public transport accessibility (in all parts of London) should aim for significantly less than 1 space per unit.Adequate parking spaces for disabled people must be provided proportionally to need.20 per cent of all spaces must be for electric vehicles with an additional 30 per cent provision for electric vehicles in the future.In outer London areas with low PTALs (generally PTALs 0-1), boroughs should consider higher levels of provision, especially to address 'towngate' parking pressures.</div>	Table 6.2 Car parking standards				Parking for residential development					PTAL 4 or less	PTAL 3 or less	PTAL 2 or less	Suburban	100-200 cu/ha 30-40 cu/ha 30-40 cu/ha 30-40 cu/ha	100-200 cu/ha 40-60 cu/ha 40-60 cu/ha 40-60 cu/ha	100-200 cu/ha 40-60 cu/ha 40-60 cu/ha 40-60 cu/ha	Urban	100-200 cu/ha 30-40 cu/ha 30-40 cu/ha 30-40 cu/ha	100-200 cu/ha 40-60 cu/ha 40-60 cu/ha 40-60 cu/ha	100-200 cu/ha 40-60 cu/ha 40-60 cu/ha 40-60 cu/ha	Central	100-200 cu/ha 30-40 cu/ha 30-40 cu/ha 30-40 cu/ha	100-200 cu/ha 40-60 cu/ha 40-60 cu/ha 40-60 cu/ha	100-200 cu/ha 40-60 cu/ha 40-60 cu/ha 40-60 cu/ha	Maximum residential parking standards	4 or more	3	1-2	number of beds	up to 2 per unit	up to 1.5 per unit	less than 1 per unit	parking spaces				<div></div>	Car-free development. 3% of units have access to accessible parking bay. This number can be increased to 10% of units if required.
Table 6.2 Car parking standards																																							
Parking for residential development																																							
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parking spaces																																							
18	Each designated wheelchair accessible dwelling should have a car parking space that complies with Part M4 (3).	<div></div>																																					
19	Careful consideration should be given to the siting and organisation of car parking within an overall design for open space so that car parking does not negatively affect the use and appearance of open spaces.	<div></div>	Car-parking spaces located along western access road.																																				
Cycle storage																																							
20	All developments should provide dedicated storage space for cycles at the following level: <ul style="list-style-type: none">1 per studio and one bed2 per all other dwellings. In addition, one short stay cycle parking space should be provided per 40 units.	<div></div>																																					
21	Individual or communal cycle storage outside the home should be secure, sheltered and adequately lit, with convenient access to the street. Where cycle storage is provided within the home, it should be in addition to the minimum GIA and minimum storage and circulation space requirements. Cycle storage identified in habitable rooms or on balconies will not be considered acceptable ¹ .	<div></div>																																					
<div>¹ For more detail see: Transport for London Cycle Design Standards available from https://tfl.gov.uk/rate/publications-and-reports/cycling</div>																																							
Refuse and recycling facilities																																							
22	Communal refuse and recycling containers, communal bin enclosures and refuse and recycling stores should be easily accessible to all residents including children and wheelchair users, and located on a hard, level surface. The location should satisfy local requirements for waste collection. Refuse and recycling stores within buildings should be located to limit the nuisance caused by noise and smells and maintained to a high hygiene standard.	<div></div>																																					
23	Storage facilities for waste and recycling containers should be provided in accordance with local authority requirements and meeting at least British Standard BS5906:2005 Code of Practice for waste management in Buildings.	<div></div>																																					

