STANBURY TRAFFIC PLANNING
TRAFFIC, PARKING & TRANSPORT CONSULTANTS

20 May 2024

Department of Planning and Environment
Locked Bag 5022
Parramatta, NSW 2124

Attention: Kieran Thomas

Dear Sir / Madam,

ASSESSMENT OF PARKING & TRAFFIC IMPACTS ASSOCIATED WITH SECTION 4.55 APPLICATION APPROVED INTEGRATED HEALTH HUB FACILITY & DISABILITY ACCOMMODATION 60 – 64 SHOWGROUND ROAD, GOSFORD

This Practice has been engaged by CHP Fund to undertake an assessment of the parking and traffic impacts associated with a Section 4.55 Application for alterations to an approved integrated health hub facility and disability accommodation development at the abovementioned address.

APPROVED DEVELOPMENT

Development consent was granted by Department of Planning and Environment on March 2022 (DA22/11444) for a mixed-use health hub development at 60 – 64 Showground Road, Gosford. The approved development involved the construction of a six-storey building with the following development scheme:

- 80 specialist consulting room tenancies resulting in a total GFA of 6,978m²;
- General practice / pharmacy / imaging tenancies;
- Café, providing a total floor area of 103m²; and
- Disability accommodation, providing seven dwellings.

The development is approved to being serviced by a basement parking area with three and a half levels of basement parking with a total car parking provision of 225 parking spaces comprising of:

- 216 car parking spaces;
- 6 accessible parking spaces;
- 2 van spaces; and
- 1 SDA drop off space.

In addition, the approved development is also serviced by the following:

- Three motorcycle parking spaces, situated within the basement levels; and
- 11 bicycle parking spaces, situated within basement level 1;
- A servicing bay capable of accommodating vehicles up to and including Medium Rigid Vehicles (MRVs), situated at ground floor level; and
- A servicing bay capable of accommodating ambulances, situated at ground floor level.

Vehicular access to the off-street parking area and the servicing bays were approved to be facilitated by a combined 6.1m wide ingress / egress driveway, connecting with Showground Road in the south-eastern corner of the site.

A Parking & Traffic Impact Assessment was prepared by Northern Transport Planning & Engineering Pty. Ltd. in July 2022 and submitted in support of the original Development Application.

PROPOSED ALTERATION & SCOPE OF ASSESSMENT

It is proposed that the approved development be amended to incorporate, amongst other components, the following alterations to the approved development scheme:

- A reduction in the total number of consulting tenancies from 80 to 19, involving a reduction in the total consulting room tenancy areas from 6,978m² to 5,902.4m²;
- The inclusion of a radiology treatment bunker situated within the southern portion of Basement 3, providing a floor area of 751.66m^2, expected to entirely ancillary to the above consulting room tenancy areas;
- A reduction in the retail tenancy area from 103m² to 102.52m²;
- Removal of the originally approved seven SDA housing units and replacement with additional medical tenancies;
- Removal of the originally approved pharmacy tenancy;
- Relocation of lifts and fire stairs;
- A reduction in the approved off-street car parking provision from 225 to 162 spaces, including 2 van spaces; and
- An increase in the approved number of bicycle spaces from 11 to 48 spaces; and
- An increase in the approved off-street motorcycle parking provision from 3 to 11 spaces.

Minor alterations to the internal circulation arrangements of the parking area have also been proposed, primarily to improve on the approved parking and servicing layout, including:

Ground Level

- Reconfiguration of internal service areas including increasing size of hydrant/pump room, relocating waste rooms, accessible toilet and lift/ lift lobby, widening service lobby area and changing internal stairs; and

- Amendment to the location, arrangement and grades of internal roadway / ramp from the site driveway to basement level 1.

Basement Level 1 - 3

- Reconfiguration of internal service area including plant/store, comms room and lift/lift lobby and internal stairs;

- Amendment to the arrangement and provision of parking spaces;

- Amendment to the arrangement and provision of the disabled parking spaces;

- Amendment to the arrangement and provision of motorcycle parking spaces;

- Amendment to the arrangement of bicycle parking spaces;

- Amendment to the location, arrangement and grades of internal roadway / ramp from basement level 1 to basement level 2, basement level 2 to basement level 3, and

- Minor alterations to parking circulation and accessibility.

It is acknowledged that the transformer at ground level is not sufficiently set back from the property boundary in accordance with condition B17. The transformer is required to be located within a portion of ground level which is earthed, and providing a further setback will conflict with the basement level below. Service vehicles which require access to the transformer may be temporarily accommodated within the access roadway / ramp, ensuring that there will be no impendence on traffic flow within the public road.

This assessment makes reference to and should be read in conjunction with amended architectural plans prepared by TVS Architects, reduces copies of a selection of which are attached as **Attachment 1**.

ACCESS ARRANGEMENTS

The approved vehicular access arrangements, comprising a 6.1.m wide combined ingress / egress driveway, connecting with Showground Road situated in the south-eastern corner of the site, are not proposed to be altered.

The approved on-site parking provision is proposed to be decreased from 225 passenger vehicle spaces to 162 passenger vehicle spaces.

The maximum sized vehicle is not proposed to change from that approved, being MRVs. The location of servicing bays is not proposed to be altered.

The approved site access arrangements are envisaged to continue to be satisfactory, given the minor extent of the decrease in on-site car parking provision and the maintenance of the originally approved maximum sized vehicle servicing the site.

Notwithstanding this, a series of swept path plans have been prepared based on the amended architectural plans, copies of which are attached as **Attachment 2**, which conclude the following:

- Passenger vehicles are able to enter and exit the site in combination via left turn movements, providing appropriate clearance to the opposing public lane traffic lane, potential on-street parking, driveway extents, internal obstructions and opposing vehicles; and

- Service vehicles up to and including MRVs are able to enter and exit the site via left turn movements, providing appropriate clearance to the opposing public lane traffic lane, potential on-street parking, driveway extents and internal obstructions.

Discussion on compliance of the waste storage room is provided by others under separate cover.

APPROVED PARKING METHODOLOGY

Passenger Vehicle Parking

The traffic report in support of the original Development Application provided detailed discussion on potential parking calculation methodology available when assessing the integrated health hub facility. This assessment included reference to parking rates sourced from TfNSW's *Trip Generation Surveys Medical Centres – Analysis Report*, which provided the following average parking requirements:

> *Medical Centres – regional sites*
> *4.52 parking spaces per 100m²*

Application of the above parking rates to the approved development yield resulted in the following calculations, based on the total medical related tenancy area of 6,978m²:

> 6,978/100 x 4.52 = 315 spaces

The DA traffic report however also referenced a reduced parking rate of 3.1 spaces per 100m², which had been applied in support of a similar facility at Kingswood in Sydney, known as Nepean Health Hub. Application of this rate to the originally proposed medical related floor space resulted in the following calculation:

> 6,978m²/100 x 3.1 = 217 spaces

Application of the Nepean Health Hub parking rate, resulting in a requirement for 217 spaces, represented an approximate 30% reduction in the parking requirement in comparison to the based on the requirement of 315 spaces based on TfNSW's *Trip Generation Surveys Medical Centres – Analysis Report.*

In addition to the medical related tenancies, a further 13 spaces were calculated to be required for the residential and retail components, resulting in the total parking requirement of the approved development being initially calculated to be 230 parking spaces.

The DA traffic report presented that the proximity of the development to Gosford Hospital to the site, rail services at Gosford Railway Station and bus services along Racecourse Road suggests that a number of staff and visitors will use public transport to access the site, thereby supporting a reduction in the calculated parking requirement. In this regard, the approved parking provision of 225 parking spaces (including six disabled parking spaces) was considered satisfactory.

Bicycle Parking

The approved development is to be serviced by bicycle parking provision of 11 spaces.

The DA traffic report did not access the bicycle parking. Notwithstanding this, Gosford City Centre Development Control Plan 2018 (GCCDCP 2018) specifies that bicycle parking is to be provided at the following rates:

Health Consulting Rooms / Medical Centre
1 space per 4 consulting rooms

Residential
1 space per 3 dwellings for residents
1 space per 12 dwellings for visitors
Shops
1 space per 200m² GFA for employees
1 space per 750m² GFA for visitors

Application of the abovementioned parking rates to the originally proposed development yield / occupation results in the following parking yield calculations:

Health consulting rooms / medical centre
80/4 = 20 spaces

Residential
7/3 = 2.3 (adopt 3) spaces for residents
7/12 = 0.6 (adopt 1) space for visitors

Shops
103/200 = 0.52 (adopt 1) space for shop employees
103/750 = 0.14 (adopt 1) space for shop visitors

The approved development yield / occupation therefore requires 26 bicycle spaces in accordance with GCCDCP 2018.

The approved parking provision of 11 bicycle parking spaces was however considered to be satisfactory.

Motorcycle Parking

The approved development is to be serviced by motorcycle parking provision of three spaces.

The DA traffic report did not access the motorcycle parking. Notwithstanding this, GCCDCP 2018 specifies that motorcycle parking is to be provided at the following rates:

Health Consulting Rooms / Medical Centres
1 space per 25 car parking spaces

Residential
1 space per 15 dwellings

Shop
1 space per 25 car parking spaces

Application of the abovementioned motorcycle parking rates to the approved development yield results in the following parking yield calculation:

Health consulting rooms / medical centre
215/25 = 8.6 (adopt 9) spaces

Residential
7/15 = 0.5 (adopt 1) space

Shop
3/25 = 0.1 (adopt 1) space

The approved development yield therefore requires 11 motorcycles spaces in accordance with GCCDCP 2018.

The proposed motorcycle parking provision of three motorcycle parking spaces was however considered to be satisfactory.

PROPOSED PARKING METHODOLOGY

Passenger Vehicle Parking

Application of the parking methodology adopted within the original DA traffic report, whereby the parking demand can be calculated through application of the previously presented and adopted parking rate of 3.1 parking spaces per 100m^2 of medical related tenancy floor space to the proposed development, results in the following:

5,902.4m^2/100 x 3.1 = 182.9 (adopt 183) spaces

The addition of 3 spaces required for retail café component of the development (calculated at a rate of 1 space per 40m^2) results in a total parking calculation of 186 parking spaces.

The proposed parking provision of 162 parking spaces results in a parking shortfall of 24 parking spaces.

It is acknowledged at this point that the proposed new radiology treatment bunker situated within the southern portion of Basement 3, providing a floor area of 751.66m^2, is not included with the above analysis. This bunker is proposed to be entirely ancillary to the other medical tenancies, primarily accommodating equipment with very few staff or visitors on a daily basis.

On the basis of the above analysis, the proposal therefore results in the approved parking shortfall of 5 spaces being increased to 24 spaces. The extent of the shortfall (representing less than 15% of the total required parking provision) is considered to be acceptable in the subject instance for the following reasons:

- The close proximity of the site to rail services operating out of Gosford Railway Station and bus services operating along Racecourse Road; and

- The proposed increase in the car parking shortfall of 19 spaces over and above that previously approved is reasonably off-set by the proposed addition of 8 motorcycle parking spaces and 37 bicycle parking spaces over and above that previously approved (see below assessment).

To further support the above, a site-specific Green Travel Plan has been prepared by this Practice, a copy of which is contained within **Attachment 3**. This Plan provides a series of site-specific operational initiatives in order to promote the adoption of sustainable modes of transport to and from the site by staff and visitors and therefore reduce the potential private vehicle trips and thus, demand for car parking.

Whilst the development is expected to be self-sufficient in terms of car parking based on the above assessment, it should also be acknowledged that the site is directly adjoined to the north by a large paid off-street parking area within Gosford Hospital which is understood to provide considerable capacity to accommodate additional demand for parking in the unlikely event that it be generated.

Bicycle Parking

Application of the previously presented relevant GCCDCP 2018 requirements to the amended development yield / occupation results in the following bicycle yield calculations:

Health consulting rooms / medical centre
20/4 = 5 spaces

Shops
103/200 = 0.52 (adopt 1) space for shop employees
103/750 = 0.14 (adopt 1) space for shop visitors

GCCDCP 2018 accordingly requires 7 bicycle spaces to support the amended development yield.

The proposed amended bicycle parking provision of 48 bicycle parking spaces readily exceeds the minimum parking requirements of GCCDCP 2018. This considerable bicycle parking provision, in combination with the site-specific operational management initiatives contained within the Green Travel Plan provided as **Attachment 3** is expected to actively encourage the selection of sustainable transport modes by both staff and visitors, in preference to private car trips.

Motorcycle Parking

Application of the previously presented relevant GCCDCP 2018 requirements to the amended development yield results in the following motorcycle yield calculations:

Health consulting rooms / medical centre
162/25 = 6.5 (adopt 7) spaces

Shop
3/25 = 0.1 (adopt 1) space

The amended development yield therefore requires eight motorcycles spaces in accordance with GCCDCP 2018.

The proposed provision of 11 motorcycle parking spaces readily exceeds the minimum parking requirements of GCCDCP 2018. This considerable motorcycle parking provision, in combination with the site-specific operational management initiatives contained within the Green Travel Plan provided as **Attachment 3** is expected to actively encourage the selection of sustainable transport modes by both staff and visitors, in preference to private car trips.

INTERNAL CIRCULATION

Parking Design Compliance

The internal access roadway / ramps, at-grade and basement parking areas are proposed to continue to accord with the minimum requirements of AS2890.1:2004, AS2890.3:2015 and AS2890.6:2022, providing the following minimum dimensions:

- Minimum standard visitor car parking space width = 2.5m;
- Minimum standard staff car parking space width = 2.4m;
- Minimum small car parking space width = 2.3m;
- Disabled car parking space width = 2.4m (plus adjoining 2.4m wide shared area);
- Additional space width adjoining obstruction = 0.3m;
- Standard and disabled parking space length = 5.4m;
- Small car parking space length = 5.0m;
- Motorcycle space width = 1.2m;
- Motorcycle space length = 2.5m;
- Parking aisle width = 6.2m;
- Clearance = 2.2m (2.5m above disabled parking spaces);
- Minimum two-way roadway = 5.5m;
- Maximum ramp grade = 1:5;
- Maximum change in ramp grade = 1:8;
- Maximum grade within 6m of the property boundary = 1:20;
- Double sided horizontal bicycle rack space width = 0.5m;
- Horizontal rack bicycle space length = 1.8m;
- Vertically staggered wall hung bicycle rack space width = 0.5m;
- Vertically staggered wall hung bicycle parking rack depth = 1.2m; and

- Bicycle parking rack aisle and access path width = 1.5m.

Safe and efficient internal manoeuvring and parking space accessibility is anticipated to result, taking into consideration the above compliance with the relevant AS2890.1:2004, AS2890.3:2015 and AS2890.6:2022 specifications.

In order to further demonstrate the internal passenger vehicle manoeuvrability within the vicinity of these areas and generally throughout the overall parking area, this Practice has prepared a number of updated swept path plans which are included as **Attachment 2**. The turning paths provided on the plans have been generated using Autoturn software and derived from B99 and B85 vehicle specifications provided within AS2890.1:2004.

Section B4.4 of AS2890.1:2004 states the following with regard to the use of templates to assess vehicle manoeuvring:

> *'Constant radius swept turning paths, based on the design vehicle's minimum turning circle are not suitable for determining the aisle width needed for manoeuvring into and out of parking spaces. Drivers can manoeuvre vehicles within smaller spaces than swept turning paths would suggest.'*

It would therefore appear that whilst the turning paths provided within AS2890.1:2004 can be utilised to provide a 'general indication' of the suitability or otherwise of internal parking and manoeuvring areas, vehicles can generally manoeuvre more efficiently than the paths indicate. Notwithstanding this, the swept path plans illustrate that passenger vehicles can manoeuvre throughout and enter and exit the most difficult passenger vehicle parking spaces within the parking areas.

It is acknowledged that the north-eastern portion of the basement 3 parking area contains a total of five parking spaces provided in a tandem arrangement. The rear tandem spaces are proposed to be specifically allocated to medical staff within the same tenancy in order to ensure no unreasonable impacts on manoeuvring / circulation occurs with respect to parking space accessibility. It is considered that tandem parking spaces for medical staff within the same tenancy is reasonable if the particular spaces are governed by an operational management plan.

The abovementioned plan would specifically allocate the rear tandem spaces to staff (within the same tenancy) with long shifts, arriving early in the morning and leaving in the late afternoon. Conversely, the parking spaces in front of the tandem spaces are to be allocated to staff (within the same tenancy) with shorter shifts arriving following the staff allocated the rear spaces and leaving prior to the abovementioned long stay staff. This plan of management is to be formulated based on staffing timesheets and form part of the contract of employment. The requirement for such a plan of management could reasonably be imposed as a condition of consent.

It is acknowledged that opposing traffic flow will be required to occur under curtesy conditions within the northern sections of the basement level 1 and 2 areas where two adjacent 90-degree bends in the circulation aisles are provided to connect the eastern and western north-south aligned parking aisles. In these situations, exiting motorists will be required to give way to approaching entering vehicles manoeuvring through curves in the aisles, despite all circulation aisles being designed to provide widths in accordance with the relevant minimum requirements specified by AS2890.1:2004. Whilst it is acknowledged that unobstructed two-way traffic flow is generally desirable, it is considered that the requirement for traffic flow to occasionally occur under courtesy conditions is acceptable in the subject situations for the following reasons:

- The provision of priority control in the form of 'Give-Way' signage and linemarking for exiting vehicles situated on approach to the curves in the circulation aisles;

- The constrained nature of circulation roadways within private developments provides a frictional and 'calming' effect on vehicle speeds which is desirable within off-street parking areas where parking / unparking manoeuvring and pedestrian circulation movements occur; and

- Convex mirrors have been provided in appropriate locations throughout the parking area to ensure that appropriate visibility between oncoming vehicles is provided, thereby ensuring that unreasonable conflicts do not occur.

In regard to the above, motorist wishing to exit basement parking levels 1 and 2 will, upon approach to the 90-degree curves in the circulation aisles, motorists will use the convex mirrors to determine if there are inbound vehicles, in which case they will give priority the inbound vehicles. Once it is determined that there are no further inbound vehicles, exiting motorists will be able continue through the curves in the circulation aisles towards the basement exit. On the basis of the abovementioned operational characteristics, the proposed internal circulation arrangements are accordingly considered to be satisfactory.

Site Servicing Arrangements

The originally approved site servicing arrangements are proposed to be largely retained, whereby two servicing bays (one for refuse collection / deliveries and one for an ambulance) are to be provided on the ground level to be accessed from the internal roadway / ramp connecting with the combined ingress /egress driveway connecting with Showground Road.

The refuse collection / delivery servicing bay and access thereto has been designed to generally comply with the relevant requirements of the Australian Standards for *Parking Facilities Part 2: Off-Street Commercial Vehicle Facilities* (AS2890.2:2018) for an MRV, providing the following minimum design parameters:

- Service bay length = 10.5m;

- Service bay width = 3.5m; and

- Minimum clearance of roadway servicing heavy vehicles = 4.5m.

Service vehicle access to the refuse collection servicing bay via a reverse entry movement from the internal roadway / ramp is to be retained from the approved arrangement.

The ambulance servicing bay and thereto has been designed to generally comply with the relevant requirements of the Australian Standards for *Parking Facilities Part 2: Off-Street Commercial Vehicle Facilities* (AS2890.2:2018) for an ambulance, providing the following minimum design parameters:

- Service bay length = 8m;

- Service bay width = 3.5m;

- Minimum clearance of roadway servicing heavy vehicles = 4.5m.

Notwithstanding the above assessment, a series of updated swept path plans and ground clearance assessment plans have been prepared, a copy of which is attached as **Attachment 2**. These plans illustrate that vehicles up to and including MRVs and ambulances are able to enter, service and exit the site in a safe and efficient manner. These plans also illustrate that service vehicles are able to undertake the required manoeuvring to / from the loading bays without being impeded by another vehicle within the adjacent servicing bays. In consideration of this and the above, the proposed site servicing arrangements are envisaged to continue to be satisfactory.

PEDESTRIAN CIRCULATION

Pedestrian access is proposed via a pedestrian path connecting with the western Showground Road footpath on the eastern boundary of the site and providing access to the building entrance lobby, situated to the north and separate from the vehicular access driveway.

A centrally located lift and stairs situated in the southern portion of the building provide pedestrian access to / from the basement parking levels. It is acknowledged that the proposed lift location increases the path of travel for pedestrians from the western parking row of the parking levels to the lifts, requiring pedestrians to share the vehicular circulation aisle within the northern portion of the parking levels (particularly within basement level 2). The implementation of the previously presented vehicle priority and convex mirrors through internal curves in the vehicular circulation aisles (see **Attachment 2** for details) however, provides an appropriate level of safety of pedestrians. As previously stated, the constrained nature of the 90-degree curves in the circulation aisles provides a frictional and 'calming' effect on vehicle speeds which is desirable within off-street parking areas where parking / unparking manoeuvring and pedestrian circulation movements occur. In any case, the sharing of vehicular circulation aisles by pedestrians is expected to provide a further desirable frictional effect on internal vehicle speeds, increasing the overall level of safety within the parking area. If considered necessary, appropriate '10km/h Shared Zone' signage could be installed throughout the internal circulation areas, which not only alerts motorists to the potential for pedestrian movements, but also provides right of way for pedestrian movements in preference to vehicular circulation.

Site users who travel to the site via bicycle trips, will use the parking facilities situated within the south-western corner of basement level 1 or northern portion of ground floor. Further, bicycle end of trip facilities including showers and lockers are proposed to be provided within the south-western portion of basement level 1. The pedestrian desire line between these facilities and the lifts within basement level 1 is clearly marked and provides minimum interaction with the vehicular circulation aisle.

TRAFFIC IMPACTS

Approved Development

Assessment of the operational performance of the surrounding public road network was contained within the DA traffic report. This assessment concluded that the surrounding public road network operates with a good level of service and is capable of accommodating the extent of traffic generation projected to be generated by the approved centre capacity.

The DA traffic report assessment was based upon the following traffic generation rates for medical centres published within TfNSW's *Trip Generation Surveys Medical Centres – Analysis Report*:

> *Medical centres – regional sites*
> *7.35 vehicles trips per 100m² of Total GFA – AM Peak Hour*
> *6 vehicles trips per 100m² of Total GFA – PM Peak Hour*

Application of the above TfNSW traffic generation rates to the approved development yield resulted in the following base peak hour traffic generation:

(7.35 x 6,978/100) = 512.9 (adopt 513) AM peak hour trips
(6 x 6,978/100) = 418.7 (adopt 419) PM peak hour trips

The above base traffic generation was however reduced by 30% to account for the reduced parking provision as detailed within previous sections of this submission. It was accordingly assessed that the approved non-residential floor space was expected to generate 359 and 293 vehicle trips during the AM peak hour and PM peak hours, respectively.

Trip generation rates for high density residential units were based on TfNSW's *Technical Direction TDT 2013 / 04a* within the DA traffic report, as follows:

0.53 per unit during the AM peak hour; and
0.35 per unit during the PM peak hour.

Application of the referenced TfNSW traffic generation rates to the approved development yield resulted in the following peak hour traffic generation:

0.53 x 7 = 3.71 (adopt 4) AM peak hour trips
0.35 x 7 = 2.45 (adopt 3) PM peak hour trips

The total trip generation for the approved development was therefore calculated within the DA traffic report to be 363 and 296 trips during the AM peak hour and PM peak hours, respectively.

The DA traffic report presented that the surrounding public road network is capable of accommodating the abovementioned extent of additional traffic, whereby SIDRA analysis was completed for the Showground Road junctions with the proposed site access driveway, Racecourse Road and Faunce Street, with all junctions expected to operate with a level of service of 'C' or better.

Proposed Amended Development

The proposal involves a decrease in the total medical tenancy areas from 6,978m² to 5,902.4m². This equates to an approximate reduction of approximately. The approved retail tenancy area of 103m² is proposed to also be slightly reduced to 102.52m². For the purposes of this assessment, it is accordingly expected that the amended development is capable of generating a reduction in traffic movements of approximately 15% in comparison to that which was previously assessed. It is accordingly expected that the proposed amended development will generate in the order of 308 and 251 vehicle movements during the AM peak hour and PM peak hours, respectively. This represents a reduction of 55 AM peak hour trips and 45 PM peak hour trips over and above that previously assessed and approved.

Once again, it should be acknowledged that the proposed new radiology treatment bunker situated within the southern portion of Basement 3, providing a floor area of 751.66m^2, is not included with the above analysis. As stated previously, this bunker is proposed to be entirely ancillary to the other medical tenancies, primarily accommodating equipment with very few staff or visitors on a daily basis. In any case, a potential minor traffic generation associated with the bunker use is considered to be reasonably off-set by the removal of the originally approved residential units.

For the purposes of this assessment and in accordance with that previously assessed within the DA traffic report, the peak hour vehicle movements have been split between inbound and outbound movements during each peak period according to the following:

- The morning peak hour trips have been split between 60% inbound trips and 40% outbound movements, resulting in 185 inbound movements and 123 outbound movements; and

- The afternoon peak hour trips have been split between 40% inbound movements and 60% outbound movements, resulting in 100 inbound movements and 151 outbound movements.

