NOTICE OF LOCAL PLANNING PANEL MEETING

PUBLIC AGENDA

By Electronic Determination

A Local Planning Panel Meeting will be held by way of electronic determination.

Brett Newman
CHIEF EXECUTIVE OFFICER

CITY OF PARRAMATTA

THIS PAGE LEFT BLANK INTENTIONALLY

TABLE OF CONTENTS

DEVELOPMENT APPLICATIONS

11 JANUARY 2022

DEVELOPMENT APPLICATION

ITEM NUMBER	5.1
SUBJECT	ELECTRONIC DETERMINATION: 45 Mobbs Lane, CARLINGFORD
DESCRIPTION	Reconsideration: Child Care Centre
REFERENCE	DA/725/2020 - D08376225
APPLICANT/S	DesignCorp
OWNERS	Child Care Property Holdings Pty Ltd
REPORT OF	Group Manager Development and Traffic Services
RECOMMENDED	APPROVAL

DATE OF REPORT 2 DECEMBER 2021

REASON FOR REFERRAL TO LPP

This item is being referred to the Parramatta Local Planning Panel (PLPP) as more than ten (10) submissions were received during the formal notification period. The proposal has received thirty-three (33) unique submissions. Two (2) submissions were also received post the October LPP meeting in which the application was deferred.

EXECUTIVE SUMMARY

The Parramatta Local Planning Panel considered this development application for determination at the October LPP meeting and found that:

> *"…..the amended design has improved the streetscape appearance and reduced bulk and scale but remains concerned about traffic issues and will defer the application for the following additional information:*
>
> *(a) The applicant to provide clarification within 21 days on the functionality and operation of the basement carpark specifically to understand vehicle movement when entering and exiting the carpark if all carparking spaces were full, assuming that the operation of the childcare centre would require all drop offs and picks up to occur in the basement;*
> *(b) The Council Officers to provide details of the operation of the "no parking" area in front of the site in terms of its length and times;*
> *(c) The applicant to provide a report within 21 days on vehicular movements at peak childcare times to understand the likely number of vehicles entering and leaving during that period to understand any likely conflict."*

Amended plans and documentation were received from the applicant, which included:

a) Reduction in the number of car spaces within the basement and inclusion of a dedicated turning bay;
b) Reduction in the number of children from 56 to 54 to maintain compliance with the carparking requirements; and
c) Acceptance of a no-parking zone within the frontage of the subject site between the hours of 7am to 7pm, Monday to Friday.

Council's Traffic and Transport Engineer reviewed the Panel's recommendation on a No-Stopping Zone in front of No. 45 Mobbs Lane and raises no concerns with respect to this zone being established between 7am and 7pm, Monday to Friday.

The proposed development is generally consistent with the requirements of the State Environmental Planning Policy (Educational Establishments and Child Care Facilities, Parramatta Local Environmental Plan 2011 and Parramatta Development Control Plan 2011.

Whilst the amendments were not required to be notified in accordance with Appendix 1 of Council's Community Engagement Strategy, Consolidated Notification Requirements, two objections were received after the October meeting. These objections have been considered in this addendum report.

After consideration of the development against Section 4.15 of the Environmental Planning and Assessment Act 1979, and the relevant statutory and policy provisions, the proposal is suitable for the site and is in the public interest.

RECOMMENDATION

(a) **That** the Parramatta Local Planning Panel (PLPP), exercising the functions of Council, pursuant to Section 4.16(1)(b) of the Environmental Planning and Assessment Act 1979, **approve** Development Application No. DA/725/2020 on land at Lot 14 in DP 30791, 45 Mobbs Lane, Carlingford NSW 2118, subject to the conditions of consent.

(b) **Further, that** objectors be advised of the Panel's decision.

REASONS FOR APPROVAL

1. The development is permissible in the R2 zone and satisfies the requirements of all of the applicable planning controls.

2. The development will be compatible with the emerging and planned future character of the area.

3. For the reasons given above, approval of the application is in the public interest.

Jonathan Cleary
Team Leader Development Assessment

Sarah Irani
Development Support Officer Personal Assistant

ATTACHMENTS:

1	Addendum report and draft conditions	51 Pages
2	Locality Map used during assessment	1 Page
3	Plans used during assessment	34 Pages
4	Documents used in Assessment	65 Pages

REFERENCE MATERIAL

City of Parramatta	
File No:	DA/725/2020

ADDENDUM REPORT – Environmental Planning & Assessment Act 1979

SUMMARY

DA No:	DA/725/2020
Property:	Lot 14 in DP 30791, 45 Mobbs Lane, CARLINGFORD NSW 2118 (Epping Ward)
Original Proposal:	Demolition of existing structures, earthworks, removal of seven (7) trees and construction of a child care facility for 58 children (17 x 0-2 year olds, 15 x 2-3 year olds & 26 x 3-6 year olds) with basement level car parking level for fifteen (15) vehicles and associated landscape works
Amended Proposal	Demolition of existing structures, earthworks, removal of seven (7) trees and construction of a child care facility for **56** children (17 x 0-2 year olds, 15 x 2-3 year olds & **24** x 3-6 year olds) with basement level car parking level for **fourteen (14)** vehicles and associated landscape works
Date of receipt:	7 December 2020
Applicant:	Designcorp Architects
Owner:	Child Care Property Holdings Pty Ltd
Property owned by a Council employee or Councillor:	The site is not known to be owned by a Council employee or Councillor
Political donations/gifts disclosed:	None disclosed on the application form
Submissions received:	Thirty-three (33) submissions
Conciliation Conference Held:	No – due to COVID19 restrictions
Original Recommendation on 19 Oct	Refusal
Amended Recommendation:	Approval subject to conditions
Assessment Officer:	Jonathan Cleary

Legislative requirements

Zoning	R2 Low Density Residential under Parramatta Local Environmental Plan 2011
Other relevant legislation/state environmental planning policies (SEPP)/policies:	Environmental Planning and Assessment Act 1979, Environmental Planning and Assessment Regulation 2000, State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017, State Environmental Planning Policy No.55 - Remediation of Land, State Environmental Planning Policy (Infrastructure) 2007, State Environmental Planning Policy (Vegetation in Non-Rural areas) 2017, Education and Care Services National Regulations, Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005

Planning Controls & Policy	Parramatta Section 94A Contributions Plan 2011 (Outside CBD - Amendment 5), Child Care Planning Guidelines, Children (Education and Care Services) Supplementary Care Provisions Regulations 2012, Parramatta Development Control Plan 2011, Handling of Unclear, Insufficient and amended Development Applications (Policy No: 299)
Bushfire Prone Land	No
Heritage item/vicinity of item	No
Heritage Conservation Area	No
Integrated development	No
Crown Development	No
Designated Development	No
Delegation	Parramatta Local Planning Panel (PLPP)

1. Relevant Site History

Date	Comment
21 May 2018	DA/332/2018 was lodged for: *Demolition works, earthworks, removal of four (4) trees and construction of a child care facility for 74 children (24 x 0-2 year olds, 30 x 2-3 year olds & 20 x 3-5 year olds) with basement level car parking for eighteen (18) vehicles with vehicular access from Mobbs Lane, external works and associated landscaping*
8 August 2018	Applicant's Solicitor filed a Class 1 Appeal to the NSW Land and Environment Court (LEC).
18 September 2018	The Parramatta Local Planning Panel (PLPP) as the consent authority **refused** development consent to DA/332/2018 for the following reasons: <u>Insufficient indoor space requirements</u> 1. In accordance with Section 4.15(1)(a)(i) of the Environmental Planning and Assessment Act, the proposal fails to provide sufficient unencumbered indoor space as per *Clause 4.1 – Indoor Space Requirements* of the Childcare Planning Guideline 2017, *Regulation 107* of the Education and Care Services National Regulations and Clause 25(2)(a)(i) of State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017. <u>Insufficient outdoor space requirements</u> 2. In accordance with Section 4.15(1)(a)(i) of the Environmental Planning and Assessment Act, the proposal fails to provide sufficient unencumbered outdoor space as per *Clause 4.9 – Outdoor Space Requirements* of the Childcare Planning Guideline 2017, *Regulation 108* of the Education and Care Services National Regulations and Clause 25(2)(a)(ii) of State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017.

Inconsistency with the R2 Zone objectives of Parramatta Local Environmental Plan 2011

3. The proposal is inconsistent with the stated objectives (dot point 3) of the R2 Zone of PLEP 2011 as the significant cut and protrusion of the basement level above the natural ground level results in unreasonable amenity impacts to adjoining properties, is of a bulk and scale that adversely impacts on the streetscape and does not achieve satisfactory urban design outcomes.

Unacceptable streetscape

4. The development application is unsatisfactory because the proposal is inconsistent with the aims of Parramatta Local Environmental Plan 2011, in particular 1.2(2)(h) as the proposal fails to enhance the amenity and characteristics of the established residential area.

5. Part 2.4.6 'Development on Sloping Land' as that the height of the basement car park above natural ground level results in elevated ground floor levels resulting in a development that is excessive in bulk and scale and having adverse amenity impacts on adjoining properties.

Unsatisfactory parking and access under the Parramatta Development Control Plan 2011

6. Part 3.6.2 'Parking and Vehicular access' as the proposal results in an overall shortfall of one (1) vehicle space.

Insufficient information

7. Clause 4.6 'Exceptions to Development Standards' of PLEP 2011 in the absence a written request seeking justification of Clause 4.3 Height of Buildings development standard.

8. Clause 4.6 'Exceptions to Development Standards' of PLEP 2011 in the absence a written request seeking justification of the Clause 4.4 Floor Space Ratio development standard.

9. Clause 6.2 'Earthworks' of PLEP 2011 in the absence of geotechnical assessment report for the site insufficient information has been provided to ascertain whether the proposal satisfies this clause.

10. The proposal has not provided sufficient information regarding the *Child Care Planning Guideline August 2017* with respect to site selection, building orientation, envelope and design, visual and acoustic privacy, indoor/outdoor space requirements, storage, laundry/toilet and hygiene facilities, ventilation and natural light, nappy change facilities and emergency and evacuation procedures.

11. The proposal results in the removal of one (1) tree with the tree protection root zone in the rear adjoining property of the site. No

	landowners' consent of the adjoining property owners has been provided resulting in a negative impact on the preservation of the amenity of the area. 12. The development is considered to adversely impact on the built environment (Section 4.15(1)(b) Environmental Planning and Assessment Act 1979). 13. The proposal fails to satisfy the relevant considerations under Section 4.15(1)(c) Environmental Planning and Assessment Act 1979 as the constraints together with the design issues renders the site unsuitable for the development. 14. The proposal fails to satisfy the relevant considerations under Section 4.15(1)(e) Environmental Planning and Assessment Act 1979 in that the adverse impacts generated by the development due to non-compliance with the applicable planning controls is not beneficial within the development site or to the established residential community and as such, it is not considered to be in the wider public interest.
4 October 2019	Land and Environment Court of New South Wales, Commissioner of the Court Peter Walsh, dismissed the Class 1 appeal *Childcare Property Holdings Pty Ltd as trustee for the Childcare Property Holdings Trust v City of Parramatta Council {2019} NSWLEC 1473.*
26 August 2020	Council held a pre-lodgement meeting (PL/92/2020). The applicant group were advised that the proposal is not supported on planning grounds, urban design and social outcomes.
7 December 2020	DA/725/2020 was lodged for: *Demolition of existing structures, earthworks, removal of seven (7) trees and construction of a child care facility for 58 children (17 x 0-2 year olds, 15 x 2-3 year olds & 26 x 3-6 year olds) with basement level car parking level for fifteen (15) vehicles and associated landscape works*
19 October 2021	The application was presented to the Parramatta Local Planning Panel with a recommendation for refusal. The PLPP resolved the following: (a) *The applicant to provide clarification within 21 days on the functionality and operation of the basement carpark specifically to understand vehicle movement when entering and exiting the carpark if all carparking spaces were full, assuming that the operation of the childcare centre would require all drop offs and picks up to occur in the basement;* (b) *The Council Officers to provide details of the operation of the "no parking" area in front of the site in terms of its length and times;* (c) *The applicant to provide a report within 21 days on vehicular movements at peak childcare times to understand the likely number of vehicles entering and leaving during that period to understand any likely conflict.*
29 October 2021	Applicant submitted amended plans with the following changes:

	a) Reduction in the number of car spaces within the basement and inclusion of a dedicated turning bay; b) Reduction in the number of children from 56 to 54 to maintain compliance with the carparking requirements; and c) Acceptance of a no-parking zone within the frontage of the subject site between the hours of 7am to 7pm, Monday to Friday.

