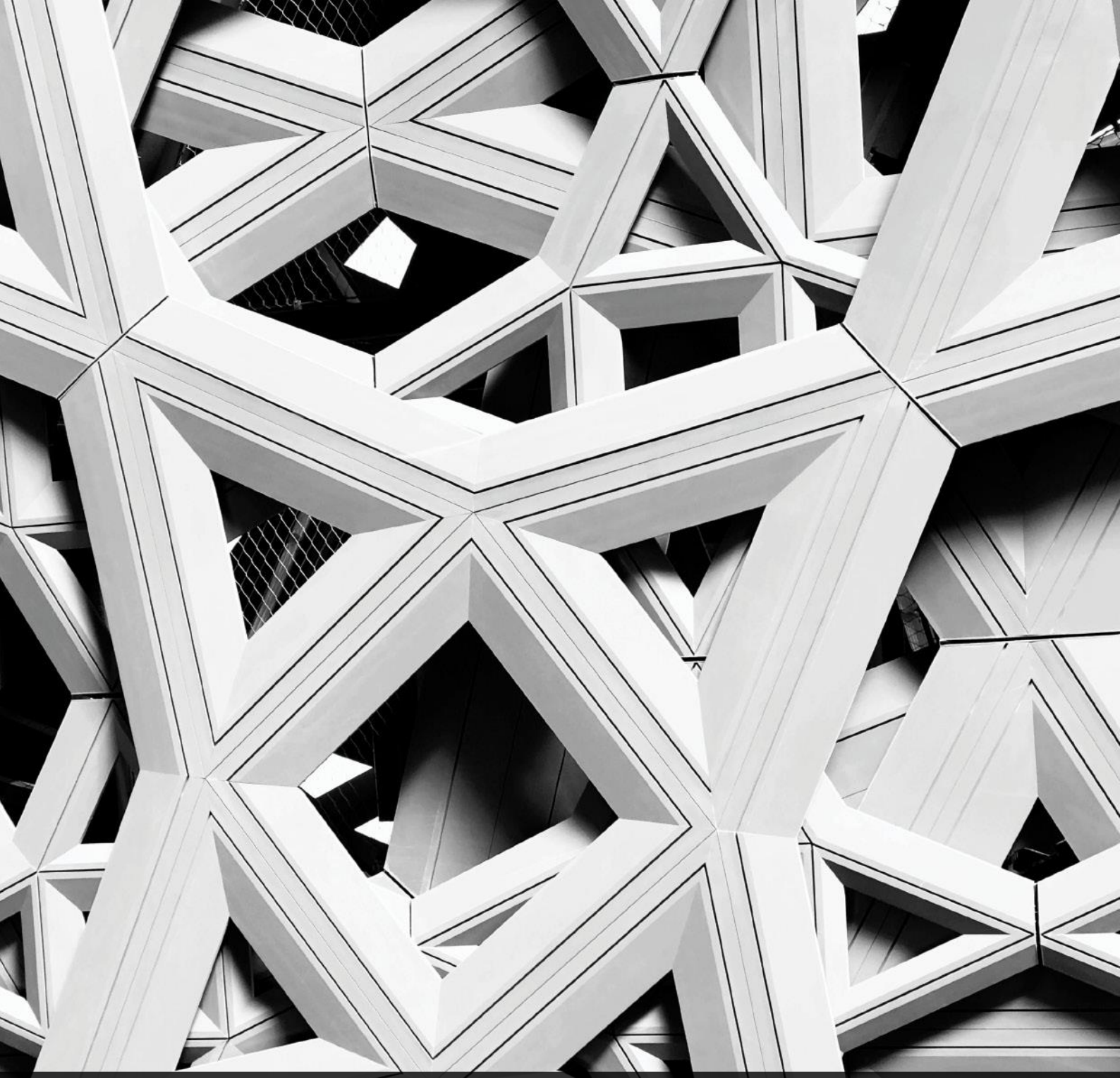

BCA & DDA

Tender Documentation Report

Milton Ulladulla Hospital –
Cancer Centre and CT Imaging

Prepared for:

NSW GOVERNMENT Health Infrastructure

Revision 0

5 February 2025
Reference: S240439

bmplusg.com.au

+ Contents

BCA & DDA Tender Documentation Assessment

To	HINSW C/- Johnstaff
Attention	Lynn Walker
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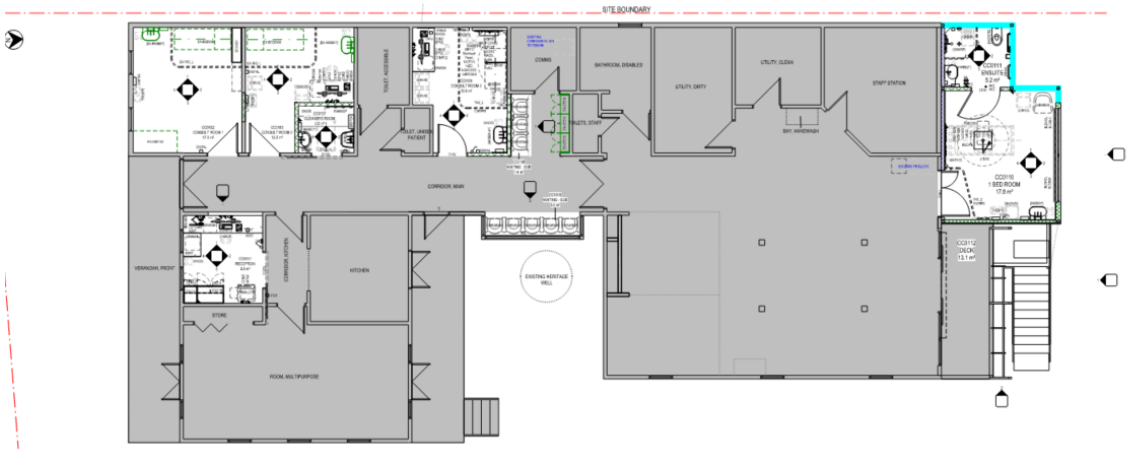
From	David Blackett
Subject	Cancer Centre and CT Imaging
Project No.	S240439
Date	29 January 2025
Pages	27

This statement has been prepared to verify that Blackett Maguire + Goldsmith Pty Ltd have undertaken a review of the architectural documentation that will accompany the tender pack for the proposed development of Milton Ulladulla Hospital.

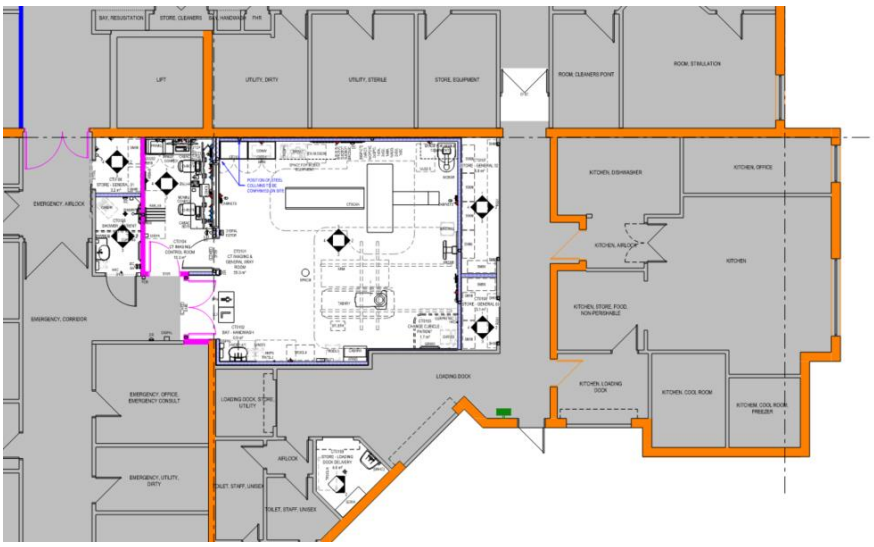
1.0 Proposed Development

The proposed works include:

- Internal alterations & additions to the existing Cancer Care House to provide a relocated reception and store, addition of a new single ensuite bedroom, new outpatient consult room.