Whilst it is expected that inbound traffic will be reasonably evenly distributed from the north and south along Showground Road, outbound traffic is restricted to being distributed to the north.

Figures 1 - 3 below and in the following pages provide an estimation of the future traffic demands of the proposed amended development.

FIGURE 1
PROJECTED WEEKDAY COMMUTER PEAK HOUR TRAFFIC VOLUMES
JUNCTION OF SHOWGROUND ROAD AND SITE ACCESS

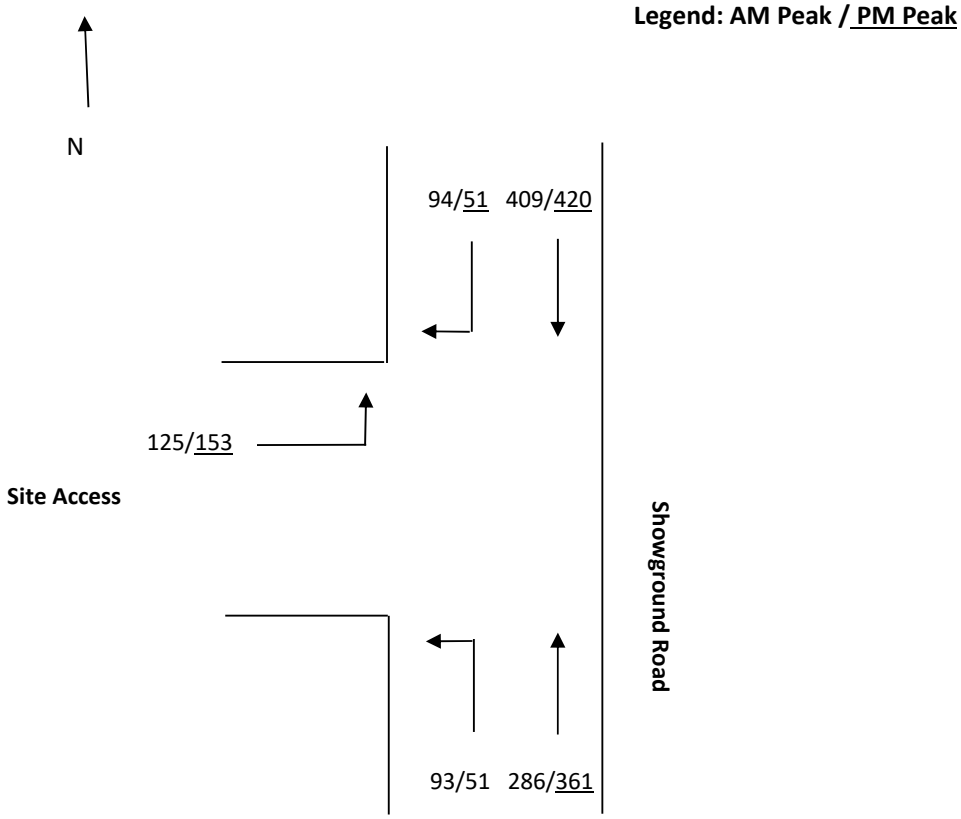


FIGURE 2
PROJECTED WEEKDAY COMMUTER PEAK HOUR TRAFFIC VOLUMES
INTERSECTION OF SHOWGROUND ROAD AND RACECOURSE ROAD

Legend: AM Peak / PM Peak

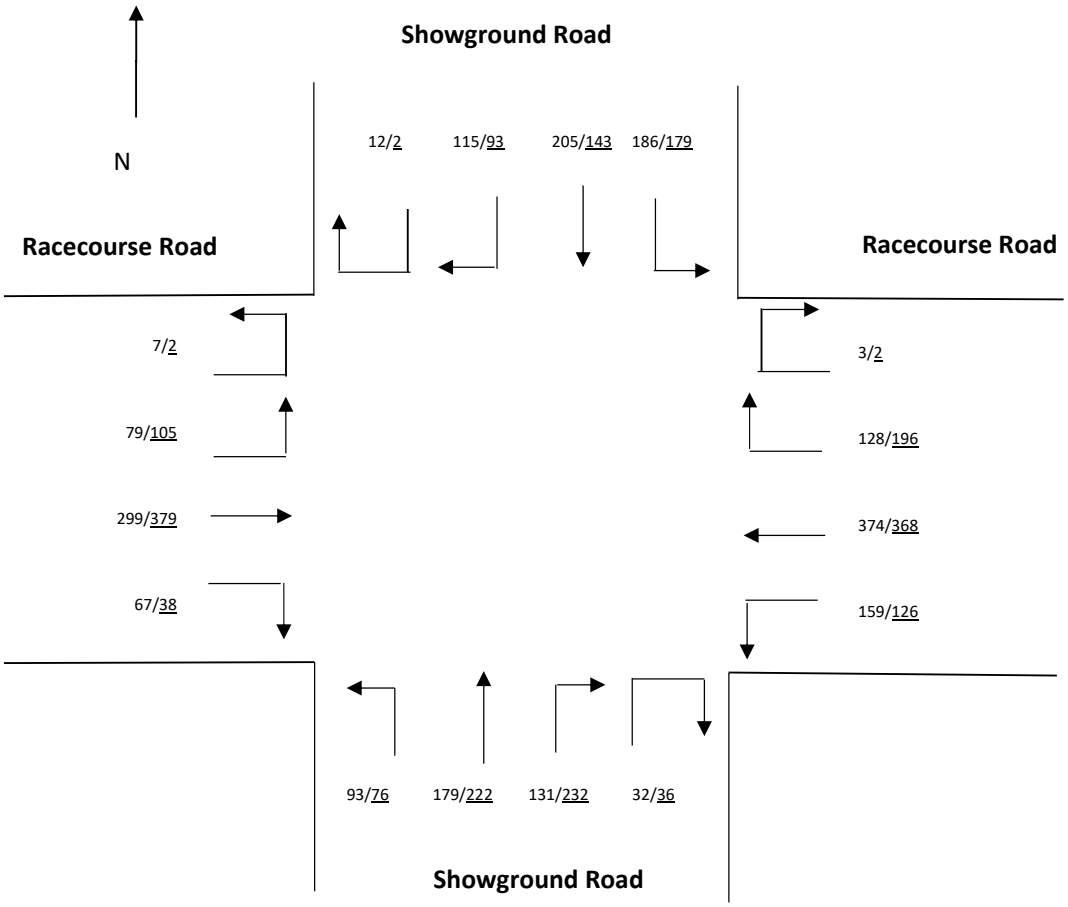
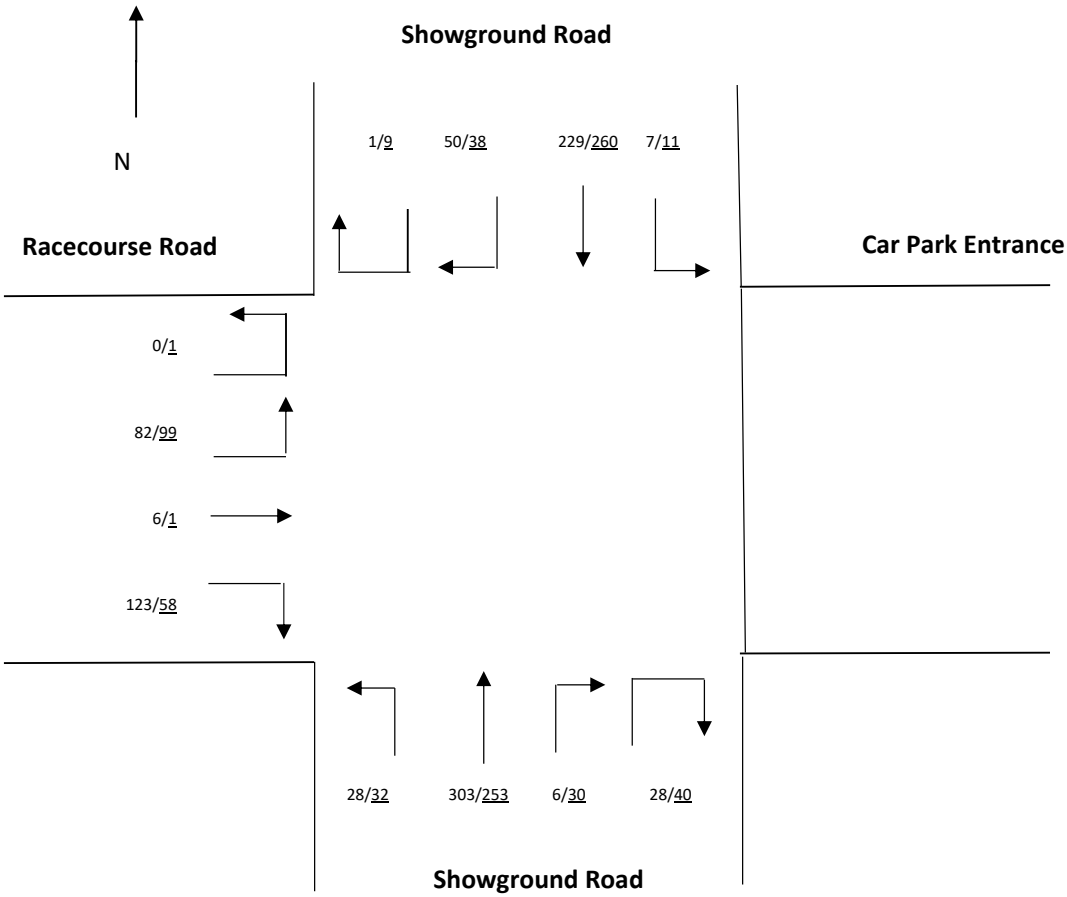


FIGURE 3
PROJECTED WEEKDAY COMMUTER PEAK HOUR TRAFFIC VOLUMES
INTERSECTION OF SHOWGROUND ROAD AND FAUNCE STREET WEST

Legend: AM Peak / PM Peak



The surveyed intersections have been modelled in order to estimate the likely impact on traffic safety and efficiency utilising the projected traffic volumes illustrated in **Figures 1 - 3**. A summary of the most pertinent results is indicated within **Tables 1 – 3** in the following pages whilst more detailed summaries are available upon request.

TABLE 1 SIDRA OUTPUT – PROJECTED WEEKDAY PEAK HOUR PERFORMANCE JUNCTION OF SHOWGROUND ROAD AND SITE ACCESS				
	Approved Development		Proposed Development	
	AM	PM	AM	PM
Showground Road South Approach				
Delay	5.6	5.6	5.6	5.6
Degree of Saturation	0.28	0.21	0.20	0.22
Level of Service	A	A	A	A
Showground Road North Approach				
Delay	8.0	7.2	7.2	7.3
Degree of Saturation	0.25	0.20	0.29	0.26
Level of Service	A	A	A	A
Site Access Approach				
Delay	7.3	6.9	6.6	6.9
Degree of Saturation	0.12	0.13	0.10	0.13
Level of Service	A	A	A	A
Total Intersection				
Delay	8.0	7.2	7.2	7.3
Degree of Saturation	0.28	0.21	0.29	0.26
Level of Service	A	A	A	A

TABLE 2 SIDRA OUTPUT – PROJECTED WEEKDAY PEAK HOUR PERFORMANCE JUNCTION OF SHOWGROUND ROAD AND RACECOURSE ROAD				
	Approved Development		Proposed Development	
	AM	PM	AM	PM
Showground Road South Approach				
Delay	20.6	27.4	19.3	23.4
Degree of Saturation	0.67	0.84	0.62	0.78
Level of Service	B	B	B	B
Racecourse Road East Approach				
Delay	18.0	14.8	18.6	14.9
Degree of Saturation	0.73	0.67	0.75	0.67
Level of Service	B	B	B	B
Showground Road North Approach				
Delay	14.4	13.7	14.6	13.7
Degree of Saturation	0.48	0.25	0.48	0.24
Level of Service	A	A	A	A
Racecourse Road West Approach				
Delay	15.8	17.6	15.6	16.6
Degree of Saturation	0.55	0.69	0.54	0.64
Level of Service	B	B	B	B
Total Intersection				
Delay	20.6	27.4	19.3	23.4
Degree of Saturation	0.73	0.84	0.75	0.67
Level of Service	B	B	B	B

TABLE 3 SIDRA OUTPUT – PROJECTED WEEKDAY PEAK HOUR PERFORMANCE JUNCTION OF SHOWGROUND ROAD AND FAUNCE STREET WEST				
	Approved Development		Proposed Development	
	AM	PM	AM	PM
Showground Road South Approach				
Delay	11.0	10.9	11.0	11.0
Degree of Saturation	0.28	0.26	0.26	0.25
Level of Service	A	A	A	A
Showground Road North Approach				
Delay	11.5	11.3	11.6	11.4
Degree of Saturation	0.23	0.24	0.24	0.25
Level of Service	A	A	A	A
Faunce Street West Approach				
Delay	11.8	11.6	11.7	11.7
Degree of Saturation	0.22	0.16	0.18	0.14
Level of Service	A	A	A	A
Total Intersection				
Delay	11.8	11.6	11.7	11.7
Degree of Saturation	0.28	0.26	0.26	0.25
Level of Service	A	A	A	A

Tables 1 – 3 indicate that the reduced traffic generating ability of the proposed amended development will result in minor improvements to the previously assessed and approved operation of the surveyed intersections. Notwithstanding this, the intersection levels of service is projected to remain consistent with the level of service previously assessed and approved.

CONCLUSION

This correspondence provides an assessment of the parking and traffic impacts associated with a Section 4.55 Application for alterations to an approved mixed-use development at 60 – 64 Showground Road, Gosford. Having regard to the assessment contained within this correspondence, the following conclusion is provided:

- The approved site access arrangements are envisaged to continue to facilitate safe and efficient site access / egress, being largely consistent with that approved;

- The proposed amended car parking provision is considered to be acceptable, notwithstanding the minor numerical shortfall with respect to the approved parking methodology, given the proximity of the site to extensive public transport infrastructure, the proposed sustainable transport infrastructure and incorporating the site-specific operational initiatives contained within the Green Travel Plan contained within **Attachment 3**;

- The proposed amendments to the internal circulation arrangements are envisaged to result in an improvement to the general manoeuvrability throughout the development parking areas;

- The proposed variation to the development yield is expected to generate a reduction of up to 51 peak hour vehicle movements compared with that previously assessed and approved; and

- The surrounding public road network is expected to continue to operate with an acceptable level of service incorporating the projected reduced traffic generating ability of the amended development.

The proposed alterations to the approved development are accordingly envisaged to be satisfactory.

It would be appreciated if the information contained within this correspondence could be incorporated in Council's assessment of the subject application.

Submitted for your consideration.

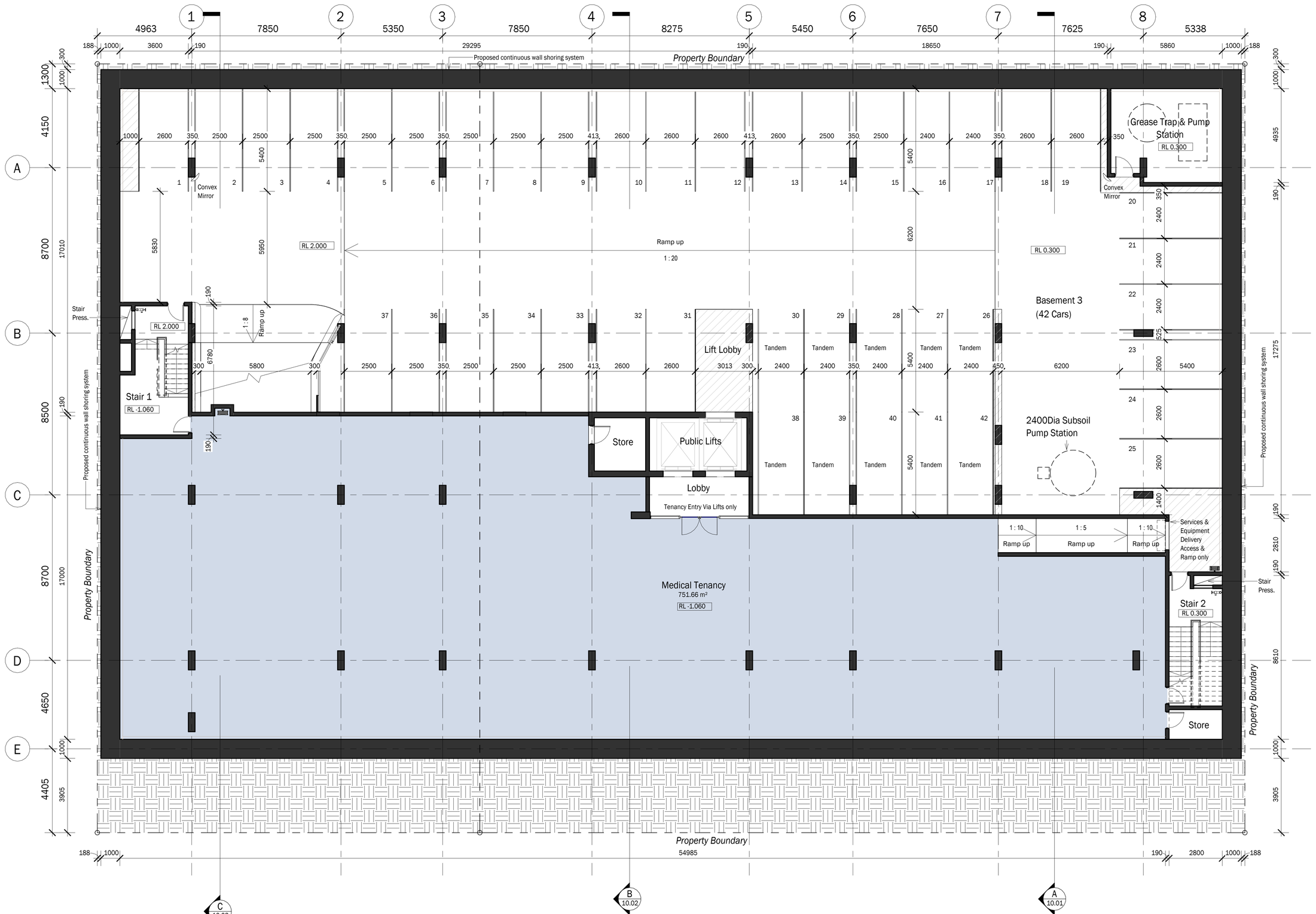
Yours sincerely,

Morgan Stanbury
Director
Traffic Engineer

Attachments:

1. **Architectural Plans**
2. **Swept Path Plans**
3. **Green Travel Plan**

ATTACHMENT 1



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PROJECT
Gosford Health Hub

PROJECT ADDRESS
60-64 Showground Road, Gosford

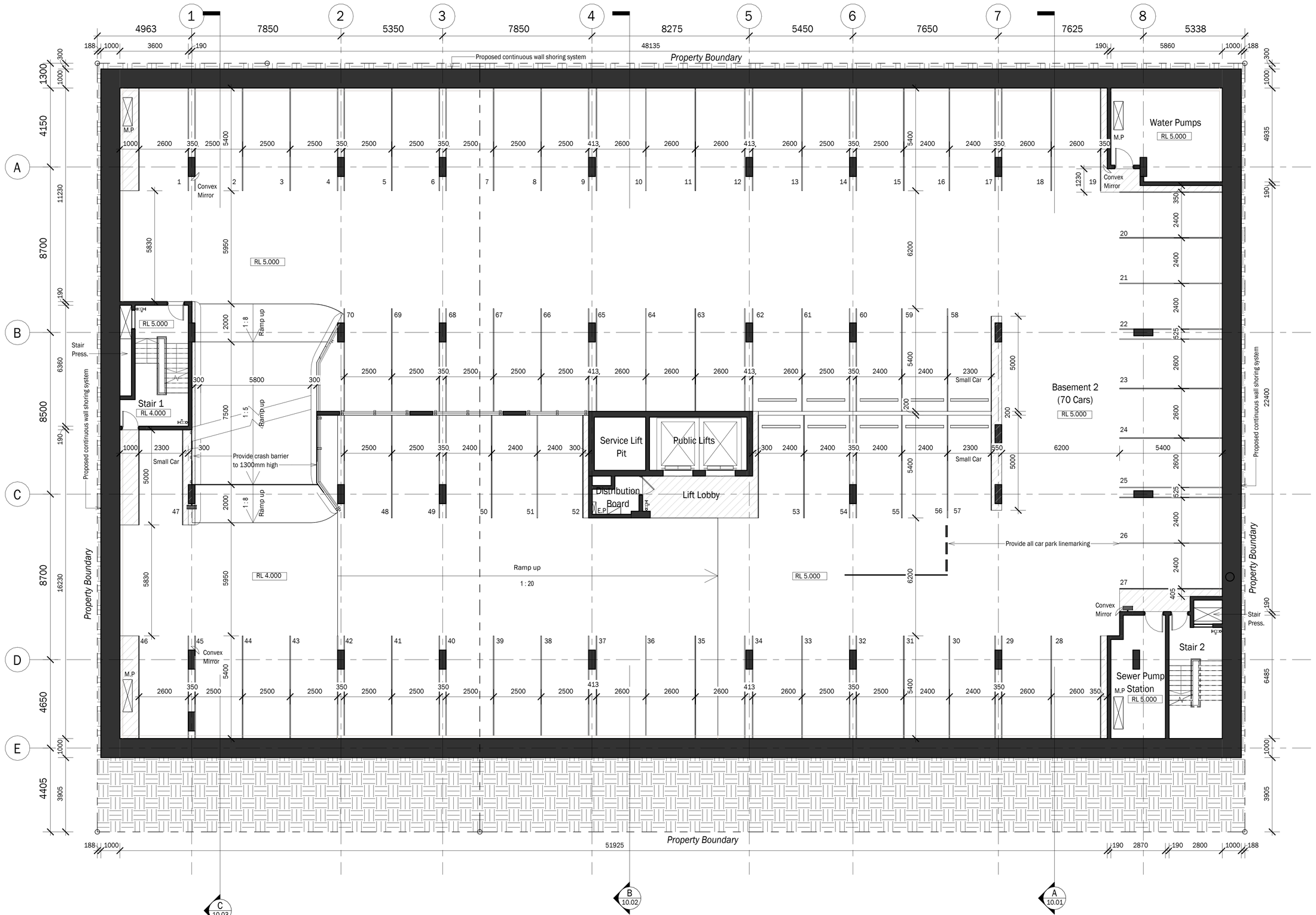
DRAWING TITLE
Floor Plan - Basement 3

N

Scale (m) 1 : 100 @A1 — Scale (m) 1 : 200 @A3

Drawing No.	Revision
6245.DA.03.02	K

1/05/2024 11:01:44 AM



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PROJECT
Gosford Health Hub

PROJECT ADDRESS
60-64 Showground Road, Gosford

DRAWING TITLE
Floor Plan - Basement 2

N

Scale (m) 1 : 100 @A1
Scale (m) 1 : 200 @A3

Drawing No.	Revision
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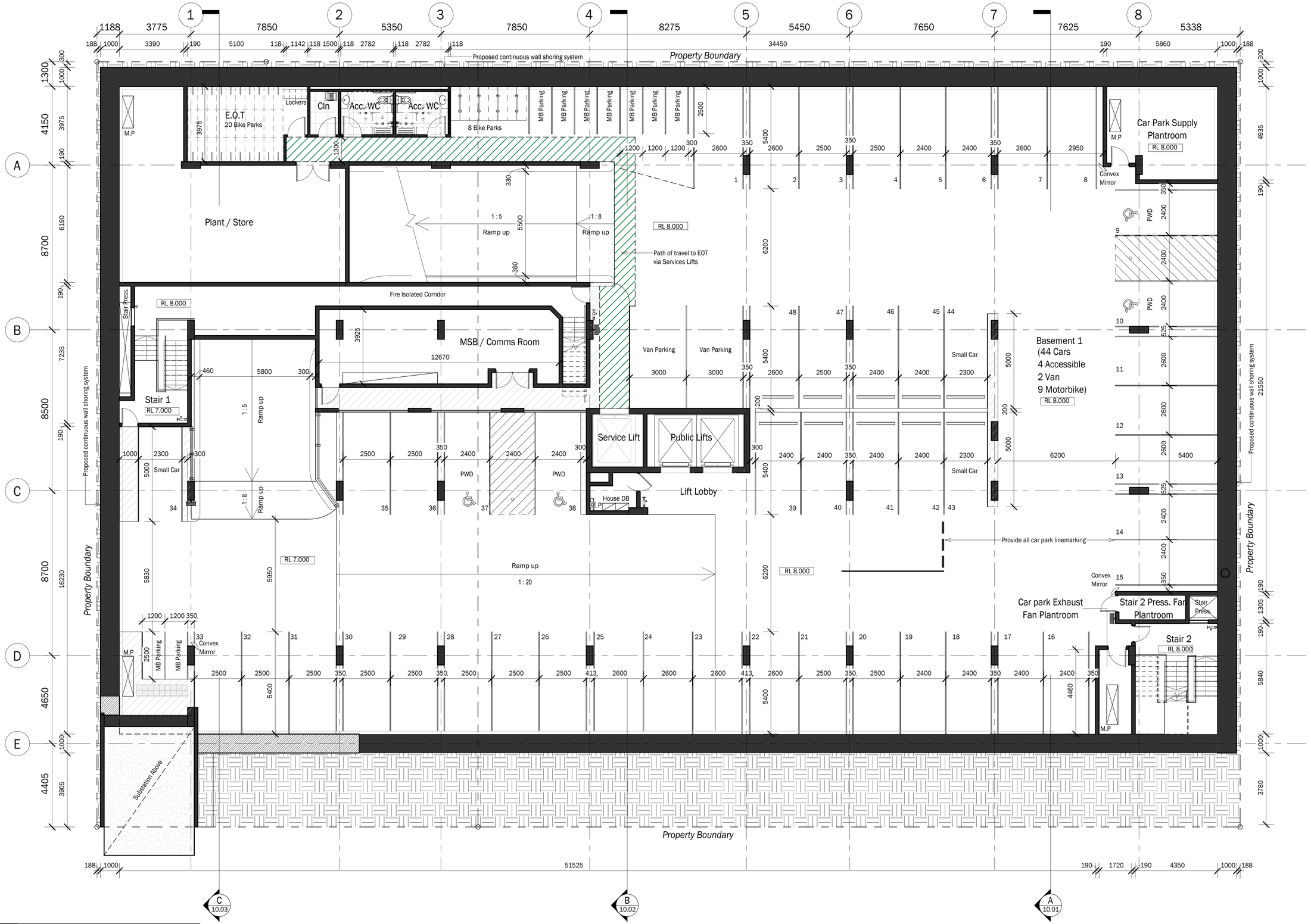

