III WARREN AND MAHONEY®

Lauren Semple Greenwood Roche Chisnell Legal PO Box 139 CHRISTCHURCH 8140 New Zealand

8 June 2020

Dear Lauren,

8167 - New Dunedin Hospital Subject: Cadbury Heritage Facades Warren and Mahoney Dunedin Hospital Itd

254 Montreal Street PO Box 25086 Christchurch 8144 New Zealand Phone +64 3 961 5926

AUCKLAND CHRISTCHURCH WELLINGTON QUEENSTOWN SYDNEY MELBOURNE

Registered Architects and Designers www.warrenandmahoney.com

carboNZero^{CertTM} certified architects

Introduction

Warren and Mahoney (*WAM*), HDR and McCoy Wixon were appointed as the lead architects for the concept design and detailed design stages of the new Dunedin Hospital (*NDH*) from 18 November 2019.

The design reset work set out in this memorandum builds on work undertaken by CCM Architects prior to that date.

This memorandum:

- Provides a brief summary of the development of the NDH project from the Preliminary Site Masterplan to the preferred design Block and Stack;
- Provides a brief summary of the important design components of the preferred design; and
- Confirms that the heritage considerations and the design response to those considerations set out in section 4 of the CCM Architects memorandum¹ (CCM Memorandum) have remained the same as the preferred design has progressed.

Development of the Design

As illustrated in Appendix 1 of the CCM Memorandum, the Preliminary Site Masterplan (delivered in late December 2018) indicated a preferred location of the NDH extending across both the Cadbury and Wilsons sites.

As set out in the CCM Memorandum, a number of spatial arrangements were tested during the early stages of developing the design which would form the basis of the Preliminary Site Masterplan. Those included locating the NDH buildings entirely on the Wilsons block or entirely on the Cadbury block, or spread across both blocks in different configurations. Ultimately the layout in the Preliminary Site Masterplan was determined to provide the optimal spatial configuration for a range of reasons including:

- It locates the smaller and lower building (the Ambulatory Services Centre (ASC)) in the northern block and the largest building form (the Acute Services Building (ASB)) in the southern block. This offers a better fit in terms of urban form within the context of the wider CBD.
- It creates the opportunity for public outdoor amenity to the north and west of the site where it benefits from good sun and daylight.
- It provides a linkage between the ASC with the existing hospital facilities (including the Southern Blood and Cancer Building that will remain in operation when the NDH is constructed), and the University research education precinct.
- It provides the opportunity on the northern part of the Wilsons block for future expansion and/or development of a health precinct (potentially in conjunction with the University of Otago).]

Flowers, A. (2019) New Dunedin Hospital: Preliminary Site Masterplan, Cadbury Heritage Facades, Memo-001.A, CCM Architects, 08 October 2019.

Ⅲ WARREN AND MAHONEY®

- It would enable construction of the ASB on the part of the overall site (Cadbury) which has more consistent in-ground geotechnical conditions. Advice received during the Preliminary Site Masterplanning indicated that geotechnical conditions of the Wilsons block are varied, meaning it would be less suited to construction of an Importance Level 4 building (i.e. the ASB), and more suited to construction of an Importance Level 3 building (the ASC).
- It utilises existing Crown ownership of the Cadbury site to allow for the timely commencement of the most complex parts of the NDH.

A subsequent options review and evaluation process concluded in February 2020 in which all of the design assumptions were revisited to confirm the most appropriate location for the building(s). The decision to house the new hospital facilities in two buildings, an Acute Services Building (ASB) and an Ambulatory Services Centre (ASC) across the two blocks was confirmed and concept design commenced in March 2020.

Concept Design

A Block and Stack developed by WAM and HDR is attached as **Appendix 1** to this Memorandum and forms the initial stages of the concept design process.

The preferred configuration shown in the Block and Stack was developed using a range of principles and criteria including:

- **Clinical performance** optimising the clinical functionality of the NDH to achieve its primary purpose as a tertiary health facility.
- **Wider accessibility and interaction** -ensuring the public can appropriately and easily access the NDH overcoming the significant level difference (approximately 1.7m) between the finished floor levels and surrounding streets.
- Integration with the surrounding urban environment integrating the built form within the
 significant urban features of the immediate and wider environment, including the Railway Station
 and Anzac Square, the University of Otago, the Stuart Street Commercial Heritage Precinct, the
 Dunedin Central Fire Station, and the central business district.
- **Pedestrian experience**. A significant landscaped strip to the Cumberland St boundary provides an enhanced pedestrian experience and a precinct enabler that continues north thru the Wilson Block and wider Health Precinct. East-West pedestrian connections are developed through the site. These two features meet in an open plaza zone on the north west corner of the Cadbury site.
- **District Plan assessment matters.** Achieving a configuration of the overall site and its buildings that is consistent with the outcomes sought in the Dunedin Second Generation District Plan. This includes matters relating to the surrounding urban environment, the existing heritage features on the Cadbury site and the accessibility of the site, but also pedestrian amenity and the visual impact of the NDH from the hill suburbs across the Otago Harbour.
- **Environmental features.** Responding to geotechnical conditions on-site and matters such as potential flood risk.

Building on the engagement undertaken during development of the Preliminary Site Masterplan, the preferred design will also be informed by a cultural narrative prepared by Aukaha, further functional briefings with clinical users, and preliminary consultation with representatives of Council, NZTA, University of Otago and others.

Alongside support from a wider technical team within WAM and HDR, the design has been the subject of on-going peer review from urban designers McIndoe Urban.

Heritage Considerations

The design reset process has also provided a further opportunity to consider the implications of the NDH on both the scheduled heritage facades of the former Cadbury Factory and the Dairy Building on the Cadbury site.

For the reasons set out in the CCM Memorandum, while the preferred design would allow for retention of

Ⅲ WARREN AND MAHONEY®

the Dairy Building to the south of the site, it cannot practically accommodate retention of any other building and their heritage facades. Specifically:

- As with the earlier design in the Preliminary Site Masterplan, the clinical area and adjacency requirements of the ASB and the way in which these must be accommodated in the preferred design are not compatible with retention of the facades. Reconfiguration of the layout to address that incompatibility would make the effective and efficient clinical performance of the building almost impossible
- The ASB will need to be built to an Importance Level 4 standard. To be incorporated as part of the ASB, the facades would therefore require significant structural enhancement which again could further compromise the clinical performance of the ASB.
- Initial concept design work indicates that, as with the Preliminary Site Masterplan design, new floor levels of the NDH will not align with the levels of the existing heritage buildings nor are the floor to floor heights of the new ASB compatible with existing window locations on the facades. These challenges would again have adverse consequences for the clinical performance of the ASB and the overall design outcome.
- As the CCM Memorandum notes, access points are a key matter for consideration in the planning and design of hospitals. For safety reasons, the public vehicle access corridor has been separated from the emergency vehicle corridor (which includes separate access for ambulances) that is located on the southern end of the Cadbury site. In addition, the location of the VIE (Oxygen) tank and accompanying truck access are also located at the south end of the site. Retention of any part of the existing facades would severely compromise the ability to accommodate these access ways, which would in turn adversely impact the safe and efficient circulation of vehicles and pedestrians through the site.

Yours sincerely,

Darryl Haines

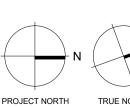
Principal
BArch (Hons) BBSc ANZIA Reg Arch
darryl.haines@warrenandmahoney.com

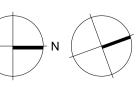
Issued On behalf of Warren and Mahoney Dunedin Hospital ltd Direct + 64 (3) 961 9700

