NB: Yellow highlighted text indicates issues that need clarification/ further consideration

1.00 Doors

Non – fire rated doors

Assume

- 40 thick min. 45 thick if flush bolts and Pivots including WC pivots are used. NB WC pivots have been installed in 40 thick but 45 thick is recommended by Dorma
- standard sizes are 720/ 820/ 870/ 920 x 2040 – all other sizes are specials (ref. Titan (Geoff Stoddart) – 12.12.08)
- min. secondary leaf to accommodate closer = 450w
- 38d pressed steel frame
- Generally considered that 1200w x 2400h leaves (at 38 thick) will be covered against bowing, dimensional stability etc. However wider leaves can be made but no warrantee re dimensional stability. Background: Karen Smith (Australasian Fire Doors ph: 9971 2600)
- Consider min.45 thick leaves for leaves over 1100w

2-hour Fire rated doors

Assume

- 48 thick (= Pyropanel; E-core = 47mm) NB. 38 thick FD typically used for retrofits (ref. Titan (Geoff Stoddart) – 12.12.08)

WC Pivot sets (LWD pivot)

Assume

- 5mm trailing edge gap, 3mm leading edge gap and 60 from trailing edge of leaf to centreline pivot (suits WC pivot)
- 40 thick leaf
- (NB Cemac requires 48d head for top pivot at frame check stage where leaf is aligned on room side due to clash of return on frame vs. pivot pt)

Transom closer pivot sets (Dorma RTS 85 transom closer) eg pivot fire doors

Assume

- 5mm trailing edge gap, 3mm leading edge gap and 65 from trailing edge of leaf to centreline pivot
- 48 thick leaf for FR (used in table below) / 45 for NFR leaf
- 40d pressed steel frame – suits transom closer at head (and assumed to apply to jambs) – (NB Cemac requires 48d head for transom closers at frame check stage)

NB this configuration determines the worst case doorset size ie due to wider frame and greater trailing edge gap.

Heights

BCA: Min. 1980 clear ht (clear of all hardware eg EMLs and closer arm when door is open, not just frame)

HFG: Clear ht to be clear of all hardware eg electromag locks (EMLs), closers. Recommends 2030 clear ht as adequate, though 2330h to suit bariatric and special equipment (See AHFG Part C cl. 710.25.00)

If 2040h leaf / 2100h nom. Set/ 2025 nom. clear ht to u/s FR frame (NB. 10.5 blockwork courses)

- set ht = 0mm flooring + 10max. gap for FR door + 2040h leaf + 3 gap + 38 h frame = 2091mm
- clear ht for 15h door stop on NFR frame = 2091 - 38 - 15 - 0 = 2038
- clear ht for 25h doorstop on FR frame = 2091 – 38 - 25 – 0 = 2028
- RNSH used typically 2040h leaf and with EMLs on push side (EMLX) or with auto operators on push side (AP), only just achieved 1980h clear of hardware.

Alternatives

- **2140h leaf / nom 2200h set/ 2125 nom. clear ht to u/s FR frame (suits block wall only - 11 courses) – adopted as MCR std door leaf ht uno; should provide 2080 clear of all hardware (EMLX, AP) .**
- 2240h leaf / nom 2300h set/ 2225 nom. clear ht to u/s FR frame (dry wall only)
- 2340h leaf / nom. 2400h set/ 2325 nom. clear ht to u/s FR frame (suits block wall only - 12 courses) Used on RNSH as typical EDB door ht but may have been overkill in hindsight
- 2540h leaf / nom. 2600h set/ 2525 nom. clear ht to u/s FR frame (suits block wall only - 13 courses)

NB: RNSH typically had 2040h leaves (2100h set) but this only ensures 1980 clear ht (clear of hardware). BVN would have preferred min. 100 higher ie 2200h set to comply with PPP Spec.

Clearances for Concrete Openings

Clearances for reinforced conc fire stair shafts: allow 25mm to either side and over doorset (BVN suggested 25mm but on Campbelltown, Abigroup wanted 30mm). However, Abigroup ended up with larger leaves which threw out the hardware schedule as some leaves became wider than 1000 and would then need 4 hinges.

Beware

- Mental health doors with concealed closers – may require 50 thick doors depending on leaf width (over 100 leaf) and wider secondary leaf (540 tbc?)
- NBH had 50 thick leaves on MH bed room and MH Ensuite doors; other MH doors were min 45 thick. Considerations of MH DGIV obs panel installations and Hipac hinges.
- Door seals reducing clearances – would not impact on clear opening and WL of double doors. Could impact on clear opening and WL to single leaf doors if mounted on pressed steel stops.
- Requirement for 400d smoke reservoirs for fire/ smoke doors if required under BCA. BCA Spec C2.5 cl.4) with respect to doorset hts, u/s ceilings and bulkheads.

Criteria

- Compliance essential for BCA 2013 and AS 1428.1- 2009
- For clinical areas, general compliance to AHFGs

Revit Door Leaf Type Family Conventions and Coding

First off, RVT door families from NBH are not to be measured and taken as exactly accurate.
They are based on pressed steel door frames, so will be indicative only if it is decided later than they are to be otherwise eg special joinery doors, al framed suites etc.
They are deliberately diagrammatic to allow the doorset (overall frame width) to remain constant and allow a degree of tolerance without impacting on the setout within the room/ space. Tolerances will be required to permit refinement during projects eg for fire ratings, pivot v. hinged configurations for egress. It is impractical and inefficient to model exact door families. As such, do not measure off RVT to determine clear opening widths and the like.

Main Revit family coding indicates door size eg D150 indicates single leaf door with 990w leaf. D230 indicates 2-leaf door with 990 + 520w leaves. For NBH door families, leaf hts are typically 2140h providing nom 2200h doorset.