2. Summary of Amendments

The amendments made to the original proposal are summarised and **bolded** below:

Feature	Original Application	Amended Proposal	
Number of children	58 children	**56 children**	
0-2 years	17	17	
2-3 years	15	15	
3-6 years	26	**24**	
Car Spaces	7 staff 8 visitor Total: 15 spaces	**6 staff** 8 visitor Total: **14 spaces**	Complies
Building Height	8.6 metres	unchanged	Complies
Floor Space Ratio	0.49:1	unchanged	Complies
Gross Floor Area	457.7 m²	unchanged	Complies
Bicycle Spaces	3 spaces	unchanged	Complies
Internal Play Space	196.2 m²	unchanged	Complies
Playroom 1	51.51 m²		
Playroom 2	53.23 m²		
Playroom 3	56.43 m²		
Playroom 4	35.03 m²		
External Play Space	412.68 m²	unchanged	Complies
Ground Floor	315.91 m²		
First Floor	96.77 m²		
Building Envelope and Design	unchanged		

3. Summary of Compliance

On 29 October 2021, Council received final amended plans to address the reasons for deferral. Compliance with the relevant EPIs and DCPs is provided below:

3.1 State Environmental Planning Policy No. 55 – Remediation of Land

The amended plans do not alter compliance with SEPP 55 as considered by PLPP in the previous meeting and is considered acceptable.

3.2 State Environmental Planning Policy (Vegetation in non-rural areas) 2017

The amended plans do not alter compliance with SEPP (Vegetation) as considered by the PLPP in the previous meeting and is considered acceptable subject to conditions of consent for appropriate replanting to offset the removal of vegetation from the site and the protection of the remaining trees on the adjoining property.

3.3 State Environmental Planning Policy (Infrastructure) 2007

The amended plans do not alter compliance with SEPP (Infrastructure) as considered by PLPP in the previous meeting and is considered acceptable.

3.4 Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005 (Deemed SEPP)

The amended plans do not alter compliance with SREP (Sydney Harbour Catchment) as considered by PLPP in the previous meeting and is considered acceptable subject to conditions of consent for the installation of appropriate sediment and erosion control measures and stormwater management to protect water quality.

3.5 Draft State Environmental Planning Policy (Environment) 2017

The purpose of SEPP (Environment) 2017 is to promote the protection and improvement of key environmental assets for their intrinsic value and social and economic benefits they provide.

The State's water catchments, waterways, urban bushland and world heritage areas provide diverse and significant benefits that support the physical health, economic security and cultural identity of NSW's community. Catchments, waterways and urban bushland support a range of important ecosystems and ecosystem services, including drinking water and clean air, and are intrinsically valuable.

Conditions of consent are recommended requiring the installation of erosion and sediment control measures to minimise runoff into the Sydney Harbour Catchment.

3.6 State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017

The amended plans do not generally alter compliance with SEPP (Child Care) as considered by the PLPP at the previous meeting on 19 October 2021. The following issues were non-compliances as considered by the PLPP and have been reconsidered below:

Child Care Planning Guideline August 2017

Control	Comment	Comply
Part 3 Matters for Consideration		
3.1 Site selection and location *C2 Site selection* *Objective: To ensure that the site selected for a proposed child care facility is suitable for the use.*	**Compatible uses** Contextually, existing developments in the surrounding area of the subject site are primarily single-storey detached dwellings and multi-unit housing developments. The proposed built form presents as a modern dwelling house within the streetscape and is not incompatible with existing and expected development in the locality. **Site Characteristics** The development proposal's current scale and building form provides a recessed first floor on the western (downslope) side. This intends to provide relief and interest to the building when viewed from the downhill. Given the proposed use of the building as a child care centre, internal stepping of the floor levels or internal play spaces is impractical	Yes Yes
3.2 Local character, streetscape and the public domain interface *C5 Compatible character and streetscape*	**Design** The design of the child care centre and its built form is gernally consistent with the low density residential zone. Being consistent with the built form in the area does not necessarily mean that the building must present as a dwelling house. The built form should be reflective of a dwelling house design, with a compatible roof form, a maximum of 2 storeys, and landscaping appropriate for a residential allotment. In this instance, the application has maximised the landscaping provided within the front setback by locating the OSD system under proposed hardstand areas, and limiting unnecessary additional hardstand within the front setback. The child care centre is generally consistent with the colours of the existing streetscape being a combination of face-brick and light-coloured render.	Yes
3.3 Building orientation, envelope and design *C12 Scale*	The child care centre is consistent in terms of building height with existing developments along Mobbs Lane. The basement vehicle entrance is in the most appropriate location on the site (being the lowest point on the site). The form of the development generally meets the expected form of a large, modern dwelling on the site.	Yes
3.3 Building orientation, envelope and design *C15 Built Form*	The development provides a two-and-three storey built form which generally consistent with the expect form of development in a typical low-density residential zone on a sloping site. There are no heritage items nearby.	Yes

5.7 National Legislation and Regulations

The amended plans do not generally alter compliance with the *Education and Care National Regulations* as considered by the PLPP at the previous meeting on 19 October 2021.

Regulation 123 *Educator to child ratios – centre based services* The minimum number of educators is required in the following ratios: *(a) for children from birth to 24 months of age—1 educator to 4 children;* *(b) for children over 24 months and less than 36 months of age—1 educator to 5 children;* *(c) for children aged 36 months of age or over (not including children over preschool age)—1 educator to 11 children;* *(d) for children over preschool age, 1 educator to 15 children.* • 0-2 years – 5 educators • 2-3 years – 3 educators • 3+ years – 3 educators Total of **11 educators** are required.	The application indicates that the centre will be run by 11 educators and 1 on-site managing director. Regulation 122 of *National Regulations* states "*An educator cannot be included in calculating the educator to child ratio of a centre-based service unless the educator is working directly with children at the service*".	**Complies**.

5.8 Parramatta Local Environmental Plan 2011 (PLEP 2011)

The amended plans do not generally alter compliance with the Parramatta Local Environmental Plan 2011 as considered by the PLPP at the previous meeting on 19 October 2021.

The following issues were non-compliances as considered by the PLPP and have been reconsidered below:

Control	Comments	Compliance
Clause 1.2 Aims of Plan	The child care centre responds adequately to the topographical constraints and seeks to minimise the impacts to the adjoining neighbours through the use of appropriately scaled acoustic barriers and . The proposal fails to enhance the amenity and characteristics of the established residential area. The proposal is therefore not consistent with Clause 1.2(2)(h) which is included as a reason of refusal.	**Yes**
Clause 2.3 Zone objectives and Land Use Table	The site is zoned R2 Low Density Residential under Parramatta Local Environmental Plan 2011 (PLEP 2011). Under PLEP 2011, the proposed development is defined as a "centre-based child care facility". Centre-based child care facility is a permissible form of development on land zoned R2 Low Density Residential under PLEP 2011 subject to consent being granted by a consent authority. The proposal meets the objectives of the R2 Low Density Residential Zone.	Yes **Yes**

6. Provisions of any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (Section 4.15(1)(a)(ii))

The amended plans do not generally alter compliance with the Draft Parramatta Local Environmental Plan 2011 as considered by the PLPP at the previous meeting on 19 October 2021.

6. Provisions of Development Control Plans (Section 4.15(1)(a)(iii))

7.1 Parramatta Development Control Plan 2011 (PDCP 2011)

The amended plans do not generally alter compliance with the Draft Parramatta Local Environmental Plan 2011 as considered by the PLPP at the previous meeting on 19 October 2021 with the exception of the redesign of the basement carpark and resultant reduction in the number of children.

The following issues were non-compliances as considered by the PLPP and have been reconsidered below:

Development Control	Comment	Comply
	Part 2 Site planning	
2.12.6 Development on Sloping Land	The site has an approximate 7.9% (or 1.6m) cross-fall within the rear yard from the western boundary to the eastern boundary. The site has an approximate 11.4% (or 2.3m) cross-fall along the length of the southern front boundary (from the south-western corner to the south-eastern corner of the site). The position of the basement driveway is in the most appropriate location to minimise excavation, being the lowest part of the site. Although this results in an elevated ground floor level, the impacts are considered acceptable and in keeping with the expected form of a new building on this site with these constraints.	**No**
3.1.3 Preliminary Building Envelope Tables (deep soil zone)	The proposal provides approximately 244.4m² (26.2% of the site) deep soil areas and is deficient by 13.8% (128.4m²) of deep soil areas under the DCP. The proposal provides adequate deep soil for a site given the proposed basement parking. The deep soil zones are in wide, contiguous areas rather than piecemeal across the site.	**No but acceptable**
3.1.3 Preliminary Building Envelope Tables (landscaped area)	The proposal provides approximately 244.4m² (26.2% of the site) landscape area and is deficient by 13.8% (128.4m²) of landscaped areas under the DCP. As above, the proposal provides contiguous landscaped areas rather than piecemeal areas allowing for the establishment of mature vegetation and rainwater infiltration.	**No But acceptable.**
3.2.1 Building Form and Massing	The bulk and scale of the proposed development is of a bulk and scale consistent with the expect redevelopment of sites within the residential zone.	**Yes**
3.2.2 Building Façade and Articulation	The building facade is generally consistent with a modern two-storey dwelling with a basement. Although the majority	**Yes**

	of the dwellings along Mobbs Lane are exposed-brick facades, the proposed partial-rendered finish with alternate materials (wood and metal sheeting) provides visual interest in the streetscape.	
3.4.4 Safety and Security	The proposal provides a clear sight lines between the public domain to the main pedestrian entrance. Passive surveillance of the public domain is via the hallway windows on the ground floor and the administration spaces on the first floor.	**Yes**
3.6.2 Parking and Vehicular Access 1 space for every 4 children in attendance	Fourteen (14) off-street car parking spaces are provided within the basement. This was at the request of the PLPP at its meeting on 19 October 2021 to include a dedicated turning bay. The applicants proposed a reduction in the number of children in order to provide parking at a ratio of 1 space per 4 children. Three (3) bicycle spaces are required and three (3) bicycle parking spaces are proposed within the ground floor porch adjacent to the entry.	**Yes**

8. REFERRALS

8.1 External

No external referrals were required.

8.2 Internal

Traffic and Transport Engineer	Council's Traffic and Transport Engineer reviewed the Panel's recommendation on a No-Stopping Zone in front of No. 45 Mobbs Lane and raises no concerns with respect to this zone being established between 7am and 7pm, Monday to Friday.

9. Other Matters

9.1 Development Contributions

Parramatta Council Section 94A Plan requires that development contributions be paid based on the development cost of works. As the cost of works for the proposal exceeds $200,000 a Section 94A development contribution 1% is required to be paid. Accordingly, the Section 7.12 contribution would be calculated on this value.

9.2 Bonds

In accordance with Council's Schedule of Fees and Charges, the developer is obliged to pay Security Bonds to ensure the protection of civil infrastructure located in the public domain adjacent to the site.

10. Any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4 (Section 4.15(1)(a)(iiia))

The proposal does not include any Voluntary Planning Agreements (VPAs) and section 7.4 does not apply to the application.

11. Provisions of Regulations (Section 4.15(1)(a)(iv))

All relevant provisions of the Regulations have been considered in the assessment of this proposal.

12. Impacts of the Development (Section 4.15(1)(b))

All relevant issues have been considered in the assessment of this proposal.

13. Suitability of the Site (Section 4.15(1)(c))

The relevant matters pertaining to the suitability of the site for the proposed development have been considered in the assessment of the proposal. The site is considered suitable for the proposed development.

14. Public submissions (Section 4.15(1)(d))

The amended plans prepared in response to the PLPP's recommendations at its meeting on 19 October 2021 were not notified for the following reasons:

- No external changes to the building;
- Decrease in the total number of children;

Nevertheless, Council received two (2) submissions in response to the PLPP recommendations. These submissions and Council's response are summarised below:

Issue	Comment
Traffic Generation and Resultant Impacts	Councils Traffic and Transport Engineer has reviewed the original proposal for 58 children along with the submitted traffic report and concluded the carpark design and layout is appropriate. Based on the RMS Guide for Traffic Generating Development, the centre is expected to generate an additional 46 vehicle trips per hour in the morning and evening peak hours. The reviewed traffic report indicates this will not have a detrimental impact to the serviceability of the nearby intersections. The inclusion of the turning bay has improved the manoeuvring in the carpark to allow for the appropriate turning and passing of vehicles in the basement. The POM indicates that all drop off will be undertaken in the basement, ensuring this is followed is ultimately a matter for the centre operator to manage and address with parents.
Waste Collection	The application proposes commercial waste operator. The bins are proposed for collection on a weekly basis in 240L bins placed kerbside for collection. The bins would otherwise be stored in the basement in a designated spot which does not conflict with vehicle access and parking arrangements.

15. Public Interest (Section 4.15(1)(e))

The proposal has been assessed against the relevant planning policies applying to the site having regard to the objectives of the controls. As demonstrated in the assessment of the proposal, the site is considered to be appropriate for the proposed development and is in the public interest.

