



### An Occupational Therapist's Access Checklist - a practical Tool

This checklist has been developed as a quick reference tool, to support decisions when making recommendations for the design of accessible and inclusive housing, when there may be a case to be made for exceeding the minimum requirements laid out in the Building Regulations.

It provides comparative information from a selection of design guidance on the specifications for dimensions and layout, from minimum requirements to more generous provision. Detailed reasoning is outlined in the respective documents. It is arranged as a list that details specific aspects of accommodation from the parking and approach to communal access, and internal layouts.

Compiled by **Marney Walker**, independent occupational therapist, for the Housing Learning and Improvement Network

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**Definitions, abbreviations and acronyms:** where these have been used they are detailed on Page 32

**References:** A brief summary explanation of each document with references and links is provided on Page 31

### **Reasoning for the Selection of Access Guidance Documents**

The documents referenced in this checklist have been chosen as representative of a range of guidance, from minimum to good practice, that detail space requirements for people with physical and mobility impairments. The focus is on the design of housing and housing with care. The guidance in the Adaptations Design Communications toolkit is the outcome of detailed consultation with user groups. Although BS8300 and Health Building Notes are not design standards for housing, both include useful and detailed guidance that is reflective of current research, which are of particular use when considering design of accessible accommodation and care environments. The Health Building Notes are reflective of more recent research by Robert Feeney Associates.

### **Exclusions**

The focus of this guidance is principally on space requirements for people with physical and mobility impairments. Specific reference has not been made to design guidance for sensory or cognitive impairments (sight loss, hearing loss, dementia, neurodiversity), although some reference has been made to visual access.

### **Accuracy**

The accuracy of this document may be prone to human error. It is therefore advisable, when making direct reference to specific requirements, to refer to the actual guidance documents. It is intended that the document will be updated if new guidance is issued. It will be reviewed for example in light of the anticipated new edition of the Wheelchair Housing Design Guide in 2018.

If inaccuracies or omissions are noted the author will incorporate these into the next issue. If you wish to make any comments, please contact Marney Walker via the Housing LIN in the first instance at: [info@housinglin.org.uk](mailto:info@housinglin.org.uk)

# OT Access Checklist (dimensions in millimetres)



= not referred to in the document

ITEM	Building Regulations Approved Document M: Volume 1 Dwellings			Lifetime Homes Standard 2011 COMPLIANT + GOOD PRACTICE (GP)	Wheelchair Housing Design Guide 2 <sup>nd</sup> Ed 2007 REQUIRED (RQ)/ RECOMMEN DED (REC)	South East London/ Greenwich Wheelchair Site Brief 2012	BS8300 2009:2010	NIHE Adaptations Design Communicat ion Toolkit 2014	EVOLVE Evaluating Older Peoples Living Environments 2010	Health Building Notes 2016
	M4 (1) <i>Visitable</i> MANDATORY	M4 (2) <i>Accessible and Adaptable</i> OPTIONAL	M4 (3) <i>Wheelchair User WAC/WAD</i> OPTIONAL							
<b>Approach: LEVEL</b>	Level (max 1:60), gently sloping (1:60 to 1:20), ramped (1:20 to 1:12) or where unavoidable stepped on steeply sloping sites (>1:15)	<b>Shallowest achievable gradient and step free.</b> (Where step free not possible to principal entrance, step free approach to an alternative private entrance) Level (1:60) gently sloping (1:60 to 1:20) OR ramped (1:20 to 1:12)	<b>Shallowest achievable gradient and step free irrespective of storey on which dwelling is located</b> (ADD steps where rise is >300)	Level = 1:60 Gently sloping = 1:12 < 2m and 1:20 < 10m No slope > 10m	RQ 2000 max @ 1in 12 and 5000 max @ 1in 15 REC Avoid more than 1:20 if possible	Approach to external door Min 1500 x 1500 clear of outward opening door extending 550 to lock side – slip resistant surfaced + slight drainage falls	Level = 1:60 Gently sloping = 1:20	Gradient Not exceeding 1:20 Cross fall not exceeding 1:40	Level or 1:20	Uninterrupted and clear views of the entrance with protection from the elements (canopies)
<b>Approach GATES</b>		COW min 850 Min 300 nib to leading edge	COW 850 Min 300 nib to leading edge and Min 200 nib to following edge	COW same as the door of that approach route	RQ CEOW 850	Clear opening Min 900 operable both sides not spring loaded				
<b>Approach PATH WIDTH Min CW</b>	900 max cross fall 1:40 ADD 900 CW on driveways to pass cars	900 or 750 with localised obstructions	1200	900 GP 1200	Min W 1200	12000 cross falls must not exceed 1:50	1500	1000 minimum unobstructed width		
<b>Approach PATHS + PARKING SURFACE</b>	<b>Suitable ground surface:</b> firm, even smooth enough to be wheeled over with no loose laid materials, gravel or shingle. Cross fall max 1:40	<b>Suitable ground surface:</b> firm, even smooth enough to be wheeled over with no loose laid materials, gravel or shingle. Cross fall max 1:40	<b>Suitable ground surface:</b> firm, even smooth enough to be wheeled over with no loose laid materials, gravel or shingle cross fall max 1:40	Reasonably smooth, non-slip between parking spaces + entrances preferably level max 1:60 Cross fall max 1:40	Smooth but slip resistant	Slip resistant	Firm, slip resistant and reasonably smooth surface. Avoid Cobbles, bare earth, sand and unbonded grave	Firm, even and slip resistant finish		

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<b>Approach LOCALISED OBSTRUCTIONS</b>	No longer than 2m length + not opposite doorways Min Clear W750 internally	No longer than 2m + NOT opposite/close to doorways Min Clear 1050 paths Min Clear W750 internally	No longer than 2m + NOT opposite/close to doorways Min Clear internally W1050	Position bins, posts, bollards, outward opening windows beyond the route boundary and not overhanging H2250	Min 1000 clear of obstacles	Min CW 1200 All passageways	Obstructions should be avoided wherever possible Min CW 1200 At least 1000 CW over short distances			Min 1200 CW Max 2500 L or reduced clear width
<b>Approach: RAMP</b> • GRADIENT • FLIGHT • WIDTH	Shallowest achievable Up to 1:15 max 10m Up to 1:12 max 5m Min CW = 900	1:20 to 1:12 1:12(Max 2m) to 1:20 (Max 5m) Min CW 900 private 1200 Communal See Diag. 2.1 p12	1:12 is not permissible 1:20 (max 10 m) to 1:15 (max 5m) Min CW 1200 both private and communal See Diagram 3.1 page 26	Between 1:12 up to 2M and 1:20 for 10M  Individual dwellings W900 Communal W1200	Where unavoidable max 1:15 < 5m	1:20 max 10m Landings 1200 x 1500 OR 1500 x 1500	1:20 max 10m 1:15 max 5m 1:12 max 2m Platform 1200	1:20 max 10m max rise 500mm – consult with OT re acceptable alternative gradients		Refer to 3.14 (e) and (f) in Approved Document M and paragraphs 8.2.1–8.2.3 in BS 8300
<b>Approach RAMP Kerb</b>				Raised kerb where adjacent ground falls away		100 kerb to paths and ramps	Min 100 upstand	100min up stand on exposed sides		As above
<b>Approach RAMP LANDINGS Top /Bottom/</b>	Min 1200 long clear of any door or gate swing 1:40 to 1:60	Min 1200 long clear of any door or gate swing 1:40 to 1:60	Min 1200 long clear of door or gate swing	Min 1200 long clear of door or gate swing		1500 x1500 or 1200 x 1500	Not less than 1500 clear of any door swing	Min 1200 at top and bottom		As above
<b>Approach RAMP Resting platforms</b>	Dependant on gradient of ramp See Diag 2.1 p12	Dependant on gradient of ramp See Diag 2.1 p12	Dependant on gradient of ramp See Diag 3.1 p26			1500 x 1500 at turn or 1200 x 1500	1500 at any rise of 500	L1500 1:15 if ramp exceeds 10m 1:12 if ramp exceeds 5m		As above

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Approach RAMP Hand rails				GP Provided a raised kerb and handrail or guarding for routes where adjacent ground falls away		Where there is a drop to the side of a path or ramp, Mid rail at 550mm and top rail 900mm extending 300mm horizontally beyond top and bottom. A protected edge may be part of the railing	Top surface of the handrail should be between 900 mm and 1 000 mm from the surface of the ramp or pitch line of a stair and between 900 mm and 1 100 mm from the landing	On exposed sides, full length of ramp + landings. H 900 -1000 Extending horizontally 300mm beyond end		As above
HAND RAIL DIMENSIONS Ramps and steps	Oval or Circular profile Visual contrast to surroundings Min diameter 40 Max diameter 50 Oval profile W50 +D38 + MIN 15 radius Clearance of 50-60 between wall	Oval or Circular profile Visual contrast to surroundings Min diameter 40 Max diameter 50 Oval profile W50 +D38 + MIN 15 radius Clearance of 50-60 between wall	Oval or Circular profile Visual contrast to surroundings Min diameter 40 Max diameter 50 Oval profile W50 +D38 + MIN 15 radius Clearance of 50-60 between wall				Comfortable grip with no sharp edges External perimeter of between 100 + 140 optimum size to provide a power grip around a hand rail. Suitable profiles circular or oval. A flatter profile gives better forearm support.	Cylindrical, galvanised, attached 50-60mm from wall 40-50mm diameter + terminate in a closed end		40-45 diameter with clear space of 60-75 Contrast with surface Smooth +free of abrasive elements. Not too hot/ cold Raised indicators to indicate floor changes
Balustrades							H 1100 Refer to BS180			H110 0 –no more than 100 apart