Door leaf types are indicated by letter suffixes eg a = solid leaf (no glazing); b = small obs panel (SOBS), c = fire rated obs panel (FOBS), p = peephole eg D150a, D150b, D150c, D150p

If "_p" is also added, the door is pivot action eg D150a_p is a solid 990w leaf which swings in both directions. Please keep pivot doors to a minimum to minimise acoustic, visual privacy issues and smoke sealing issues as applicable. Revit families for pivot doors have a solid arc indicating typical swing direction and dotted arc indicating less preferred direction of swing.

Different door hts are coded with suffixes eg D230a_24 would indicate 2340h leaves/ 2400h set.

BVN Revit Family	Application	Doorset ie overall frame (actual in brackets)	Leaf Widths	Min clear opening	Complies with	Non- compliances	Remarks
	SINGLE DOORS						
(old RNSH D10)	Non- clinical areas only (less than 750 clear) • ambulant sanitary compartments for public and staff (ie non-patient)	810 nom (802 hinged/ 808 FR pivot actual)	720	634 transom closer pivot 643 WC pivot + hinged FD 661 NFR hinged	BCA cl. D1.6 (f) (v) re sanitary compartment	AS 1428.1-2009 cl. 16.3 re 700 clear opening for ambulant disabled sanitary compartment	WC pivot type to be used for inward opening sanitary compartment doors to avoid use of rising butt hinges (with hollow core doors) or closers ***Review for MCR:*** *is this too narrow?*
(old RNSH FHR-a)	FHR cupboard - Type A • 35 thick leaf	890 nom (892 NFR hinged actual)	810	756			Not to be used for habitable spaces ie only in "access panel" applications ***Review for MCR:*** *size tbc; would be preferable to have a std leaf used elsewhere in the project* *Consider using 720 or 820 leaf (ie D10 or D11)*
D120 a b c a-p	Non- clinical areas only (min. 700 clear. 750 clear if non-fire rated hinged only) • ambulant disabled sanitary compartments for public and staff (ie non-patient) • used on FHR cupboards in MCR (and NBH including FHR cupboards; suits 960 x 2220 conc openings on core) • can be use for NFR hinged 750 clear door where wheelchair access is not required incl access to ambulant disabled WCs • NBH: public/ staff WCs EDB Cupboards – single leaf	910 nom (902 hinged/ 908 FR pivot actual)	820	734 transom closer pivot 743 WC pivot + hinged FD 761 NFR hinged	BCA cl. D1.6 (f) (v) re sanitary compartment AS 1428.1-2009 cl. 16.3 re 700 clear opening for ambulant disabled sanitary compartment BCA cl. D1.6 (f)(v) re 750 clear opening if NFR hinged	HFG RDS/RDS for Staff WC, Staff Showers and Public WCs require 850 clear	Need to consider if we need to size set to permit pivot with retractable stop Consider decreasing to min.790 std leaf if tight for space NBH: D120a-18 = 1790h leaf for B01 FHR cupboard under stair
	4-Brick opening (970 brick opening) Allow 10mm tolerance each side • Non-compliant for wheelchair access	950 nom (947 hinged)	865	788 hinged FD 806 NFR hinged	BCA cl. D1.6 (f)(v) re 750 clear opening	AS 1428.1 cl.13.2 re 850 clear opening HFG cl. 710.27.00 requires min. 900 clear for wheelchairs	Based on FFL being 40 below top of base course (to allow for sill and sub sill), 20mm at head for steel lintel and building tolerance • 25C high = 2153, achieves 2030 clear door opening ht for FD • 26C high = 2239, achieves 2116 clear door opening ht for FD • 27C high = 2324, achieves 2201 clear door opening ht for FD • 28C high = 2410, achieves 2287 clear door opening ht for FD

BVN Revit Family	Application	Doorset ie overall frame (actual in brackets)	Leaf Widths	Min clear opening	Complies with	Non- compliances	Remarks
D130 a b c d	**Non- clinical areas only (min. 750 clear.** 850 clear if non-fire rated hinged only) *(D150 preferred to D130 to ensure 850 clear in all configurations)* • Non accessible areas • NFR wheelchair access eg offices, admin stores • as non-fire rated door across corridors • NBH: interview, meeting, offices, staff locker/ change, public/ staff access WC if hinged only **(not pivot),** clinical wkrms	1010 nom (1002 hinged/ 1008 FR pivot actual)	920	**834** transom closer pivot **843** WC pivot + hinged FD 861 NFR hinged	BCA cl. D1.6 (f)(v) re 750 clear opening AS 1428.1 cl.13.2 re 850 clear opening if NFR hinged only	HFG cl. 710.27.00 requires min. 900 clear for wheelchairs AS 1428.1 cl.13.2 re 850 clear opening if WC pivot , pivot FD or hinged FD	NFR hinged door will achieve 850 clear, complying with AS 1428.1 WC pivot type to be used for inward opening sanitary compartment doors to avoid use of rising butt hinges (with hollow core doors) or closers *If leaf is used, this will not **always** provide a min. 850 clearance under AS1428.1* *Preference to use D150 below where possible.* *Otherwise will need to consider 940w leaf / 1030 set to ensure 850 clear in all circumstances ie transom pivot, WC pivot and fire door.*
D132	**Non- clinical areas only (min. 850 clear.** *(D150 preferred to D130 to ensure 900 clear to align with clinical applications)* • accessible areas • NBH-specific doors to core and carpark for personnel access (suits conc opening of 1080 x 2220h)	1030 nom (1022 hinged/ 1028 FR pivot actual)	940	**854** transom closer pivot **863** WC pivot + hinged FD 881 NFR hinged	BCA cl. D1.6 (f)(v) re 750 clear opening AS 1428.1 cl.13.2 re 850 clear	HFG cl. 710.27.00 requires min. 900 clear for wheelchairs	
De140	**4+1/2 Brick opening (1090 brick opening)** Allow 10mm tolerance each side Non-compliant for wheelchair access	1070 nom (1062 hinged)	980	903 hinged FD 921 NFR hinged	BCA cl. D1.6 (f)(v) re 750 clear opening AS 1428.1 cl.13.2 re 850 clear opening HFG cl. 710.27.00 requires min. 900 clear for wheelchairs		Based on FFL being 40 below top of base course (to allow for sill and sub sill), 20mm at head for steel lintel and building tolerance • 25C high = 2153, achieves 2030 clear door opening ht for FD • 26C high = 2239, achieves 2116 clear door opening ht for FD • 27C high = 2324, achieves 2201 clear door opening ht for FD • 28C high = 2410, achieves 2287 clear door opening ht for FD
D150 a b c d a-p a+ peephole	**Clinical areas (min. 900 clear)** • access by stretchers, wheeled bed stretchers, wheelchairs and handicapped persons including those using assistive devices patient WCs, patient showers, patient ensuites, patient change, consult rms in GPC and PCS.	1080 nom (1072 hinged/ 1078 FR pivot actual)	990	**904** transom closer pivot 913 WC pivot + hinged FD 931 NFR hinged	AS 1428.1 cl.13.2 re 850 clear opening HFG cl. 710.27.00 requires min. 900 clear for wheelchairs… HFG RDS/ RLS for Staff WC, Staff Showers and Public WCs (which require 850 clear	Except for Staff WC, Staff Showers and Public WCs (which require 850 clear) HFG RDS/RDS typically require 910 clear for single leaf doors. Non-compliance for transom pivot configuration if used.	Assumes that no patient lifters/ hoists are used in these rooms NBH: h = high obs panel + DGIV, where u/s HOBS is at 1400 AFFL and is 200w NBH: m = MH obs panel, where u/s MOBS is at 1000 AFFL but is 300w (in lieu of 200w for SOBS)