16. CONCLUSION

The proposal has been assessed in accordance with Sections 4.15(1) of the Environmental Planning and Assessment Act 1979. The proposal is generally consistent with the relevant requirements of State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017, Child Care Planning Guideline, Parramatta Local Environmental Plan 2011 and the Parramatta Development Control Plan 2011.

The proposal is permissible in the R2 Low Density Residential Zone. The proposal is considered to result in a development which is compatible with the context of the emerging character within the locality. Non-compliances are acknowledged within the current proposal; these have been discussed within this report.

A merit assessment of the application has determined that the site is suitable for a child care centre. Further, the proposal is satisfactory and results in reasonable impacts to adjoining and surrounding properties, with regard to building bulk and scale and acoustic and visual privacy.

The application has been assessed under Section 4.15 of the *Environmental Planning and Assessment (EP&A) Act 1979*, taking into consideration all relevant State and local planning controls. On balance, the proposal demonstrates an satisfactory response to the objectives and controls of the applicable planning framework. The proposal is suitable for the site and is in the public interest. As such, the application is recommended for approval subject to conditions.

16. RECOMMENDATION

Approval

(a) THAT the Parramatta Local Planning Panel (PLPP), exercising the functions of Council, pursuant to Section 4.16(1)(b) of the Environmental Planning and Assessment Act 1979, **approve** Development Application No. DA/725/2020 for demolition of existing structures, earthworks, removal of seven (7) trees and construction of a child care facility for 56 children (17 x 0-2 year olds, 15 x 2-3 year olds & 24 x 3-6 year olds) with basement level car parking level for fifteen (15) vehicles and associated landscape works on land at Lot 14 in DP 30791, 45 Mobbs Lane, CARLINGFORD NSW 2118, subject to the conditions of consent below.

General Matters:

1. The development is to be carried out in accordance with the following plans and documentation listed below, except where amended by other conditions of this consent:

Architectural Plans

Drawing No.	Rev No.	Title	Prepared By	Dated
i1	I	Cover Sheet	Designcorp Architects	21/10/2021
i2	I	Site Analysis	Designcorp Architects	21/10/2021
i3	I	LEP Controls	Designcorp Architects	21/10/2021
i4	I	Roof Site Analysis	Designcorp Architects	21/10/2021
i5	I	Basement	Designcorp Architects	21/10/2021
i6	I	Ground	Designcorp Architects	21/10/2021
i7	I	First Floor	Designcorp Architects	21/10/2021
i8	I	Roof Plan	Designcorp Architects	21/10/2021
i9	I	FSR Calc Layouts	Designcorp Architects	21/10/2021
i10	I	Play Area Calc Layouts	Designcorp Architects	21/10/2021
i11	I	Ground Floor Landscape Design	Designcorp Architects	21/10/2021
i12	I	Evacuation Plan Layouts	Designcorp Architects	21/10/2021
i13	I	Evacuation Plan Layouts	Designcorp Architects	21/10/2021
i14	I	Elevations	Designcorp Architects	21/10/2021
i15	I	Elevations	Designcorp Architects	21/10/2021
i16	I	Sections	Designcorp Architects	21/10/2021
i17	I	Shadows – June	Designcorp Architects	21/10/2021
i18	I	3D Shadows	Designcorp Architects	21/10/2021
i19	I	Landscaped Area Calcs	Designcorp Architects	21/10/2021

i20	I	Materials and Finishes	Designcorp Architects	21/10/2021

Stormwater Plans – Project No. 200934

Drawing No.	Rev No.	Title	Prepared By	Dated
000	B	Cover Sheet, Notes & Legend	Ace Civil Stormwater Services Pty Ltd	27/07/2021
101	B	Stormwater Concept Plan Basement Level Sheet 1 of 2	Ace Civil Stormwater Services Pty Ltd	27/07/2021
102	B	Stormwater Concept Plan Basement Level Sheet 2 of 2	Ace Civil Stormwater Services Pty Ltd	27/07/2021
103	B	Stormwater Concept Plan	Ace Civil Stormwater Services Pty Ltd	27/07/2021
104	B	OSD & WSUD Details and Calculation Sheets Sheet 1 of 3	Ace Civil Stormwater Services Pty Ltd	27/07/2021
105	B	OSD & WSUD Details and Calculation Sheets Sheet 2 of 3	Ace Civil Stormwater Services Pty Ltd	27/07/2021
106	B	OSD & WSUD Details and Calculation Sheets Sheet 3 of 3	Ace Civil Stormwater Services Pty Ltd	27/07/2021
107	B	Sediment & Erosion Control Plan and Details	Ace Civil Stormwater Services Pty Ltd	27/07/2021
108	B	Miscellaneous Details Sheet	Ace Civil Stormwater Services Pty Ltd	27/07/2021

Landscape Plans – Ref: LPDA 21 - 114

Drawing No.	Rev No.	Title	Prepared By	Dated
1	D	Hardscape / Site Plan	Conzept Landscape Architects	29.07.21
2	D	Landscape Plan [Ground + Level 1]	Conzept Landscape Architects	29.07.21
3	D	Specifications & Details	Conzept Landscape Architects	29.07.21
4	D	Details	Conzept Landscape Architects	29.07.21
5	D	Details	Conzept Landscape Architects	29.07.21

Supporting Documents

Document(s)	Prepared By	Dated
Operational Plan of Management	Planning Lab	23 July 2021
Traffic and Parking Impacts Report Ref: 20092 Rep 01a	TEF Consulting	22/07/2021
Access Report	Design Right Consulting	26 July 2021
Acoustic Report Ref: SYD2018-1022-R003D	Acouras Consulting	21/07/2021
Arborist Report Ref: 6591 (3758)	RedGum Horticultural Consultants	13 October 2020
Waste Management Plan	Dickens Solutions Pty Ltd	October 2020

Note: In the event of any inconsistency between the architectural plan(s) and the landscape plan(s) and/or stormwater disposal plan(s) (if applicable), the architectural plan(s) shall prevail to the extent of the inconsistency.

Reason: To ensure the work is carried out in accordance with the approved plans.

2. All building work must be carried out in accordance with the current provisions of the Building Code of Australia (National Construction Code).

Reason: To comply with the Environmental Planning & Assessment Act 1979, as amended and the Environmental Planning & Assessment Regulation 2000.

3. Prior to commencement of any construction works associated with the approved development (including excavation if applicable), it is mandatory to obtain a Construction Certificate. Plans, specifications and relevant documentation accompanying the Construction Certificate must include any requirements imposed by conditions of this Development Consent.
   Reason: To ensure compliance with legislative requirements.

4. The development must be constructed within the confines of the property boundary. No portion of the proposed structure, including footings/slabs, fences, gates and doors during opening and closing operations must encroach upon Council's footpath area or the boundaries of the adjacent properties.
   Reason: To ensure no injury is caused to persons and the building is erected in accordance with the approval granted within the boundaries of the site.

5. Trees to be retained are:

Tree No.	**Name**	**Common Name**	**Location**	**Tree Protection Zone (m) radius**
1	*Eucalyptus saligna*	Sydney Blue Gum	Rear garden	10.8m
2	*Eucalyptus microcorys*	Tallowwood	Rear garden	7.2m
6	*Eucalyptus microcorys*	Tallowwood	2 Freeman Place	4.68m
7	*Eucalyptus microcorys*	Tallowwood	2 Freeman Place	2.64m

   Reason: To protect significant trees which contribute to the landscape character of the area.

6. Approval is granted for the demolition of all buildings and outbuildings currently on the property, subject to compliance with the following:-
   (a) Demolition is to be carried out in accordance with the applicable provisions of Australian Standard AS2601-2001 - Demolition of Structures.
      Note: Developers are reminded that WorkCover requires that all plant and equipment used in demolition work must comply with the relevant Australian Standards and manufacturer specifications.
   (b) The developer is to notify owners and occupiers of premises on either side, opposite and at the rear of the development site 5 working days prior to demolition commencing. Such notification is to be a clearly written on A4 size paper giving the date demolition will commence and is to be placed in the letterbox of every premises (including every residential flat or unit, if any). The demolition must not commence prior to the date stated in the notification.
   (c) 5 working days (i.e., Monday to Friday with the exclusion of Public Holidays) notice in writing is to be given to City of Parramatta for inspection of the site

prior to the commencement of works. Such written notice is to include the date when demolition will commence and details of the name, address, business hours, contact telephone number and licence number of the demolisher. Works are not to commence prior to Council's inspection and works must also not commence prior to the commencement date nominated in the written notice.

(d) On the first day of demolition, work is not to commence until City of Parramatta has inspected the site. Should the building to be demolished be found to be wholly or partly clad with asbestos cement, approval to commence demolition will not be given until Council is satisfied that all measures are in place so as to comply with Work Cover's document "Your Guide to Working with Asbestos", and demolition works must at all times comply with its requirements.

(e) On demolition sites where buildings to be demolished contain asbestos cement, a standard commercially manufactured sign containing the words "DANGER ASBESTOS REMOVAL IN PROGRESS" measuring not less than 400mm x 300mm is to be erected in a prominent visible position on the site to the satisfaction of Council's officers The sign is to be erected prior to demolition work commencing and is to remain in place until such time as all asbestos cement has been removed from the site to an approved waste facility. This condition is imposed for the purpose of worker and public safety and to ensure compliance with Clause 469 of the Work Health and Safety Regulation 2017.

(f) Demolition must not commence until all trees required to be retained are protected in accordance with the conditions detailed under "Prior to Works Commencing" in this Consent.

(g) All previously connected services are to be appropriately disconnected as part of the demolition works. The applicant is obliged to consult with the various service authorities regarding their requirements for the disconnection of services.

(h) Demolition works involving the removal and disposal of asbestos cement in excess of 10 square meters, must only be undertaken by contractors who hold a current WorkCover "Demolition Licence" and a current WorkCover "Class 2 (Restricted) Asbestos Licence".

(i) Demolition is to be completed within 5 days of commencement.

(j) Demolition works are restricted to Monday to Friday between the hours of 7.00am to 5.00pm. No demolition works are to be undertaken on Saturdays, Sundays or Public Holidays.

(k) 1.8m high Protective fencing is to be installed to prevent public access to the site.

(l) Occupation of any part of the footpath or road at or above (carrying out work, storage of building materials and the like) during construction of the development shall require a Road Occupancy Permit from Council. The applicant is to be required to submit an application for a Road Occupancy Permit through Council's Traffic and Transport Services, prior to carrying out the construction/restoration works.

(m) Oversize vehicles using local roads require Council's approval. The applicant is to be required to submit an application for an Oversize Vehicle

Access Permit through Council's Traffic and Transport Services, prior to driving through local roads within Parramatta LGA.

(n) All asbestos laden waste, including asbestos cement flat and corrugated sheets must be disposed of at a tipping facility licensed by the Environment Protection Authority (EPA).

(o) Before demolition works begin, adequate toilet facilities are to be provided.

(p) After completion, the applicant must notify City of Parramatta within 7 days to assess the site and ensure compliance with AS2601-2001 – Demolition of Structures.

(q) Within 14 days of completion of demolition, the applicant must submit to Council:

(i) An asbestos clearance certificate issued by a suitably qualified person if asbestos was removed from the site; and

(ii) A signed statement verifying that demolition work and the recycling of materials was undertaken in accordance with the Waste Management Plan approved with this consent. In reviewing such documentation Council will require the provision of original.

(iii) Payment of fees in accordance with Council's current schedule of fees and charges for inspection by Parramatta Council of the demolition site prior to commencement of any demolition works and after the completion of the demolition works.

Reason: To protect the amenity of the area.

7. The operation of the premises is to be conducted in a manner which does not pollute waters as defined by the Protection of the Environment Operations Act 1997.
Reason: To ensure that stormwater drains are not polluted.

8. Liquid and solid wastes generated on the site shall be collected, transported and disposed of in accordance with the Protection of the Environment Operations (Waste) Regulation 2014 and in accordance with NSW Environment Protection Authority (EPA) Waste Classification Guidelines.
Reason: To prevent pollution of the environment.

9. Stockpiles of topsoil, sand, aggregate, soil or other material are not to be located on any drainage line or easement, natural watercourse, footpath or roadway and shall be protected with adequate sediment controls.
Reason: To ensure that building materials are not washed into stormwater drains.

10. Any lighting on the site shall be designed so as not to cause nuisance to other residences in the area or to motorists on nearby roads and to ensure no adverse impact on the amenity of the surrounding area by light overspill. All lighting shall comply with the Interim Australian Standard DR AS/NZS 4282:2018 The Control of the Obtrusive Effects of Outdoor Lighting.
Reason: To protect the amenity of the surrounding neighbourhood from the emission of light.