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<b>Approach: EXTERNAL STEPPED</b> • RISERS • GOINGS • WIDTHS	Where unavoidable on steeply sloping sites where gradient > 1:15 RISERS 75-150 GOINGS min 280 (where tapered 270 from inside edge) WIDTHS min CW 900	External if step free not possible at principle private entrance: RISERS 150-170 GOINGS 280-425 (where tapered 270 from inside edge) WIDTHS Min CW 900	External as an additional route RISERS 150-170 GOINGS 280-425 (where tapered 270 from inside edge) WIDTHS Min CW 900. Single steps are to be avoided	Risers 170 Goings 250			Risers 150-180 Goings 300-450 Min CW1000	Level Platform of not less than 900mm Risers max 100 for walking aid users Goings 350/600/650 dependent on walking aid		<b>INTERNAL STEPS</b> RISERS 150-170 GOINGS 280-300 Avoid spiral steps Max 12-14 between landings Visual Warning Zone Min 800D x 1200W
<b>STEPS – treads</b>							Slip resistant Avoid shiny surfaces (glare) Don't use deep pile carpet	Slip resistant treads		Lighting should highlight the difference between risers and treads
<b>STEPS – Profile</b>							Preferably no projection- max 25 projection above tread below	Uniform – flush and vertical with no projections or overhangs		See Diag 24 HBN 00-04
<b>STEPS – Visual Access</b>	Suitable tread nosings – compliant with Diag 12 Part K	Suitable tread nosings Compliant with Diag 12 Part K	Suitable tread nosings - compliant with Diag 12 Part K				Contrasting continuous nosing W50-60 on tread and 30-35 on riser	Visibility strips on edges of steps		Min 150 lux on treads. Contrast on nosing full W D50-60 on goings + risers
<b>Approach EXTERNAL STEPPED HANDRAILS</b>	HANDRAIL on one side 3 or more steps H 850-1000 above pitch line and 300 beyond top and bottom nosing	HANDRAIL on one side (900w) or both sides (>1000w) on 3 or more steps H 850-1000 above pitch line and 300 beyond top and bottom nosing	HANDRAIL on one side (900w) or both (>1000w) on 3 + steps H 850-1000 above pitch line and 300 beyond top and bottom nosing	H900 above each nosing and extend 300 from top and bottom step			H900-1100 above ramp surface or pitch line with closed ends	Handrail H 900-1000 above pitch line and 300 beyond top and bottom nosings		Handrail H900-1000 and 600 above pitch line of stairs

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Approach EXTERNAL STEPPED LANDINGS	Max 1800 rise between landings – top bottom intermediary Min L 900	Max 1800 rise between landings top bottom intermediary Min L 900	Max 1800 rise between landings top bottom intermediary Min L 900				Minimum depth 900 between Max 12 steps			Min D1200 and W equal to steps between 12-14 steps
Approach COMMUNAL Min CW	900	1200 or 1050 with obstructions	1200	Min CW 1200 GP 1800		Min CW for 1 WCH 1200 and 1800 for > 1 WCH	Min CW 1800 (X 2 WCHs)		>CW 1800 for x2 WCHs side by side	Min CW 1500 see Figs 3-7
Resting/ seating areas On approach				At min 50m + weather protection			Min 50m apart		At Min 30m intervals	Recessed seating areas
PARKING where provided for a dwelling		Step free access to a Level (1:60) or where unavoidable gently sloping (1:20) Standard bay that can be widened to 3.3m  + Suitable ground surface (see paths)	Level (1:60) Standard parking bay + Min clear access 1200 to one side and rear Min H 2200 carport + Suitable ground surface (see paths)	<b>On plot parking</b> Min x 1 capable of enlargement to 3300Wx 4800 within 50m of entrance (GP 3600W) See <i>LTH Parking Management Plan</i> (P20)	RQ Dwellings with provide covered parking 3600x5400 H2200	One allocated parking bay per WCH unit W4000 x D6600	Under cover where possible. 4200 x 5700 Add W750 if both driver and passenger are WCH users	Hard standing Close to front or side of property 3600 x 6000 (For rear access vehicle with integral ramp ensure clear space of 2935 at back of vehicle)	Less than 50m from building more than 2400 x 4800 and 3300 x 4800 for WCH users	HTM-07-03 Transport management an d car parking guidance for NHS Trusts refers
PARKING Communal for flats		Min 1 standard bay close to entrance + min clear access to one side W900 + dropped kerb  + Suitable ground surface (see paths)	Level (1:60) Standard parking bay + Min clear access 1200 to one side and rear (side access can be shared by 2 bays) + Suitable ground surface (see paths)		RQ designated parking space for each WCH dwelling	4000 x 6600mm slip resistant level surface Where possible covered, height 2300 – where behind automatic gates – hand remote control			Dedicated Disabled Parking bays are 3.3m x 4.8m and close to entrance	As above

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DROP OFF		Close to principle communal entrance, level (1:60) or where unavoidable gently sloping (1:20) + dropped kerb min 1000w max 1:12	Level (1:60), close to principle entrance with suitable ground surface. Dropped kerb min 1000W max 1:15	Setting down points close to main entrance with dropped kerb and kerbed section of footpath	Dropped kerbs and level crossings		Dropped Kerbs min W1000 max 1:12 sited opposite each other		Parking within 50m of entrance	Appropriately located at entrances
Covered Parking			Where car port or garage provided Min clear head room H2200	Where carports provided min CW 3300 (3600 preferred)	REC Provide cover where feasible in flatted developments	Covered parking where possible H2300	Min H2600 to allow use of wheelchair hoist			
Parking Gradient	Where not provided within curtilage see approach route provisions	Level (1:60) or gently sloping (1:20 to 1:60)	Level (1:60)	Max 1:60 1:40 cross fall	Steeper than 1:20 should be avoided		Level			HTM-07-03 Transport management and car parking guidance for NHS Trusts refers
Thresholds dwelling entrance	Accessible (max 15mm + any up stands higher than 5mm chamfered) OR Where step is unavoidable Max 150 rise aligned with outside face of door threshold	Accessible (max 15mm + any up stands higher than 5mm chamfered)	Accessible (max 15mm + any up stands higher than 5mm chamfered)	Max 15 at highest point chamfered both sides. Slopes on sills should not exceed 15°	15 max (consisting of a number of lesser up stands and sloping infill connection) chamfered externally	Weather tight max 15mm bevelled	Level or Max 15 with any up stand that is >5m chamfered or pencil rounded	To prevent water egress maximum height of 15mm. and chamfered or rounded.	Entrance threshold is flush  Threshold from lounge to balcony is flush	Max 10-13 Above 5 should be chamfered or rounded
Thresholds Communal	Accessible (max 15mm + any up stands higher than 5mm chamfered)	Accessible (max 15mm + any up stands higher than 5mm chamfered)	Accessible (max 15mm + any up stands higher than 5mm chamfered)			Weather tight with Max 15 bevelled upstand.	Level or if unavoidable – Max 15with with any upstand >5 chamfered or pencil rounded		Flush with general floor level between rooms, on travel routes and at entrance	Max 10-13 Above 5 should be chamfered or rounded



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Door Entry Controls		Where provided 900-1000 AFFL min 300 from any projecting corner	Where provided 900-1000 AFFL min 300 from any projecting corner	Controls general H450-1200	Where installed 300 from any corner and H1000	Table top hand sets with 2m cabling in bedroom + living room + wall fixed in kitchen	For approach + and use by wch + audible and visible			
Communal Entrance Cover/ Canopy at entrance		Min 1200W and 900D	1200 x 1200	600-900 D x 900-1200 W	RQ Min 1200 x1500 Max H2300	1200 x 1500 H 2300 extending 550 to lock side	Canopy / recessed entrance unless freely accessible automatic opening doors are installed			With protection from the elements (canopies)
Communal Entrance landing outside		Min level 1500x 1500 clear of door swings	Min 1500 x 1500	Min 1200x 1200 GP 1500x1500 clear of door swings	RQ Min 1500 x 1500 with 1200 clear of door swings					
Communal Corridors MIN WIDTHS		1200 or 1050 where there are localised obstructions	1200 + localised obstructions mas 2m are not opposite or close to doorways or at change in direction	Min W =1200 GP W=1500 to 1800		To WCH units min W=1200 For more than one WCH 1800 W or 1800 W x 1200 D passing places	Min 1200W and 1800 for x P2 WCHs passing			Min 1800 for x 2 independent wch users / or 1 wch user and 1walking frame user to pass Min 1500 for x 1 independent wheelchair user and 1 ambulant person to pass Min 2100 for 1 wch user and 1 user with crutches to pass