BVN Revit Family	Application	Doorset ie overall frame (actual in brackets)	Leaf Widths	Min clear opening	Complies with	Non- compliances	Remarks
c + DGIV h	• access for small trolleys, wheelie bins eg DUs, CUs, beverage rooms, cleaners, ante rooms • NBH: OR/Sterile St, general stores, store/photocopy/ file, staff rms **Non –clinical areas** • wheelchair access eg offices, admin stores • access for small trolleys eg beverage rooms, cleaners • fire stairs • plant rooms				HFG RDS/RDS typically require 910 clear for single leaf doors, except if transom closer used		
	5-Brick opening (1210 brick opening) Allow 10mm tolerance each side • compliant for wheelchair access	1190 nom (1187 hinged)	1108	1046 hinged FD 1028 NFR hinged	BCA cl. D1.6 (f)(v) re 750 clear opening AS 1428.1 cl.13.2 re 850 clear opening HFG cl. 710.27.00 requires min. 900 clear for wheelchairs		Based on FFL being 40 below top of base course (to allow for sill and sub sill), 20mm at head for steel lintel and building tolerance • 25C high = 2153, achieves 2030 clear door opening ht for FD • 26C high = 2239, achieves 2116 clear door opening ht for FD • 27C high = 2324, achieves 2201 clear door opening ht for FD • 28C high = 2410, achieves 2287 clear door opening ht for FD
D180 a a-p m-p	**Mental Health** **(min.1100 clear)**	1280 nom (1267 hinged/ 1273 FR pivot actual) NB. 1280 allows for thicker prop. 52 thick leaf for MH	1185	1099 transom closer pivot 1108 WC pivot (for 40 thick leaf) + hinged FD 1126 NFR hinged (for 40 thick leaf)	AS 1428.1 cl.13.2 re 850 clear opening HFG cl. 710.27.00 requires min. 900 clear for wheelchairs…		Unlikely to use this with transom pivot Consider min. 45 thick to minimise bowing for wide leaf NBH: m-p = MH observation panel = MOBS + DGIV, where MOBS is sim to SOBS but 300w (in lieu of 200w) Review leaf/ set size if Hipac hardware is used
D181	**Comms Rooms**						As per D180 but 2240h leaf Added as change from Tender D231 (see below) at TUG request. Provides min. 1000w clear nominated by WGE/ Stowe at TUG but should be confirmed
D190	**For single leaf hinged fire door as Horizontal Exit required to be 1250 clear min.**	1420 nom (1412 hinged/ 1418 FR pivot actual)	1330	1244 transom closer pivot 1253 WC pivot + hinged FD 1271 NFR hinged	AS 1428.1 cl.13.2 re 850 clear opening HFG cl. 710.27.00 requires min. 900 clear for wheelchairs…		

