

4.2 REQUIRED ACOUSTIC PERFORMANCE

Based on the Sound Exposure Categories (SECs) outlined in Table 3-2 above, the following acoustic performance is required for the building envelope for rooms identified as SEC 1 - 4 in Appendix A.

Table 4-1: Minimum airborne sound attenuation ratings (R_w and $R_w + C_{tr}$) for habitable rooms

Sound Exposure Category (SEC):	Building element:	Acoustic requirements:
1	External walls:	$R_w + C_{tr} \geq 45$ for all habitable rooms
	Windows and external glazed doors:	Refer to Table 4-2
2	Ground Floor:	$R_w + C_{tr} \geq 50$ for all habitable rooms
	External walls:	$R_w + C_{tr} \geq 50$ for all habitable rooms
	Windows and external glass doors:	Refer to Table 4-2
	External doors other than external glass doors:	$R_w \geq 27$ (for all habitable rooms)
3	Roof and Ceiling:	$R_w + C_{tr} \geq 35$ for bedrooms
	Ground Floor:	$R_w + C_{tr} \geq 50$ for all habitable rooms
	External walls:	$R_w + C_{tr} \geq 50$ for all habitable rooms
	Windows and external glass doors:	Refer to Table 4-2
4	External doors other than external glass doors:	$R_w \geq 30$ for all habitable rooms
	Roof and Ceiling:	$R_w + C_{tr} \geq 40$ for bedrooms $R_w + C_{tr} \geq 35$ for all other habitable rooms
	Ground Floor:	$R_w + C_{tr} \geq 50$ for all habitable rooms
	External walls:	$R_w + C_{tr} \geq 50$ for all habitable rooms
4	Windows and external glass doors:	External glass doors not permitted in bedrooms See Table 4-2
	External doors other than external glass doors:	$R_w \geq 30$ for all habitable rooms
	Roof and Ceiling:	$R_w + C_{tr} \geq 45$ for bedrooms $R_w + C_{tr} \geq 40$ for all other habitable rooms

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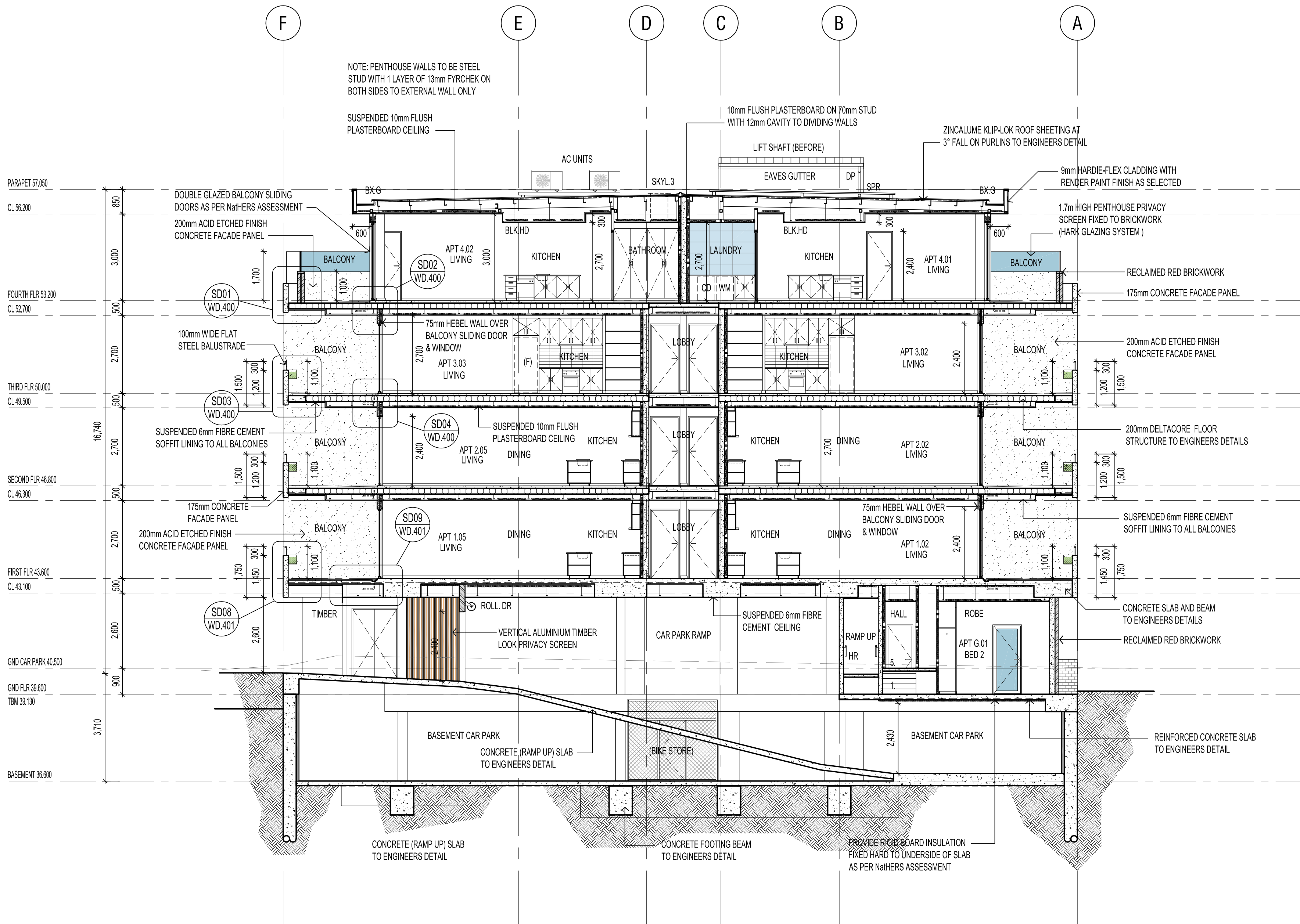
Table 4-3: Additional wall types proposed