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PROJECT
Gosford Health Hub

PROJECT ADDRESS
60-64 Showground Road, Gosford

DRAWING TITLE
Floor Plan - Basement 1

N

0 2 4 10
Scale (m) 1 : 100 @A1
Scale (m) 1 : 200 @A3

Drawing No.	Revision
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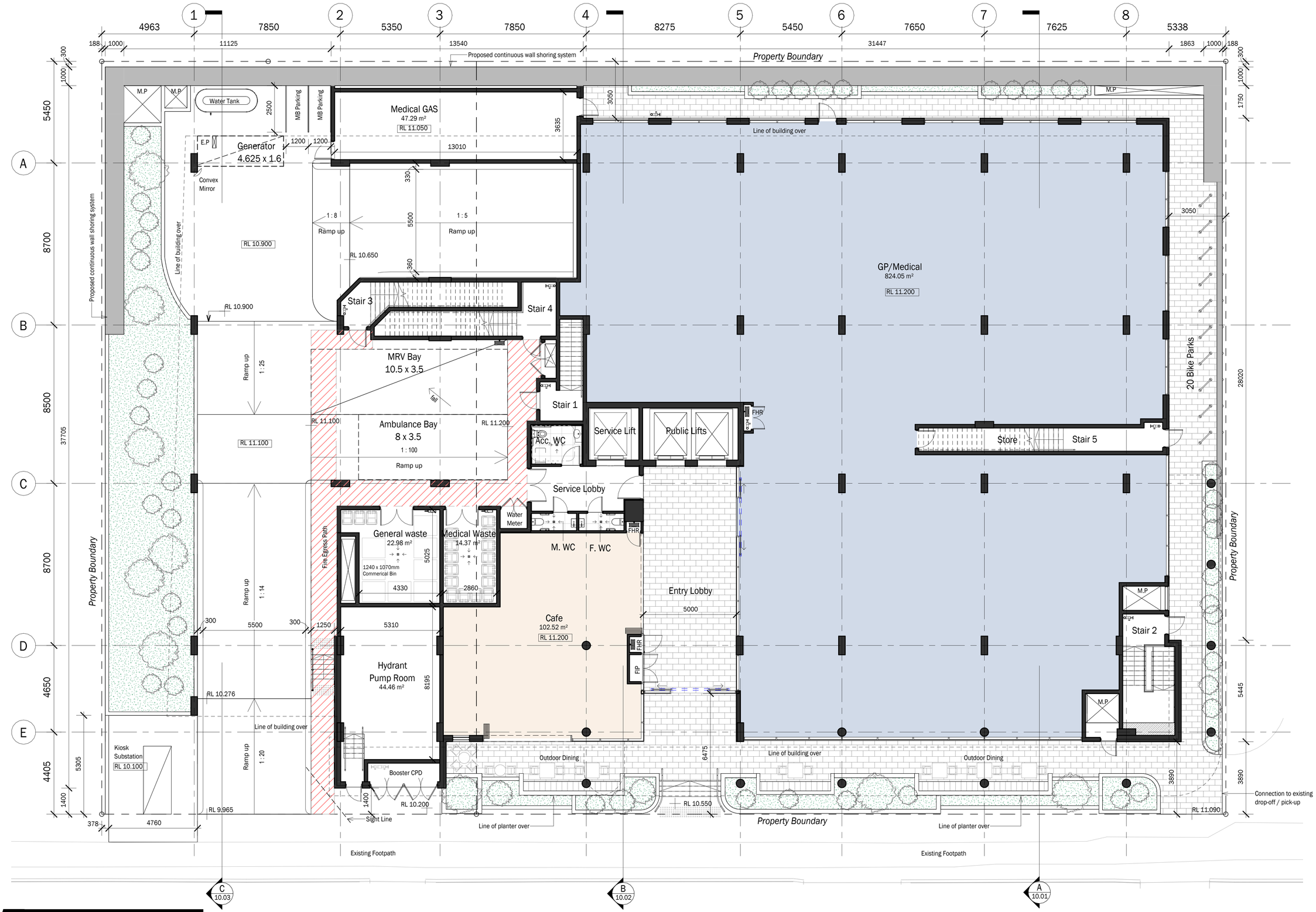
10/05/2024 2:54:35 PM



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PROJECT
Gosford Health Hub

PROJECT ADDRESS
60-64 Showground Road, Gosford

DRAWING TITLE
Floor Plan - Ground Floor

N

Scale (m) 1 : 100 @A1 (0 2 4)
Scale (m) 1 : 200 @A3 (0 2 4 10)

Drawing No.	Revision
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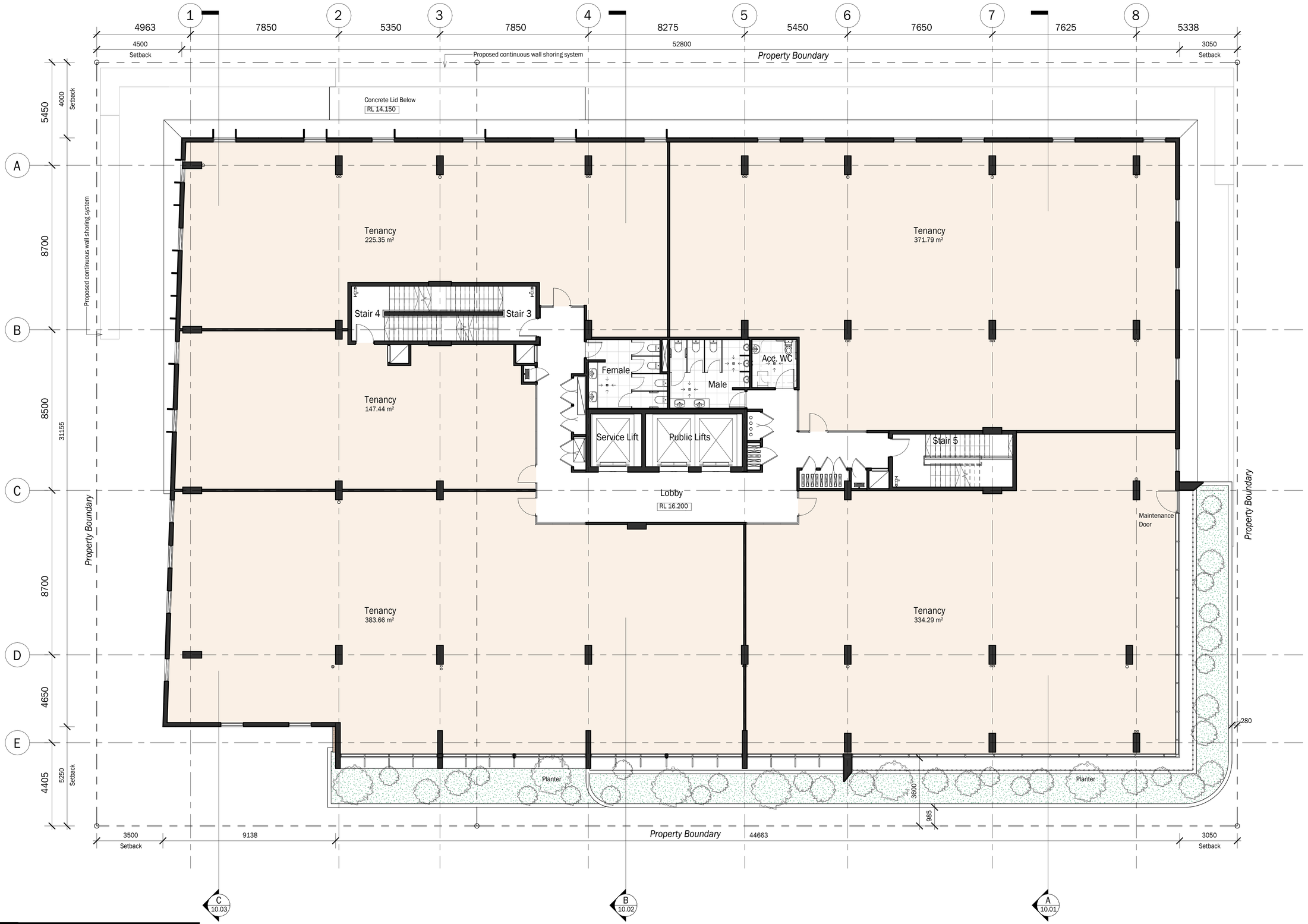

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PROJECT
Gosford Health Hub

PROJECT ADDRESS
60-64 Showground Road, Gosford

DRAWING TITLE
Floor Plan - First Floor

N

0 2 4 10
Scale (m) 1 : 100 @A1
Scale (m) 1 : 200 @A3

Drawing No.	Revision
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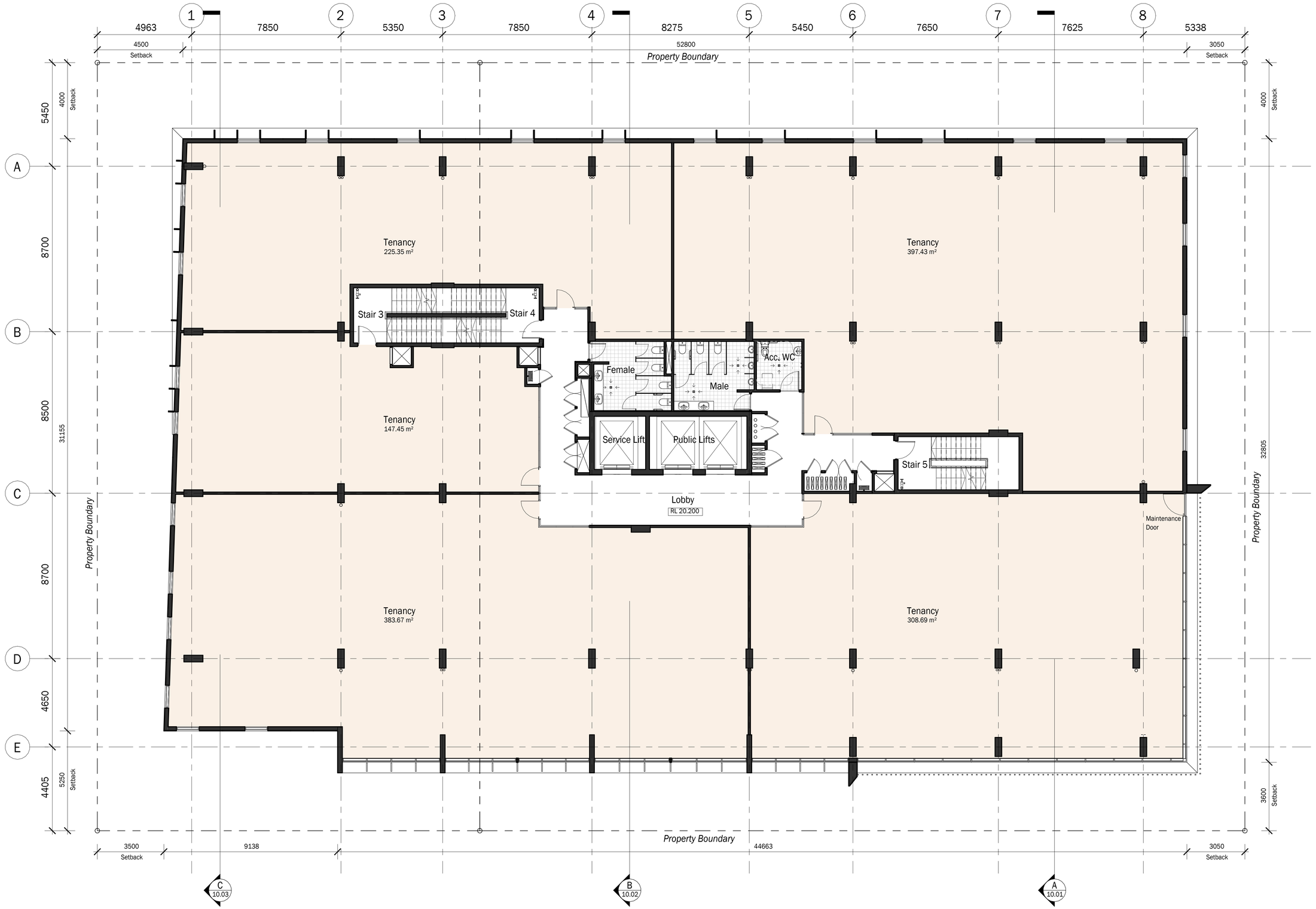
1/05/2024 11:15:04 AM



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PROJECT
Gosford Health Hub

PROJECT ADDRESS
60-64 Showground Road, Gosford

DRAWING TITLE
Floor Plan - Second Floor

N

0 2 4 10
Scale (m) 1 : 100 @A1
Scale (m) 1 : 200 @A3

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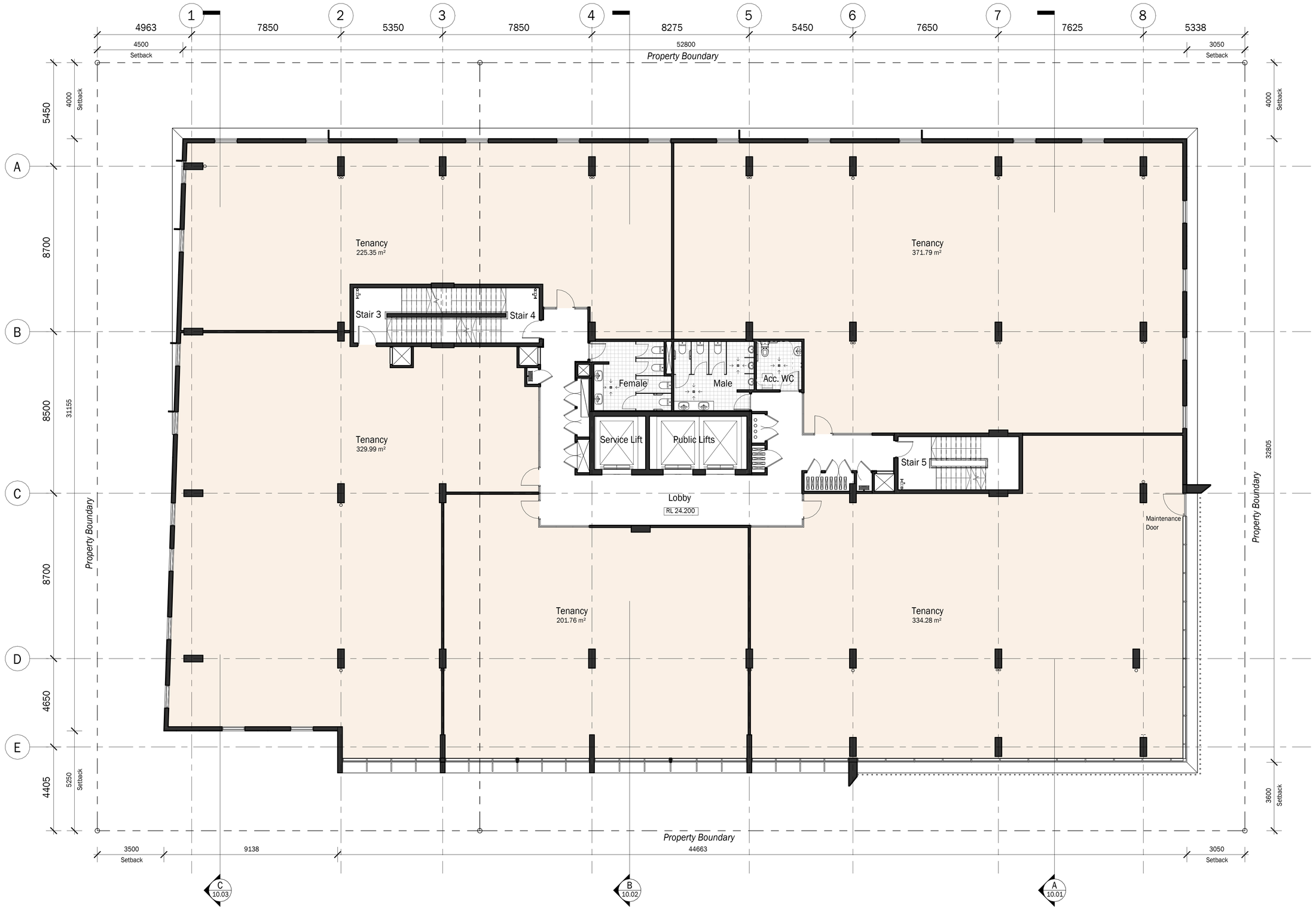
1/05/2024 11:01:53 AM



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PROJECT
Gosford Health Hub

PROJECT ADDRESS
60-64 Showground Road, Gosford

DRAWING TITLE
Floor Plan - Third Floor

N

0 2 4 10
Scale (m) 1 : 100 @A1
Scale (m) 1 : 200 @A3

Drawing No.	Revision
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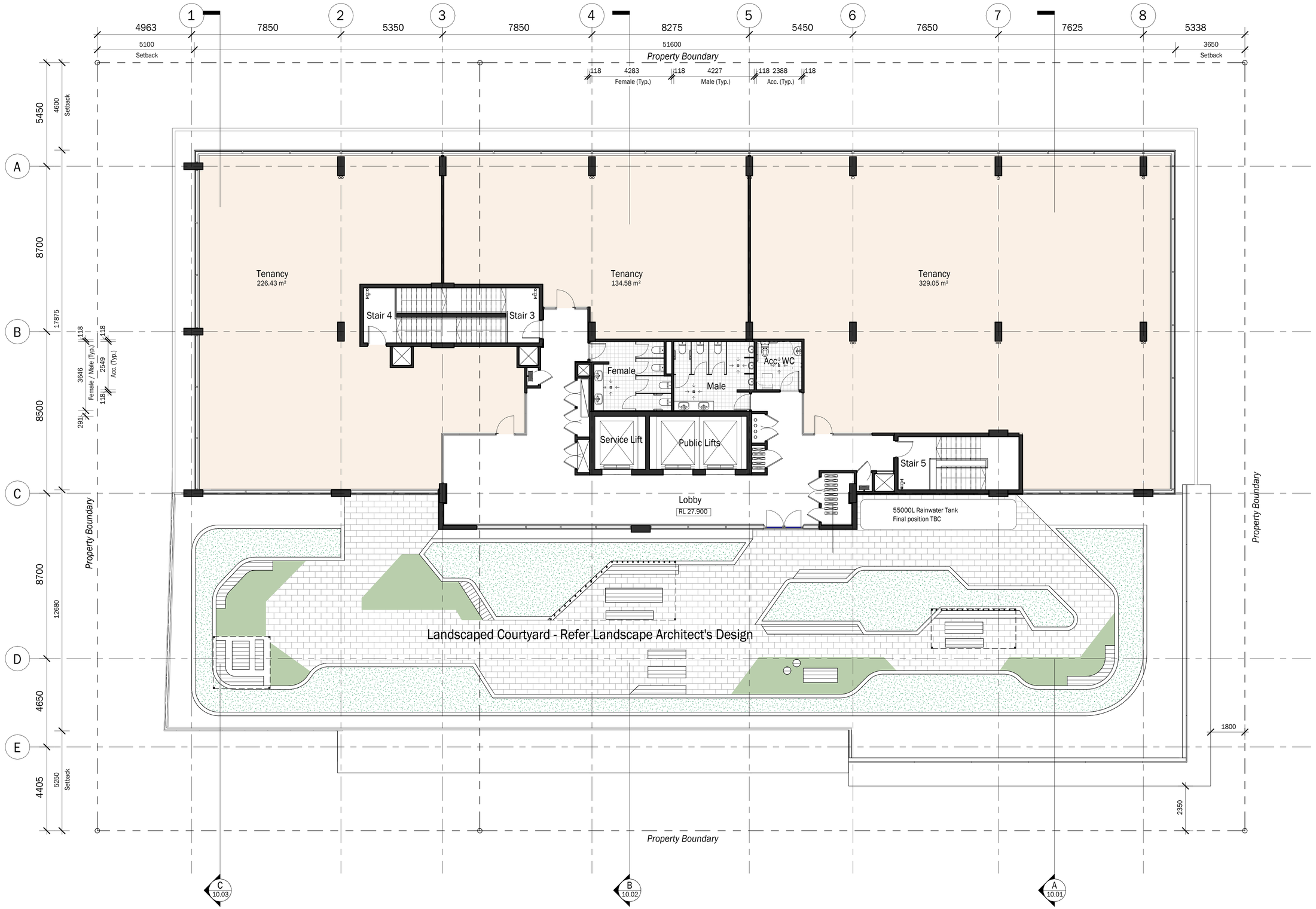

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PROJECT
Gosford Health Hub

PROJECT ADDRESS
60-64 Showground Road, Gosford

DRAWING TITLE
Floor Plan - Fourth Floor

N

0 2 4 10
Scale (m) 1 : 100 @A1
Scale (m) 1 : 200 @A3

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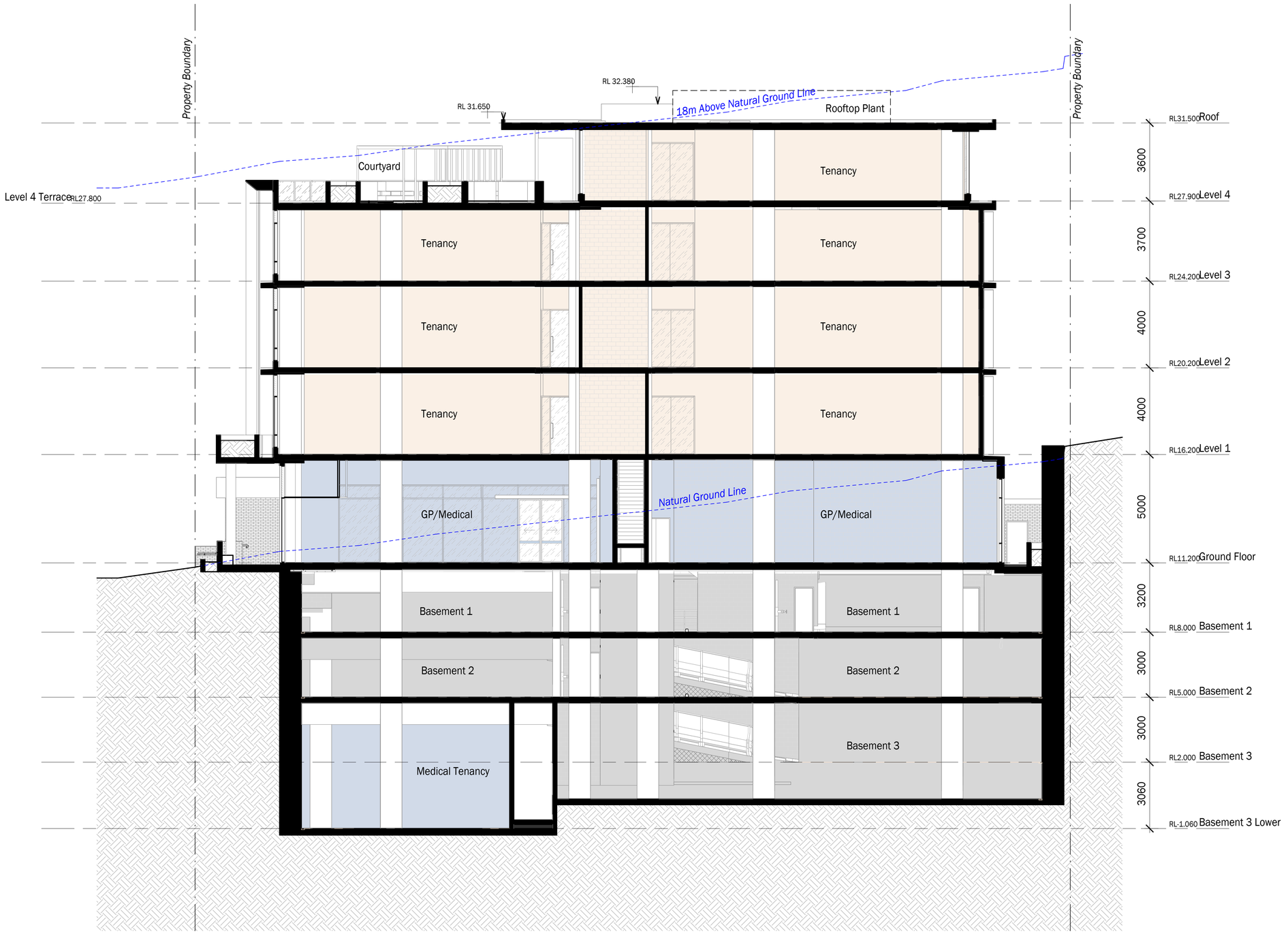