- Internal alterations & additions to the existing building A for expansion to the X-ray room including combined CT & Xray control room, relocate medical services panel and handwash basin, enlarge Xray room to house new CT scanner.



1.1 Capability Statement Objectives

The objectives of this statement are to:

- confirm that the tender architectural documentation has been reviewed by an appropriately qualified Accredited Certifier.
- confirm that the proposed new building works can readily achieve compliance with the BCA pursuant to section 19 of the *Environmental Planning & Assessment (Development Certification & Fire Safety) Regulation 2021*.

It should be noted that it is not the intent of this compliance statement to identify all BCA provisions that apply to the subject development. The development will be subject further assessment following receipt of more detailed design documentation at Crown Certificate stage.

This Statement is prepared in accordance with the Conflicts of Interest provisions of Part 4 of the Building and Development Certifiers Regulation 2020.

1.2 Referenced Documentation

This report has been prepared based on a review of the architectural drawings prepared by Jacobs.

1.3 Report Terminology

Access for People with Disabilities - Access to a building which is planned to minimise obstacles or hazard to disabled persons.

Accessible – Means having features to permit use by people with disabilities

Accessway – Means a continuous accessible path of travel to or within a building suitable for people with disabilities as defined in AS 1428.1

Building Code of Australia – Document published on behalf of the Australian Building Codes Board. The BCA is a uniform set of technical provisions for the design and construction of buildings and other structures throughout Australia and is adopted in NSW under the provisions of the Environmental Planning & Assessment Act & Regulation.

Braille – A system of touch reading for the blind, which employs raised dots that are evenly arranged in quadrangular letter spaces or cells.

Construction Type – The construction type is a measure of a buildings ability to resist a fire. The minimum type of fire-resisting construction of a building must be that specified in Table C2D2 and Specification 5, except as allowed for:

- certain Class 2, 3 or 9c buildings in C2D6; and
- a Class 4 part of a building located on the top storey in C2D4(2); and
- open spectator stands and indoor sports stadiums in C2D8.

Note: *Type A construction is the most fire-resistant and Type C the least fire-resistant of the types of construction.*

Dedicated Parking Space – a parking space set aside exclusively for the parking of a single vehicle for a person with a disability.

Deemed-to-Satisfy (DTS) Provisions of the BCA – Means the prescriptive provisions of the BCA which are deemed to satisfy the performance requirements.

Effective Height – The vertical distance between the floor of the lowest storey included in the calculation of rise in storeys and the floor of the topmost storey (excluding the topmost storey if it contains only heating, ventilating, lift, or other equipment, water tanks or similar service units).

Exit – Any, or any combination of the following if they provide egress to a road or open space:

- An internal or external stairway.
- A ramp.
- A fire-isolated passageway.
- A doorway opening to a road or open space.

Fire Compartment – The total space of the building; or when referred to in

- The Performance Requirements – any part of a building separated from the remainder by barriers to fire such as walls and/or floors having an appropriate resistance to the spread of fire with any openings adequately protected; or
- The Deemed-to-Satisfy Provisions – any part of a building separated from the remainder by walls and/or floors each having an FRL not less than that required for a fire wall for that type of construction and where all openings in the separating construction are protected in accordance with the Deemed-to-Satisfy Provisions of the relevant part.

Fire Resistance Level (FRL) – The grading periods in minutes for the following criteria:

- structural adequacy; and
- integrity; and
- insulation.

and expressed in that order.

Fire Source Feature (FSF) – The far boundary of a road adjoining the allotment; or a side or rear boundary of the allotment; or an external wall of another building on the allotment which is not a Class 10 building.

Health-care building: A building whose occupants or patients undergoing medical treatment generally need physical assistance to evacuate the building during an emergency and includes—

- a public or private hospital; or
- a nursing home or similar facility for sick or disabled persons needing full-time care; or
- a clinic, day surgery or procedure unit where the effects of the predominant treatment administered involve patients becoming non-ambulatory and requiring supervised medical care on the premises for some time after the treatment.

Hearing Augmentation – The communication of information for people who are deaf or hearing impaired by using a combination of audio, visual, and tactile means

Luminance Contrast - The light reflected from one surface or component, compared to the light reflected from another surface or component.

Horizontal exit: A required doorway between 2 parts of a building separated from each other by a fire wall.

Occupiable outdoor area means a space on a roof, balcony or similar part of a building:

- that is open to the sky; and
- to which access is provided, other than access only for maintenance; and
- that is not open space or directly connected with open space.

Open Space – Means a space on the allotment, or a roof or other part of the building suitably protected from fire, open to the sky and connected directly with a public road.

Patient Care Area – A part of a health-care building normally used for the treatment, care, accommodation, recreation, dining and holding of patients including a ward area and treatment area.

People with Ambulant Disabilities - People who have a mobility disability but are able to walk.

Performance-based Design Brief – Means the process and the associated report that defines the scope of work for the performance-based analysis, the technical basis for analysis, and the criteria for acceptance of any relevant Performance Solution as agreed by stakeholders.

Performance Requirements of the BCA – A Building Solution will comply with the BCA if it satisfies the Performance Requirements. A Performance requirement states the level of performance that a Building Solution must meet.

Compliance with the Performance Requirements can only be achieved by-

- complying with the Deemed-to-Satisfy Provisions; or
- formulating an Alternative Solution which-
  - complies with the Performance Requirements; or
  - is shown to be at least equivalent to the Deemed-to-Satisfy Provisions; or
- a combination of the above.

Performance Solution – Means a method of complying with the performance requirements other than by a Deemed-To-Satisfy Solution.

Shared Area (for carparking) – An area adjacent to a dedicated space provided for access or egress to or from a parked vehicle and which may be shared with any other purpose that does not involve other than transitory obstruction of the area, e.g. a walkway, a vehicular aisle, dual use with another adjacent dedicated space.

Slip Resistant – A property of a surface having a frictional force-opposing movement of an object across a surface.

Treatment area – An area within a patient care area such as an operating theatre and rooms used for recovery, minor procedures, resuscitation, intensive care and coronary care from which a patient may not be readily moved.

Tactile Ground Surface Indicators (TFSI) - Truncated cones and/or bars installed on the ground or floor surface, designed to provide pedestrians who are blind or vision-impaired with warning or directional orientation information.

Tactile Sign - Signage incorporating raised text, and/or symbols and Braille to enable touch reading by people who are blind or who are vision impaired.

Ward area – That part of a patient care area for resident patients and may contain areas for accommodation, sleeping, associated living and nursing facilities.

