

24 June 2021

Mr Anthony Boskovitz Boskovitz Lawyers Suite 110, 203-233 New South Head Road EDGECLIFF NSW 2027

> TRAFFIC, PARKING & VEHICULAR ACCESS – post S34 L&EC CASE NUMBER 2020/00254301 PROPOSED CHILDCARE CENTRE DEVELOPMENT 339-377 FOREST ROAD, BEXLEY (DA-2019/255)

Hemanote Consultants have reviewed the latest amended architectural plans for the proposed childcare centre development at **339-377 Forest Road**, **Bexley** in relation to the traffic, parking and vehicular access matters raised in the Statement of Facts and Contentions filed on 12 October 2020 for the Class 1 Appeal at the Land and Environment Court of NSW, case number 2020/00254301 and following the Section 34 conciliation conference held on 23 February 2021.

A reduced copy of the amended architectural plans prepared by Couvaras Architects (Issue X and dated 24/06/2021) is attached in **Appendix 'A'** of this report. This traffic and parking report provides the following additional information and justification.

#### Amended proposed development plans

The proposed development has been amended to address the issues raised in the Statement of Facts and Contentions and the discussions held at the Section 34 conciliation conference.

The proposed number of children places has been reduced to **60 children** (i.e. 15 places x 0-2 years old, 15 places x 2-3 years old and 30 places x 3-5 years old) with up to a maximum of 12 staff members at any one time (i.e. 11 educators and 1 director). The overall site will provide for a total of **117 on-site car parking spaces** (i.e. an increase of 17 car parking spaces from the required 100 car spaces under the previous development consent for the

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existing church and school), including 10 car parking spaces allocated for the staff and visitor parking for the subject childcare centre (i.e. 6 car spaces for staff and 4 visitor car spaces), including one accessible car space and adjacent shared zone in a basement level, which is in compliance with Council's DCP car parking requirements for childcare centres.

The proposed amended plans also provide further details in regard to the allocation of car parking for the school staff/teachers parking, accessible car parking (near Gate 1 and Gate 4 – away for the school playground), mini-bus shuttle parking, emergency vehicle bay, loading bays (for deliveries restricted to 10am – 3pm Mon-Fri – otside of peak periods). Refer to Sheet 43 of the amended architectural plans.

The proposed amended plans also illustrate the <u>proposed two-way and one-way traffic arrangements within the site</u>, aimed at improving the internal traffic flow and increasing the safety of school students in the school playground, by imposing the one-way restriction to the east of Gate 2, to restrict vehicles to <u>drive away from the existing removable fence</u> separating the school playground from the adjacent car parking spaces. The proposed amended plans further include additional signage aimed at increasing safety within the subject site, including an imposed <u>signposted 10 km/h speed limit</u> signs and 'Watch for pedestrians' signage. Refer to Sheet 43 of the amended architectural plans.

The proposed amended plans also provide recommendations to changes to the existing onstreet parking signage at the front of the subject site in both Bayview Street and Broadford Street (Subject to Council approval), aiming at adjusting the existing time-limit parking restrictions in Bayview Street to match the current standard 'School Zone' AM and PM periods and increasing the number of on-street drop-off and pick-up spaces in Broadford Street. Refer to Sheet 43 of the amended architectural plans.

The proposed amended plans also provide an outline of the <u>additional stacked carparking</u> during <u>special events</u> for the subject site, as required for the previous development consent of the existing church and school to provide an additional 58 stacked car parking spaces within the traffic aisles. Refer to Sheet 34 of the amended architectural plans, which indicates the

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allocation of a total of 38 stacked car spaces within the traffic aisles (25 car spaces on ground level and 13 car spaces in the basement level), in addition to the proposed new/additional 17 car spaces (10 car spaces for the childcare centre and 7 additional car spaces). Therefore, there is a total of an additional 55 car spaces to be utilised during special events, in addition to the 100 car spaces. A total of 155 car spaces available on site during special events.

The stacked car parking arrangements will be fully managed by the management and staff of the church, who will allocate trained people to manage these parking arrangements and move vehicles around if needed within the site. The church will be responsible for the management of parking during its special events, to reduce impacts on the surrounding road network and adjoining neighbours and ensure a high level of road safety.

#### Off-street Parking provision

Council's DCP requires off-street car parking to be provided for childcare centres at the rate of 1 car space per 2 members of staff and 1 car space per 20 children places.

Refer to Table 1 below for the required and proposed car parking provision for the subject childcare centre development:

Age Group	0-2 years	2-3 years	3-5 years	Total
Number of children	15	15	30	60
Staff to children ratio	1 per 4	1 per 5	1 per 10	-
Number of Staff	4	4	3	11 + 1 director = 12
Off-street parking required (6 spaces for staff & 3 spaces for parents/visitors)				9
Off-street parking proposed (6 spaces staff & 4 spaces for parents/visitors)				10
Compliance with off-street car parking				Yes

Table 1: On-site car parking requirement and provision for Childcare centre

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Therefore, the proposed 10 on-site car parking spaces for the childcare centre, in addition to the remaining 107 on-site car parking spaces (i.e. Total of 117 on-site car spaces) is adequate for the subject site and in accordance with Council DCP for childcare centres and previous approved parking allocation for the other uses on site, including the existing church and the school.

