



**STANBURY**  
TRAFFIC PLANNING

TRAFFIC, PARKING & TRANSPORT CONSULTANTS

## **PARKING & TRAFFIC IMPACT ASSESSMENT**

**PROPOSED CHILD CARE CENTRE DEVELOPMENT  
32 HONITON AVENUE WEST  
CARLINGFORD**

**PREPARED FOR JMA BUILDING  
OUR REF: 20-220-4**



**SEPTEMBER 2022**

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# 1. INTRODUCTION

## 1.1 Scope of Assessment

Stanbury Traffic Planning has been commissioned by JMA Developments to prepare a Parking & Traffic Impact Assessment to accompany a Development Application to be lodged with Parramatta City Council. The Development Application seeks consent for the demolition of existing site structures and the construction of a purpose-built child care centre at 32 Honiton Avenue West, Carlingford (hereafter referred to as the 'subject site').

The two-storey child care centre is proposed to be capable of accommodating up to 67 children. The centre is to be serviced by an at-grade visitor car park containing seven parking spaces and a basement staff car park containing 10 parking spaces. Vehicular connectivity between the at-grade visitor car park is proposed via a combined ingress / egress driveway connecting with Coleman Avenue situated in the north-eastern portion of the site. The basement staff car park is proposed to be accessed via a combined ingress / egress driveway connecting with Honiton Avenue West in the south-western portion of the site. Vehicular access / egress movements to / from the basement staff car park are to be restricted to left in / left out movements via the provision of a central median within Honiton Avenue West adjacent to the subject site access driveway and supplementary signage.

The aim of this assessment is to investigate and report upon the potential parking and traffic consequences of the Development Application and to recommend appropriate ameliorative measures where required. This report provides the following scope of assessment:

- Section 1 provides a summary of the site location, details, existing and surrounding land-uses;
- Section 2 describes the proposed development;
- Section 3 assesses the adequacy of the proposed site access arrangements, parking provision, internal circulation and servicing arrangements with reference to relevant Council, Transport for NSW (TfNSW) and Australian Standard specifications;
- Section 4 assesses the existing traffic, parking and transport conditions surrounding and servicing the subject development site including a description of the surrounding road network, traffic demands, operational performance and available public transport infrastructure; and
- Section 5 estimates the projected traffic generating ability of the proposed development and assesses the ability or otherwise of the surrounding road network to be capable of accommodating the altered demand in a safe and efficient manner.

The report has been prepared pursuant to State Environmental Planning Policy (Transport and Infrastructure) 2021.



## 1.2 Reference Documents

Reference is made to the following documents throughout this report:

- TfNSW's *Guide to Traffic Generating Developments*;
- Parramatta Council's *Parramatta Development Control Plan 2011* (PDCP 2011);
- Australian Standard for *Parking Facilities Part 1: Off-Street Car Parking* (AS2890.1:2004);
- Australian Standard for *Parking Facilities Part 3: Bicycle Parking* (AS2890.3:2015);
- Australian Standard for *Parking Facilities Part 6: Off-Street Parking for People with Disabilities* (AS2890.6:2009);
- NSW Government's *Children (Education and Care Services) Supplementary Provisions Regulation 2012*;
- NSW Government's *State Environmental Planning Policy (Educational Establishment and Child Care Facilities) 2017*; and
- NSW Government's *Child Care Planning Guideline*.

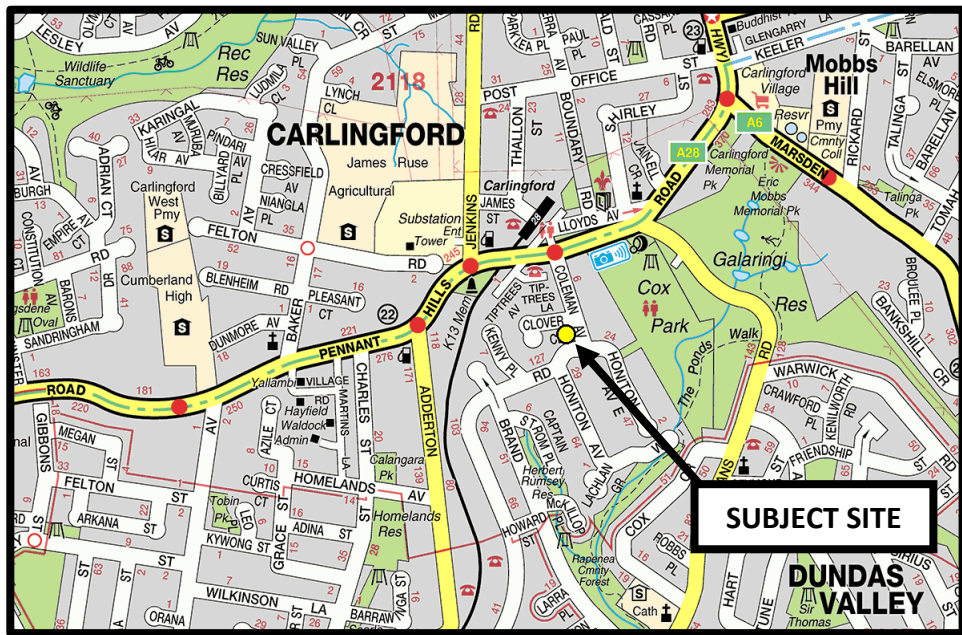
Architectural plans have been prepared by ArtMade Architects and should be read in conjunction with this report, reduced copies of which are included as **Appendix 1** for reference.

## 1.3 Site Details

### 1.3.1 Site Location

The subject site is situated on the western side of Coleman Avenue being bounded by Clover Close and Honiton Avenue West to the north and south, respectively. The site location is illustrated overleaf within a local and aerial context by **Figure 1** and **Figure 2**, respectively.

**FIGURE 1: SITE LOCATION WITHIN A LOCAL CONTEXT**



Source: UBD's Australian City Streets – Version 8

**FIGURE 2: SITE LOCATION WITHIN AN AERIAL CONTEXT**



Source: Nearmap (image date: 28/06/2022)

### 1.3.2 Site Description

The subject site provides a real property description of Lot 5 within DP205980 and a street address of 32 Honiton Avenue West, Carlingford.

The site provides an irregular shaped parcel of land providing frontages of approximately 19m, 55m and 23m to Clover Close, Coleman Avenue and Honiton Avenue West, respectively. The total site area is in the order of 1,023m<sup>2</sup>.

### 1.3.3 Existing Site Use

The subject site currently contains a single detached residential dwelling situated approximately central within the site. The existing dwelling is serviced by a single combined ingress / egress driveway connecting with Coleman Avenue situated approximately central to the eastern boundary of the site. The vehicular access driveway provides connectivity to a garage situated to the east and adjoining the abovementioned residential dwelling.

### 1.3.4 Surrounding Uses

The site is currently surrounded by low and medium density residential dwellings in all directions.

## 2. PROPOSED DEVELOPMENT

### 2.1 Built Form

The subject application seeks Council's approval for the demolition of the existing site structures and the construction of a purpose-built child care centre.

The child care centre is proposed to be capable of accommodating up to 67 children and is to be contained within a two-storey building. The ground floor of the building is proposed to contain two separate indoor playrooms, two outdoor play areas being contained within a child safe fence, an entrance lobby, a reception office, a staff room and ancillary amenities. The first floor is proposed to contain two separate indoor playrooms, two outdoor play areas being contained within a child safe fence and ancillary amenities.

The building is proposed to be serviced by an at-grade visitor car park containing seven visitor parking spaces, including two disabled spaces. Vehicular connectivity between the visitor car park and Coleman Avenue is proposed via a combined ingress / egress driveway situated in the north-eastern portion of the site.

A basement staff car park is proposed to contain a total of 10 staff parking spaces and four bicycle parking spaces. Vehicular connectivity between the basement staff car park and Honiton Avenue West is proposed via a combined ingress / egress driveway situated in the south-western portion of the site. Vehicular access / egress movements to / from the basement staff car park are to be restricted to left in / left out movements via the provision of a central median within Honiton Avenue West adjacent to the subject site and supplementary signage.

Pedestrian access between the building and Coleman Avenue is proposed via a pedestrian path situated to the south and separate from the abovementioned visitor vehicular access driveway, connecting the western Coleman Avenue footpath and the child care centre entrance lobby.

### 2.2 Proposed Operation

The child care centre is proposed to accommodate up to 67 children as follows:

- 8 children aged between zero and two years of age;
- 20 children aged between two and three years of age; and
- 39 children aged between three and five years of age.

The centre is required to employ a minimum of 10 staff in accordance with the current *Children (Education and Care Services) National Law (NSW)* requirements, as follows:

- Two staff associated with the children aged between zero and two years of age;

- Four staff associated with the children aged between two and three years of age; and
- Four staff associated with the children aged between three and five years of age.

The centre is proposed to operate between 7:00am and 6:00pm Monday to Friday.

### 3. SITE ACCESS, PARKING & INTERNAL CIRCULATION

#### 3.1 Access Arrangements

##### 3.1.1 Visitor / Parent Vehicular Access

Vehicular access between the on-site visitor car park and Coleman Avenue is proposed to be provided via a single combined 6.5m wide ingress / egress driveway situated in the north-eastern portion of the site.

AS2890.1:2004 provides driveway design specifications based on the proposed primary land use, the functional order of the access road and the number of spaces the driveway is to serve. Tables 3.1 and 3.2 of AS2890.1:2004 specify that, at minimum, a Category 1 type driveway is required, providing a combined ingress / egress driveway width of between 3m and 5.5m based on the local (non-arterial) functional order of Coleman Avenue, the proposed child care centre land-use and the passenger vehicle parking provision the driveway is to service of less than 25 spaces. The proposed 6.5m wide driveway therefore exceeds the minimum AS2890.1:2004 specifications and accordingly is considered to be satisfactory.

Swept path plans have been prepared in order to demonstrate the ability of passenger vehicles to enter and exit the site via the combined ingress / egress driveway connecting to the visitor parking area, copies of which are included as **Appendix 2**. These swept paths also indicate that all vehicles are able to enter and exit the site in a forward direction.

The safety and efficiency of access / egress movements are also proposed to be assisted by the following:

- The provision of a relatively level (less than 1:20) grade within the first 6m inside the property boundary;
- The provision of satisfactory sight distance along Coleman Avenue due to the relatively consistent vertical and horizontal alignment of Coleman Avenue and the low travel speeds of adjacent traffic associated with the adjacent Honiton Avenue West junction;
- No obstructions to visibility adjacent to the northern side of the driveway facilitating appropriate sight distance between exiting motorists and pedestrians along the western Coleman Avenue footway; and
- The driveway is located at least 1.0m from any structures including power poles, street lighting, signs, road furniture etc.



### 3.1.2 Staff Vehicular Access

Vehicular access between the basement staff car park and Honiton Avenue West is proposed to be provided via a 6.6m wide combined ingress / egress driveway located in the south-western portion of the site.

AS2890.1:2004 provides driveway design specifications based on the proposed primary land use, the functional order of the access road and the number of spaces the driveway is to serve. Tables 3.1 and 3.2 of AS2890.1:2004 specify that, at minimum, a Category 1 type driveway is required, providing a combined ingress / egress driveway width of between 3m and 5.5m based on the local (non-arterial) functional order of Honiton Avenue West, the proposed child care centre land-use and the passenger vehicle parking provision the driveway is to service being less than 25 spaces. The proposed 6.6m wide combined ingress / egress driveway therefore exceeds the minimum AS2890.1:2004 specifications and accordingly is considered to be satisfactory.

Swept path plans have been prepared in order to demonstrate the ability of passenger vehicles to enter and exit the site, copies of which are included as **Appendix 2**. These swept paths also indicate that all vehicles are able to enter and exit the site in a forward direction.

The safety and efficiency of access / egress movements are also proposed to be assisted by the following:

- The provision of a relatively level (less than 1:20) grade within the first 6m inside the property boundary;
- No obstructions to visibility adjacent to the eastern side of the driveway facilitating appropriate sight distance between exiting motorists and pedestrians along the northern Honiton Avenue West footway;
- The provision of satisfactory sight distance to the west of the driveway along Honiton Avenue West despite the inconsistent nature of the horizontal and vertical alignment of the frontage and the low travel speeds of adjacent traffic associated with the adjacent Coleman Avenue junction; and
- The driveway is located at least 1.0m from any structures including power poles, street lighting, signs, road furniture etc.

#### 3.1.2.1 Staff Access Management

It is acknowledged that Honiton Avenue West provides a variable horizontal and vertical alignment in the vicinity of the subject site. This, in conjunction with the proximity of the site to the junction of Coleman Avenue and Honiton Avenue East / West results in right turn movements between Honiton Avenue West and the site being undesirable.

It is accordingly proposed that staff access movements between the site and Honiton Avenue West are proposed to be restricted to left in / left out through the provision of a 0.9m wide central median situated within Honiton Avenue West adjacent to the site. The proposed central median is to be positioned in such a way that vehicular access associated with the residential dwellings

situated adjacent and opposite to the subject site fronting Honiton Avenue West are to remain unrestricted and therefore unaffected by the central median. The central median is to be supplemented with 'Left Turn Only' signage facing exiting traffic from the site and 'Keep Left' signage facing through traffic within Honiton Avenue West.

Staff are to be directed on the appropriate routes to access and depart the site, taking into account the left-in / left-out restrictions through the preparation of a Management Plan that is to form part of the employee contract.

### 3.1.3 External Pedestrian Access

Pedestrian access between the building and Coleman Avenue is proposed via a pedestrian path situated to the south and separate from the abovementioned visitor vehicular access driveway, connecting the western Coleman Avenue footpath to the building entrance foyer.

## 3.2 Passenger Vehicle Parking

### 3.2.1 Parking Provision

The development is proposed to be serviced by a total of 17 on-site passenger vehicle parking spaces (including two disabled spaces).

NSW Government's *Child Care Planning Guideline* specifies that parking should be provided in accordance with PDCP 2011, which provides the following minimum vehicular parking rates for child care centres:

*One space per four children*

Application of the abovementioned parking rates to the proposed centre capacity of 67 children therefore results in a minimum passenger vehicle parking requirement of 16.75 (adopt 17) spaces.

The proposed parking provision of 17 spaces therefore complies with the minimum requirements of PDCP 2011 and accordingly is considered to be satisfactory.

### 3.2.2 Passenger Vehicle Parking Allocation

The 17 on-site passenger vehicle parking spaces are proposed to be allocated as follows:

- 10 staff parking spaces; and
- Seven visitor / parent parking spaces (including two disabled spaces).

The following sub-sections of this report provide assessment of the suitability or otherwise of the proposed parking provision and allocation.



### 3.2.2.1 Visitor / Parent Parking

In order to undertake an assessment of the suitability of the proposed visitor / parent parking provision of seven spaces, reference is made to the TfNSW's *Guide to Traffic Generating Developments*. This publication specifies that the average length of stay of parents / guardians when setting-down / picking-up children at child care centres is 6.8 minutes. On the basis of all children being set-down and picked-up with an even distribution over a period of two hours (say, 7:00am – 9:00am and 4:00pm – 6:00pm), the arrival rate of parents / guardians will be one parent / guardian every 1.8 minutes (120 minutes / 67 children).

The above length of stay and arrival rate results in an average of four (6.8/1.8) parents / guardians being on-site at any one time during the peak set-down / pick-up periods. The average parent / guardian parking demand during peak pick-up / set-down periods is therefore projected to be approximately four spaces.

It should however be noted that the above analysis represents an absolute worst case scenario for the following reasons:

- It assumes that all parents / guardians will drive their children to and from the centre, when the TfNSW's surveys suggest 93% of children are driven to and from centres;
- It assumes a zero sibling rate, when our experience suggests a sibling rate of at least 10% commonly prevails;
- It assumes a 100% attendance rate, when our experiences suggest a maximum of 90% is more likely; and
- It assumes that all children will be set-down and picked-up within a two hour period, when children can be set-down / picked-up at any time during the operational hours.

The above analysis, indicating a parent / guardian parking demand of four spaces has however been retained in order to account for variations in average demand associated with short term peak influxes of parents / guardians during set-down / pick-up periods. In consideration of this and the above discussion, the proposed parent / guardian parking allocation of seven spaces is considered to be appropriate.

### 3.2.2.2 Staff Parking

The child care centre is required to employ a minimum of 10 teaching staff in accordance with the current Children (Education and Care Services) National Law (NSW) requirements.

The staff parking provision of 10 spaces represents a parking rate of one space per staff member anticipated to be on-site at any one time and is accordingly considered to be satisfactory.

### 3.2.2.3 Disabled Parking

PDCP 2011 specifies that disabled parking should be provided at a rate of one space per 10 car spaces. A total passenger vehicle parking provision of 17 spaces therefore results in a disabled parking requirement of 1.7 (adopt 2) spaces.

The disabled parking provision of two disabled parking spaces is compliant with the requirements of PDCP 2011, and accordingly is considered to be satisfactory.

### 3.2.2.4 Neighbourhood Parking Policy

The previous analysis concludes that the on-site parking provision and allocation is appropriate in accordance with the locally sensitive parking requirements of PDCP 2011 and the projected operational characteristics of the site. In this regard, it is not expected that the proposed development will result in any unreasonable impacts on surrounding amenity.

Notwithstanding the above, it is desirable that the centre formulate and implement a Neighbourhood Parking Policy, which provides a series of operational initiatives with the objective of minimising the potential impacts of the development on the adjoining public parking infrastructure and thus the surrounding residential amenity. This Policy should include, but not be limited to, the following:

- Staff members who drive to the site are to occupy designated on-site staff parking spaces, in preference to parking on-street;
- Parent / visitors who drive to the site are to occupy designated on-site visitor parking spaces, in preference to parking on-street;
- If all on-site visitor parking spaces are occupied, visitors who drive to the site are to park within Coleman Avenue immediately adjacent to the subject site if possible in order to minimise the potential impact on surrounding residential amenity and eliminate the requirement for pedestrian crossing activity over the public road;
- If site visitors cannot park within the site or immediately adjacent to the site in Coleman Avenue, care should be taken to park in locations which do not unreasonably impede adjacent public road traffic flow; and
- No parking should occur within Honiton Avenue East / West or Clover Close.

The Neighbourhood Parking Policy should be provided to all staff and parents at the time of employment and enrollment, respectively.

If considered necessary, the requirement for a Neighbourhood Parking Policy could reasonably be imposed by Council as a condition of development consent.

### 3.3 Bicycle Parking

The development includes the provision of four bicycle parking spaces located within the north-western portion of the basement car parking area.

PDCP 2011 specifies that bicycle parking for child care centres is to be provided at a rate of one space per 25 children.

Application of the abovementioned PDCP 2011 rate to the development results in a minimum requirement of 2.7 (adopt 3) bicycle parking spaces. The proposed bicycle parking provision accordingly exceeds the minimum requirement of PDCP 2011 and is therefore considered to be satisfactory.

### 3.4 Service Vehicle Parking

The child care centre is likely to necessitate regular servicing with respect to the collection of refuse. Refuse is proposed to be stored within bins which are to be wheeled to the Coleman Avenue frontage for collection in a similar manner to adjoining residential developments.

Minor deliveries associated with the centre operation are expected to be undertaken by vans and utilities. Such servicing activities are proposed to be accommodated within single visitor passenger vehicle parking spaces located within the on-site visitor car park. These activities are to be undertaken between 10:00am and 2:00pm, thereby being outside the peak child set-down / pick-up periods of the centre.

### 3.5 Internal Circulation and Manoeuvrability

#### 3.5.1 Visitor / Parent Parking Area

Passenger vehicles upon entry into the visitor car park, will travel in a forward direction to access the parking circulation aisle which forms an extension of the combined ingress / egress access driveway situated in the north-eastern portion of the site connecting with Coleman Avenue. The visitor car park comprises seven standard 90-degree angled parking spaces including two disabled parking spaces serviced by a single central parking aisle, forming an extension of the site access driveway.

Two disabled parking spaces are provided directly adjacent to the child care centre entrance in the southern portion of the car park.

The internal circulation arrangements of the visitor car park have been designed to accord with the minimum requirements of AS2890.1:2004 and AS2890.6:2009, providing the following minimum dimensions:

- Standard parking space width = 2.6m;
- Disabled vehicular parking space width = 2.4m (with adjoining 2.4m wide shared area);
- Standard and disabled 90-degree parking space length = 5.4m;

- Aisle width servicing parking spaces = 5.8m;
- Minimum clearance = 2.2m;
- Minimum clearance above disabled parking spaces = 2.5m; and
- Minimum aisle extension past end parking spaces = 1m.

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 specifications.

In order to further demonstrate the suitability of the abovementioned arrangement and internal passenger vehicle manoeuvrability within the visitor parking area, this Practice has prepared a number of swept path plans which are included as **Appendix 2**. The turning paths provided on the plans have been generated using Autoturn software and derived from B85 and B99 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 visitor parking area.

The visitor parking area forms a blind aisle. Notwithstanding this, adequate manoeuvring room has been provided in the eastern portion of the parking area to ensure that vehicles are able to undertake a three-point turn and exit the site in a forward direction in the unlikely event that all spaces are occupied. Swept path plans have been prepared demonstrating the internal turnaround movement within the eastern portion of the parking area, copies of which are included as **Appendix 2**.

The proposed at-grade visitor parking area layout as it relates to passenger vehicle manoeuvrability is therefore considered to be satisfactory.

### 3.5.2 Staff Parking Design

Upon entry into the basement staff parking area via the access driveway situated site connecting with Honiton Avenue West, passenger vehicles will travel in a forward direction to access the parking area comprising 10 standard 90-degree angled parking spaces and serviced by a single central parking aisle, forming an extension of the site access driveway.

The basement parking area has been designed to accord with the minimum requirements of AS2890.1:2004, providing the following minimum dimensions:

- Staff vehicle parking space width = 2.4m;
- Vehicle parking space length = 5.4m;
- Minimum parking aisle width = 6.1m;
- Minimum Clearance = 2.2m; and
- Minimum aisle extension past end parking spaces = 1m.

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 specifications.

This Practice has prepared a number of swept path plans which are included as **Appendix 2**, which demonstrate that passenger vehicles can enter and exit the most difficult passenger vehicle parking spaces within the staff parking area.

It is further noted that the basement parking area forms a dead-end aisle. The allocated nature of the parking spaces contained within the staff parking area is such that a formalised turning bay is not required. Notwithstanding this, swept path plans (contained within **Appendix 2**) illustrate that vehicles are able to turnaround within the southern portion of the parking area in order to exit the site in a forward direction in the unlikely event that all parking spaces are occupied.

The proposed basement parking area layout as it relates to passenger vehicle manoeuvrability is therefore considered to be satisfactory.

### 3.5.3 Bicycle Parking Design

Bicycle storage is proposed to be provided within the basement parking area, comprising horizontal parking rails. The proposed parking rails have been designed to accord with the minimum requirements of AS2890.3:2015, providing the following minimum design specifications:

- Horizontal parking space width = 0.5m;
- Horizontal parking space depth = 1.8m; and
- Adjacent manoeuvring area > 1.5m.