BLOCK AND STACK OPTION 5.3 PRESENTATION APRIL 28, 2020



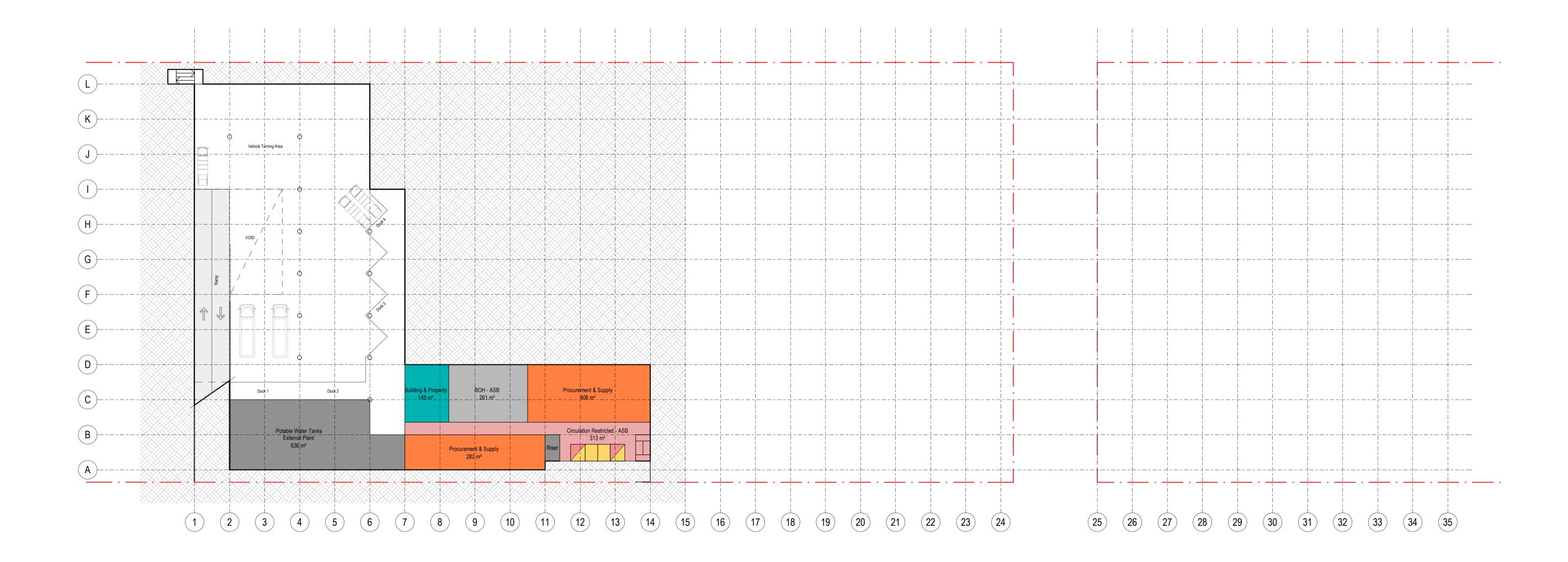


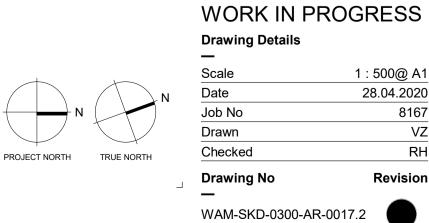




1 : 1000@ A1 28.04.2020

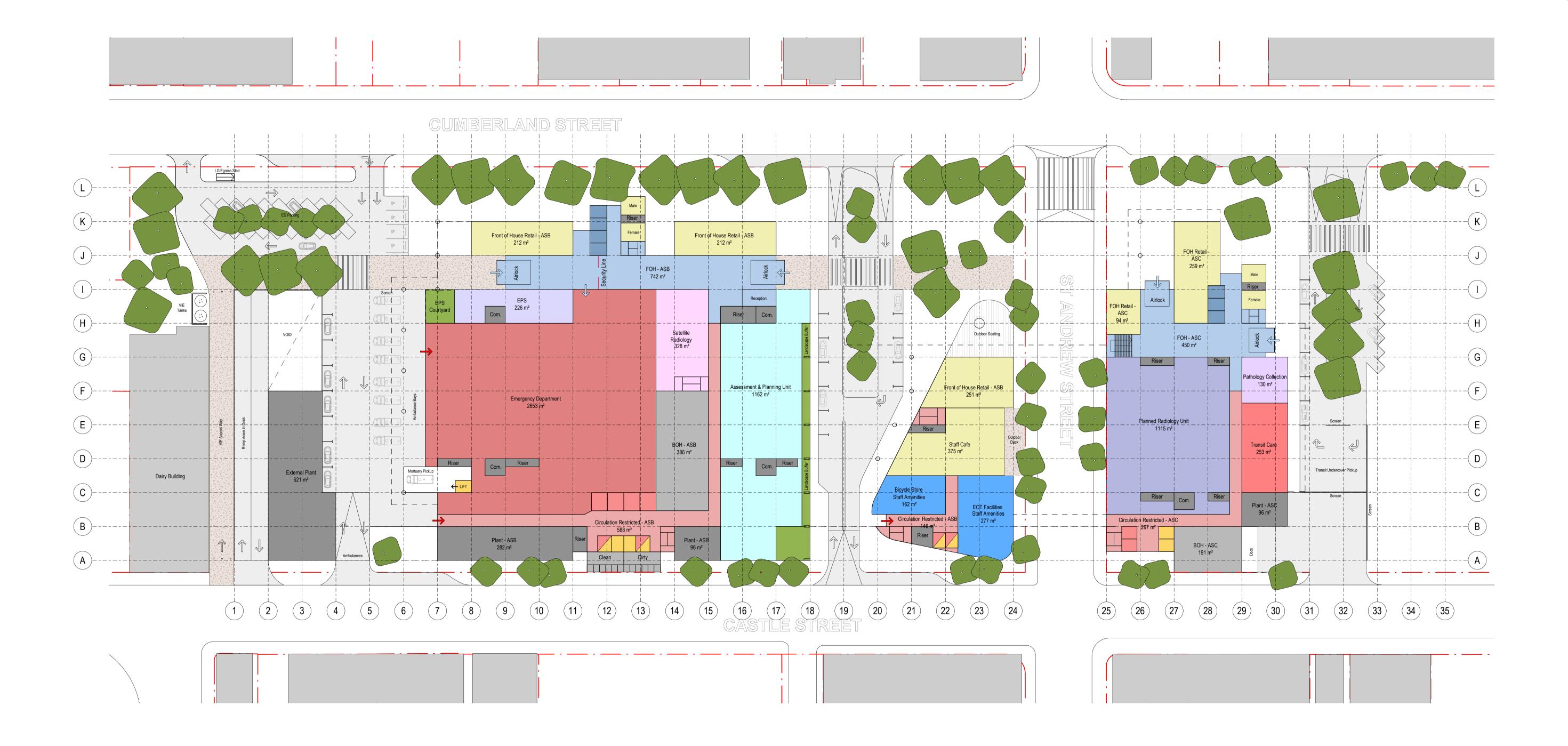
WAM-SKD-0300-AR-0017.1

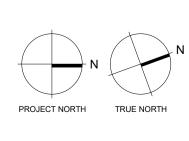




Do not scale. The copyright of this drawing remains with Warren and Mahoney Architects New Zealand Ltd.







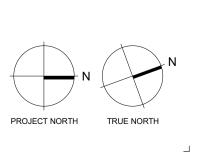
Drawing Status	
WORK IN F	PROGRESS
Drawing Details	
 Scale	1 : 500@ A1
Date	28.04.2020
Job No	8167
Drawn	VZ
Checked	RH
Drawing No	Revision
— WAM-SKD-0300- <i>F</i>	AR-0017.3