The proposed amended plans provide an increase of 17 car parking spaces from the required 100 car spaces under the previous development consent for the existing church and school on the subject site (including a dedicated 10 car parking spaces for the proposed childcare centre and an additional 7 car parking spaces).

#### Current traffic volumes & queuing at nearby intersections & Traffic generation

A traffic volume count and queuing survey was undertaken by R.O.A.R. DATA Pty. Ltd. on behalf of Hemanote Consultants at the two intersections of **Bayview Street / Forest Road** and **Broadford Street / Forest Road** near the subject site on Wednesday 18 February 2021, during morning period (7.30am to 9.30am) and afternoon period (2.30pm to 5.30pm), considering the childcare centre proposed and school peak periods.

The traffic flows & queuing survey results at the two subject intersections in the morning & afternoon peak periods are attached in **Appendix 'C'** of this report.

The results of the traffic volume counts undertaken determined that the traffic morning peak period was between 7.30am to 8.30am and the afternoon peak period was between 3.30pm to 4.30pm on a typical weekday.

The traffic flows on Bayview Street and Broadford Street are typical and appropriate for local roads located in R2 low residential zoning and in close proximity to some commercial properties fronting Forest Road and near existing schools.

In general, current traffic on Bayview Street and Broadford Street is free flowing without major queuing or delays in peak hours, apart from some standard queuing during school peak

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periods at the T-intersections with Forest Road, with spare capacity. It should also be noted that the traffic and queuing surveys included the additional traffic generated by the temporary use of the high school students of the subject Bexley site, which would have exacerbated the results of the traffic surveys.

It is determined that the existing mid-block level of service on Bayview Street and Bradford Street is generally at level 'A' to 'B' at times in accordance with Table 4.4 of the Roads & Maritime Services' "Guide to Traffic Generating Developments - 2002", where peak hour flow is less than or around 200 vehicles/hr.

The queuing surveys undertaken determined that the longest queue in Broadford Street at the Forest Road intersection was up to 4 vehicles at 8.50am and 5 vehicles at 3.20pm. The queuing survey also determined that the longest queue in Bayview Street at the Forest Road intersection was up to 10 vehicles at 8.35am and 3 vehicles at 3.20pm. These queues were cleared within few minutes. Outside of the school peak periods, the queuing was very minor or not existent.

It should be noted that the traffic and queuing surveys were undertaken of a typical weekday during the operation of the existing site including the current school operation, where all drop-off and pick-up of school students takes place utilising existing signposted on-street short-term parking spaces. As stated above, it should also be noted that the traffic and queuing surveys included the additional traffic generated by the temporary use of the high school students of the subject Bexley site, which would have exacerbated the results of the traffic surveys and impacts; and that once the high school students return back to their Rockdale campus, impacts on traffic would be further reduced.

Therefore, current traffic flows in the vicinity of the subject site are acceptable and typical in a mixed residential and commercial area near schools, with spare capacity.

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#### Estimated Traffic generation from the proposed childcare centre

An indication of the potential traffic generation of the proposed development is provided by the RMS Guide to Traffic Generating Development - 2002.

The Guide specifies the following traffic generation rates for long-day care centres:

- 0.8 peak period vehicle trips per child between 7.00am and 9.00am; and
- 0.7 peak period vehicle trips per child between 4.00pm and 6.00pm.

The proposed childcare centre with a total of 60 children places has a total estimated traffic generation as follows:

- 48 morning peak period vehicle trips (24 In and 24 Out trips); and
- 42 afternoon peak period vehicle trips (21 In and 21 Out trips).

It should be noted that the rate used by the RMS Guide is based on surveys of childcare centres, where it was determined that the mean proportion of children transported to the centre by car was 93% for long-day care centres.

The estimated peak period traffic generation is of low impact on existing flows on Bayview Street and the surrounding road network and can be readily accommodated without adverse impacts.

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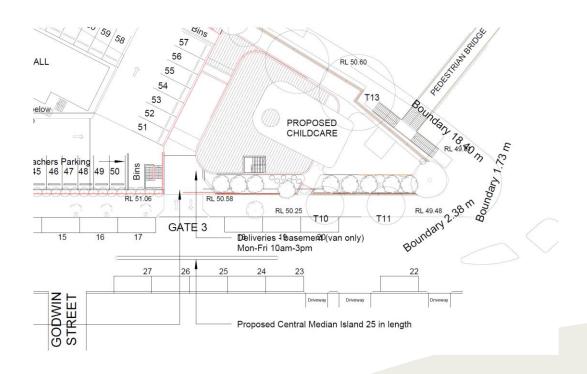


#### <u>Proposed central median island in Bayview Street & retaining vehicular access to all</u> existing driveways

It is recommended to install a concrete central median island in Bayview Street, between Forest Road and Godwin Street, to restrict traffic movements at the Gate 3 access driveway of the subject site to left-in and left-out movements, to reduce impacts on traffic flow and increase road safety at this location.