Wall system	Construction	Required Performance ($R_w + C_{tr}$)	Predicted Performance ($R_w + C_{tr}$)	Apartments	Recommendations
9/E:	90mm stud framed walls 1 layer 16mm Fyrchek plasterboard to each side	50	50 (-11) ¹	G.01	Upgrade to one of the systems suitable for external use as specified in Table 2 of the NCC for apartments 1.08, 1.09 and 2.08, 2.09.
				1.01-1.10	
				2.01-2.02	
				2.05-2.10	
				3.01-3.05	
6/F1E	Colorbond vertical cladding on 13mm Rondo furring channels 92mm stud framed walls 1 layer 16mm Fyrchek plasterboard to each side	45	57 (-12) ¹	1.01-1.02	Meets required performance
				1.05-1.07	
				1.10	
				2.01-2.02	
				2.05-2.07	
6/F1E 6/B	Colorbond vertical cladding on 13mm Rondo furring channels 2 rows of 92mm steel stud framed walls 1 layer 16mm Fyrchek plasterboard to both sides of outer studs, 10mm plasterboard to inner face	50	70 (-10) ¹	2.10	Meets required performance
				3.01-3.05	
				3.08	

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FLOOR TO FLOOR SEPARATION NOTE
FLOOR TO FLOOR SEPARATION MUST OCCUR
VIA FIRE RATED FLOOR PENETRATIONS