1.4 Relevant Version of the Building Code of Australia

Pursuant to Section 6.28 of the Environmental Planning and Assessment Act 1979, the proposed building is subject to compliance with the relevant requirements of the BCA as in force at the time of the date of invitation for tenders to carry out the Crown building work. The current BCA that is in force is BCA 2022, with BCA 2025 coming in to force 1 May 2025. It is understood the invitation to tender will be lodged before 1 May 2025, therefore this report assesses the design against compliance with the requirements of BCA 2022.

1.5 Building Classification

The new building works have been classified as follows:

Cancer Centre

BCA Classification	Class 9a (Healthcare building)
Rise in Storeys	One (1)
Storeys Contained	One (1)
Type of Construction	Type C Construction
Importance Level (Structural)	IL3
Sprinkler Protected Throughout	No sprinkler protection
Effective Height	<12m
Max. Fire Compartment Size	<500m2
Climate Zone	6

CT Imaging – Main Hospital

BCA Classification	Class 9a (Healthcare building) – Existing Main Hospital
Rise in Storeys	Two (2)
Storeys Contained	Two (2)
Type of Construction	Type B Construction
Importance Level (Structural)	IL4
Sprinkler Protected Throughout	No sprinkler protection
Effective Height	<12m
Max. Fire Compartment Size	*To be confirmed*
Climate Zone	6

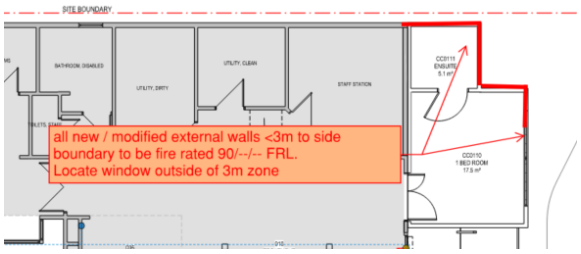
2.0 BCA Assessment – Key Issues

We note the following BCA compliance matters with relation to proposed building works are capable of complying with the BCA. Please note that this is not a full list of BCA clauses, they are the key requirements that relate to the proposed work, based on the level of design. Further detailed BCA assessment will be required for the Part 6 phase construction documentation.

2.1 Section B – Structure

Part B1	**Structural Provisions:** + New lifting equipment in the CT Imaging room is to be designed to comply with AS1170.1. + The Cancer Care and CT Imaging areas are to be certified by a structural engineer to verify the proposed works, and any new loads to be imposed, will achieve compliance with AS1170.1. + New building works are to comply with the structural provisions of the BCA 2022 and referenced standards including AS 1170. + The Importance Level provisions of BCA (Section B) are to be acknowledged by the Structural Engineer and addressed to the degree necessary. + New building works to the existing building must be compliant with earthquake provisions of AS1170.4 – Earthquake Actions in Australia.

2.2 Section C – Fire Resistance

C2D2 / Spec 5	**Type of Construction Required:** The existing Cancer Care is a free standing single storey Type C Construction building. All new work is to comply accordingly. The existing hospital is two storeys, hence Type B Construction required. All new work is to comply accordingly **Comment:** The new (and any modified) external walls of the Cancer Care extension are to achieve 90/–/– FRL as noted below, due to exposure to the side boundary. Fire rating is to extend minimum 3m lateral distance from the boundary. 
C2D10 / C2D14	**Non-Combustible Building Elements:** All materials and or components incorporated in an external wall or fire-rated wall must be non-combustible. This includes but not limited to:

- Any external wall claddings.
- Any framing or integral formwork systems. I.e. timber framing, sacrificial formwork, etc.
- Any external linings or trims. I.e. external UPVC window linings, timber window blades, etc.
- Any sarking or insulation contained within the wall assembly.

This is not an exhaustive list, and any element incorporated within any external wall assembly must be identified and approved prior to the issue of a Crown Certificate.

Refer to Table 1 in Appendix 1 for the elements required to be non-combustible.

Note that these works are subject to NSW HI DGN 32 and as such bonded laminate cladding is not permitted.

Ancillary Elements: An ancillary element must not be fixed, installed or attached to the internal parts or external face of an external wall that is required to be non-combustible, unless it is in accordance with this clause.

C2D11 & Spec. 7

Fire Hazard Properties: A schedule of all new wall, floor, and ceiling linings along with associated test reports are to be provided for review to ensure compliance with the fire hazard property requirements of the BCA. Noting:

- Minimum Group Numbers apply to wall and ceiling linings. AS 5637 test reports must be provided to determine compliance.
- Minimum Critical Radiant Flux values apply to floor linings. AS ISO 9239.1 test reports must be provided to determine compliance

Refer to Table 2 and 3 in Appendix 1 below for the required fire hazard properties.

Table S7C3 of Specification 7– Critical Radiant Flux of Floor Linings and Floor Coverings

Class of building	Building not fitted with a sprinkler system	Building fitted with a sprinkler system (other than a FPAA101D or FPAA101H system)	Fire-isolated exits and fire control rooms
Class 9a - Patient care areas	4.5 kW/m2	2.2 kW/m2	4.5 kW/m2
Class 9a - Areas other than patient care areas	2.2 kW/m2	1.2 kW/m2	4.5 kW/m2

Table S7C4 of Specification 7 – Wall and Ceiling Lining Materials (Materials Groups Permitted)

Class of building	Fire-isolated exits and fire control rooms	Public corridors	Specific areas	Other areas
Class 9a, Unsprinklered Accommodation for the aged, people with a disability, children and health-care buildings	Walls: 1 Ceilings: 1	Walls: 1 Ceilings: 1	Walls: 1, 2 Ceilings: 1, 2	Walls: 1, 2, 3 Ceilings: 1, 2,3

C3D6

Class 9a Buildings: The following fire and smoke compartmentation requirements apply to Class 9a patient care areas.

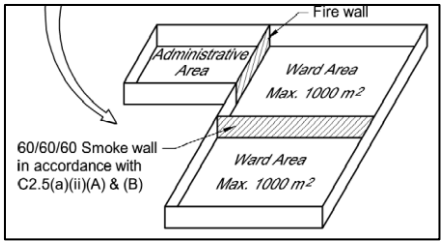
Fire and Smoke Compartments:

Patient care areas need to be separated into maximum 2,000m² fire compartments by fire walls having an FRL of 120/120/120. Non-patient care areas may be increased to maximum 3,500m² fire compartments.