### 3.6 Internal Pedestrian Circulation

External pedestrian access between the building and Coleman Avenue is proposed via a pedestrian path situated to the south and separate from the abovementioned visitor vehicular access driveway, connecting the western Coleman Avenue footpath to the building entrance lobby. Further to this access, pedestrian connectivity between the visitor parking spaces within the at-grade visitor parking area and the building is proposed via a dedicated (non-trafficable) pedestrian walkway adjacent to each visitor parking space providing safe pedestrian connectivity to the child care centre building entrance along the periphery of the parking area. Where pedestrians are required to cross the parking circulation aisle of the visitor parking area, appropriate pedestrian crossing markings are provided. Supplementary pedestrian crossing signage is proposed to be provided to alert motorists for the potential of crossing pedestrians.

A lift is provided within the eastern portion of the basement staff parking area providing access for staff between the basement parking area and the ground floor of the child care centre building.

### 3.7 Child Care Planning Guideline Compliance

**Tables 1, 2 and 3** on the following pages, with reference to the information contained within this report, describe the compliance of the proposed child care centre development with respect to Consideration 35, 36 and 37 of NSWs' *Child Care Planning Guideline*.

TABLE 1: CHILD CARE PLANNING GUIDELINE - CONSIDERATION 35	
<i>Consideration 35. The following design solutions may be incorporated into a development to help provide a safe pedestrian environment:</i>	
Consideration requirements	Response / Section of Report
<ul style="list-style-type: none"> <li>• <i>Separate pedestrian access from the car park to the facility</i></li> </ul>	As shown in <b>Appendix 1</b> , separated pedestrian access is provided to the facility via a pedestrian path provided to the south and separate to the vehicular driveway providing access the visitor parking area. A pedestrian path is provided adjacent to each visitor parking space which provides safe access the child care centre building along the periphery of the parking area.
<ul style="list-style-type: none"> <li>• <i>Defined pedestrian crossings included within large car parking areas</i></li> </ul>	As shown in <b>Appendix 1</b> , an appropriately marked pedestrian crossing is provided across the central parking aisle within the visitor car park where visitors are required to cross.
<ul style="list-style-type: none"> <li>• <i>Separate pedestrian and vehicle entries from the street for parents, children and visitors</i></li> </ul>	As shown in <b>Appendix 1</b> , separated pedestrian access is provided to the facility, located to the south of the vehicular access driveway connecting to the western Coleman Avenue footpath.
<ul style="list-style-type: none"> <li>• <i>Pedestrian paths that enable two prams to pass each other</i></li> </ul>	A minimum 1.0m wide pedestrian walkway is provided between each visitor parking space and the pedestrian entrance to the building. Research and experience suggest that the average pram width is approximately 500mm. Therefore, in most instances the 1.0m wide pedestrian path will safely accommodate the passing of two prams. However, when this is not possible it is considered that courtesy conditions will prevail and there are localised areas of path widening allowing parents / visitors to negotiate the pedestrian walkways within the parking area safely and efficiently.
<ul style="list-style-type: none"> <li>• <i>Delivery and loading areas located away from the main pedestrian access to the building and in clearly designated, separate facilities</i></li> </ul>	Section 3.3 describes that deliveries and loading is to occur from within visitor parking spaces. Deliveries are to occur outside of peak set-down / pick-up hours therefore not impacting pedestrian movements.
<ul style="list-style-type: none"> <li>• <i>Minimise number of locations where pedestrians and vehicles cross each other</i></li> </ul>	Section 3.5 describes an internal pedestrian circulation system that minimises pedestrian and vehicle crossing each other.
<ul style="list-style-type: none"> <li>• <i>In commercial or industrial zones and mixed-use developments the path of travel from the car parking to the centre entrance physically separated from any truck circulation or parking areas</i></li> </ul>	Not applicable as the subject site is in a residential zone.
<ul style="list-style-type: none"> <li>• <i>Vehicles can enter and leave the site in a forward direction</i></li> </ul>	As shown in the swept path assessment in <b>Appendix 2</b> , all vehicles are capable of entering and exiting the site in a forward direction and are to do so at all times.
<ul style="list-style-type: none"> <li>• <i>Clear sightlines are maintained for drivers to child pedestrians, particularly at crossing locations</i></li> </ul>	Section 3.1.1 states that the vehicular ingress and egress point has clear sightlines for pedestrians and vehicles.

TABLE 2: CHILD CARE PLANNING GUIDELINE - CONSIDERATION 36	
<i>Consideration 36. Mixed use developments should include:</i>	
Consideration requirements	Response / Section of Report
<ul style="list-style-type: none"> <li>• Driveway access, manoeuvring areas and parking areas for the facility that are separate to parking and manoeuvring areas used by trucks</li> </ul>	No applicable to the proposed development.
<ul style="list-style-type: none"> <li>• Drop off and pick up zones that are exclusively available for use during the facility's operating hours with spaces clearly marked accordingly, close to the main entrance and preferably at the same floor level. Alternatively, direct access should avoid crossing driveways or manoeuvring areas used by vehicles accessing other parts of the site</li> </ul>	No applicable to the proposed development.
<ul style="list-style-type: none"> <li>• Parking that is separate from other uses, located and grouped together and conveniently located near the entrance or access point to the facility</li> </ul>	No applicable to the proposed development.

TABLE 3: CHILD CARE PLANNING GUIDELINE - CONSIDERATION 37	
<i>Consideration 37. Car parking design should:</i>	
Consideration requirements	Response / Section of Report
<ul style="list-style-type: none"> <li>• Include a child safe fence to separate car parking areas from the building entrance and play areas</li> </ul>	As shown on the development plans in <b>Appendix 1</b> , all outdoor play areas are proposed to be contained within a child safe fence thereby separating the outdoor play areas from car parking areas.
<ul style="list-style-type: none"> <li>• Provide clearly marked accessible parking as close as possible to the primary entrance to the building in accordance with appropriate Australian Standards</li> </ul>	As shown on the development plans in <b>Appendix 1</b> , two disabled parking spaces are proposed within the visitor parking area in accordance with AS2890.6:2009, positioned directly adjacent to the child care building entrance.
<ul style="list-style-type: none"> <li>• Include wheelchair and pram accessible parking</li> </ul>	As shown on the development plans in <b>Appendix 1</b> , two disabled parking spaces are proposed within the visitor parking area directly adjacent to the building entry. All other visitor spaces are capable of being used by parents with prams.



## 4. EXISTING TRAFFIC CONDITIONS

### 4.1 Surrounding Road Network

The following provides a description of the local road network surrounding the subject site:

- **Coleman Avenue** performs a collector road function under the care and control of the City of Parramatta Council, providing a north-south alignment between Pennant Hills Road / Lloyds Avenue in the north and Honiton Avenue East / West in the south.

Coleman Avenue provides an 11m wide pavement facilitating one through lane of traffic in each direction in conjunction with parallel parking along both kerb alignments. Traffic flow within Coleman Avenue is governed by a speed limit of 50km/h, being consistent with state government policy for local residential roads.

To the north of the site, Coleman Avenue intersects Pennant Hills Road and Lloyds Avenue, operating under traffic signal control. The right turn movement from the western Pennant Hills Road approach into Coleman Avenue is prohibited, with the exception of buses.

Directly adjacent to the north-eastern corner of the site, Coleman Avenue forms a T-junction with Clover Close, operating under major / minor priority control with Coleman Avenue forming the priority route.

Adjacent to the south-eastern corner of the site, Coleman Avenue forms a T-junction with Honiton Avenue East / West operating under 'Stop' signage control with Honiton Avenue East / West forming the priority route.

- **Honiton Avenue West** performs a continuation of the abovementioned Coleman Avenue collector road function under the care and control of the City of Parramatta Council.

Honiton Avenue West provides a primarily 10m wide pavement, facilitating one through lane of traffic in each direction in conjunction with sections of parallel parking permitted along both kerb alignments. However, the provision of double barrier lines thereby prohibits kerb side parking in the immediate vicinity of the subject site. Traffic flow within Honiton West is governed by a speed limit of 50km/h, being consistent with state government policy for local residential roads.

Honiton Avenue West forms a T-junction with Marshall Road operating under 'Stop' signage control with Marshall Road / the east-west leg of Honiton Avenue West forming the priority route.

- **Clover Close** performs a local access road function under the care and control of the City of Parramatta Council, providing an east-west alignment between Coleman Avenue in the east and a terminating dual cul-de-sac bulb in the west.

Clover Close provides a 7m wide pavement facilitating one through lane of traffic in each direction in conjunction with parallel parking along both kerb alignments. Traffic flow within Clover Close is governed by a speed limit of 50km/h, being consistent with state government policy for local residential roads.

- **Pennant Hills Road** performs a State Road function under the care and control of TfNSW. It provides a north-east / south-west arterial link between Pacific Highway at Normanhurst in the north-east and Church Street at North Parramatta in the south-west.

In the vicinity of the site, Pennant Hills Road generally provides a four-lane undivided carriageway providing two lanes of traffic in each direction, although pavement widening facilitates exclusive turning lanes at major junctions. Traffic flow within Pennant Hills Road is governed by a sign posted speed limit of 60km/h.

To the east of Coleman Avenue, Pennant Hills Road forms an intersection with Evans Road and Lloyds Avenue operating under 'Give Way' signage control, with Pennant Hills Road forming the major route.

To the east and west of the subject precinct, Pennant Hills Road forms separate T-junctions with Marsden Road and Jenkins Road, respectively, with both junctions operating under traffic signal control and allowing for all turning movements.

## 4.2 Existing Traffic Volumes

Tube counter traffic demand surveys have been commissioned across Coleman Avenue, adjacent to the subject site, in order to accurately ascertain existing traffic demands adjacent to the site.

Surveys were undertaken for one week between Friday the 2<sup>nd</sup> of September and Thursday the 8<sup>th</sup> of September 2022 for 24 hours a day.

**Table 4** below provides a summary of the traffic volume results of the tube counter traffic survey within Coleman Avenue adjacent to the site, whilst full details are attached as **Appendix 3**.

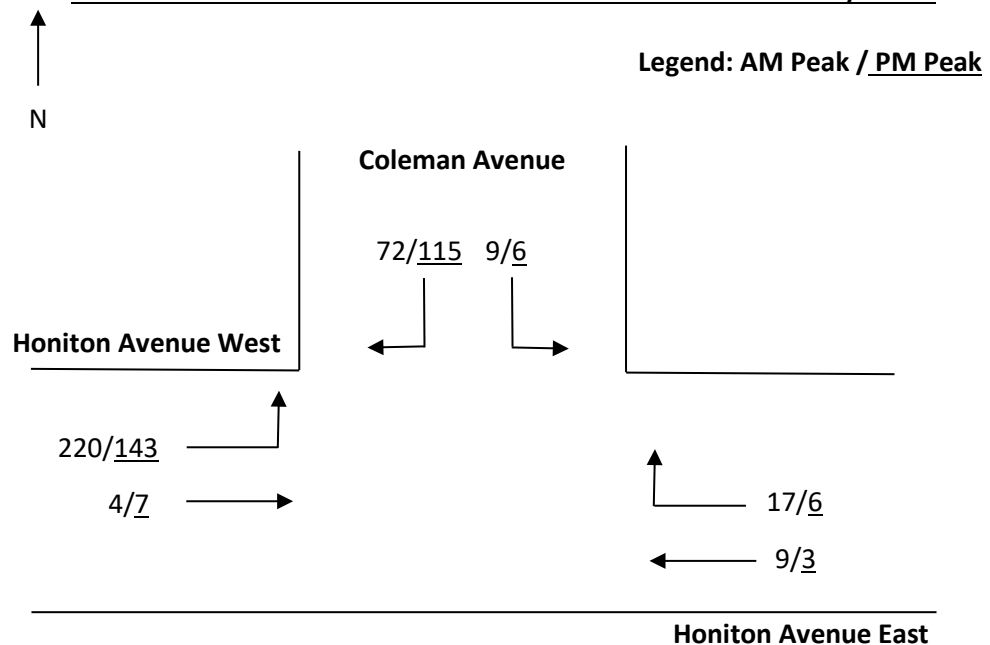
<b>TABLE 4: SUMMARY OF PEAK HOUR TUBE COUNTER TRAFFIC SURVEY RESULTS COLEMAN AVENUE ADJACENT TO THE SITE</b>		
	<b>AM PEAK (8:00am on Wednesday)</b>	<b>PM PEAK (4:00pm on Thursday)</b>
<b>Northbound Volume</b>	237	148
<b>Southbound Volume</b>	79	121
<b>Total Volume (two-directional)</b>	316	269

Staff of this Practice have undertaken traffic demand surveys of the T-junction of Coleman Avenue and Honiton Avenue East / West, adjacent to the south-eastern corner of the subject site, in order to accurately ascertain existing traffic demands adjacent to the site.

Surveys were undertaken on Thursday the 15<sup>th</sup> and Friday the 16<sup>th</sup> of September 2022 between 7:00am – 9:00am and 4:00pm – 6:00pm.

**Figure 3** below provides a summary of the surveyed peak hour (8:00am – 9:00am and 4:30pm – 5:30pm) traffic flows at the subject intersection, whereby turning movement volumes between Coleman Avenue and Honiton Avenue West have been calibrated to accord with the peak hour volumes surveyed by the weeklong Coleman Avenue tube count. Full details of the actual junction surveys results are provided within **Appendix 4**.

**FIGURE 3: EXISTING WEEKDAY COMMUTER PEAK HOUR TRAFFIC VOLUMES  
JUNCTION OF COLEMAN AVENUE AND HONITON AVENUE EAST / WEST**



**Figure 3** indicates the following weekday commuter peak hour traffic demands:

- Honiton Avenue West accommodates directional traffic demands of between approximately 100 and 225 vehicles during the weekday morning and evening peak hours, respectively;
- Honiton Avenue East accommodates directional traffic demands of less than 30 vehicles per hour during weekday commuter peak periods; and
- Coleman Avenue accommodates directional traffic demands of between approximately 100 and 240 vehicles during the weekday morning and evening peak hours.

## 4.3 Existing Road Network Operation

### 4.3.1 Intersection Performance

The surveyed junction of Coleman Avenue and Honiton Avenue East / West has been analysed utilising the SIDRA computer intersection analysis program in order to objectively assess the operation of the nearby public road network.

SIDRA is a computerised traffic arrangement program which, when volume and geometrical configurations of an intersection are imputed, provides an objective assessment of the operation efficiency under varying types of control (i.e. signs, signal and roundabouts). Key indicators of SIDRA include level of service where results are placed on a continuum from A to F, with A providing the greatest intersection efficiency and therefore being the most desirable by TfNSW.

SIDRA uses detailed analytical traffic models coupled with an iterative approximation method to provide estimates of the abovementioned key indicators of capacity and performance statistics. Other key indicators provided by SIDRA are average vehicle delay, the number of stops per hour and the degree of saturation. Degree of saturation is the ratio of the arrival rate of vehicles to the capacity of the approach. Degree of saturation is a useful and professionally accepted measure of intersection performance.

The NSW modelling guidelines 2013 sets out the method which should be followed for Sidra modelling. The relevant criteria and the calibration procedures undertaken by this Practice are listed in **Table 5** overleaf.

TABLE 5: GETTING STARTED SIDRA MODELLING	
Detail	Adopted Modelling Parameters and Assumptions
Getting Started	<ul style="list-style-type: none"> <li>The latest version of Sidra Intersection 9 (version 9.0.3.9771) was used.</li> </ul>
Input	<ul style="list-style-type: none"> <li>Data was input for a 60-minute period with a maximum peak flow period of 30 minutes</li> </ul>
Geometry	<ul style="list-style-type: none"> <li>All intersection geometry was based on measurements taken on-site and measured through aerial photography from Nearmap.</li> </ul>
Saturation Flow	<ul style="list-style-type: none"> <li>The default saturation flow was adopted for all lanes.</li> </ul>
Volumes	<ul style="list-style-type: none"> <li>The volume of heavy vehicles was assumed to be 7% of the total volume for all roads that do not have applicable load limits.</li> <li>The default 95% peak flow factor was adopted for all movements.</li> </ul>
Movement Data	<ul style="list-style-type: none"> <li>Approach and exit speed data were updated as per the posted speed limits or where no signage exists, a 50km/h default speed was adopted.</li> </ul>
Priorities	<ul style="list-style-type: none"> <li>Default priorities modelled.</li> </ul>
Gap Acceptance	<ul style="list-style-type: none"> <li>The Sidra default gap acceptance values were adopted for all movements.</li> </ul>
Pedestrians	<ul style="list-style-type: none"> <li>No pedestrian crossings were modelled at the junctions.</li> </ul>
Phasing and Timing	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>

SIDRA provides analysis of the operating conditions that can be compared to the performance criteria set out in **Table 6** below (being the TfNSW NSW method of calculation of Level of Service).

TABLE 6: LEVEL OF SERVICE CRITERIA FOR INTERSECTIONS PRIORITY CONTROLLED INTERSECTIONS		
Level of Service	Average Delay per Vehicle (secs/veh)	Expected Delay
<b>A</b>	Less than 14	Good
<b>B</b>	15 to 28	Acceptable delays and spare capacity
<b>C</b>	29 to 42	Satisfactory
<b>D</b>	43 to 56	Near capacity
<b>E</b>	57 to 70	At capacity and requires other control mode
<b>F</b>	> 70	Unsatisfactory and requires other control mode

The existing conditions have been modelled utilising the peak hour traffic volumes presented within **Figure 3**. **Table 7** overleaf provides a summary of the SIDRA output data whilst more detailed summaries are included as **Appendix 5**.

<b>TABLE 7: SIDRA OUTPUT - EXISTING WEEKDAY PEAK HOUR PERFORMANCE JUNCTION OF COLEMAN AVENUE AND HONITON AVENUE EAST / WEST</b>		
	<b>AM</b>	<b>PM</b>
<b>Honiton Avenue West</b>		
Delay (sec / veh)	4.7	4.7
Degree of Saturation	0.13	0.09
Level of Service	A	A
<b>Honiton Avenue East</b>		
Delay (sec / veh)	5.4	5.1
Degree of Saturation	0.02	0.006
Level of Service	A	A
<b>Coleman Avenue</b>		
Delay (sec / veh)	7.9	7.7
Degree of Saturation	0.07	0.11
Level of Service	A	A
<b>Total Intersection</b>		
Delay (sec / veh)	7.9	7.7
Degree of Saturation	0.13	0.11
Level of Service	A	A

**Table 7** indicates that all movements at the junction of Coleman Avenue and Honiton Avenue East / West are provided with a level of service ‘A’ during peak commuter periods, representing good operation.

### 4.3.2 Level of Service

#### 4.3.2.1 Coleman Avenue

Reference is made to TfNSW’s *Guide to Traffic Generating Developments* to undertake an assessment of the operational performance of Coleman Avenue in the immediate vicinity of the subject site. **Table 8** below provides the level of service assigned to peak hour directional traffic flow within Coleman Avenue (adjacent to the site) based on the abovementioned traffic surveys and criteria specified within the *Guide to Traffic Generating Developments*.

<b>TABLE 8: COLEMAN AVENUE DIRECTIONAL TRAFFIC FLOW (ADJACENT TO THE SITE) LEVEL OF SERVICE</b>		
	<b>AM PEAK (8:00AM-9:00AM)</b>	<b>PM PEAK (4:00PM-5:00PM)</b>
<b>Northbound Traffic Flow</b>		
Volume	237	149
Level of Service	B	A
<b>Southbound Traffic Flow</b>		
Volume	81	121
Level of Service	A	A

TfNSW provides the following definitions for the levels of service presented within **Table 8**:

*Level of Service A*

*This level is a condition of free flow in which individual drivers are virtually unaffected by the presence of others in the traffic stream. Freedom to select desired speeds and to manoeuvre within the traffic stream is extremely high, and the general level of comfort and convenience provided is excellent.*

*Level of Service B*

*This level is in the zone of stable flow and drivers still have reasonable freedom to select their desired speed and to manoeuvre within the traffic stream.*

**Table 8** indicates that directional traffic flow within Coleman Avenue is provided with a level of service A to B during weekday commuter peak periods, representing stable flow where motorists generally have freedom to select their desired speed and to manoeuvre within the traffic stream. Such a level of service provided for northbound and southbound directions however remains in the zone of free to stable flow, meaning there remains capacity to accommodate additional traffic demands if so required.

4.3.2.2 Honiton Avenue West

Reference is made to TfNSW’s *Guide to Traffic Generating Developments* to undertake an assessment of the operational performance of Honiton Avenue West in the immediate vicinity of the subject site. **Table 9** below provides the level of service assigned to peak hour directional traffic flow within Honiton Avenue West (adjacent to the site) based on the abovementioned traffic surveys and criteria specified within the *Guide to Traffic Generating Developments*.

<b>TABLE 9: HONITON AVENUE WEST DIRECTIONAL TRAFFIC FLOW (ADJACENT TO THE SITE) LEVEL OF SERVICE</b>		
	<b>AM PEAK (8:00AM-9:00AM)</b>	<b>PM PEAK (4:00PM-5:00PM)</b>
<b>Eastbound Traffic Flow</b>		
Volume	224	150
Level of Service	B	A
<b>Westbound Traffic Flow</b>		
Volume	81	118
Level of Service	A	A

**Table 9** indicates that directional traffic flow within Honiton Avenue West is provided with a level of service A to B during weekday commuter peak periods, representing stable flow where motorists generally have freedom to select their desired speed and to manoeuvre within the traffic stream. Such a level of service provided for eastbound and westbound directions however remains in the zone of free to stable flow, meaning there remains capacity to accommodate additional traffic demands if so required.

### 4.3.3 Environmental Capacity

#### 4.3.3.1 Coleman Avenue

Coleman Avenue has been defined as collector roads in Section 4.1 of this report. TfNSW's *Guide to Traffic Generating Developments* specifies that collector roads typically provide a maximum environmental capacity of 500 vehicles per hour. The prevailing Coleman Avenue traffic demands during weekday commuter peak hours presented within **Table 8** (being up to 318 vehicles in any given hour) are therefore readily within the established environmental capacity as specified by TfNSW for a collector road. The maximum surveyed two-directional traffic demand within Coleman Avenue therefore represents satisfactory operation with respect to the environmental capacity criteria specified within TfNSW's *Guide to Traffic Generating Developments*, with spare capacity.

#### 4.3.3.2 Honiton Avenue West

Honiton Avenue West has been defined as collector roads in Section 4.1 of this report. TfNSW's *Guide to Traffic Generating Developments* specifies that collector roads typically provide a maximum environmental capacity of 500 vehicles per hour. The prevailing Honiton Avenue West traffic demands during weekday commuter peak hours presented within **Table 9** (being up to 305 vehicles in any given hour) are therefore readily within the established environmental capacity as specified by TfNSW for a collector road. The maximum surveyed two-directional traffic demand within Honiton Avenue West therefore represents satisfactory operation with respect to the environmental capacity criteria specified within TfNSW's *Guide to Traffic Generating Developments*, with spare capacity.

## 4.4 Safety Assessment

This Practice has obtained a 5-year (2016 – 2020 inclusive) crash history from TfNSW at the junction of Coleman Avenue and Honiton Avenue East / West.

There have been no recorded crashes at the junction; therefore, there are no outstanding safety concerns at this location currently.

There is one recorded crash at the junction of Clover Close and Coleman Avenue associated with a U-turn movement performed at the junction causing moderate injury. It is considered that a U-turn movement at this location is however undesirable and unnecessary, and therefore does not represent a prevailing safety concern associated with the greater surrounding road network.