1



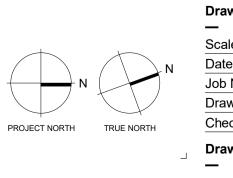
WARREN AND MAHONEY®

HOR McCOYWIXON
ARCHITECTS

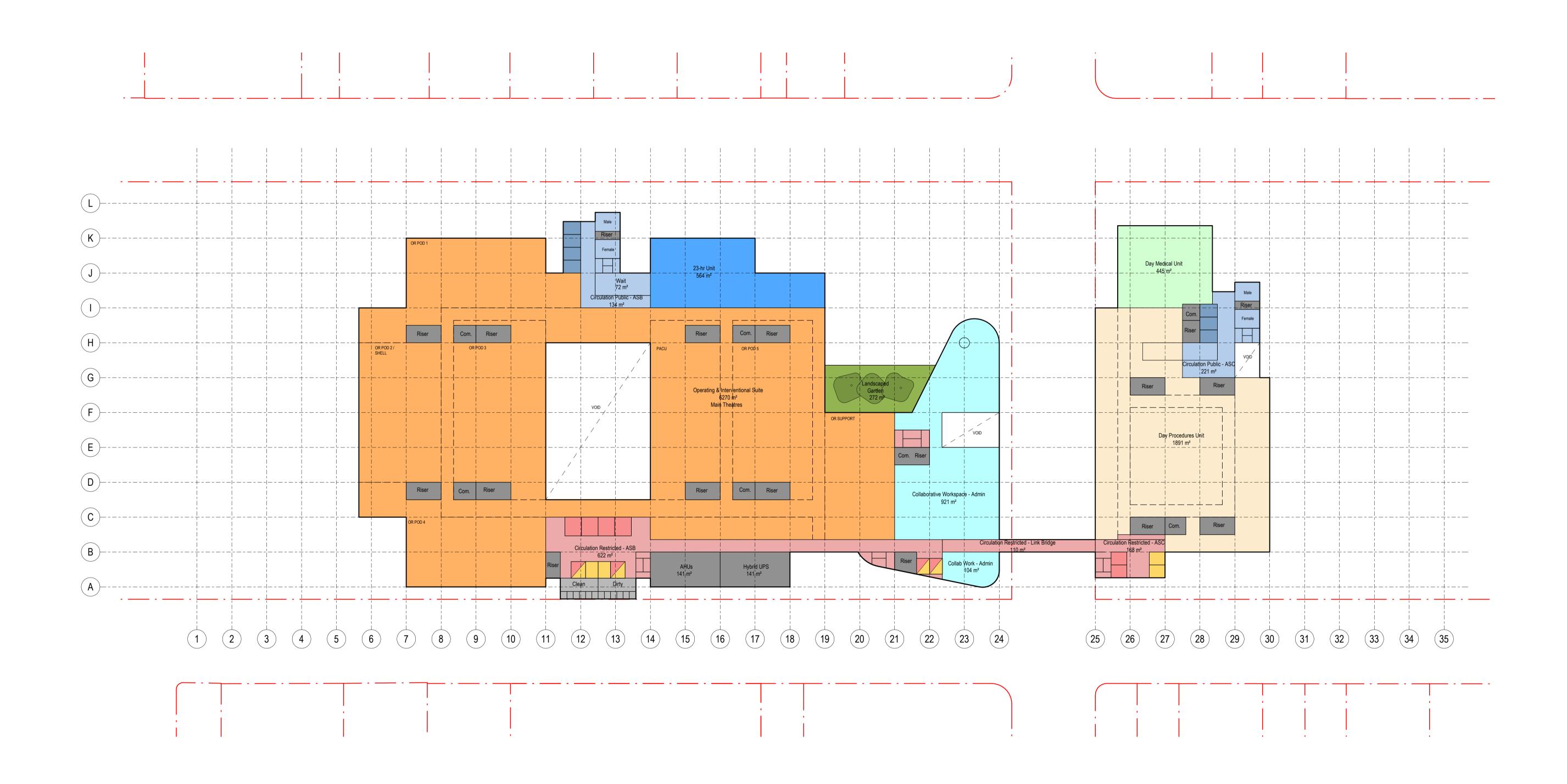


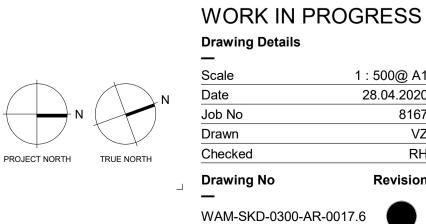
—	
WORK IN I	PROGRESS
Drawing Details	
_	
Scale	1 : 500@ A1
Date	28.04.2020
Job No	8167
Drawn	VZ
Checked	RH
Drawing No	Revision
_	
WAM-SKD-0300-	AR-0017.4



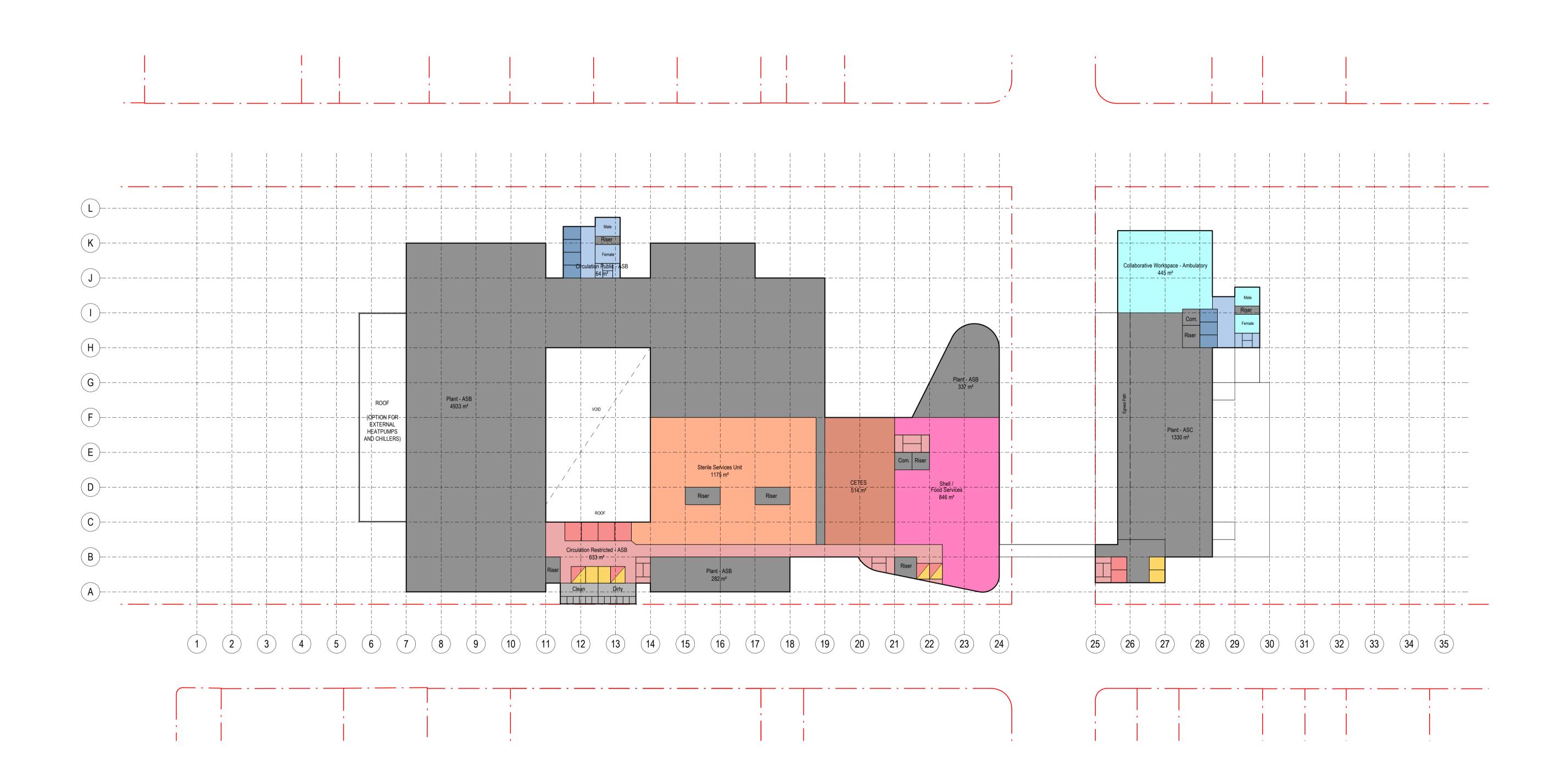


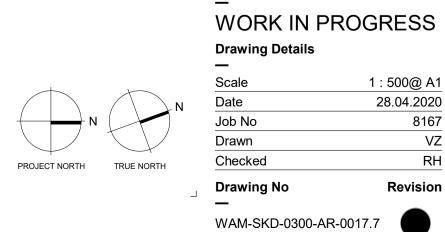
—	
WORK IN F	PROGRESS
Drawing Details	
-	
Scale	1 : 500@ A1
Date	28.04.2020
Job No	8167
Drawn	VZ
Checked	RH
Drawing No	Revision
_	
WAM-SKD-0300-A	AR-0017.5





Do not scale. The copyright of this drawing remains with Warren and Mahoney Architects New Zealand Ltd.