It is recommended that the central median island <u>do not extend</u> all the way between Forest Road and Godwin Street, to maintain vehicular access for existing driveways along the south side of Bayview Street near Forest Road. Therefore, the recommended length of the proposed central median island is metres, as shown in the diagram below.

Refer to the vehicle swept paths plans for left-in and left-out turning movements at Gate 3 attached in **Appendix 'B'** of this report.



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#### **Vehicular Access & Traffic Management measures**

- Vehicular access for the proposed childcare centre basement parking will be via Gate 3 only, located in Bayview Street. Gate 3 is to be opened during weekdays from 6.45am to 10.00pm and is to be patrolled during 'School Zone' periods.
- All drop-off and pick-up of school students takes place utilising existing signposted onstreet short-term parking spaces along the north side in Bayview Street and possibly
  proposed short-term parking spaces along the south side of Broadford Street. No drop-off
  or pick-up of school students takes place on-site at any time. The existing signposted onstreet drop-off and pick-up car parking spaces in Bayview Street will remain and will not be
  reduced by the proposed childcare centre development.
- It is recommended to continue to encourage all site users to utilise existing public transport services and other modes of travel where possible. A Green Travel Plan could be developed for the overall site, to aim to reduce the dependence on car use in general, where possible, to reduce any impacts on adjoining residents.
- It is recommended to signpost all car parking areas within the subject site with a 10km/h speed limit and 'Watch for pedestrians' signs. to further reduce the speed environment and increase safety within the site. It is also recommended to use safe removable bollards at the temporary fence separating the school playground and the adjacent carpark during school periods, to further increase safety for the school children and reduce the risk of injury from the adjacent carpark. The proposed amended plans also illustrate the proposed two-way and one-way traffic arrangements within the site, aimed at improving the internal traffic flow and increasing the safety of school students in the school playground, by imposing the one-way restriction to the east of Gate 2, to restrict vehicles to drive away from the existing removable fence separating the school playground from the adjacent car parking spaces.

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#### Off-street parking layout

- The revised layout of the on-site parking areas and manoeuvring arrangements has been designed to enhance vehicular access, where vehicles can enter and exit the site in a forward direction at all times without the need to make more than a 3-point turn, through the provision of adequate internal aisles width and turning space, as demonstrated in the SRV, B99 and B85 vehicle swept paths diagrams attached in Appendix 'B' of this report.
- The off-street car parking spaces for the purpose of drop-off and pick-up of children are
   2.6 metres in width and 5.4 metres in length, which is adequate and in accordance with class 3 parking of AS2890.1:2004.
- The accessible car parking spaces have a minimum width of 2.4 metres each, in addition to an adjacent 2.4 metres wide shared/no parking zone with a bollard, which is adequate in accordance with AS2890.6:2009.
- Car parking spaces adjacent to walls or obstructions have been made wider than the minimum width, to accommodate full door opening in accordance with Clause 2.4.2(d) of AS2890.1:2004.
- Clause 2.4.2 of AS2890.1:2004 requires a minimum aisle width of 5.8 metres for two-way aisles, adjacent to 90° angle parking. The proposed aisles within the car parking area have a minimum width of 5.8 and 6.1 metres, which is adequate for two-way traffic flow and for manoeuvring into & out of parking spaces.
- The proposed internal vehicular ramp has a clear width of 5.5 metres, in addition to a 300mm kerb on either side (total width of 6.1 metres), which is adequate in accordance with Clause 2.5.2 of AS2890.1:2004.
- The vehicular ramp grades are within the maximum grade of 1 in 5 (20%) and change in grade of 1:8 (12.5%) to prevent vehicle scrapping, with the first 6 metres within the site having a maximum grade of 1 in 20 (5%), which is adequate and in compliance with AS2890.1:2004.

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- A minimum 2.2 metres headroom clearance to be provided from the car park level to the underside of all services conduits and suspended stormwater pipelines, in accordance with Clause 5.3.1 of AS2890.1:2004. A "Maximum headroom clearance 2.2m" sign is to be erected at the entrance to the car parking area and is to be clearly visible to all drivers. A 2.5 meters headroom clearance is provided above the accessible parking spaces and adjacent shares zone in accordance with Clause 2.4 of AS2890.6:2009.
- Waste collection will be undertaken vis a Mini-Real Loader (SRV Small Rigid Vehicle 6.4 metres in length and will enter the subject site in a forward direction via Gate 2 and proceed to the east within the site (one-way movement) towards the waste bin areas and leave the site in a forward direction via the existing exit Gate 4 in Broadford Street, as demonstrated in the SRV swept paths diagrams attached in Appendix 'B' of this report. Refer also to Sheet 18 of the amended architectural plans.
- Therefore, the proposed vehicular access, parking layout and vehicular circulation are adequate for the proposed development and in accordance with the requirements of AS2890.1:2004, AS2890.6:2009 and AS2890.2:2018, where vehicles are to enter and exit the site in a forward direction at all times.

#### **Conclusion**

Given the above additional information and assessment, it is concluded that the proposed development in its revised form is in compliance with AS2890.1:2004 and AS2890.6:2009, with adequate additional traffic and parking management measures and is worthy of being supported in its revised form.