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LIFTS: Communal (Fire fighting/ evacuation see BS999)	Where provided it should be wheelchair accessible. BS EN 81-70 –type 1Where it cannot be reasonably achieved - acceptable to provide a suitable stair (Part K)	Meets BS EN 81-70:2003 type 2 lift requirements	Meets BS EN 81-70:2003 type 2 lift requirements	GP where practicable to all units above entrance level and 2 in blocks of > 4 storeys	Min x 2 LIFTS with 1 a 12 person lift	Min x 2 LIFTS when WCH units are above GF	Public (non residential) Min x 1 LIFT		Min x 2 (1 per 30 units)	Min x 1 wch accessible lift should be in operation between each floor of a healthcare facility. ( Also refers to Health Technical Memorandum 05-03 Part E – 'Escape lifts in healthcare premises';
LIFTS Clear landing in front	Min 1500 x 1500	Min 1500 x 1500	Min 1500 x 1500	Min 1500 x 1500					Min 1800 x 1800	Min D 1900 x 2200
LIFT Load capacity	Min 400kg	See above BS requirements	See above BS requirements							Min 630kg
LIFT Doors COW	Min 800	Min 800	Min 800	Min 800					More than 1000	COW 1370
LIFT Internal Dimensions	Min 900 x 1250	Min 1100W x 1400	Min 1100W x 1400	Min 1100 x 1400					Stretcher more than 1.2m L	Min 1600 x 1400 (2wchs = attendants) See Fig 26
Controls inside lift	H 900-1200 and min 400 from front	H 900-1200 and min 400 from front	H 900-1200 and min 400 from front	H900-1200 AFFL + min 400 from front					H1150-1350 AFFL	

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1 WCH + 1P no turning						MIN 790 x 1120	1100 x 1400			Min W1100 x D1400 max 8 people 630kg
1 wch (any type) plus a few people							2000 x 1400			
Stretcher size (13 person) 1100 x 2100 car size					Min x 1 12person		Not specified		2600 x 1800	Min 1400 x 2400 + COW 1370
LIFTS – private dwellings  THROUGH FLOOR LIFTS (TFL) See BS EN-41 and BS5900 + STAIR LIFTS		Stair Min CW 850 for installation of stair lift	<b>WAD</b> should be easy to install TFL – Floors/walls to be removable without structural alteration <b>WAC</b> :Install TFLwith Continuous lift way 1100 x 1650 linking all floors +Min 1500 turning circle clear of open door See Diagram 3.7 p35	<b>Criterion 12a</b> Min CW 900 for installation of stair lift <b>Criterion 12b</b> Potential route clear of services for TFL Min1000 x 1500		Hall to landing 1500 x 1500 Min 1800 from door to top of stair. Min internal dimension 790 W x 1120 D BS5900: 1999		<b>Recommendations based on individual needs assessments See specifications format</b>		

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Communal Entrance (external) MIN Clear Opening Width (COW)	775 COW door face to door stop disregarding door furniture)	850 (COW to door face to door stop disregarding door furniture)	Min 850 (COW to door face too door stop disregarding door furniture)	800 straight 800 at 90° from 1500W access route .825 at 90° from 1200W access route	900 or 800 straight on with remote control door opener	900	1000		1000	Automatic sliding/swing doors min COW 1200 with Push buttons sited clear of door swing, H750– 1000,contrast visually with the Surrounding background, measure Approx. 50 x 50
Nib to leading edge		Min 300 and 1200 D	Min 300 and 1800 D	300	Min 300 but 450 preferred	500			300	450-600
Reveal to leading side		Min 200 D (? Typo in document)	Max 200	200	200	500			200	300-450
Nib to following edge			Min 200 + 1800 D						200	300-450
Doors Opening Force			All communal DOORS Provide power assisted where opening force is > 30N from 0° to 30° or more than 22.5N from 30° to 60°		Max 20 Newtons	Max 20N for ambulant users Remote control mechanical assistance at communal entrances	Max 22.5 Newtons between 30° and 60°			Refers to ADB, ADM and BS8300 compliance Automatic doors should not swing beyond closed
Communal M (inside external door)		Min 1500 between doors and min 1500 between door swings	Min 1500 length and min 1500 between door swings			1800 D from face of door and 1500 W	Leave D1570 (WCH user + assistant) free of any door swing			Min 1570 L clear of door swings

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DOORS ALL internal communal doors MIN (COW)		850 COW	850 COW	800-825	800 straight on	Minimise no of doors and always hold open /fire alarm release	800 (straight) 800 at 90° to 1500W 825 at 90° to 1200W		More than 800	850 effective clear opening Min 800 (1000 door set where door can open wider than 90°
DOORS (Principal private entrance to dwelling) MIN Clear Opening Width (COW)	775	850 door stop to face of door irrespective of door furniture	850 COW to face of door  <i>NB Scale 1:100 furnished plan layouts must be provided for Section 3B to show compliance</i>	800 straight on + with 90° turn from 1200W access route 825 with 90° turn from 1500W access route	RQ 800 (straight on) REC 900	900 with 550 approach space to inside and outside on lock side		Min 775 clear opening or wider according to individual needs assessments	More than 800W and flush threshold	850 effective clear opening Min 800 (1000 door set where door can open wider than 90°
Cover/ Canopy at Private entrance  Weather Protection		Min 900W and 600D	Min 1200 x 1200	600-900 D x 900-1200 W	RQ Min 1200 x1500 Max H2300	1200 x 1500 H 2300 extending 550 to lock side	Canopy / recessed entrance unless freely accessible automatic opening doors are installed			With protection from the elements (canopies)
Step –or Slope where it is unavoidable	Max 150 rise aligned with outside face of door threshold	Level external landing min 1200 x 1200	Step Free	Level access over threshold (see thresholds)						
Door Entry Controls (NB Ensure lock mechanism compatible with entry phone)	Centre Line 450- 1200 AFFL Diagram 1.5 p9 (and below p 21)	900-1000 AFFL 300 away from projecting corner	900-1000 AFFL 300 away from projecting corner With remote door release in living space and principle bedroom	450-1200 AFFL + 300 away from any internal room corner (See Criterion 16)	300 clear of any corner and 1000 AFFL to buzzer 1200 to highest function	Table Top handsets + 2M cable in lounge and bedroom. Kitchen wall mounted 800 AFFL.				

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	M4 (1) Visitable MANDATORY	M4 (2) <i>Accessible and Adaptable</i> OPTIONAL	M4 (3) <i>Wheelchair User WAC/WAD</i> OPTIONAL							
Viewing Callers					REC Glazed panels 1000 AFFL Viewers 1100 AFFL	Viewers H 1150 central			Viewers H1150 to 1250 AFFL	
Opening Door to Receive visitors					REC 700 to opening edge of door to open door allow visitor entry			300-500 to leading edge of door where feasible		
Turning space inside door		Min 1500 depth in a lobby/porch and min 1500 between door swings	1500 turning circle inside entrance when door is closed	Hall min 900W + 750 at pinch points not opposite doorways	RQ 1500 x1800 including 300 nib to leading edge	1500 x 1800 for transfer to second wch		1500-1800	1500 turning circle and space to stand wch/zimmer/ trolley	
Principal private entrance nib to leading edge inside		Min 300 to opening edge x 1200 D	Min 300 to opening edge and 1800 D and Min 150 nib to hinge side of door for letter cage on inside of door	Min 300 to opening edge on pull side	RQ 300 REC 550	550		300-500 to leading edge of door where feasible	More than 300	450-600
Principal private entrance outside Nib to following edge			Min 200 + 1500 D		200			300-500 to leading edge of door where feasible	200	450-600
Principle private entrance REVEAL to leading edge		Max 200 D	Max 200 D					300-500 to leading edge of door where feasible		450-600

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	M4 (1) <i>Visitable</i> MANDATORY	M4 (2) <i>Accessible and Adaptable</i> OPTIONAL	M4 (3) <i>Wheelchair User WAC/WAD</i> OPTIONAL							
Individual landings		1200 x 1200	Level external landing 1500 x 1500	1200x1200 clear of any door swing	RQ 1500 x 1500 + 1200 clear of door swing	Individual landings		1200 x 1200	1500 x 1500	
Letterbox						H 700 AFFL + collapsible basket			800-1200 AFFL+ collapse basket	
Door Pull Rail					Horizontal 900-1000 AFFL	Permit fitting horizontal 800- 1000 AFFL				
Doors Secondary (Garden/ balcony)						900 with 550 approach space to o		Min 775 clear opening or wider according to individual needs assessments		
Balconies/ outdoor space			Min turning circle 1500 clear of door swings Min CW 1500			Accessible Threshold 1500 turning circle clear of any door swing		1500-1800	Depth more than 1800 with flush threshold	
Doors (Internal) MIN CEOW	-750 from 900 W corridor head on. -750 from 1200 W corridor when not head on -775 from 1050 W corridor when not head on -800 from 900W corridor when not head on	-750 from 900 W corridor head on. -750 from 1200 W corridor when not head on -775 from 1050 W corridor when not head on -800 from 900W corridor when not head on	Min COW of 850 irrespective of direction of entry  Min 300 nib to leading edge of ever door  Min 200 nib to following edge of every door	Min 750 Head on + with 90° turn from 1200W hall Min 775 with 90° turn from 1050 W hall Min 900 with 90° turn from hall < 1050W	RQ 775 min (from 1200 width corridor) REC 800	900 (840 min if unavoidable) 550- approach space to opening edge. NO 2 leaf doors		Min 775 clear opening or wider according to individual needs assessments	More than 800	850 effective clear opening Min 800 (1000 door set where door can open wider than 90°