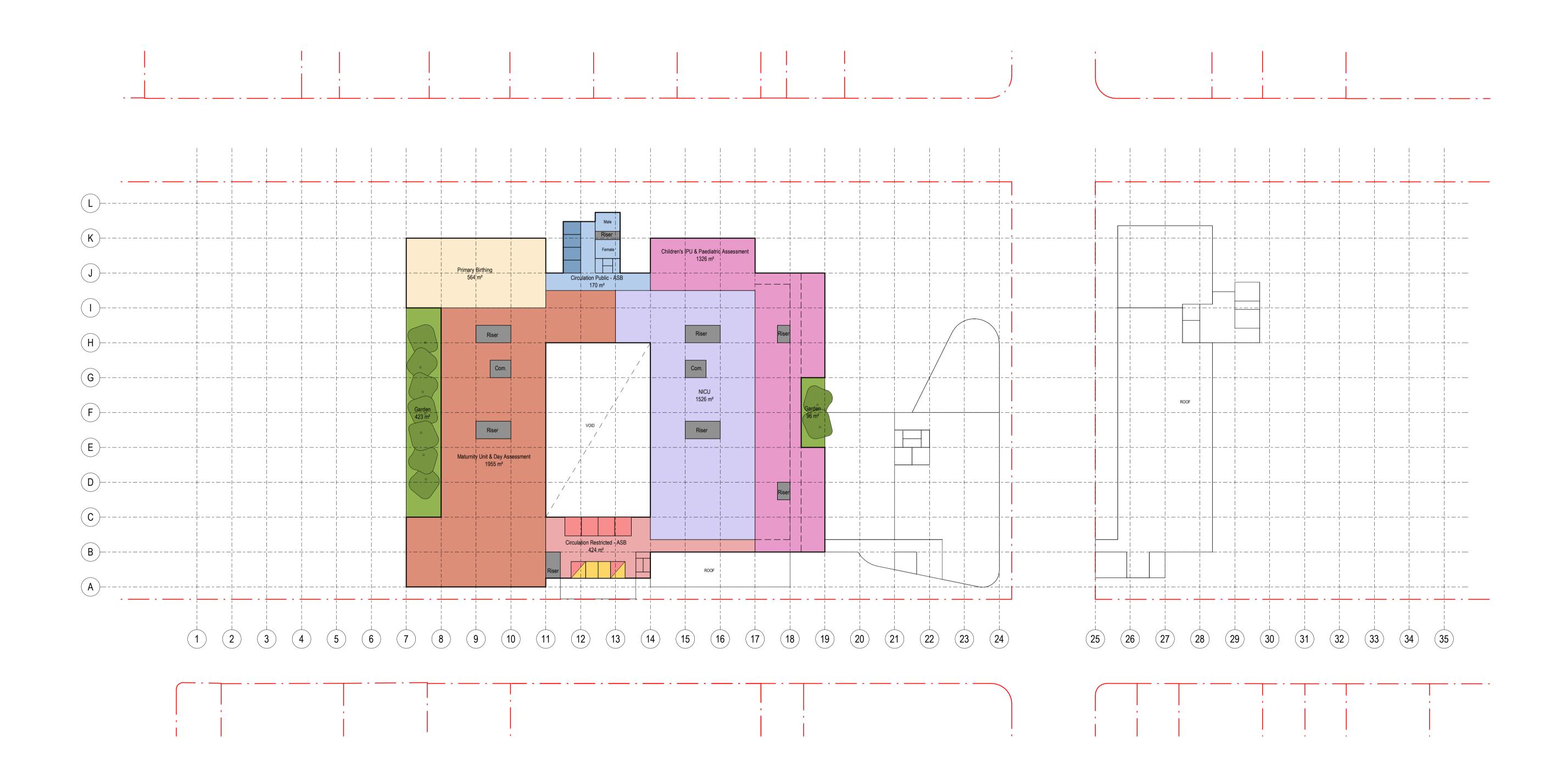


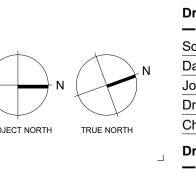
Do not scale. The copyright of this drawing remains with Warren and Mahoney Architects New Zealand Ltd.