Full details of the abovementioned crash history are contained within **Appendix 6** for review.



## 4.5 Sustainable Transport

### 4.5.1 Rail

Heavy rail services along the T6 Carlingford line closed in January 2020, to be replaced by the new Parramatta Light Rail, due for completion in 2023. Carlingford Light Rail station will be situated on the previous Carlingford Heavy Rail site, approximately 300m north of the subject site.

Throughout construction of the Parramatta Light Rail, a rail replacement bus service route 535 transports passengers between Carlingford, Telopea, Dundas, Rydalmere, Camellia/Rosehill and Parramatta CBD. Bus Route 535 operates every 10-15 minutes during morning and afternoon commuter peak hours, representing a significant improvement upon the previous heavy rail services along the T6 Carlingford line, which operated every 30 minutes during peak periods. This bus service will continue to operate throughout construction and through to completion of the new Carlingford to Parramatta light rail.

The closest stop for bus route 535 is located approximately 300m walking distance north of the subject site.

The Parramatta Light Rail will connect Carlingford to Parramatta and Westmead, with light rail services operating approximately every 7 minutes. From the major interchange at Parramatta, train services connect with lines servicing the greater Sydney metropolitan area and beyond.

### 4.5.2 Buses

The following regular bus services operate in the vicinity of the site:

- Route N61 – Carlingford to City Town Hall (Night Service);
- Route 513 – Carlingford to West Ryde;
- Route 535 – Carlingford to Parramatta;
- Route 546 – Parramatta to Epping via Oatlands and North Rocks;
- Route 550 – Parramatta to Macquarie Park via Epping; and
- Route 625 – Pennant Hills to Parramatta.

Route 513 operates along Coleman Avenue with the closest stop being located within 130m walking distance to the north of the site. Route 513 provides service at a 30-minute frequency during peak hours and an hourly frequency during weekday business hours and weekends.

Routes 535, 546, 550 and 625 operate along Pennant Hills Road, with the closest stop being located within 250m walking distance to the north-west of the site.

**Figures 4 and 5** overleaf provide maps of the nearby bus networks.



### 4.5.3 Pedestrians / Cyclists

Pedestrians are provided with the following access and mobility infrastructure within the immediate vicinity of the subject site:

- A footpath is provided along both sides of Coleman Avenue;
- A footpath is provided along both sides of Honiton Avenue East;
- Signalised pedestrian crossings are provided over the northern, southern and western approaches at the intersection of Coleman Avenue and Pennant Hills Road to the north of the site; and
- A pedestrian refuge is provided across Coleman Avenue on approach to its junction with Honiton Avenue East.

In the vicinity of the site, cyclists are provided with the following on-road bicycle-friendly routes:

- Coleman Avenue;
- Honiton Avenue East between Coleman Avenue and Marshall Road;
- Marshall Road between Honiton Avenue East and Brand Street;
- Pennant Hills Road to the east of Coleman Avenue; and
- Brand Street.

## 5. PROJECTED TRAFFIC CONDITIONS

### 5.1 Traffic Generation

Traffic generation rates for various land-uses have been established through extensive surveys undertaken throughout NSW and published within TfNSW's *Guide to Traffic Generating Developments*. This publication specifies the following traffic generation rates for child care centres:

*0.8 vehicle trips per child during the morning commuter peak hour*

*0.7 vehicle trips per child during the evening commuter peak hour*

Application of the above traffic generation rates to the proposed 67 place child care centre results in an estimated development traffic generation of approximately 54 vehicle trips per hour during the morning peak and 47 vehicle trips per hour during the evening peak.

It has been assumed that the development-generated visitor trips are likely to be evenly distributed between inbound and outbound movements associated with the setting down and picking up of children during the morning and evening peak periods, respectively, and all staff trips are to be inbound trips during the morning peak hour and outbound trips during the evening peak hour.

**Table 10** below indicates a summary of the ingress and egress movements generated by the proposed child care centre during the morning and afternoon peak hours.

<b>TABLE 10: SUMMARY OF INGRESS AND EGRESS MOVEMENTS PEAK HOUR TRAFFIC GENERATION</b>				
	<b>AM Peak: 54 total Movements</b>		<b>PM Peak: 47 Total Movements</b>	
	<b>Ingress</b>	<b>Egress</b>	<b>Ingress</b>	<b>Egress</b>
<b>Visitor</b>	22	22	18	19
<b>Staff</b>	10	-	-	10
<b>Total</b>	32	22	18	29

### 5.2 Traffic Distribution

#### 5.2.1 Visitor Trip Distribution

For the purposes of this assessment, the ingress and egress visitor trips have been assigned proportional to the existing traffic distribution throughout the possible approaches to the site. Therefore, it has been assumed that approximately 50% of trips will come from the north along Coleman Avenue and 50% of visitor trips are to come from the south-west via Honiton Avenue West.

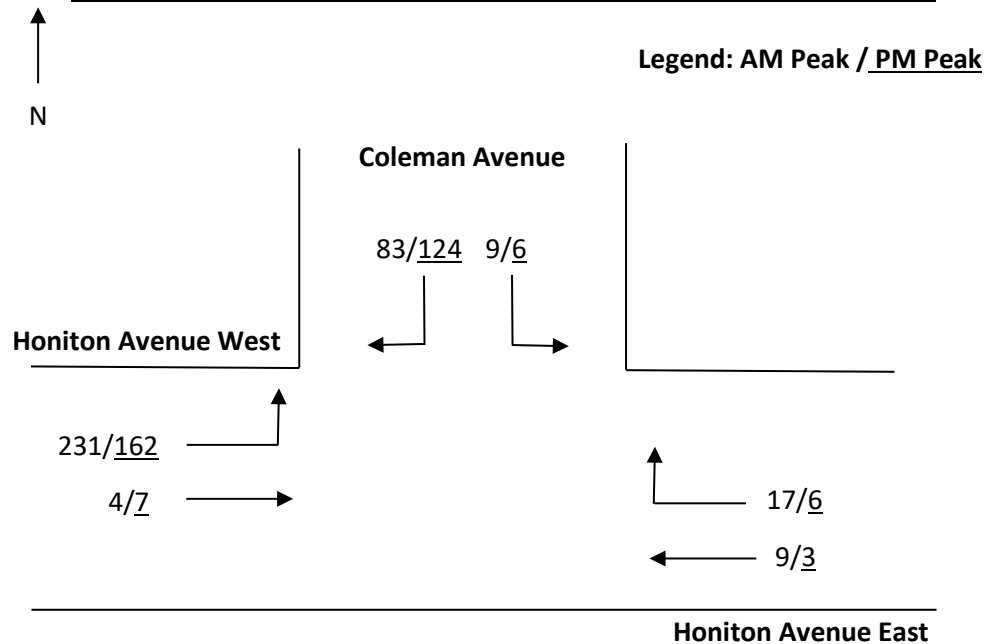
### 5.2.2 Staff Trip Distribution

Considering the proposed restricted access arrangements for staff to left in / left out movements via Honiton Avenue West, it has been assumed that 100% of inbound staff trips will originate from the south-west via Honiton Avenue West and 100% of the outbound trips will travel to the north via Coleman Avenue.

### 5.3 Projected Traffic Volumes

Based on the above sections, the projected peak hour traffic volumes at the junction of Coleman Avenue and Honiton Avenue East / West have been formulated by adding the abovementioned traffic generation and trip assignment to the existing demands presented within **Figure 3**. **Figure 6** below provides an estimation of the future traffic demands at the nearby public road intersection.

**FIGURE 6: PROJECTED WEEKDAY COMMUTER PEAK HOUR TRAFFIC VOLUMES  
JUNCTION OF COLEMAN AVENUE AND HONITON AVENUE EAST / WEST**



### 5.4 Traffic Impacts

#### 5.4.1 Projected Intersection Performance

The nearby public road junction of Coleman Avenue and Honiton Avenue East / West has been modelled in order to estimate the likely impact on traffic safety and efficiency utilising the projected traffic volumes illustrated within **Figure 4**. A summary of the most pertinent results are indicated overleaf within **Table 11** whilst more detailed summaries are provided within **Appendix 6**.

<b>TABLE 11: SIDRA OUTPUT - PROJECTED WEEKDAY PEAK HOUR PERFORMANCE JUNCTION OF COLEMAN AVENUE AND HONITON AVENUE EAST / WEST</b>				
	<b>Existing Conditions</b>		<b>Projected Conditions</b>	
	<b>AM</b>	<b>PM</b>	<b>AM</b>	<b>PM</b>
<b>Honiton Avenue West</b>				
Delay (sec / veh)	4.7	4.7	4.7	4.7
Degree of Saturation	0.13	0.09	0.13	0.10
Level of Service	A	A	A	A
<b>Honiton Avenue East</b>				
Delay (sec / veh)	5.4	5.1	5.4	5.2
Degree of Saturation	0.02	0.006	0.02	0.006
Level of Service	A	A	A	A
<b>Coleman Avenue</b>				
Delay (sec / veh)	7.9	7.7	7.9	7.7
Degree of Saturation	0.07	0.11	0.09	0.12
Level of Service	A	A	A	A
<b>Total Intersection</b>				
Delay (sec / veh)	7.9	7.7	7.9	7.7
Degree of Saturation	0.13	0.11	0.13	0.12
Level of Service	A	A	A	A

**Table 11** indicates that the additional traffic generated by the proposed development is not projected to have noticeable impacts on operation of the public road intersection of Coleman Avenue and Honiton Avenue East / West, with only minor alterations projected with respect to delay and degree of saturation. In this regard, the current intersection level of service is projected to remain unaltered, representing a continued good operation.

#### 5.4.2 Projected Route Performance

The development has been projected to generate up to 54 vehicle movements per hour during commuter peak periods. Such a peak hour traffic generation equates to less than one additional vehicle movements every minute during peak hours, which is not projected to, in itself, result in any unreasonable impacts on the existing operational performance of the surrounding local road network.

**Tables 8 and 9** indicate that the maximum surveyed two-directional traffic demands within Coleman Avenue of up to 316 vehicles during commuter peak periods and Honiton Avenue West of up to vehicles during commuter peak periods.

The projected trip assignment is such that up to 28 additional vehicle movements are to occur within a single section of Coleman Avenue / Honiton Avenue. Therefore, the peak hourly traffic demands are projected to be a total projected two-directional traffic flow of up to 346 vehicles.

The projected traffic demands within Coleman Avenue and Honiton Avenue West are accordingly projected to remain well within the established environmental capacity of the frontage road (of 500 vehicles per hour) and accordingly, unreasonable impacts on traffic flow safety, efficiency and amenity is not envisaged.

On a more regional scale, whilst it is acknowledged that surrounding regional roads accommodate more considerable traffic demands, the abovementioned extent of the total additional traffic generating ability of the development, representing less than one additional vehicle movement every minute during peak periods, is not anticipated to result in any unreasonable impacts on overall road network performance. The presence of positive intersection control at the nearby precinct access point (Coleman Avenue / Pennant Hills Road / Lloyds Avenue) provides motorists with safe and efficient means with which to access and exit the subject precinct.

It is acknowledged that the proposed left-in / left-out only staff car park access and egress restrictions will result in staff of the centre being subjected to somewhat circuitous approach and departure routes. However, the very minor traffic generated by staff of the development, being 10 movements during peak hours, and the formulation of Management Plan which is to form part of the employee contract, ensures safe and efficient means are provided for vehicles to access the site as required without undesirably impacting nearby local residential roads.

In consideration of the above and the proposed access restriction, the impact of the development is most likely to be a result of the safety and efficiency with which motorists are capable of entering and exiting the development. Accordingly, site access / egress movements between the site Coleman Avenue and Honiton Avenue West are expected to be assisted by the following:

- Satisfactory sight distance provisions and low travel speeds within Coleman Avenue allow motorists to undertake turning movements between abutting development sites and Coleman Avenue with a reasonable level of safety and efficiency;
- The proliferation of abutting properties with direct access to Coleman Avenue ensures that trailing through motorists are aware of the propensity of vehicles to decelerate to undertake turning development site access movements; and
- The imposition of left-in / left-out movements for staff between Honiton Avenue West and the subject site thereby mitigate against potential safety and efficiency impacts on Honiton Avenue West traffic flow.

## 5.5 Parking Impacts

The proposed development provides an off-street parking provision which complies with the requirements of PDCP 2011, TfNSW's *Guide to Traffic Generating Developments* and NSW Government's *Child Care Planning Guideline*. It is accordingly not expected that the development will result in unreasonable impacts on surrounding public road parking supply / capacity, particularly with the appropriate implementation of a Neighbourhood Parking Policy discussed within Section 3.2.2.3 of this report.

Notwithstanding the above, in the unlikely event that short term on-street parking demand is generated by the development during peak set-down and pick-up periods, the following should be acknowledged:

- Observations have indicated that whilst demand for on-street parking in the immediate vicinity of the site is moderate and there is capacity to accommodate a minor level additional demand; and
- There is physical capacity to accommodate at least five casually parked vehicles in a parallel arrangement along the western kerb alignment of Coleman Avenue, immediately adjacent to the subject site thereby not having any unreasonable impact on adjoining properties.

It is accordingly not anticipated that the development will result in any impacts on surrounding residential amenity or public road efficiency in the unlikely event that some on-street parking occurs as a result of the centre.

## 5.6 Transport Impacts

The subject site is located approximately within reasonably close walking distance to a number of bus services operating along Coleman Avenue and Pennant Hills Road. It is accordingly expected that a portion of the future centre users / staff will utilise the surrounding public transport infrastructure to access destinations throughout the Sydney metropolitan area. The capacity of the existing public transport system is however not envisaged to be measurably affected by any additional demand associated with the development, given its limited scale.



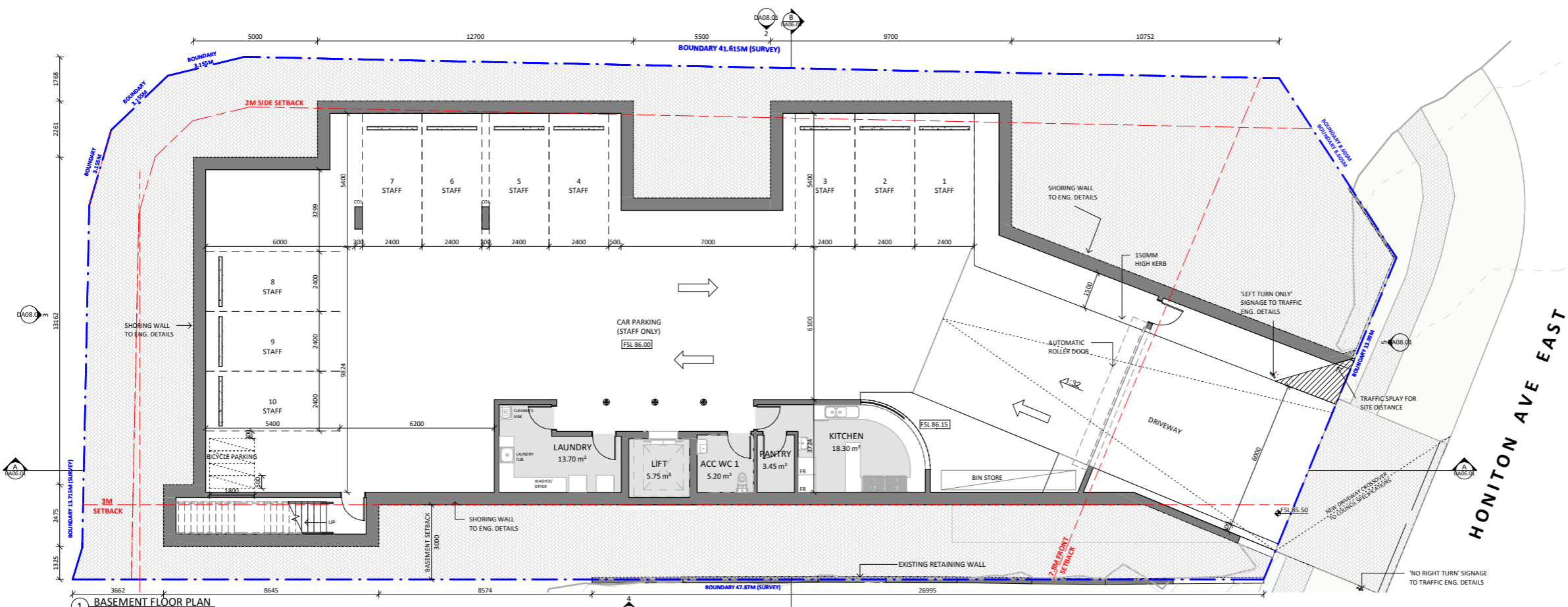
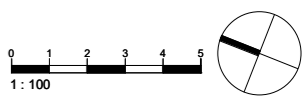
## 6. CONCLUSION

This report assesses the potential parking and traffic implications associated with a proposed child care centre at 32 Honiton Avenue West, Carlingford. Based on this assessment, the following conclusions are now made:

- The visitor site access arrangements are projected to result in motorists being capable of entering and exiting the subject site in a safe and efficient manner;
- The restricted left in / left out staff access arrangements are projected to result in motorists being capable of entering and exiting the subject site in a safe and efficient manner;
- The proposed off-street parking provision complies the passenger vehicle and bicycle parking requirements of PDCP 2011, thereby indicating that there should not be any increased on-street parking demand as a result of the development;
- The internal passenger vehicle circulation arrangements are envisaged to provide for safe and efficient internal manoeuvring;
- The surrounding local road network operates with a good level of service during peak periods;
- The subject development has been projected to generate up to 54 vehicle movements to and from the site during weekday commuter peak hours;
- The surrounding local road network is considered to be capable of accommodating the additional traffic projected to be generated by the subject development; and
- The prevailing pavement widths of Coleman Avenue and Honiton Avenue are considered to be suitably capable of accommodating two-way traffic flow in a safe and efficient manner, being assisted by low prevailing on-street parking demand providing for safe access to the site.

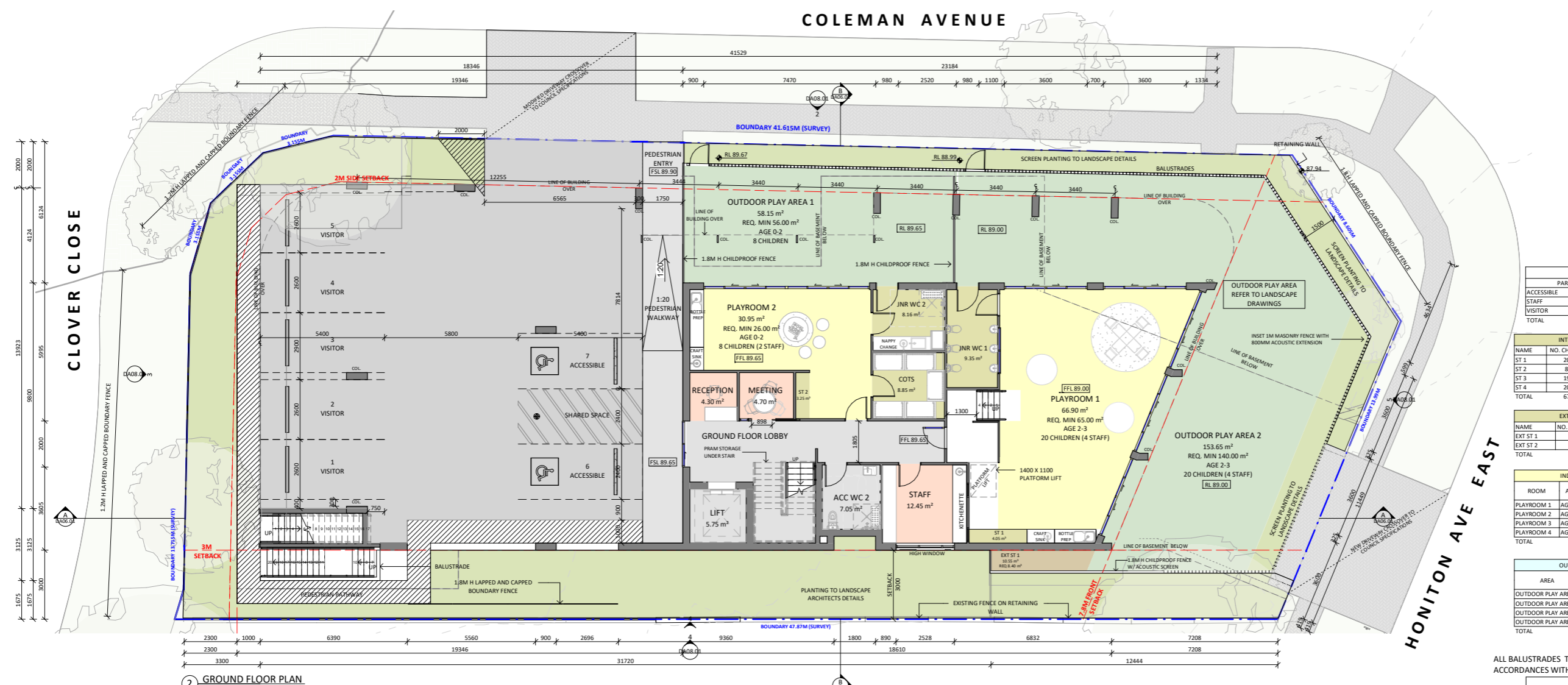
It is considered, based on the contents of this report, there are no parking or traffic related issues that should prevent approval of the subject application. This action is therefore recommended to Council.