If you would like to discuss any of the above information, please do not hesitate to contact us.

Yours sincerely

Ramy Selim

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#### **APPENDIX A - AMENDED DEVELOPMENT PLANS**

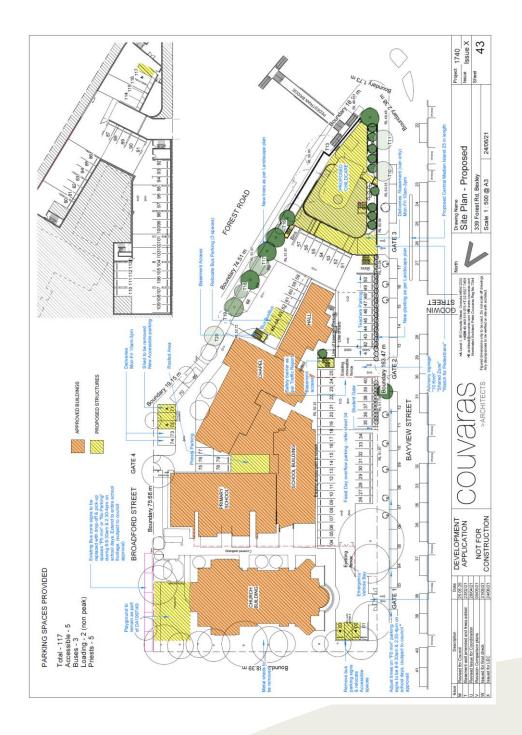
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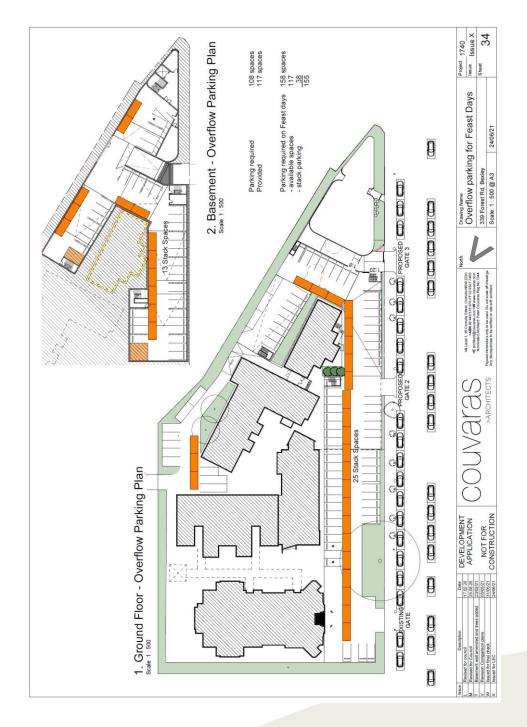
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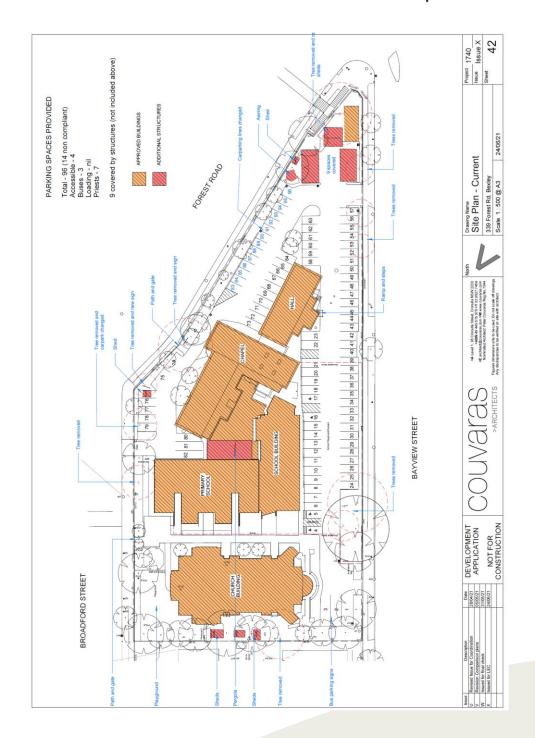
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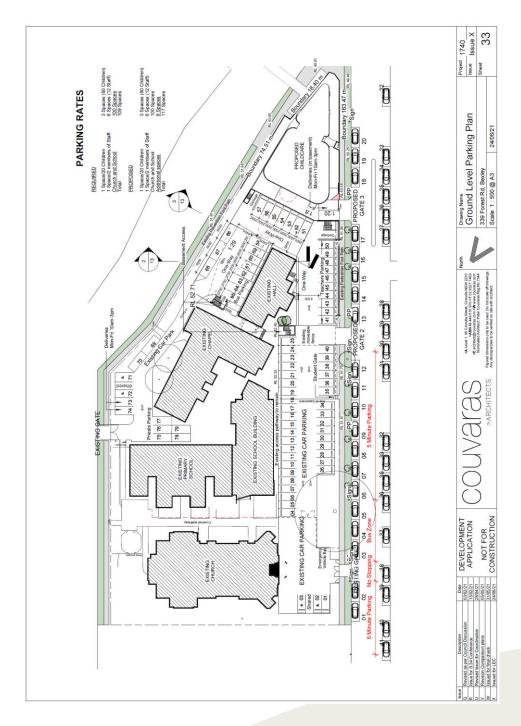
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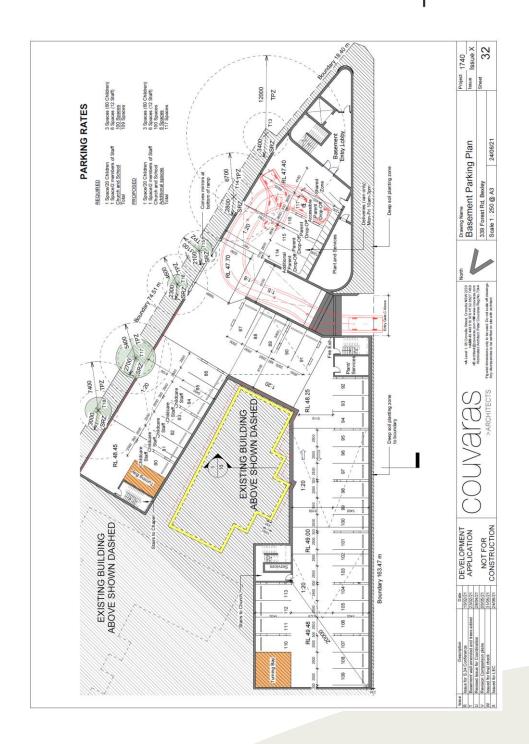