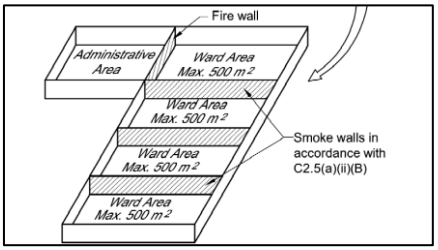
Compartmentation requirements are as follows:-

A. In Ward Areas –

i) Where the floor area exceeds 1,000m^2, then it must be divided into compartments of not more than 1,000m^2, by walls with an FRL of not less than 60/60/60, and



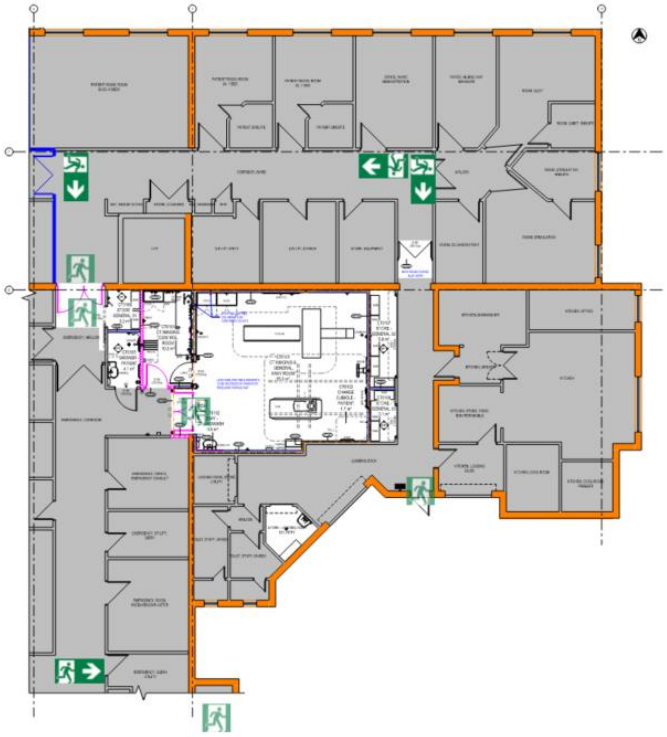
ii) Where the floor area exceeds 500m^2, then it must be separated into further compartments of not more than 500m2, by smoke proof walls complying with the requirements of Specification 11, and



B. Treatment areas must be divided into compartments of not more than 1,000m^2, by smoke proof walls complying with Specification 11.

Comments are follows:-

+ The cancer care facility is compliant with regard to compartment areas.
+ Compartmentation strategy to the CT Imaging is as follows:-

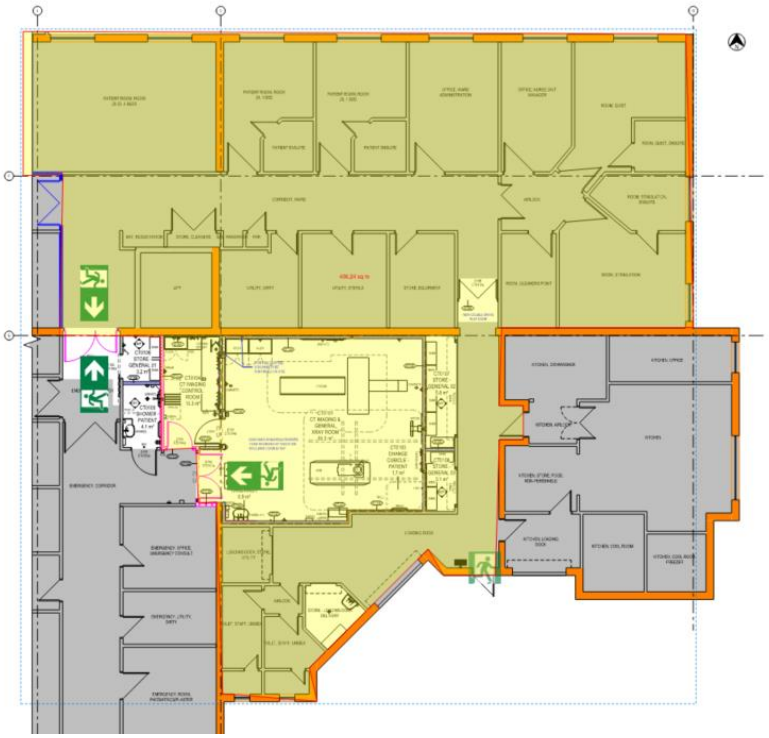


All new and modified fire walls (in pink shade) are to achieve –/120/120 FRL, fire doors located therein are to achieve –/120/30 FRL
Minimum 400mm reservoir required above all new and modified fire doors (x3).

+ As part of the project delivery, all existing fire walls that immediately bound the CT Imaging zone, are to be upgraded to the degree necessary to ensure –/120/120 FRL.

  Audit of existing walls will be necessary.

+ The area shaded in yellow below is to be confirmed to have a maximum compartment area of 500m2, noting the CT Imaging is in the same compartment as the existing ward area.



- All fire walls are combined fire and smoke walls. Door seals and protection of penetrations are to ensure compliance.

C3D13

Separation of Equipment / Electricity Supply Systems: Dependent on plant and equipment to be housed within the plant rooms, FRL 120/120/120 fire separation may be required to separate these areas from the building remainder. The following equipment required FRL120/120/120 fire separation from the building:

- Main switch rooms / boards; or
- Electricity substations; or
- Light motors and lift control panels; or
- Emergency generators used to sustain emergency equipment operating in the emergency mode; or
- Central smoke control plant; or
- Boilers;
- A battery or batteries installed in the building that have a voltage exceeding 12 volts and a capacity exceeding 200kWh.

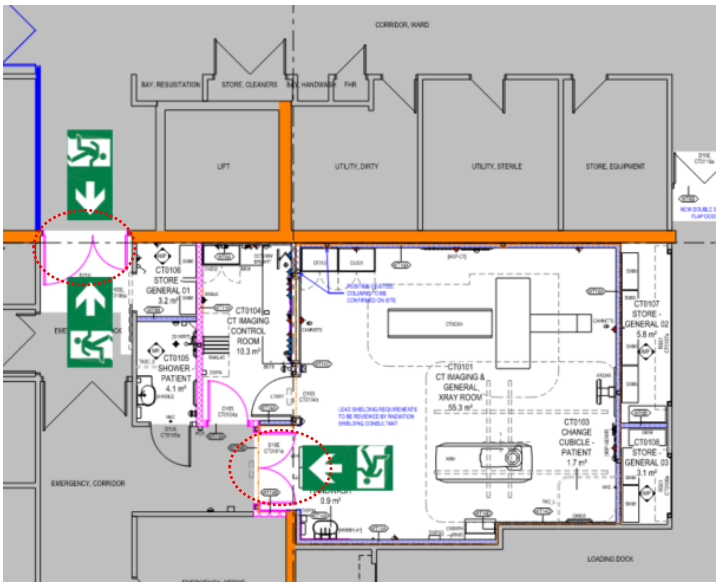
Comment: The works to the switch room at LGL to the main hospital will need to ensure 120/120/120 FRL separation is achieved. A second exit door is required to the satisfaction of the energy authority.

Spec. 12

Fire Doors, Smoke Doors, Fire Windows and Shutters: Fire doors and smoke doors must comply with the requirements of this specification.

Penetration of services through fire and smoke walls to be protected in accordance with BCA. Some services such as medical gas pipework will need to be addressed in the FER for penetration through fire walls.

Fire doors in the CT Imaging circled below are to swing in direction noted with arrow:-



Where swing in the direction noted is not achievable for operational reasons, this is to be addressed in the fire engineering assessment as part of the Crown Certification stage.