BVN Revit Family	Application	Doorset ie overall frame (actual in brackets)	Leaf Widths	Min clear opening	Complies with	Non- compliances	Remarks
					BCA cl. D1.6 (f)(ii) re min. 1250 clear horizontal exit		
(D192) a b c	**IPU Bed Rooms with 1370w NFR leaves with hospital hinges** For NBH to Healthscope requirements incl. hospital hinges	1455 nom tbc (1370 + 38 +38 +3 + 3 = 1452 actual tbc)	1370	1346 tbc for 45 thick leaf	AS 1428.1 cl.13.2 re 850 clear opening HFG cl. 710.27.00 requires min. 900 clear for wheelchairs… HSL/ LC requirement for 1340 clear w doors (see 4.5.15 correspondence re NBH-HSC-CORR-00069 NBH - Doors 1340 clear)		Requirement for LOBS in CCU, SOBS generally
(D195) a b c	**IPU Bed Rooms with 1510w NFR leaves with hospital hinges** For NBH to Healthscope requirements incl. hospital hinges	1595 nom tbc (1510 + 38 +38 +3 + 3 = 1592 actual tbc)	1510	1486 tbc for 45 thick leaf	AS 1428.1 cl.13.2 re 850 clear opening HFG cl. 710.27.00 requires min. 900 clear for wheelchairs…		Requirement for LOBS in CCU, SOBS generally
	DOUBLE DOORS						
D201	L01 Mech DB Cafe		600+600 x 2240h				
D202	L00 EDB		650+650 x 2240h	1029 NFR hinged			
D210 a a + peephole	**Double door – Non-fire rated, 40 thick leaves and hinged configuration only** **(min. 1200 clear if NRF and no closer on secondary leaf)** • to bariatric and ICU Ensuites as per HFG RDS/ RLS\ • consult rms	1380 nom for hinged only (1380 hinged/ **1388** FR pivot actual)	955 + **340** *(minimal leaf widths to give 1200/ 910 clearances would be 954 + 337 leaves)*	*FYI: 1188 hinged FD, (899 primary opening; 1380 set)* 1204 NFR hinged, (911 primary opening)	BCA cl. D1.6 (f)(i)(A) re 1200 clear for doorway in patient care area through which patients would normally be transported in beds off ***corridor less than 2200 clear.*** Primary opening to be min. 800 clear. BCA cl.D3.2(e) re min.850 primary opening HFG cl. 710.25.00 re min. 1200 clear to inpatient bed rooms HFG cl. 710.27.00 re 1000 for hoists and shower trolleys	HFG RDS/ RLS for rms requiring 1400 clear, 1350 clear eg Bathroom BCA cl. D1.6 (f)(ii) re min. 1250 clear horizontal exit	RNSH: NB. Bariatric bed is 1130 wide (add 100 for side rails ie 1230 wide) – check corridor width needed to suit turning circle. See email 10:27am on 24.11.08 JW to NL 1.07 – is a 1601 clear opening needed? **Min. 450 secondary leaf required for slide arm closers.** Wider leaf may be required for concealed closers that would probably be used in Mental Health for anti-ligature (540 for Dorma ITS 69) – check closer constraints for various types incl. RTS, ITS and TS and auto incl. sequencers. RNSH: had to use min.800+920 leaves to fit ITS closers and NE latches to PEC doors Min. WL of 530 where D = 900 in AS1428.1 requires min. 389w secondary leaf if hinged configuration assuming 100 nib, but this is too narrow for closer If sequencer is required, it will need to be integral with closers due to width of secondary leaf

BVN Revit Family	Application	Doorset ie overall frame (actual in brackets)	Leaf Widths	Min clear opening	Complies with	Non- compliances	Remarks
D215	**Double door** • corridor to GPC at NBH	1565 nom (1555 hinged/ 1563 FR pivot actual)	955 + 515	1295 transom closer pivot, (869 primary opening but 1563 set) 1363 hinged FD, (899 primary opening; 1580 set) 1379 NFR hinged, (911 primary opening)	BCA cl. D1.6 (f)(i)(A) re 1200 clear for doorway in patient care area through which patients would normally be transported in beds off *corridor less than 2200 clear.* Primary opening to be min. 800 clear. BCA cl. D1.6 (f)(ii) re min. 1250 clear horizontal exit BCA cl.D3.2(e) re min.850 primary opening HFG cl. 710.25.00 re min. 1200 clear to inpatient bed rooms HFG cl. 710.27.00 re 1000 for hoists and shower trolleys	HFG RDS/ RLS for rms requiring 1400 clear. 910 primary clear opening is required in certain HFG RDS/ RLS – not achieved if FR hinged or if transom pivot configuration	Min. 450 secondary leaf required for slide arm closers. Wider leaf may be required for concealed closers that would probably be used in Mental Health for anti-ligature (540 for Dorma ITS 69) – check closer constraints for various types incl. RTS, ITS and TS and auto incl. sequencers. RNSH: had to use min.800+920 leaves to fit ITS closers and NE latches to PEC doors Min. 720w leaf to fit transom closer, shear lock and reed switch (though achieved 620w on RNSH for door 07/1064) Min. 725w leaves to fit auto swing door operator but may need to add additional width for EMLs. Min. WL of 530 where D = 900 in AS1428.1 requires min. 389w secondary leaf if hinged configuration assuming 100 nib, but this is too narrow for closer If sequencer is required, it will need to be integral with closers due to width of secondary leaf
(FYI)	**Double door – Non-fire rated, 40 thick leaves and hinged configuration only** **(min. 1250 clear if NRF)** • Horizontal exit in a patient care area under BCA min. 1250 clear • access for hoists and shower trolleys • access for stretchers, large trolleys, large equipment, beds but check std and bariatric beds esp. if off 1800 clear corr • patient bed rooms, patient assisted bathrooms • bed accessible rooms eg imaging rooms	1430 nom for hinged only (1430 hinged/ 1438 FR pivot actual)	955 + 390 *(minimal leaf widths to give 1250/ 910 clearances would be 954 + 387 leaves)*	*FYI: 1170 transom closer pivot, (869 primary opening but 1438 set)* *FYI: 1238 hinged FD, (899 primary opening; 1430 set)* 1254 NFR hinged, (911 primary opening)	BCA cl. D1.6 (f)(i)(A) re 1200 clear for doorway in patient care area through which patients would normally be transported in beds off *corridor less than 2200 clear.* Primary opening to be min. 800 clear. BCA cl. D1.6 (f)(ii) re min. 1250 clear horizontal exit BCA cl.D3.2(e) re min.850 primary opening HFG cl. 710.25.00 re min. 1200 clear to inpatient bed rooms HFG cl. 710.27.00 re 1000 for hoists and shower trolleys	HFG RDS/ RLS for rms requiring 1400 clear.	RNSH: NB. Bariatric bed is 1130 wide (add 100 for side rails ie 1230 wide) – check corridor width needed to suit turning circle. See email 10:27am on 24.11.08 JW to NL 1.07 – is a 1601 clear opening needed? Min. 450 secondary leaf required for slide arm closers. Wider leaf may be required for concealed closers that would probably be used in Mental Health for anti-ligature (540 for Dorma ITS 69) – check closer constraints for various types incl. RTS, ITS and TS and auto incl. sequencers. RNSH: had to use min.800+920 leaves to fit ITS closers and NE latches to PEC doors Min. WL of 530 where D = 900 in AS1428.1 requires min. 389w secondary leaf if hinged configuration assuming 100 nib, but this is too narrow for closer If sequencer is required, it will need to be integral with closers due to width of secondary leaf *Review for MCR: Unlikely to suit bariatric beds*
	6-Brick opening (1450 brick opening) Allow 10mm tolerance each side • compliant for wheelchair access	1430 nom (1430 hinged)	910 + 435	1238 hinged FD (854 primary opening) 1254 NFR hinged (866 primary opening)	BCA cl. D1.6 (f)(v) re 750 clear opening AS 1428.1 cl.13.2 re 850 clear opening (requires min 34 nib for WL to primary leaf)		Need to check if closer can fit on narrow secondary leaf (min 460 typically required) Based on FFL being 40 below top of base course (to allow for sill and sub sill), 20mm at head for steel lintel and building tolerance • 25C high = 2153, achieves 2030 clear door opening ht for FD