11. Site water discharged must not exceed suspended solid concentrations of 50 parts per million, and must be analysed for pH and any contaminants of concern identified during the preliminary or detailed site investigation, prior to discharge to the stormwater system. The analytical results must comply with relevant Environmental Protection Authority (EPA) and ANZ Guidelines for Fresh and Marine Water Quality.

    Other options for the disposal of excavation pump-out water include disposal to sewer with prior approval from Sydney Water, or off-site disposal by a liquid waste transporter for treatment/disposal to an appropriate waste treatment/processing facility.
    Reason: To prevent pollution of waterways.

12. Erosion and sediment control measures are to be installed in accordance with the publication 'Urban Stormwater: Soils and Construction "The Blue Book" 2004 (4th edition) prior to the commencement of any demolition, excavation or construction works upon the site. These measures are to be maintained throughout the entire works.
    Reason: To ensure soil and water management controls are in place before site works commence.

13. Works are not to result in sedimentation and or run-off from the approved works onto the adjoining properties and or public lands. The person having the benefit of this consent must ensure sediment is not tracked out from the development site.
    Reason: To ensure no adverse impacts on neighbouring properties.

14. All waste storage rooms/areas are to be fully screened from public view and are to be located clear of all landscaped areas, driveways, turning areas, truck standing areas and car parking spaces. No materials, waste matter or products are to be stored outside the building or any approved waste storage area at any time.
    Reason: To maintain the amenity of the area.

15. The following street trees shall be planted within the road reserve;

Qty	Name	Common Name	Minimum Pot Size	Name of Street Frontage
2	*Buckinghamia celsissima*	Ivory Curl	45L	Mobbs Lane

Note: All approved street tree plantings shall be planted a minimum of 3m from any driveway and minimum 4m apart.
Reason: To ensure restoration of environmental amenity.

Prior to the issue of a Construction Certificate

(**Note:** Some conditions contained in other sections of this consent (including prior to occupation/use commencing) may need to be considered when preparing detailed drawings/specifications for the Construction Certificate.)

16. Plans and documents submitted must include the following with an application for a Construction Certificate:
    (a) Construction details are to be provided by a suitably qualified structural engineer showing substrate depth, drainage, waterproofing for all planting on structures, tree planting on structures, including planting over on-site detention tanks, raised planters and rooftop gardens. All raised planting boxes/beds containing trees must be retained to a minimum height of 800mm.
    (b) Soil volume, soil depth and soil area must meet the prescribed standards in "Apartment Design Guide – tools for improving the design of residential apartment development" (NSW Department of Planning and Environment, 2015).
    (c) Tree planting densities shall not exceed the prescribed soil volume and area required for plant type and any soil mounding must not exceed a maximum 1:8 grade which must be demonstrated on amended plans and certified by a suitably qualified Landscape Architect.
    (d) A specification ('Fit-for-purpose' performance description) for soil type and a maintenance schedule specified by a suitably qualified Soil Scientist, to ensure sufficient nutrient and water availability is achieved.

    Reason: To ensure the creation of functional gardens.

17. Prior to the issue of Construction Certificate, the applicant is to submit plans and specifications for locks on the side gates which prevent access from a person entering from the street, for security reasons, and which can be easily opened by staff in the event of an emergency to permit emergency egress. The locks must be child-proof.

    Reason: To permit emergency egress by staff and children and to provide security at all other times.

18. The Construction Certificate is not to be issued unless the Certifying Authority is satisfied the required levy payable, under Section 34 of the Building and Construction Industry Long Service Payments Act 1986, has been paid.
    Reason: To ensure that the levy is paid.

19. A monetary contribution comprising $22,616.00 is to be paid to City of Parramatta Council in accordance with Section 7.12 of the Environmental Planning and Assessment Act 1979 and the *Parramatta Section 94A Development Contributions Plan (Amendment No. 5)*. Payment must be by EFTPOS, bank cheque or credit card only.

    The contribution levy is subject to indexation on a quarterly basis in accordance with movements in the Consumer Price Index (All Groups Index) for Sydney issued by the Australian Statistician. At the time of payment, the contribution levy may have been the subject of indexation.

Parramatta Section 94A Development Contributions Plan (Amendment No. 5) can be viewed on Council's website at: https://www.cityofparramatta.nsw.gov.au/business-development/planning/development-contributions
Reason: To comply with legislative requirements and to provide for the increased demand for public amenities and services resulting from the development.

20. An Environmental Enforcement Service Charge must be paid to Council prior to the issue of a Construction Certificate. The fee will be in accordance with Council's adopted 'Fees and Charges' at the time of payment.
Note: Council's Customer Service Team can advise of the current fee and can be contacted on 9806 5524.
Reason: To comply with Council's adopted Fees and Charges Document and to ensure compliance with conditions of consent.

21. An Infrastructure and Restoration Administration Fee must be paid to Council prior to the issue of a Construction Certificate.
The fee will be in accordance with Councils adopted 'Fees and Charges' at the time of payment.
Note: Council's Customer Service Team can advise of the current fee and can be contacted on 9806 5524.
Reason: To comply with Council's adopted Fees and Charges Document and to ensure compliance with conditions of consent.

22. In accordance with Section 4.17 of the Environmental Planning and Assessment Act 1979, security bonds are payable to Council for the protection of the adjacent road pavement and public assets during construction works. The bond(s) are to be lodged with Council prior to the issue of any application/approval associated with the allotment, (being a Hoarding application, Construction Certificate) and prior to any demolition works being carried out where a Construction Certificate is not required.

The bond may be paid, by EFTPOS, bank cheque, or be an unconditional bank guarantee.

Should a bank guarantee be lodged it must:
(a) Have no expiry date;
(b) Be forwarded directly from the issuing bank with a cover letter that refers to Development Consent DA 716/2019;
(c) Specifically reference the items and amounts being guaranteed. If a single bank guarantee is submitted for multiple items it must be itemised.

Should it become necessary for Council to uplift the bank guarantee, notice in writing will be forwarded to the applicant fourteen days prior to such action being taken. No bank guarantee will be accepted that has been issued directly by the applicant.

Bonds shall be provided as follows:

Bond Type	Amount
Nature Strip and Roadway: *Applies to all developments with a cost greater than $25K and swimming pools regardless of cost (fee is per street frontage). See current Schedule of Fees and Charges.*	$25,750.00

A dilapidation report is required to be prepared and submitted electronically to the City of Parramatta Council (council@cityofparramatta.nsw.gov.au) prior to any work or demolition commencing and with the payment of the bond/s.

The dilapidation report is required to document/record any existing damage to kerbs, footpaths, roads, nature strips, street trees and furniture within street frontage/s bounding the site up to and including the centre of the road.
Reason: To safe guard the public assets of council and to ensure that these assets are repaired/maintained in a timely manner so as not to cause any disruption or possible accidents to the public.

23. All roof water and surface water is to be connected to an operable drainage system. Details are to be shown on the plans and documentation accompanying the application for a Construction Certificate.
Reason: To ensure satisfactory stormwater disposal.

24. If no retaining walls are marked on the approved plans no approval is granted as part of this approval for the construction of any retaining wall that is greater than 600mm in height or within 900mm of any property boundary.

The provision of retaining walls along common boundary lines shall not impact on neighbouring properties. If impact upon neighbouring properties (including fences) is anticipated, then written approval from the affected neighbour shall be obtained and submitted to the certifying authority prior commencement of the works.

Structural details, certified by a practicing structural engineer, shall accompany the application for a Construction Certificate for assessment and approval by the certifying authority.
Reason: To minimise impact on adjoining properties.

25. A building plan approval must be obtained from Sydney Water Tap in™ to ensure that the approved development will not impact Sydney Water infrastructure.

A copy of the building plan approval receipt from Sydney Water Tap in™ must be submitted to the Principal Certifying Authority upon request prior to works commencing.

Please refer to the website http://www.sydneywater.com.au/tapin/index.htm, Sydney Water Tap in™, or telephone 13 20 92.

Reason: To ensure the requirements of Sydney Water have been complied with.

26. Prior to any excavation on or near the subject site the person/s having benefit of this consent are required to contact the NSW Dial Before You Dig Service (NDBYD) on 1100 to receive written confirmation from NDBYD that the proposed excavation will not conflict with any underground utility services. The person/s having the benefit of this consent are required to forward the written confirmation from NDBYD to their Principal Certifying Authority (PCA) prior to any excavation occurring.
Reason: To ensure Council's assets are not damaged.

27. Prior to the issue of the Construction Certificate, the Certifying Authority must be satisfied the proposed basement to the rear will be designed so as to not require any over-excavating to reduce any additional impact on the trees required to be retained. In order to reduce any further impact on the root structure, shore-piling construction is to be used within the radiuses of the nominated trees shown in the table below.

The design of the acoustic fencing to the rear boundaries must demonstrate that the location of posts and base of the fence will avoid severing or damaging any major roots (>30mm dia) within the nominated radiuses of the trees as indicated below. The design of the acoustic fence shall also be without the proposed 0.9m splay, in order to protect the trunks of trees to be retained.

In addition to the above, the overflow path as shown on the stormwater plan 103 by Australian Consulting Engineers will be designed without using any concrete kerb edging, nor using traditional installation methods such as excavation, cultivation or compaction of the soil to form it. The existing soil will be retained in place. The stormwater flow path bund must be formed using imported soil above the natural grade within the nominated radiuses of the trees shown below:

Tree No.	**Name**	**Common Name**	**Radius from the trunk**
1	*Eucalyptus saligna*	Sydney Blue Gum	10.8m
2	*Eucalyptus microcorys*	Tallowwood	7.2m

Plans submitted with the Construction Certificate application must reflect the above requirements.
Reason: To ensure adequate protection of existing trees.

28. The final Landscape Plan must be consistent with plans numbered LPDA 21 – 114 drawings 1 to 3 rev D, dated 27.07.2021, prepared by Conzept together with any additional criteria required by the Development Consent to the satisfaction of the Certifying Authority addressing the following requirements:
    (a) Retention of trees to be numbered as per the Arboricultural Impact Assessment Report by Redgum Horticultural.
    (b) Removal of the concrete kerb within the Tree Protection Zone (TPZ) of the trees to be retained. Refer to the Arborist Report for measurements.

(c) Remove all proposed plants within the Structural Root Zone (SRZ) of the trees to be retained and protected. Refer to the Arborist Report for measurements.
(d) Add note – 'no excavation, cultivation or compaction of the soil is to occur within the TPZ of trees to be retained and protected'.
(e) Delete the Tree Protection Zone detail on drawing 3 and refer to the Arboricultural Impact Assessment Report and Tree Management Plan by Redgum Horticultural for protection details. In addition ensure the note regarding pruning is removed. Approval will need to be sort from Council for any pruning.
(f) Provide a detail for a Typical Planting Detail within the Tree Protection Zone to ensure minimal cultivation and excavation occurs.
(g) Provide a detail for the tree planting on-slab. Soil depths to be minimum 900mm. Ensure soil volume meets the prescribed standards in 'Apartment Design Guide – tools for improving the design of residential apartment developments" (NSW department of Planning and Environment 2015) to ensure the soil volume supports the mature growth of the proposed trees on the roof terrace.
(h) Indicate the location and height of the proposed acoustic fencing on the plan and refer to e acoustic report for further details.
(i) Screen planting is to be provided to all boundaries edges, including the level 1 roof terrace. This is to be located in front of the acoustic fencing to provide privacy and amenity. Planting to be minimum 900mm wide.
(j) Indicate 2 x street trees on the plan.
(k) Update the planting schedule to include the above changes.

Reason: To ensure restoration of environmental amenity.

29. The PCA shall ascertain that any new element in the basement carpark not illustrated on the approved plans such as columns, garage doors, fire safety measures and the like do not compromise appropriate manoeuvring and that compliance is maintained with AS 2890.1, AS 2890.2 and AS 2890.6. Details are to be illustrated on plans submitted with the construction certificate application.
Reason: To ensure appropriate vehicular manoeuvring is provided.

30. Three (3) bicycle spaces/racks are to be provided on-site and used accordingly. The bicycle storage/racks are to comply with AS 2890.3-2015. Details are to be illustrated on plans submitted with the construction certificate.
Reason: To comply with Council's parking requirements.

31. Parking spaces are to be provided in accordance with the approved plans and with AS 2890.1, AS 2890.2 and AS 2890.6. A total of 14 parking spaces is to be provided and be allocated as follows:
a) Six (6) parking spaces for staff parking;
b) Eight (8) visitor parking spaces including one (1) space as accessible parking.

Details are to be illustrated on plans submitted with the construction certificate application.

Reason: To comply with Council's parking requirements and Australian Standards.