28.04.2020

NEW DUNEDIN HOSPITAL

Drawing Pack Issue No





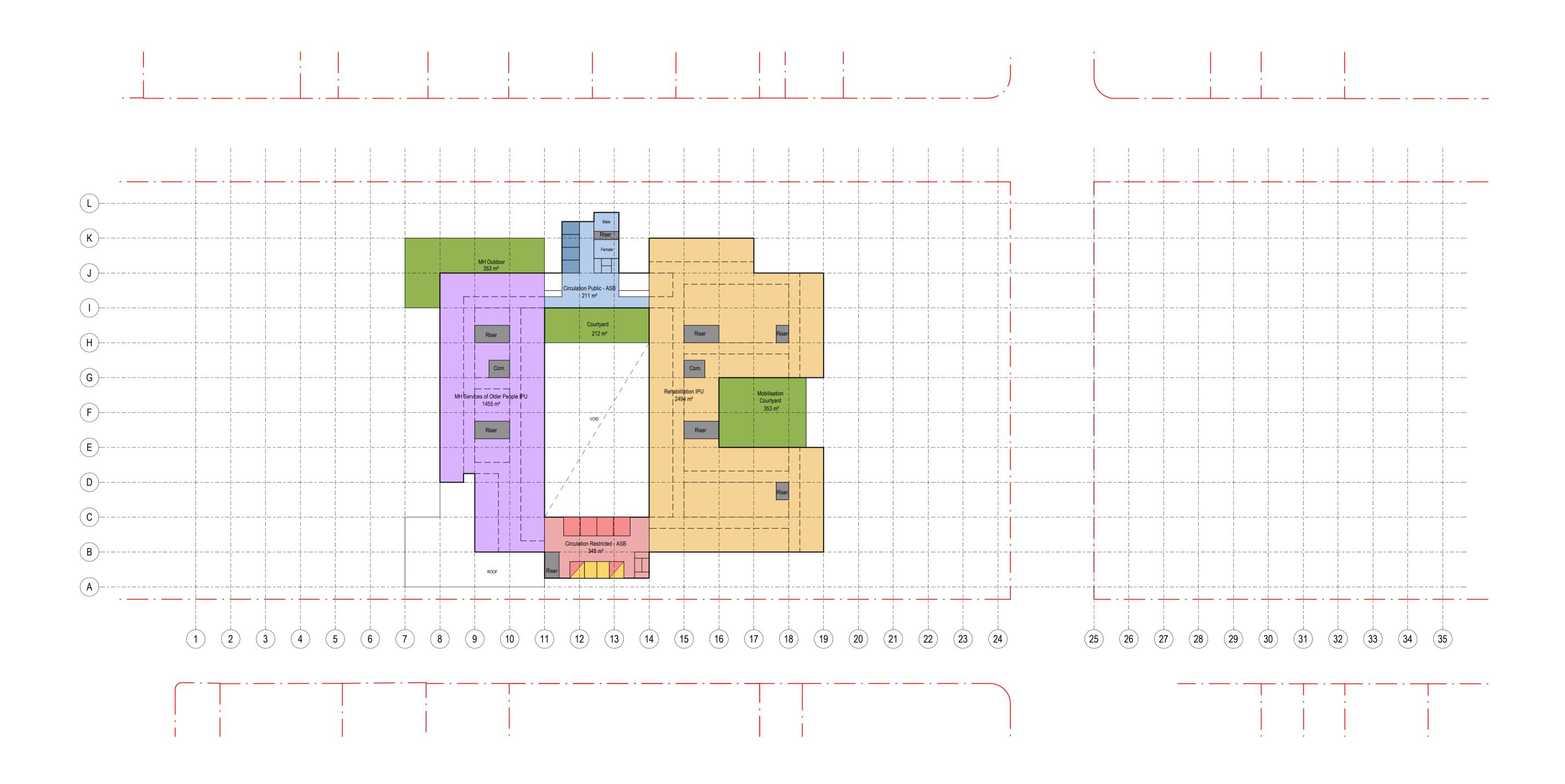
WORK IN PROGRESS

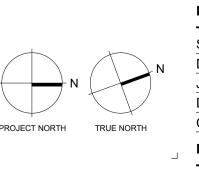
Drawing Details

Scale 1:500@ A1
Date 28.04.2020
Job No 8167
Drawn VZ
Checked RH

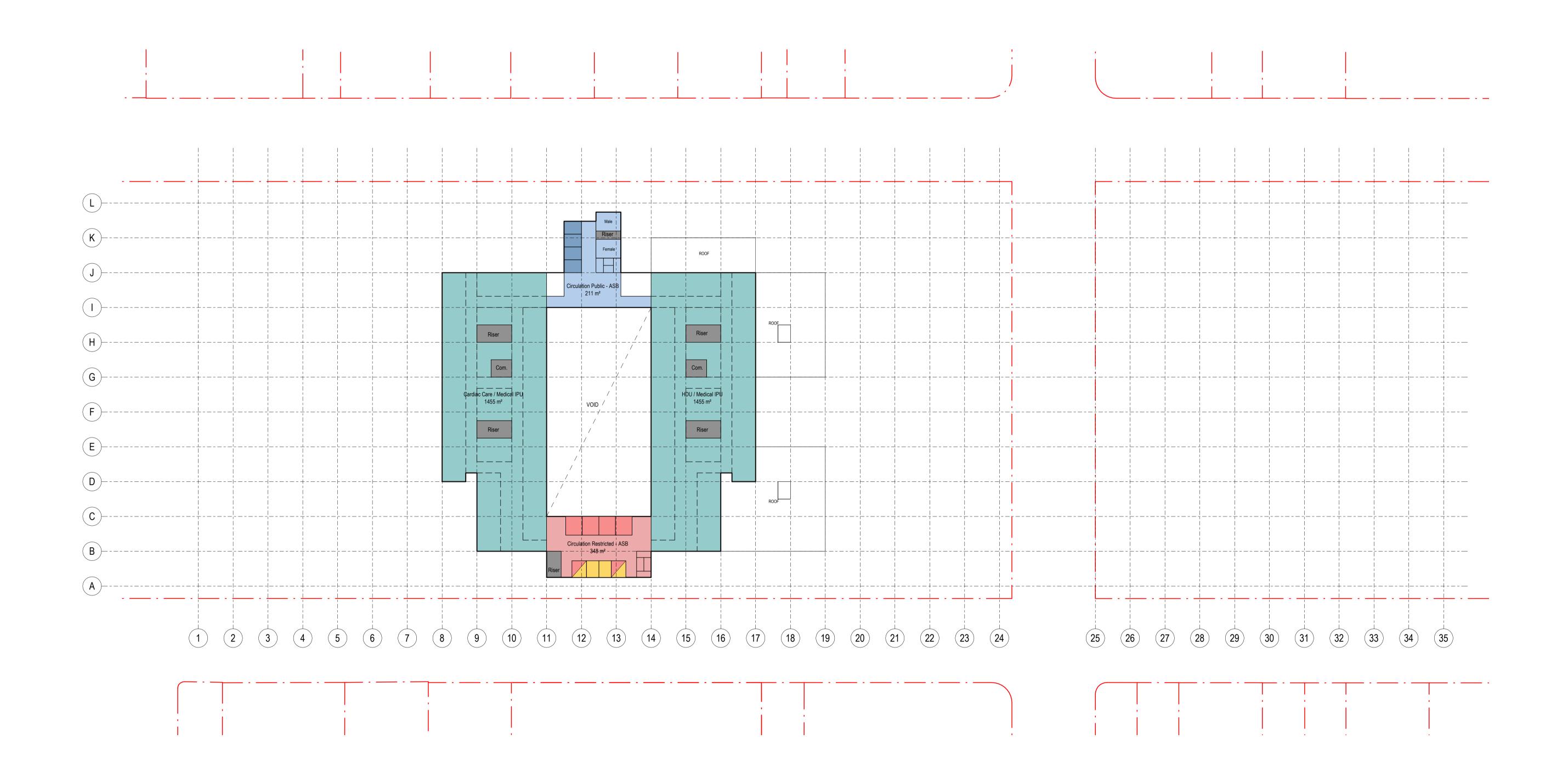
Drawing No Revision

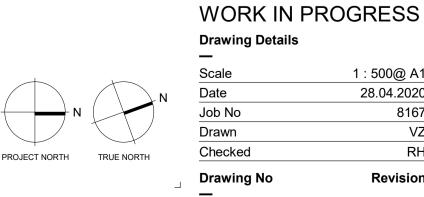
WAM-SKD-0300-AR-0017.8





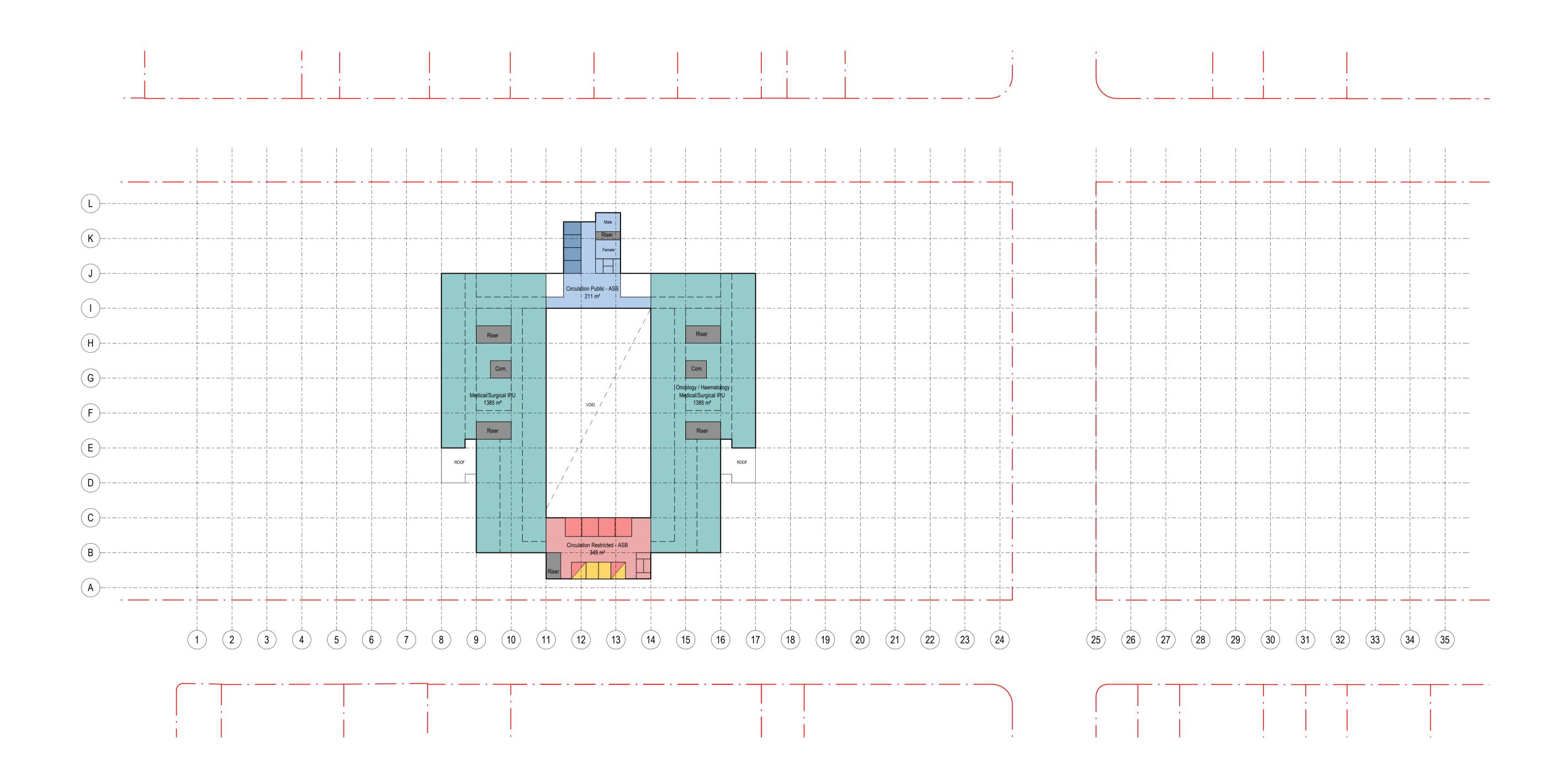
	not scale. The copyright of this drawing remains h Warren and Mahoney Architects New Zealand Ltd	
Drawing Status		
WORK IN PI	ROGRESS	
Drawing Details		
— Scale	1 : 500@ A1	
Date	28.04.2020	
Job No	8167	
Drawn	VZ	
Checked	RH	
Drawing No	Revision	
WAM-SKD-0300-AR	-0017.9	

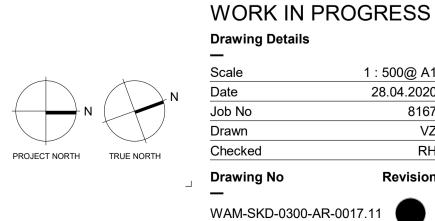




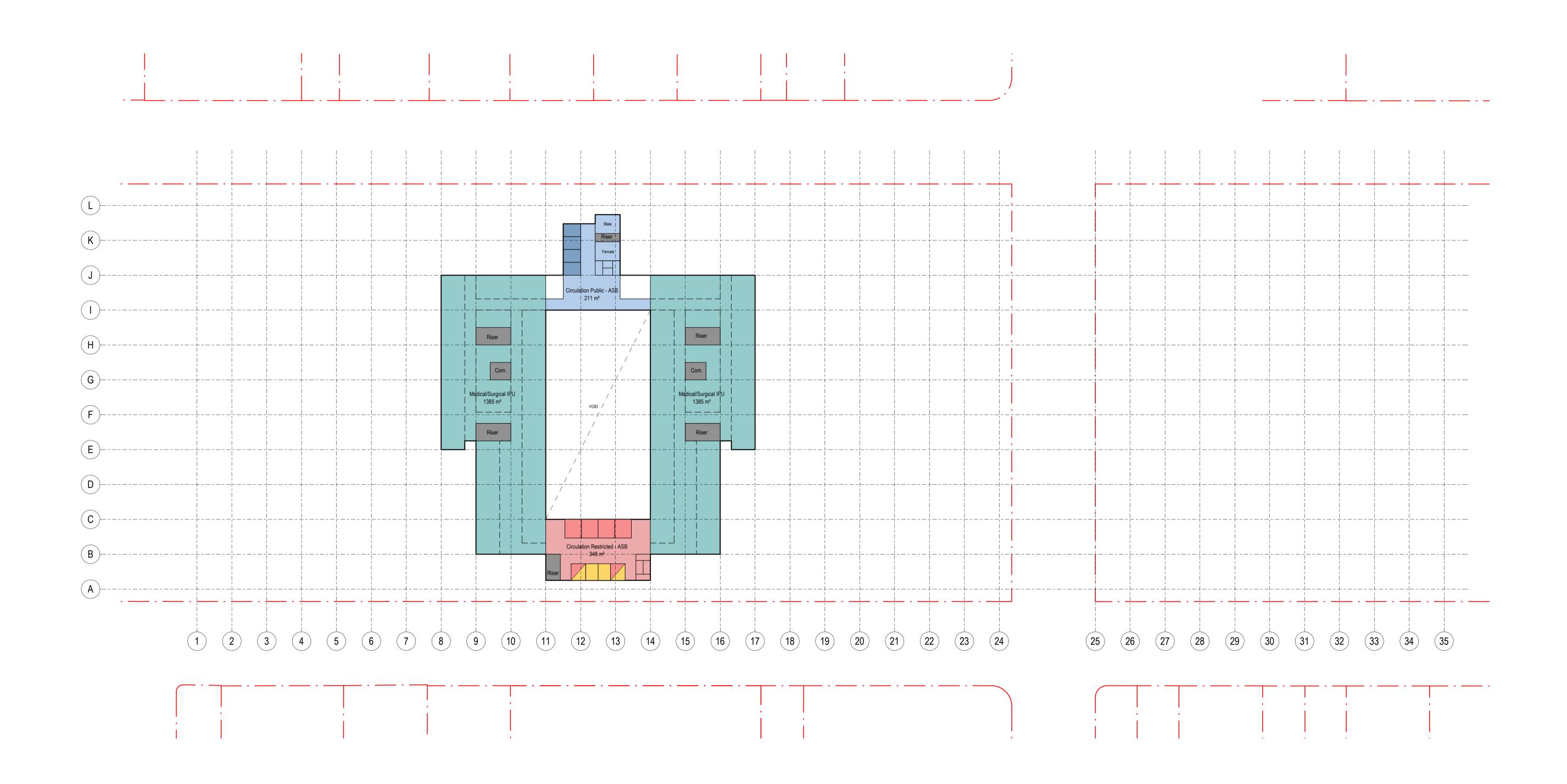
Do not scale. The copyright of this drawing remains with Warren and Mahoney Architects New Zealand Ltd.