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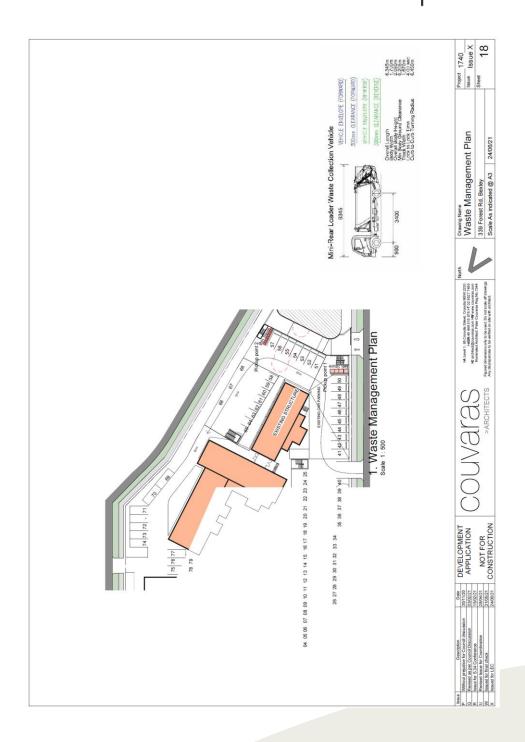
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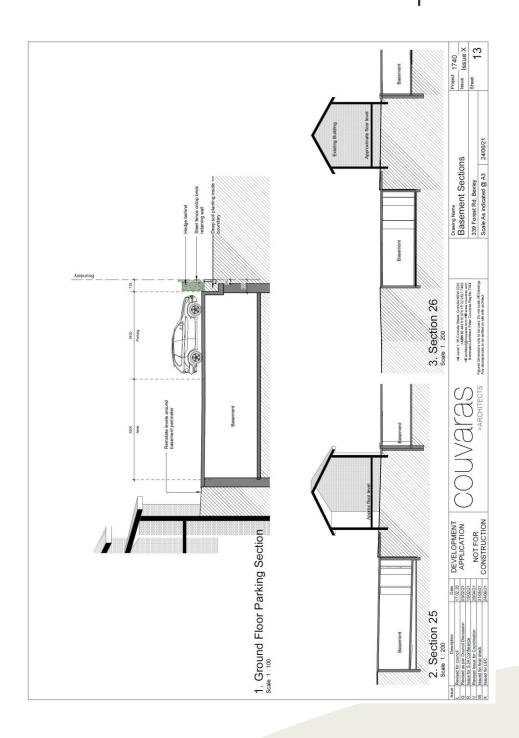
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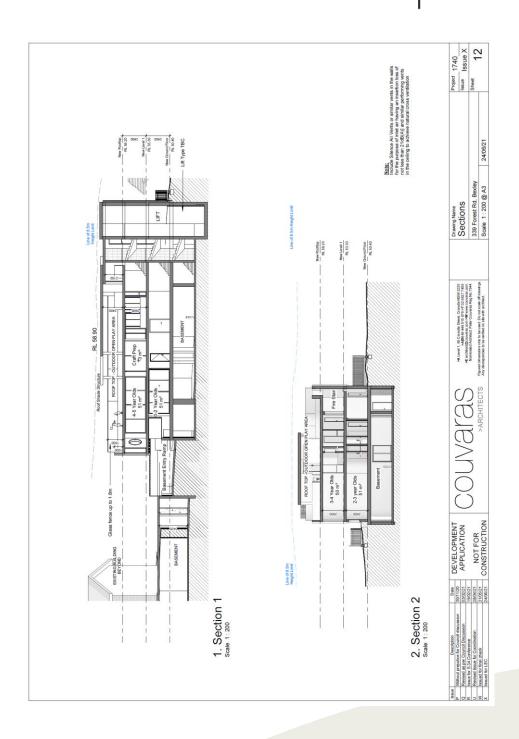
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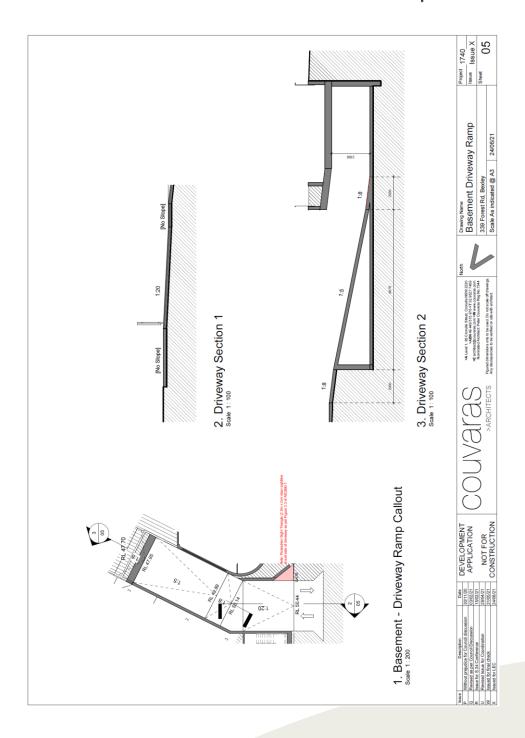
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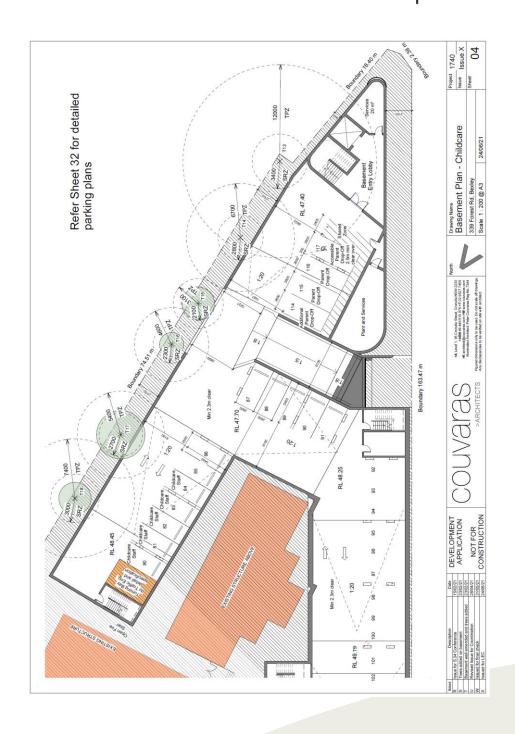
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#### **APPENDIX B - UPDATED VECHILE SWEPT PATHS**