## **APPENDIX 1**



- ABBREVIATIONS**
- ENG. - ENGINEER
  - ESL - EXISTING SLAB LEVEL
  - EXT - EXTERIOR
  - FLL - FINISH FLOOR LEVEL
  - F. - FIXED
  - FSL - FINISH SURFACE LEVEL
  - GLZ - GLAZING
  - NGL - NATURAL GROUND LEVEL
  - REQ. - REQUIREMENTS
- XX.XX - PROPOSED LEVEL  
 XX.XX - EXISTING LEVEL  
 XX.XX - SPOT LEVEL (PLAN)  
 XX.XX - SPOT LEVEL (ELEVATION)

- LANDSCAPE LEGEND**
- EXISTING TREE / TREE TO BE RETAINED
  - TREE TO BE REMOVED
  - NEW TREE
  - LANDSCAPING
  - LANDSCAPE BUFFER
  - TURF
  - PAVING
  - LINE OF STRUCTURAL ROOT ZONE (SRZ)
  - LINE OF TREE EXCLUSION ZONE (TEZ)
  - LINE OF TREE PROTECTION ZONE (TPZ)
- NOTE: REFER TO ARBORIST REPORT FOR FUTURE DETAILS



A	27.10.22	ISSUED FOR DEVELOPMENT APPLICATION
ISSUE	DATE	DESCRIPTION
PLANNER	PLANNING INDEPENDENT	STANBURY TRAFFIC
STORMWATER	TETFOUR CIVIL	PI&A
CS	DAY DESIGN	DAY DESIGN
ACOUSTICS	GREENLAND DESIGN	GREENLAND DESIGN
LANDSCAPE	GREENLAND DESIGN	GREENLAND DESIGN
GEOTECH	GROUND TECHNOLOGIES	GROUND TECHNOLOGIES
ACCESS	ABE	ABE

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**PARKING SCHEDULE**

PARKING	NO. SPACES
ACCESSIBLE	2
STAFF	10
VISITOR	5
TOTAL	17

**INTERNAL STORAGE SCHEDULE**

NAME	NO. CHILDRN	REQ VOL	VOL
ST 1	20	4.00 m³	4.05 m³
ST 2	8	1.60 m³	3.25 m³
ST 3	19	3.80 m³	4.05 m³
ST 4	20	4.00 m³	4.05 m³
TOTAL	67	13.40 m³	15.40 m³

**EXTERNAL STORAGE SCHEDULE**

NAME	NO. CHILDRN	REQ VOL	VOL
EXT ST 1	28	8.40 m³	10.55 m³
EXT ST 2	39	11.70 m³	13.55 m³
TOTAL	67	20.10 m³	24.10 m³

**INDOOR PLAYROOM SCHEDULE**

ROOM	AGE	NO. CHILDRN	NO. STAFF	UNENCUMBERED	AREA
PLAYROOM 1	AGE 2-3	20	4	65 m²	67 m²
PLAYROOM 2	AGE 0-2	8	2	26 m²	31 m²
PLAYROOM 3	AGE 3+	20	2	65 m²	66 m²
PLAYROOM 4	AGE 3+	19	2	61.75 m²	62 m²
TOTAL		67	10	217.75 m²	226 m²

**OUTDOOR PLAY AREA SCHEDULE**

AREA	AGE	NO. CHILDRN	UNENCUMBERED	AREA
OUTDOOR PLAY AREA 1	AGE 0-2	8	56 m²	58 m²
OUTDOOR PLAY AREA 2	AGE 2-3	20	140 m²	154 m²
OUTDOOR PLAY AREA 3	AGE 3+	26	182 m²	192 m²
OUTDOOR PLAY AREA 4	AGE 3+	13	91 m²	95 m²
TOTAL		67	469 m²	499 m²

**ISSUED FOR LEC**

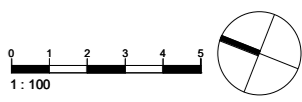
Project number	Sheet No.	Issue	Phase
21600	DA03.01	A	DA

**Sheet Size** A1 **Scale** As indicated **L.G.A.** PARRAMATTA

**Drawn By** TA/KL **Checked By** BR/AS **Date** 27.10.22

ALL BALUSTRADES TO STAIRS & RAMPS TO COMPLY IN ACCORDANCES WITH NCC & AUSTRALIAN STANDARDS

**NOT FOR CONSTRUCTION**

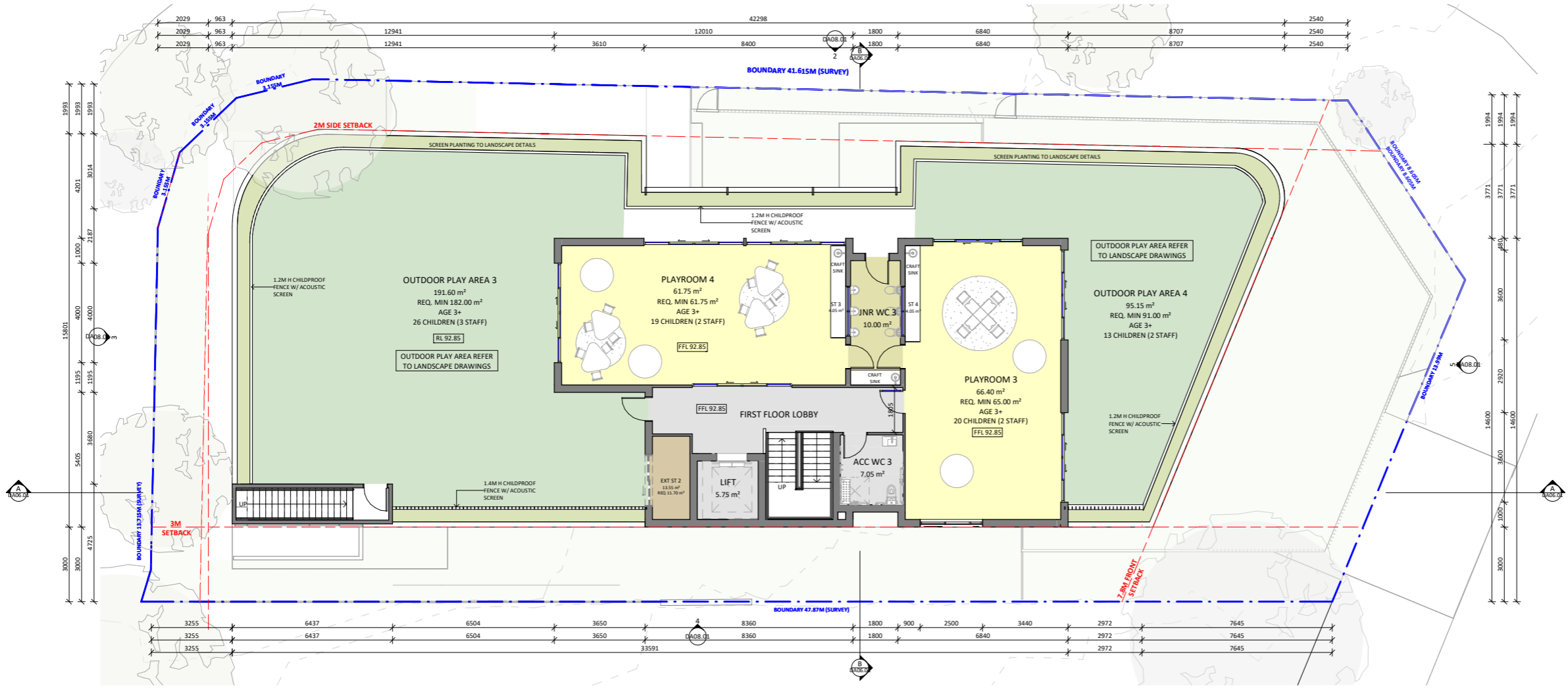


**ABBREVIATIONS**

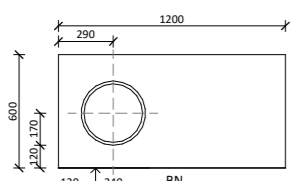
- ENG. - ENGINEER
- ESL - EXISTING SLAB LEVEL
- EXT - EXTERIOR
- FFL - FINISH FLOOR LEVEL
- F. - FIXED
- FSL - FINISH SURFACE LEVEL
- GLZ - GLAZING
- NGL - NATURAL GROUND LEVEL
- REQ. - REQUIREMENTS
- XXX - PROPOSED LEVEL
- XX.XX - EXISTING LEVEL
- XX.XX - SPOT LEVEL (PLAN)
- XX.XX - SPOT LEVEL (ELEVATION)

**LANDSCAPE LEGEND**

- EXISTING TREE / TREE TO BE RETAINED
  - TREE TO BE REMOVED
  - NEW TREE
  - LANDSCAPING
  - LANDSCAPE BUFFER
  - TURF
  - PAVING
  - LINE OF STRUCTURAL ROOT ZONE (SRZ)
  - LINE OF TREE EXCLUSION ZONE (TEZ)
  - LINE OF TREE PROTECTION ZONE (TPZ)
- NOTE: REFER TO ARBORIST REPORT FOR FUTURE DETAILS



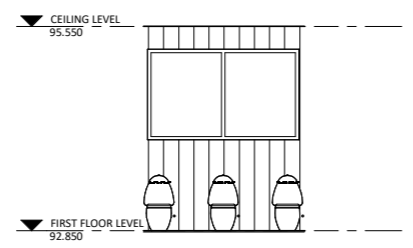
1 FIRST FLOOR PLAN  
1:100



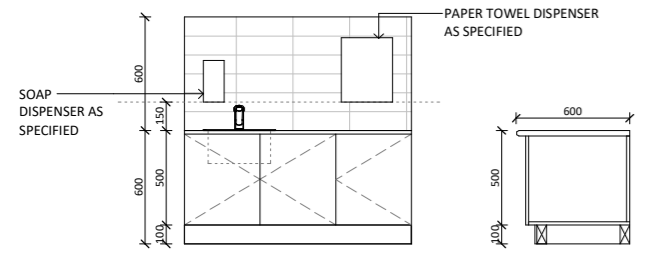
NOTE: PROVIDE MAGNETIC CHILDPROOF LOCKS TO ALL CABINETS IN INDOOR PLAY AREA (CRAFT SINKS & BOTTLE PREP.)

BULLNOSE EDGE TO BE PROVIDED TO FRONT BENCH TOP EDGE

**TYPICAL CRAFT SINK - PLAN VIEW**



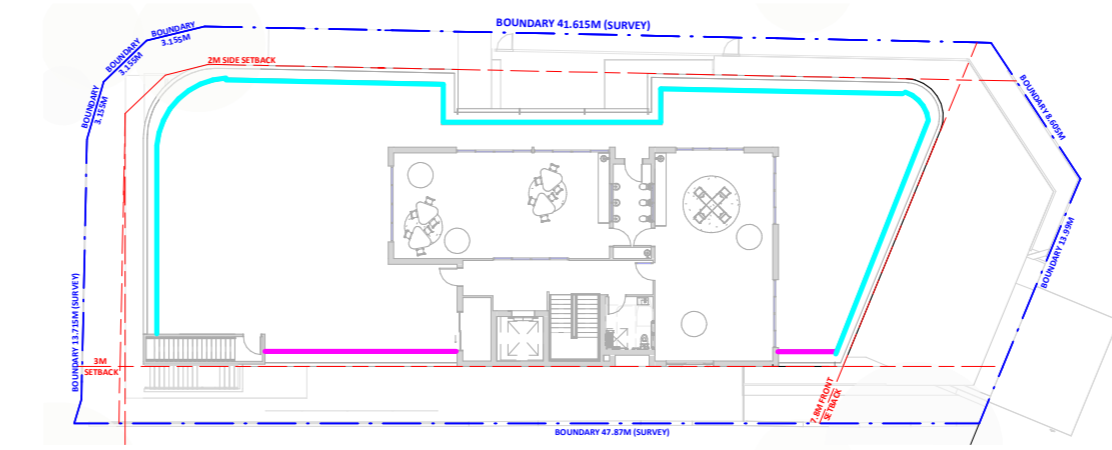
3 TYPICAL JNR WC1  
1:50



**TYPICAL CRAFT SINK ELEVATION VIEW**



NOTE: IMAGE ONLY FOR JOINERY REFERENCE (NOT WALL BEHIND)



4 FIRST FLOOR ACOUSTIC FENCE  
1:200

**FENCE LEGEND**

- 1.8M HT LAPPED AND CAPPED BOUNDARY FENCE
  - 1.2M HT LAPPED AND CAPPED BOUNDARY FENCE
  - 1.2M HT ACOUSTIC BARRIER
  - 1.4M HT ACOUSTIC BARRIER
- REFER ACOUSTIC REPORT/ARCHITECTURAL DRAWINGS FOR TYPICAL DETAILS.

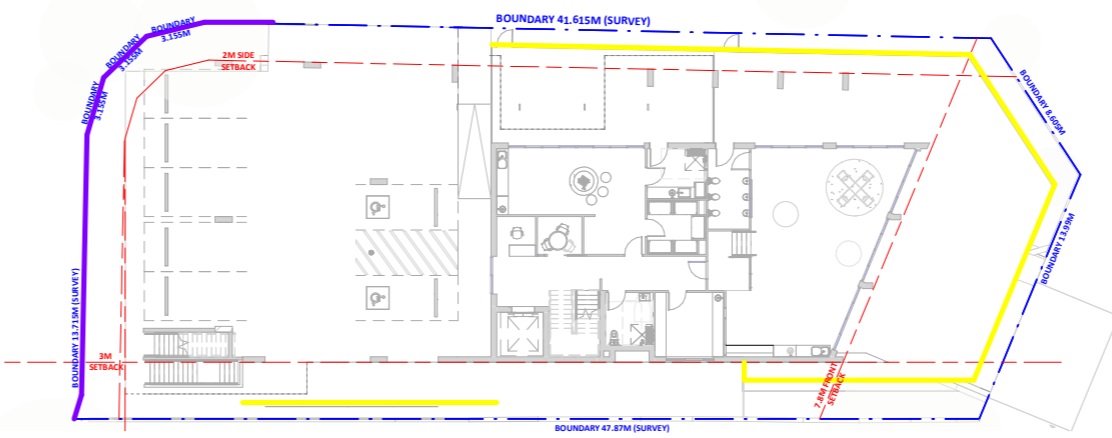
INTERNAL STORAGE SCHEDULE			
NAME	NO. CHILDRN	REQ VOL	VOL
ST 1	20	4.00 m <sup>3</sup>	4.05 m <sup>3</sup>
ST 2	8	1.60 m <sup>3</sup>	3.25 m <sup>3</sup>
ST 3	19	3.80 m <sup>3</sup>	4.05 m <sup>3</sup>
ST 4	20	4.00 m <sup>3</sup>	4.05 m <sup>3</sup>
<b>TOTAL</b>	<b>67</b>	<b>13.40 m<sup>3</sup></b>	<b>15.40 m<sup>3</sup></b>

EXTERNAL STORAGE SCHEDULE			
NAME	NO. CHILDRN	REQ VOL	VOL
EXT ST 1	28	8.40 m <sup>3</sup>	10.55 m <sup>3</sup>
EXT ST 2	39	11.70 m <sup>3</sup>	13.55 m <sup>3</sup>
<b>TOTAL</b>	<b>67</b>	<b>20.10 m<sup>3</sup></b>	<b>24.10 m<sup>3</sup></b>

INDOOR PLAYROOM SCHEDULE					
ROOM	AGE	NO. CHILDRN	NO. STAFF	UNENCUMBERED REQ. AREA	UNENCUMBERED AREA
PLAYROOM 1	AGE 2-3	20	4	65 m <sup>2</sup>	67 m <sup>2</sup>
PLAYROOM 2	AGE 0-2	8	2	26 m <sup>2</sup>	31 m <sup>2</sup>
PLAYROOM 3	AGE 3+	20	2	65 m <sup>2</sup>	66 m <sup>2</sup>
PLAYROOM 4	AGE 3+	19	2	61.75 m <sup>2</sup>	62 m <sup>2</sup>
<b>TOTAL</b>		<b>67</b>	<b>10</b>	<b>217.75 m<sup>2</sup></b>	<b>226 m<sup>2</sup></b>

OUTDOOR PLAY AREA SCHEDULE					
AREA	AGE	NO. CHILDRN	NO. STAFF	UNENCUMBERED REQ. AREA	UNENCUMBERED AREA
OUTDOOR PLAY AREA 1	AGE 0-2	8	2	56 m <sup>2</sup>	58 m <sup>2</sup>
OUTDOOR PLAY AREA 2	AGE 2-3	20	2	140 m <sup>2</sup>	154 m <sup>2</sup>
OUTDOOR PLAY AREA 3	AGE 3+	26	2	182 m <sup>2</sup>	192 m <sup>2</sup>
OUTDOOR PLAY AREA 4	AGE 3+	13	1	91 m <sup>2</sup>	95 m <sup>2</sup>
<b>TOTAL</b>		<b>67</b>	<b>10</b>	<b>469 m<sup>2</sup></b>	<b>499 m<sup>2</sup></b>

PARKING SCHEDULE	
ACCESSIBLE PARKING	NO. SPACES
STAFF	2
VISITOR	10
<b>TOTAL</b>	<b>12</b>



5 GROUND FLOOR ACOUSTIC FENCE  
1:200

A	27.10.22	ISSUED FOR DEVELOPMENT APPLICATION
ISSUE	DATE	DESCRIPTION
ASSOCIATED CONSULTANTS		
PLANNER	Planning Integrity	
TRAFFIC	Stansbury Traffic	
STORMWATER	Tetford Civil	
CS	PI&A	
ACOUSTICS	Day Design	
LANDSCAPE	Greenland Design	
GEOTECH	Ground Technologies	
ACCESS	ABE	

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**PROJECT**  
CHILD CARE CENTRE

**PROJECT ADDRESS**  
32 HONITON AVE, CARLINGFORD, NSW 2118

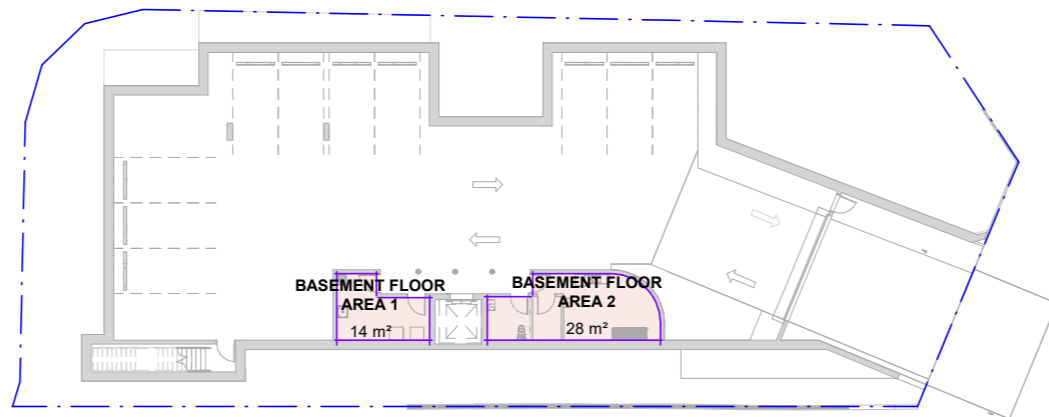
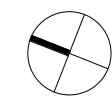
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FIRST FLOOR PLAN

ISSUED FOR LEC			
Project number	Sheet No.	Issue	Phase
21600	DA03.02	A	DA

**Sheet Size** A1 **Scale** As indicated **L.G.A.** PARRAMATTA  
**Drawn By** TA/KL **Checked By** BR/AS **Date** 27.10.22

**NOT FOR CONSTRUCTION**



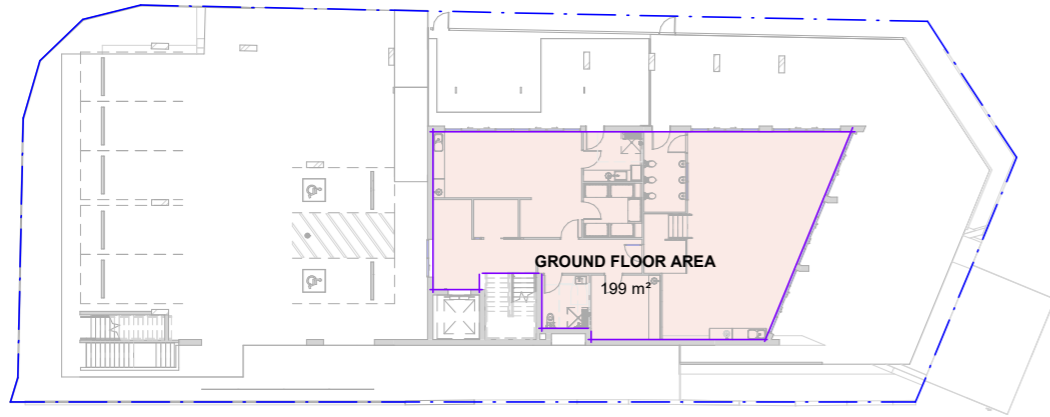


1 BASEMENT FLOOR LEVEL  
1:200

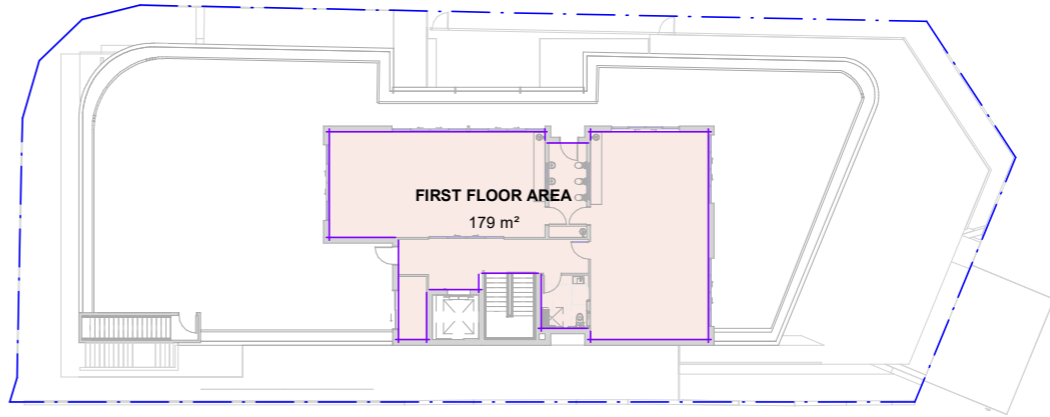
DCP AREA SCHEDULE (GFA) SITE AREA 1023M <sup>2</sup>	
MAX. FSR	MAX. FSR %
511.5	50

PROPOSED - AREA SCHEDULE (GFA)			
Name	Area	Level	FSR
BASEMENT FLOOR AREA 1	13.70 m <sup>2</sup>	BASEMENT FLOOR LEVEL	0.009973
BASEMENT FLOOR AREA 2	27.90 m <sup>2</sup>	BASEMENT FLOOR LEVEL	0.020289
	41.60 m <sup>2</sup>		0.030262
GROUND FLOOR AREA	198.60 m <sup>2</sup>	GROUND FLOOR LEVEL	0.144419
	198.60 m <sup>2</sup>		0.144419
FIRST FLOOR AREA	179.00 m <sup>2</sup>	FIRST FLOOR LEVEL	0.130134
	179.00 m <sup>2</sup>		0.130134
TOTAL	419.20 m <sup>2</sup>		0.304815

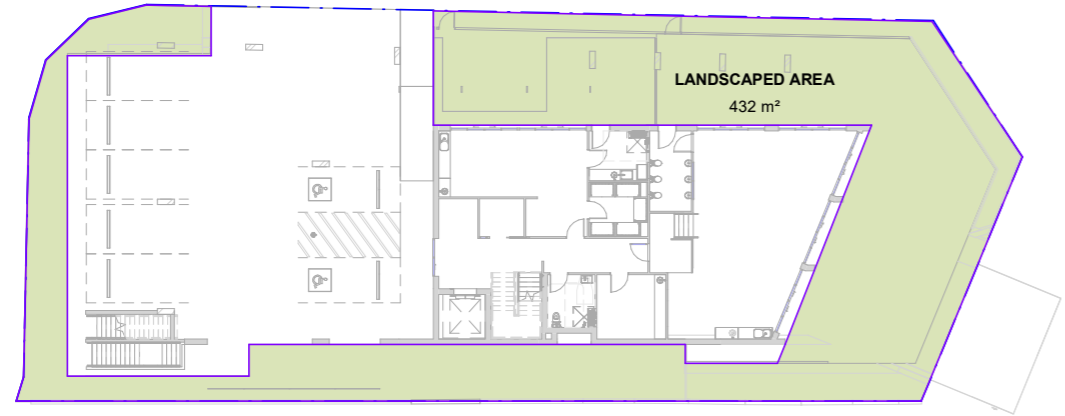
PROPOSED - LANDSCAPE AREA		
Name	Area	LS %
LANDSCAPED AREA	432.40 m <sup>2</sup>	31.4%
LANDSCAPED AREA 1	225.40 m <sup>2</sup>	16.4%
LANDSCAPED AREA 2	123.65 m <sup>2</sup>	9.0%
TOTAL	781.45 m <sup>2</sup>	56.8%