FLOOR WASTE NOTE
ALL ROOMS WITH A VESSEL REQUIRE A FLOOR WASTE
IF THERE ARE NO BUILT-IN OVERFLOW PROVISIONS



SECTION D - D

SCALE 1:100

STAIRS NOTE
NEW STEEL FRAME STAIR CASE & CONCRETE LANDINGS WITH
SLIP-RESISTANT TREAD / COLOUR NOSING / LANDING AS PER TABLE
D2.14 (P3 OR R10) & 50mm TIMBER HANDRAIL FIXED TO WALL.
GOINGS
- ALL GOINGS 250mm
RISERS (VARY)
FIRE STAIRWELL 1
- STEPS 1 - 27 = 27x EQUAL 187.5mm
- STEPS 28 - 52 = 65x EQUAL 177.7mm
FIRE STAIRWELL 2
- STEPS 1 - 17 = 17x EQUAL 182.3mm
- STEPS 18 - 53 = 36x EQUAL 177.7mm
50MM STEEL HANDRAILS TO BE SET OFF 50mm FROM EDGE AT
CONTINUOUS SPAN WITH MAX. 15mm GAP BETWEEN ENDS.
STAIR TREAD NOSINGS NOT LESS THAN 50mm & NOT GREATER THAN
75mm FULL WIDTH & NO DIFFERENCE IN LEVEL OF 5mm IN A COLOUR 30%
CONTRAST TO THE BACKGROUND

DOOR HARDWARE NOTE
ALL REQUIRED EXIT OR DOORS IN PATHS OF TRAVEL COMPLY WITH BCA-D2.21 & MUST;
- OPERATE WITHOUT A KEY & WITH A SINGLE HAND DOWNWARD ACTION OR PUSH ACTION ON A SINGLE DEVICE
- BE MOUNTED AT A HEIGHT BETWEEN 900-1100mm FORM FINISHED FLOOR LEVEL WHERE LOCATED IN ACCESSIBLE PATHS AS REQUIRED UNDER BCA-D3;
- BE SUCH THAT THE HAND OF A PERSON WHO CANNOT GRIP WILL NOT SLIP DURING OPERATION OF LATCH, AND
- HAVE A CLEARANCE BETWEEN THE BACK OF THE HANDLE AND THE FACE OF THE DOOR AT THE CENTRE GRIP OF NOT LESS THAN 35mm & NOT MORE THAN 45mm, OR
- BE A SINGLE PUSHING ACTION

FIRE/SMOKE DOOR SIGN NOTE
PROVIDE SIGNS TO FIRE ISOLATED STAIR DOORS AS PER BCA-D2.21 INCLUDING
"FIRE SAFETY DOOR, DO NOT OBSTRUCT, DO NOT KEEP OPEN, ETC."

NATHERS REPORT

REFER TO THE ENGINEERS NATHERS
ASSESSMENT REPORT FOR THE THERMAL
INSULATION & GLAZING REQUIREMENTS .

ACOUSTIC NOTE

REFER TO THE VIPAC ENGINEERS
ACOUSTIC ASSESSMENT REPORT FOR
THE REQUIRED NOISE LIMITS .

IN ADDITION, REFER TO COUNCIL
PLANNING CONDITION 16 FOR GLAZING
ACOUSTIC;
- 8mm LAMINATED GLAZING FOR GROUND
FLOOR TENANCIES
- 8mm LAMINATED GLAZING/10mm GAP/
6mm GLAZING FOR BEDROOMS FACING
PROSPECT ROAD

WINDOW CLEANING MAINTENANCE ACCESS NOTE
ANCHORAGES FOR SAFETY HARNESS SHALL BE DESIGNED
AND INSTALLED IN ACCORDANCE WITH AS/NZS 1891.4 AND
BE CONSTRUCTED OF CORROSION RESISTANT METAL

ACOUSTIC NOTE
ALL WALLS REQUIRED TO HAVE SOUND
INSULATION MUST CONTINUE TO UNDERSIDE
OF WALL OR ROOF ABOVE

ALL APARTMENT ENTRY DOOR ASSEMBLY
MUST PROVIDE RW OF NOT LESS THAN 30

CEILING INSULATION
PROVIDE CEILING INSULATION WHERE
POSSIBLE BETWEEN SOLE-OCCUPANCY
UNITS OR SOLE-OCCUPANCY UNIT FORM A
PLANT ROOM, LIFT SHAFT, STAIRWAY, PUBLIC
CORRIDOR OR LOBBY OR THE LIKE
TYPE
MINIMUM 50mm THICKNESS & DENSITY 7kg/m³