BVN Revit Family	Application	Doorset ie overall frame (actual in brackets)	Leaf Widths	Min clear opening	Complies with	Non- compliances	Remarks
	• possibly to NBH L00 south near Dialysis				HFG cl. 710.27.00 requires min. 900 clear for wheelchairs		• 26C high = 2239, achieves 2116 clear door opening ht for FD • 27C high = 2324, achieves 2201 clear door opening ht for FD • 28C high = 2410, achieves 2287 clear door opening ht for FD
D219	**Double door** • Cupboard GPC and ICU	1565 nom (1555 hinged/ 1563 FR pivot actual)	735 +735	1295 transom closer pivot, (649 primary opening but 1563 set) 1363 hinged FD, (679 primary opening; 1 set) 1379 NFR hinged, (691 primary opening)	Not applicable for circulation (non-compliant with BCA re min750 clear)		
D220 a b	**Double door – Non-fire rated, 40 thick leaves and hinged configuration only** **(min. 1400 clear if NRF)** *(D230 is preferred due to compliance as hinged FR or if thicker leaves)* • Horizontal exit in a patient care area under BCA min. 1250 clear • access for hoists and shower trolleys • access for stretchers, large trolleys, large equipment, beds but check std and bariatric beds esp. if off 1800 clear corr • patient bed rooms, patient assisted bathrooms • bed accessible rooms eg imaging rooms	1590 nom (1580 hinged/ **1588** FR pivot actual)	955 + 540 *(minimal NRF hinged leaf widths to give 1400/ 910 clearances would be 954 + 537 leaves)*	*FYI: 1320 transom closer pivot, (869 primary opening but **1588** set)* *FYI: 1388 hinged FD, (899 primary opening; 1580 set)* 1404 NFR hinged, (911 primary opening)	BCA cl. D1.6 (f)(i)(A) re 1200 clear for doorway in patient care area through which patients would normally be transported in beds off ***corridor less than 2200 clear.*** Primary opening to be min. 800 clear. BCA cl. D1.6 (f)(ii) re min. 1250 clear horizontal exit BCA cl.D3.2(e) re min.850 primary opening HFG cl. 710.25.00 re min. 1200 clear to inpatient bed rooms HFG cl. 710.27.00 re 1000 for hoists and shower trolleys HFG RDS/ RLS for rms requiring 1400 clear with 910 primary clear opening when hinged, NFR configuration	HFG RDS/ RLS for rms requiring 1400 clear. Non-compliance if pivot, transom pivot or FR hinged door configurations or if door leaves thicker then 45mm. 910 primary clear opening is required in certain HFG RDS/ RLS – not achieved if FR hinged or if transom pivot configuration	RNSH: NB. Bariatric bed is 1130 wide (add 100 for side rails ie 1230 wide) – check corridor width needed to suit turning circle. See email 10:27am on 24.11.08 JW to NL 1.07 – is a 1601 clear opening needed? Min. 450 secondary leaf required for slide arm closers. Wider leaf may be required for concealed closers that would probably be used in Mental Health for anti-ligature (540 for Dorma ITS 69) – check closer constraints for various types incl. RTS, ITS and TS and auto incl. sequencers. RNSH: had to use min.800+920 leaves to fit ITS closers and NE latches to PEC doors Min. 720w leaf to fit transom closer, shear lock and reed switch (though achieved 620w on RNSH for door 07/1064) Min. 725w leaves to fit auto swing door operator but may need to add additional width for EMLs. Min. WL of 530 where D = 900 in AS1428.1 requires min. 389w secondary leaf if hinged configuration assuming 100 nib, but this is too narrow for closer If sequencer is required, it will need to be integral with closers due to width of secondary leaf *Unlikely to suit bariatric beds*
D230 a b c a + peephole	**Double door (min. 1400 clear)** • Horizontal exit in a patient care area under BCA min. 1250 clear • access for hoists and shower trolleys • access for stretchers, large trolleys, large equipment, beds	1605 nom (1595 hinged/ 1603 FR pivot actual)	990 + 520	*1335 transom closer pivot, (904 primary opening)* 1403 hinged FD, (934 primary opening) 1419 NFR hinged, (946 primary opening)	BCA cl. D1.6 (f)(i)(A) re 1200 clear for doorway in patient care area through which patients would normally be transported in beds off ***corridor less than 2200 clear.*** Primary opening to be min. 800 clear. BCA cl. D1.6 (f)(ii) re min. 1250 clear horizontal exit	HFG RDS/ RLS for rms requiring 1400 clear. Non-compliance if transom closer configuration which is unlikely in these contexts.	RNSH: NB. Bariatric bed is 1130 wide (add 100 for side rails ie 1230 wide) – check corridor width needed to suit turning circle. See email 10:27am on 24.11.08 JW to NL 1.07 – is a 1601 clear opening needed? Min. 450 secondary leaf required for slide arm closers. Wider leaf may be required for concealed closers that would probably be used in Mental Health for anti-ligature (540 for Dorma ITS 69) – check closer constraints for various types incl. RTS, ITS and TS and auto incl. sequencers. Min. 720w leaf to fit transom closer, shear lock and reed switch (though achieved 620w on RNSH for door 07/1064)