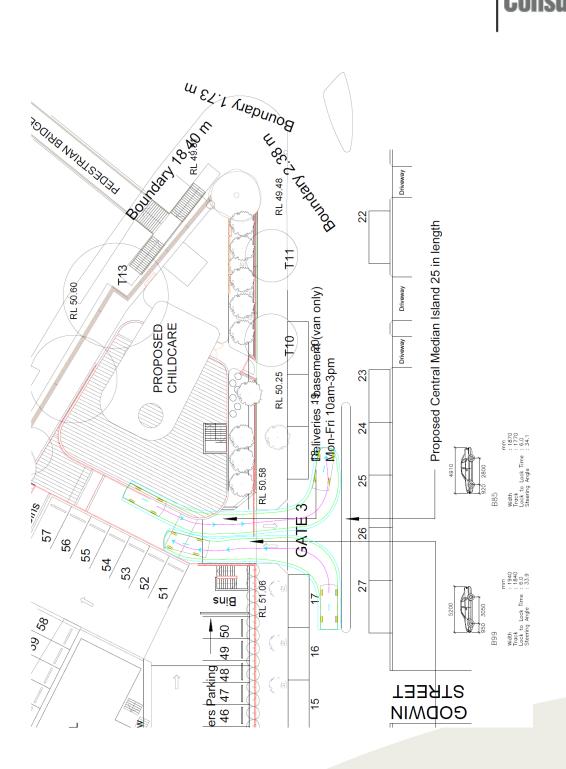
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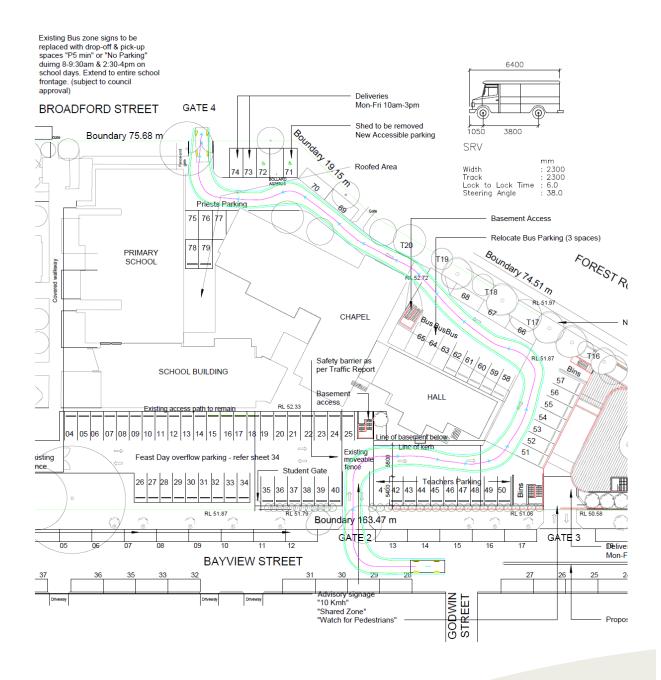
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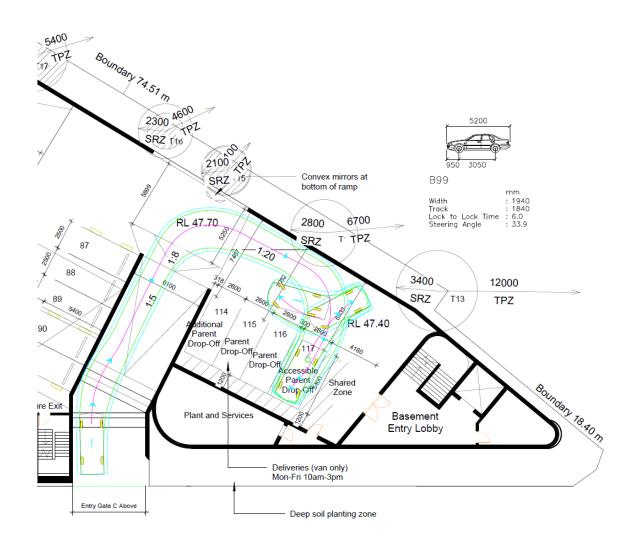
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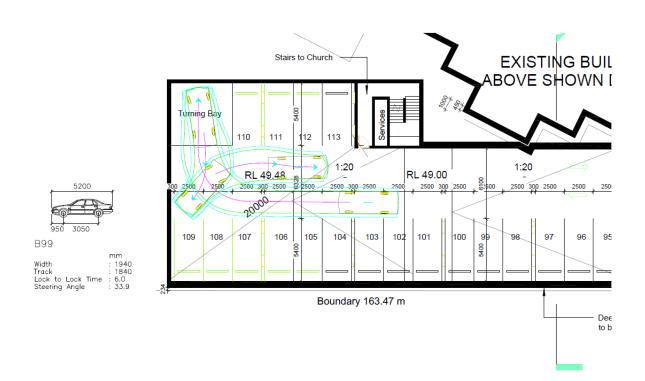
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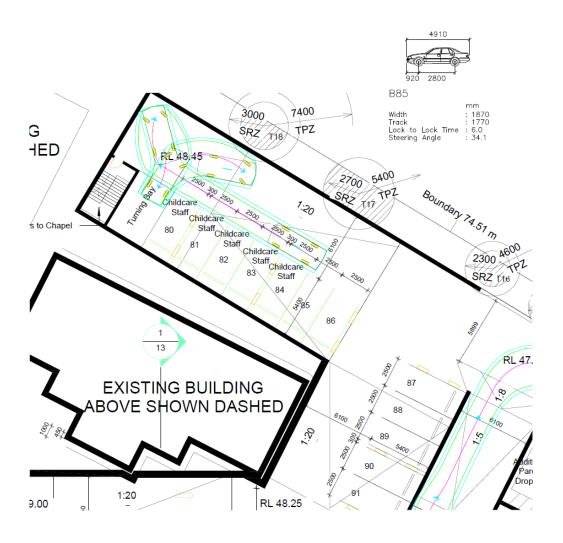
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# APPENDIX C – TRAFFIC VOLUMES & QUEUING SURVEY RESULTS