Standard		Compliance	Comments
Dwelling space standards			
24	All new dwellings should meet the nationally described space standard ¹	<div></div>	
<div>¹ DCLG. Technical housing standards - nationally described space standard. 2015</div>			
25	Dwelling plans should demonstrate that dwellings will accommodate the furniture, access and activity space requirements relating to the declared level of occupancy and the furniture schedule set out in Approved Document Part M.	<div></div>	
Private open space			
26	A minimum of 5 sq m of private outdoor space should be provided for 1-2 person dwellings and an extra 1 sq m should be provided for each additional occupant.	<div></div>	
27	The minimum depth and width for all balconies and other private external spaces should be 1500mm.	<div></div>	
Privacy			
28	Design proposals should demonstrate how habitable rooms within each dwelling are provided with an adequate level of privacy in relation to neighboring property, the street and other public spaces. ¹	<div></div>	
<div>¹ Based on: Secured by Design op cit</div>			
Dual aspect			
29	Developments should minimise the number of single aspect dwellings. Single aspect dwellings that are north facing, or exposed to noise levels above which significant adverse effects on health and quality of life occur, or which contain three or more bedrooms should be avoided. ¹	<div></div>	55% of all dwellings are dual aspect. This number increases to 65% if you include apartments with bay windows in the count. There are 10 single aspect units. All benefit from a bay window and are 1 beds.
<div>¹ PPG 24 1994 ibid. See also CLG NPPF 2012 ibid para 123 DEFRA. Noise Policy Statement for England. Explanatory Note. DEFRA, 2010</div>			
Noise			
30 (& policy 7.15)	The layout of adjacent dwellings and the location of lifts and circulation spaces should seek to limit the transmission of noise to sound sensitive rooms within dwellings.	<div></div>	
Floor to ceiling heights			
31	A minimum ceiling height of 2.5 metres for at least 75% of the gross internal area is strongly encouraged	<div></div>	Floor to ceiling heights are all 2.65m high.
Daylight and sunlight			
32	All homes should provide for direct sunlight to enter at least one habitable room for part of the day. Living areas and kitchen / dining spaces should preferably receive direct sunlight.	<div></div>	
Air quality			
33 (& policy 7.14)	Minimise increased exposure to existing poor air quality and make provision to address local problems of air quality, be at least 'air quality neutral' and not lead to further deterioration of existing poor air quality (such as areas designated as Air Quality Management Areas (AQMAs).	<div></div>	Air source heat pumps selected as energy strategy to minimise air pollution.

Standard		Compliance	Comments						
Environmental performance									
34 (& policy 5.3)	All homes should satisfy London Plan policy on sustainable design and construction and make the fullest contribution to the mitigation of and adaptation to climate change.								
Energy and CO ₂									
35 (& policy 5.2)	<div>Development proposals should be designed in accordance with the LP energy hierarchy, and should meet the following minimum targets for carbon dioxide emissions reduction.</div> <table><tr><td>Year</td><td>Improvement on 2013 Building Regulations</td></tr><tr><td>2014 - 2016</td><td>35 per cent¹</td></tr><tr><td>2016 - 2036</td><td>Zero carbon</td></tr></table> <div><small>1 As set out in the Mayor's Sustainable Design and Construction SPG 2014 (paragraph 2.4.3) and the Energy Planning - GLA Guidance on preparing energy assessments.</small></div>	Year	Improvement on 2013 Building Regulations	2014 - 2016	35 per cent ¹	2016 - 2036	Zero carbon		See sustainability report
Year	Improvement on 2013 Building Regulations								
2014 - 2016	35 per cent ¹								
2016 - 2036	Zero carbon								
Overheating									
36 (& policy 5.9)	Development proposals should demonstrate how the design of dwellings will avoid overheating without reliance on energy intensive mechanical cooling systems.		TM59 studies completed to minimise overheating.						
Water									
37 (& policy 5.15)	<div>New dwellings should be designed to ensure that a maximum of 105¹ litres of water is consumed per person per day in line with the optional requirement of Part G.</div> <div><small>1 Excluding an allowance of 5 litres or less per head per day for external water use (as set out in MALP and 'optional' Requirement G2 of Schedule 1 to the Building Regulations 2010)</small></div>		See sustainability report						
Flooding and drainage									
38 (& policy 5.12)	<div>Where development is permitted in an area at risk of flooding, it should incorporate flood resilient design in accordance with the NPPF and its associated technical Guidance whilst ensuring level access is maintained.</div> <div><small>1 Technical Guidance to the National Planning Policy Framework, Department for Communities and Local Government, March 2012 or any subsequent guidance on flood risk issued in support of the NPPF</small></div>								
39 (& policies 5.11 & 5.13)	New development should incorporate Sustainable Urban Drainage Systems and green roofs where practical with the aim of achieving a Greenfield run-off rate, increasing bio-diversity and improving water quality. Surface water run-off is to be managed as close to source as possible.		Blue roofs and attenuation tanks included in proposals.						
Ecology									
40 (& policy 7.19)	The design and layout of new residential development should avoid areas of ecological value and seek to enhance the ecological capital of the area in accordance with GLA best practice guidance on biodiversity and nature conservation.								
Design process									
41	Developments should manage existing materials, specify sustainable materials that are robust and fit for purpose and secure the sustainable procurement of materials.								

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Status	Revision	Date issued	Prepared by	Checked by
P1	For Comment	14/12/2018	HB	TCC
P2	For Comment	16/01/2019	HB	TCC
P3	For Comment	25/01/2019	HB	TCC
P4	For Comment	04/02/2019	HB	TCC
R1	For Planning	08/02/2019	HB	TCC
R2	For Planning	19/02/2019	HB	JL