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PROJECT
Gosford Health Hub

PROJECT ADDRESS
60-64 Showground Road, Gosford

DRAWING TITLE
Section A

Drawing No.	Revision
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1/05/2024 11:02:16 AM

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PROJECT
Gosford Health Hub

PROJECT ADDRESS
60-64 Showground Road, Gosford

DRAWING TITLE
Section B

0 2 4 10
Scale (m) 1 : 100 @A1
Scale (m) 1 : 200 @A3

Drawing No.	Revision
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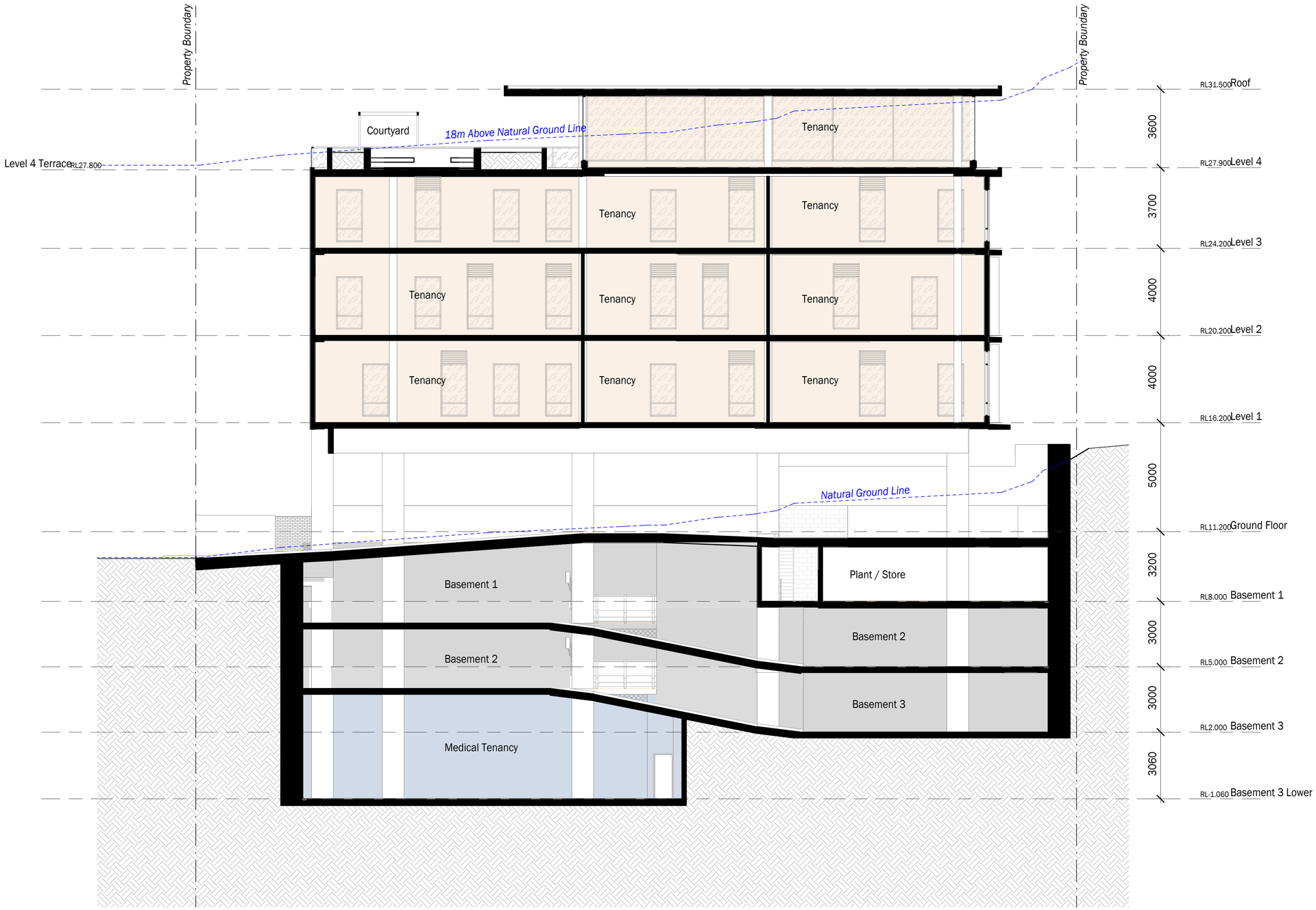

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PROJECT
Gosford Health Hub

PROJECT ADDRESS
60-64 Showground Road, Gosford

DRAWING TITLE
Section C

0 2 4 10
Scale (m) 1 : 100 @A1
Scale (m) 1 : 200 @A3

Drawing No.	Revision
6245.DA.10.03	H

1/05/2024 11:02:19 AM

ATTACHMENT 2

LEGEND:

INDICATIVE ON-STREET PARKING

Property Boundary

Proposed continuous wall shoring system

Line of building over

Water Tank

Generator 4.625 x 1.6

Medical GAS 47.29 m² RL 11.250

MRV Bay 10.5 x 3.5

Ambulance Bay 8 x 3.5

Stair 1

Stair 2

Stair 3

Stair 4

Stair 5

Service Lift

Public Lifts

Acc. WC

Service Lobby

M. WC

F. WC

Entry Lobby

GP/Medical 824.05 m² RL 11.200

Store

Cafe 102.52 m² RL 11.200

General waste 22.98 m²

Medical Waste 7.37 m²

1340 x 1070mm Commercial Bin

Hydrant Pump Room 44.46 m²

Booster CPD

Kiosk Substation RL 10.100

Outdoor Dining

Ramp up

Convex Mirror

Sight Line

Existing Footpath

RL 10.900

RL 10.650

RL 11.100

RL 11.200

RL 10.276

RL 9.965

RL 10.200

RL 10.550

NOTES:

1. THIS PLAN IS BASED ON ARCHITECTURAL PLANS PREPARED BY TVSARCHITECTS ARCHITECTS AND AERIAL IMAGERY SOURCED FROM NEARMAP (IMAGE DATE 06/03/2023)
2. THE SWEPT PATHS PROVIDED ON THIS PLAN HAVE BEEN GENERATED UTILISING AUTOTURN PRO VERSION 11 IN CONJUNCTION WITH VEHICLE MANOEUVRING SPECIFICATIONS IN ACCORDANCE WITH THE AUSTRALIAN STANDARD AS2890.1:2004 AND AS2890.2:2018
3. MAXIMUM CHANGE IN GRADE FOR CARS SHOULD BE 1:8 OVER 2m
4. A MINIMUM HEIGHT CLEARANCE OF 2.2m (TO SERVICES AND STRUCTURE) SHOULD BE PROVIDED ABOVE CIRCULATION AISLES AND PARKING SPACES.
5. A MINIMUM HEIGHT CLEARANCE OF 2.5m (TO SERVICES AND STRUCTURE) SHOULD BE PROVIDED ABOVE DISABLED PARKING SPACES
6. A MINIMUM HEIGHT CLEARANCE OF 4.5m (TO SERVICES AND STRUCTURE) SHOULD BE PROVIDED ABOVE SERVICE VEHICLE ACCESS ROADWAYS AND LOADING DOCKS
7. HEIGHT CLEARANCE ABOVE A SAG CHANGE IN GRADES SHOULD BE MEASURED IN ACCORDANCE WITH FIGURE 5.3 AS2890.1:2004.

STANBURY TRAFFIC PLANNING
TRAFFIC, PARKING & TRANSPORT CONSULTANTS

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STANBURY TRAFFIC PLANNING

60-64 SHOWGROUND ROAD, GOSFORD
CAR PARK COMPLIANCE REVIEW
CONCEPT LAYOUT
GROUND

SCALE 0 2.5 5.0 1:250@A3		CREATED BY Y.H
DRAWING NO. 23-084-01-V10		APPROVED BY M.S
DATE 15 May 2024		SHEET 01 / 14

NOTES:

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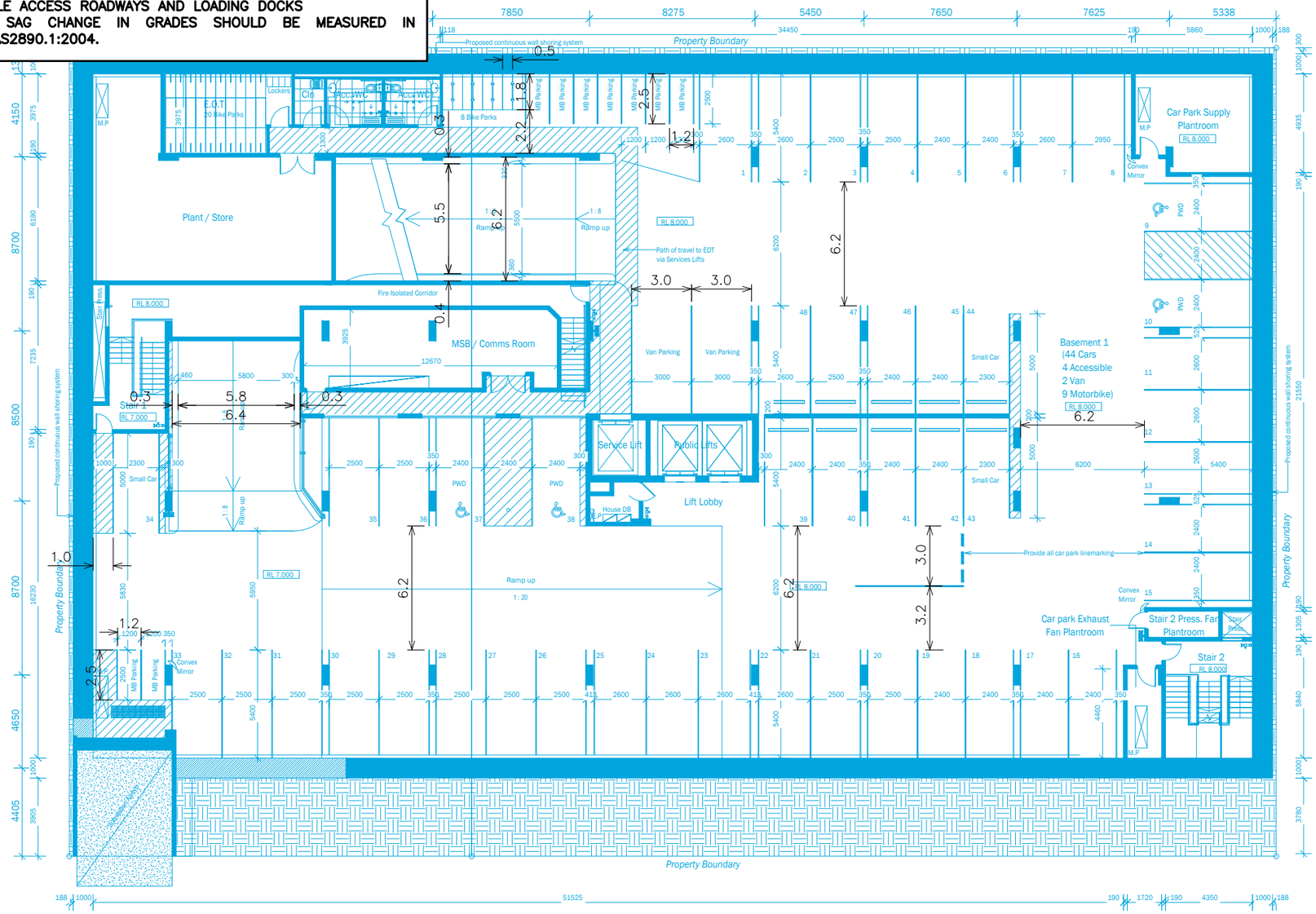

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NOTES:

1. THIS PLAN IS BASED ON ARCHITECTURAL PLANS PREPARED BY TVSARCHITECTS ARCHITECTS AND AERIAL IMAGERY SOURCED FROM NEARMAP (IMAGE DATE 06/03/2023)

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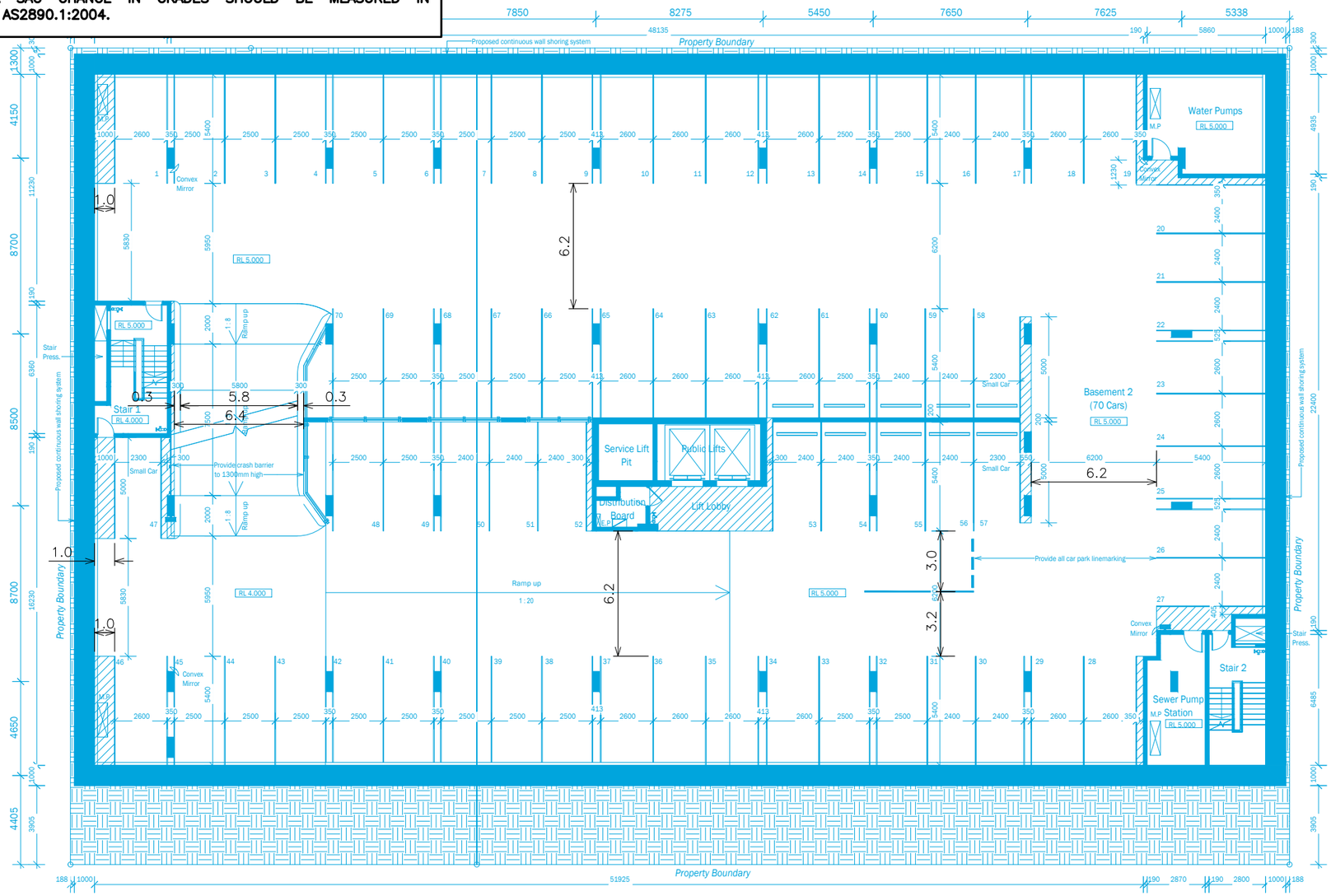
6. HEIGHT CLEARANCE ABOVE A SAG CHANGE IN GRADES SHOULD BE MEASURED IN ACCORDANCE WITH FIGURE 5.3 AS2890.1:2004.



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NOTES:

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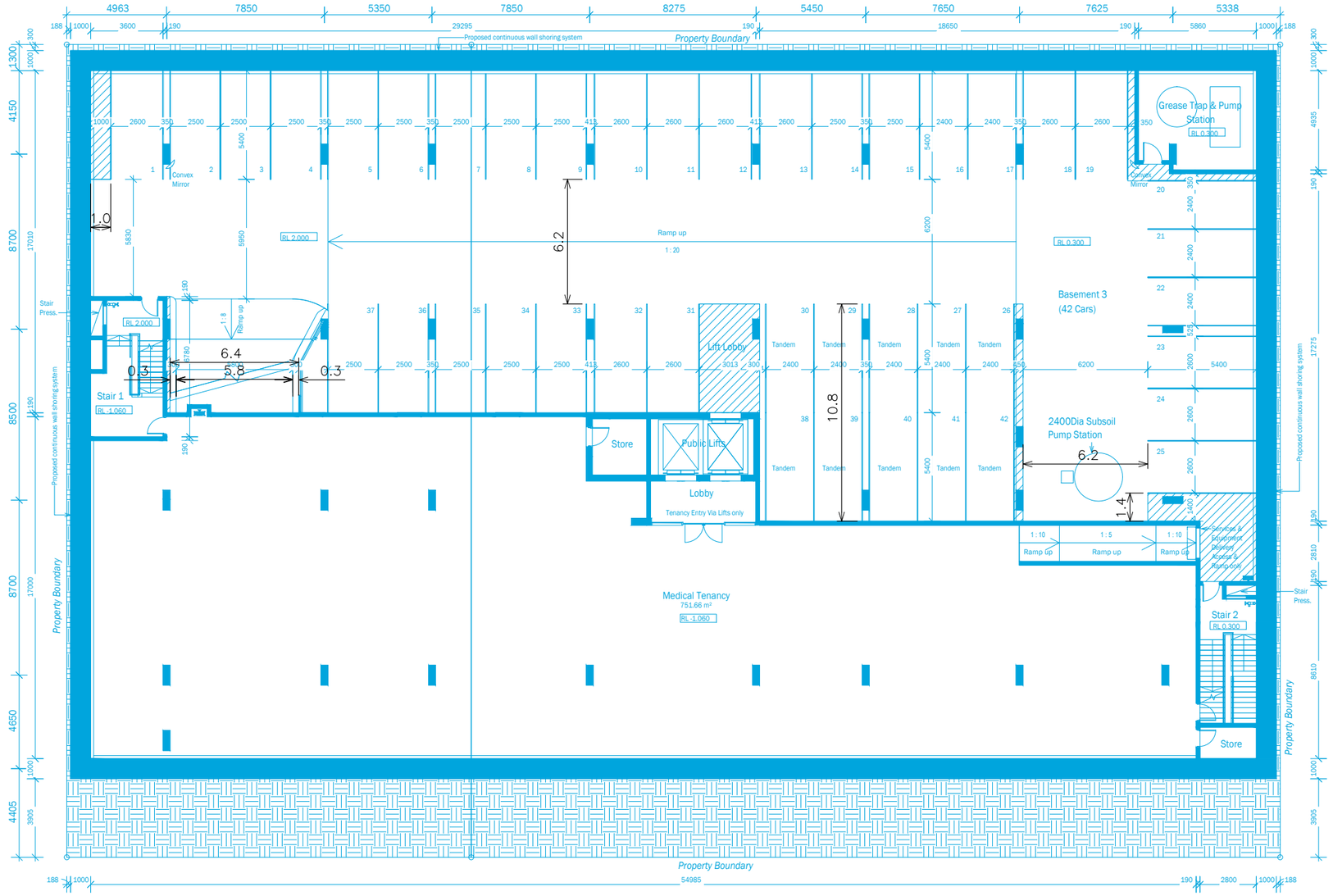

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NOTES:

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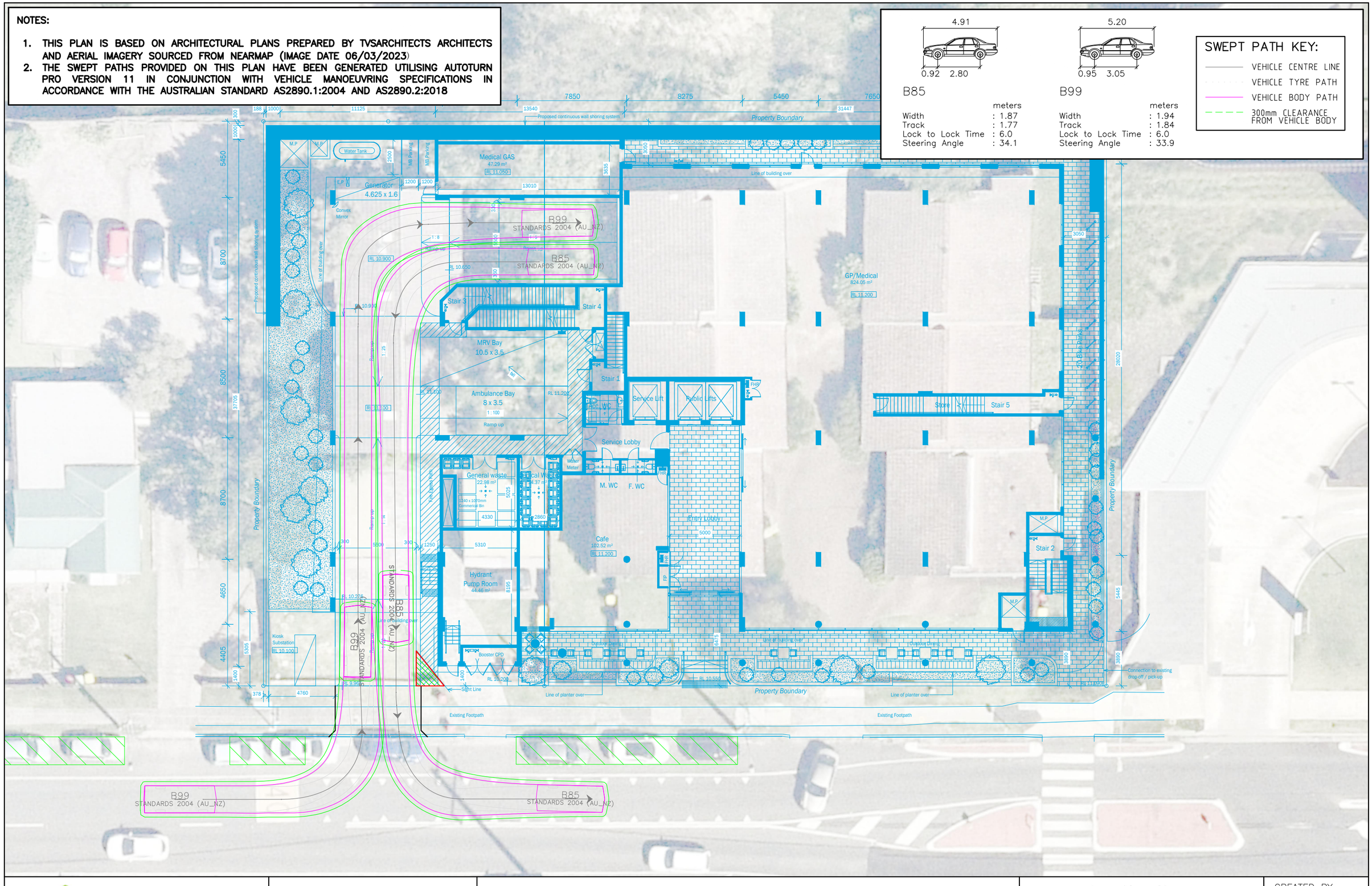

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NOTES:

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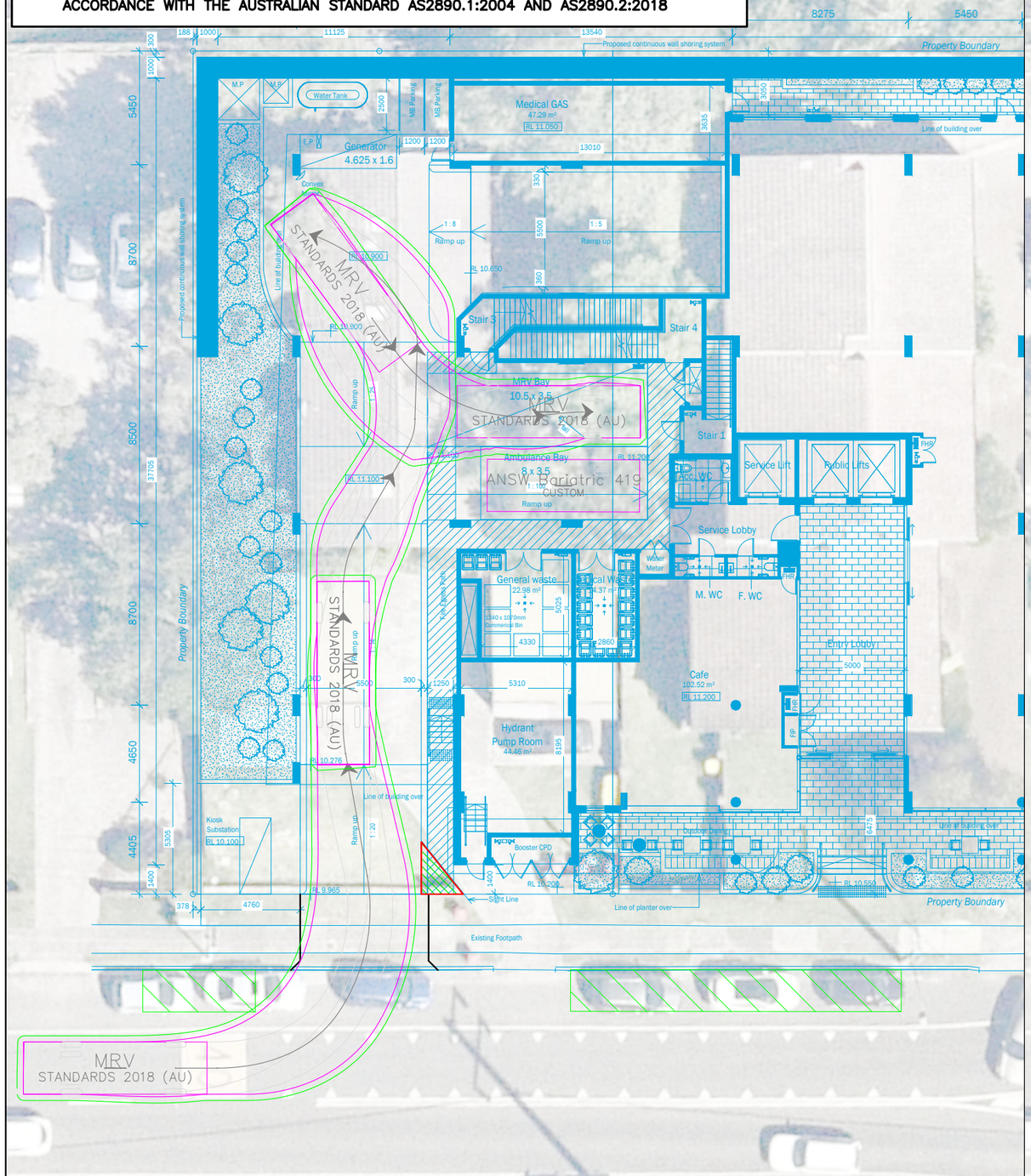

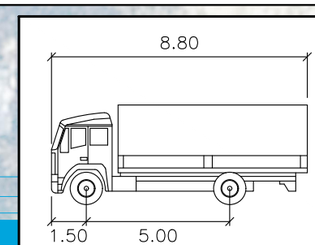

MRV

	meters
Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 34.0

SWEPT PATH KEY:

- VEHICLE CENTRE LINE
- VEHICLE TYRE PATH
- VEHICLE BODY PATH
- 300mm CLEARANCE FROM VEHICLE BODY

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STANBURY TRAFFIC PLANNING

60–64 SHOWGROUND ROAD, GOSFORD
CAR PARK COMPLIANCE REVIEW
SWEPT PATH ASSESSMENT
GROUND

SCALE 0 2.5 5.0	1:250@A3	CREATED BY Y.H
DRAWING NO.	23–084–01–V10	APPROVED BY M.S
DATE	15 May 2024	SHEET 06 / 14

NOTES:

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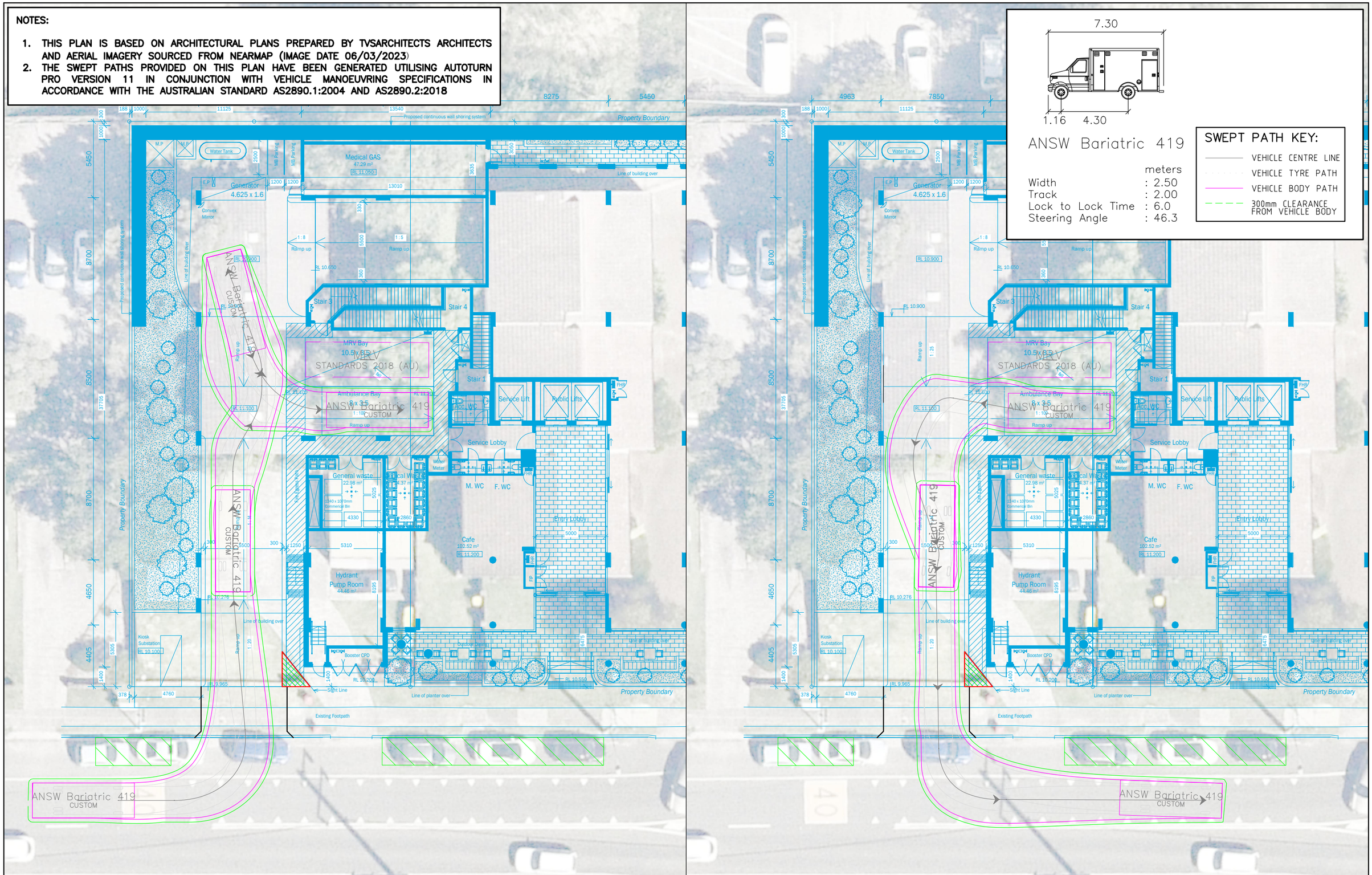

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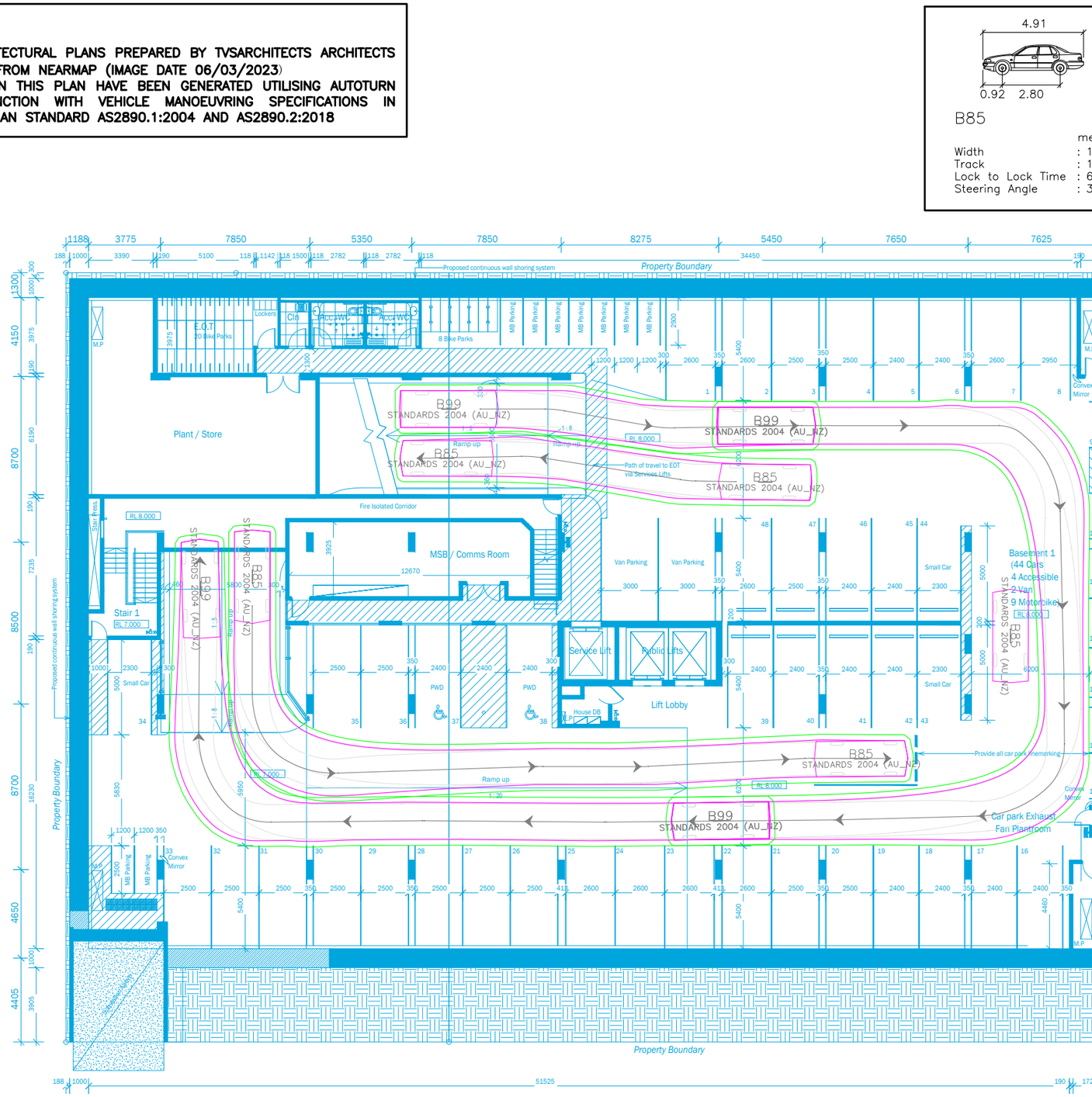

4.91

0.92 2.80

B85

	meters
Width	: 1.87
Track	: 1.77
Lock to Lock Time	: 6.0
Steering Angle	: 34.1

5.20

0.95 3.05

B99

	meters
Width	: 1.94
Track	: 1.84
Lock to Lock Time	: 6.0
Steering Angle	: 33.9

SWEPT PATH KEY:

- VEHICLE CENTRE LINE
- VEHICLE TYRE PATH
- VEHICLE BODY PATH
- 300mm CLEARANCE FROM VEHICLE BODY

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STANBURY TRAFFIC PLANNING

60–64 SHOWGROUND ROAD, GOSFORD
CAR PARK COMPLIANCE REVIEW
SWEPT PATH ASSESSMENT
BASEMENT 1

SCALE 0 2.5 5.0 1:250@A3

DRAWING NO. 23–084–01–V10

DATE 15 May 2024

CREATED BY Y.H

APPROVED BY M.S

SHEET 08 / 14

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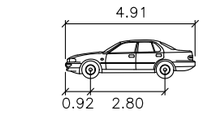

B85

	meters
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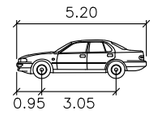
Track	: 1.77
Lock to Lock Time	: 6.0
Steering Angle	: 34.1

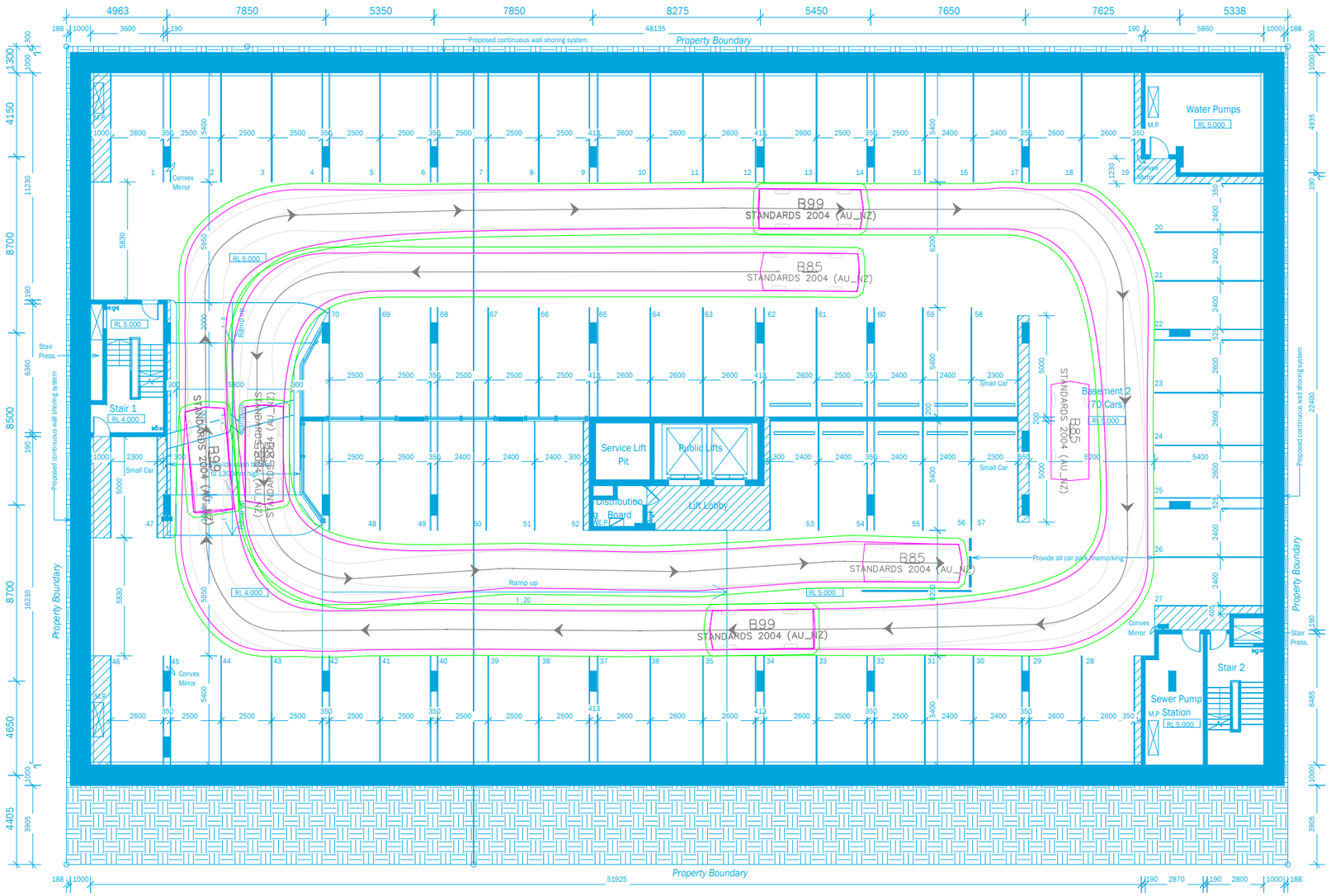


B99

	meters
Width	: 1.94
Track	: 1.84
Lock to Lock Time	: 6.0
Steering Angle	: 33.9

SWEPT PATH KEY:

- VEHICLE CENTRE LINE
- VEHICLE TYRE PATH
- VEHICLE BODY PATH
- 300mm CLEARANCE FROM VEHICLE BODY



STANBURY TRAFFIC PLANNING TRAFFIC, PARKING & TRANSPORT CONSULTANTS	ADDRESS: 401/380 HARRIS ST, PYRMONT PH: (02) 8971 8314 EMAIL: info@stanburytraffic.com.au WEBSITE: www.stanburytraffic.com.au	STANBURY TRAFFIC PLANNING 60–64 SHOWGROUND ROAD, GOSFORD CAR PARK COMPLIANCE REVIEW SWEPT PATH ASSESSMENT BASEMENT 2	SCALE 0 2.5 5.0 1:250@A3 DRAWING NO. 23–084–01–V10 DATE 15 May 2024	CREATED BY Y.H APPROVED BY M.S SHEET 09 / 14

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B85

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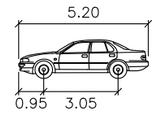
Track	: 1.77
Lock to Lock Time	: 6.0
Steering Angle	: 34.1



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Track	: 1.84
Lock to Lock Time	: 6.0
Steering Angle	: 33.9

SWEPT PATH KEY:

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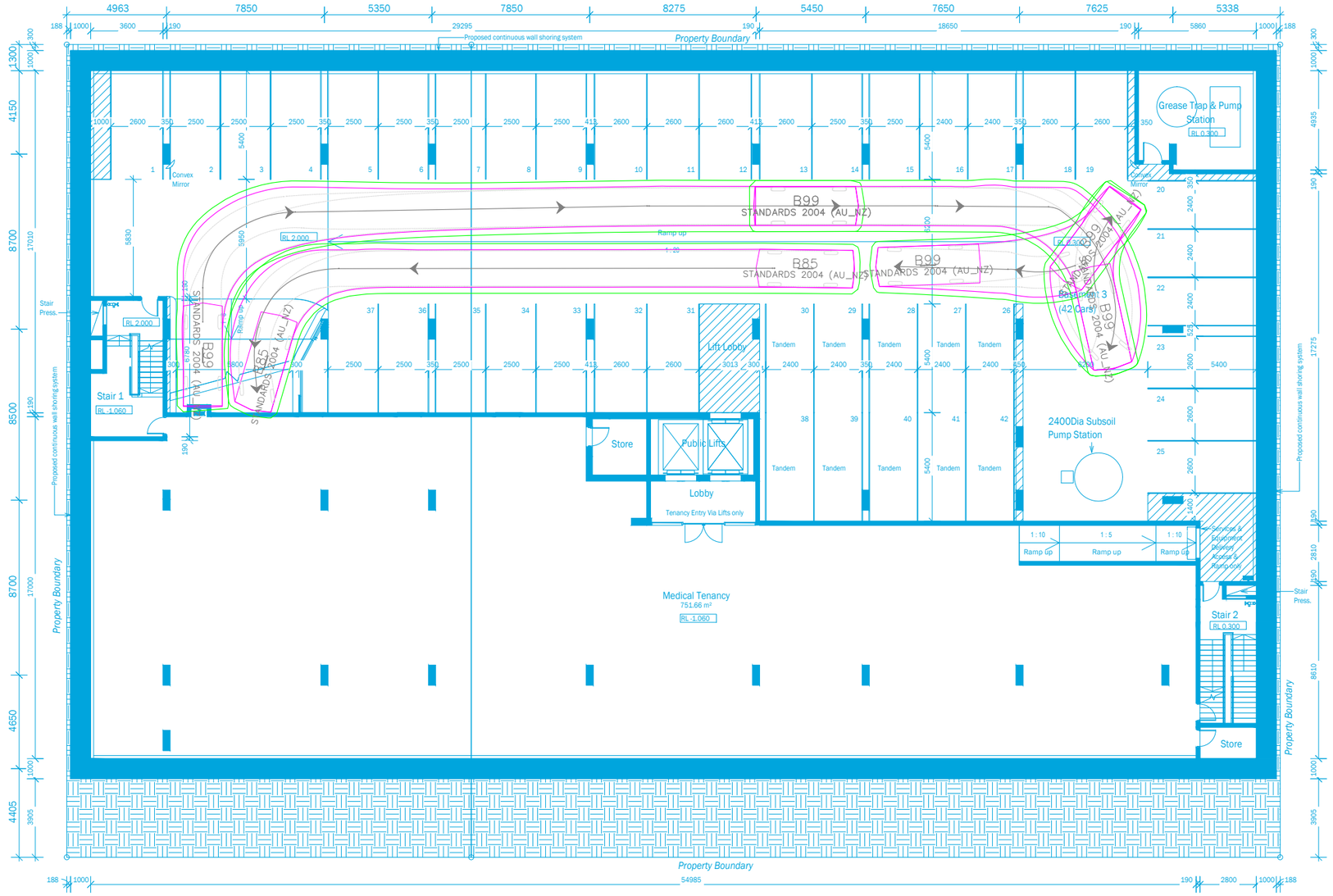
- VEHICLE TYRE PATH
- VEHICLE BODY PATH
- 300mm CLEARANCE FROM VEHICLE BODY



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NOTES:

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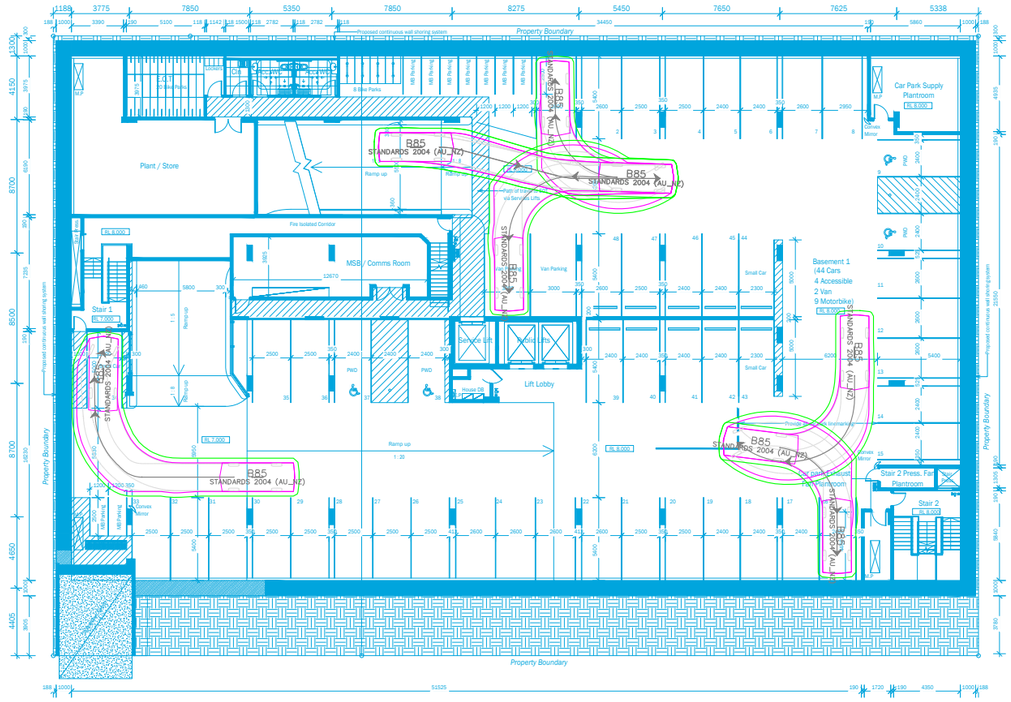

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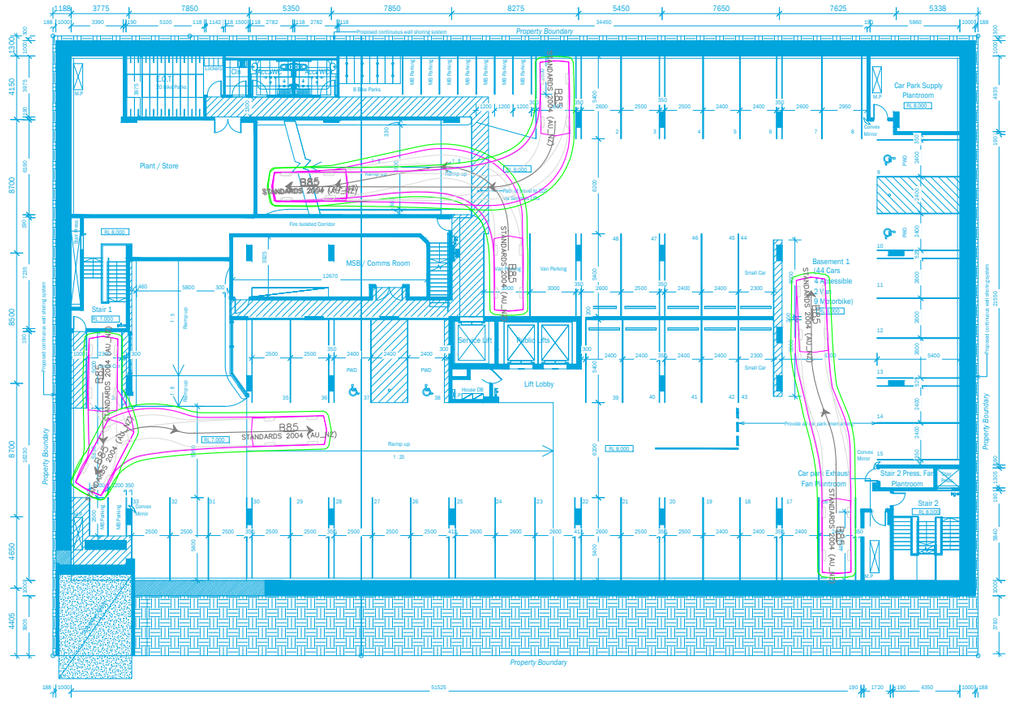
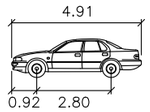