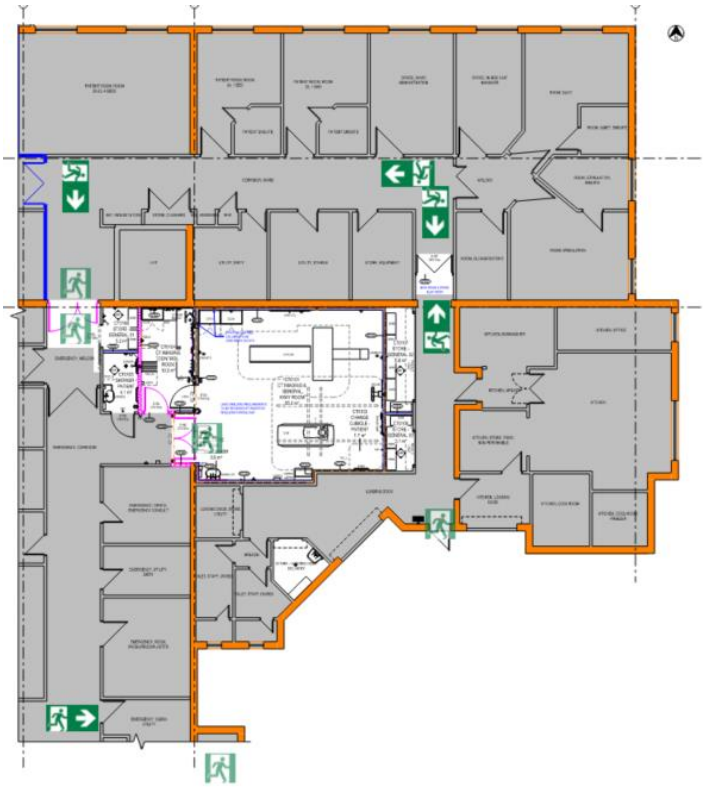
2.3 Parts D – Provision for Escape and Construction of Exits

D2D3

Number of Exits Required:

Egress from the Cancer Care is as below – ensure exit signage is provided over nominated exit doors and directional signage is provided to the degree necessary:-

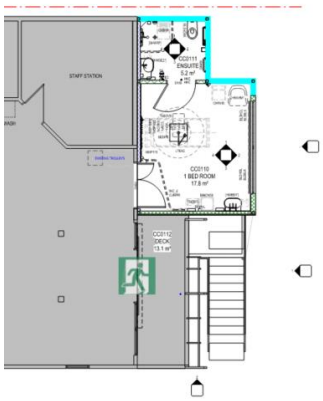
Egress from the CT Imaging is as below – ensure exit signage is provided over nominated exit doors and directional signage is provided to the degree necessary:-



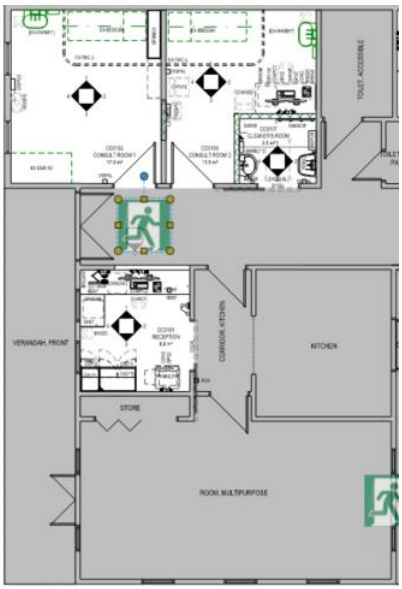
D2D5

Exit Travel Distances: Egress from the building will rely on a combination of exit doors and horizontal exits across the floor plate. The following is noted in relation to egress:

+ Travel distances are permitted to extend to 20m to a point of choice and 40m to a single exit in non-patient care areas.

	+ Travel distances in patient care areas are permitted to extend to 12m to a point of choice and 30m to a single exit. Exit travel distances with both Cancer Care & CT Imaging will comply.
D2D5	**Distance Between Alternative Exits:** The maximum distance permitted between alternative exits in Class 9 areas is 60m. This must be measured back through the point of choice. Alternative egress paths are not permitted to converge to less than 6m, and alternative exits must be located more than 9m apart. Exit travel distances with both Cancer Care & CT Imaging will comply.
D2D7/ D2D8/ D2D9/ D2D10/ D2D11	**Dimensions of Paths of Travel to an Exit:** The minimum clear height through all egress paths is required to be no less than 2m, and a minimum of 1m wide (this width dimension is measured clear of any obstructions such as handrails and joinery). Aggregate exit widths must be achieved which are driven by occupancy numbers of each floor. In patient care areas through which patients would normally be transported in beds: + if the doorway provides access to, or from, a corridor of width - less than 2.2 m — 1200 mm; or - 2.2 m or greater — 1070 mm. Exit dimensions with both Cancer Care & CT Imaging will comply.
D2D14 (D1.10)	**Discharge of Exits:** In accordance with the DTS provisions of the BCA, the discharge of exits to open space cannot incorporate any steps to connect the discharge point to the adjoining roadway. Where ramps are used, the gradient cannot exceed 1:8 at any part or 1:14 where the ramp is also used for access for a person with a disability. The eastern stair from the Cancer Care is existing and, whilst subject to proposed modification, is within the DTS intent to achieve compliant egress to road or open space. 
D2D16	**Horizontal Exits:** In a Class 9a building, a horizontal exit may only be counted as a required exit if path of travel from a fire compartment leads by one or more horizontal exits into another fire compartment which has a vertical or final exit. Horizontal exits are provided within the CT Imaging zone, to reduce egress distances to an acceptable level. All fire doors nominated as horizontal exits must maintain a clear open width not less than 1250mm All required HEs and fire/smoke doors in all fire/smoke walls require a minimum 400mm smoke reservoir immediately above the door.

D3D14/ D3D15/ D3D16/ D3D22	**Stairways, Balustrades and Handrails:** Stairways: + The modified stairway to the Cancer Care facility must have no more than 18, nor less than 2, risers in each flight. + Landings must be not less than 750mm in length. Balustrades: - *as applicable to new works* + All new balustrades, handrails in the Cancer Care facility must achieve compliance with BCA. + A minimum height of 1m above finished floor level is to be achieved for the new balustrade and must not permit a 125mm sphere to pass through any opening. + The new stairway is to be non combustible are compliant in terns of tread and riser dimensions. + Where fire-isolated stairs are also intended to be used as circulation stairs, they must be designed to comply with the 125mm sphere balustrade requirements. Handrails: + Handrails must be located on both sides of all stairways and ramps except for fire-isolated stairs. Handrails must comply with AS 1428.1 as relevant. + Where fire-isolated stairs are also intended to be used as circulation stairs, they must be designed to comply fully with AS 1428.1 – 2009 with respect to handrails. Landings: + The area of any landing must be sufficient to move a stretcher, 2 m long and 600 mm wide, at a gradient not more than the gradient of the stairs, with at least one end of the stretcher on the landing while changing direction between flights; or + the stair must have a change of direction of 180°, and the landing a clear width of not less than 1.6 m and a clear length of not less than 2.7 m.
D3D24	**Doorways and Doors:** Doorways located in a patient care area must not incorporate a sliding door unless that door leads directly to open space and is able to be manually opened under a force of not more than 110 N and open automatically upon fire trip or power failure. The Cancer Care facility has a new sliding door proposed to the reception. This design presents low risk from compliance and can be addressed in the FER at Crown Certification stage.
D3D25	**Swinging Doors:** Doors forming required exits must swing in the direction of egress, unless + it serves a building or part with a floor area not more than 200 m2, it is the only required exit from the building or part and it is fitted with a device for holding it in the open position; or + it serves a sanitary compartment or airlock (in which case it may swing in either direction); **Comment:** The exit doors from the Cancer Care are to swing in the direction of egress, or be fitted with a hold open device.