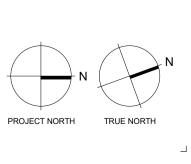
WAM-SKD-0300-AR-0017.10





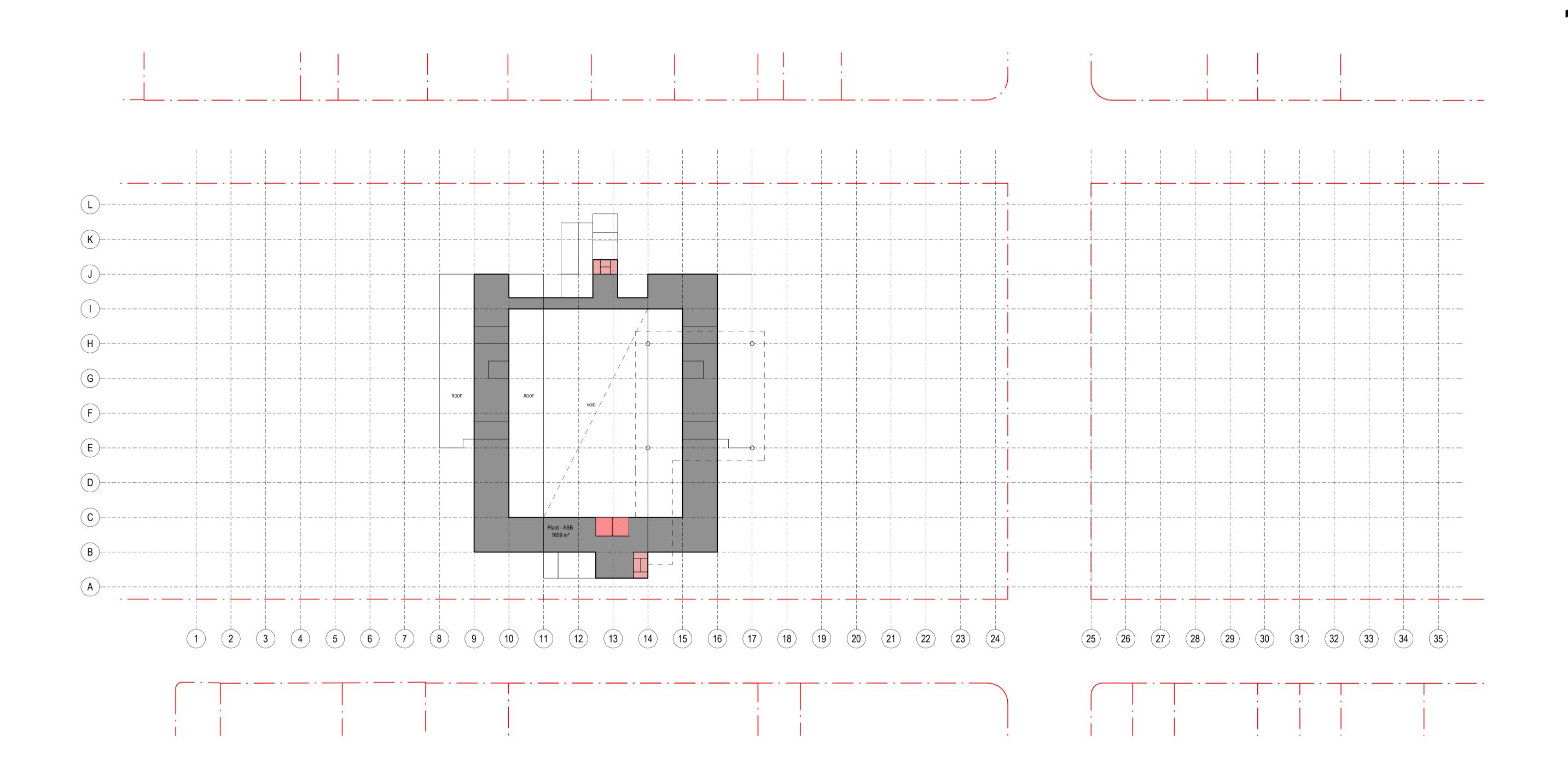
Do not scale. The copyright of this drawing remains with Warren and Mahoney Architects New Zealand Ltd.





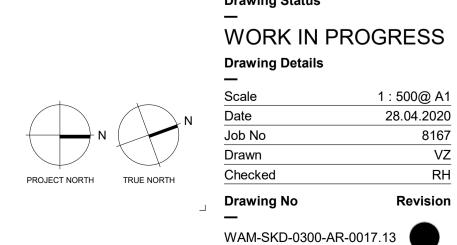
	Drawing Status	
	WORK IN F	PROGRESS
	Drawing Details	
	— Scale	1 : 500@ A1
	Date	28.04.2020
	Job No	8167
	Drawn	VZ
	Checked	RH
_	Drawing No	Revision
	WAM-SKD-0300-	AR-0017.12

10



WARREN AND MAHONEY®

H) McCOYWIXON
ARCHITECTS



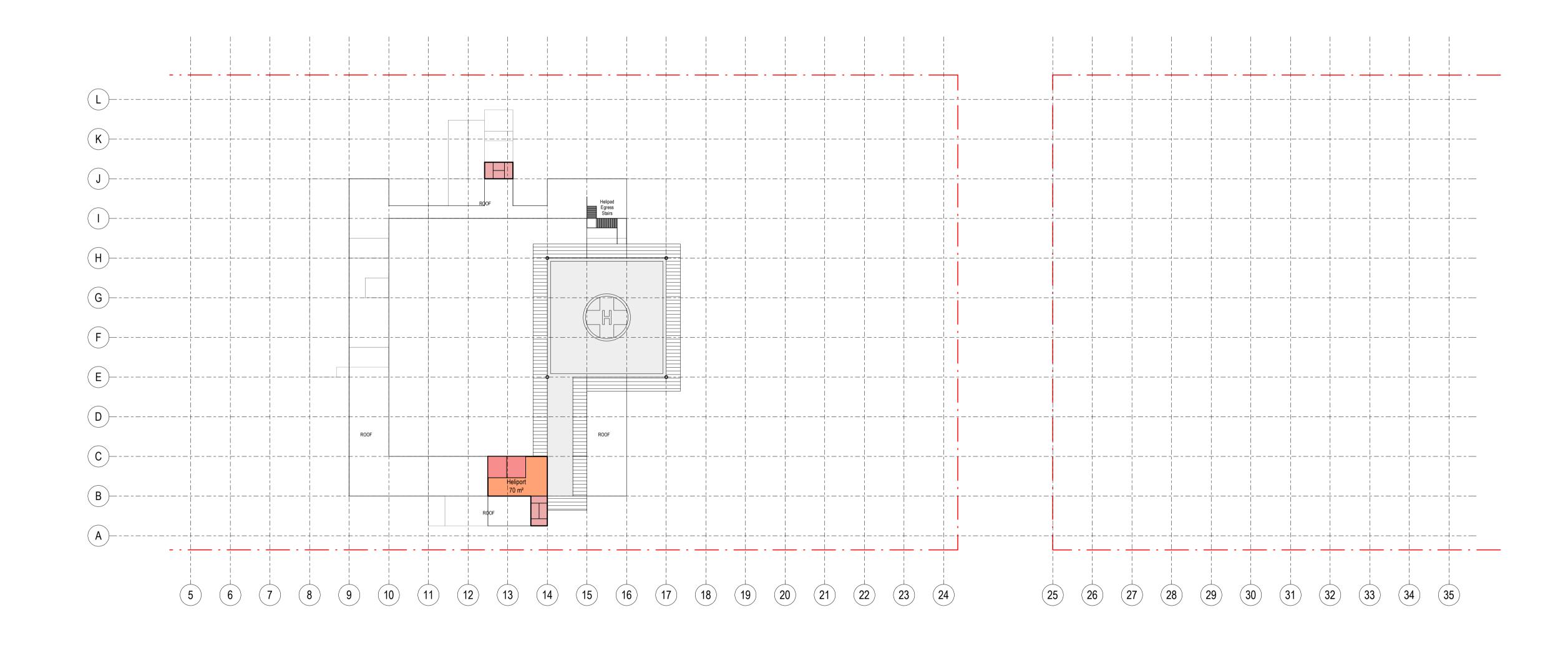
Do not scale. The copyright of this drawing remains with Warren and Mahoney Architects New Zealand Ltd.