EXIT



B85

	meters
Width	: 1.87
Track	: 1.77
Lock to Lock Time	: 6.0
Steering Angle	: 34.1

SWEPT PATH KEY:

- VEHICLE CENTRE LINE
- VEHICLE TYRE PATH
- VEHICLE BODY PATH
- 300mm CLEARANCE FROM VEHICLE BODY

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STANBURY TRAFFIC PLANNING

60–64 SHOWGROUND ROAD, GOSFORD
CAR PARK COMPLIANCE REVIEW
SWEPT PATH ASSESSMENT
BASEMENT 1

SCALE	0 4.0 8.0 1:400@A3	CREATED BY Y.H
DRAWING NO.	23–084–01–V10	APPROVED BY M.S
DATE	15 May 2024	SHEET 11 / 14

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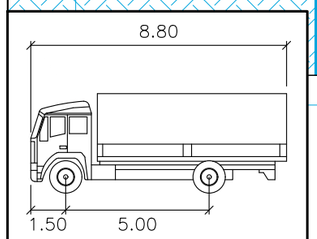

MRV

	meters
Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 34.0

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STANBURY TRAFFIC PLANNING

60–64 SHOWGROUND ROAD, GOSFORD
CAR PARK COMPLIANCE REVIEW
VERTICAL CLEARANCE ASSESSMENT
MAIN ACCESS RAMP

SCALE	0 1.0 2.0 1:100@A3	CREATED BY Y.H
DRAWING NO.	23–084–01–V10	APPROVED BY M.S
DATE	15 May 2024	SHEET 12 / 14

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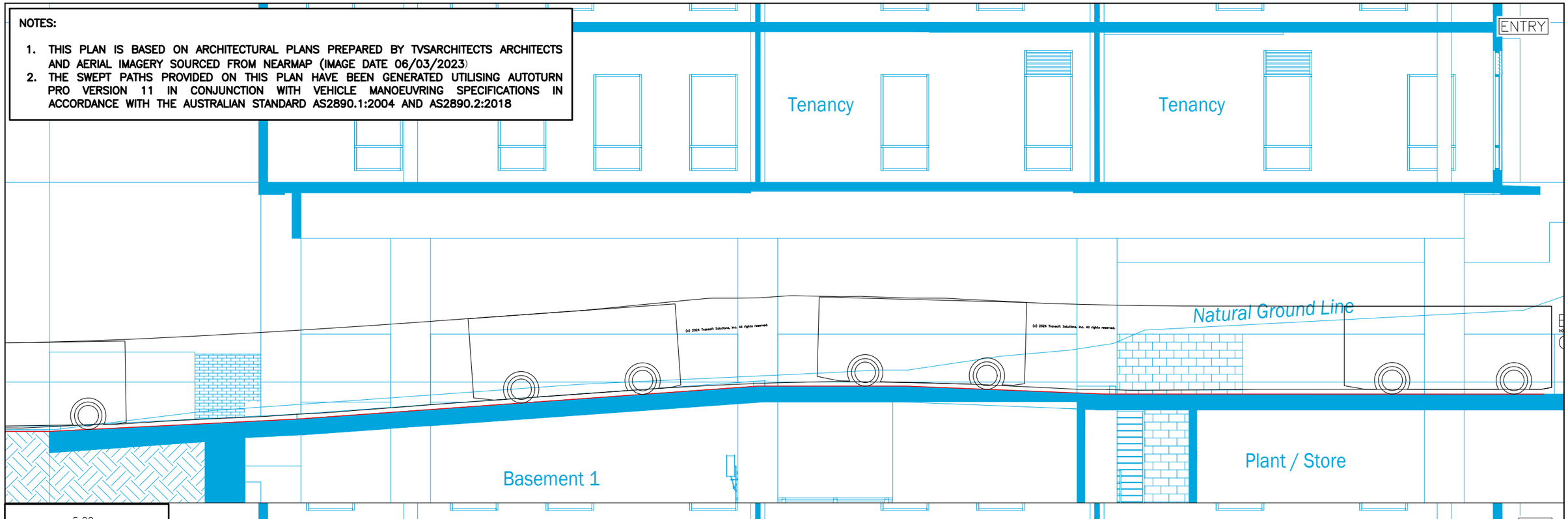

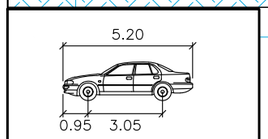

B99

	meters
Width	: 1.94
Track	: 1.84
Lock to Lock Time	: 6.0
Steering Angle	: 33.9

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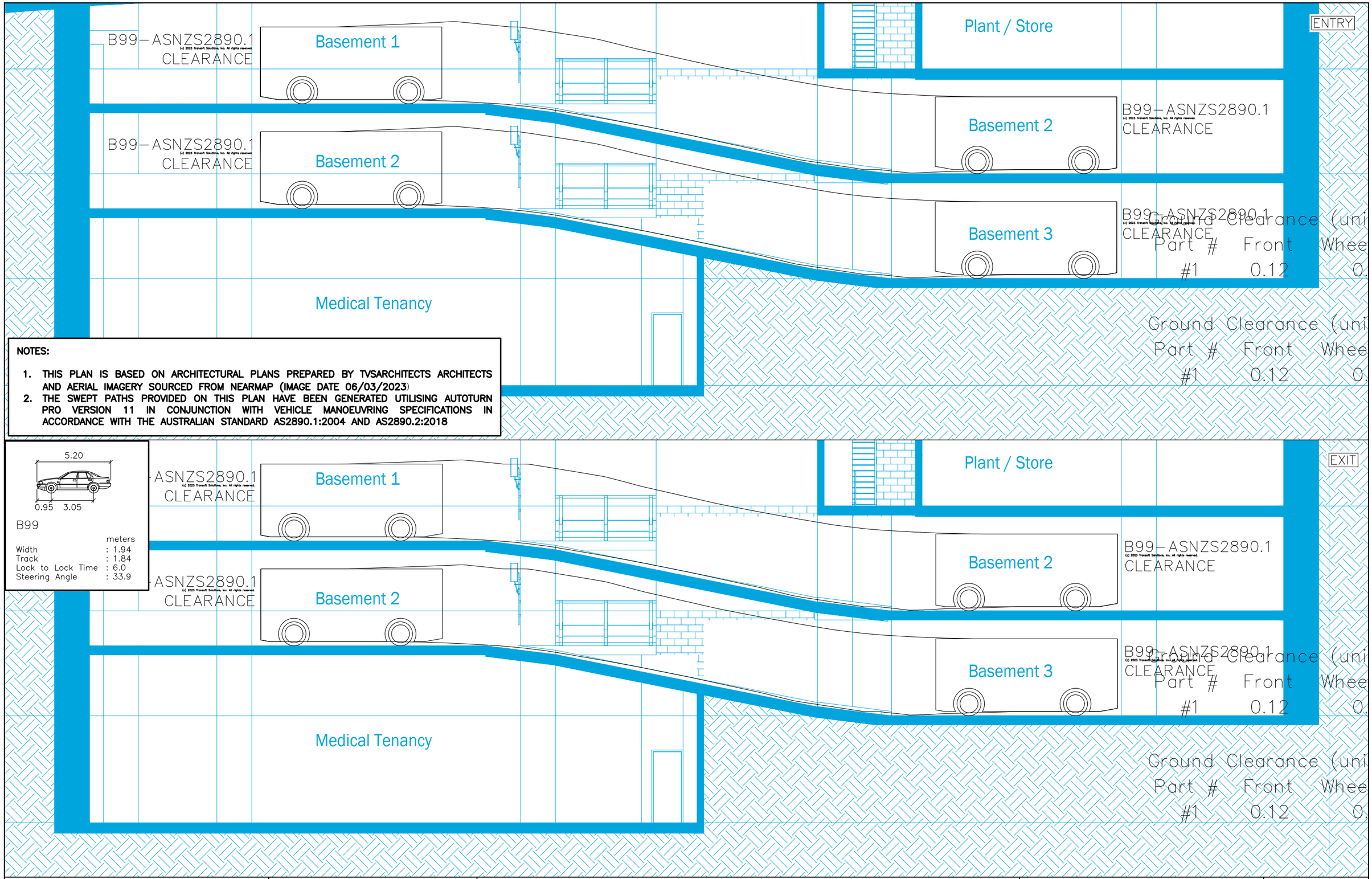
STANBURY TRAFFIC PLANNING

60–64 SHOWGROUND ROAD, GOSFORD
CAR PARK COMPLIANCE REVIEW
VERTICAL CLEARANCE ASSESSMENT
MAIN ACCESS RAMP

SCALE 0 1.0 2.0	1:100@A3	CREATED BY Y.H
DRAWING NO.	23–084–01–V10	APPROVED BY M.S
DATE	15 May 2024	SHEET 13 / 14



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STANBURY TRAFFIC PLANNING

60–64 SHOWGROUND ROAD, GOSFORD
CAR PARK COMPLIANCE REVIEW
VERTICAL CLEARANCE ASSESSMENT
B1 TO B4 RAMP

SCALE 0 1.0 2.0 1:100@A3		CREATED BY Y.H
DRAWING NO. 23–084–01–V10		APPROVED BY M.S
DATE 15 May 2024		SHEET 14 / 14

ATTACHMENT 3

STANBURY
TRAFFIC PLANNING
TRAFFIC, PARKING & TRANSPORT CONSULTANTS

GREEN TRAVEL PLAN

APPROVED MIXED MEDICAL DEVELOPMENT
60 – 64 SHOWGROUND ROAD,
GOSFORD

PREPARED FOR CHP FUND
OUR REF: 23-084-GTP-1

16 MAY 2024

401/380 Harris Street,
Pyrmont NSW 2009

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www.stanburytraffic.com.au

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APPENDICES

1. PROJECT OVERVIEW

Stanbury Traffic Planning has been commissioned by CHP Fund to prepare a Green Travel Plan to accompany a Section 4.55 Application for amendments to an approved mixed medical development at 60 – 64 Showground Road, Gosford.

The proposal involves the construction of a five-storey building with the following development scheme:

- 19 specialist consulting room tenancies, providing a total consulting room tenancy area of 5,902.4m²;
- The provision of a radiology treatment bunker situated within the southern portion of Basement 3, providing a floor area of 751.66m²;
- A retail tenancy floor area of 102.52m²;
- An off-street parking area contained within three basement levels, providing 162 car spaces, 11 motorcycle spaces and 48 bicycle spaces (20 of which are to be accommodated at ground level); and
- An off-street servicing area situated at ground level, capable of accommodating ambulances and delivery / waste collection vehicles up to and including Medium Rigid Vehicles (MRVs).

Vehicular access between the off-street parking area and the servicing bays are proposed to be facilitated by a combined 6.1m wide ingress / egress driveway, connecting with Showground Road in the south-eastern corner of the site.

Pedestrian paths are proposed to connect the car parking area and the main building. Pedestrian connectivity at the Showground Road frontage is proposed via paths connecting with the western public road footpath situated to the north and separate from the abovementioned vehicular access driveway.

2. GREEN TRAVEL PLAN

2.1 Introduction

Transport is an unavoidable factor in modern society and a major contributor to emissions in Australia. However, the effects of transport associated with new developments can be managed through the implementation of travel plans, which provide an opportunity to reduce harmful vehicle emissions. In conjunction with striving to provide more efficient environmental outcomes, providing a range of travel choices with a focus on walking, cycling and public transport will result in major public health advantages to the staff and visitors of the mixed medical facility at 60 – 64 Showground Road, Gosford.

The close proximity of the subject site to various forms of public transport including rail and various bus routes, in conjunction with limiting off-street car parking provision, form major parts of the initiatives to encourage reductions in vehicle transport use. The Green Travel Plan will ensure that the transport infrastructure, services and policies within and outside the site are tailored to the future site users, being coordinated to achieve sustainable outcomes.

2.2 Green Travel Plan Definition

This Green Travel Plan provides a series of measures aimed at promoting and encouraging sustainable travel by staff and visitors of the mixed medical facility and reducing reliance on the private car. The aim of the Plan is to achieve travel behaviour change through raising awareness of alternatives to private motor vehicle use. The development of the specific facility-based Plan focuses on providing information, offering incentives and mode specific actions to optimise the use of sustainable travel (public transport, cycling and walking).

This Green Travel Plan specifically examines how future staff and visitors of the facility can travel to and from the site and what can be done to replace single occupancy motor vehicle trips with sustainable trips. As a trip generator, the development can enhance the choices available to staff / visitors in a way that promotes health, safety and environmentally sustainable outcomes.

The potential to change the mixed medical facility-based travel is affected by several factors including car parking provision, encouraging facility staff interest in changing travel behaviours, the provision of support for behaviour change through the provision development infrastructure and the availability of various forms of public transport in the immediate vicinity.

2.3 Green Travel Plan Benefits and Objectives

This Green Travel Plan provides a wide range of benefits to staff of the facility in conjunction with the environment including:

- Decreasing vehicle emissions;
- Promoting the mixed medical facility as an innovative and environmentally aware location;
- Improving health and fitness of the staff and visitors of the mixed medical facility through increased cycling and walking activity;
- Reducing traffic congestion and car parking problems;
- Fostering a sense of community; and
- Reducing general living expenses.

The main objectives of this Green Travel Plan are to:

- Reduce vehicle kilometres travelled (VKT) to and from the mixed medical facility, particularly single occupancy vehicle trips;
- Increase staff / visitor use of sustainable transport modes (walking, cycling and public transport);
- Ensure that the staff / visitors of the facility are informed on the opportunities and benefits of using sustainable transport; and
- Promote the subject site and area as an innovative and environmentally aware location.

2.4 Green Travel Plan Structure

The Green Travel Pan will capitalise on the availability of described sustainable transport options such that modal share which does not involve a private vehicle is expected to be relatively high.

The Plan itself takes the structure of this report and attachments forming a package of easy-to-understand travel information to be included in a new staff / visitor information pack.

The information pack also includes a Transport Access Guide (contained within **Appendix 1)**. This Guide provides site-centred customised travel information for staff of the facility with respect to sustainable forms of transport including walking, cycling, carpooling and public transport. It provides a simple visual review of the subject locality containing easy to recognise relationships between the site and bus stops and routes, the nearby train station, on-road cycle routes, internal and external pedestrian links. The Transport Access Guide also provides

site-specific information about the on-site bicycle parking areas and the end of trip facilities provided.

3. EXISTING TRANSPORT CONDITIONS

3.1 Surrounding Sustainable Transport Options

The mixed medical facility site is serviced by a series of sustainable (or active) transport options available for future staff of the facility. **Figures 1** and **2** below and overleaf, respectively are excerpts from the Transport Access Guide, which is provided as **Attachment 1,** and illustrate the sustainable transport options in the form of bus stops, heavy rail stations, pedestrian paths and bicycle lanes within proximity of the subject site.

Figure 1 below illustrates the surrounding bus stops, train stations, walking paths and bicycle routes in the vicinity of the subject site.

FIGURE 1
TRANSPORT OPTIONS
IN THE VICINITY OF THE SUBJECT SITE

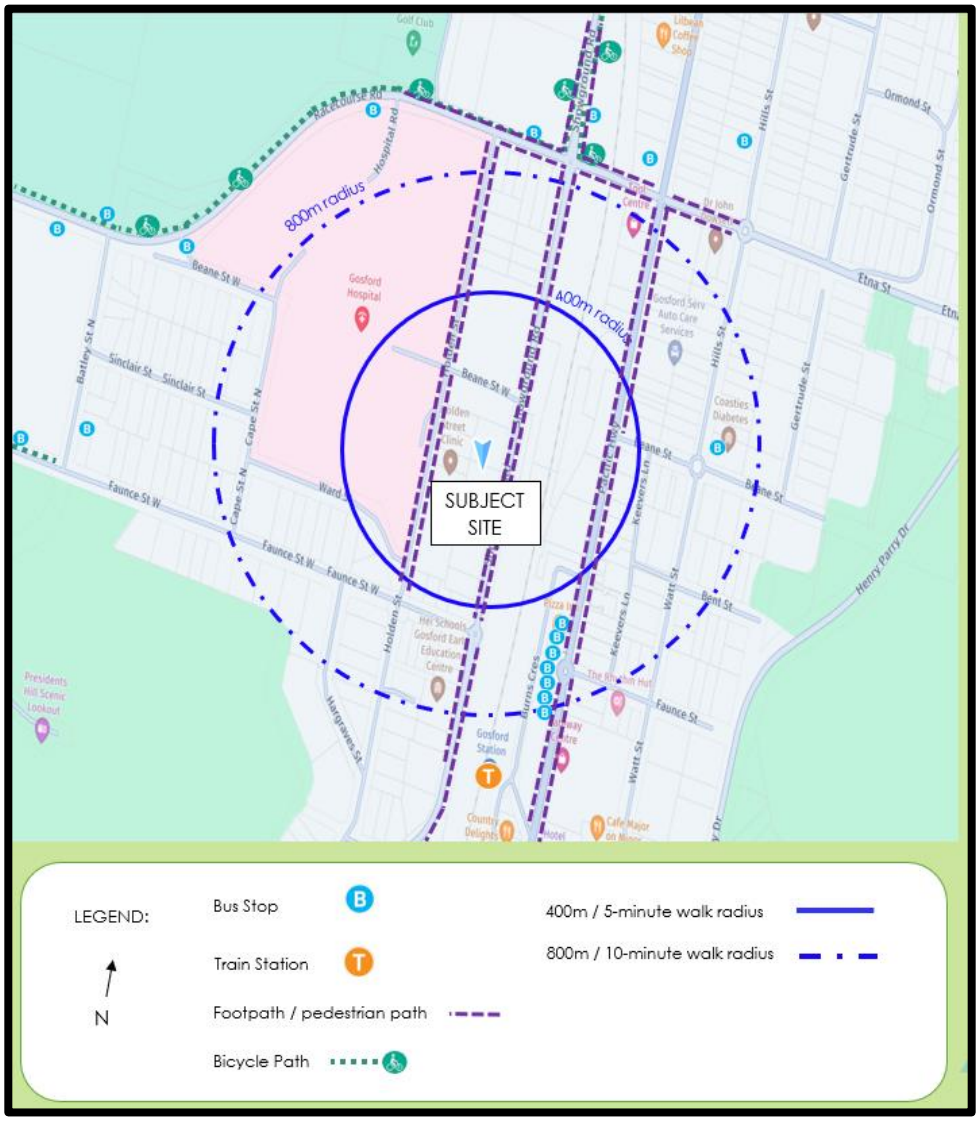
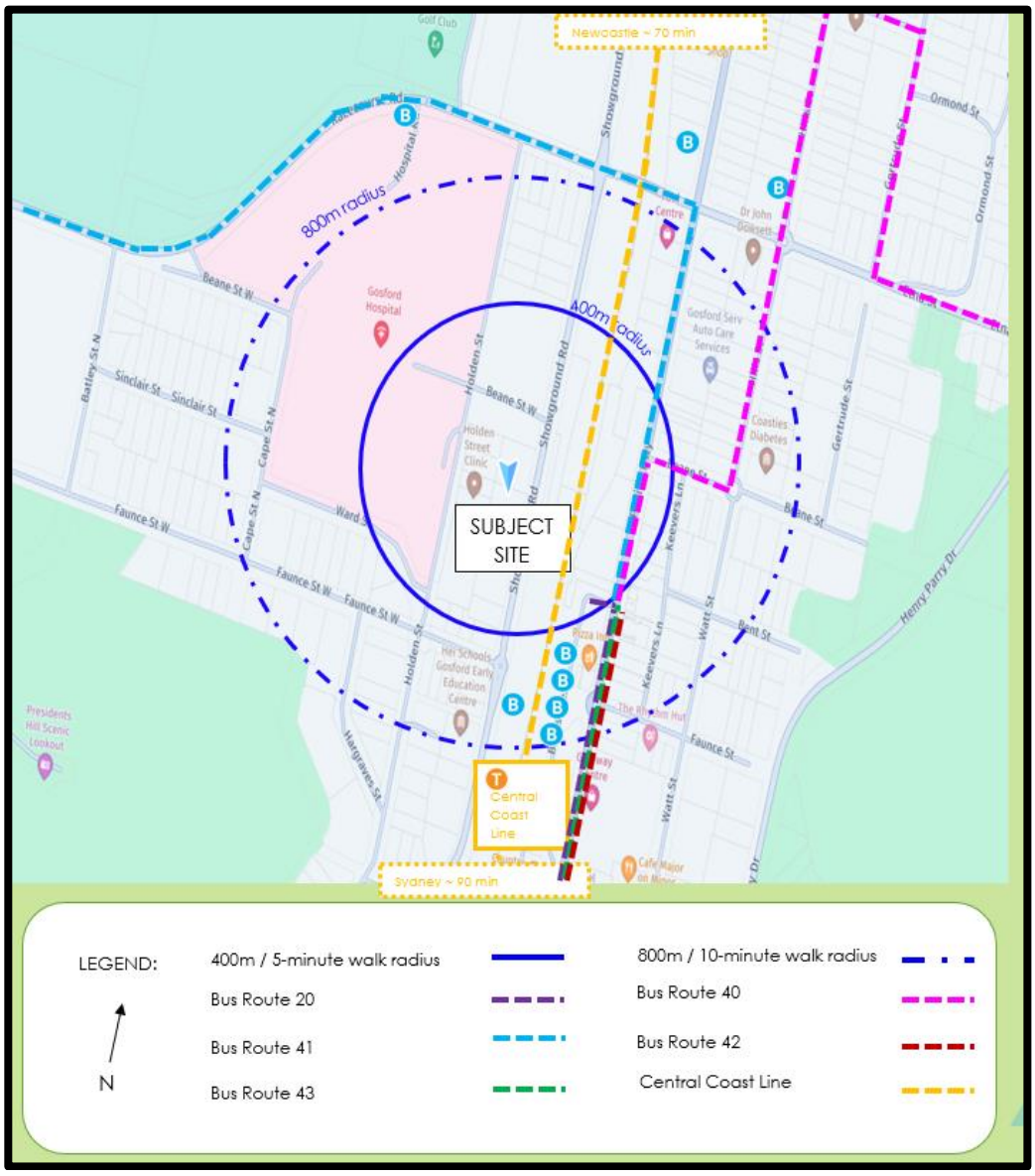


Figure 2 below illustrates the public transport network in the vicinity of the subject site and connectivity between the site and other areas throughout the Central Coast area.

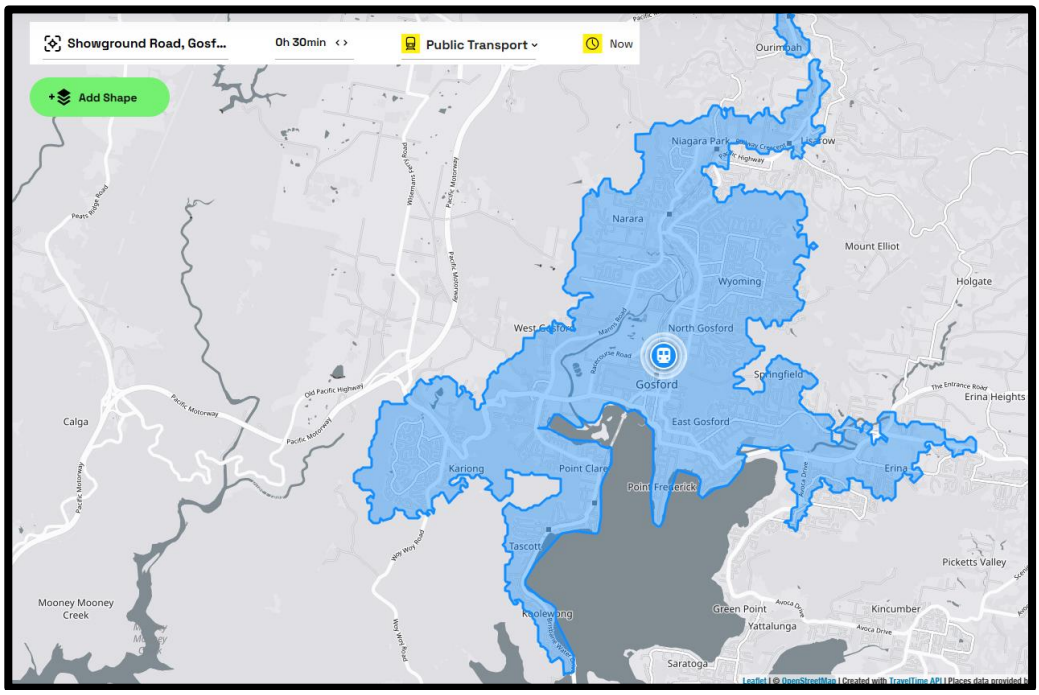
FIGURE 2
PUBLIC TRANSPORT CONNECTIVITY
IN THE VICINITY OF THE SUBJECT SITE



Subsequent sections of this report provide a detailed description of each of the surrounding sustainable transport options.