BVN Revit Family	Application	Doorset ie overall frame (actual in brackets)	Leaf Widths	Min clear opening	Complies with	Non- compliances	Remarks
	but check std and bariatric beds esp. if off 1800 clear corr • patient bed rooms, patient assisted bathrooms • bed accessible rooms eg imaging rooms • NBH: consult, birthing rooms, disposal, general xray rm, equipment stores, ultrasound				BCA cl.D3.2(e) re min.850 primary opening HFG cl. 710.25.00 re min. 1200 clear to inpatient bed rooms HFG cl. 710.27.00 re 1000 for hoists and shower trolleys HFG RDS/ RLS for rms requiring 1400 clear with 910 primary clear opening, except if transom closers used		Min. 725w leaves to fit auto swing door operator but may need to add additional width for EMLs. RNSH: had to use min.800+920 leaves to fit ITS closers and NE latches to PEC doors Min. WL of 530 where D = 900 in AS1428.1 requires min. 389w secondary leaf if hinged configuration assuming 100 nib, but this is too narrow for closer If sequencer is required, it will need to be integral with closers due to width of secondary leaf ***Review for MCR:*** *Unlikely to suit bariatric beds*
D231	**Double door (min.1400 clear)** • Cupboard ICU	1605 nom (1595 hinged/ 1603 FR pivot actual)	755 + 755	1335 transom closer pivot, (669 primary opening) 1403 hinged FD, (699 primary opening) 1419 NFR hinged, (711 primary opening)	Not applicable for circulation (non-compliant with BCA re min750 clear)		
D232 tbc (old RNSH D20a)	**Double door (min. 1400 clear)** • Horizontal exit in a patient care area under BCA min. 1250 clear • access for hoists and shower trolleys • access for stretchers, large trolleys, large equipment, beds but check std and bariatric beds esp. if off 1800 clear corr • patient bed rooms, patient assisted bathrooms • bed accessible rooms eg imaging rooms	1605 nom (1595 hinged/ 1603 FR pivot actual)	920 + 590	*1335 transom closer pivot, (834 primary opening)* 1403 hinged FD, (864 primary opening) 1419 NFR hinged, (876 primary opening)	BCA cl. D1.6 (f)(i)(A) re 1200 clear for doorway in patient care area through which patients would normally be transported in beds off ***corridor less than 2200 clear.*** Primary opening to be min. 800 clear. BCA cl. D1.6 (f)(ii) re min. 1250 clear horizontal exit HFG cl. 710.25.00 re min. 1200 clear to inpatient bed rooms HFG cl. 710.27.00 re 1000 for hoists and shower trolleys	BCA cl.D3.2(e) re min.850 primary opening	Used on RNSH for I Bed Rms in IPUs due to problems with Ensuite door swings
	7-Brick opening (1690 brick opening) Allow 10mm tolerance each side • compliant for wheelchair access • possibly to NBH B01 near MTY	1670 nom (1670 hinged)	965 + 620	1478 hinged FD (913 primary opening) 1494 NFR hinged (921 primary opening)	BCA cl. D1.6 (f)(v) re 750 clear opening AS 1428.1 cl.13.2 re 850 clear opening (requires min 34 nib for WL to primary leaf) HFG cl. 710.27.00 requires min. 900 clear for wheelchairs		Based on FFL being 30 below top of base course (to allow for sill and sub sill), 20mm at head for steel lintel and building tolerance • 25C high = 2153, achieves 2040 clear door opening ht for FD • 26C high = 2239, achieves 2126 clear door opening ht for FD • 27C high = 2324, achieves 2211 clear door opening ht for FD • 28C high = 2410, achieves 2297 clear door opening ht for FD

BVN Revit Family	Application	Doorset ie overall frame (actual in brackets)	Leaf Widths	Min clear opening	Complies with	Non- compliances	Remarks
D24?	Double door (min. 1500 clear in FR hinged and NFR hinged)	1735 nom	990 + 650		BCA cl.D3.2(e) re min.850 primary opening 910 primary clear opening is required in certain HFG RDS/ RLS		650 is non-standard leaf
D24??	Double door (min. 1500 clear in FR hinged and NFR hinged)	(1725 hinged/ 1733 FR pivot actual)	970 + 670		BCA cl.D3.2(e) re min.850 primary opening	910 primary clear opening is required in certain HFG RDS/ RLS but transom closers unlikely in room contexts	670 is non-standard leaf *Would need 990w primary leaf to achieve 910 clear for transom pivot* 910 primary clear opening not achieved for transom pivot configuration for 970w leaf. (910 primary clear opening is required in certain HFG RDS/ RLS but transom closers unlikely in room contexts.)
D24??? (old RNSH D21)	Double door (min. 1500 clear in FR hinged and NFR hinged) • Suitable for use as door across 1800 clear corridor • Preferable for use for bed access eg to bed rooms – check bariatric beds • Large Procedure Rms eg 20 sqm, ORs, Anaes, CT Scanning Procedure Rms To suit bed access off 1800 clear corridor but check suitability for bariatric beds	1735 nom (1725 hinged/ 1733 FR pivot actual)	920 + 720	1465 transom closer pivot, (834 primary opening) 1533 hinged FD, (868 primary opening) 1549 NFR hinged, (876 primary opening)	As for D230 above HFG RDS/ RLS for Large Procedure Rms eg 20 sqm, ORs, Anaes, CT Scanning Procedure Rms – check other specialist rms requiring1500 clear, except if transom closer is used	HFG RDS/ RLS for Large Procedure Rms eg 20 sqm, ORs, Anaes, CT Scanning Procedure Rms – check other specialist rms requiring 1500 clear. Non-compliance if transom closer configuration which is unlikely in these contexts.	RNSH: NB. Bariatric bed is 1130 wide (add 100 for side rails ie 1230 wide) – check corridor width needed to suit turning circle. See email 10:27am on 24.11.08 JW to NL 1.07 – is a 1601 clear opening needed? This is the min. combination of std leaf sizes as a double door. Cannot have 2 equal leaves @ 820 each as primary opening would not comply with BCA if in a patient care area through which patients would normally be transported in bed. See BCA cl. D1.6 (f)(i) re 800 primary opening or BCA cl.D3.2(e) re min.850 primary opening ***Review for MCR:*** *Does this suit bariatric beds?* 910 primary clear opening not achieved. 910 is required in certain HFG RDS/ RLS
D250	EDB Cupboards	1735 nom (1725 hinged/ 1733 FR pivot actual)	820+820 x 2140h	1465 transom closer pivot, (834 primary opening) 1533 hinged FD, (768 primary opening) 1549 NFR hinged, (776 primary opening)			
~~D250 tbe~~ (old RNSH D21a)	Double door (min. clear) • Suitable for EDB cupboards only	1765 nom *(1765 hinged actual)* *(FR pivot not used for EDB)*	840 + 840	1573 hinged FD, (primary opening tba) 1589 NFR hinged, (primary opening tba)	TBA generally RNS Spec cl. 7.8.2 re double doors shall not be less than 1440 overall width of both leaves.	TBA generally RNS Spec cl. 7.8.2 re 1 leaf to be min. 920 wide.	2 x 1765 sets will suit nom. 3740 - 4000 w EDB cupboard (2 x 1765 + 190 block mullion = 2 x 10mm – 140mm nibs)
D251	Comms Cupboards	1765 nom *(1765 hinged actual)*	840 + 840 x 2240h	1573 hinged FD, (primary opening tba)			