32. The applicant is to submit a separate application for the proposed installation of 'No Parking' restriction along the site frontage on Mobbs Lane to Council's Traffic and Transport Services section for consideration by the Parramatta Traffic Committee under Deligated Authority and Council's approval. The construction of the approved treatment is to be carried out by the applicant and all costs associated with the supply and construction of the traffic facility and appropriate signage are to be paid for by the applicant at no cost to Council.
Reason: To comply with Roads Act 1993.

33. A heavy duty vehicular crossing shall be constructed in accordance with Council's Standard Drawing numbers DS9 and DS10. Details must accompany an application for a Construction Certificate to the satisfaction of the Certifying Authority.

A Vehicle Crossing application must be submitted to Council together with the appropriate fee as outlined in Council's adopted Fees and Charges prior to any work commencing.
Reason: To ensure appropriate vehicular access is provided.

34. All mechanical exhaust ventilation from the car park is to be ventilated away from the property boundaries of the adjoining dwellings, away from children's play areas, and in accordance with the provisions of AS1668.1 - 2015 – 'The use of ventilation and air conditioning in buildings' – 'Fire and smoke control in multi-compartmented buildings'. Details showing compliance are to accompany an application for a Construction Certificate.
Reason: To preserve community health and ensure compliance with acceptable standards.

35. Where work is likely to disturb or impact upon utility installations, (e.g. power pole, telecommunications infrastructure etc.) written confirmation from the affected utility provider that they raise no objections to the proposed works must accompany an application for a Construction Certificate to the satisfaction of the Certifying Authority.
Reason: To ensure no unauthorised work to public utility installations and to minimise costs to Council.

36. Council property adjoining the construction site must be fully supported at all times during all demolition, excavation and construction works. Details of any required shoring, propping and anchoring devices adjoining Council property, are to be prepared by a qualified structural or geotechnical engineer. These details must accompany an application for a Construction Certificate and be to the satisfaction of the Principal Certifying Authority (PCA). A copy of these details must be forwarded to Council prior to any work being commenced.

Backfilling of excavations adjoining Council property or any void remaining at the completion of the construction between the building and Council property must be fully compacted prior to the completion of works.
Reason: To protect Council's infrastructure.

37. Electricity provision within the site is to be designed so that in the future the electrical connection from this site can be made to an underground connection within the street. Certification from an energy provider addressing their requirements for this provision is to be forwarded to the Certifying Authority with the application for a Construction Certificate.
Reason: To enable future upgrading of electricity services.

38. Where shoring will be located on or will support Council property, engineering details of the shoring are to be prepared by an appropriately qualified and practising structural engineer. These details are to include the proposed shoring devices, the extent of encroachment and the method of removal and de-stressing of the shoring elements. These details shall accompany the application for a Construction Certificate. A copy of this documentation must be provided to Council for record purposes. All recommendations made by the qualified practising structural engineer must be complied with.
Reason: To ensure the protection of existing public infrastructure and adjoining properties.

39. The finished ground level adjacent to buildings shall have a minimum 1% grade to divert surface runoff away from the buildings.

    If the required freeboard cannot be achieved, the minimum finish floor level of habitable and non-habitable floors is to be set in accordance with the *National Construction Code Series (2019 or the latest available version)*. In this regard, surface runoff must be diverted away from buildings as detailed in the NCC (*2019 or the latest available version*).
    Reason: To prevention of surface water entry into the building

40. The basement stormwater pump-out system, must be designed and constructed to include the following:
    (a) A holding tank capable of storing the run-off from a 100 year ARI (average reoccurrence interval) - 2 hour duration storm event, allowing for pump failure.
    (b) A two pump system (on an alternate basis) capable of emptying the holding tank at a rate equal to the lower of:
        (i) The permissible site discharge (PSD) rate; or
        (ii) The rate of inflow for the one hour, 5 year ARI storm event.
    (c) An alarm system comprising of basement pump-out failure warning sign together with a flashing strobe light and siren installed at a clearly visible location at the entrance to the basement in case of pump failure.
    (d) A 100 mm freeboard to all parking spaces.
    (e) Submission of full hydraulic details and pump manufacturers specifications.

(f) Pump out system to be connected to a stilling pit and gravity line before discharge to the street gutter.

Plans and design calculations along with certification from the designer indicating that the design complies with the above requirements are to be submitted to the satisfaction of the Principal Certifying Authority prior to issue of the Construction Certificate.

Reason: To ensure satisfactory storm water disposal.

41. All Comments and Recommendations specified in the Geotechnical Investigation Report and the Preliminary Site Investigation with Limited Sampling, prepared by eiaustralia, Report No. E23726.E01_Rev 1, dated 30 October 2020 shall be adopted at the final construction design, excavation and construction stages.

Reason: To ensure the recommendations and requirements made in the Geotechnical Investigation Reports are followed through for the development.

42. Accessible car-parking spaces must be provided as part of the total car-parking requirements and to be in accordance with the approved traffic plans and report. These spaces and access to these spaces must comply with AS2890.6 - 'Parking facilities' - 'Off-street parking for people with disabilities and AS1428.1 - 'Design for access and mobility' - General requirements for access - New building work' 2001 and 2009 and AS1428.4 - 'Design for access and mobility' - 'Tactile ground surface indicators for orientation of people with vision impairment' - 'Means to assist the orientation of people with vision impairment - Tactile ground surface indicators' 1992 and 2009.

Details are to accompany an application for a Construction Certificate to the satisfaction of the Certifying Authority.

Reason: To ensure equity of access and appropriate facilities are available for people with disabilities in accordance with Federal legislation.

43. The grades of the driveway, including transitions, must comply with Australian Standard 2890.1 to prevent the underside of the vehicles scraping. Where the geometric change in grade exceeds 18%, the gradients of the driveway and ramps shall be checked using the method at Appendix C in AS2890.1:2004 and adjustments will be made to accommodate suitable transition lengths. Details are to be provided with the application for a Construction Certificate.

Reason: To provide suitable vehicle access without disruption to pedestrian and vehicular traffic.

44. The PCA shall ascertain that any new element in the basement carpark not illustrated on the approved plans such as columns, garage doors, fire safety measures and the like do not compromise appropriate manoeuvring and that compliance is maintained with AS 2890.1, AS 2890.2 and AS 2890.6. Details are to be illustrated on plans submitted with the construction certificate application.

Reason: To ensure appropriate vehicular manoeuvring is provided.

45. The applicant is required to provide a minimum 100mm freeboard for non-habitable floors and 200mm freeboard for habitable floors from finished ground level adjacent to buildings. The finished ground level adjacent to buildings shall have a minimum 1% grade to divert surface runoff away from the buildings.

    If the required freeboard cannot be achieved, the minimum finish floor level of habitable and non-habitable floors is to be set in accordance with the *National Construction Code Series (2019 or the latest available version)*. In this regard, surface runoff must be diverted away from buildings as detailed in the NCC (*2019 or the latest available version*).
    Reason: To prevention of surface water entry into the building

46. Full engineering construction details of the stormwater system, including OSD structures, pipe networks and calculations as per following points, shall be submitted for the approval of the PCA prior to release of the Construction Certificate for any work on the site.

    (a) The stormwater drainage detail design shall be prepared by a Registered Stormwater Design Engineer and shall be generally in accordance with the following Stormwater Plans approved by this consent and with Council's Stormwater Disposal Policy, Council's Design and Development Guidelines, The Upper Parramatta River Catchment Trust On Site Detention Hand book (Third or Fourth Edition), the relevant Australian Standards and the National Construction Code:

        i. Stormwater Concept Plans Cover Sheet, Notes & Legend, Drawing No. 000, Issue B, dated 27/07/2021, prepared by ACE Stormwater Services Pty Ltd.

        ii. Stormwater Concept Plan, Basement Level Sheet 1 of 2, Drawing No. 101, Issue B, dated 27/07/2021, prepared by ACE Stormwater Services Pty Ltd.

        iii. Stormwater Concept Plan, Basement Level Sheet 2 of 2, Drawing No. 102, Issue B, dated 27/07/2021, prepared by ACE Stormwater Services Pty Ltd.

        iv. Stormwater Concept Plan, Drawing No. 103, Issue B, dated 27/07/2021, prepared by ACE Stormwater Services Pty Ltd.

        v. OSD & WSUD Details and Calculation Sheets, Sheet 1 of 3, Drawing No. 104, Issue B, dated 27/07/2021, prepared by ACE Stormwater Services Pty Ltd.

        vi. OSD & WSUD Details and Calculation Sheets, Sheet 2 of 3, Drawing No. 105, Issue B, dated 27/07/2021, prepared by ACE Stormwater Services Pty Ltd.

vii. OSD & WSUD Details and Calculation Sheets, Sheet 3 of 3, Drawing No. 106, Issue B, dated 27/07/2021, prepared by ACE Stormwater Services Pty Ltd.

viii. Sediment & Erosion Control Plan and Details, Drawing No. 107, Issue B, dated 27/07/2021, prepared by ACE Stormwater Services Pty Ltd.

ix. Miscellaneous Details Sheet, Drawing No. 108, Issue B, dated 27/07/2021, prepared by ACE Stormwater Services Pty Ltd.

(b) A Site Storage Requirement of 250 m^3/ha and a Permissible Site Discharge of 210 L/s/ha (when using 3rd edition of UPRCT's handbook).

(c) Adequate grate(s) to be provided so the OSD tank storage area can be inspected from outside for silt and debris, and to ensure adequate cross ventilation within the tank. All access covers to the OSD / WSUD tanks shall be fitted with childproof locking devices. Details shall be included in the final drainage plans submitted for approval with the Construction Certificate application.

(d) The swale along the western boundary line shall only be occupied by landscaping that is compatible with a flow path. In this regard plants and surface preparation shall be selected on their compatibility with a swale environment. No loose bedding material including, uncovered soil, wood chip, bark or mulch or material that will interfere with free flow will be accepted.

(e) All out door surfaces including play areas shall direct flows to the designated surface inlet pits. No surface inlet pit nor any other drainage infrastructure shall be located within a play area.

(f) Certificate from registered structural engineer certifying the designed structural adequacy of the OSD tank structure.

Reason: To minimise the quantity of storm water run-off from the site, surcharge from the existing drainage system and to manage downstream flooding.

47. The stormwater management systems are designed in accordance with the water sensitive urban design principles and shall comply with the Parramatta City Council's Development Control Plan. The quality of the stormwater flow from the developed site shall be improved to achieve following pollutant retention target prior to discharge into the council's drainage/ creek system. The designer shall ensure and certify that the stormwater management system will achieve these following objectives.

Gross Pollutants:	90% reduction in the post development mean annual load of total gross pollutant load (greater than 5mm)

Total Suspended Solids:	85% reduction in the post development mean annual load of Total Suspended Solids (TSS)
Total Phosphorus:	60% reduction in the post development mean annual load of Total Phosphorus (TP)
Total Nitrogen	45% reduction in the post development mean annual load of Total Nitrogen (TN)
Hydrocarbons, motor oils, oil and grease	No visible oils for flows up to 50% of the one-year ARI peak flow specific for service stations, depots, vehicle body repair workshops, vehicle repair stations, vehicle sales or hire premises, car parks associated with retail premises, places of public worship, tourist and visitor accommodation, registered clubs and pubs

A senior design personnel from the product provider shall approve the design of the WSUD chamber and its incorporation into the OSD system. Upon completion of the works a satisfactory inspection shall be carried out and a compliance certificate provided and forwarded to the certifying authority prior to the issue of an Occupation Certificate.

Reason: To ensure that the water quality management.

48. Dust control measures shall be implemented during all periods of earth works, demolition, excavation and construction to minimise the dust nuisance on surrounding properties. In this regard, dust minimisation practices must be carried out in accordance with Council's Guidelines for Controlling Dust from Construction Sites and Section 126 of the Protection of the Environment Operations Act 1997.
Reason: To protect the amenity of the area.

49. Any new information which comes to light during remediation, demolition or construction works which has the potential to alter previous conclusions about site contamination shall be notified to the Council and the principal certifying authority immediately.
Reason: To ensure that the land is suitable for its proposed use and poses no risk to the environment and human health.

50. Prior to the issue of a Construction Certificate, written certification from a suitably qualified person(s) shall be submitted to the Principal Certifying Authority and City of Parramatta Council, stating that appropriate design and construction materials are to be utilised within the development to ensure compliance with the following noise criteria specified for managing the noise impact on child-care centres from rail corridors and/or busy roads:
(a) In any area: 40dB(A) at all times.
Reason: Compliance with relevant noise amenity criteria in Infrastructure SEPP.

51. Separate waste bins are to be provided on site for recyclable waste.

Reason: To provide for the appropriate collection/recycling of waste from the proposal whilst minimising the impact of the development upon adjoining residents.