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DOOR LEAF Dimensions	826 door leaf up to 44 thick will provide COW of 775	826 door leaf up to 44 thick will provide COW of 775					926 door leaf will achieve 800/825 CEOW if opening beyond 90°			
DOORS Internal thresholds								Level at junction of different flooring materials, Door saddles avoided		Max 10-13 + chamfered In excess of 5 Rubber thresholds easier to traverse
Hall – space to charge or transfer			1500 clear 15 circle		RQ + REC 1100 x 1700 beyond circulation area					
Charging space within dwelling			Min 1100W x 1700 D close to entrance accessible from a space with Min CW 1200 See Diagram 3.6 p 34							
CIRCULATION INTERNAL Corridors /circulation routes inside home	NO Localised obstructions > 2m and near or opposite doorways Should not reduce width to less than 750mm  See Diagram 1.2 p7	NO Localised obstructions > 2m and near or opposite doorways Should not reduce width to less than 750mm  See Diagram 2.3 p17	Min CW 1050 + Min CW 1200 where approach is not head on NO Localised obstructions > 2m and near or opposite doors See Diagrams 3.4 and 3.5 p33	Straight Min 900	RQ Min 900 clear of obstructions 1200 for 90° 1500 for 180° Angled layouts maximise space REC 1000 clear of obstructions	Min 1200 clear of obstructions				



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	<b>M4 (1)</b> <b>Visitable</b> MANDATORY	<b>M4 (2)</b> <b>Accessible and Adaptable</b> OPTIONAL	<b>M4 (3)</b> <b>Wheelchair User WAC/WAD</b> OPTIONAL							
<b>CIRCULATION INTERNAL</b>	See Diagram 1.2 p7 for minimum hall widths (750 -1050) dependent on door position and localised obstructions	See Diagram 2.3 p17 for min door and hall widths	See Diagrams 3.4 and 3.5 p33 for min door and hall widths and outward opening doors			1500 turning circle close to the door in each room				
<b>WINDOWS Glazing Line</b>		Max 850 AFFL to principle window of principle living area	Max 850 AFFL to principle window of principle living area	Glazing line Max 800 AFFL Min 400 between transoms	H800	Max H800 except in kitchen and possibly bathroom	Max H800 AFFL no transoms between H800-1200			Sills low enough to allow seated people to see outside
<b>WINDOWS Operation</b>		Handle to at least one window 450-1200 AFFL and 300 from corner Handles to all other windows 450-1400 AFFL unless fitted with remote opening device	Handle to min one window 700-1000 AFFL unless fitted with a remote opening device Handles to all other windows 450-1200 AFFL unless fitted with remote opening device	Max 1200 AFFL  With an approach route to window of 750 W	Single operating within reach to control both ventilation and opening. Provision for adaptation to remote control opening	Single operating handle H800-1000 and where out of reach remote manual or powered with locking gear within reach of wch user	Easily accessible fastenings H800-1000 preferably operable with clenched fist or side of arm or wrist and not require simultaneous use of both hands	Window modification or provision of remote control window opening. - Extractor where window opening not feasible (bathrooms)	750-1200 AFFL	
<b>Turning Circles - ALL Rooms + halls</b>			<b>1500 in communal and private entrances halls</b> <b>1200 in bedroom</b>	<b>1500</b>		<b>1500</b>	<b>1500 x 1500 square</b>	<b>1500/1800</b>	<b>1500</b>	<b>1500 x 1500 square</b>
<b>Stairs</b>		Min clear width 850 (ignoring any newel post)	Min clear width 850 (ignoring any newel post) and meet Part K for private stair							

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	M4 (1) <i>Visitable</i> MANDATORY	M4 (2) <i>Accessible and Adaptable</i> OPTIONAL	M4 (3) <i>Wheelchair User WAC/WAD</i> OPTIONAL							
General Provisions		All walls ducts and boxing strong enough to support grab rails, seats etc. that could impose load up to 1.5kN/m <sup>2</sup>	All walls ducts and boxing strong enough to support grab rails, seats etc. that could impose load up to 1.5kN/m <sup>2</sup>	All walls within all bathrooms and WC compartments capable of immediate firm fixing and support for adaptations such as grab rails within H300 and 1800 AFFL (min 18 mm WBP plywood panel)	Walls and ceilings should be able to accept a range of supports – rails, shower seat, full height poles, ceiling hoists	Wall strengthened Side of WC min H 1500 + min 500 in front of pan Behind WC min H1200 + min 200 to each side Behind wb min H200 + 1200 from corner Behind shower seat Min H1500 +1200 from corner		Positioning of doorways to all rooms needs to ensure circulation space is maximised. Provision of sliding/pocket /cassette doors may be beneficial where space is restricted		Any healthcare facility should be convenient both to the community and to service vehicles, access and easy circulation for patients, staff and visitors (both non-disabled and disabled) on foot, on bicycles, in cars or on public transport
WC at entrance storey	Min 950w with 750 clearance in front of WC see Diagram 1.3-1.4 p8-9 Min 1050 x 1500 OR 850 x 1060 internal dimensions to accommodate wb. Door opening outwards	Diagrams 2.5 and 2.6 P20-21) 1450 x 1800 /1450 x 1800 with door opening outwards	Diagram 3.11 p43 WAC Diagram 3.12p44 WAD <b>WC/cloak-room</b> 1650 x 2200 with door opening outwards Diagram 3.14 <b>second WCs</b> 1200 x 1700 or 1300 x 1600	Accessible WC and wb with approach 400-500 from centre of WC to wall and 1000 to exposed side, and 1000W x 1100 D from front rim of WC				900 x 1000 for IND WCH User		See Health Building Note 00-02 Sanitary Spaces for detailed layouts for WCs for independent, hoist assisted and semi-ambulant use
WC / shower at entrance level		Installed LAS OR potential LAS		Installed with LAS drainag		Accessible WC and LAS shower in all 1/2b				
WC pan height			WAC 400H			400	H480 for wch users			Seat H475-480

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WC controls						Splayed lever to outer/transfer side				Located on the open (transfer) side of the toilet to ensure it is easily reachable by a wheelchair user facing the toilet.
WC projection				500 from cistern	RQ 750 Inc. cistern	800	750 including cistern			700
WC position	400-450 from centreline to each wall (min W900 of WC/cloakroom)	450 from centreline to wall – 1000 on other side	450-500 from centreline to wall	400-500 from centreline to wall and 1000 clear on exposed side	RQ 450 from centre line to wall	500 centreline to wall	450-500 centreline from wall	400 centreline from wall	600 to each side to allow access for carer	500 from centreline to wall 1150 from centreline for hoist transfer
Transfer space to side of WC		450 from centreline to wall (including wb) and 1000 clear to other side Doors open outwards	450-500 from centreline to wall and 800 from centreline to edge of shower area		RQ 1000 from centreline to exposed side	850		1000 from centreline to exposed side and 350 from centreline to rail		1400
Transfer space to front of WC/ + Shower seat	750 D and 850-900 W including wb projection Diagram 1.3 and 1.4 p8-9	Diagram 2.6 p21	See multiple layout options Diagrams p41-49		RQ 1100 clear of door swing and all obstructions	1100		Approach should extend 1000 forward from front of WC rim and 500 back from front WC rim		1560-1600

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Structural Capacity For Grab rails, shower seats Overhead Hoists		All walls ducts and boxing strong enough to support grab rails, seats etc. that could impose a load of up to 1.5kN/m <sup>2</sup>	All walls ducts and boxing strong enough to support grab rails, seats etc. that could impose a load of up to 1.5kN/m <sup>2</sup> Ceiling Structure strong enough for OH capable of 200lg load	Wall construction capable of immediate firm fixing and support of adaptations such as grab rails within H300-1800 AFFL		For hoists, rails by WC, shower seat and rails, floor fixed equipment and over bath rails	Construction and the fixings used to support drop-down support rails + fixed grab rails capable of resisting the vertical and horizontal loads exerted when users raise/lower or pull themselves to standing			
Showers construction			Installed level access showers are constructed as wet rooms	See below Wet room construction			And as above			
Bathroom Doors	Opening outwards	Opening outwards	Opening outwards	Opening outwards	Opening outwards/ or can be opened outward in emergency	Opening outward	Opening outward	Opening outwards	Opening outwards	Opening outwards
WC/Shower Room		1900 x 2150 /1700 x 2150 See Diagram 2.7 p22	<b>WAD</b> = 2600 x2200/ 2450 x 2450 <b>WAC</b> = 2600 x2200/ 2450 x 2450/2450 x2200/ Bath and Shower 3100x2200 /2900 x 2600 See Diagrams 3.15-3.17 p47-49			2300 x 2500 5.75 m <sup>3</sup>	2500 x 2400 or 3100 x 2500 with CTH	Assisted wch user 2500x2500 Independent weh user 2300 x2200 (5m <sup>3</sup> )		A number of layouts according to ind/assisted/mobile hoist use. See Section 4 p43 shower rooms