BVN Revit Family	Application	Doorset ie overall frame (actual in brackets)	Leaf Widths	Min clear opening	Complies with	Non- compliances	Remarks
		(FR pivot not used for EDB)		1589 NFR hinged, (primary opening tba)			
D260 a	**Double door (min. 1500 clear)** • Suitable for use as door across 1800 clear corridor but will have 82.5mm nibs • Large Procedure Rms eg 20 sqm, ORs, Anaes, CT Scanning Procedure Rms • **To suit bed access off 1800 clear corridor but check suitability for bariatric beds**	1785 nom (1775 hinged/ 1783 FR pivot actual)	970 + 720	1515 transom closer pivot, (884 primary opening) 1583 hinged FD, (918 primary opening) 1599 NFR hinged, (926 primary opening)	BCA cl.D3.2(e) re min.850 primary opening	910 primary clear opening is required in certain HFG RDS/ RLS but transom closers unlikely in room contexts	910 primary clear opening not achieved for transom pivot configuration for 970w leaf. (910 primary clear opening is required in certain HFG RDS/ RLS but transom closers unlikely in room contexts.) 970 leaf is also used in D270 below Min. 720w leaf to fit transom closer, shear lock and reed switch (though achieved 620w on RNSH for door 07/1064) Min. 725w leaves to fit auto swing door operator but may need to add additional width for EMLs.
D261	**Double door (min.1500 clear)** • Cupboard PAD	1785 nom (1775 hinged/ 1783 FR pivot actual)	845 + 845	1515 transom closer pivot, (759 primary opening) 1583 hinged FD, (793 primary opening) 1599 NFR hinged, (801 primary opening)	Not applicable for circulation		
~~D261~~ D262	**Double door (min. 1500 clear)** • Suitable for use as door across 1800 clear corridor but will have 82.5mm nibs • Large Procedure Rms eg 20 sqm, ORs, Anaes, CT Scanning Procedure Rms • **To suit bed access off 1800 clear corridor but check suitability for bariatric beds**	1785 nom tbc (1775 hinged/ 1783 FR pivot actual)	970 + 720 **x 2340h**	1515 transom closer pivot, (884 primary opening) 1583 hinged FD, (918 primary opening) 1599 NFR hinged, (926 primary opening)	BCA cl.D3.2(e) re min.850 primary opening	910 primary clear opening is required in certain HFG RDS/ RLS but transom closers unlikely in room contexts	910 primary clear opening not achieved for transom pivot configuration for 970w leaf. (910 primary clear opening is required in certain HFG RDS/ RLS but transom closers unlikely in room contexts.) 970 leaf is also used in D270 below **4.4.12: This specially high door set is made for Ambulatory Care Precinct to visually open up the spaces near Waiting**
D265 h	**Double door (min. 1500 clear)** Can only be use where exempt from BCA/ AS 1428.1 re 850 clear for accessibility unless door is automatic • NBH: OR, Sterile Stock Stores	1815 nom (1805 hinged/ 1813 FR pivot actual)	860 + 860	1545 transom closer pivot, (774 primary opening) 1613 hinged FD, (808 primary opening) 1629 NFR hinged, (**816** primary opening)	HFG RDS/ RLS for Large Procedure Rms eg 20 sqm, ORs, Anaes, CT Scanning Procedure Rms	910 primary clear opening is required in certain HFG RDS BCA cl.D3.2(e) re min.**850** primary opening	Refer to BCA cl. D3.2(e) re automatic/ power operation may alleviate AS 1428.1 non-compliance.
D267	**Double door** • Corridors in MH	1905 nom (1895 hinged/ 1903 FR pivot actual)	990 + 820	1634 transom closer pivot, (904 primary opening) 1703 hinged FD, (938 primary opening)	BCA cl.D3.2(e) re min.850 primary opening	910 primary clear opening is required in certain HFG RDS/ RLS but transom closers unlikely in room contexts	