D3D26	**Doors and latching:** All egress doorways must swing in the direction of egress and must be readily openable without a key from the side that faces a person seeking egress, by a single handed downward or pushing action on a single device which is located between 900mm and 1100mm from the floor. **Comment:** Door hardware to the existing sliding exit door from Cancer Care is to be upgraded to comply.
Part D4	**Access for People with a Disability:** The extent of access required depends on the classification of the building. Buildings and parts of buildings must be accessible as set out in D4D2 unless exempted by Clause D4D4. The Cancer Care and the CT Imaging is required to comply with AS1428.1-2009. Refer to Section 3.0 of the report below. Note: More detailed assessment of accessible provisions (final sanity check) will be undertaken, to the degree necessary, with the construction documentation.

2.4 Section E – Services and Equipment

E1D2	**Fire Hydrants:** Fire hydrant coverage is required to be provided to the building in accordance with AS2419.1–2021. It is understood the existing FH system will provide coverage to all new works. The flow and pressure for FHs serving the new works will need to be compliant with AS2419.1-2017.
E1D3	**Fire Hose Reels:** Fire hose reels are required to be provided to areas other than any Class 5 buildings / parts. Where required to be provided, fire hose reels are to comply with AS 2441 – 2005. The flow and pressure for FHRs serving the new works will need to be compliant with current standards
E1D14	**Fire Extinguishers:** To be provided and designed in accordance with AS 2444-2001. Powder Type fire extinguishers are not permitted to be provided within any patient care areas.
E2D4/ E2D9/ E2D11/ E2D12/ E2D13	**Smoke Hazard Management:** The following smoke hazard management systems are to be installed to the building and will be required throughout: + An Automatic Fire Detection and Alarm System and Building Occupant Warning System complying with AS 1670.1 – 2018 and S20C4 (5m grid) S20C6 (10m grid). + Automatic shut-down of mechanical air handling systems upon fire trip in accordance with Section 5 and 6 of AS 1668.1. + EWIS: An AS 1670.4-2015 Sound System and Intercom System for Emergency Purposes is required. The EWIS is to be designed to interphase with the main hospital building.
E4D2 - E4D8	**Emergency Lighting and Exits Signs:** Emergency lighting and exit signage to be provided in accordance with E4D2 - E4D5 complying with AS 2293.1 – 2018.

2.5 Section G – Ancillary Provisions (Bushfire)

Part G5	**Bushfire Provisions:** Verification is required that the site is not located on bushfire prone land.

2.6 Section F – Health and Amenity

Part F3	**Roof and Wall Cladding:** This section contains DtS provisions for the weatherproofing of certain external wall and roof designs (new works). + New Roof coverings must comply with F3D2. + New Sarking must comply with F3D3. + New Glazed assemblies must comply with F3D4. + New Wall cladding must comply with F3D5.
Part F5	**Ceiling Heights:** The floor to ceiling heights must be as follows: The minimum ceiling heights in a Class 9a building are as follows – + a patient care area -2.4 m; + a treatment room, clinic, waiting room, passageway, corridor, or the like – 2.4 m. In any building: + Bathrooms, sanitary compartments, tea preparations rooms, pantries, storerooms or the like – 2.1m,
Part F6	**Light and Ventilation:** Artificial lighting systems are required to comply with Clause F4.4 and AS 1680. All mechanical or air-conditioning installations must be undertaken in accordance with Clauses F4.5(b) and AS 1668.2.-2012.

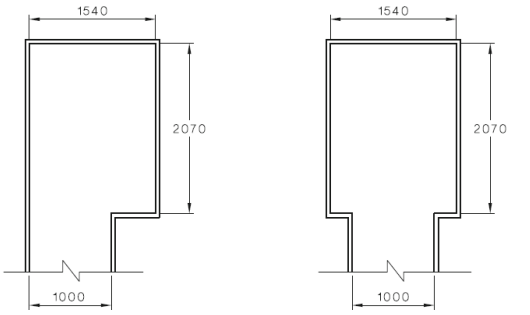
2.7 Section F – Energy Efficiency

Part J	**Energy Efficiency:** The new building works subject to compliance with the Energy Efficiency Provisions of BCA 2022 Section J relating to: + J2: Energy Efficiency + J4: Building Fabric + J5: Building Sealing + J6: Air-Conditioning and Ventilation + J7: Artificial Lighting and Power + J8: Heated Water Supply and Swimming Pool and Spa Pool Plant + J9: Energy Monitoring and On-Site Distributed Energy Resources The Crown Certificate documentation from the architect, mechanical, electrical, and hydraulic engineers are to incorporate details demonstrating compliance with the above provisions (as applicable to their respective disciplines). **Comment:** The architect, mechanical, electrical, and hydraulic engineers are to incorporate details demonstrating compliance with the above provisions (as applicable to their respective disciplines).

3.0 Access Assessment

3.1 Section D – Accessability

D4D2	**General building access requirements:** + For Class 9a buildings, access must be provided to and within all areas normally used by the occupants.
D4D3	**Access to buildings:** as a general requirement, accessways must be provided to accessible buildings from the main points of pedestrian entry at the allotment boundary and any accessible car parking space or accessible associated buildings connected by a pedestrian link. An accessway must be provided to a building required to be accessible- + From the main points of a pedestrian entry at the allotment boundary; and + From another accessible building connected by a pedestrian link; and + From any required accessible car parking space on the allotment. In a building required to be accessible, an accessway must be provided through the principal pedestrian entrance and through not less than 50% of all pedestrian entrances including the principal pedestrian entry.
D4D4	**Parts of buildings to be accessible:** The areas of new works are required to comply with the requirements of AS 1428.1-2009. We will need to review Affected Part upgrades which basically relate to the need to upgrade access ways (if necessary) from the principal entrance to the location of the L1/2 and L8 works. This will be done as part of the SD stage, noting however form initial inspection, there is not much required in the way of likely upgrade works in this regard. Hearing Augmentation: A hearing augmentation system must be provided where an inbuilt amplification system, other than one used only for emergency warning is installed in a meeting room, or a reception area where the public is screened from the service provider. An built in amplification system is a system where either speakers are installed within a room or a wall mounted monitor has built in speakers. Such installations are typically found in meeting rooms, training rooms and waiting areas. Where the wall mounted screen is not capable of broadcasting sound and any audio is provided way of speakers attached to a laptop or that are portable, the hearing augmentation provisions will not need to be applied. We suggest a hearing augmentation system may be required to the new cancer care reception.
AS1428.1 Cl. 6.1	General: A continuous accessible path of travel shall not include a step, stairway, turnstile, revolving door, escalator, moving walk or other impediments. **Compliance Readily Achievable:** The referenced plans need to show sufficient information to establish compliance with this clause. Design certification should be submitted with the application for the BCA Crown Certificate.