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WC/Shower Room Assisted WCH user		In a room with a WC in 2/3 storey dwelling -Potential or installed level access shower	WAC 2450 x 2200 WAD with bath to be removed 2200 x 2600 or 2450 x2450 See document for detailed layouts	A bath or an accessible floor level shower or both				2500 x 2500 (6.25 m <sup>2</sup> )		See Section 4 p43 Shower rooms
Wet floor shower area - size and location		1000 x 1000 (see Diagrams 2.5 and 2.6 p20-21	1200 x 1200 in bathroom 1000 x 1000 permitted in cloakroom	1100 x 1100	RQ 1000 x 1000	1200 x 1200 in corner furthest from door	1200 x 1200	800 x 13000	Walk in furthest from door + low level enclosure to protect carers	See Section 4 p43 Shower rooms
Wet room or potential for wet floor Shower falls to gulley		With tanking and drainage laid to a fall to a connected gulley capable of draining the floor area when used as a shower	With tanking and drainage laid to a fall to a connected gulley capable of draining the floor area when used as a shower	Floor construction providing shallow falls or easy future provision of laid to fall surface		1:40 to gulley in corner	1:50	1:40-1:50		See Section 4 p43 Shower rooms
Shower seat						500 from centre to nearest wall or obstruction	500 from centre to nearest wall	Fixed folding shower seat with legs – position according to individual need		H480 and D650 and 400 from centreline of seat to adjacent wall 320 from centreline of seat to rails on both sides
FLOORING in shower and WC areas								Slip resistant compliant with Pendulum test with a Coefficient of Friction >36		

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Rails next to shower seats							320 from centre			Rails on both sides H680 and 320 from centreline
Shower controls Large, easy to see pre-set 43 degrees C	Controls generally 450-1200 AFFL (SEE 1.18 and Diagram 1.5 P22)	Controls generally 450- 1200 AFFL (SEE 2.30 P22)	Controls generally: 700-1000 AFFL (See 3.44 P49-50)			H 1000 and 750 from corner	H 750-1000 AFFL and 500 from corner	H 1000-12000 on long well 700 from corner	H750 to 1000	H750 to 950
Shower slider bar						1000 long H 1000 AFFL 600 from wall	Adjustable within range 1050 to 1850 AFFL	1000mm H900-1050 AFFL 400-500 from corner		H900 to 1000 AFFL and 500 from corner wall
Shower Curtain (weighted)						Enclose 1200 x 1200 To 15mm AFFL		Fitted internally to ensure effective water containment		In 2 parts to assist seated person to draw curtain from each side
Shower Hose -over bath and wet floor						1500 long		Flexible and detachable 1500/2000		
Hooks							1400 and 1050 AFFL			Positions but not heights
Bathrooms Minimum provisions Level access showers (LAS)		Entrance level room with WC provides installed LAS or potential LAS + clear access zones Diagram 2.5 p20	2/3B bathroom with LAS 4B Bathroom with LAS + separate WC5B Bathroom with LAS + separate WC or 2 <sup>nd</sup> bathroom and WAC bathroom with bath + LAS See Table 3.5 p41			Standard H520 W700 L1700 NOT A SHALLOW BATH		800 x1300 level access shower area		Min 990 x 990

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Over bath shower controls						750 from tap end 1000 AFFL				
Over bath shower slider bar						900 from tap end L1000 lower end 1000 FFL				
Hand rinse basin			140-160 from edge of WC (ADM Vol. 1)		Hand rinse basin position within reach of WC important for some users		140-160 from front edge of WC			140-160 from front edge of WC
Wash Basin	Any Basin is positioned to avoid impeding access See Diag. 1.3	Basins should not project into access zones to WC in such away as to impede access	WAC wall hung: rim 770-850 AFFL  WB dimensions 600 x450  Hand rinse 350 x 200	Accessible basin with clear frontal approach zone extending back 1100 from any obstruction under web	RQ rim H 750- 800 with H600 clearance under bowl. Shallow but good capacity bowl , support for arms, reachable and usable taps	Non pedestal, cantilever Adjustable H700 - 1000.	Should not have a pedestal and in bathrooms is large enough for hair washing – Max D 450	Min H700-750 knee space underside to AFFL		WCH accessible and shallow as possible, tapered from rim to a depth not exceeding 250 mm at the outlet, as near the supporting wall as possible; preferably project 500 mm to provide adequate leg room beneath
Wash basin position	Any Basin is positioned to avoid impeding access See Diag. 1.3	Basins should not project into access zones to WC in such away as to impede access – see detailed diagrams on encroachment	Max encroachment for hand rinse 200 Max encroachment for wash hand 300	Accessible basin with clear frontal approach zone extending back 1100 from any obstruction under wb		Centre not less than 500 to wall or nearest obstruction	Centre 750 from wall H of rim 720- 740 for wch users and 780- 800 for ambulant users	Should not project more than 200	600 to side of wb to allow access for carer	

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Wash basin approach	Any basin is positioned to avoid impeding access to WC	Every dwelling has WC and wb at entrance level and wb does not impede access to WC See Diag 2.5 Max encroachment to 300 if to side of WC	WAD = 700 W x 1000 D and WAC = 800 W x 1650 D (WAC)	Min 1100 clear depth in front of wb clear of any obstruction under wb			W800 x D1100 For ambulant users	W 700 D 1100		D1230-1300 for independent /assisted wch See Fig 69 HBN- 02 for details Space for washing and drying W1000 e.g. 500 to each side from centreline
TAPS			Suitable for one handed use for person with limited grip			Short lever		Lever taps preferred		Short lever taps
Rails		See Structural Capacity	See Structural Capacity			(NOT FITTED BUT AVAILABLE) 2 x 750mm drop down (or 1000 if WC boxed in) with support legs. 2 x 600mm and 2x 450mm		See detailed guidance on recommende d positioning		See detailed guidance in HBN-02 Sanitary Spaces
Shaving Point						800-100AFFL				
Manoeuvring space			1500 x 1500	1200 x 1200 GP 1500x1500 or 1400x1700	RQ 1800 x1500	1500 x 1800		1500/1800	More than 1500	



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Min clear access zone in front of all kitchen units and appliances		Min 1200	1500W	Min 1200W for	Min 1800 x 1500	Min 1800 x 1500 to include turning circle and one other person	Min 1500 x 1500		Min 1500 turning circle /space for mor than one person	
Work Surfaces			<b>WAD</b> =Min work top length 4330 for 2Bed, 4730 for 3 -4 Bed, 5630 for 5 Bed and 6730 for 6-8 Bed – Table 3.3 p37 <b>WAC</b> =Min work top length 6130 for 2Bed, 6530 for 3-4 Bed, 7430 for 5 Bed and 8530 for 6- 8 Bed Table 3.4 p38	GP min H900	RQ 600 D worktop with clear knee space REC provide for worktops to be height adjustable between 750- 910	Continuous with knee recess under and between hob and sink unit 700 -900 AFFL	To accommodate 95% of wch users arm rest H794 Knee H 794 Footrest D 490 Dual heights H900 for standing H760 for wch users		On adjustable brackets	
Work top with sink and drainer			Continuous work top 2200 L with sink (150D), drainer + hob – adjustable or fixed capable of adjustment to different heights and continuous knee space capable of 700H AFFL		Integral shallow sink and drainer to maximise height adjustability	Height adjustable with flexible plumbing and tiled behind 700 to 900 AFFL			Min W500 to each side of sink and hob	
Knee Recess			Capable of 700 AFFL			H600 AFFL	Min H700 sloping away Min W500 x H300 for feet See Fig F.2 p198	Min 700-750 to lowest point		

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Kitchen Shelves							H665 to 1060 wch reach .		Not higher than 1400 AFFL	
Kitchen Drawers Handles							Drawers to enable side access		Min H600 AFFL	
Kitchen Units Doors							Carousels for ease of access		Opening 180° or sliding	
Work top heights			700 to 950 AFFL				H760 wch H900 ambulant			
HOB			Min 400 to one side	GP 600W to one side		Adjustable 700-900 AFFL Min 300 both sides (for pan handles)	Knee recess min W800 below or adjacent to insulated under		Min 500 to each side of hob	
Oven side hung non tilt shelves, heat resistant pull out shelf below OR Drop down Retractable door			Space for built in oven with centre 800-900 AFFL + pull out shelf beneath oven	GP built in accessible height + 600W to side		H 800 to centre Workspace W 300 to opening edge of oven door				
Additional space for appliances						Additional space for min x 3 appliances				
Kitchen sockets				Generally between H450 and 12000	RQ –sockets within reach of adjustable worktops and remote + labelled switches for appliances	150mm above max work top				