BVN Revit Family	Application	Doorset ie overall frame (actual in brackets)	Leaf Widths	Min clear opening	Complies with	Non- compliances	Remarks
				1719 NFR hinged, (946 primary opening)			
D266 a b	**NBH RDS nominates 920 + 920 for Procedure Rm, Endoscopy (achieves min. 1650 clear)** • NBH: Procedure Rm, Endoscopy • ITV Sterile Stock • option for linen bays	1935 nom (1925 hinged/ 1933 FR pivot actual)	920 + 920	1664 transom closer pivot, (834 primary opening) 1733 hinged FD, (868 primary opening) 1749 NFR hinged, (876 primary opening)		910 primary clear opening is required in certain HFG RDS BCA cl.D3.2(e) re min.**850** primary opening for transom pivot	
D270 a b c d	**Double door (min. 1765 clear)** • Suitable for use as door across 2100 clear corridor • linen bays (preferred) • HFG RDS/ RLS for Catheter Lab Procedure Rms and Angio Procedure Rms – check other specialist rms requiring 1600 clear	2035 nom (2025 hinged/ 2033 FR pivot actual)	970 + 970	1765 transom closer pivot, (884 primary opening) 1833 hinged FD, (918 primary opening) 1849 NFR hinged, (926 primary opening)	HFG RDS/ RLS for Catheter Lab Procedure Rms and Angio Procedure Rms – check other specialist rms requiring 1600 clear BCA cl.D3.2(e) re min.850 primary opening	910 primary clear opening is required in certain HFG RDS/ RLS but transom closers unlikely in room contexts	***Review for MCR:*** *Does this suit bariatric beds?* *Would need 990w primary leaf to achieve 910 clear for transom pivot* 910 primary clear opening not achieved for transom pivot configuration for 970w leaf. (910 primary clear opening is required in certain HFG RDS/ RLS but transom closers unlikely in room contexts.) Min. 720w leaf to fit transom closer, shear lock and reed switch (though achieved 620w on RNSH for door 07/1064) Min. 725w leaves to fit auto swing door operator but may need to add additional width for EMLs.
D271	**EDB Option tbc (also see D281 below)** **UPS Rm**						As per D270 but 2240h leaves
D271a (CHECK WITH JULIE) D201 tbc	**Cafe Mech DB cupboard**		600 + 600 x 2240h				Amend BVN CAD cell name if this door is to be used.
D272							As per D270 but 2340h leaves
D273							As per D270 but 2440h leaves
D277 De277?	**Double door (min. 1800 clear)** • For Link Bridge for max clear opening on esp. hold open doors	2075 nom (2065 hinged/ 2073 FR pivot actual)	990 + 990	1805 transom closer pivot, (904 primary opening) 1873 hinged FD, (938 primary opening)	BCA cl.D3.2(e) re min.850 primary opening	910 primary clear opening is required in certain HFG RDS/ RLS	

BVN Revit Family	Application	Doorset ie overall frame (actual in brackets)	Leaf Widths	Min clear opening	Complies with	Non- compliances	Remarks
				1889 NFR hinged, (946 primary opening)			
D278	**Double door (min. 1900 clear)** • For Link Bridge for max clear opening on esp. hold open doors	2175 nom (2165 hinged/ 2173 FR pivot actual)	1040 + 1040	1905 transom closer pivot, (914 primary opening) 1973 hinged FD, (988 primary opening) 1989 NFR hinged, (996 primary opening)	BCA cl.D3.2(e) re min.850 primary opening	910 primary clear opening is required in certain HFG RDS/ RLS	
D281	**Double door** • EDB Option	2235 nom (2225 hinged/ 2233 FR pivot actual)	1070 + 1070 x 2240h	1965 transom closer pivot, (984 primary opening) 2033 hinged FD, (1018 primary opening) 2049 NFR hinged, (1026 primary opening)	HFG RDS/ RLS for Catheter Lab Procedure Rms and Angio Procedure Rms – check other specialist rms requiring 1600 clear BCA cl.D3.2(e) re min.850 primary opening	910 primary clear opening is required in certain HFG RDS/ RLS	
D280	**Double door** • **for major corridors**	2335 nom (2325 hinged/ 2333 FR pivot actual)	1120 + 1120	2065 transom closer pivot, (994 primary opening) 2133 hinged FD, (1068 primary opening) 2149 NFR hinged, (1076 primary opening)	BCA cl.D3.2(e) re min.850 primary opening		
(old RNS D22c)	**Double door (min. 2115 clear)** • for face blockwork structural opening 2410. NB. See Remarks re hts	2385 nom (2375 hinged/ 2383 FR pivot actual)	1145 + 1145	2115 transom closer pivot, (1059 primary opening) 2183 hinged FD, (1093 primary opening) 2199 NFR hinged, (1101 primary opening)	TBA	TBA	Face blockwork doorsets: • for L00, allow say 2200 set ht in 2210h structural opening to avoid 2 courses of 90h blocks in limited wall ht Min. 45 thick to minimise bowing
(old RNSH D23)	**Double door (min. 2250 clear)** • for AGV access to Disposal Rooms	*2455 nom for hinged configuration only* (2445 hinged actual)	1180 + 1180	(not calculated for transom closer) 2253 hinged FD, (1128 primary opening) 2269 NFR hinged, (1136 primary opening)	1.3.5 re min. 1400 clear opening to patient bed rooms		Assumes 40 thick NFR leaves. **Need to confirm thickness with respect to bowing etc.** **If FR pivot configuration used, doorset = 2453, giving 2187 clear opening transom closer pivot, (1094 primary opening)** **NB RNSH cell should be 2453 nom in lieu of 2445**
D285	**Double door (for max. 1200 leaves)** • **for major corridors**	2495 nom (2485 hinged/ 2493 FR pivot actual)	1200 + 1200	2225 transom closer pivot, (1074 primary opening) 2293 hinged FD, (1148 primary opening)	BCA cl.D3.2(e) re min.850 primary opening		Min 45 thick to minimise bowing

BVN Revit Family	Application	Doorset ie overall frame (actual in brackets)	Leaf Widths	Min clear opening	Complies with	Non- compliances	Remarks
				2299 based on 45 thick NFR hinged, (1151 primary opening)			
D290a-p	Double door • Rotunda pivot door (Jamie)		1250 + 1250 x 2350h				
D290	Double door		1250 + 1250 x 2240h	2409 NFR hinged			
D291	Double door • L00 EDB		1250 + 1250 x 2240h	2409 NFR hinged			