Figure 3 below indicates that the following suburbs are accessible by public transport within 30 minutes of the site include Wyoming, Kariong, Erina, East Gosford and Woy Woy. Additional locations may be accessible depending on the time of the day and public transport connections.

FIGURE 3
PUBLIC TRANSPORT CONNECTIVITY
IN THE VICINITY OF THE SUBJECT SITE



Source: https://app.traveltime.com

3.1.1 Buses

There are multiple bus stops situated within a five-minute walk from the site.

- Multiple bus stops are situated along Burns Crescent adjacent to Gosford Railway Station being situated at approximately 350m walking distance (5-minute walk) to the south-east of the site;

- Multiple bus stops are situated along Racecourse Road with the closest stops being situated at approximately 350m walking distance (5-minute walk) to the north-west of the site; and

- Multiple bus stops are situated along Showground Road with the closest stops being situated at approximately 350m walking distance (5-minute walk) to the north of the site.

The bus stops within Burns Crescent service the following routes:

- Route 20 – Gosford to Matcham via Erina Fair (Loop Service);

- Route 32 – Spencer to Gosford;

- Route 33 – Somersby to Gosford via Industrial Estate & West Gosford;
- Route 34 – Gosford to Kariong (Loop Service);
- Route 40 – North Gosford to Gosford (Loop Service);
- Route 41 – West Gosford to Gosford (Loop Service);
- Route 42 – Point Frederick to Gosford; and
- Route 44 – Erina Fair to Gosford via Springfield.

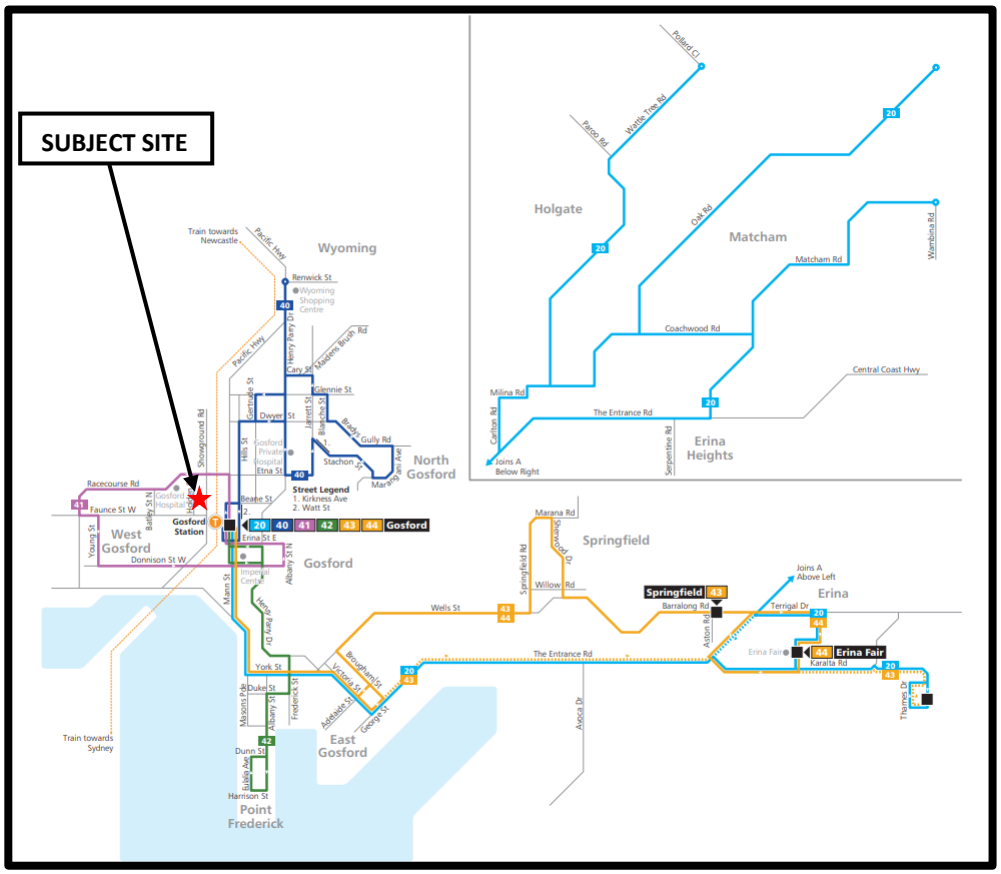
Table 1 below provides a summary of the frequencies of the above bus routes.

TABLE 1
BUS SERVICE FREQUENCIES

Route No.	Origin / Destination	Frequency			
		Weekday Peak	Weekday Business	Weekend	Night
20	Gosford / Matcham	120	180	N/A	N/A
32	Spencer / Gosford	20 – 40	60	N/A	N/A
33	Somersby / Gosford	30	30	N/A	N/A
34	Gosford / Kariong	30	30	60	60 minutes Monday – Saturday; 90 minutes – Sunday
40	North Gosford / Gosford	60	60	60	30 minutes Monday – Friday; 60 minutes Saturday – Sunday
41	West Gosford / Gosford	120	120	120	120 minutes Monday – Sunday
42	Point Frederick / Gosford	60	60	120	N/A
44	Erina Fair / Gosford	40	30	60	60 minutes Monday – Sunday

Figure 4 overleaf illustrates the bus route operator network maps that include the closest but stops to the subject site and the surrounding areas.

FIGURE 4
PUBLIC BUS NETWORK AROUND THE GOSFORD AREA



Source: transportnsw.info

3.1.2 Heavy Rail

The site is located approximately 200m walking distance to the north of Gosford Railway Station.

Gosford Railway Station provides access to train services which operate along the Central Coast & Newcastle Line.

This line provides regular services between Sydney, the Central Coast and Newcastle. An interchange at Strathfield and Hornsby also provides a connection to the remainder of the Sydney Metropolitan train network.

3.1.3 Pedestrians

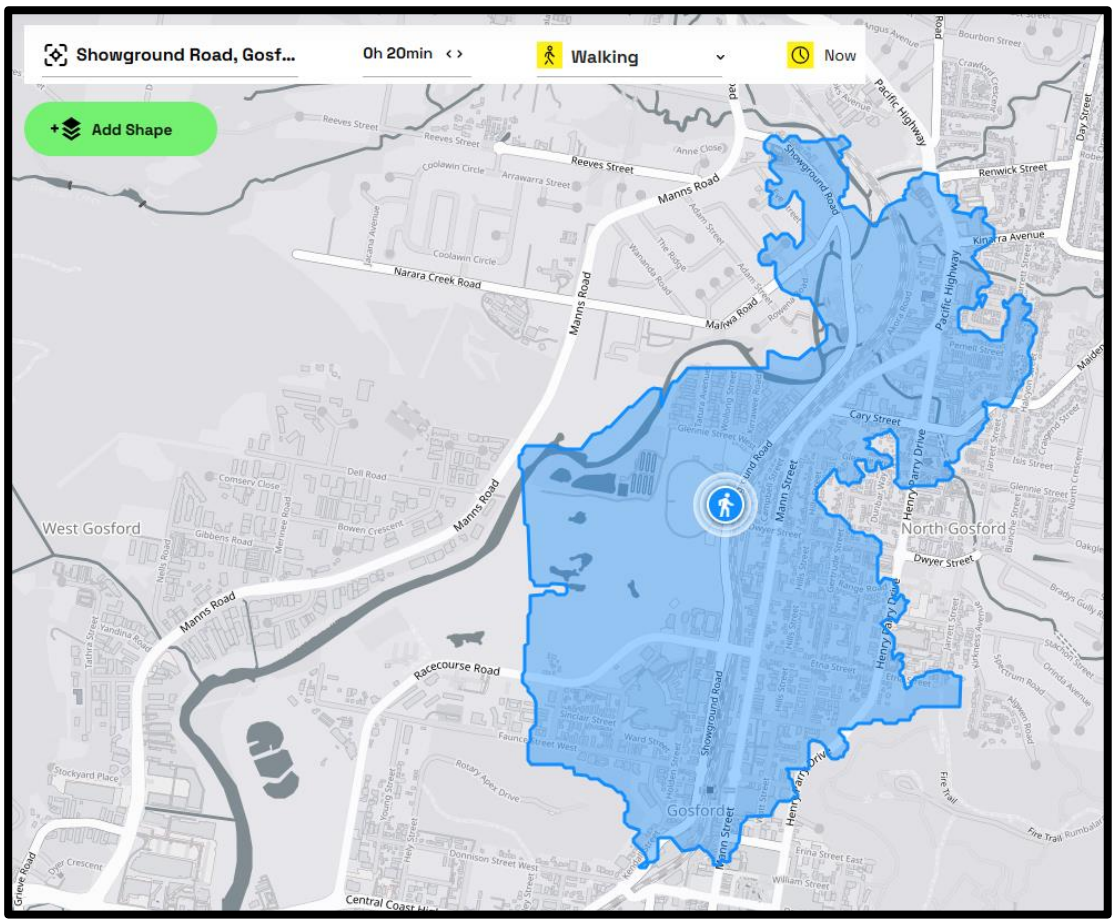
The following pedestrian access and mobility infrastructure surrounds the subject site:

- A footpath is provided along both sides of Showground Road and Racecourse Road;
- A pedestrian crossing is provided across Showground Road adjacent to the north-eastern corner of the site;

- A pedestrian crossing is provided across Faunce Street West immediately to the wet of Showground Road; and

- A pedestrian refuge is provided within the splitter median island on the southern approach to the roundabout controlled intersection of Showground Road and Racecourse Road.

FIGURE 5
WALKABILITY OF THE SURROUNDING PRECINCT ORGINATING FROM THE SUBJCT SITE



Source: https://app.traveltime.com

Figure 5 indicates that the subject site provides high connectivity to the Gosford CBD area within a 20-minute walking distance of the subject site.

3.1.4 Cyclists / Development End of Trip Facilities

The following pedestrian access and mobility infrastructure surrounds the subject site:

- A shared bicycle path is provided along the northern side of Racecourse Road, to the north-west of the site;

- A shared path is provided along the eastern side of Showground Road, to the north of the site; and

- A shared path is provided along the northern side of Faunce Street West to the south-west of the site.

The subject site provides 48 total bicycle parking spaces comprising 20 staff spaces and 28 visitor spaces. The development also includes end of trip facilities within the building in the form of two showers and sixteen personal lockers for use of staff of the development located within the basement parking area. Additional end of trip facilities will also be contained within the respective consulting tenancies of the mixed medical facility.

Figures 6 and **7** below and overleaf, respectively, form excerpts from the Transport Access Guide, which is provided as **Appendix 1** and indicates where the end of trip facilities are located on-site and how they can be accessed.

FIGURE 6
ON-SITE BICYCLE PARKING SPACES AND END OF TRIP FACILITIES

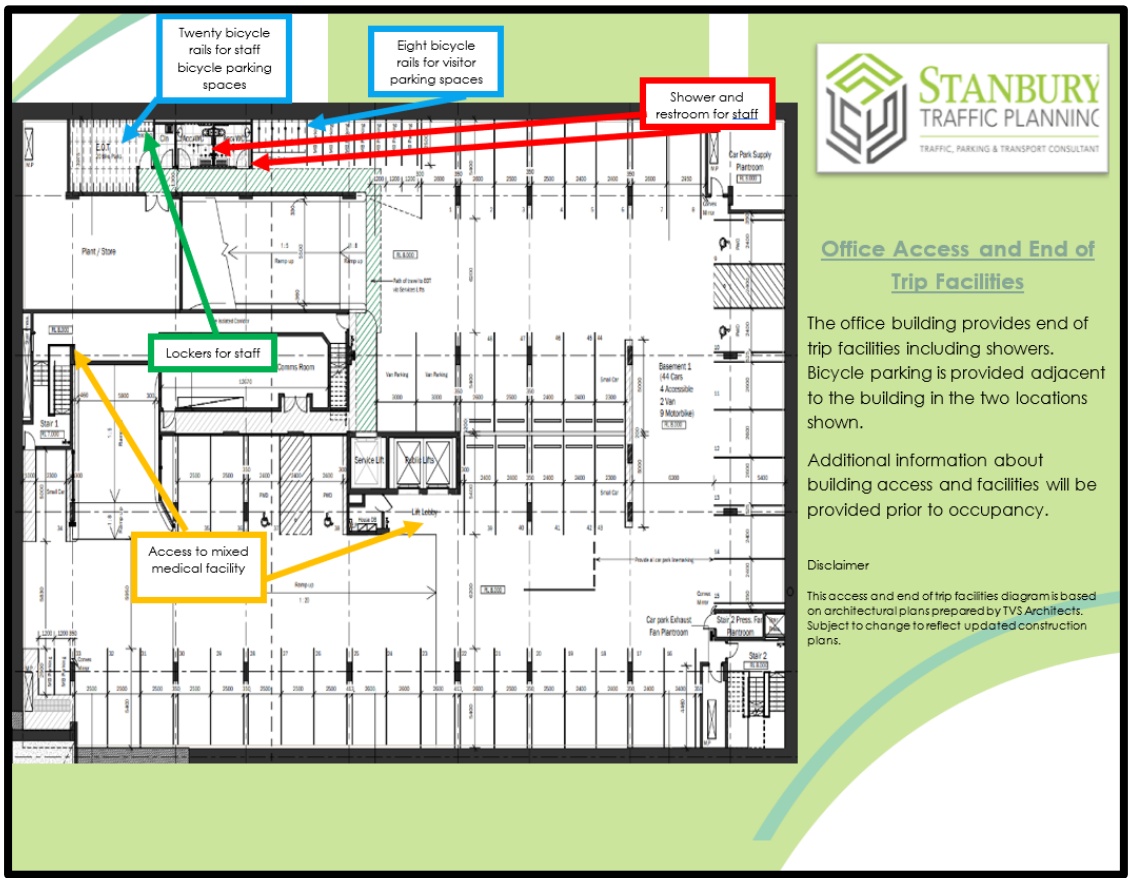
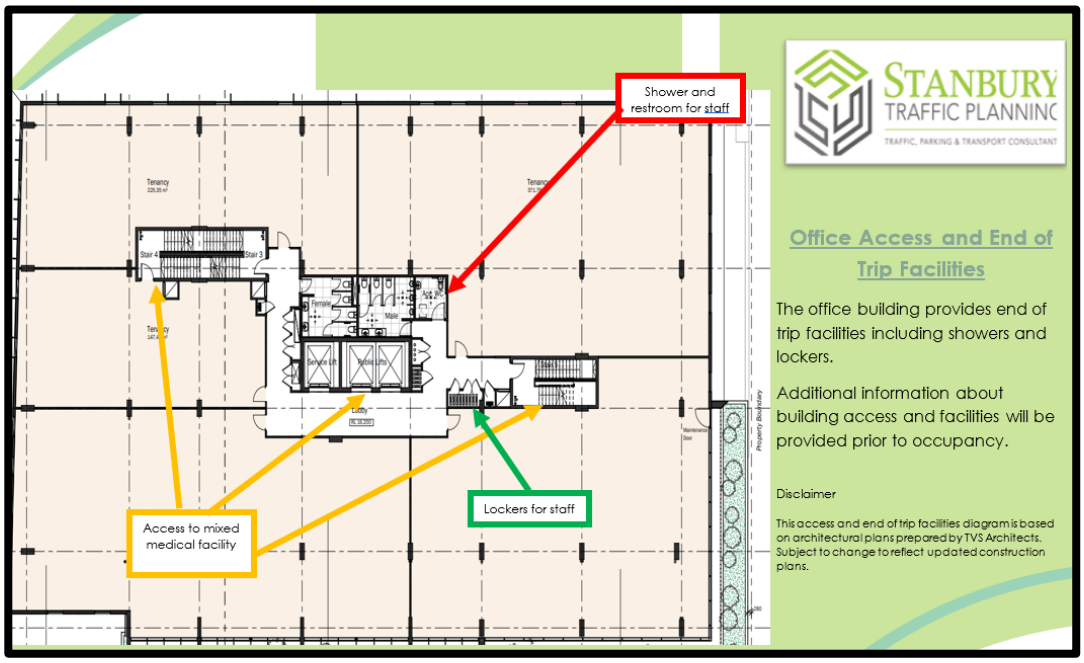


FIGURE 7
END OF TRIP FACILITIES IN THE BUILDING



3.1.5 Electric Vehicles

Consideration should be given to equip a proportion of on-site parking spaces with electric charge points to accord with the ongoing and developing needs of the staff of the development. Staff of the development should contact the Travel Coordinator / Committee (see Section 4) in order to express their interest in electric vehicle charging and to learn more about the capability of the site to provide such amenity.

Until such a time when the site provides electric vehicle charging capabilities, the following link provides a live map which displays the available public electric vehicle charging infrastructure throughout New South Wales:

https://www.transport.nsw.gov.au/projects/electric-vehicles/charging-an-electric-vehicle/charging-map

This resource should be made available to staff / visitors of the development.

4. MODE SHIFT INITIATIVES

4.1 Introduction

The previously described proximity of the site to a wide range of sustainable transport modes is an important attribute in the justification of the approved mixed medical facility. The staff / visitors of this facility are expected to capitalise upon these links.

This Green Travel Plan involves the implementation of a series of measures to influence future staff / visitor travel behaviours to encourage modal shift away from private cars.

The mixed medical facility is to appoint and member of the building management to become the Travel Coordinator to perform the duties involved in implementing the initiatives incorporated within this Plan and the ongoing development of initiatives to ensure that sustainable travel modes are promoted to staff / visitors. The coordinator shall facilitate the initial implementation of the Green Travel Plan as well as subsequent periodic guidance in the ongoing review of the Green Travel Plan.

4.2 Site-Specific Measures

The following sub-sections provide a summary of the initiatives proposed to be implemented with the occupation of the approved development to promote sustainable transport to and from the site. The following measures are to be in place from the initial occupancy of the facility and are anticipated to aid in establishing lasting habits from this time.

4.2.1 Development Design

The following infrastructure has been incorporated into the physical development design to promote sustainable transport:

- Bicycle parking infrastructure in the form of 48 on-site parking spaces is provided, considerably exceeding minimum rates provided by Central Coast Council to encourage the likelihood of cycling as a mode of transport;

- End of trip facilities are provided within the medical facility comprising showers and lockers for use of the staff of the development;

- Motorycle parking infrastructure in the form of 11 on-site parking spaces is provided, considerably exceeding minimum rates provided by Central Coast Council to encourage the likelihood of more efficient private vehicles as a mode of transport;

- The creation of clear and efficient connectivity of the site to the adjacent pedestrian public road network to encourage cycling and walking;

- The provision of good quality, accurate and useful internal development directional signage to promote walking and cycling, stating times and distances to surrounding destinations; and

- A reduced off-street car parking provision which, in combination with the above sustainable transport infrastructure, encourages more sustainable transport mode selection by facility users.

4.2.2 General Transport Information and Encouragement

Table 2 below provides example initiatives to provide general transport information to staff / visitors members of the development.

TABLE 2 GENERAL TRANSPORT INFORMATION AND ENCOURAGEMENT MEASURES	
Spread of Information	Provide information on travel options available to staff of the facility through the following methods: • Factsheets / bulletins • Travel Committee newsletters (provided via tenancy company email addresses) • Common area displays • Company websites
Transport Access Guide	Provide the Transport Access Guide to staff / visitors as it illustrates the connectivity between the site and the following: • Walking and cycling routes • Bus stops and associated bus routes • Train stations and associated train routes and train The Transport Access Guide can be provided to staff / visitors through digitally posting on the tenancy website and/or physically providing to facility users through posting on notice boards.
New Staff Inductions	A way to encourage travel behaviour change is to promote healthy habits from the start. Ensure that newly hired are provided with the following information on how to access the precinct using sustainable transport: • Nearby public transport timetables • On-site bicycle storage facilities and end of trip facilities. • Transport Access Guide

4.2.3 Promote Cycling

Table 3 below provides example initiatives to promote cycling to and from the development.

TABLE 3 CYCLING PROMOTION INITIATIVES	
Information	Provide: • Cycling maps • Factsheets on the benefits of cycling • Factsheets on the bicycling road rules and safety tips
Skills Development	• Increase cycle confidence by providing cycle skills training for staff / regular visitors who are learning to cycle or who haven't ridden for a long period of time. • Bring in experts to perform a bicycle maintenance workshop.
Cycling Champions	Identify staff / regular visitors who cycle to the site or recreationally and encourage them and others with acknowledgement / rewards.
Bicycle Group	• Form groups of staff who live in close proximity to one another and are interested in cycling to work. • Match less confident cyclists with a 'cycle buddy' for cycle trips. • Organise recreational group rides for the staff of the facility and surrounding community.
Events	Encourage participation in: • Ride to Work Day • Bike Week • World Move for Health

4.2.4 Promote Walking

Table 4 below provides example initiatives to promote walking to and from the development.

TABLE 4 WALKING PROMOTION INITIATIVES	
Information	Provide: • Walking maps • Factsheets on the benefits of walking • Ensure that walking paths within the site are well maintained with adequate lighting • Ensure staff / regular visitors are aware of the end of trip facilities including showers and lockers
Walking Champions	Identify staff / regular visitors who walk to work or recreationally and encourage them and others with acknowledgement / rewards.
Walking Group	• Establish a 'walking club' along a designated route where staff who walk to work or want to walk recreationally can meet up with others. • Organise recreational walking groups for the staff of the facility and surrounding community.
Events	Encourage staff to participate in: • 10,000 steps program. • Walk to Work Day • Diabetes Day.

4.2.5 Promote Public Transport

Table 5 below provides example initiatives to promote utilising public transport to and from the development.

TABLE 5 PUBLIC TRANSPORT PROMOTION INITIATIVES	
Information	Provide: • Bus / train timetables • Display maps detailing public transport to / from the subject site • Opal cards to new staff with some pre-paid credits • Up-to-date public transport information and advisories on company website • Helpful apps for mobile devices that provide public transport route planning
Public Transport Champions	Identify staff / regular visitors who use public transport to get to work and encourage them and others with acknowledgement / rewards.
Events	Encourage staff to participate in: • A site Public Transport Month • World Environment Day

4.2.6 Promote Car Pooling / Sharing

Table 6 below provides example initiatives to promote utilising carpool and car share to get to and from the development.

TABLE 6 CARPOOL / CAR SHARE PROMOTION INITIATIVES	
Information	Provide: • Guidelines on car-pooling • Factsheets on the benefits of car-pooling • Display maps of surrounding car share pods • Car share membership cards within the new staff information pack with some pre-paid credits
Car Pooling Champions	• Identify staff who use carpooling / car share to get to work and encourage them and others with acknowledgement / rewards. • Consider a preferential car parking location for people that car pool.
Events / Groups	• Establish a facility staff carpool register for staff to reference and create carpooling groups. • Invite car share service representative to put on seminars / events to share information with staff members about car share.

4.3 On-Site Parking Management Strategy

An on-site Parking Management Strategy is to be implemented in order to govern the use of the on-site parking spaces and assign priority to those staff who are unable to access public transport options and those who carpool with other staff members. The following provides initiatives to include in the Parking Management Strategy:

- Staff members who drive to the site and are part of a carpooling initiative are to be given priority to occupy designated on-site staff parking spaces, in preference to others; and

- Staff members who live in areas that are not accessible by the surrounding public transport infrastructure are to be given priority to occupy designated on-site staff parking spaces, in preference to others.

The Parking Management Strategy should be implemented at occupation of the development and should be maintained and developed throughout the lifecycle of the development to adjust to the parking and transport needs of the staff.

5. MODE SHARE TARGETS

5.1 Existing Mode Share Data

According to the Australian Bureau of Statistics, of the total workforce within the Gosford area, 87.7% also lived within the area in 2016. In consideration of the above, the approved mixed medical facility is situated in an area that is accessible by the multiple modes of public transportation in the surrounding vicinity, therefore, the journey to work patterns and behaviours of the residents within the Central Coast Council area can be applied in order to assume the transportation preferences of the future staff of the approved development.

The latest assessment of the journey to work data for the Gosford area was conducted during the 2021 Census. It is however considered that the prevailing COVID-19 pandemic may have impacted the journey to work data collected during the 2021 census as there were lockdown restrictions in effect during the census date and the preceding weeks (https://www.abs.gov.au/census/guide-census-data/census dictionary/2021/variables-topic/transport/method-travel-work-mtwp).