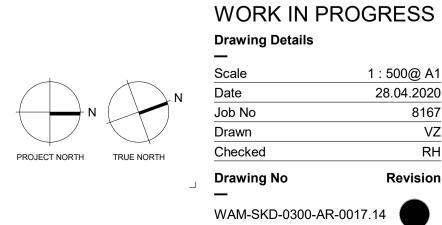
NEW DUNEDIN HOSPITAL

Drawing Pack Issue No

Block and Stack Option 5.3 - Level 10

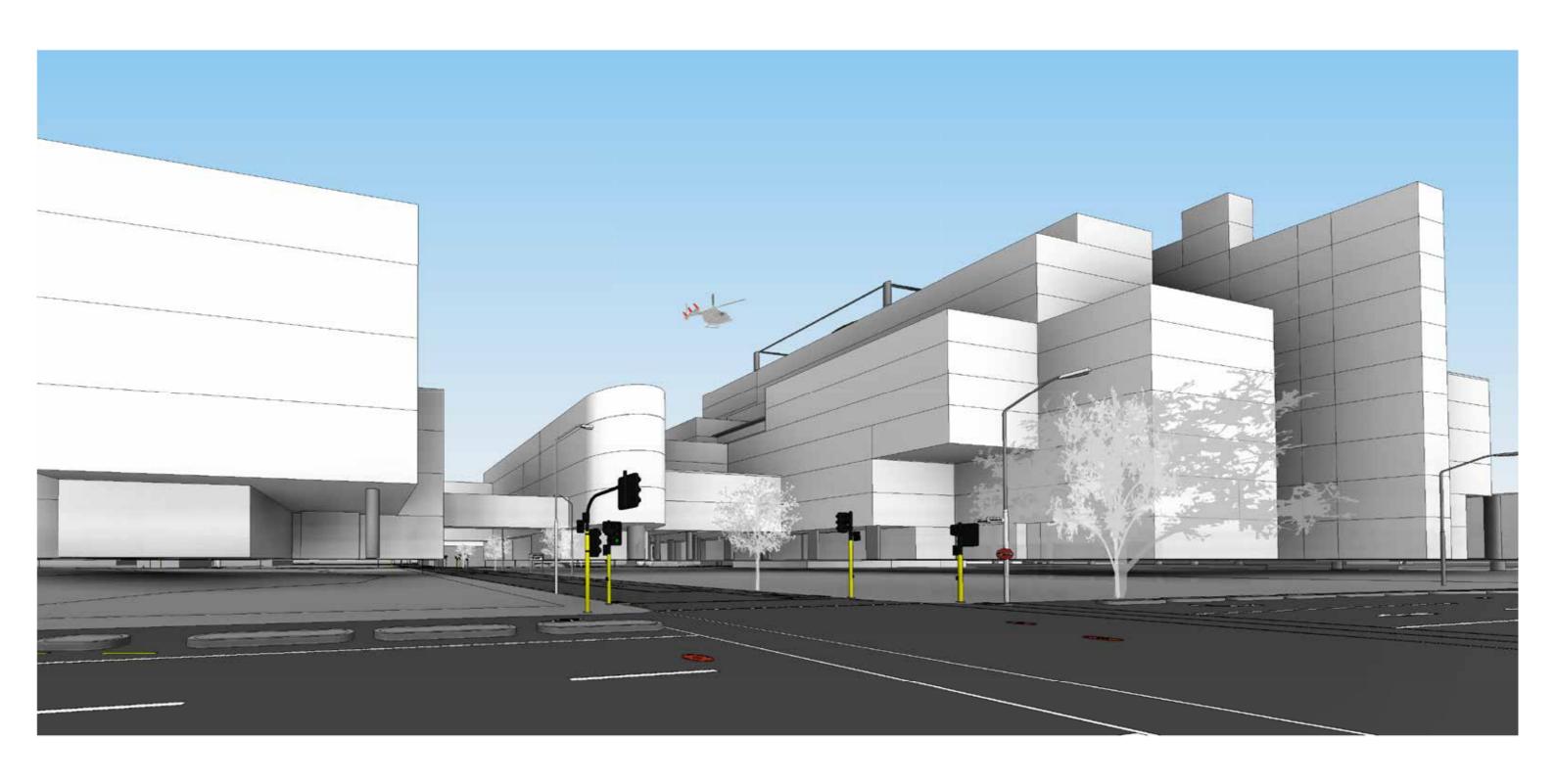
WAM-SKD-0300-AR-0015





Do not scale. The copyright of this drawing remains with Warren and Mahoney Architects New Zealand Ltd.