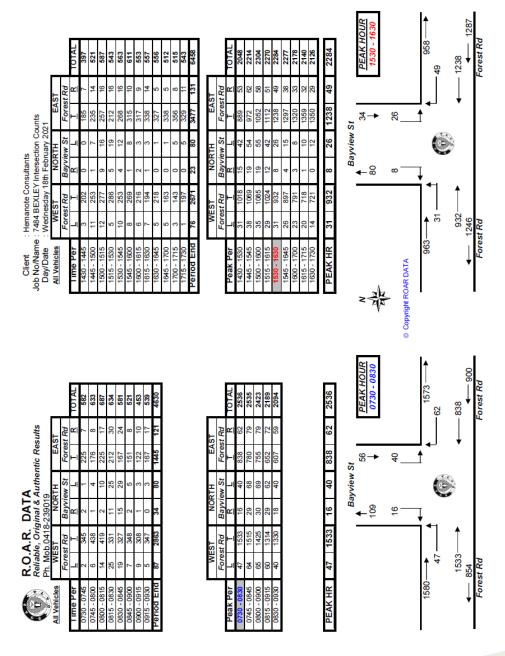
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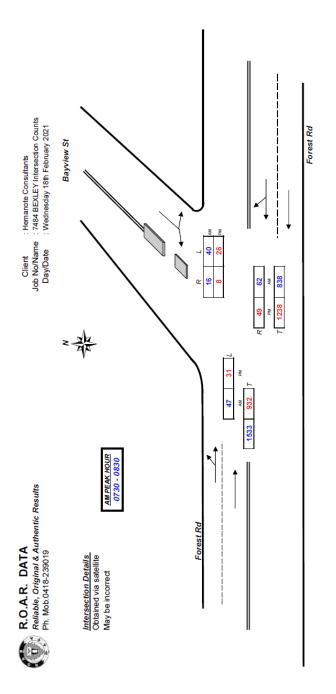
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#### **Consultants**