ITEM	Building Regulations Approved Document M: Volume 1 Dwellings			Lifetime Homes Standard 2011 COMPLIANT + GOOD PRACTICE (GP)	Wheelchair Housing Design Guide 2 <sup>nd</sup> Ed 2007 REQUIRED (RQ)/ RECOMMEN DED (REC)	South East London/ Greenwich Wheelchair Site Brief 2012	BS8300 2009:2010	NIHE Adaptations Design Communicat ion Toolkit 2014	EVOLVE Evaluating Older Peoples Living Environments 2010	Health Building Notes 2016
	M4 (1) <i>Visitable</i> MANDATORY	M4 (2) <i>Accessible and Adaptable</i> OPTIONAL	M4 (3) <i>Wheelchair User WAC/WAD</i> OPTIONAL							
Kitchen Windows		See windows general	See windows general			Above units to have winders tbc with OT		Ensure access to windows or provide modification or remote control opening		
Worktop to opening edge of Fridge Door			400 to one side			300				
BED circulation space		Min 750W to both sides and the foot of double bed + one side of single bed	Min 1200 x 1200 manoeuvring space inside doorway and both sides of bed	Min 750W to both sides and the foot of double bed + one side of single bed	Min 1200 x1200 clear of door swing and other obstructions	Min 1500 clear of door swing		1200min to transfer side of bed and 800min at base end		
Bedroom Transfer space		Min 750W to both sides and the foot of double bed + one side of single bed	Min 1200 x 1200 manoeuvring space inside doorway and both sides of bed DOUBLE BED Min 1000 W to both sides and foot of bed SINGLE BED Min 1000 W to one side and in front of furniture	Min 750W to both sides and the foot of double bed + one side of single bed	Min 1000 to approach and transfer	1100 (each side Double Bed- One Side single bed)	1500 x 1500mm wch access and turning  2250 x 2100 for mobile hoist transfer	1200	More than 1200 on either side of bed and more than 1500 on one side	
Carer space non transfer side							700	900		
Bedroom Access to storage								Min 1350 activity space in front /1000 where there is knee space		

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	M4 (1) <i>Visitable</i> MANDATORY	M4 (2) <i>Accessible and Adaptable</i> OPTIONAL	M4 (3) <i>Wheelchair User WAC/WAD</i> OPTIONAL							
Access in front of furniture	See Furniture schedule Appendix D	See furniture schedule Appendix D	1000	CW 750		1400	1100 in front of wardrobe	1350mm or 1000 where there is knee space		
End of Bed clear of obstructions		750	1000	Entrance level bed space		Min 1000		800		
HOISTS structural capacity			Ceiling structure of every bedroom and bathroom strong enough to allow for fitting an overhead hoist capable of carrying 200kg load	Ceiling structure in bedroom, accessible bathroom capable of supporting single point hoists above bed, WC , bath. See Criterion 13	Any built in strengthening should allow for full range of possible installations	Max weight load including equipment 250kg  Main bed to bathroom connected by knock out panel				
Minimum ceiling height						2400mm				
Hoist Transfer space						850 between edge of WC and bath	Min 2300 turning circle for mobile hoist Min 2250 x 2100 to turn 180°	Clear unobstructed activity space 1.8m to side of bed + 2.3m for mobile hoist		For mobile hoist transfer to WC 1400 from centreline to both sides
Hoist Unit Weight						15kg				
Hoist Track per metre						3kg				
Safe Working Load						150kg x 1.25				
Maximum span						150 from end +900 between fixings				

ITEM	Building Regulations Approved Document M: Volume 1 Dwellings			Lifetime Homes Standard 2011 COMPLIANT + GOOD PRACTICE (GP)	Wheelchair Housing Design Guide 2 <sup>nd</sup> Ed 2007 REQUIRED (RQ)/ RECOMMEN DED (REC)	South East London/ Greenwich Wheelchair Site Brief 2012	BS8300 2009:2010	NIHE Adaptations Design Communicat ion Toolkit 2014	EVOLVE Evaluating Older Peoples Living Environments 2010	Health Building Notes 2016
	M4 (1) <i>Visitable</i> MANDATORY	M4 (2) <i>Accessible and Adaptable</i> OPTIONAL	M4 (3) <i>Wheelchair User WAC/WAD</i> OPTIONAL							
Sockets, Door bells, Entry phones, Light switches TV aerials, Phone points	Centre Line 450- 1200 AFFL Diagram 1.5 p9 (and below p 21)	Switches, sockets, stopcocks +controls centreline 450-1200 AFFL and min 300 from corner (Diag. 2.30 P22)	Switches, sockets stopcocks+ controls Centre Line 700-1000 AFFL and min 700 from corner (Diag. 3.44 p49-50)	450-1200 AFFL + 300 away from corner  LTH Criterion 16		Operable fittings 800 to 1000 AFFL	For precise hand movement H750-1000 AFFL Min 350 from corner Fig 26 p87	Min X 3 double sockets positioned according to building regulations		
<b>Door Entry Controls</b> (NB <i>Ensure lock mechanism compatible with entry phone</i> )	Centre Line 450- 1200 AFFL Diagram 1.5 p9 (and below p 21)	900-1000 AFFL 300 away from projecting corner	900-1000 AFFL 300 away from projecting corner With remote door release in living space and principle bedroom	450-1200 AFFL + 300 away from any internal room corner (See Criterion 16)	300 clear of any corner and 1000 AFFL to buzzer 1200 to highest function	Table Top handsets + 2M cable in lounge and bedroom. Kitchen wall mounted 800 AFFL.				
<b>Door Bell</b>	450-1200 AFFL see Diagram 1.5 p9 (and below p 21)	900-1000 AFFL 300 away from projecting corner	700-1000 AFFL and min 700 from any corner	Services and controls 450- 1200 AFFL	300 clear of any corner and H800-900 AFFL	H800-900 AFFL to lock side				
<b>Sockets</b>	450-1200 AFFL see Diagram 1.5 p9 (and below p 21)	450 -1200 AFFL and min 300 from corner	Centre line 700-1000 AFFL and min 700 from inside corner			H800 top of plate + 750 from a corner	H 400-1000 AFFL	Min X 3 double sockets positioned according to building regulations	450-1200 AFFL + Min 350 from corner	
<b>Switches</b>	450-1200 AFFL see Diagram 1.5 p9 (and below p 21)	450 -1200 AFFL and min 300 from corner	Centre line 700-1000 AFFL and min 700 from inside corner			Full plate/ rocker type H900 top of plate	H 1000-1200	'Rocker' or remote control switches	1000-1200 AFFL	
<b>Consumer Units/Meters</b>	1350-1450 AFFL	1350-1450 AFFL	1350-1450 AFFL				1200-1400 AFFL			

ITEM	Building Regulations Approved Document M: Volume 1 Dwellings			Lifetime Homes Standard 2011  COMPLIANT + GOOD PRACTICE (GP)	Wheelchair Housing Design Guide 2 <sup>nd</sup> Ed 2007  REQUIRED (RQ)/ RECOMMEN DED (REC)	South East London/ Greenwich Wheelchair Site Brief 2012	BS8300 2009:2010	NIHE Adaptations Design Communicat ion Toolkit 2014	EVOLVE Evaluating Older Peoples Living Environments 2010	Health Building Notes 2016
	M4 (1) <i>Visitable</i> MANDATORY	M4 (2) <i>Accessible and Adaptable</i> OPTIONAL	M4 (3) <i>Wheelchair User WAC/WAD</i> OPTIONAL							
Bedrooms  Adjacent to bed head			Provision to install bedhead controls (2 way light switch Telephone, TV, broadband,):blank sockets conduit and draw wires			NB. Min x 3 double sockets in single bedroom Socket outlet, entry phone, 2 way light switch, pull cord over bed				
Telephone			<b>Electrical socket and phone point in main living space</b>			H800 AFFL	Telephone sockets Min 400 AFFL			
Stopcock		450-1200 AFFL + 300 from corner	700-1000 AFFL	450-1200 AFFL + 300 from corner		Min 750 from corner H800 AFFL				
Shower controls							750-1000 AFFL	900-1050 AFFL and 700 from corner wall		H900 -1000
Boiler timer controls and thermostats		900-1000 AFFL or wireless same height range	900-1000 AFFL or wireless same height range							
Radiators controls			WAC 450-1000 AFFL			Controls 800 AFFL + 35 from wall				

Unit Sizes		
Greenwich Wheelchair Site Brief 2012		Housing LIN Extra Care
Dwellings		
1 BED (2P)	65m <sup>3</sup>	54m <sup>3</sup>
2 BED (2P)		68 m <sup>3</sup>
2 BED (3P)	75m <sup>3</sup>	
3 BED (4P)	100 m <sup>3</sup>	
3 BED (4P) house	110m <sup>2</sup>	
3 BED (5P)	110m <sup>2</sup>	
3 BED (5P) house	120m <sup>2</sup>	
3 BED (6P)	115m <sup>2</sup>	
3 BED (6P) house	125m <sup>2</sup>	
4 BED (5P)	116m <sup>2</sup>	
4 BED (5P) house	125m <sup>2</sup>	
4 BED (6P)	125m <sup>2</sup>	
4 BED (6P) house	130m <sup>2</sup>	