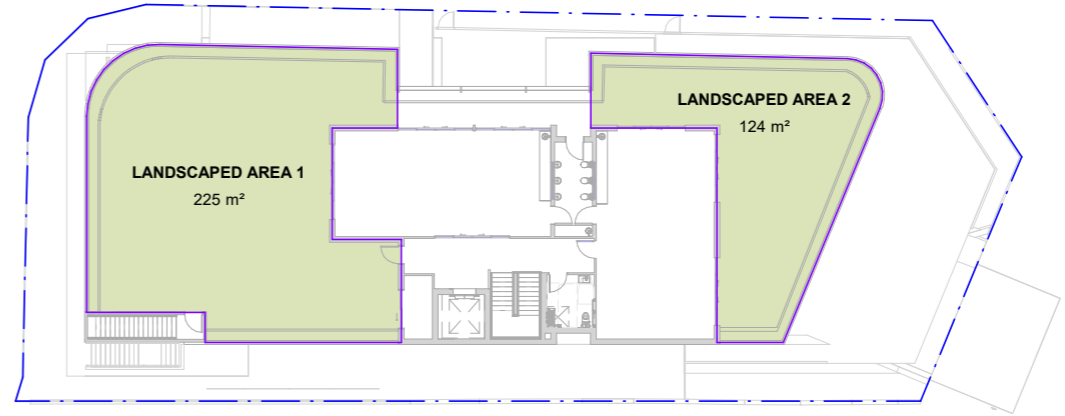
2 GROUND FLOOR LEVEL  
1:200



3 FIRST FLOOR LEVEL  
1:200



4 GROUND FLOOR LEVEL  
1:200



5 FIRST FLOOR LEVEL  
1:200

ISSUE	DATE	DESCRIPTION
A	27.10.22	ISSUED FOR DEVELOPMENT APPLICATION

ASSOCIATED CONSULTANTS	
PLANNER	Planning Ingenuity
TRAFFIC	Stanbury Traffic
STORMWATER	Telford Civil
CS	PI&A
ACOUSTICS	Day Design
LANDSCAPE	Greenland Design
GEOTECH	Ground Technologies
ACCESS	ABE

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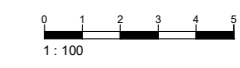
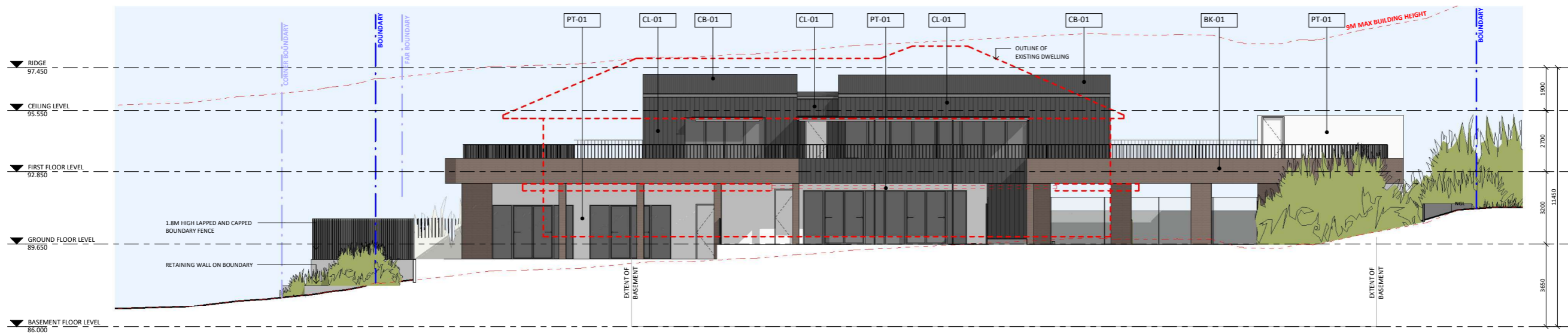
**PROJECT**  
CHILD CARE CENTRE

**PROJECT ADDRESS**  
32 HONITON AVE, CARLINGFORD, NSW 2118

**SHEET NAME**  
AREA CALCULATIONS

Project number	Sheet No.	Issue	Phase
21600	DA04.01	A	DA
Sheet Size	Scale	L.G.A.	
A1	1:200	PARRAMATTA	
Drawn By	Checked By	Date	
TA/KL	BR/AS	27.10.22	

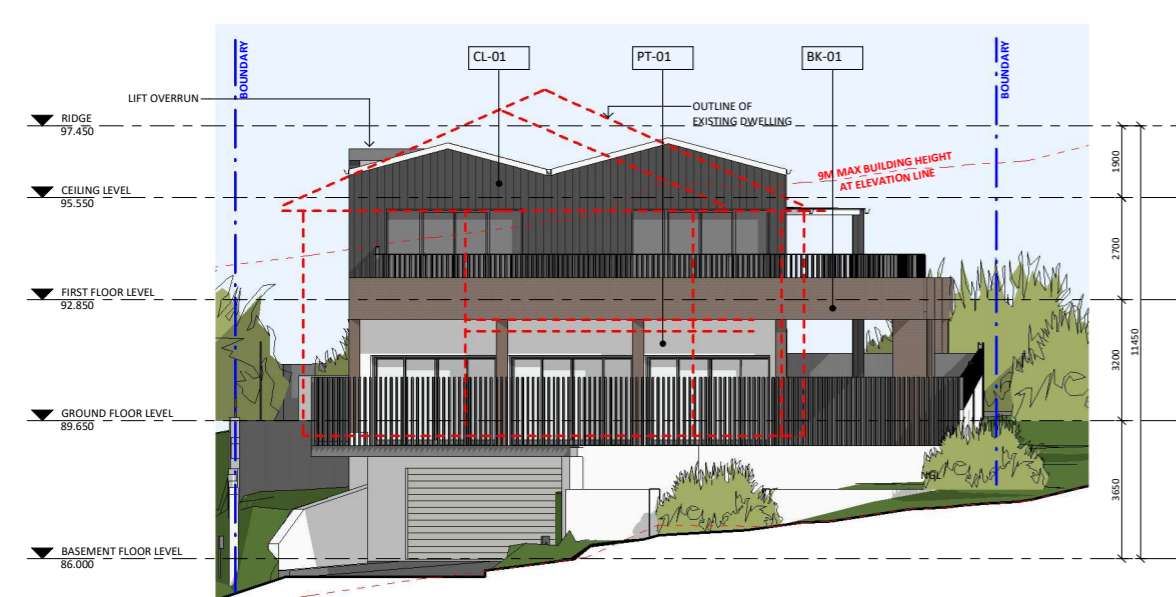
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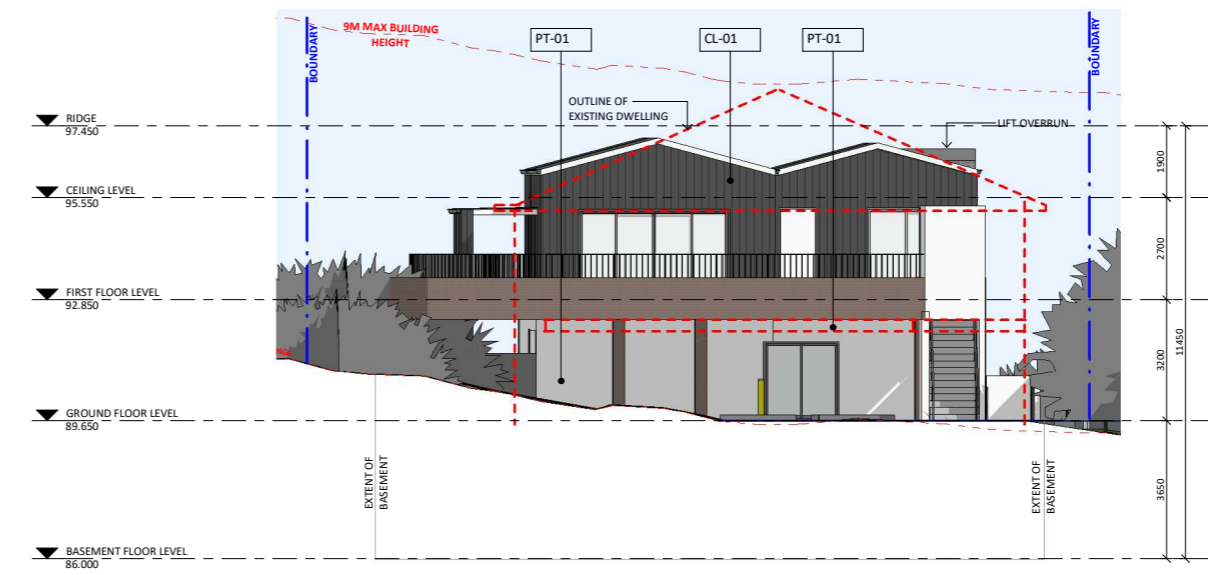
**EXTERNAL FINISHES**

<b>CL-01</b>	LYSAGHT LONGLINE 305 COLOUR: WOODLAND GREY OR SIMILAR
<b>BK-01</b>	BRICK DULUX COLOUR: RED OR SIMILAR
<b>CB-01</b>	ROOF, GUTTER, DOWNPIPES COLORBOND COLOUR: WOODLAND GREY OR SIMILAR
<b>PT-01</b>	RENDER & PAINT DULUX COLOUR: WHITE OR SIMILAR

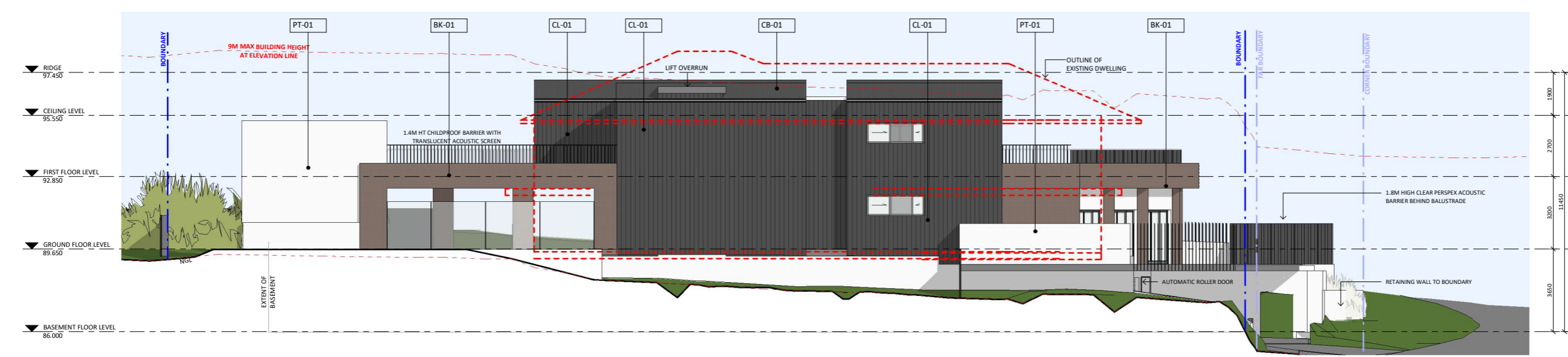
1 EAST ELEVATION (COLEMAN AVE)  
1:100



2 SOUTH ELEVATION (HONITON AVE EAST)  
1:100



3 NORTH ELEVATION (CLOVER CLOSE)  
1:100



4 WEST ELEVATION  
1:100

ISSUE	DATE	DESCRIPTION
A	27.10.22	ISSUED FOR DEVELOPMENT APPLICATION

**ASSOCIATED CONSULTANTS**

PLANNER	Planning Integrity
TRAFFIC	Stanbury Traffic
STORMWATER	Tetford Civil
CS	P&A
ACOUSTICS	Day Design
LANDSCAPE	Greenland Design
GEOTECH	Ground Technologies
ACCESS	ABE

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**PROJECT**  
CHILD CARE CENTRE

**PROJECT ADDRESS**  
32 HONITON AVE, CARLINGFORD, NSW 2118

**SHEET NAME**  
EXTERNAL ELEVATIONS

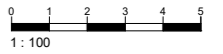
**ISSUED FOR LEC**

Project number	Sheet No.	Issue	Phase
21600	DA05.01	A	DA

Sheet Size	Scale	L.G.A.
A1	1:100	PARRAMATTA

Drawn By	Checked By	Date
TA/KL	BR/AS	27.10.22

**NOT FOR CONSTRUCTION**

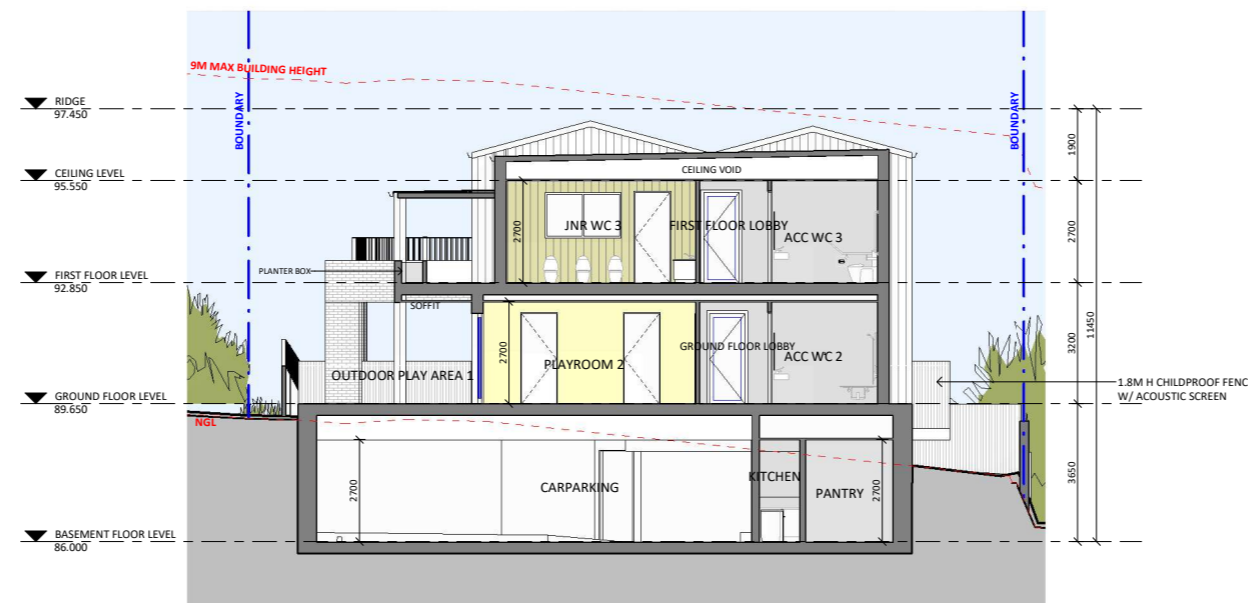


**EXTERNAL FINISHES**

- CL-01** LYSAGHT  
LONGLINE 305  
COLOUR: WOODLAND GREY OR SIMILAR
- BK-01** BRICK  
DULUX  
COLOUR: RED OR SIMILAR
- CB-01** ROOF, GUTTER, DOWNPIPES  
COLORBOND  
COLOUR: WOODLAND GREY OR SIMILAR
- PT-01** RENDER & PAINT  
DULUX  
COLOUR: WHITE OR SIMILAR



**(A) SECTION A-A**  
1:100



**(B) SECTION B-B**  
1:100

ISSUE	DATE	DESCRIPTION
A	27.10.22	ISSUED FOR DEVELOPMENT APPLICATION

ASSOCIATED CONSULTANTS	DATE	DESCRIPTION
PLANNER	Planning Ingenuity	
TRAFFIC	Stanbury Traffic	
STORMWATER	Telford Civil	
CS	P&A	
ACOUSTICS	Day Design	
LANDSCAPE	Greenland Design	
GEOTECH	Ground Technologies	
ACCESS	ABE	

- NOTES**
- Any Discrepancies MUST be reported to the Architect.
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  - Do not scale from this drawing, use given written dimensions.
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**CLIENT**

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**PROJECT**

CHILD CARE CENTRE

**PROJECT ADDRESS**

32 HONITON AVE, CARLINGFORD,  
NSW 2118

**SHEET NAME**

SECTIONS & EXTERNAL FINISHES

**ISSUED FOR LEC**

Project number	Sheet No.	Issue	Phase
21600	DA06.01	A	DA

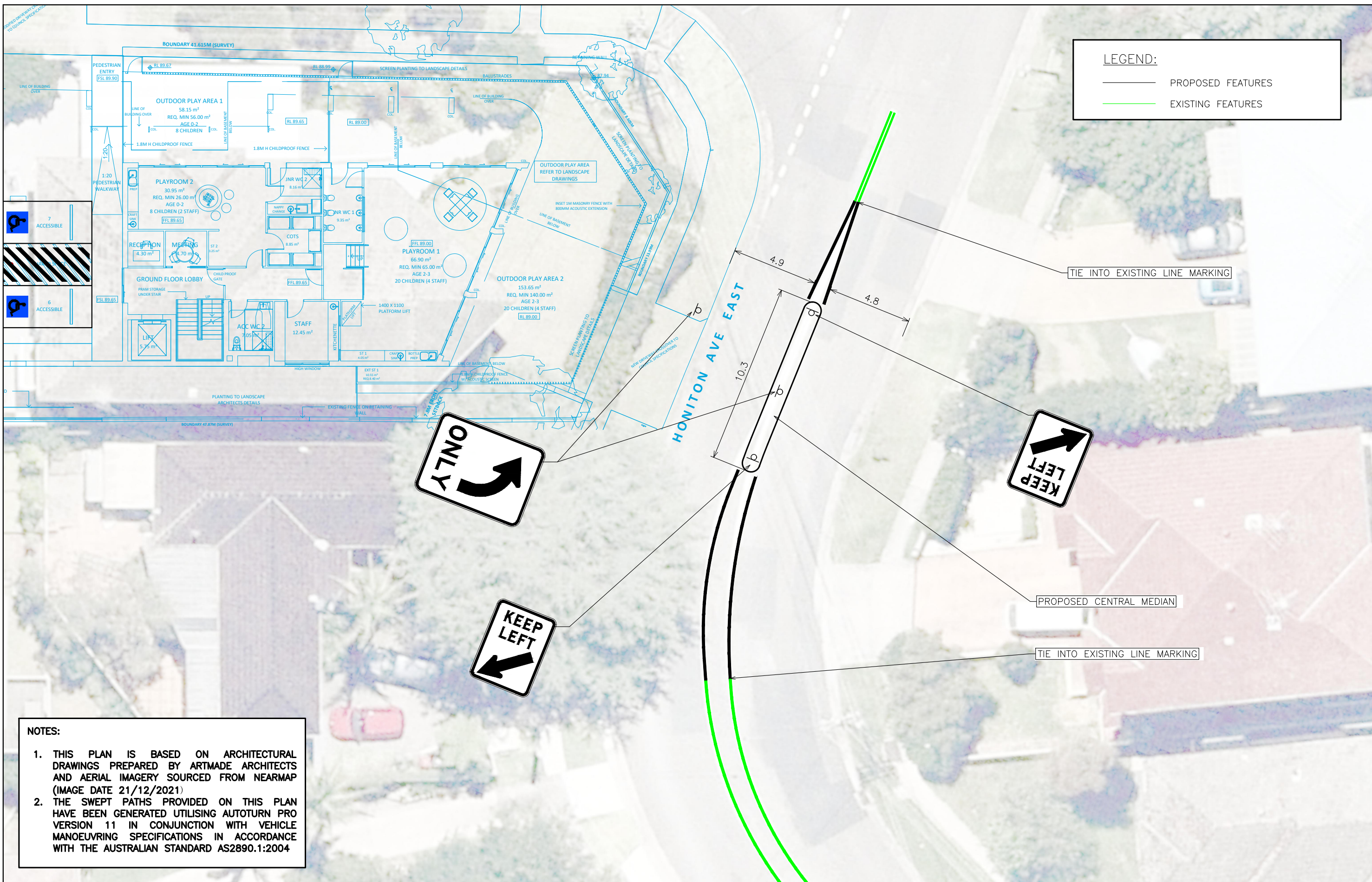
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A1	1:100	PARRAMATTA

Drawn By	Checked By	Date
TA/KL	BR/AS	27.10.22

**NOT FOR CONSTRUCTION**

## **APPENDIX 2**





**LEGEND:**

— PROPOSED FEATURES

— EXISTING FEATURES

**NOTES:**

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2. THE SWEEP 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

**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**

32 HONITON AVENUE, CARLINGFORD  
 CAR PARK COMPLIANCE REVIEW  
 PROPOSED CENTRE MEDIAN  
 CONCEPT LAYOUT

SCALE 0 2.0 4.0 1:200@A3

DRAWING NO. 20-220-01-V6

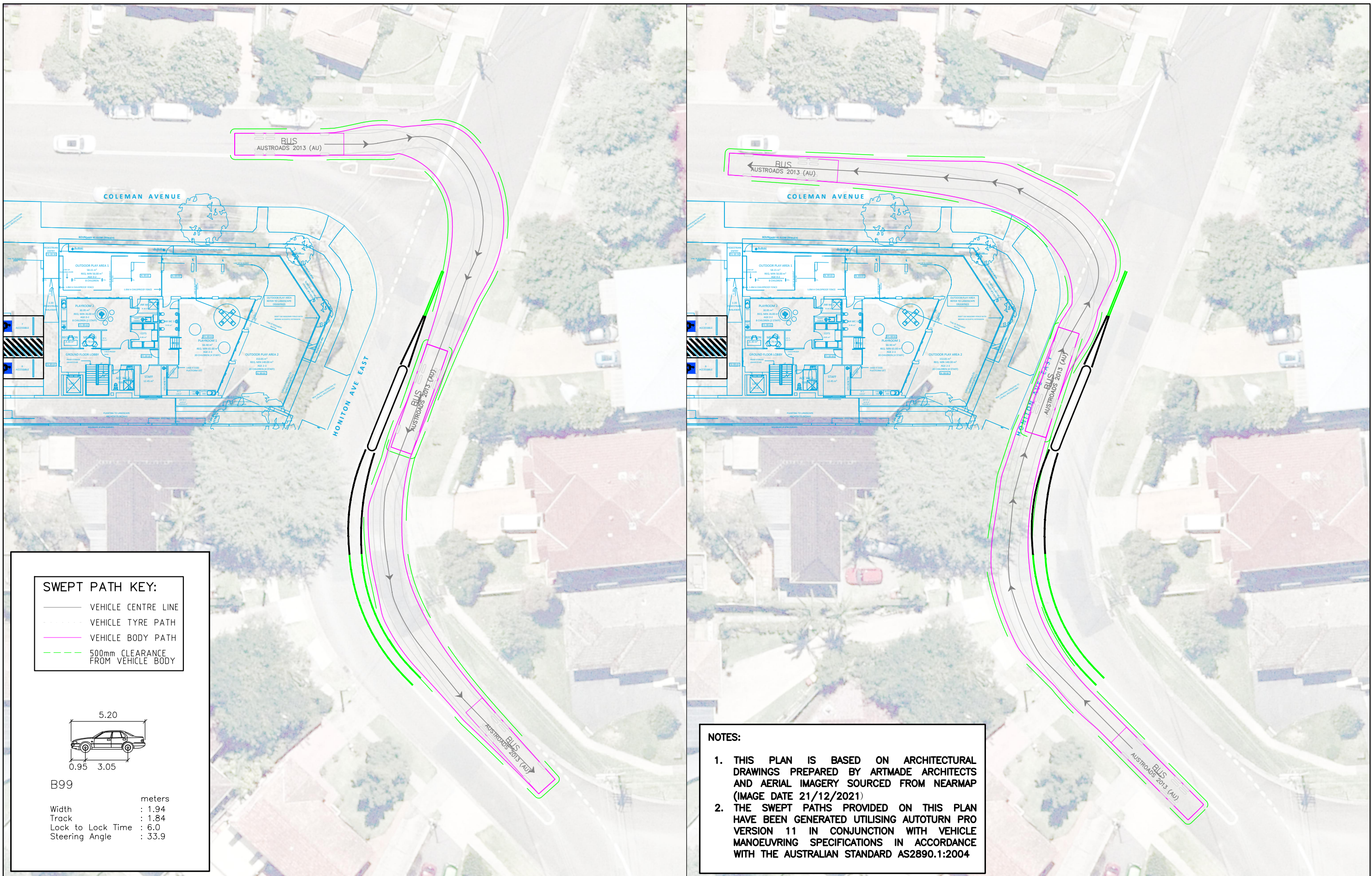
DATE 16 October 2022

CREATED BY S.Y

APPROVED BY M.S

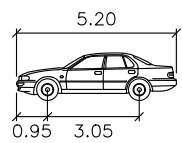
SHEET 01 / 09





**SWEPT PATH KEY:**

- VEHICLE CENTRE LINE
- VEHICLE TYRE PATH
- VEHICLE BODY PATH
- - - 500mm CLEARANCE FROM VEHICLE BODY



B99

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

**NOTES:**

1. THIS PLAN IS BASED ON ARCHITECTURAL DRAWINGS PREPARED BY ARTMADE ARCHITECTS AND AERIAL IMAGERY SOURCED FROM NEARMAP (IMAGE DATE 21/12/2021)
2. THE SWEPT PATHS PROVIDED ON THIS PLAN HAVE BEEN GENERATED UTILISING AUTURN PRO VERSION 11 IN CONJUNCTION WITH VEHICLE MANOEUVRING SPECIFICATIONS IN ACCORDANCE WITH THE AUSTRALIAN STANDARD AS2890.1:2004