AS1428.1 Cl. 6.2	Height of paths: The minimum unobstructed height of a continuous accessible path of travel shall be 2000 mm or 1980 mm at doorways. **Compliance Readily Achievable:** The referenced plans need to show sufficient information to establish compliance with this clause. Design certification should be submitted with the application for the BCA Crown Certificate.
AS1428.1 Cl. 6.3	Widths of paths: Unless otherwise specified (such as at doors, curved ramps and similar), the minimum unobstructed width of a continuous accessible path of travel shall be 1000 mm and the following shall not intrude into the minimum unobstructed width of a continuous accessible path of travel: + Fixtures and fittings such as lights, awnings, windows that, when open, intrude into the circulation space, telephones, skirtings and similar objects. + Essential fixtures and fittings such as fire hose reels, fire extinguishers and switchboards. + Door handles less than 900 mm above the finished floor level. **Compliance Readily Achievable:** The referenced plans need to show sufficient information to establish compliance with this clause. Design certification should be submitted with the application for the BCA Crown Certificate.
AS1428.1 Cl. 6.5	Turning Space: Turning spaces must comply with AS1428.1 and located within 2m of the end of accessways where it is not possible to continue travelling along the accessway, and at maximum 20m intervals along the accessway.  (a) Space required in corridor (b) Space required in corridor **Complies:** The referenced plans show compliance with this clause.
AS1428.1 Cl. 13.1	Luminance Contrast: All doorways shall have a minimum luminance contrast of 30% provided between— + door leaf and door jamb; + door leaf and adjacent wall; + architrave and wall; + door leaf and architrave; or + door jamb and adjacent wall. The minimum width of the area of luminance contrast shall be 50 mm. **Compliance Readily Achievable:** The referenced plans need to show sufficient information to establish compliance with this clause. Design certification should be submitted with the application for the BCA Crown Certificate.
AS1428.1 Cl. 13.2 / 13.3	The minimum width of an accessible doorway must have a clear opening width of not less than 850mm in accordance with AS1428.1. Where double doors are provided, at least one leaf must have a clear unobstructed width of 850mm.

Clear Unobstructed Width of Doorway

Circulation space is required to all doorways throughout the building that are required to be accessible in accordance with Section 13 of AS 1428.1 – 2009 (see diagrams below). Circulation space is not required to be provided to rooms where access for a person with a disability is not required i.e. dirty utility / clean utility rooms, plant rooms, comms rooms etc. See below required doorway circulation space for swinging and sliding doors.

AS1428.1 Cl.13.5

Door Controls: Door handles and hardware to rooms required to be accessible must comply with the requirements of Clause 13.5 of AS 1428.1 – 2009.

Access Control

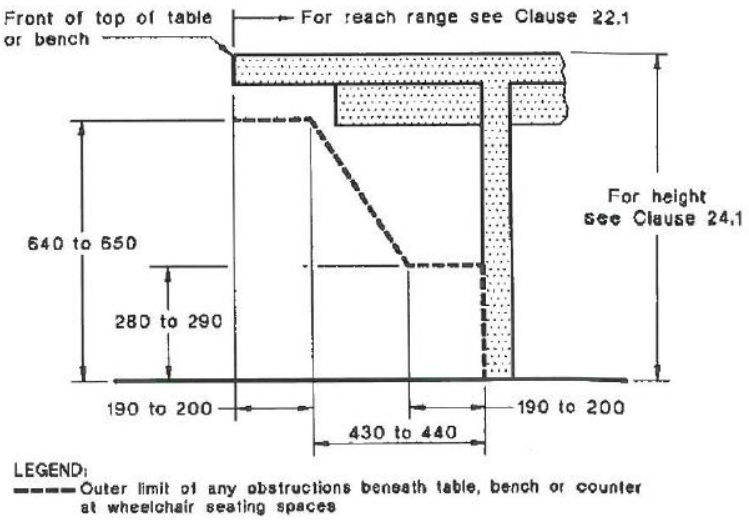
Access control swipe readers are required to be installed between 900 – 1100mm above FFL and not closer than 500mm to an internal corner.

Door release buttons (non patient care) are required to be located between 900 – 1100mm above FFL and closer than 500mm to an internal corner. Door release buttons will need to be large format switches (35mm x 35mm rocker style switches) or a 'mushroom' push button type.

Accessible Counters

The new reception counters associated with the entrance to the building is to include a portion of the counter that is accessible to a person with a disability. The height of the counter should be 850mm +/- 20mm.

The knee and foot clearances below the counter or bench are required to be provided in accordance with AS 1428.2 – 1992.



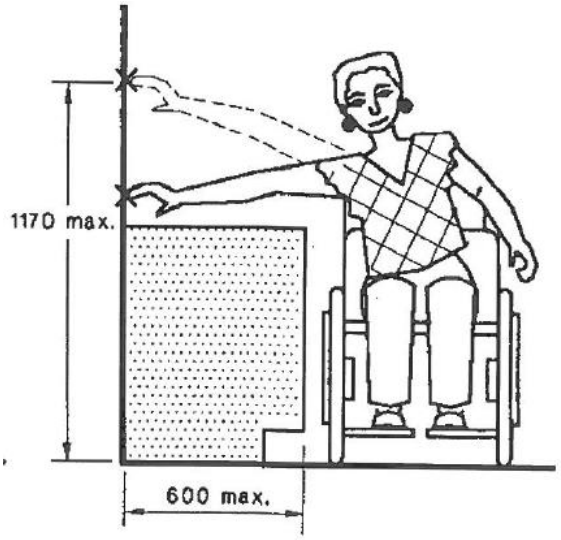
Clearances below an accessible counter or bench

Beverage Bays

Where new public Beverage Bays are proposed to be installed, they are required to be designed as follows:

- If the beverage bays are located within a room, the circulation space within the room will be required to comply with the provisions of AS 1428.1 – 2009 with a zone of 1500mm x 1500mm provided to ensure that that an occupant can make a 180o turn.
- The distance between the beverage bay counter and any adjacent wall cannot be less than 1540mm.
- Where the beverage bay is located adjacent to a doorway, circulation space around the doorway is required to be provided as detailed above.
- Water zip taps cannot be located closer than 500mm from an internal corner.

- Side reach access to the tap hardware of the beverage bay is permitted. Side reach access is required to be provided in accordance with AS 1428.2 – 1992 as detailed in the below Figure.



Compliance Readily Achievable:

The referenced plans need to show sufficient information to establish compliance with this clause. Design certification should be submitted with the application for the BCA Crown Certificate.

AS1428.1 Cl.14.1

Switches and GPO's: All switches and controls shall be positioned at a height of 900-1000mm above the FFL and be no closer than 500mm to any corner.

Compliance Readily Achievable:

The referenced plans need to show sufficient information to establish compliance with this clause. Design certification should be submitted with the application for the BCA Crown Certificate.

AS1428.1 Cl.14.2

Switches & Fixtures: Accessible SOU's and accessible WC's are required to be provided with 30mm x 30mm toggle switches

Where push button switches are located associated with the security system of the entry doors, then the push button will need to be the mushroom type.

Compliance Readily Achievable:

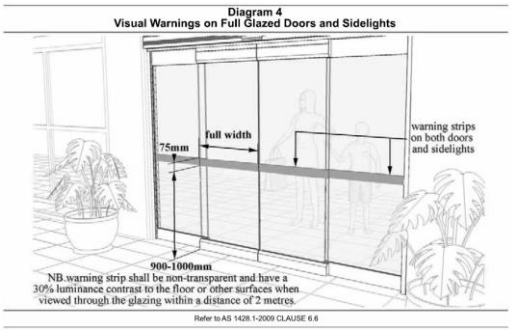
The referenced plans need to show sufficient information to establish compliance with this clause. Design certification should be submitted with the application for the BCA Crown Certificate.