Room Sizes		
NIHE Adaptations Design Communications Toolkit 2014		
Private Dwellings		
	Specific Room Types	
Level 1 Ambulant User	WC	1500 x 2000 (3 m <sup>2</sup> )
	WC/Shower Room	1700 x 1900 (3.23 m <sup>2</sup> )
	Bedroom Single standard bed	3000 x 3600 (10.80 m <sup>2</sup> )
	Bedroom Single Hospital bed	3100 x 3900 (12 m <sup>2</sup> )
	Bedroom Double	3800 x 3600 (13.68 m <sup>2</sup> )
	Bedroom Twin	2 x standard beds 3900 x 3800 (14.82 m <sup>2</sup> ) 1 x standard + 1 x hospital (4000 x 4100 (16.40 m <sup>2</sup> ))
Level 2 Independent Wheelchair User	WC	1800 x 2000 (3.60 m <sup>2</sup> )
	WC/shower room – wet floor	2300 x 2200 (5m <sup>2</sup> )
	Bedroom single:	Standard bed 3300 x 3800 (12.54m <sup>2</sup> ) Hospital bed 3400 x 3800 (12.92 m <sup>2</sup> )
	Bedroom twin	2 x standard 4200 x 3800 (15.96 m <sup>2</sup> ) 1 x standard 1 x hospital = 4300 x 4100 (17.63m <sup>3</sup> )
	Bedroom double	3900 x 3900 (15.21m <sup>2</sup> )
Level 3 Assisted Wheelchair User	WC	2000 x 2200 (4.40m <sup>2</sup> )
	WC/shower room – wet floor	2500 x 2500 (6.25m <sup>2</sup> )
	Bedroom single	Standard bed 3800 x 3600 (13.68 m <sup>2</sup> ) Hospital Bed 4100 x 3700 ((15.17m <sup>2</sup> ))
	Bedroom twin	2 x standard 4500 x 3800 (17.10sm <sup>2</sup> ) 1x standard 1 x hospital 4600 x 4100 (18.86 m <sup>2</sup> )
	Bedroom double	3950 x 4200 (16.95m <sup>2</sup> )
Part M 2015 M4 (3) Wheelchair User OPTIONAL		
	Bedroom single	SINGLE Minimum floor area 8.5m <sup>2</sup> and at least 2400 W
BS8300 2009:2010		
	Bedroom WCH user	1500x1500 to one side of bed for WCH 180° turn Allow 700 to side of bed for assisted transfer

Communal Room Sizes	
Housing LIN: Extra Care	
Communal areas	
Laundry	20 m <sup>2</sup>
Dining/ Restaurant	1.2 m <sup>2</sup> @ unit/flat
Lounge	1.5 m <sup>2</sup> @ unit/flat
Assisted Bathroom	12-15m <sup>2</sup> + 700 each side bath (EVOLVE)
Informal Seating Areas	3 m <sup>2</sup>
Mobility Scooter Store (per 40 units)	25-30m <sup>2</sup>
Catering kitchen	60 m <sup>2</sup>
Staff sleepover with en-suite	18 m <sup>2</sup>

NEW TECHNICAL HOUSING STANDARDS- Nationally Described Space Standards 2015 Minimum Gross Internal Floor Areas (m <sup>2</sup> )				Greenwich Wheelchair Site Brief 2012			EVOLVE (Evaluation of Older Peoples Living Environments)	
Beds	Bed spaces	1 storey	2storey		Bedroom WCH user	3500 x 2600 9.10 m <sup>2</sup>	Laundry	2 washing machines, one with sluice, 1 tumble drier ironing board seating
1b	1p	39(37)						
	2p	50	58					
2b	3p	61	70		Lounge	1 bed flat 4m x 4m 16 m <sup>2</sup>	Activity Room	Space for min x 4 plus WCH users to sit at table with lockable storage sink/shelves 550 to 1200 AFFL
	4p	70	79					
3b	4p	74	84	EVOLVE (Evaluation of Older Peoples Living Environments)			Seating	1200W between rows in waiting areas
	5p	86	93		Lounge	Min 3.5 diameter space to allow min 4 people to sit down	Seating Heights	Compressed cushion H450-475
	6p	95	102	Lifetime Homes Standard 2011 COMPLIANT + GOOD PRACTICE (GP)			BS8300 2009:2010	
4b	5p	90	97				Reception	Clear space in front 1200D x 1800 W + 700H x 500D knee recess or 1400D x 2200W with no recess. Provide 2 heights for ambulant and WCH users See Fig 29 p90
	6p	99	106					
	7p	108	115					
	8p	117	124					
5b	6p	103	110					
	7p	112	119					
	8p	121	128					
6b	7p	116	123		Lounge	Clear manoeuvring space between furniture 750		
	8p	125	132					
Single bedroom size	Min 7.5m <sup>2</sup> + at least 2.15m wide							
Twin /Double bedroom size	Min 11.5m <sup>2</sup> + At least 2.55m wide							

**Approved Document M: Volume 1 Dwellings (2015) Category M4 (3) Wheelchair Accessible and Wheelchair Adaptable: Recommendations for Habitable Rooms**

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 m <sup>2</sup>	25	27	29	31	33	35	37



### **Approved Document M Access to and Use of Buildings: Volume 1: Dwellings (2015 Edition) Incorporating 2016 amendments issued 090316**

- M4 (1) Visitable (Mandatory)
- M4 (2) Accessible and Adaptable (Optional) – if imposed as part of planning requirements
- M4 (3) Wheelchair User (Optional) – if imposed as part of planning requirements

This new edition of Approved Document M (Access to and use of buildings) - Volume 1: Dwellings, will replace all previous editions on 1 October 2015 and FAQs document issued September 2017 .

ADM Vol 1 is part of the **Technical Housing Standard** and applies to newly erected dwellings and dwellings undergoing material alteration but NOT to extensions of dwellings

<http://www.planningportal.gov.uk/buildingregulations/approveddocuments/partm/adm/admvol1>

### **Technical housing standards–NEW Nationally Described space**

<https://www.gov.uk/government/publications/technical-housing-standards-nationally-described-space-standard>

**BS8300 2009 + A1 2010 Design of Buildings and their approaches to meet the needs of disabled people** - provides guidance and recommendations for the design of new buildings, and their approaches, to meet the needs of disabled people. NB Although this guidance does not apply to individual dwellings or residential accommodation for severely disabled people, some of the specifications are useful examples of good practice and also provide helpful explanations on the reasoning behind the requirements and their impact on disabled people.

**BS EN 81-70:2003 Safety rules for the construction and installation of lifts.** Particular applications for passenger and goods passenger lifts. Accessibility to lifts for persons including persons with disability. This standard considers accessibility to lifts for persons using wheelchairs with maximum overall dimensions defined in BS EN 12183:1999 and BS EN 12184:1999

**EVOLVE TOOL Evaluation of Older Peoples Living Environments 2010** - Detailed guidelines and audit tools developed as an outcome of research into older peoples housing and in particular Sheltered and Extra Care Housing. <http://www.housinglin.org.uk/Topics/type/resource/?cid=7997>

**South East London Wheelchair Site Brief 2012** – Although no longer mandatory or enforceable locally, this guide may be a useful form of reference where there is an aspiration or justification for more generous space requirements than the mandatory minimum on specific schemes. <https://www.lewisham.gov.uk/myservices/planning/policy/Documents/SELHPWheelChairHomesDesignGuide.pdf>

**Health Building Notes** give best practice guidance on the design and planning of new healthcare buildings and on the adaptation or extension of existing facilities. **HBN 00-02 Designing sanitary spaces like bathrooms** includes variations on ADM and BS8300 with reasoning for more generous recommendations. <https://www.gov.uk/government/collections/health-building-notes-core-elements>

**Housing Lin (The Housing Learning and Improvement Network)** – a leading knowledge hub and network for housing, health and social care professionals in England concerned with housing, and care and support for older people and people with long term conditions. [www.housinglin.org.uk](http://www.housinglin.org.uk)

**Lifetime Homes Design Guide (2011)** Habinteg: IHS BRE Press – Lifetime Homes Standard (16 design criteria) incorporate a set of principles that maximises utility, independence and quality of life while not compromising other design issues such as aesthetics or cost effectiveness. Intended as inclusive design to meet the changing needs of the widest range of households. Based on 5 overarching principles: inclusivity, accessibility, adaptability, sustainability and good value. But is not fully wheelchair accessible or wheelchair adaptable. Although no longer mandatory or enforceable locally, M4 (2 which ) is considered to be roughly equivalent has been adopted as mandatory on new build in some local plans including London. However there are some details of Lifetimes homes that differ and are detailed on the checklist <http://www.lifetimehomes.org.uk/pages/revised-design-criteria.html>

**Wheelchair Housing Design Guide 2<sup>nd</sup> Edition (2007)** – Habinteg and Joseph Rowntree – is not mandatory but has been used as a nationally recognised standard until the introduction of the recent ADM documents in March 2015. It is organised into parts of the home and then subdivided into what is a Requirement (essential) and what is a Recommendation (good practice).