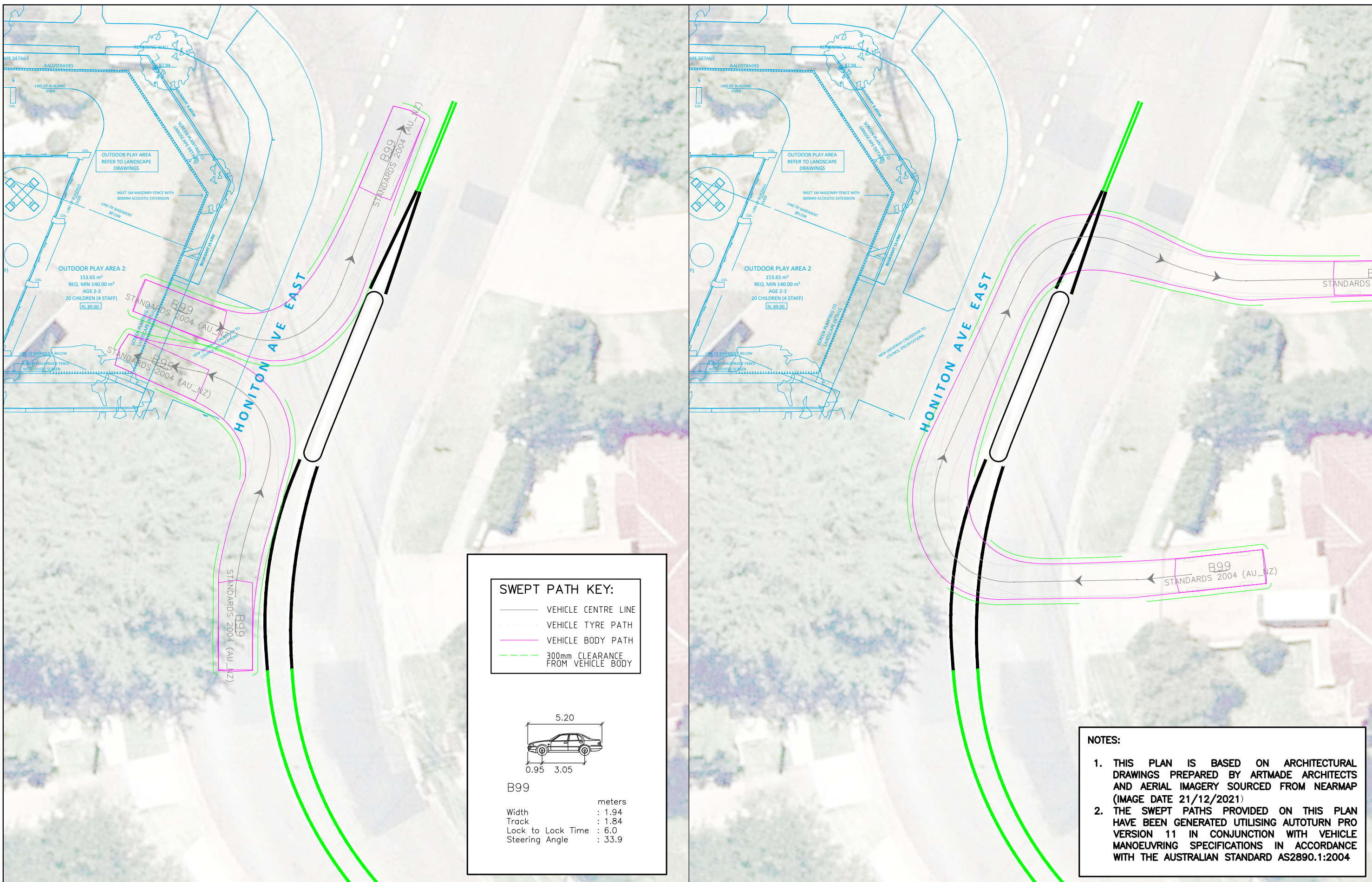
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STANBURY TRAFFIC PLANNING  
 32 HONITON AVENUE, CARLINGFORD  
 CAR PARK COMPLIANCE REVIEW  
 GROUND  
 SWEPT PATH ASSESSMENT

SCALE 0 4.0 8.0 1:400@A3  
 DRAWING NO. 20-220-01-V6  
 DATE 16 October 2022

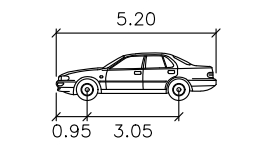
CREATED BY S.Y  
 APPROVED BY M.S  
 SHEET 02 / 09





**SWEPT PATH KEY:**

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



B99

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

**NOTES:**

1. THIS PLAN IS BASED ON ARCHITECTURAL DRAWINGS PREPARED BY ARTMADE ARCHITECTS AND AERIAL IMAGERY SOURCED FROM NEARMAP (IMAGE DATE 21/12/2021)
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



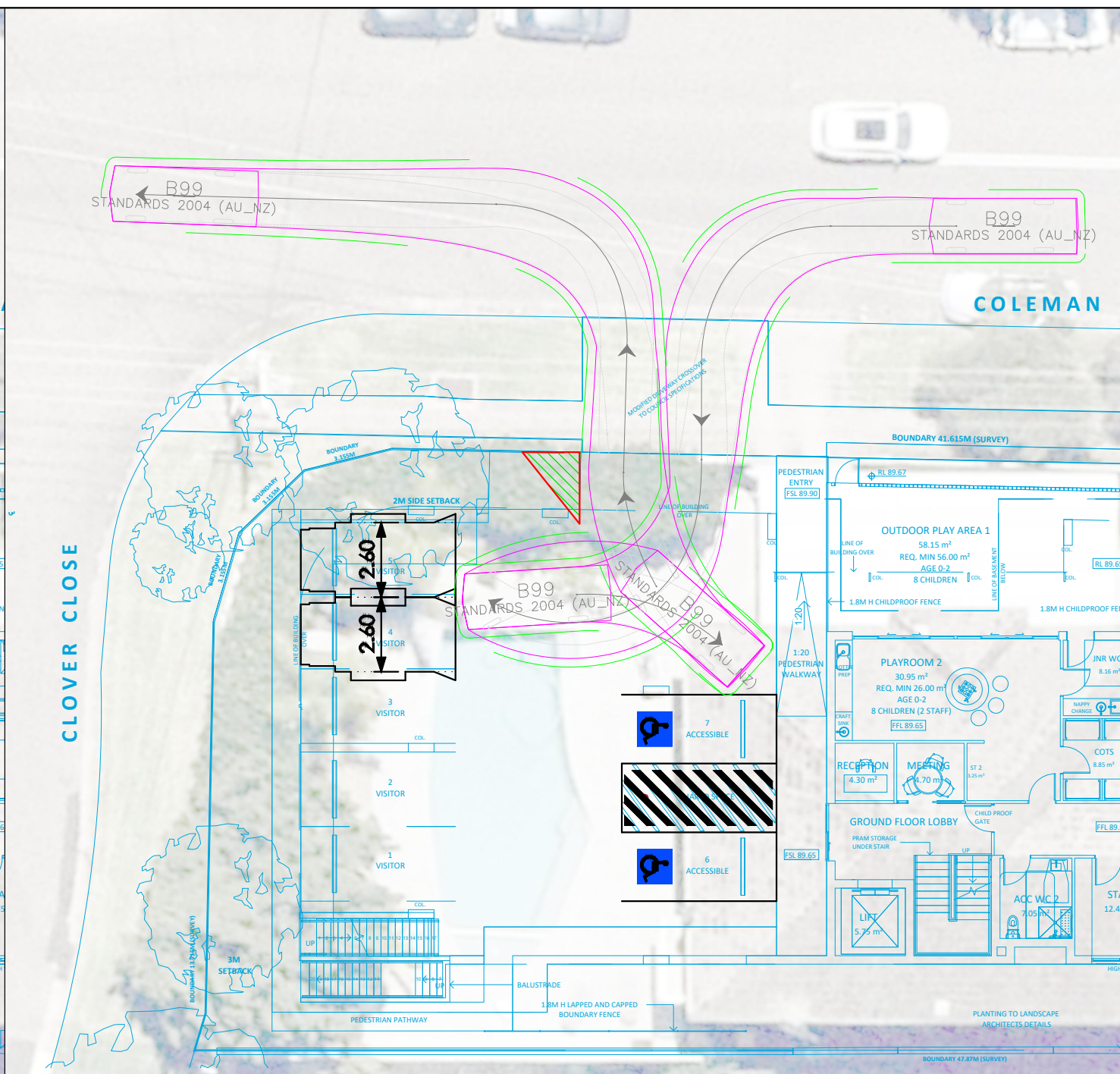
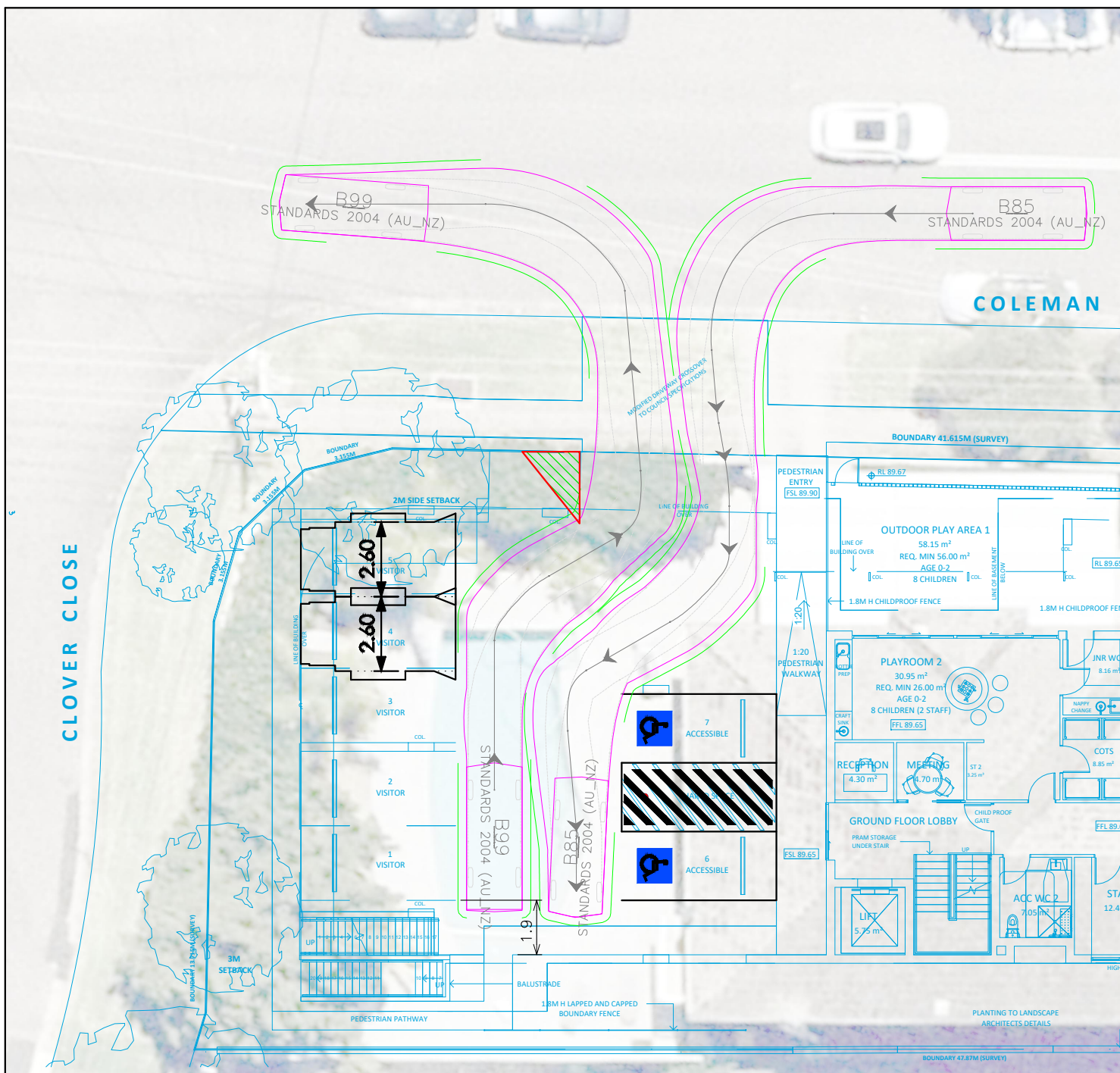
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STANBURY TRAFFIC PLANNING  
 32 HONITON AVENUE, CARLINGFORD  
 CAR PARK COMPLIANCE REVIEW  
 GROUND  
 SWEPT PATH ASSESSMENT

SCALE 0 2.0 4.0 1:200@A3  
 DRAWING NO. 20-220-01-V6  
 DATE 16 October 2022

CREATED BY S.Y  
 APPROVED BY M.S  
 SHEET 03 / 09





**SWEPT PATH KEY:**

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

	B99	B85
Width	: 1.94	: 1.87
Track	: 1.84	: 1.77
Lock to Lock Time	: 6.0	: 6.0
Steering Angle	: 33.9	: 34.1

**NOTES:**

1. THIS PLAN IS BASED ON ARCHITECTURAL DRAWINGS PREPARED BY ARTMADE ARCHITECTS AND AERIAL IMAGERY SOURCED FROM NEARMAP (IMAGE DATE 21/12/2021)
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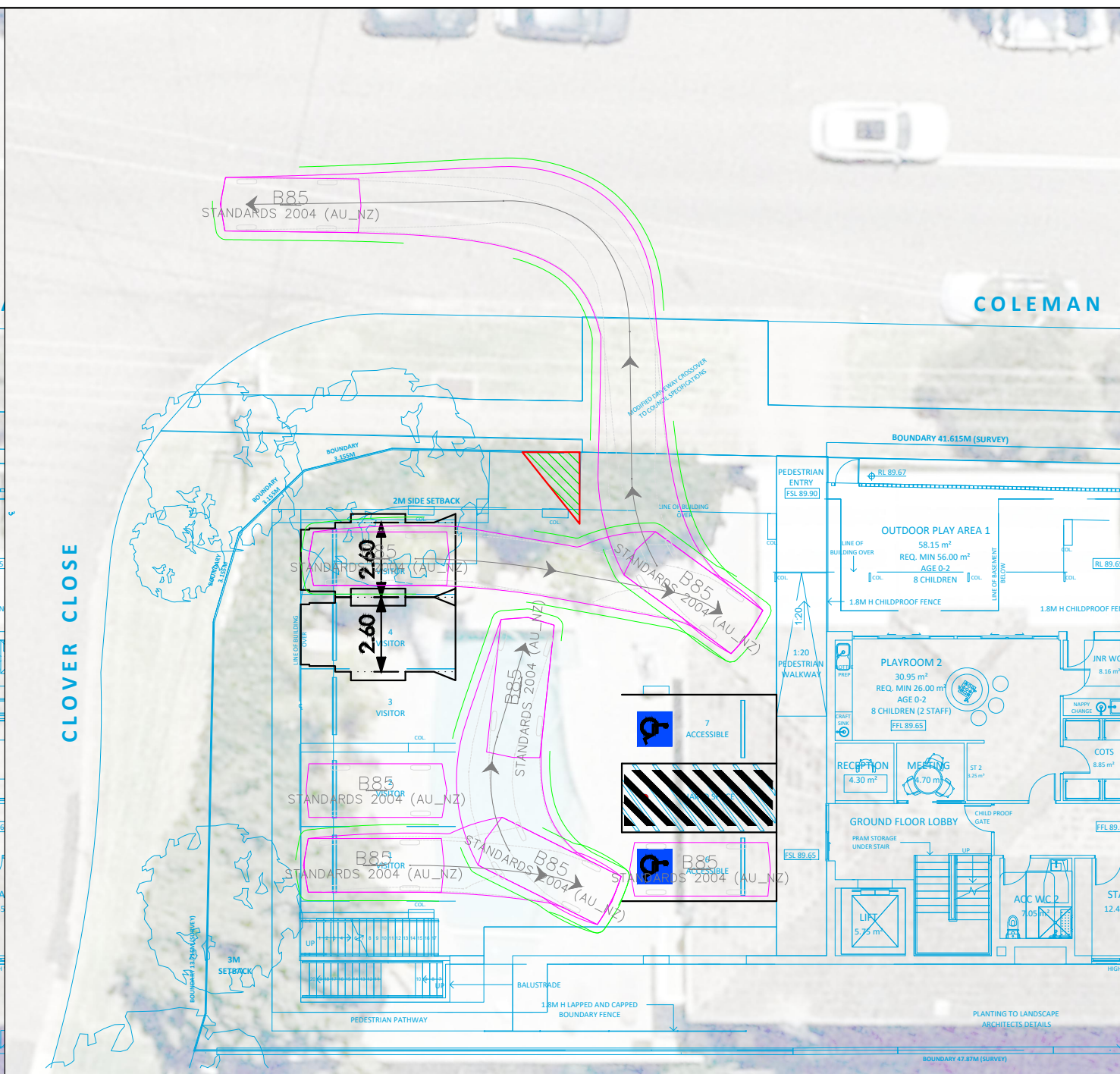
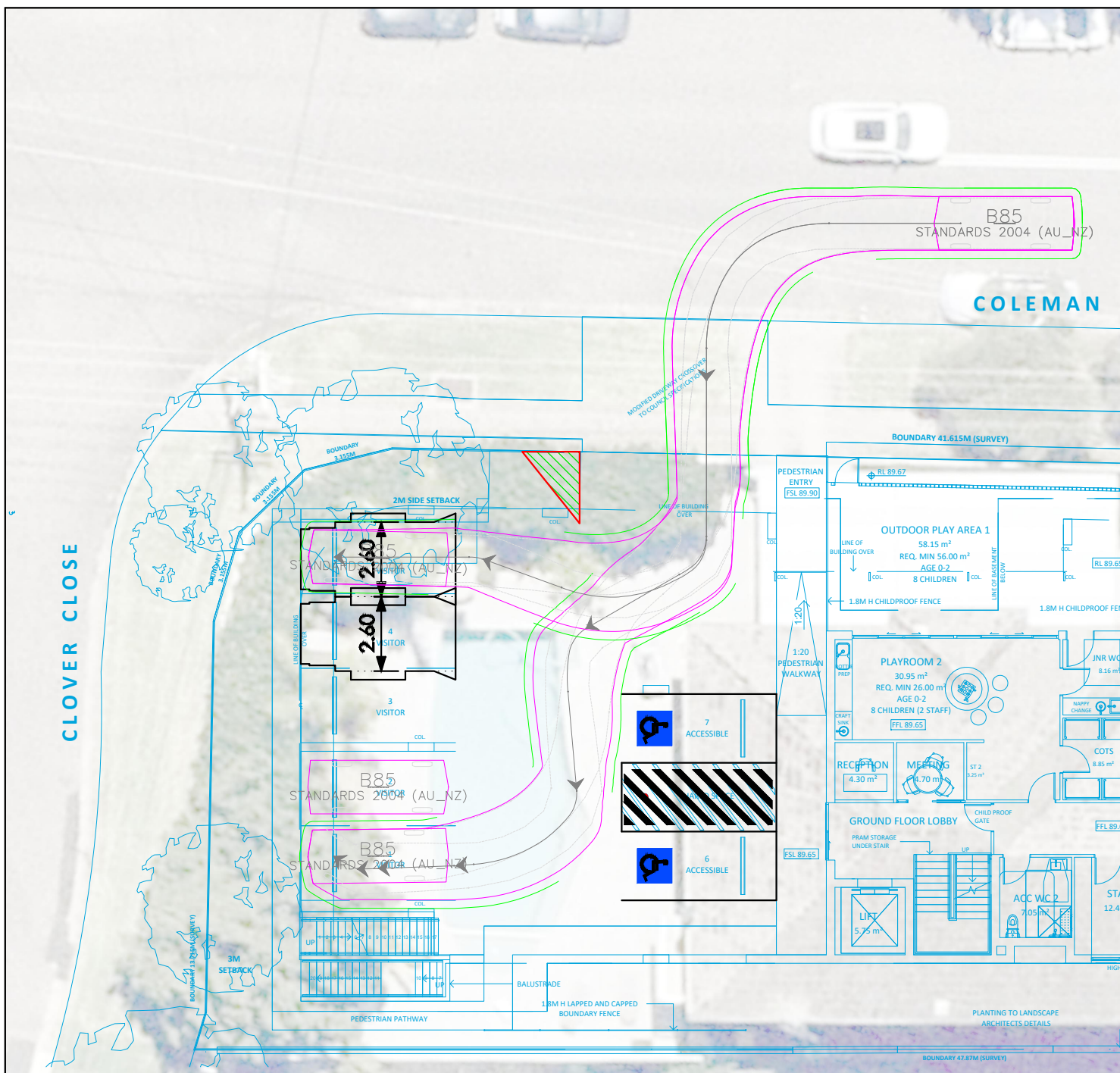
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STANBURY TRAFFIC PLANNING  
 32 HONITON AVENUE, CARLINGFORD  
 CAR PARK COMPLIANCE REVIEW  
 GROUND  
 SWEEP PATH ASSESSMENT