D4D7

Signage: In a building required to be accessible, braille and tactile signage must be provided to all:

- Required accessible sanitary facilities
- Spaces with hearing augmentation
- Ambulant sanitary facilities
- Non-accessible pedestrian entrances
- Each door required to be provided with an exit sign

Braille and tactile signage is to comply with sub-clause (a) and Specification 15.

D4D9	**Tactile Indicators:** Tactile ground surface indicators must be provided to: + A stairway, other than a fire-isolated stairway; and + An escalator or passenger conveyor; and + A ramp other than a fire-isolated ramp; and + In the absence of a suitable barrier- – An overhead obstruction <2m above floor level; and – An accessway meeting a vehicular way adjacent to any pedestrian entrance to a building including a pedestrian entrance serving an area referred to in D4D5, if there is no kerb or kerb ramp at that point. Tactile indicators are required to be designed in accordance with AS 1428.4.1-2009.
D4D12	**Ramps:** Ramps may be used as part of an accessway where there is a change of level and must comply with the requirements set out in AS1428.1 On an accessway— + a series of connected ramps must not have a combined vertical rise of more than 3.6 m; and + a landing for a step ramp must not overlap a landing for another step ramp or ramp.
D4D13	**Glazing on an Accessway:** Where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights, including any glazing capable of being mistaken for a doorway or opening, shall be clearly marked for their full width with a solid and non-transparent contrasting line.  Contrast strip required to the existing glazed door set from the Cancer Care.

3.2 Section F – Accessible Health and Amenity

F4D5	There is no proposal to provide new accessible or ambulant facilities with either the Cancer Care or the CT Imaging as part of these works. Both facilities have existing amenities that will be relied upon, however we recommend the new CT Imaging shower be a unisex accessible shower in accordance with AS1428.1.

4.0 Fire Safety Schedule

The following table is a list of the required fire safety measures within the respective buildings. These measures may be subject to further change pending the outcomes of the final Fire Safety Engineering Review to confirm the works are permissible and do not contradict the base building Performance Solutions.

Cancer Care

Fire Safety Schedule

+ Statutory Fire Safety Measure	+ Design/Installatin Standard	+ Existing	+ Proposed
Alarm Signalling Equipment	AS 1670.3 – 2018	✓	
Automatic Fire Detection & Alarm System	BCA 2022 Spec. 20 & BCA Spec 23 AS 1670.1 – 2018	✓	✓
Emergency Lighting	BCA 2022 Clause E4D2 & E4D4 AS 2293.1 – 2018	✓	✓
Emergency Evacuation Plan	AS 3745 - 2010	✓	✓
Emergency Warning Intercom System (EWIS)	BCA 2022 E4D9, S31C19 of BCA Spec G3.8 AS1670.4 - 2018	✓	✓
Exit Signs	BCA 2022 Clauses E4D5, NSW E4D6 & E4D8 AS 2293.1 – 2018	✓	✓
Fire Blankets	AS 3504 – 1995 & AS2444 – 2001	✓	
Lightweight Construction	BCA 2022 Clause C2D9 AS 1530.4 – 2014 and Manufacturer's Specification		✓
Mechanical Air Handling Systems (Automatic Shutdown)	BCA 2022 Clause E2D3 AS/NZS 1668.1 – 2015 & AS 1668.2 – 2012	✓	✓
Portable Fire Extinguishers	BCA 2022 Clause E1D14 AS 2444 – 2001	✓	✓

CT Imaging – Main Hospital

Fire Safety Schedule

+ Statutory Fire Safety Measure	+ Design/Installatin Standard	+ Existing	+ Proposed
Access Panels, Doors & Hoppers	BCA 2022 Clause C4D14 AS 1530.4 – 2014 and Manufacturer's Specifications	✓	
Alarm Signalling Equipment	AS 1670.3 – 2018	✓	
Automatic Fail Safe Devices	BCA 2022 Clause D3D26	✓	✓
Automatic Fire Detection & Alarm System	BCA 2022 Spec. 20 & BCA Spec 23 AS 1670.1 – 2018	✓	✓
Emergency Lighting	BCA 2022 Clause E4D2 & E4D4 AS 2293.1 – 2018	✓	✓
Emergency Evacuation Plan	AS 3745 - 2010	✓	✓
Emergency Warning Intercom System (EWIS)	BCA 2022 E4D9, S31C19 of BCA Spec G3.8 AS1670.4 - 2018	✓	✓
Exit Signs	BCA 2022 Clauses E4D5, NSW E4D6 & E4D8 AS 2293.1 – 2018	✓	✓
Fire Blankets	AS 3504 – 1995 & AS2444 – 2001	✓	
Fire Dampers	BCA 2022 Clause C4D15 AS 1668.1 – 2015 & AS 1682.1 & 2 – 2015 and Manufacturer's Specification	✓	✓
Fire Doors	BCA 2022 Clause C3D13, C3D14, C4D3, C4D5, C4D6, C4D7, C4D8 & C4D12 AS 1905.1 – 2015 and Manufacturer's Specification	✓	✓
Fire Hose Reels	BCA 2022 Clause E1D3 AS 2441 – 2005	✓	✓
Fire Hydrant Systems (External Hydrants)	BCA 2022 Clause E1D2 AS 2419.1 – 2021	✓	
Fire Seals	BCA 2022 Clause C4D15, AS 1530.4 – 2014 & AS 4072.1 – 2014 and Manufacturer's Specification	✓	✓
Lightweight Construction	BCA 2022 Clause C2D9 AS 1530.4 – 2014 and Manufacturer's Specification	✓	✓
Mechanical Air Handling Systems (Automatic Shutdown)	BCA 2022 Clause E2D3 AS/NZS 1668.1 – 2015 & AS 1668.2 – 2012	✓	✓

Portable Fire Extinguishers	BCA 2022 Clause E1D14 AS 2444 – 2001	✓	✓
Required Exit Doors (Power Operated)	BCA 2022 Clause D3D24(2)	✓	
Smoke Dampers	BCA 2022 Spec 11 AS/NZS 1668.1 – 2015	✓	✓
Smoke Doors	BCA 2022 Spec 11 & 12	✓	
Stand-by Power Systems	BCA 2022 Spec 31 AS 3000 – 2018	✓	✓
Warning & Operational Signs	BCA 2022 Clauses D3D26, D3D28, D4D7, E4D4 & Spec. 14 AS 1905.1 – 2015	✓	✓

5.0 Conclusion

This report contains an assessment of the referenced architectural documentation that will accompany the tender pack for the proposed.

In view of the above assessment, we can confirm that subject to the above measures being appropriately addressed by the project design team, compliance with the provisions of the BCA is readily achievable.

In addition, it is considered that such matters can adequately be addressed in the preparation of the Crown Certificate documentation without giving rise to any inconsistencies with the Development Approval.

Should you require further assistance or clarification please do not hesitate to contact the undersigned on 02 9211 7777 or david@bmplusg.com.au

Reviewed by

David Blackett
Director
BM+G
Building Surveyor-Unrestricted (NSW)
BDC No.: 0032