UNDERLAY
TIMBER AND TILES FLOORING TO BE
INSTALLED ON ACOUSTIC GRADE UNDERLAY
SUCH AS REGUPOL 5512 5mm, INSTALLED AS
PER MANUFACTURER'S RECOMMENDATION

AIR CONDITIONER SLOT NOTE
VERTICAL SLOTS REQUIRED IN
PRECAST PANELS FOR A/C UNITS AS
PER ENGINEERS DETAILS AND PROVIDE
CRIME SAFE MESH COVER ON BALCONY
SIDE TO PREVENT CLIMBING

SECTION NOTES

THIS DRAWING IS TO BE READ IN
CONJUNCTION WITH ALL OTHER DRAWINGS,
DOCUMENTATION, SCHEDULES AND
SPECIFICATIONS

BUILDER TO CHECK AND CONFIRM ALL SITE
LEVELS AND SET OUT DIMENSIONS PRIOR
TO COMMENCEMENT OF CONSTRUCTION

WRITTEN DIMENSION TO BE TAKEN IN
PREFERENCE TO SCALE

GROUND LEVELS AND FINISHED FLOOR
LEVELS INDICATED ARE APPROXIMATE
ONLY AND ARE TO BE CONFIRMED ON SITE

REFER TO ENGINEERS DESIGN,
DOCUMENTATION, CALCULATION AND
SPECIFICATION FOR STRUCTURAL,
ELECTRICAL, HYDRAULIC, CIVIL AND
FOOTING DETAILS (IF APPLICABLE)

ROOF CONTRACTOR SHALL PROVIDE ALL
NECESSARY FLASHING, CAPPING AND
OTHER ITEMS REQUIRED TO COMPLY WITH
NCC & RELEVANT BUILDING CODES

STAIRS TO BE CONSTRUCTED IN STRICT
ACCORDANCE WITH THE NCC AT MAXIMUM
18 RISERS TO EACH FLIGHT. STAIRS TO
HAVE A NON-SLIP FINISH OR SUITABLE
NON-SKID STRIP

BALUSTRADE TO COMPLY WITH NCC PART
3.9.2 WITH HEIGHT NO LESS THAN 900mm
ABOVE STAIR TREAD NOSING AND NO LESS
THAN 1050mm ABOVE FINISHED FLOOR OR
BALCONY

ALL CEILING LININGS TO BE 10mm UNLESS
OTHERWISE NOTED ON DRAWINGS

INSULATION BATTS TO WALLS AND
CEILINGS AS PER NATHERS ASSESSMENT

ALL OPEN-ABLE UPPER LEVEL WINDOWS
LESS THAN 1.7m FROM UPPER FFL MUST BE
RESTRICTED TO NOT ALLOW OPENING
GREATER THAN 125mm

PROVIDE FIXED OBSCURE GLAZING TO
WINDOWS 1.7m ABOVE UPPER LEVEL
(SHOWN DOTTED)

ROOF MOUNTED SOLAR PANELS TO BE
INSTALLED & ORIENTATED AS PER
MANUFACTURER'S RECOMMENDATIONS

PROVIDE WATERPROOF SARKING TO
UNDERSIDE OF ROOFING

ALL WATERPROOFING TO WET AREAS BE IN
ACCORDANCE WITH AS3740-2004

EARLY FIRE HAZARD INDICES OF WALL,
FLOOR, CEILING LININGS AND
AIR-CONDITIONING DUCTWORK TO COMPLY
WITH CLAUSE C1.10 OF THE NCC

ANY DISCREPANCIES IN DOCUMENTS
AND/OR ON SITE TO BE REPORTED TO THE
ARCHITECT BEFORE ANY WORK IS
COMMENCED

D	17.08.19	AMENDMENTS TO APARTMENTS	DF
C	22.07.19	NEW BALCONY PANELS	DF
B	14.12.18	NEW ACOUSTIC NOTE	DF
A	18.05.18	FOR CONSTRUCTION	DF
REV	DATE	COMMENT	DWN



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FOR CONSTRUCTION

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