SCALE 0 2.0 4.0 1:200@A3  
 DRAWING NO. 20-220-01-V6  
 DATE 16 October 2022

CREATED BY S.Y  
 APPROVED BY M.S  
 SHEET 04 / 09





**SWEPT PATH KEY:**

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

**B85**

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

**NOTES:**

1. THIS PLAN IS BASED ON ARCHITECTURAL DRAWINGS PREPARED BY ARTMADE ARCHITECTS AND AERIAL IMAGERY SOURCED FROM NEARMAP (IMAGE DATE 21/12/2021)
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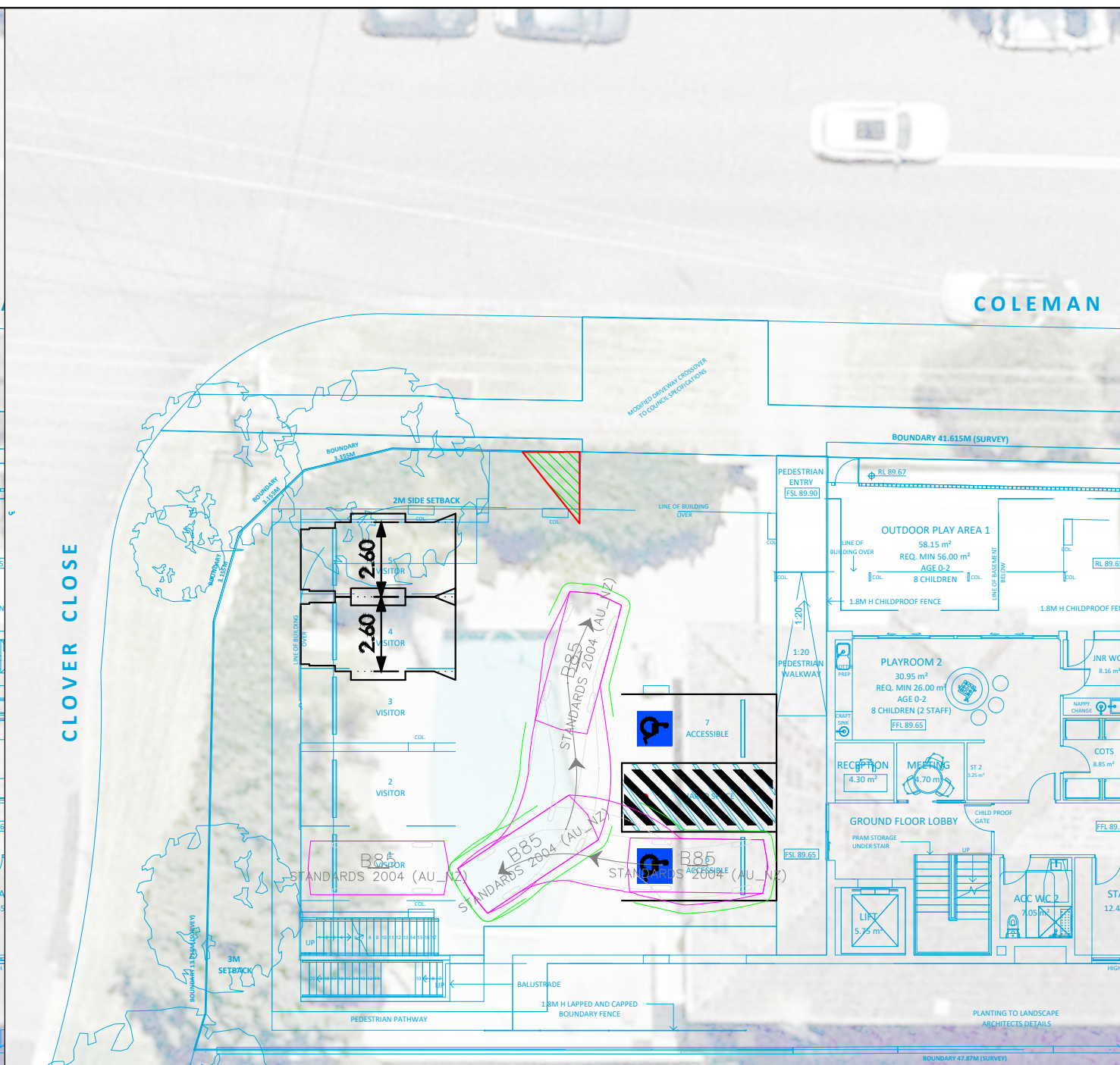
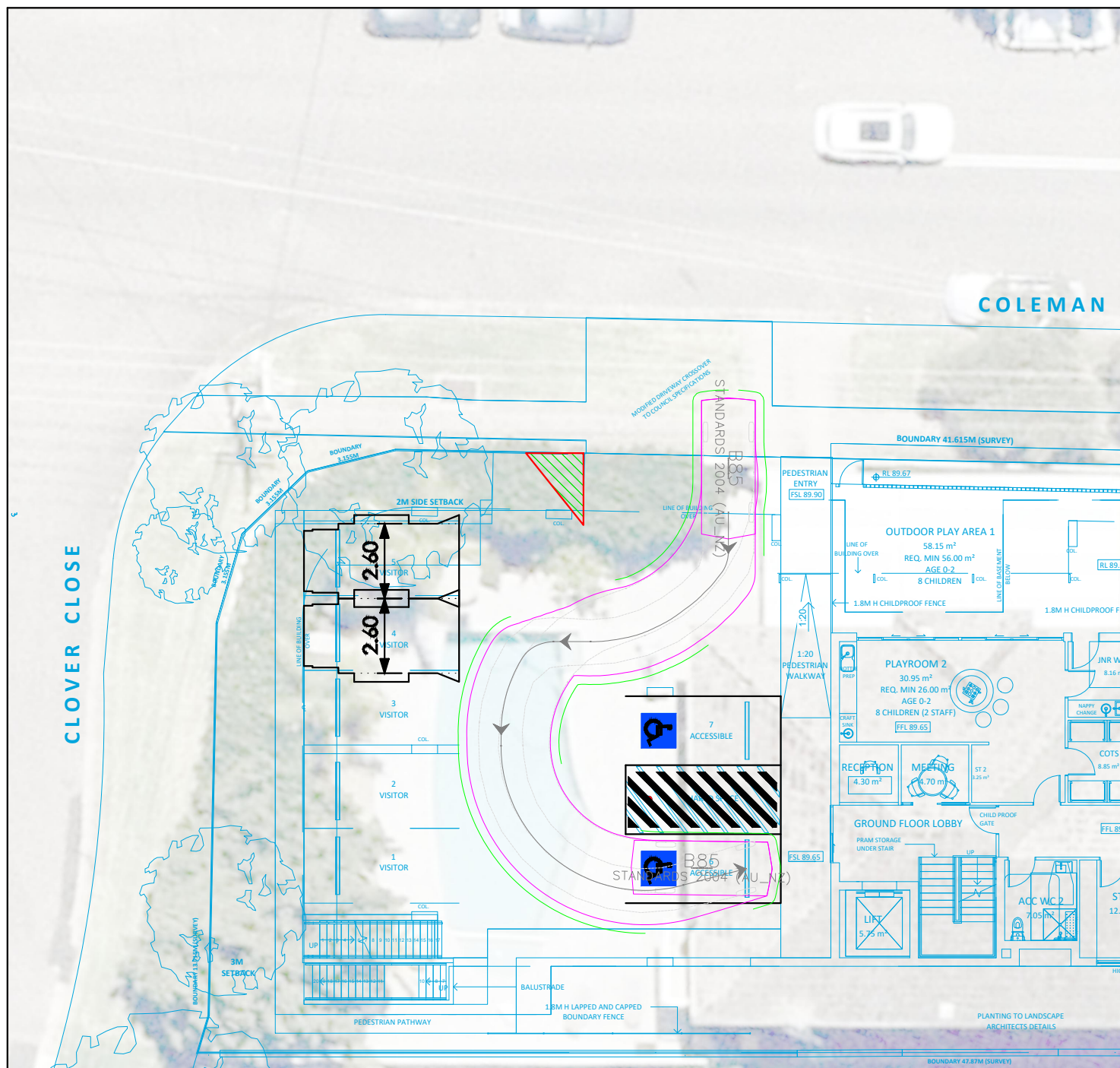
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STANBURY TRAFFIC PLANNING  
 32 HONITON AVENUE, CARLINGFORD  
 CAR PARK COMPLIANCE REVIEW  
 GROUND  
 SWEEP PATH ASSESSMENT

SCALE 0 2.0 4.0 1:200@A3  
 DRAWING NO. 20-220-01-V6  
 DATE 16 October 2022

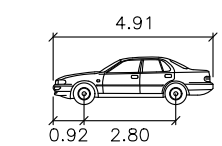
CREATED BY S.Y  
 APPROVED BY M.S  
 SHEET 05 / 09





**SWEPT PATH KEY:**

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



**B85**

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

**NOTES:**

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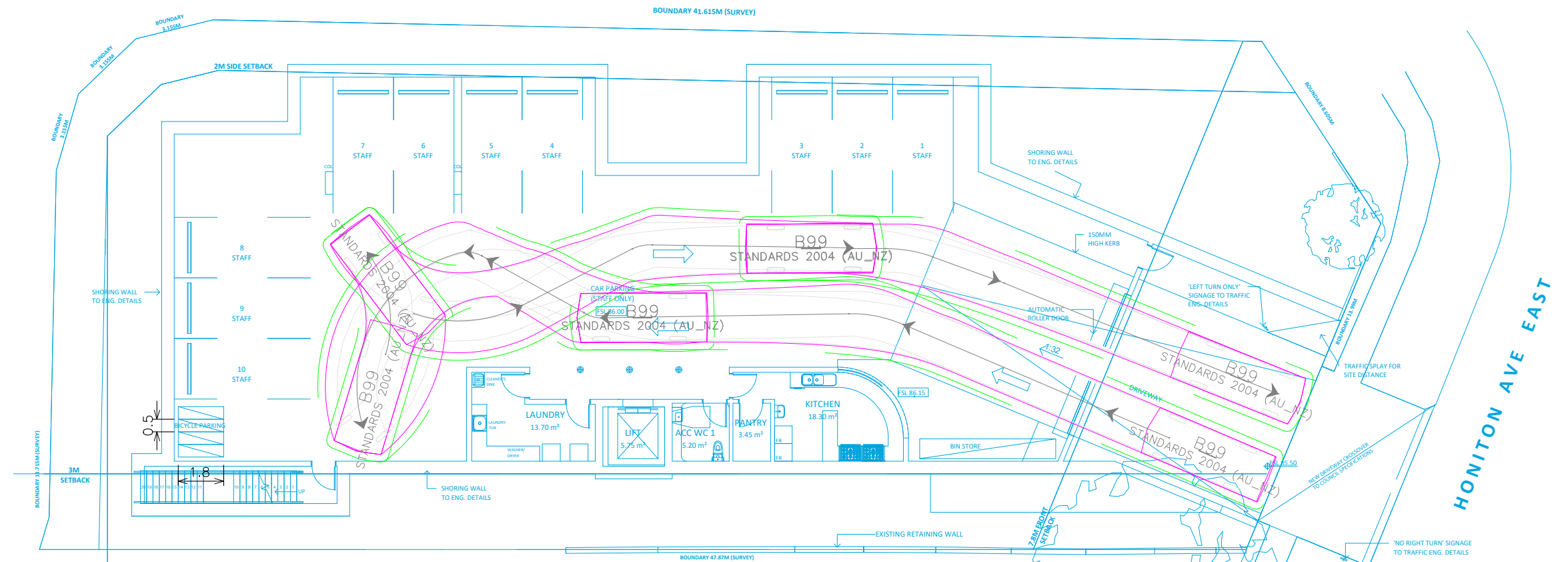
STANBURY TRAFFIC PLANNING  
 32 HONITON AVENUE, CARLINGFORD  
 CAR PARK COMPLIANCE REVIEW  
 GROUND  
 SWEEP PATH ASSESSMENT

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 DRAWING NO. 20-220-01-V6  
 DATE 16 October 2022

CREATED BY S.Y  
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 SHEET 06 / 09

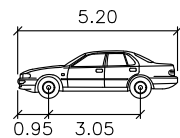
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**SWEPT PATH KEY:**

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



B99

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



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 32 HONITON AVENUE, CARLINGFORD  
 CAR PARK COMPLIANCE REVIEW  
 BASEMENT  
 SWEEP PATH ASSESSMENT

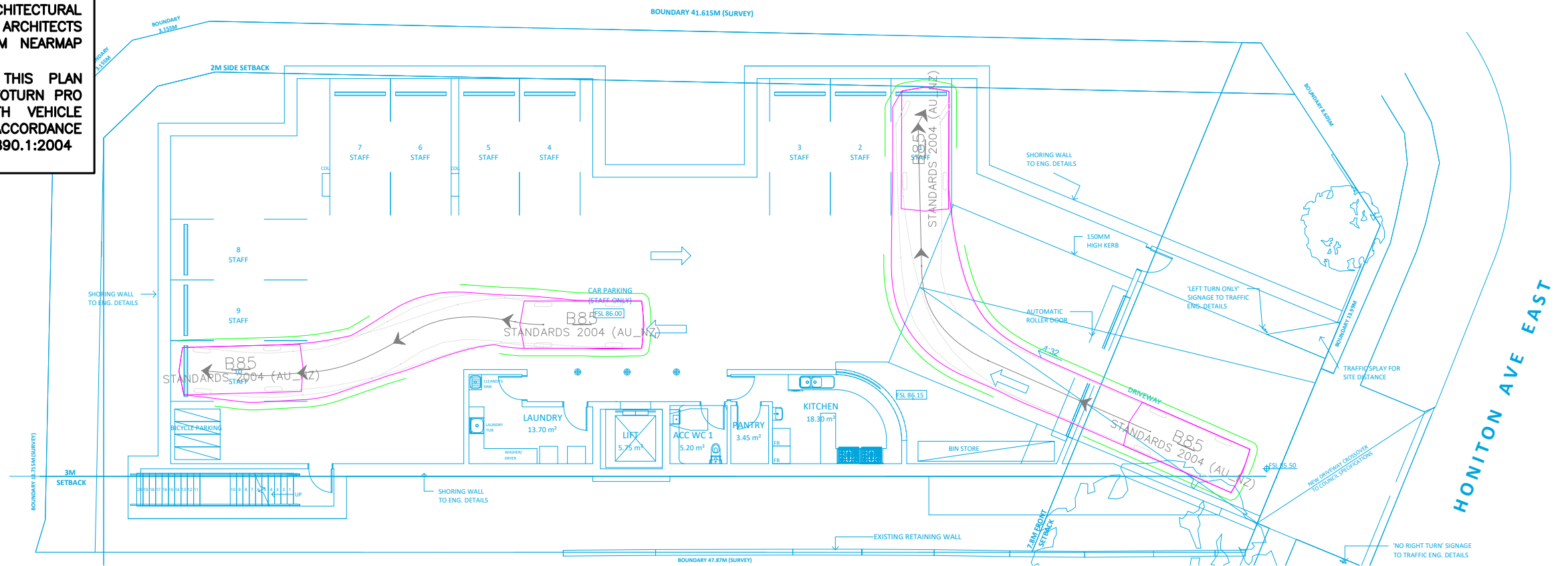
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 DATE 16 October 2022

CREATED BY S.Y  
 APPROVED BY M.S  
 SHEET 07 / 09



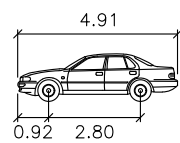
**NOTES:**

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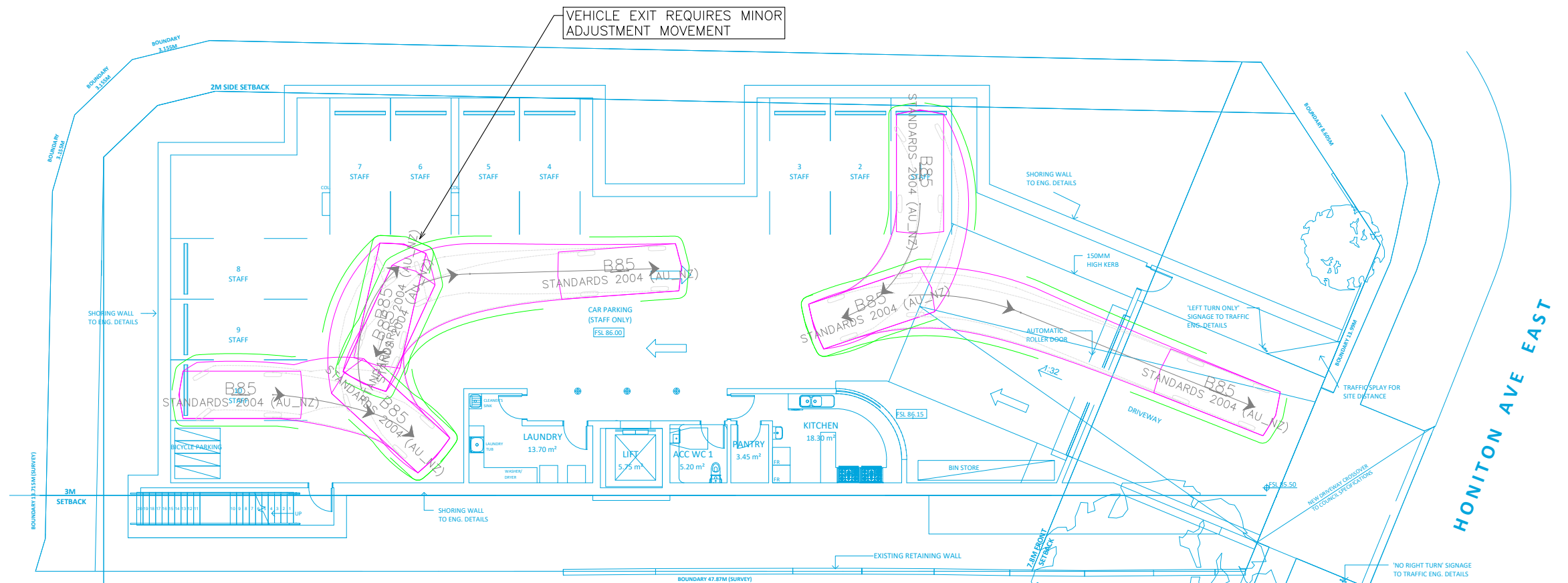


**SWEPT PATH KEY:**

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



B85  
 Width : 1.87 meters  
 Track : 1.77  
 Lock to Lock Time : 6.0  
 Steering Angle : 34.1



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STANBURY TRAFFIC PLANNING  
 32 HONITON AVENUE, CARLINGFORD  
 CAR PARK COMPLIANCE REVIEW  
 BASEMENT  
 SWEEP PATH ASSESSMENT

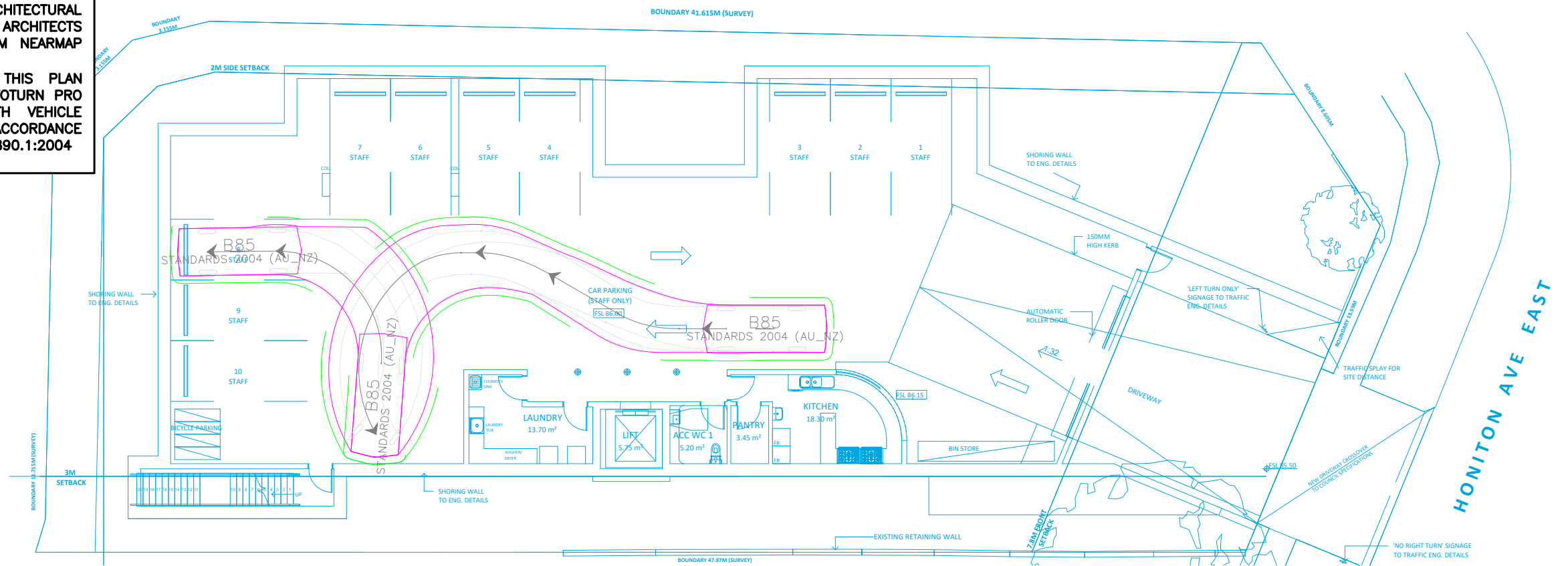
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 DRAWING NO. 20-220-01-V6  
 DATE 16 October 2022