Prior to Work Commencing

52. Prior to commencement of work, the person having the benefit of the Development Consent and Construction Certificate approval must:
    (a) Appoint a Principal Certifying Authority (PCA) and notify Council in writing of the appointment (irrespective of whether Council or an accredited private certifier) within 7 days of the appointment, and at least 7 days prior to the commencement of works ; and
    (b) Notify Council in writing a minimum of 2 full business days prior to work commencing of the intended date of commencement.

    The Principal Certifying Authority must determine and advise the person having the benefit of the Construction Certificate when inspections, certification and compliance certificates are required.
    Reason: To comply with legislative requirements.

53. Prior to the commencement of any works on site, the applicant must submit a Construction and Traffic Management Plan to the satisfaction of the Principle Certifying Authority. The following matters must be specifically addressed in the Plan:
    (a) Construction Management Plan for the Site. A plan view of the entire site and frontage roadways indicating:
        (i) Dedicated construction site entrances and exits, controlled by a certified traffic controller, to safely manage pedestrians and construction related vehicles in the frontage roadways,
        (ii) Turning areas within the site for construction and spoil removal vehicles, allowing a forward entry and egress for all construction vehicles on the site,
        (iii) The locations of proposed Work Zones in the egress frontage roadways,
        (iv) Location of any proposed crane standing areas,
        (v) A dedicated unloading and loading point within the site for all construction vehicles, plant and deliveries,
        (vi) Material, plant and spoil bin storage areas within the site, where all materials are to be dropped off and collected,
        (vii) The provisions of an on-site parking area for employees, tradesperson and construction vehicles as far as possible.
        (viii) A detailed description and route map of the proposed route for vehicles involved in spoil removal, material delivery and machine floatage and a copy of this route is to be made available to all contractors.

(ix) A detailed description of locations that will be used for layover for trucks waiting to access the construction site.

(b) Written concurrence from Council's Traffic and Transport Services in relation to installation of a proposed 'Works Zone' restriction in the egress frontage roadways of the development site.

Application fees and kerbside charges for 6 months (minimum) are to be paid in advance in accordance with the Council's Fees and Charges. The 'Works Zone' restriction is to be installed by Council once the applicant notifies Council in writing of the commencement date (subject to approval through Parramatta Traffic Committee processes). Unused fees for kerbside charges are to be refunded once a written request to remove the restriction is received by Council.

(c) Traffic Control Plan(s) for the site:

(i) All traffic control devices installed in the road reserve shall be in accordance with the NSW Transport Roads and Maritime Services publication 'Traffic Control Worksite Manual' and be designed by a person licensed to do so (minimum RMS 'red card' qualification) The main stages of the development requiring specific construction management measures are to be identified and specific traffic control measures identified for each,

(ii) Approval shall be obtained from City of Parramatta Council for any temporary road closures or crane use from public property.

(d) Where applicable, the plan must address the following:

(i) Evidence of Roads and Maritime Services concurrence where construction access is provided directly or within 20 m of an Arterial Road,

(ii) A schedule of site inductions shall be held on regular occasions and as determined necessary to ensure all new employees are aware of the construction management obligations.

(iii) Minimising construction related traffic movements during school peak periods.

The Construction and Traffic Management Plan shall be prepared by a suitably qualified and experienced traffic consultant and be certified by this person as being in accordance with the requirements of the abovementioned documents and the requirements of this condition.

Reason: To ensure that appropriate measures have been considered during all phases of the construction process in a manner that maintains the environmental amenity and ensures the ongoing safety and protection of people.

54. The applicant must apply for a road-opening permit where a new pipeline is proposed to be constructed within or across Council owned land. Additional road

opening permits and fees may be necessary where connections to public utilities are required (e.g. telephone, electricity, sewer, water or gas).

In addition, no drainage work can be carried out within the Council owned land without this permit being issued. A copy is required to be kept on site.
Reason: To protect Council's assets throughout the development process.

55. Prior to the commencement of any excavation works on site, the applicant must submit for approval by the Principal Certifying Authority (with an electronic copy forwarded to Council at council@cityofparramatta.nsw.gov.au) a dilapidation report on the visible and structural condition of all neighbouring structures within the 'zone of influence' of the excavation face to a depth of twice that of the excavation.

    The report must include a photographic survey of the adjoining properties detailing their physical condition, both internally and externally, including such items as walls, ceilings, roof, structural members and other similar items. The report must be completed by a consulting structural/geotechnical engineer in accordance with the recommendation of the geotechnical report.

    In the event that access to adjoining allotments for the completion of a dilapidation survey is denied, the applicant must demonstrate in writing that all reasonable steps have been taken to advise the adjoining allotment owners of the benefit of this survey and details of failure to gain consent for access to the satisfaction of the Principle Certifying Authority.
    Note: This documentation is for record keeping purposes only, and can be made available to an applicant or affected property owner should it be requested to resolve any dispute over damage to adjoining properties arising from works. It is in the applicant's and adjoining owner's interest for it to be as detailed as possible.
    Reason: Management of records.

56. The trees identified for protection within the consent shall be protected prior to and during the demolition/construction process in accordance with the Arboricultural Impact Assessment and Tree Management Plan 6591 (3758) prepared by Redgum Horticultural dated 13 October 2020 and the conditions of consent.
    Reason: To ensure the protection of the trees to be retained on the site and adjacent to the site.

57. Prior to the commencement of any excavation works on site the applicant must submit, for approval by the Principal Certifying Authority (PCA), a geotechnical/civil engineering report which addresses (but is not limited to) the following:
    (a) The type and extent of substrata formations. A minimum of 4 representative bore hole logs which are to provide a full description of all material from the ground surface to a minimum of 1.0m below the finished basement floor level. The report is to include the location and description of any anomalies

encountered in the profile, and the surface and depth of the bore hole logs shall be to Australian Height Datum.

(b) Having regard to the findings of the bore hole testing, details of the appropriate method of excavation/shoring together with the proximity to adjacent property and structures can be ascertained. As a result potential vibration caused by the method of excavation and how it will impact on nearby footings/foundations must be established together with methods to ameliorate any impact.

(c) The proposed methods for temporary and permanent support required by the extent of excavation can be established.

(d) The impact on groundwater levels in relation to the basement structure.

(e) The drawdown effects if any on adjacent properties (including the road reserve), resulting from the basement excavation will have on groundwater together with the appropriate construction methods to be utilised in controlling groundwater.

Where it is considered there is potential for the excavation to create a "dam" for natural groundwater flows, a groundwater drainage system must be designed to transfer groundwater through or under the proposed development. This design is to ensure there is no change in the range of the natural groundwater level fluctuations. Where an impediment to the natural flow path of groundwater results, artificial drains such as perimeter drains and through drainage may be utilised.

(f) The recommendations resulting from the investigations are to demonstrate the works can be satisfactorily implemented. An implementation program is to be prepared along with a suitable monitoring program (where required) including control levels for vibration, shoring support, ground level and groundwater level movements during construction.
The implementation program is to nominate suitable hold points for the various stages of the works in order verify the design intent before certification can be issued and before proceeding with subsequent stages.
The geotechnical report must be prepared by a suitably qualified consulting geotechnical/hydrogeological engineer with demonstrated experience in such investigations and reporting. It is the responsibility of the engaged geotechnical specialist to undertake the appropriate investigations, reporting and specialist recommendations to ensure a reasonable level of protection to adjacent properties and structures both during and after construction. The report must contain site specific geotechnical recommendations and must specify the necessary hold/inspection points by relevant professionals as appropriate. The design principles for the geotechnical report are as follows:

(i) No ground settlement or movement is to be induced which is sufficient enough to cause an adverse impact to adjoining property and/or infrastructure.

(ii) No changes to the ground water level are to occur as a result of the development that is sufficient enough to cause an adverse impact to the surrounding property and infrastructure.

(iii) No changes to the ground water level are to occur during the construction of the development that is sufficient enough to cause an adverse impact to the surrounding property and infrastructure.
(iv) Vibration is to be minimised or eliminated to ensure no adverse impact on the surrounding property and infrastructure occurs, as a result of the construction of the development.
(v) Appropriate support and retention systems are to be recommended and suitable designs prepared to allow the proposed development to comply with these design principles.
(vi) An adverse impact can be assumed to be crack damage which would be classified as Category 2 or greater damage according to the classification given in Table Cl of AS 2870 - 1996.

Reason: To ensure the ongoing safety and protection of property.

58. Erosion and sediment control measures are to be installed in accordance with the publication 'Urban Stormwater: Soils and Construction "The Blue Book" 2004 (4th edition) prior to the commencement of any demolition, excavation or construction works upon the site. These measures are to be maintained throughout the entire works.

Reason: To ensure soil and water management controls are in place before site works commence.

59. Prior to commencement of works and during construction works, the development site and any road verge immediately in front of the site must be maintained in a safe and tidy manner. In this regard the following must be undertaken:
(a) all existing buildings are to be secured and maintained to prevent unauthorised access and vandalism
(b) all site boundaries are to be secured and maintained to prevent unauthorised access to the site;
(c) all general refuge and/or litter (inclusive of any uncollected mail/advertising material) is to be removed from the site on a fortnightly basis;
(d) the site is to be maintained clear of weeds; and
(e) all grassed areas are to be mowed on a monthly basis.

Reason: To ensure public safety and maintenance of the amenity of the surrounding environment.

60. If development involves excavation that extends below the level of the base, of the footings of a building on adjoining land, the person having the benefit of the development consent must, at the persons own expense:
(a) Protect and support the adjoining premises from possible damage from the excavation
(b) Where necessary, underpin the adjoining premises to prevent any such damage.

Note: If the person with the benefit of the development consent owns the adjoining land or the owner of the adjoining land has given consent in writing to the condition not applying, this condition does not apply.

Reason: As prescribed under the Environmental Planning and Assessment Regulation 2000.

61. Unless otherwise specifically approved in writing by Council, all works, processes, storage of materials, loading and unloading associated with the development are to occur entirely within the property boundaries. The applicant, owner or builder must apply for specific permits if the following activities are required seeking approval pursuant to Section 138 of the Roads Act 1993:
    (a) On-street mobile plant:
    E.g. Cranes, concrete pumps, cherry-pickers, etc. - restrictions apply to the hours of operation and the area where the operation will occur, etc. Separate permits are required for each occasion and each piece of equipment. It is the applicant's, owner's and builder's responsibilities to take whatever steps are necessary to ensure the use of any equipment does not violate adjoining property owner's rights.
    (b) Storage of building materials and building waste containers (skips) on Council's property.
    (c) Permits to utilise Council property for the storage of building materials and building waste containers (skips) are required for each location they are to be stored. Failure to obtain the relevant permits will result in the building materials or building waste containers (skips) being impounded. Storage of building materials and waste containers within Council's open space areas, reserves and parks is prohibited.
    (d) Kerbside restrictions - construction zones:
    The applicant's attention is drawn to the possible existing kerbside restrictions adjacent to the development. Should the applicant require alteration of existing kerbside restrictions, or the provision of a work zones, the appropriate application must be made to Council and the fee paid. Applicants should note that the alternatives of such restrictions may require referral to Council's Traffic Committee. An earlier application is suggested to avoid delays in construction programs..

    The application is to be lodged with Council's Customer Service Centre.

    Reason: Proper management of public land.

62. All works associated with the construction and/or extension of a driveway crossover/layback within Council owned land requires an application to be lodged and approved by Council.

    All footpath crossings, laybacks and driveways are to be constructed according to Council's Specification for Construction or Reconstruction of Standard Footpath Crossings and in compliance with Standard Drawings DS1 (Kerbs & Laybacks); DS7 (Standard Passenger Car Clearance Profile); DS8 (Standard Vehicular Crossing); DS9 (Heavy Duty Vehicular Crossing) and DS10 (Vehicular Crossing Profiles).

    The application for a driveway crossing requires the completion of the relevant application form and accompanied by plans, grades/levels and specifications. A

fee in accordance with Councils adopted 'Fees and Charges' will need to be paid at the time of lodgement.

Note 1: This development consent is for works wholly within the property. Development consent does not imply approval of the footpath or driveway levels, materials or location within the road reserve, regardless of whether the information is shown on the development application plans.

Note 2: Council's Customer Service Team can advise of the current fee and can be contacted on 9806 5524

Reason: To provide suitable vehicular access without disruption to pedestrian and vehicular traffic.

63. The site must be enclosed by a 1.8m high security fence erected wholly within the confines of the site to prevent unauthorised access. The fence must be installed to the satisfaction of the Principal Certifying Authority prior to the commencement of any work on site.
Reason: To ensure public safety.

64. A sign must be erected in a prominent position on any site involving excavation, erection or demolition of a building in accordance with Clause 98 A (2) of the Environmental Planning and Assessment Regulations 2000 detailing:
(a) Unauthorised entry of the work site is prohibited;
(b) The name of the principal contractor (or person in charge of the work site), their telephone number enabling 24hour contact; and
(c) The name, address and telephone number of the Principal Certifying Authority;
(d) The development consent approved construction hours;
(e) The sign must be maintained during excavation, demolition and building work, and removed when the work has been completed.
(f) This condition does not apply where works are being carried out inside an existing building.
Reason: Statutory requirement.