Therefore, in order to provide an indication of the pre COVID-19 travel behaviours and assess the impacts on the transportation of the residents within the Central Coast Council area, the 2016 Journey to work data has been provided.

Table 7 below provides journey to work data of 2016 of Gosford as published by the Australian Bureau of Statistics.

TABLE 7
JOURNEY TO WORK DATA
GOSFORD AREA

Travel Mode	2016 Census Data (Pre-COVID-19)	
	People	Percentage
Car as Driver	17,705	70
Car as passenger	1,418	6
Public Transport (bus, train)	5,232	21
Walk Only	817	3
TOTAL	**25,172**	**100**

Notes:

- People who worked from home or did not work are not included within the above table.

It is noteworthy that the Australian Bureau of Statistics indicates that the top industry of employment in the Gosford area was in hospitals and healthcare with 3,540 people employed within the sector.

5.2 Mode Share Targets

It is the intention that the implementation of the package of measures provided within this Green Travel Plan and the excellent connections to existing sustainable transport links will assist towards a higher non-car use by staff / visitors of the facility.

Given a considerable element of this Plan involves the encouragement of cycling as a means of transport, this method of travel has been included in the mode share targets developed for the development, as detailed within **Table 9** below.

TABLE 9
JOURNEY TO SITE TARGETS

Travel Mode	Percentage of Total
	Staff
Car as Driver	40
Car as Passenger (Car Pool / Share)	10
Public Transport	30
Walk	10
Bicycle	10
TOTAL	**100**

6. GREEN TRAVEL IMPLEMENTATION PLAN

A Green Travel Plan is a dynamic document which will change over time depending on the environment and circumstances of the subject development. Accordingly, monitoring, evaluating and reviewing the Plan is pertinent to guide ongoing efforts to reduce vehicle kilometres travelled and encourage the use of sustainable transport. The following subsections describe methods to enact in order to allow the ongoing implementation and review of the Green Travel plan initiatives.

6.1 Travel Coordinator / Transport Leadership

The development management is to determine a staff member to take on the position of Travel Coordinator. The Travel Coordinator will work with a small committee of other staff of the facility and will be responsible for the implementation of the Green Travel Plan and promoting the initiatives of the plan. The committee shall comprise appointed members of the staff who have a specific interests and passions in the promotion of sustainable transport.

The Travel Coordinator / Committee is to perform the following:

- Implement the GTP and to develop further initiatives in order to ensure that sustainable and active transport options are promoted and adopted by staff / visitors;

- Undertake ongoing reviews of the transport needs and behaviours of the staff / visitors to ensure that the procedures and initiatives contained within this GTP are appropriately tailored to target the specific transport needs of the development; and

- Plan and organise the events set out within Section 3.2 of this GTP including the preparation of transportation information that could be placed on a company website and physical displays.

In addition to the above, the GTP is subject to periodic review by an independent transport planner to ensure that sustainable transport targets and mode shift goals can be met and how the staff of the subject development can help achieve those goals.

6.2 Annual Staff Travel Survey

The Travel Coordinator and their committee will be responsible for administering a Travel Survey which is described in the following subsection.

Monitoring the success and applicability of this Green Travel Plan is an ongoing process which involves fine tuning. Whilst there is no standard methodology for the monitoring of a Green Travel Plan, the travel behaviour of the staff of the facility should be regularly surveyed in order to ascertain the areas in which the Green Travel Plan is successful and where initiatives may be added or improved.

Therefore, the Travel Coordinator / committee will be responsible for administering the Travel Survey to the staff / visitors of the facility on a yearly basis two years after occupation of the development with the main focus of the surveys to establish travel patterns including mode share of trips to and from the site. This information will also help inform the Plan for subsequent stages of the development, as necessary.

It is important to understand people's reasons for travelling the way they do, any barriers to changing their behaviour and their propensity to change. This will enable the most effective initiatives to be identified, and conversely ineffective initiatives to be modified or replaced to ensure the best outcomes are achieved.

An example of an annual staff / visitor travel survey that may be administered has been prepared by this practice, copies of which are included with Green Travel Plan as **Appendix 2**.

It will be necessary to provide feedback to staff / visitors to ensure that they can see the benefits of sustainable transport. It is proposed that this occurs through the provision of survey results within the facility noticeboards.

7. SUMMARY

A Green Travel Plan is to be implemented within the mixed medical facility at 60 – 64 Showground Road, Gosford. The Plan aims to encourage the use of alternative transport choices to single car use and encourage a shift towards public transport, car share, cycling and / or walking through the implementation of the measures contained within Section 3.2 of this Plan, including:

- The implementation of development design initiatives such as the limiting of private car parking spaces, the provision of bicycle and motorcycle parking spaces and end of trip facilities in conjunction with clear and efficient internal pedestrian and cycle networks and signage;

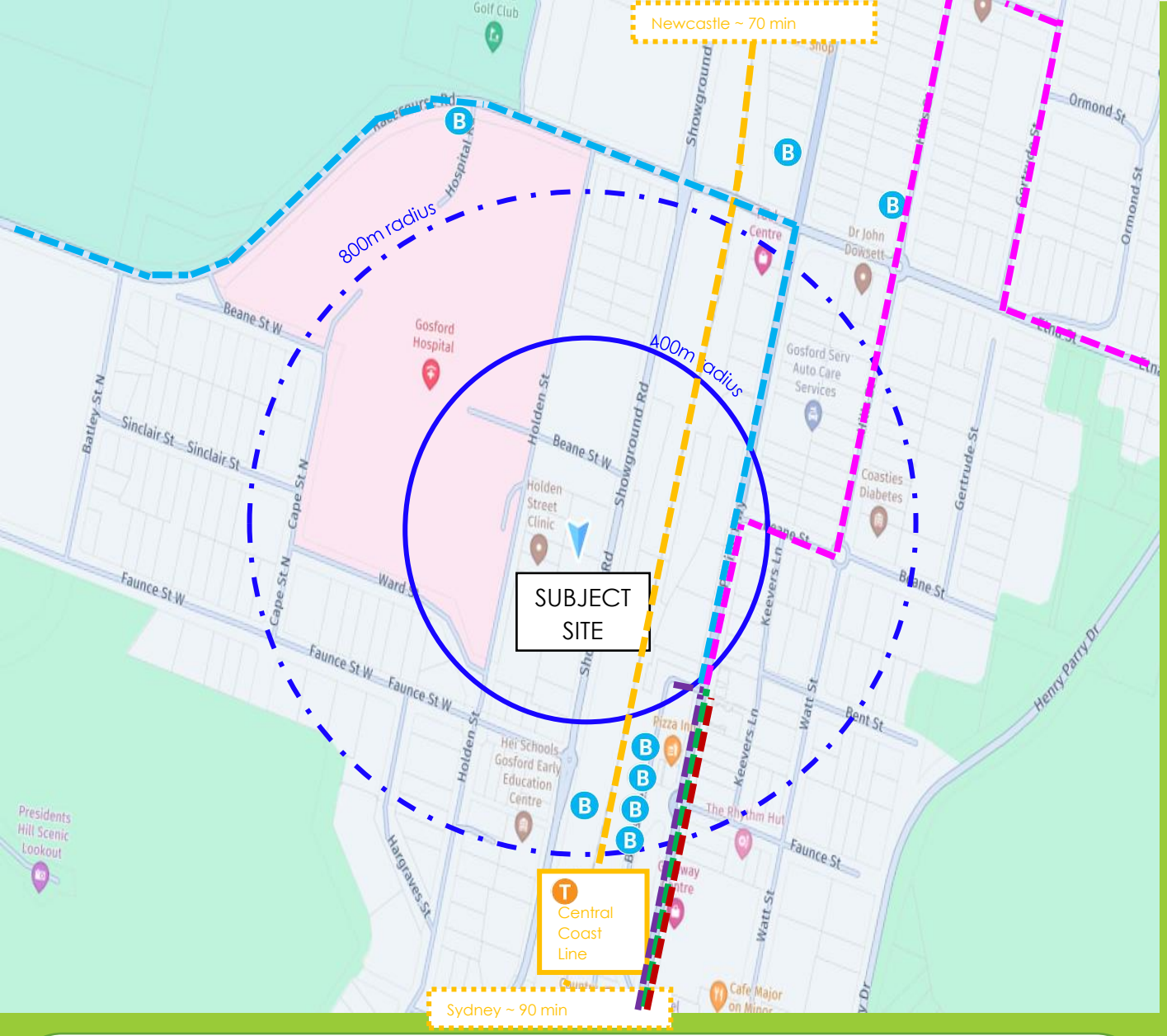
- The provision of clear and concise information to the staff / visitors of the facility detailing the surrounding available sustainable transport infrastructure and encouraging the use of transport modes other than the private car, including a Transport Access Guide; and

- The promotion of non-car travel through a number of initiatives to be determined by the Travel Coordinator and their committee.

Staff / visitors of the facility are to be provided with information with respect to the Green Travel Plan within a welcome pack and up-to-date information with respect to the initiatives of the Plan are to be displayed within the facility noticeboards and on a Green Travel Plan website to be created by the Travel Coordinator and their committee.

Monitoring of the implementation of the Green Travel Plan is to be undertaken yearly, two years following the occupation of development through administering travel mode surveys of the staff. The results of these surveys and details with respect to whether or not the mode share targets contained within this Plan are being met are to be made available to the staff / visitors of the facility.

APPENDIX 1



LEGEND:

N

400m / 5-minute walk radius		800m / 10-minute walk radius	
Bus Route 20		Bus Route 40	
Bus Route 41		Bus Route 42	
Bus Route 43		Central Coast Line	

STANBURY TRAFFIC PLANNING

TRAFFIC, PARKING & TRANSPORT CONSULTANT

Surrounding Public Transit Routes

Planning your Trip

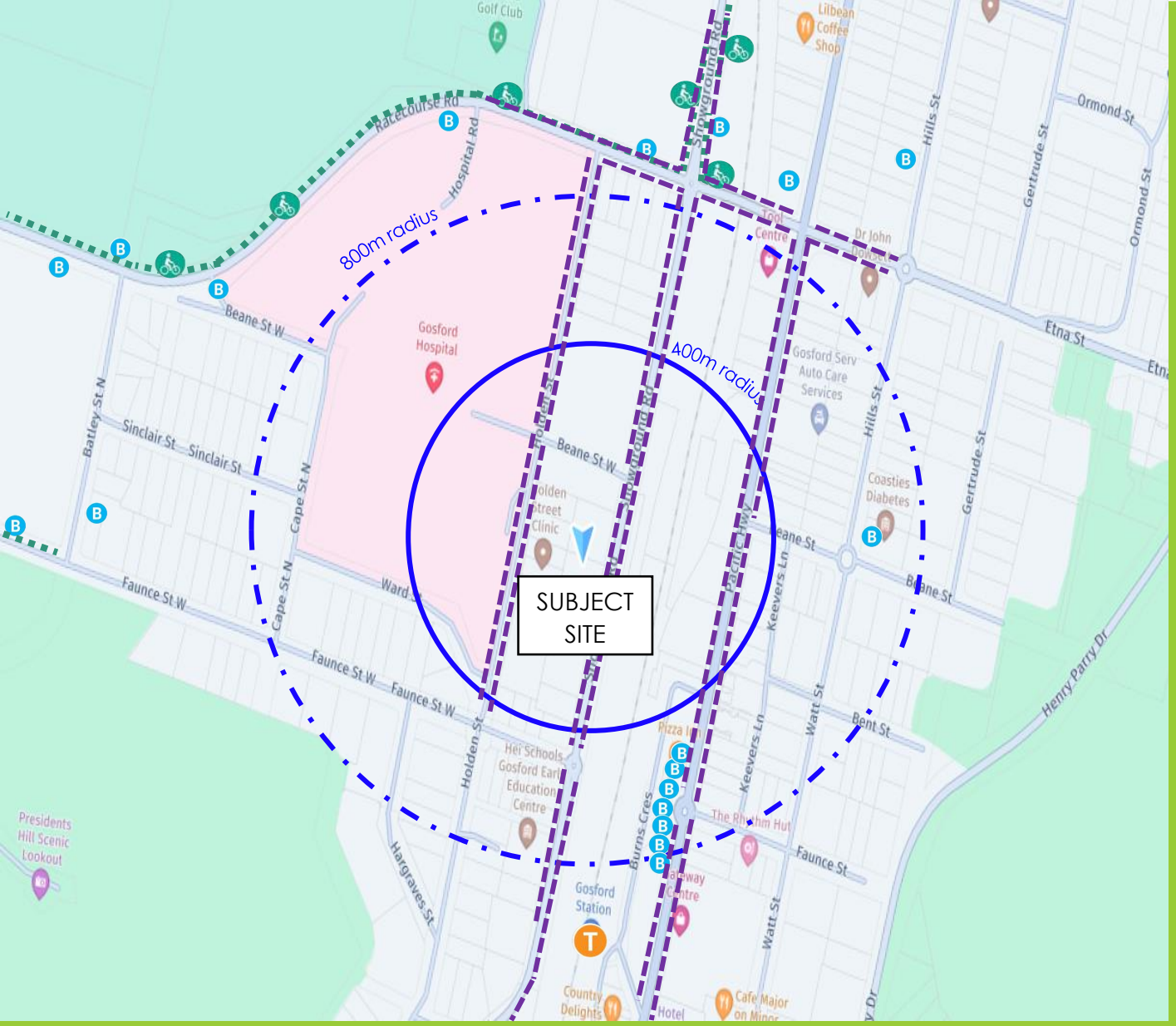
It is recommended that you use the link below to plan your trip and get the latest timetable, fare and wheelchair accessible information through Transport for New South Wales.

http://transportnsw.info

NSW GOVERNMENT Transport

Other useful references:

- https://transportnsw.info/routes/bus
- http://www.centralcoast.nsw.gov.au
- http://roads-waterways.transport.nsw.gov.au/roads/bicycles/cycleway-finder.html



LEGEND:

N

- Bus Stop
- Train Station
- Footpath / pedestrian path
- Bicycle Path
- 400m / 5-minute walk radius
- 800m / 10-minute walk radius

STANBURY TRAFFIC PLANNING

TRAFFIC, PARKING & TRANSPORT CONSULTANT

Surrounding Walking Paths, Bus Stops and Cycling Paths

Planning your Trip

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NSW GOVERNMENT Transport

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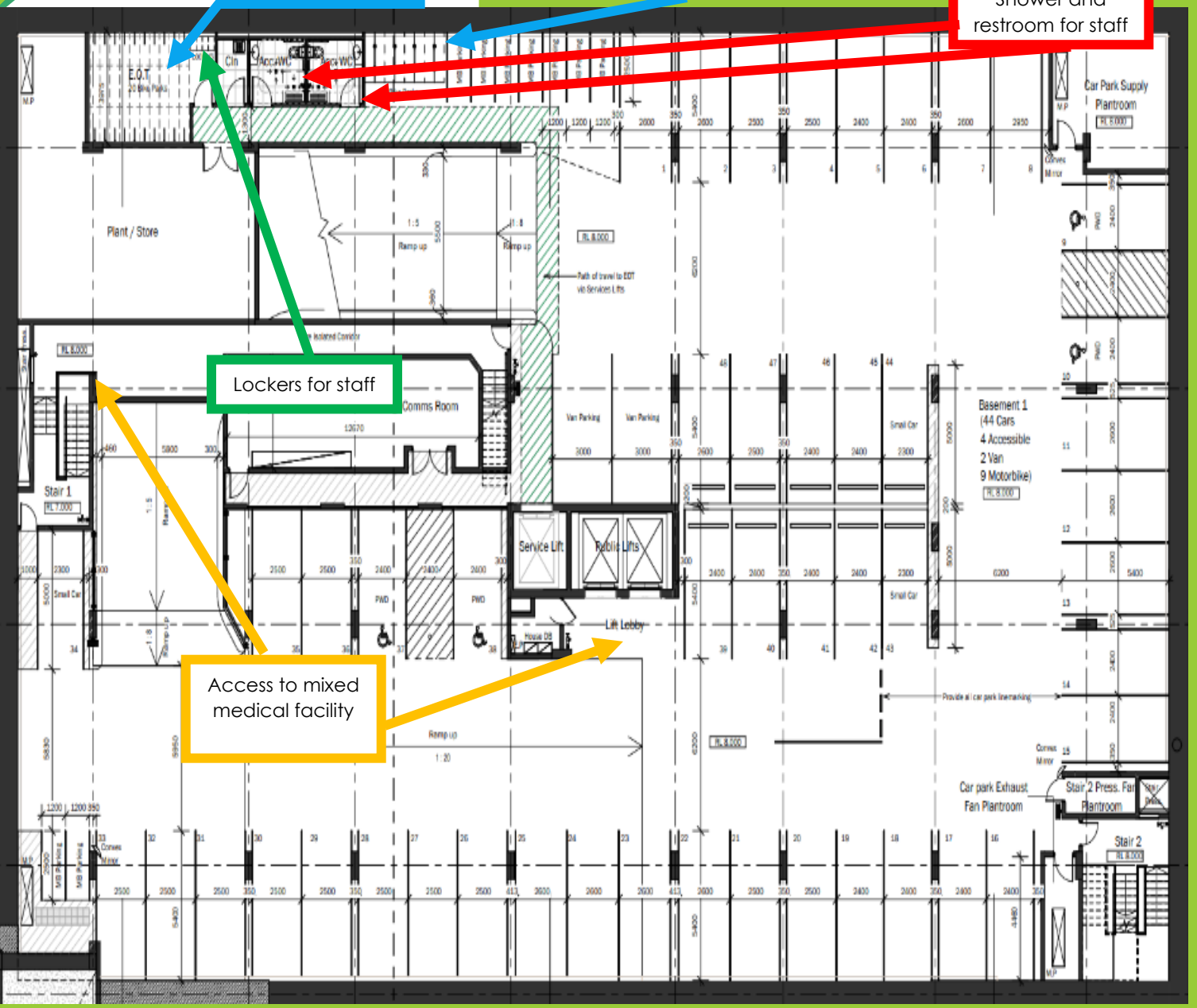

STANBURY TRAFFIC PLANNING

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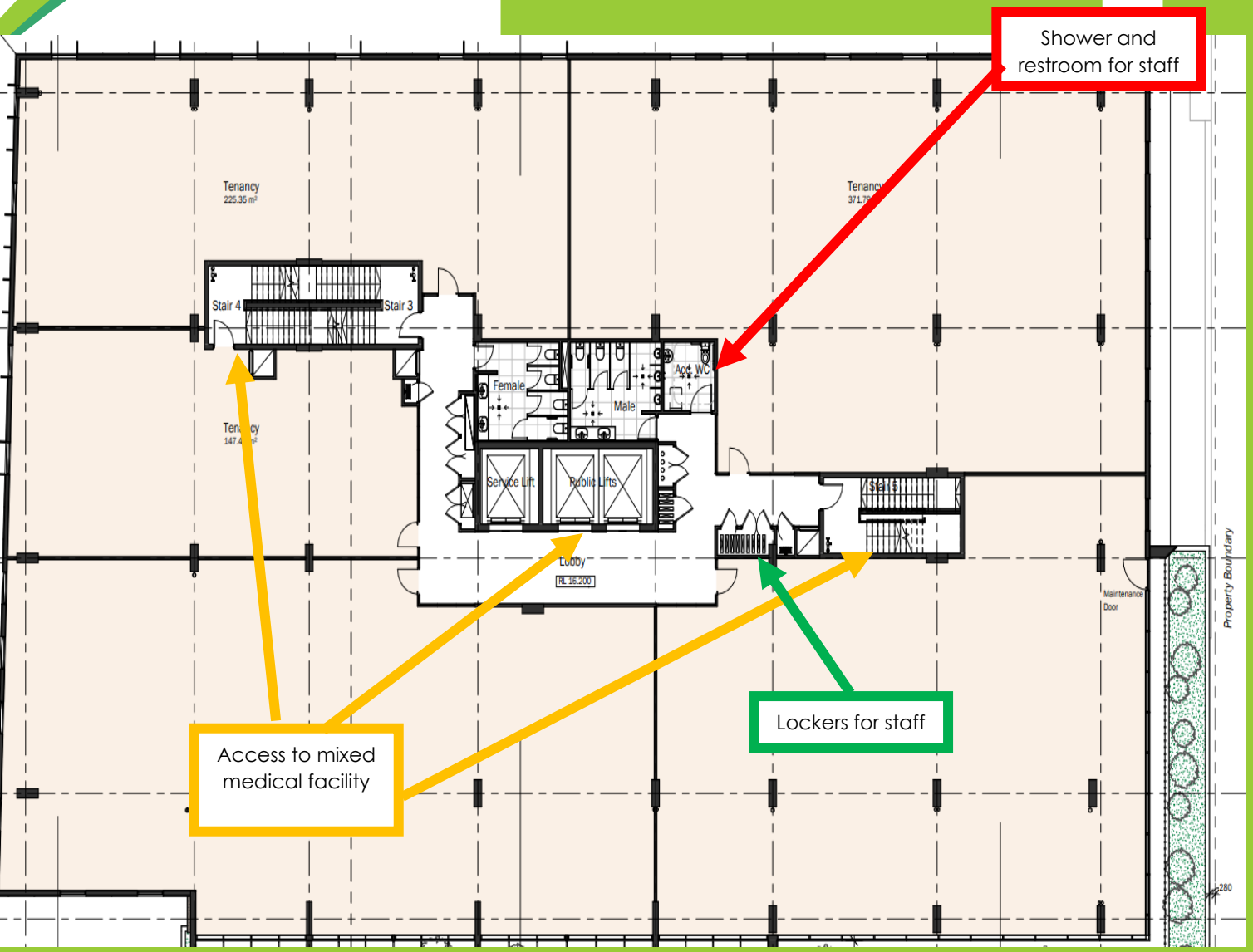
Office Access and End of Trip Facilities

The office building provides end of trip facilities including showers. Bicycle parking is provided adjacent to the building in the two locations shown.

Additional information about building access and facilities will be provided prior to occupancy.

Disclaimer

This access and end of trip facilities diagram is based on architectural plans prepared by TVS Architects. Subject to change to reflect updated construction plans.



STANBURY TRAFFIC PLANNING

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Office Access and End of Trip Facilities

The office building provides end of trip facilities including showers and lockers.

Additional information about building access and facilities will be provided prior to occupancy.

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APPENDIX 2

STANBURY TRAFFIC PLANNING
TRAFFIC, PARKING & TRANSPORT CONSULTANTS

ANNUAL STAFF TRAVEL SURVEY
60 – 64 SHOWGROUND ROAD, GOSFORD
<EXAMPLE SURVEY>

We are conducting a survey of the travel characteristics of staff.
It would help if you could answer the following questions.
If you have any questions or concerns, please contact the on-site Travel Coordinator.

Your journey to and from work

1. What Postcode do you live in?					
2. In an average week, on how many days do you commute for work (Answer should be between 0 – 7)?					
3. On average, how many times do you work from home in one month?					
4. What time do you typically arrive at work?					
5. What time do you usually travel home?					
6. What is your main mode of transport when travelling to and from work? Please choose the mode that you use for the greatest distance. (check one box)	Walk / Run ☐	Bicycle ☐	Bus ☐	Train ☐	Car Driver (sole occupancy) ☐
	Car Driver (with passengers) ☐	Car Passenger ☐	Car Pool ☐	Motorbike ☐	Rideshare (i.e. Uber) ☐

Your potential for behaviour change

Significant improvements are being made across the tranpsort network in Sydney. These changes may have an inpact on your journey to work. To improve your journey, *how likely is it that you will do the following to make your journey more comfortable and reliable?*

7. Choose another mde to travel to work, e.g. switching from driving to public trnaposrt or from public tranpsort to walking or cycling. (check one box)	Very likely ☐	Neutral ☐	Very unlikely ☐
	Likely ☐	Unlikely ☐	Not possible ☐
8. Change the timing of the journeys you make to avoid the busiest period if possible given your work conditions. (check one box)	Very likely ☐	Neutral ☐	Very unlikely ☐
	Likely ☐	Unlikely ☐	Not possible ☐

9. Reduce the number of times you travel to the office, e.g. by working from home if possible given your work conditions. (check one box)	Very likely ☐	Neutral ☐	Very unlikely ☐
	Likely ☐	Unlikely ☐	Not possible ☐
10. Reroute the way you take to and from work to avoid the busiest areas. (check one box)	Very likely ☐	Neutral ☐	Very unlikely ☐
	Likely ☐	Unlikely ☐	Not possible ☐
Your comments and interest in updates			
11. Do you have any general comments on how you currently travel to work or how you would like to travel?			
12. Do you have any comments or suggestions for the Travel Coordinator / Committee relating to travelling to and from work?			
13. Would you like to … *<refer to incentive e.g. entering into the draw for a chance to win a $100 Opal Card?>*	Yes ☐ If yes, please enter your email address: _____	No ☐	
14. Would you like to receive updates form the Travel Coordinator / Committee bringing you relevant travel advice (e.g. informtaion on new travel / transport services)?	Yes ☐ If yes, please enter your email address: _____	No ☐	
Thank you for completing the annual staff travel survey! If you have any additional feedback on travel or transport to our workplace, please email us on *<insert>,* give us a call on <insert> or pop in and see us at *<insert>.*			