CREATED BY S.Y  
 APPROVED BY M.S  
 SHEET 08 / 09



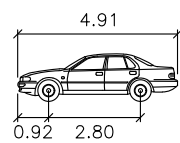
**NOTES:**

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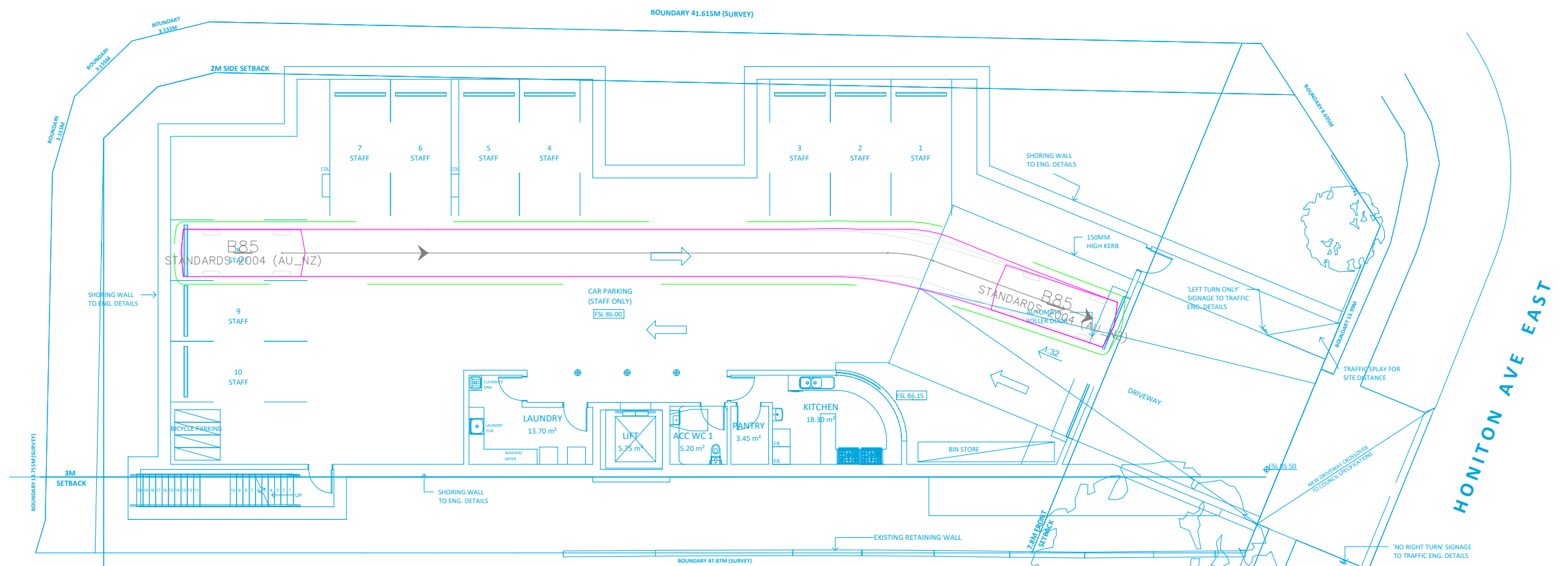
**SWEPT PATH KEY:**

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



**B85**

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



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**STANBURY TRAFFIC PLANNING**  
 32 HONITON AVENUE, CARLINGFORD  
 CAR PARK COMPLIANCE REVIEW  
 BASEMENT  
 SWEEP PATH ASSESSMENT

SCALE 0 2.0 4.0 1:200@A3  
 DRAWING NO. 20-220-01-V6  
 DATE 16 October 2022

CREATED BY S.Y  
 APPROVED BY M.S  
 SHEET 09 / 09

## **APPENDIX 3**

**Job No** AUNSW4819  
**Client** Stanbury Traffic Planning  
**Site** Coleman Ave, Carlingford  
**Location** Outside No. 32  
**Site No** ATC 1  
**Start Date** 2-Sep-22  
**Description** Volume Summary  
**Direction** NB



**Select Site**

ATC 1. Coleman Ave, Carlingford ▼


**Select Direction**

NB ▼

Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon 5-Sep	Tue 6-Sep	Wed 7-Sep	Thu 8-Sep	Fri 2-Sep	Sat 3-Sep	Sun 4-Sep		
AM Peak	193	212	237	206	184	133	130		
PM Peak	126	132	145	151	152	137	103	1670	1562
0:00	4	2	7	4	3	4	6	4	4
1:00	3	0	1	1	0	3	5	1	2
2:00	2	0	1	1	1	4	8	1	2
3:00	1	2	2	2	4	1	2	2	2
4:00	4	4	5	7	5	4	3	5	5
5:00	29	26	21	27	22	10	8	25	20
6:00	61	71	73	87	78	27	1	74	57
7:00	152	146	155	150	136	41	19	148	114
8:00	193	212	237	206	184	77	44	206	165
9:00	110	120	111	140	107	122	107	118	117
10:00	77	71	85	90	95	133	99	84	93
11:00	86	69	84	70	82	110	130	78	90
12:00	76	53	75	71	63	137	91	68	81
13:00	74	67	88	76	94	94	96	80	84
14:00	117	91	118	113	113	98	103	110	108
15:00	114	132	140	114	152	80	92	130	118
16:00	107	110	131	148	115	89	72	122	110
17:00	126	132	145	151	135	106	88	138	126
18:00	87	126	125	114	126	77	73	116	104
19:00	52	67	69	66	55	51	60	62	60
20:00	30	39	53	51	61	37	46	47	45
21:00	17	35	30	22	36	49	25	28	31
22:00	11	9	16	14	25	20	17	15	16
23:00	5	10	5	9	14	14	5	9	9
<b>Total</b>	<b>1538</b>	<b>1594</b>	<b>1777</b>	<b>1734</b>	<b>1706</b>	<b>1388</b>	<b>1200</b>	<b>1670</b>	<b>1562</b>

7-19	1319	1329	1494	1443	1402	1164	1014	1397	1309
6-22	1479	1541	1719	1669	1632	1328	1146	1608	1502
6-24	1495	1560	1740	1692	1671	1362	1168	1632	1527
0-24	1538	1594	1777	1734	1706	1388	1200	1670	1562

**Job No** AUNSW4819  
**Client** Stanbury Traffic Planning  
**Site** Coleman Ave, Carlingford  
**Location** Outside No. 32  
**Site No** ATC 1  
**Start Date** 2-Sep-22  
**Description** Volume Summary  
**Direction** SB



**Select Site**

ATC 1. Coleman Ave, Carlingford ▼


**Select Direction**

SB ▼

Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon 5-Sep	Tue 6-Sep	Wed 7-Sep	Thu 8-Sep	Fri 2-Sep	Sat 3-Sep	Sun 4-Sep		
AM Peak	74	73	79	76	73	86	69		
PM Peak	115	129	122	127	121	103	91	1164	1116
0:00	6	2	8	10	5	8	14	6	8
1:00	3	3	1	3	3	4	6	3	3
2:00	1	0	1	0	0	7	5	0	2
3:00	1	2	3	3	3	1	1	2	2
4:00	3	1	1	4	1	3	2	2	2
5:00	6	4	2	5	5	5	4	4	4
6:00	23	22	28	33	29	6	3	27	21
7:00	47	35	59	54	38	10	8	47	36
8:00	74	70	79	76	73	32	19	74	60
9:00	60	73	63	75	73	61	38	69	63
10:00	41	52	45	51	56	57	58	49	51
11:00	56	55	57	47	49	86	69	53	60
12:00	63	42	60	48	60	83	85	55	63
13:00	57	66	56	55	72	72	79	61	65
14:00	61	59	59	66	59	75	61	61	63
15:00	115	112	122	127	114	91	91	118	110
16:00	99	107	121	121	105	103	80	111	105
17:00	102	110	104	102	121	87	66	108	99
18:00	103	129	116	125	115	80	71	118	106
19:00	58	65	79	74	74	56	46	70	65
20:00	37	44	61	63	45	51	43	50	49
21:00	33	41	45	58	46	51	34	45	44
22:00	26	11	22	20	35	34	20	23	24
23:00	6	11	6	6	17	21	7	9	11
<b>Total</b>	<b>1081</b>	<b>1116</b>	<b>1198</b>	<b>1226</b>	<b>1198</b>	<b>1084</b>	<b>910</b>	<b>1164</b>	<b>1116</b>

7-19	878	910	941	947	935	837	725	922	882
6-22	1029	1082	1154	1175	1129	1001	851	1114	1060
6-24	1061	1104	1182	1201	1181	1056	878	1146	1095
0-24	1081	1116	1198	1226	1198	1084	910	1164	1116

**Job No** AUNSW4819  
**Client** Stanbury Traffic Planning  
**Site** Coleman Ave, Carlingford  
**Location** Outside No. 32  
**Site No** ATC 1  
**Start Date** 2-Sep-22  
**Description** Volume Summary  
**Direction** Combined



**Select Site**

ATC 1. Coleman Ave, Carlingford ▼

**Select Direction**

Combined ▼

Hour Starting	Day of Week							W'Day Ave	7 Day Ave
	Mon 5-Sep	Tue 6-Sep	Wed 7-Sep	Thu 8-Sep	Fri 2-Sep	Sat 3-Sep	Sun 4-Sep		
AM Peak	267	282	316	282	257	196	199		
PM Peak	229	255	262	269	266	220	183	2834	2679
0:00	10	4	15	14	8	12	20	10	12
1:00	6	3	2	4	3	7	11	4	5
2:00	3	0	2	1	1	11	13	1	4
3:00	2	4	5	5	7	2	3	5	4
4:00	7	5	6	11	6	7	5	7	7
5:00	35	30	23	32	27	15	12	29	25
6:00	84	93	101	120	107	33	4	101	77
7:00	199	181	214	204	174	51	27	194	150
8:00	267	282	316	282	257	109	63	281	225
9:00	170	193	174	215	180	183	145	186	180
10:00	118	123	130	141	151	190	157	133	144
11:00	142	124	141	117	131	196	199	131	150
12:00	139	95	135	119	123	220	176	122	144
13:00	131	133	144	131	166	166	175	141	149
14:00	178	150	177	179	172	173	164	171	170
15:00	229	244	262	241	266	171	183	248	228
16:00	206	217	252	269	220	192	152	233	215
17:00	228	242	249	253	256	193	154	246	225
18:00	190	255	241	239	241	157	144	233	210
19:00	110	132	148	140	129	107	106	132	125
20:00	67	83	114	114	106	88	89	97	94
21:00	50	76	75	80	82	100	59	73	75
22:00	37	20	38	34	60	54	37	38	40
23:00	11	21	11	15	31	35	12	18	19
<b>Total</b>	<b>2619</b>	<b>2710</b>	<b>2975</b>	<b>2960</b>	<b>2904</b>	<b>2472</b>	<b>2110</b>	<b>2834</b>	<b>2679</b>

7-19	2197	2239	2435	2390	2337	2001	1739	2320	2191
6-22	2508	2623	2873	2844	2761	2329	1997	2722	2562
6-24	2556	2664	2922	2893	2852	2418	2046	2777	2622
0-24	2619	2710	2975	2960	2904	2472	2110	2834	2679

## **APPENDIX 4**



# STANBURY TRAFFIC PLANNING

TRAFFIC, PARKING & TRANSPORT CONSULTANTS

TRAFFIC COUNTS AT:

Coleman Avenue and Honiton Avenue East / West, Carlingford

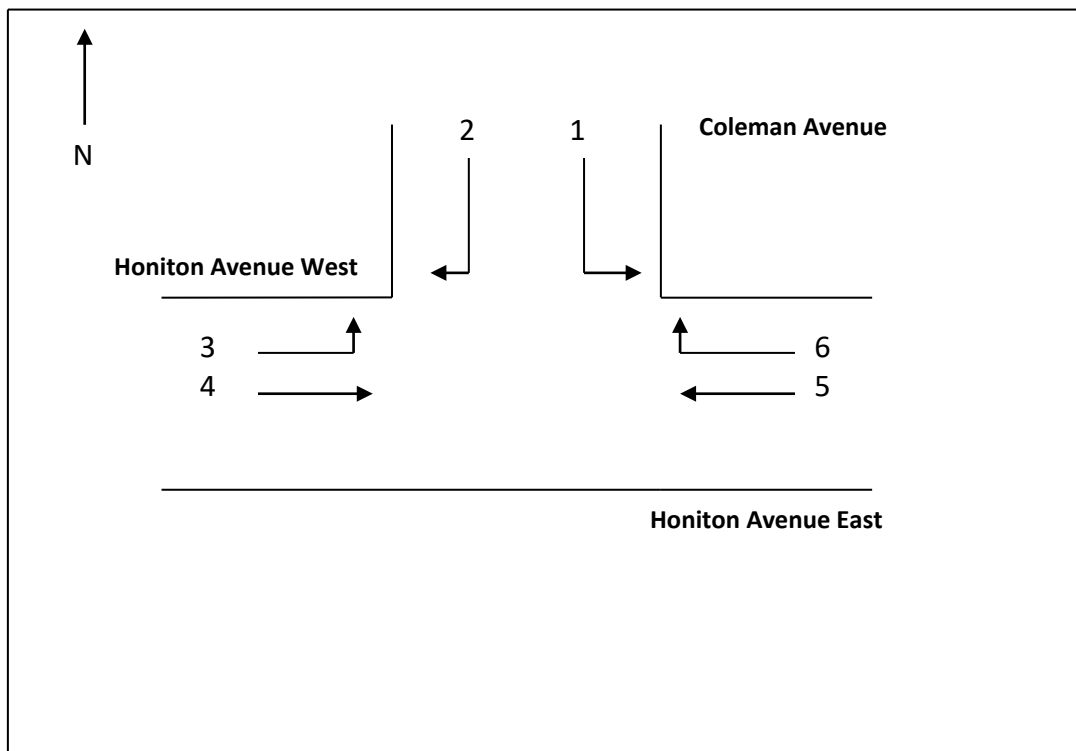
DATE:

Thursday the 15<sup>th</sup> and Friday the 16<sup>th</sup> of September, 2022

TIME:

7:00am – 9:00am and 4:00pm – 6:00pm

Time	Direction of Vehicular Traffic						Total Traffic
	1	2	3	4	5	6	
<b>Morning Period</b>							
7.00 – 7.15am	2	6	20	1	0	0	29
7.15 – 7.30am	0	6	36	0	1	5	48
7.30 – 7.45am	0	16	37	1	0	1	58
7.45 – 8.00am	0	20	41	0	2	0	63
8.00 – 8.15am	0	18	44	1	1	2	66
8.15 – 8.30am	0	21	46	1	2	7	77
8.30 – 8.45am	5	14	52	1	1	3	76
8.45 – 9.00am	4	19	41	1	5	5	75
<b>Afternoon Period</b>							
4.00 – 4.15pm	4	19	20	2	0	1	46
4.15 – 4.30pm	6	22	25	2	3	1	59
4.30 – 4.45pm	3	28	38	1	0	2	72
4.45 – 5.00pm	4	24	33	3	1	2	67
5.00 – 5.15pm	2	20	31	0	2	1	56
5.15 – 5.30pm	1	31	41	3	0	1	77
5.30 – 5.45pm	1	25	32	3	2	3	66
5.45 – 6.00pm	1	27	38	1	0	0	67



## **APPENDIX 5**



# MOVEMENT SUMMARY

**Site: 101v [Coleman Avenue & Honiton Avenue East / West - AM (Site Folder: Existing)]**

Existing AM Peak  
 Site Category: (None)  
 Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
East: Honiton Ave East														
5	T1	9	7.0	9	7.0	0.017	0.7	LOS A	0.1	0.6	0.32	0.35	0.32	48.2
6	R2	17	7.0	17	7.0	0.017	5.4	LOS A	0.1	0.6	0.32	0.35	0.32	43.6
Approach		26	7.0	26	7.0	0.017	3.7	NA	0.1	0.6	0.32	0.35	0.32	46.3
North: Coleman Ave														
7	L2	9	7.0	9	7.0	0.006	7.7	LOS A	0.0	0.2	0.03	0.99	0.03	40.9
9	R2	72	7.0	72	7.0	0.074	7.9	LOS A	0.2	1.8	0.24	0.90	0.24	46.3
Approach		81	7.0	81	7.0	0.074	7.9	LOS A	0.2	1.8	0.22	0.91	0.22	46.1
West: Honiton Ave West														
10	L2	220	7.0	220	7.0	0.127	4.7	LOS A	0.0	0.0	0.00	0.52	0.00	47.7
11	T1	4	7.0	4	7.0	0.127	0.1	LOS A	0.0	0.0	0.00	0.52	0.00	48.1
Approach		224	7.0	224	7.0	0.127	4.6	NA	0.0	0.0	0.00	0.52	0.00	47.7
All Vehicles		331	7.0	331	7.0	0.127	5.4	NA	0.2	1.8	0.08	0.60	0.08	47.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

# MOVEMENT SUMMARY

**Site: 101v [Coleman Avenue & Honiton Avenue East / West - PM (Site Folder: Existing)]**

Existing PM Peak  
 Site Category: (None)  
 Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
East: Honiton Ave East														
5	T1	3	7.0	3	7.0	0.006	0.4	LOS A	0.0	0.2	0.25	0.34	0.25	48.3
6	R2	6	7.0	6	7.0	0.006	5.1	LOS A	0.0	0.2	0.25	0.34	0.25	43.8
Approach		9	7.0	9	7.0	0.006	3.5	NA	0.0	0.2	0.25	0.34	0.25	46.4
North: Coleman Ave														
7	L2	6	7.0	6	7.0	0.004	7.7	LOS A	0.0	0.1	0.04	0.98	0.04	40.9
9	R2	115	7.0	115	7.0	0.112	7.6	LOS A	0.4	2.9	0.19	0.91	0.19	46.4
Approach		121	7.0	121	7.0	0.112	7.6	LOS A	0.4	2.9	0.18	0.92	0.18	46.3
West: Honiton Ave West														
10	L2	143	7.0	143	7.0	0.085	4.7	LOS A	0.0	0.0	0.00	0.50	0.00	47.7
11	T1	7	7.0	7	7.0	0.085	0.1	LOS A	0.0	0.0	0.00	0.50	0.00	48.1
Approach		150	7.0	150	7.0	0.085	4.5	NA	0.0	0.0	0.00	0.50	0.00	47.7
All Vehicles		280	7.0	280	7.0	0.112	5.8	NA	0.4	2.9	0.09	0.68	0.09	47.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

## **APPENDIX 6**

# Centre for Road Safety

- LGA Summary
- Crashes - characteristics
- Crashes - contributing factors
- Crashes - map
- Casualties - characteristics
- Casualties - contributing factors
- MVCs - characteristics
- MVCs - contributing factors
- MVCs - LGA of residence

## Crashes Map - Parramatta

Select your LGA

Parramatta

Reporting year

All

Degree of crash

All

Type of crash

All

Speed limit

All

RUM code group

All

Type of location group

All

Speeding involved in crash

All

Fatigue involved in crash

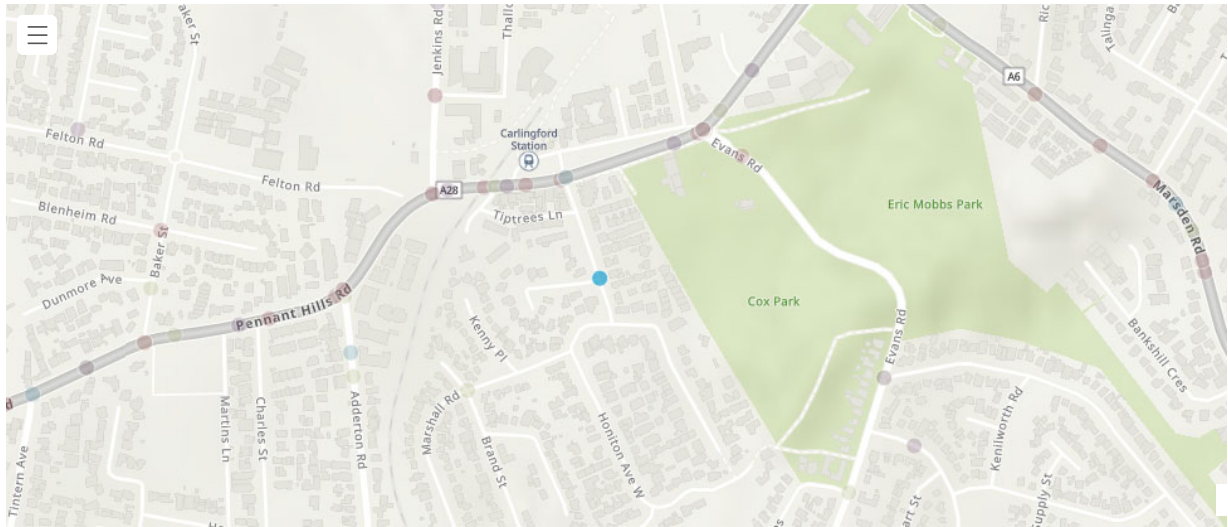
All

Road classification

All

**DATA AVAILABILITY**

Finalised data is available for the 5 year period 2016 to 2020



Reporting year	Crash Id	Degree of crash	RUM - code	RUM - description	Type of location	Natural lighting	Longitude	Latitude	Number killed	Number injured
2018	1177015	Moderate Injury	40	U turn	T-junction	Daylight	151.048122	-33.784401		

## **APPENDIX 7**

# MOVEMENT SUMMARY

**Site: 101v [Coleman Avenue & Honiton Avenue East / West - AM (Site Folder: Projected)]**

Projected AM Peak  
 Site Category: (None)  
 Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
East: Honiton Ave East														
5	T1	9	7.0	9	7.0	0.017	0.7	LOS A	0.1	0.6	0.33	0.35	0.33	48.2
6	R2	17	7.0	17	7.0	0.017	5.4	LOS A	0.1	0.6	0.33	0.35	0.33	43.6
Approach		26	7.0	26	7.0	0.017	3.8	NA	0.1	0.6	0.33	0.35	0.33	46.3
North: Coleman Ave														
7	L2	9	7.0	9	7.0	0.006	7.7	LOS A	0.0	0.2	0.03	0.99	0.03	40.9
9	R2	83	7.0	83	7.0	0.086	7.9	LOS A	0.3	2.1	0.25	0.91	0.25	46.3
Approach		92	7.0	92	7.0	0.086	7.9	LOS A	0.3	2.1	0.23	0.91	0.23	46.1
West: Honiton Ave West														
10	L2	231	7.0	231	7.0	0.133	4.7	LOS A	0.0	0.0	0.00	0.52	0.00	47.7
11	T1	4	7.0	4	7.0	0.133	0.1	LOS A	0.0	0.0	0.00	0.52	0.00	48.1
Approach		235	7.0	235	7.0	0.133	4.6	NA	0.0	0.0	0.00	0.52	0.00	47.7
All Vehicles		353	7.0	353	7.0	0.133	5.4	NA	0.3	2.1	0.08	0.61	0.08	47.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

# MOVEMENT SUMMARY

**Site: 101v [Coleman Avenue & Honiton Avenue East / West - PM (Site Folder: Projected)]**

Projected PM Peak  
 Site Category: (None)  
 Stop (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[ Total veh/h	HV %	[ Total veh/h	HV %				[ Veh. veh	Dist ] m				
East: Honiton Ave East														
5	T1	3	7.0	3	7.0	0.006	0.5	LOS A	0.0	0.2	0.27	0.34	0.27	48.3
6	R2	6	7.0	6	7.0	0.006	5.2	LOS A	0.0	0.2	0.27	0.34	0.27	43.7
Approach		9	7.0	9	7.0	0.006	3.6	NA	0.0	0.2	0.27	0.34	0.27	46.4
North: Coleman Ave														
7	L2	6	7.0	6	7.0	0.004	7.7	LOS A	0.0	0.1	0.04	0.98	0.04	40.9
9	R2	124	7.0	124	7.0	0.122	7.7	LOS A	0.4	3.2	0.20	0.91	0.20	46.4
Approach		130	7.0	130	7.0	0.122	7.7	LOS A	0.4	3.2	0.20	0.91	0.20	46.3
West: Honiton Ave West														
10	L2	162	7.0	162	7.0	0.095	4.7	LOS A	0.0	0.0	0.00	0.51	0.00	47.7
11	T1	7	7.0	7	7.0	0.095	0.1	LOS A	0.0	0.0	0.00	0.51	0.00	48.1
Approach		169	7.0	169	7.0	0.095	4.5	NA	0.0	0.0	0.00	0.51	0.00	47.7
All Vehicles		308	7.0	308	7.0	0.122	5.8	NA	0.4	3.2	0.09	0.67	0.09	47.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.