CUMBERLAND ST DROP OFF



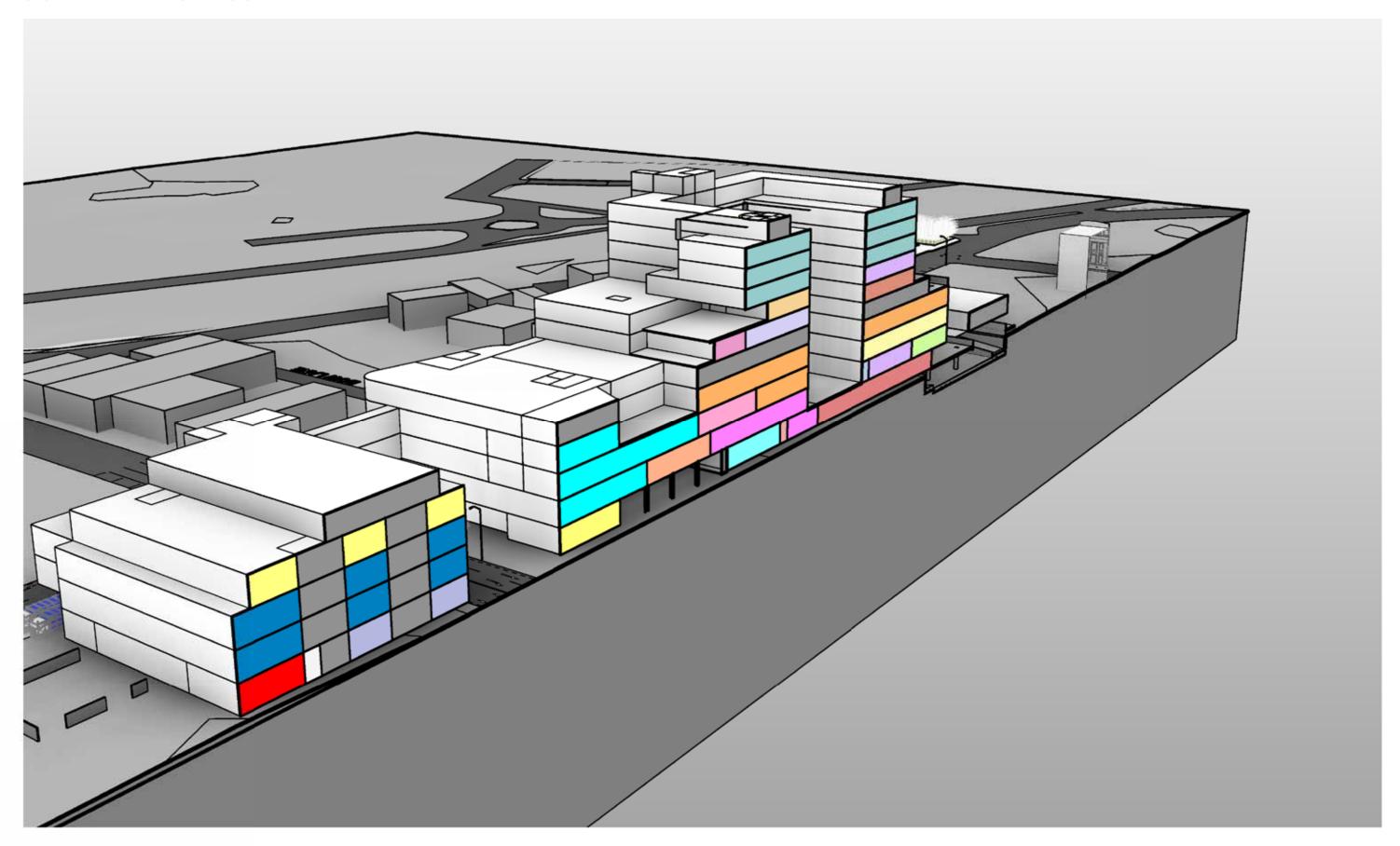
CUMBERLAND ST ED ENTRY



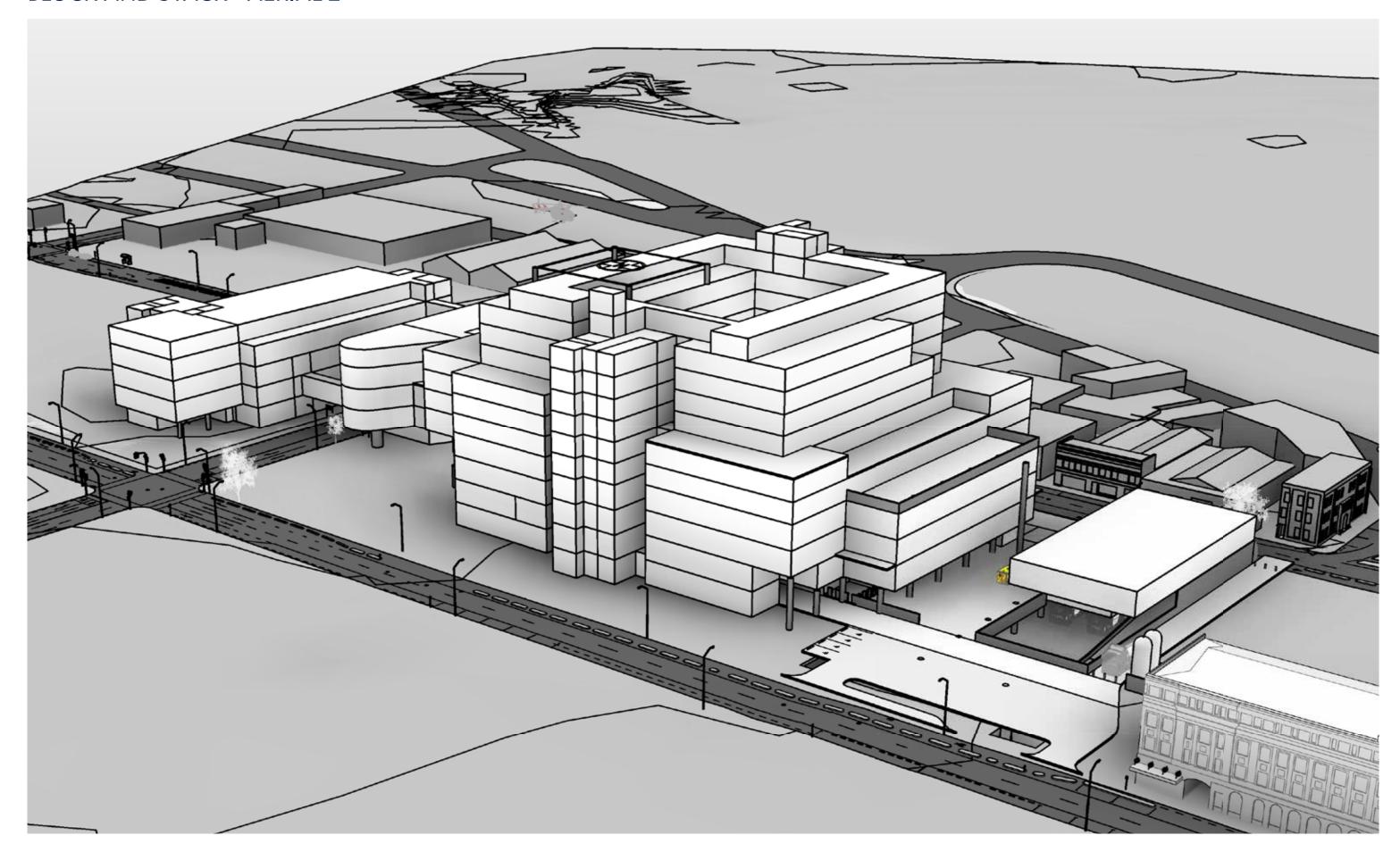
BLOCK AND STACK - AERIAL 1



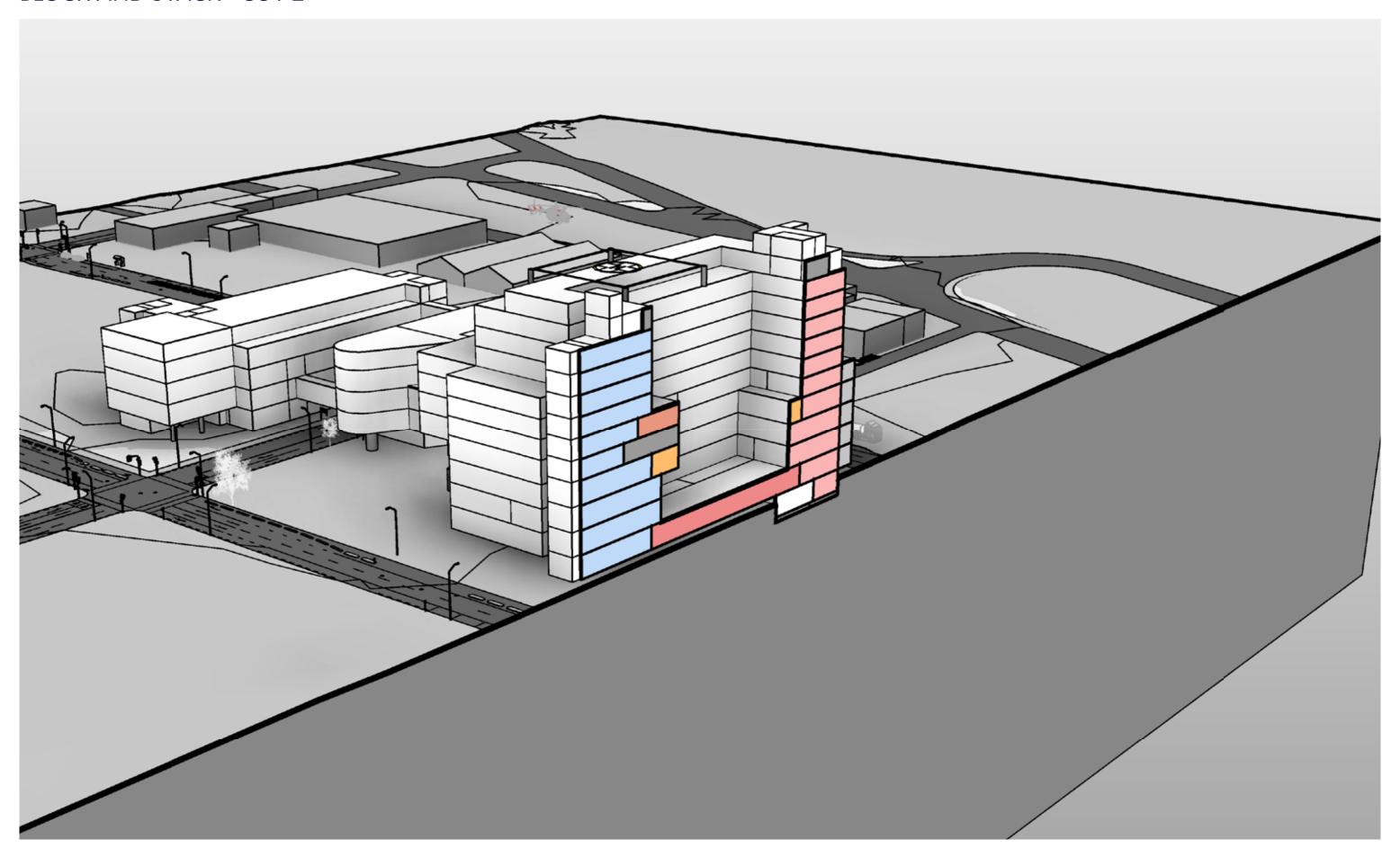
BLOCK AND STACK - CUT 1



BLOCK AND STACK - AERIAL 2



BLOCK AND STACK - CUT 2



III WARREN AND MAHONEY® HOR McCOYWIXON ARCHITECTS