65. Prior to work commencing, adequate toilet facilities are to be provided on the work site.
Reason: To ensure adequate toilet facilities are provided.

66. Public risk insurance in the amount of not less than $20 million or such other amount as Council may require by notice) must be obtained and furnished to Council before any works authorised by this consent are conducted:
(a) Above;
(b) Below; or
(c) On

Any public land owned or controlled by Council. The public risk insurance must be maintained for the period during which these works are being undertaken.

The public risk insurance must be satisfactory to Council and list Council as an insured and/or interested party.

A copy of the insurance policy obtained must be forwarded to Council before any of the works commence.

Note: Applications for hoarding permits, vehicular crossing etc. will require evidence of insurance upon lodgement of the application.

Reason: To ensure the community is protected from the cost of any claim for damages arising from works authorised by this consent conducted above, below or on any public land owned or controlled by Council.

67. The preparation of an appropriate hazard management strategy by an appropriately licensed asbestos consultant pertaining to the removal of contaminated soil, encapsulation or enclosure of any asbestos material is required. This strategy shall ensure that any such proposed demolition works involving asbestos are carried out in accordance with the requirements of the 'Code of Practice: How to Safely Remove Asbestos' published by WorkCover NSW. The strategy shall be submitted to the Principal Certifying Authority, prior to the commencement of any works. The report shall confirm that the asbestos material has been removed or is appropriately encapsulated and that the site is rendered suitable for the development.
Reason: To ensure risks associated with the demolition have been identified and addressed prior to demolition work commencing.

68. On demolition sites where buildings are known to contain friable or non-friable asbestos material, standard warning signs containing the words 'DANGER ASBESTOS REMOVAL IN PROGRESS" measuring not less than 400mm x 300mm are to be erected in a prominent position on site visible from the street kerb. The sign is to be erected prior to demolition work commencing and is to remain in place until such time as all asbestos material has been removed from the site. Advice on the availability of these signs can be obtained by contacting the NSW Safework Authority hotline or their website www.safework.nsw.gov.au.
Reason: To comply with the requirements of the NSW Safework Authority.

69. An updated Waste Management Plan is to be submitted immediately after the letting of all contracts detailing the:
(a) expected volumes and types of waste to be generated during the demolition and construction stages of the development;
(b) destination of each type of waste, including the name, address and contact number for each receiving facility.
The Waste Management Plan is to be submitted to the satisfaction of the Principal Certifying Authority prior to commencement of any works on site.
Reason: To ensure waste is managed and disposed of properly.

70. The design and construction of any food / beverage preparation facilities and waste storage areas associated with this activity shall satisfy the requirements of food safety standards prescribed under the Food Act 2003, as well as Australian Standard AS 4674 - 2004: 'Design, Construction and Fit-out of Food Premises'.

Final design drawings for these areas are to be submitted to the principal certifying authority prior to commencement of work.

Reason: To ensure design of the premises meets relevant public health standards.

During Work

71. All trees planted as required by the approved landscape plan are to be a minimum 45 litre container size. All shrubs planted as part of the approved landscape plan are to have a minimum 200mm container size.

Reason: To ensure appropriate landscaping.

72. All excavation for the basement carpark within 10.8m of *Eucalyptus saligna* (Sydney Blue Gum), located within the western corner of the rear garden (Tree no. T1) as referenced in the Arborist Report by Redgum Horicultural, is to be supervised by an Australian Qualifications Framework (AQF) Level 5 arborist. If during excavation the Arborist identifies remedial work is necessary, it is to be supervised by this Arborist.

Once the work is completed a written report detailing the remedial work undertaken is to be forwarded to the Principal Certifying Authority.

(Note: No excavation is to occur for the formation of the overland flow path within the Tree Protection Zone of this tree.)

Reason: To provided adequate protection of trees.

73. No excavation is to occur within the distance specified below:

Tree No.	Species	Common Name	Location	Distance from trunk
1	*Eucalyptus saligna*	Sydney Blue Gum	Rear garden	7.9m
2	*Eucalyptus microcorys*	Tallowwood	Rear garden	7.9m

Reason: To ensure the protection of trees.

74. Trees to be removed are:

Tree No.	Species	Common Name	Location
3	*Callistemon viminalis*	Weeping Bottlebrush	Front garden
4	*Corydline australis*	Cabbage Tree	Front garden
5	*Archontophoenix cunninghamiana*	Bangalow Palm	Rear garden

Reason: To facilitate development.

75. All trees/shrubs planted within the site must be of an adequate root volume and maturity so as not to require staking or mechanical support unless in a wind-prone area. Planting must be carried out in accordance with the approved Landscape Plan and conditions of consent.

Reason: To ensure the trees/shrubs planted within the site are able to reach their required potential.

76. All approved tree removal must be supervised by an Australian Qualification Framework (AQF) Level 3 Arborist and undertaken in accordance with the Code of Practice for Amenity Tree Industry 1998.
Reason: To ensure tree works are carried out safely.

77. Any and all stormwater pits, pipes, or structures must be wholly within the boundaries of the site. Any stormwater works beyond the boundaries of the site must have the appropriate consent from the relevant landowner.
Reason: To ensure works are are carried out within the site

78. A copy of this development consent together with the stamped plans, referenced documents and associated specifications is to be held on-site during the course of any works to be referred to by all contractors to ensure compliance with the approval and the associated conditions of consent.
Reason: To ensure compliance with this consent.

79. Stormwater outlet from the OSD system must be connected to the kerb and gutter within the property frontage of Lanhams Road, Winston Hills.
Reason: To ensure satisfactory storm water disposal.

80. A 200mm wide grated drain, incorporating a heavy duty removable galvanised grate is to be located within the driveway, immediately before the garage door, to collect all surface water flowing down the driveway. An opportunity must be provided to allow emergency overflows to be diverted away from the garage. The drainage line from the grated drain shall be connected to the stormwater drainage system.
Reason: Stormwater control.

81. Works are not to result in sedimentation and or run-off from the approved works onto the adjoining properties and or public lands. The person having the benefit of this consent must ensure sediment is not tracked out from the development site.
Reason: To ensure no adverse impacts on neighbouring properties.

82. Any damage to Council assets that impacts on public safety during construction is to be rectified immediately to the satisfaction of Council with all costs to be borne by the person having the benefit of the Development Consent.
Reason: To protect public safety.

83. Dust control measures shall be implemented during all periods of earth works, demolition, excavation and construction to minimise the dust nuisance on surrounding properties. In this regard, dust minimisation practices must be carried out in accordance with Section 126 of the Protection of the Environment Operations Act 1997.
Reason: To protect the amenity of the area.

84. Car parking area and internal accessways must be constructed, marked and signposted in accordance with AS2890.1 –2004 'Off Street Car Parking Facilities' prior to an Occupation Certificate being issued.
Reason: To ensure appropriate car parking.

85. The pool, including the shell as well as all pipes, electrical equipment, sewer and gas connections must be removed and disposed off-site in such a way that does not negatively impact neighbouring properties or Council assets. The resulting void must be filled with engineered fill, complete with appropriate substrate layering to facilitate drainage and to the design surface levels. The fill must be well compacted under the supervision of a qualified geotechnical engineer, and cannot contain any demolition waste or other contaminates. The compacted fill must be certified adequate for residential lots by a qualified geotechnical engineer and this certification must be submitted to the certifying authority for approval prior to the issue of an Occupation Certificate.
Reason: To ensure that the pool is decommissioned appropriately.

86. Appropriate signage must be erected at the vehicle egress points to compel all vehicles to stop before proceeding onto the public way.
Reason: To ensure pedestrian safety.

87. No building materials skip bins, concrete pumps, cranes, machinery, temporary traffic control, signs or vehicles associated with the construction, excavation or demolition shall be stored or placed on/in Council's footpath, nature strip, roadway, park or reserve without the prior approval being issued by Council under section 138 of the Roads Act 1993.
Reason: To ensure pedestrian access.

88. All work (excluding demolition which has separate days and hours outlined below) including building, and excavation work; and activities in the vicinity of the site generating noise associated with preparation for the commencement of work (e.g. loading and unloading of goods, transferring of tools, machinery etc.) in connection with the proposed development must only be carried out between the following hours:
    - Monday to Friday inclusive: 7.00am and 5.00pm; and
    - Saturday: 8.00am to 5.00pm.
    - No work is to be carried out on Sunday or Public Holidays.

    Demolition works are restricted to:
    - Monday to Friday: 7.00am to 5.00pm; and
    - No demolition works are to be undertaken on Saturdays, Sundays or Public Holidays.

    Note: Council may permit an extension to the approved hours of work in extenuating or unforeseen circumstances subject to an application and approval by City of Parramatta Council (CoPC) in accordance with the 'After Hours Works for Approved Development Applications Policy' (Policy).

A copy of this Policy and associated application form is available on the CoPC website. A fee will apply to any application made in accordance with this Policy.

The matters of consideration of any extension sought would include, but not be limited to the following aspects and should be detailed in any application made:

- Nature of work to be conducted;
- Reason for after-hours completion;
- Residual effect of work (noise, traffic, parking);
- Demographic of area (residential, industrial);
- Compliance history of subject premises;
- Current hours of operation;
- Mitigating o extenuating circumstance; and
- Impact of works not being completed.

Reason: To protect the amenity of the area.

89. The applicant must record details of all complaints received during the construction period in an up to date complaints register. The register must record, but not necessarily be limited to:
    (a) The date and time of the complaint;
    (b) The means by which the complaint was made;
    (c) Any personal details of the complainants that were provided, or if no details were provided, a note to that affect;
    (d) Nature of the complaints;
    (e) Any action(s) taken by the applicant in relation to the complaint, including any follow up contact with the complaint; and
    (f) If no action was taken by the applicant in relation to the complaint, the reason(s) why no action was taken.

    The complaints register must be made available to Council and/or the Principal Certifying Authority upon request.

    Reason: To allow the Principal Certifying Authority/Council to respond to concerns raised by the public.

90. Noise emissions and vibration must be minimised, work is to be carried out in accordance with the NSW Department of Environment, Climate Change and Water's Interim Noise Construction Guidelines 2009 for noise emissions from demolition, excavation and construction activities.

    Vibration levels resulting from demolition and excavation activities must not exceed 5mm/sec peak particle velocity (PPV) when measured at the footing of any nearby building.

    Reason: To protect the amenity of the area and limit potential vibration impacts.

91. A survey certificate is to be submitted to the Principal Certifying Authority at footing and/or formwork stage. The certificate must indicate the location of the building in relation to all boundaries, and must confirm the floor level is consistent with that approved under this consent prior to any further work proceeding on the building.

Reason: To ensure the development is being built as per the approved plans.

92. Occupation of any part of the footpath or road at or above (carrying out work, storage of building materials and the like) during construction of the development shall require a Road Occupancy Permit from Council. The applicant is to be required to submit an application for a Road Occupancy Permit through Council's Traffic and Transport Services, prior to carrying out the construction/restoration works.
Reason: To ensure proper management of Council assets.

93. Oversize vehicles using local roads require approval from the National Heavy Vehicle Regulator (NHVR). The applicant is required to submit an application for an Oversize Vehicle Access Permit through NHVR's portal (www.nhvr.gov.au/about-us/nhvr-portal) prior to driving through local roads within the City of Parramatta LGA.
Reason: To ensure maintenance of Council's assets.

94. Where demolition of asbestos containing materials is undertaken, the contractor must submit to the Principal Certifying Authority, copies of all receipts issued by the EPA licensed waste facility for friable or non-friable asbestos waste as evidence of proof of proper disposal within 7 days of the issue of the receipts.
Reason: To ensure appropriate disposal of asbestos materials.

95. All friable and non-friable asbestos-containing waste material on-site shall be handled and disposed off-site at an EPA licensed waste facility by an EPA licensed contractor in accordance with the requirements of the Protection of the Environment Operations (Waste) Regulation 2014 and the Waste Classification Guidelines – Part 1 Classifying Waste (EPA 2014) and any other regulatory instrument as amended.
Reason: To ensure appropriate disposal of asbestos materials.

96. A Waste Data file is to be maintained, recording building/demolition contractor's details and waste disposal receipts/dockets for any demolition or construction wastes from the site. These records must be retained and made available to Council on request.
Reason: To confirm waste minimisation objectives under Parramatta Development Control Plan 2011 are met.

