MostynCopper

MEMORANDUM

To: Barney Oros

From: Brian O'Mainin – Project Director (MostynCopper)

Date: 12 May 2021

Purpose: Response to Request for Further Information

Subject: Private Hospital Facility, 445-459 Canterbury Road, Campsie.

Purpose – Commentary regarding Floor-to-Floor height requirements in Class 9A Hospital Buildings

The following Memorandum is to provide an insight/clarity regarding the proposed floor to floor heights for the proposed new Private Hospital development at 445-459 Canterbury Road, Campsie.

BCA Class 9A Healthcare buildings have specific requirements to comply with the Australian Health Facility Guidelines and BCA with regards to Floor to ceiling heights and also ceiling void minimum dimensions to allow for the reticulation of building services.

Generally, minimum ceiling heights in Clinical/Treatment/Activity areas of a Hospital re required to be a minimum of 2.7M Clear and 3.0M Clear in clinical spaces with ceiling mounted equipment such as Operating Theatres, Procedure Rooms, ICU (individual rooms – 2700 Open plan) and Medical Imaging.

A minimum ceiling height of 2400mm is sufficient and recommended for corridors, passages, recesses and non-treatment and non-activity areas e.g. offices.

Notwithstanding the minimum floor to ceiling requitements to comply with the abovementioned Standards and Guidelines, adequate ceiling void space between the ceiling finish and underside of slab above is critical to accommodate the intense nature of building services associated with hospital buildings.

In the context of the proposed development at 445-459 Canterbury Road, **Ground Floor Lower,** incorporates a slab-to-slab height of 5.0M. This is appropriate due to the Delivery Dock requirements to accommodate delivery vehicles in this area.

Ground Floor Upper has been allocated to Allied Health, Ambulatory Care and Medical Retail. Due to the likely inclusion of Medical Imaging on this floor and the requirement of a 3.0M Ceiling height in such spaces, the 5.0M Slab to Slab height is appropriate and provides a residual ceiling void space of 1.750M (allowing for a nominal slab thickness of 250mm) for the reticulation of services, which is the industry standard for such installations to allow for chilled water reticulation to medical equipment, Quench pipe reticulation from MRI's and also extensive supply and return ductwork for mechanical services.

Level 1 is the Operating Theatre and CSSD (Central Sterile Supply Department) and has been designed with a 5.0M Slab to Slab height. This is appropriate due to the requirement of a 3.0M High Ceiling in Operating Theatres and the intensive nature of in ceiling services associated with these rooms.

Operating Theatres require Hepa filtration and associated plenums which are quite bulky as well as extensive networks of supply and return ductwork generally due to the high number of air changes required in these spaces. They also require extensive cable management trays/systems due to the amount of power and data relating to medical equipment requirements in these spaces. Therefore the residual ceiling void of 1750mm and 5.0M slab to slab height is an industry standard for Operating Theatre.

Level 2 houses the main plant room and has been strategically positioned above the Theatre Floor to create efficiency in handling the mechanical requirements of the Theatres below.

The current 3.5M slab to slab height is appropriate to allow for the minimum 2.0M minimum clearance required below ductwork and to also allow for a 2.7m High ceiling in the adjacent Hospital Staff room.

Levels 3-8 are nominated to house the inpatient bedrooms, which require a minimum 2.7M High Ceiling. The 3.5M Slab to Slab height is appropriate due to the resultant ceiling void height being 550mm to reticulate services to each room.

The floorplate of the IPU levels have been specifically designed to accommodate a minimum amount of bedrooms to provide maximum efficiency for the proposed hospital operator with regards to staffing ratio's and adequate support areas.

Any reduction in the floor plate of these floors may have a negative impact in attracting potential operators due to loss of operational efficiency.

Levels 9-11 are nominated to house Consulting Suites and/or Education accommodation. The proposed Slab to Slab Heights are appropriate as 2.7M High ceilings are generally expected in education spaces to accommodate viewing of screens in tutorial mode etc as well as providing the consulting suites with clinical examination rooms as required.

A facility of this type would require good quality consulting suite accommodation to attract the appropriate Surgeon/Doctor cohort and co-location with Theatre and Inpatient accommodation is expected in contemporary facilities.

Brian O'Mainin
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