**Northern Ireland Housing Executive (NIHE) Adaptations Design Communications Toolkit 2014 Recommendations for adaptations for wheelchair users.** A useful tool to appraise room layouts. It provides evidence based, consistent and equitable housing adaptations design standards for all housing tenures. Design formats that help visualise and discuss proposed housing adaptations that depict how wheelchair users and carers use the space. Published by Northern Ireland Housing Executive and developed through close work and interagency working with disabled people, OTs, housing designers, and the Northern Ireland Federation of Housing Associations [https://www.nihe.gov.uk/adaptations\\_design\\_communications\\_toolkit.pdf](https://www.nihe.gov.uk/adaptations_design_communications_toolkit.pdf)

**Strategic Housing for Older People (SHOP): planning, designing and delivering housing that older people want: A Resource Pack. Housing Lin and ADASS (2012)** SEE Section B: Developing Extra Care Housing – a detailed review of the planning, design and development of extra care housing. *B2: The design and build of successful extra care housing B5: Good Design Characteristics of Extra Care Housing B6: Mapping the use of space in Extra Care Housing* <http://www.housinglin.org.uk/Topics/browse/HousingExtraCare/ExtraCareStrategy/SHOP/SHOPv2/SectionB/>

## Abbreviations

AFFL = Above Finished Floor Level

CEOW = Clear Effective Opening Width (The minimum effective clear width of a single leaf door or one leaf of a double leaf door, clear of any projection from the face of the door such as door furniture and weather boards to the door frame)

ECW = Effective Clear opening width – clear of projections (door handles/pull handles)

COW = Clear Opening Width- disregarding projections e.g. door handles

CTH = Ceiling Track Hoist

CW = Clear WIDTH (e.g. paths/ ramps/corridors)

D= Depth

GP= Good Practice

GF = Ground Floor

H = Height

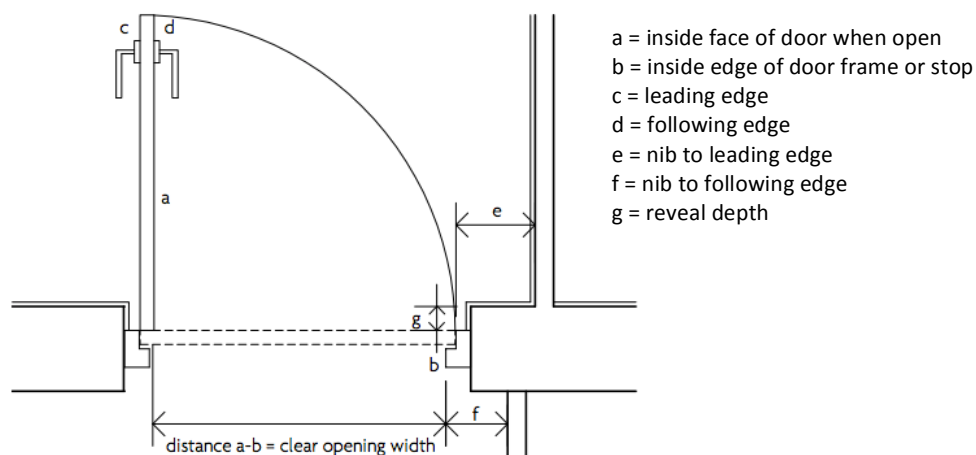
L= Length

P= Person

WAD = Wheelchair Adaptable

WAC = Wheelchair Accessible

WCH = Wheelchair



Approved Document M Volume 1 Diagram 2.2 Measurement of clear opening width and other Features of external and internal doors

## Definitions

**Accessible Threshold:** a threshold that is level or, if raised has a total height of not more than 15mm, a minimum number of up stands no higher than 5mm chamfered. See *Accessible Thresholds in new housing: guidance for house builders and developers ISBN 0117023333 (1999)*

**Curtilage:** the enclosed space of ground and buildings immediately surrounding a dwelling/house

**Habitable rooms:** Any room used or intended to be used for sleeping, cooking, living or eating purposes. Enclosed spaces such as bath or toilet facilities, service rooms, corridors, laundries, hallways, utility rooms or similar spaces are excluded from this definition

**Landing:** Space outside the entrance door?

**Leading Edge:** the surface of a door that leads into (or faces) the room into which the door is being opened. Sometimes referred to as the “pull side”.

**Nib:** the space next to the opening edge of the door

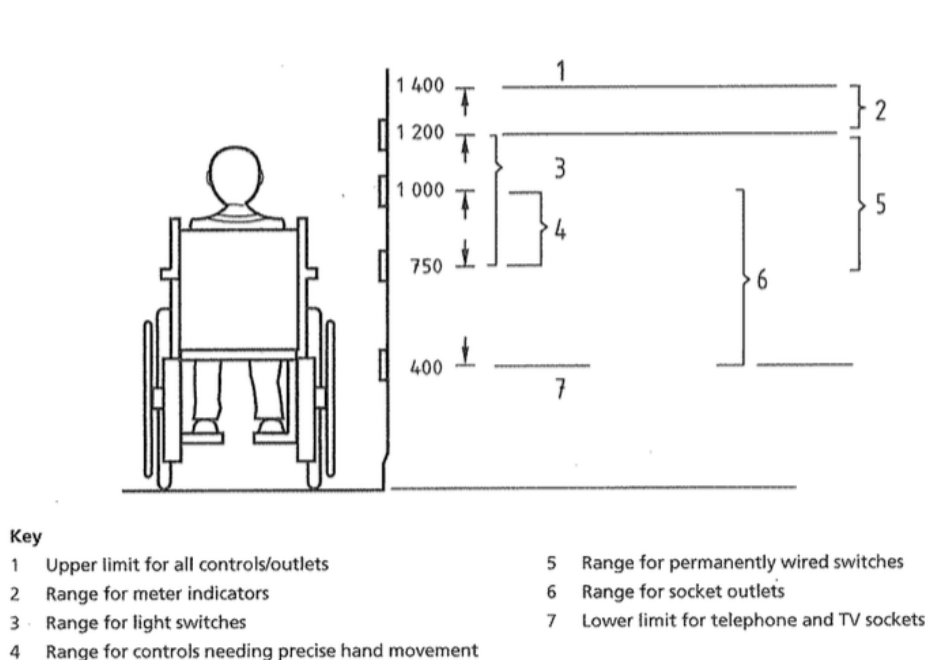
**Reveal:** The part of the side of a window or door opening that is between the outer surface of a wall and the window or door frame.

**Wheelchair Accessible:** Category 3 dwelling constructed to be suitable for immediate occupation by a wheelchair user where the planning authority specifies that the optional requirement M4 (3) (2) (b) applies

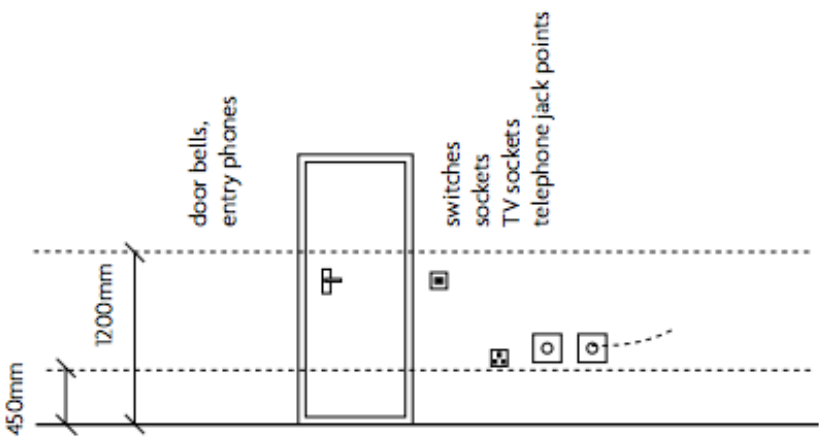
**Wheelchair Adaptable** Category 3 dwelling with potential to be adapted for occupation by a wheelchair user where the planning authority specifies that M4 (3) (2) (a) applies

**Wet Room WC** or bathroom compartment with tanking and drainage laid to fall to a connected gulley capable of draining the floor area when used as a shower.

# Services and Controls



BS8300 Figure 26:Heights to the centre of outlets, switches and controls (p87)



Approved Document M Volume 1 :: Diagram 1.5 Heights of switches, sockets, etc. (p9)

## Note

The views expressed in this paper are those of the author and not necessarily those of the Housing Learning and Improvement Network.

## Disclaimer

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## About the Housing LIN

The Housing LIN is a sophisticated network bringing together over 40,000 housing, health and social care professionals in England and Wales to exemplify innovative housing solutions for an ageing population.

Recognised by government and industry as a leading 'knowledge hub' on specialist housing, our online and regional networked activities:

- connect people, ideas and resources to inform and improve the range of housing choices that enable older and disabled people to live independently
- provide intelligence on latest funding, research, policy and practice developments, and
- raise the profile of specialist housing with developers, commissioners and providers to plan, design and deliver aspirational housing for an ageing population.

And if you would like to find out more about OTs and getting the housing design right, we have compiled a range of relevant resources on our dedicated 'design hub' at: [www.housinglin.org.uk/Topics/browse/Design-building/occupational-therapy/](http://www.housinglin.org.uk/Topics/browse/Design-building/occupational-therapy/)

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