Queues	NORTH Bayview St		
	Longest Queue Every 5 Minutes		
Time Period	<u>5</u>	<u>10</u>	<u>15</u>
0730 - 0745	1	1	0
0745 - 0800	1	1	2
0800 - 0815	1	1	3
0815 - 0830	6	4	4
0830 - 0845	9	10	3
0845 - 0900	1	1	1
0900 - 0915	1	1	1
0915 - 0930	1	1	1

Client : Hemanote Consultants

Job No/Name : 7484 BEXLEY Intersection Counts
Day/Date : Wednesday 18th February 2021

Queues	NORTH Bayview St			
	Longes	Longest Queue Every 5 Minutes		
Time Period	<u>5</u>	<u>10</u>	<u>15</u>	
1430 - 1445	0	0	0	
1445 - 1500	0	2	3	
1500 - 1515	2	2	3	
1515 - 1530	1	3	3	
1530 - 1545	2	2	1	
1545 - 1600	1	2	1	
1600 - 1615	1	1	0	
1615 - 1630	2	1	0	
1630 - 1645	1	0	0	
1645 - 1700	1	0	0	
1700 - 1715	1	0	1	
1715 - 1730	1	1	1	

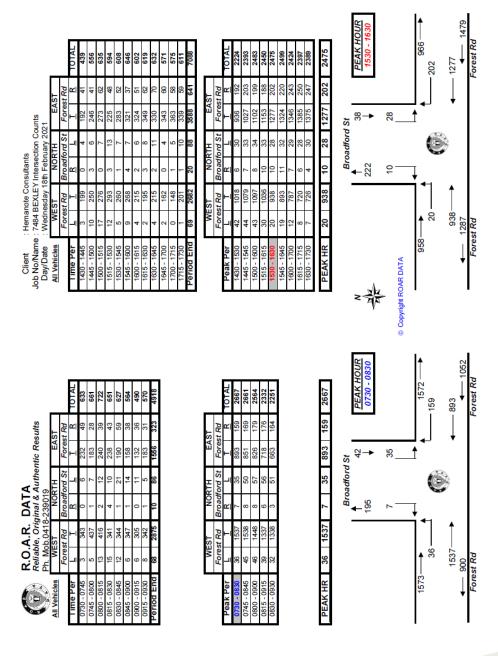
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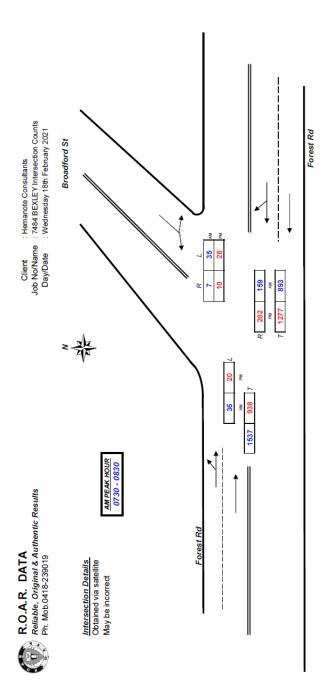
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Queues	NORTH Broadford St		
	Longest Queue Every 5 Minutes		
Time Period	<u>5</u>	<u>10</u>	<u>15</u>
0730 - 0745	1	1	1
0745 - 0800	1	1	1
0800 - 0815	1	3	1
0815 - 0830	1	1	2
0830 - 0845	3	2	2
0845 - 0900	1	4	2
0900 - 0915	1	3	1
0915 - 0930	1	1	0

Client : Hemanote Consultants

Job No/Name : 7484 BEXLEY Intersection Counts
Day/Date : Wednesday 18th February 2021

Queues	NORTH Broadford St			
	Longes	Longest Queue Every 5 Minutes		
Time Period	<u>5</u>	<u>10</u>	<u>15</u>	
1430 - 1445	1	1	0	
1445 - 1500	1	1	1	
1500 - 1515	1	2	1	
1515 - 1530	1	5	2	
1530 - 1545	2	1	1	
1545 - 1600	2	1	1	
1600 - 1615	1	1	1	
1615 - 1630	1	1	1	
1630 - 1645	2	1	1	
1645 - 1700	1	0	0	
1700 - 1715	1	1	1	
1715 - 1730	1	1	2	

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