97. Hazardous or intractable wastes arising from the demolition process shall be removed and disposed of in accordance with the requirements of Safework NSW and the EPA, and with the provisions of:
(a) Work Health and Safety Act 2011;
(b) NSW Protection Of the Environment Operations Act 1997 (NSW); and
(c) NSW Department of Environment and Climate Change Environmental Guidelines; NSW EPA Waste Classification Guidelines.
Reason: To ensure that the land is suitable for the proposed development and any contaminating material required to be removed from the property is removed in accordance with the prescribed manner.

98. Liquid and solid wastes generated onsite shall be collected, transported and disposed of in accordance with the Protection of the Environment Operations (Waste) Regulation 2014 and in accordance with DECC the Environmental Guidelines Assessment, Classification and Management of Liquid and Non-Liquid Wastes (1999) and NSW EPA Waste Classification Guidelines.
Reason: To prevent pollution of the environment.

99. Site water discharged must not exceed suspended solid concentrations of 50 parts per million, and must be analysed for pH and any contaminants of concern identified during the preliminary or detailed site investigation, prior to discharge to the stormwater system. The analytical results must comply with relevant Environmental Protection Authority and Australian & New Zealand Guidelines for Fresh & Marine Water Quality. Other options for the disposal of excavation pump-out water include disposal to sewer with prior approval from Sydney Water, or off-site disposal by a liquid waste transporter for treatment/disposal to an appropriate waste treatment/processing facility.
Reason: To prevent pollution of waterways.

100. Any site excavation areas must be kept free of accumulated water at all times. Water that accumulates within an excavation must be removed and disposed of in a manner that does not result in: the pollution of waters, nuisance to neighbouring properties, or damage/potential damage to neighbouring land and/or property. A de-watering plan is required to be included and submitted to Council for review prior to issue of a Construction Certificate.
Reason: To protect against subsidence, erosion and other nuisances.

Prior to the issue of an Occupation Certificate

101. Work-As-Executed stormwater plans shall be prepared addressing the following:
    (a) A WAE survey shall be conducted and plans prepared showing the 'as built' of the complete on-site detention system including (but not limited to) discharge point into Council system, storage tank (including all critical elements), all pipes and pits connected to the OSD system, overland flow swale and surface levels that control surface flows to the OSD system and by design bypassing the OSD system.
    The survey shall confirm a) that all retaining walls including foundations are wholly within the site boundary, b) that the swales have been constructed as per the approved plans, c) that the relevant boundary fences have been raised to allow overland flow to drain unobstructed though to the swale.
    (b) The Work-As-Executed plans are prepared on the copies of the approved drainage plans issued with the Construction Certificate with the variations marked in red ink.
    (c) The Work-As-Executed plans have been prepared by a registered surveyor certifying the accuracy of dimensions, levels, storage volumes, etc.
    (d) The as built On-Site Detention (OSD) storage volumes are to be presented in a tabular form (depth verses volume table
    (e) OSD Works-As-Executed dimensions form (refer to UPRCT Handbook).

(f) Certificate of Hydraulic Compliance from a qualified drainage / hydraulic engineer (refer to UPRCT Handbook). The certificate must only be provided after conducting a satisfactory final inspection. The final inspection shall include the application of all the ancillary components of the system including but not limited to: step-irons, orifice plate, trash screen with appropriate wall attachment, hinged lockable grates, confined space sign, functioning return lap valve and relief drains within DCP sump etc.

(g) Certificate of Structural compliance of the OSD tank shall reference the structural elements including floor slab/foundations, walls and cover slab from a qualified structural engineer

The above is to be submitted to the Principal Certifying Authority prior to the issue of an occupation certificate and a copy is to accompany the Occupation Certificate when lodged with Council.

Reason: To ensure works comply with approved plans and conditions of consent.

102. Prior to the issue of an Occupation Certificate a Positive Covenant and Restriction on the Use of Land under Section 88E of the Conveyancing Act 1919 must be created, burdening the owner with the requirement to maintain the on-site stormwater detention and the WSUD facilities on the lot.

An additional Terms shall be included in the Positive Covenant, for the basement pump system. The terms of the 88E Instruments are to be generally in accordance with Council's "standard terms" available in Council's website, under Development Forms.

Where a Title exists, the Positive Covenant and Restriction on the Use of Land is to be created through via an application to the Land Titles Office using forms 13PC and 13RPA. Accompanying this form is the requirement for a plan to scale showing the relative location of the On-Site Detention facility, including its relationship to the building footprint.

Registered title documents showing the covenants and restrictions must be submitted to and approved by the Principal Certifying Authority prior to Occupation or use of on-site.

Electronic colour photographs in jpg format of the on-site detention facility shall accompany the application for the Positive Covenant and the Restriction on the Use of the Land. These photos shall include such elements as the orifice plate, trash screen, step irons, weir, sump and bench on the floor of the DCP, return pipe and flap valve, wide angle view of the storage area or multiple photos, grates closed from above, grates open showing the edges to the opening and under frame packing with mortar or concrete, all pipe entries to the DCP and confined space warning signs at each entry point. The photos must be well labelled and

must differentiate between multiple tanks. Additional photos may be requested if required.

Reason: To ensure maintenance of on-site detention facilities.

103. Prior to the issue of any Occupation Certificate, an application is required to be obtained from Council for any new, reconstructed or extended sections of driveway crossings between the property boundary and road alignment.

All footpath crossings, laybacks and driveways are to be constructed according to Council's Specification for Construction or Reconstruction of Standard Footpath Crossings and in compliance with Standard Drawings DS1 (Kerbs & Laybacks); DS7 (Standard Passenger Car Clearance Profile); DS8 (Standard Vehicular Crossing); DS9 (Heavy Duty Vehicular Crossing) and DS10 (Vehicular Crossing Profiles).

The application for a driveway crossing requires the completion of the relevant application form and be accompanied by detailed plans showing, grades/levels and specifications that demonstrate compliance with Council's standards, without conflict with all internal finished surface levels. The detailed plan must be submitted to Council's Civil Assets Team for approval prior to commencement of the driveway crossing works. A fee in accordance with Councils adopted 'Fees and Charges' will need to be paid at the time of lodgement.

Note 1: This development consent is for works wholly within the property. Development consent does not imply approval of the footpath or driveway levels, materials or location within the road reserve, regardless of whether the information is shown on the development application plans.

Note 2: Council's Customer Service Team can advise of the current fee and can be contacted on 9806 5524.

Reason: Pedestrian and Vehicle safety.

104. Prior to the issue of an Occupation Certificate, a Registered Surveyor must certify that all works have been undertaken wholly within the boundaries of the site and submitted to the Certifying Authority.

Reason: To ensure development is constructed wholly within the boundary of the site

105. All redundant lay-backs and vehicular crossings must be reinstated to conventional kerb and gutter, foot-paving or grassed verge in accordance with Council's Standard Plan No. DS1. The reinstatement must be completed prior to the issue of an Occupation Certificate. All costs must be borne by the applicant.

Reason: To provide satisfactory drainage.

106. All landscape works must be completed prior to the issue of an Occupation Certificate. A qualified Landscape Architect/Designer must provide written

certification to Council that the completed works are in accordance with the approved landscape plan.
Reason: To ensure restoration of environmental amenity.

107. Occupation or use of the building or part is not permitted until an Occupation Certificate has been issued in accordance with Section 6.9 of the Environmental Planning and Assessment Act 1979.
Reason: To comply with legislative requirements of the Environmental Planning and Assessment Act 1979.

108. In accordance with Clause 162B of the Environmental Planning and Assessment Regulation 2000, the Principal Certifying Authority responsible for the critical stage inspections must make a record of each inspection as soon as practicable after it has been carried out. The record must include:
(a) The development application and Construction Certificate number as registered;
(b) The address of the property at which the inspection was carried out;
(c) The type of inspection;
(d) The date on which it was carried out;
(e) The name and accreditation number of the certifying authority by whom the inspection was carried out; and
(f) Whether or not the inspection was satisfactory in the opinion of the certifying authority who carried it out.
Reason: To comply with statutory requirements.

109. A written application to Council's Civil Assets Team for the release of a bond must quote the following:
(a) Council's Development Application number; and
(b) Site address.
The bond is refundable only where Council is satisfied the public way has been adequately reinstated, and any necessary remediation/rectification works have been completed.

An Occupation Certificate is not to be issued until correspondence has been issued by Council detailing the bond has been released.
Note: Council's Civil Assets Team will take up to 21 days from receipt of the request to provide the written advice.
Reason: To safe guard the public assets of council and to ensure that these assets are repaired/maintained in a timely manner.

110. Prior to an Occupation Certificate being issued, Council must be notified that the premises is to be used for the preparation or manufacture of food for sale so that the premises can be registered on Council's food premises licensing database.
Reason: Compliance with the requirements of the Food Act.

111. Certification to be provided to the principal certifying authority (PCA), prior to occupation, that the fit-out of the food premises has been completed in accordance with plans complying with food safety standards prescribed under the Food Act 2003, and the requirements of Australian Standard AS 4674 - 2004.

It is incumbent on the PCA to determine the competency of the person providing this certification, based on that person's qualifications, experience and currency of practice.

Reason: To ensure construction and fit-out of the premises meets relevant public health standards.

112. Prior to occupation, the cot room is to be adequately ventilated by either a ceiling fan or mechanical ventilation drawing fresh air (not recirculated air).**Reason:** To ensure adequate amenity.

The Use of the Site

113. No goods are to be stored/displayed outside the walls of the building.
Reason: To ensure visual amenity.
114. The owner/manager of the site/business is responsible for the removal of all graffiti from the building/structures/signage and/or fencing within 48 hours of its application.
Reason: To ensure the removal of graffiti.

115. If a roller shutter door is to be provided at the driveway entry and exit from Mobbs Lane, it is to be opened at all times during the centre's operating hours from 7am to 7pm Monday to Friday.
Reason: To comply with Council requirements.

116. The days and hours of operation are restricted to:

Day	Time
Monday	7am – 7pm
Tuesday	7am – 7pm
Wednesday	7am – 7pm
Thursday	7am – 7pm
Friday	7am – 7pm
Saturday	Closed
Sunday	Closed
Public Holidays	Closed

Reason: To minimise the impact on the amenity of the area.

117. The Plan of Management for the operation of the childcare centre must require all visitors to turn off their engine if they are waiting in the basement car park for a parking space to be made available, and to park in spaces only (ie no double parking). Furthermore, all staff parking spaces are to be assigned to a specific staff member such that only staff with an allocated parking space enters the basement car park.
Reason: To comply with Council's Development Control Plan and ensure pedestrian safety.
118. The applicant must provide a copy of the Plan of Management to parents/carers at the time their child is enrolled at the child care centre.

119. All landscape works shall be maintained for the duration of the use of the site as a child care centre, in accordance with the approved landscape plans and these conditions, including:
    (a) Revitalisation of turf/grassed areas;
    (b) Regular mulching;
    (c) Removal/trimming of plant material as required and frequent replacement of any failed plants with plants of equivalent or greater maturity;
    (d) An irrigation and fertilisation program;
    (e) Treatment of pests and diseases;
    (f) Regular weeding; and
    (g) Regular mowing.
    Reason: To ensure environmental amenity and appropriate management of plants located on the subject site.

120. The child care centre is to operate in accordance with the Plan of Management, as approved by this development consent.
    Reason: To ensure the amenity of adjoining residents.

121. The number of children within the child care centre is not to exceed 56 children at any time as follows:
    (a) 0-2 years – 17 children maximum;
    (b) 2-3 years – 15 children maximum;
    (c) 3-6 years – 24 children maximum.
    Reason: To comply with relevant legislative requirements.

122. Roller shutters are not to be placed over any external door or window of the premises. Any security grill is to be located on the inside of the glass shop front and must be an open grille able to be seen through.
    Reason: To provide an appropriate streetscape appearance.

123. Any external plant/air-conditioning system or other noise generated by the premises (excluding outdoor play, which is addressed in other conditions of this consent) must not exceed a noise level of 5dBA above the background noise level when measured at the boundaries of the property.
    Reason: To minimise noise impact of mechanical equipment.

124. The operation of the premises is not to give rise to emissions of air impurities in contravention of the Protection of the Environment Operations Act 1997. Air emissions from the premises must not cause a nuisance from odours, nor be hazardous to human health or the environment.
    Reason: To prevent loss of amenity to the area.

125. The use of the premises must not give rise to:
    (a) transmission of unacceptable vibration to any place of different occupancy,
    (b) a sound pressure level measured at any point on the boundary of any affected residential premises that exceeds the background noise level by more than 5 dB(A). The source noise level shall be assessed as an LAeq,15

min and adjusted in accordance with Environment Protection Authority (EPA) guidelines for tonality, frequency weighting, impulsive characteristics, fluctuations, and temporal content as described in the NSW Environmental Planning & Assessment Act 1979: Noise Policy for Industry 2017 and the Protection of the Environment Operations Act 1997.

Reason: To prevent loss of amenity to the area.

126. The proposed use of the premises and the operation of all plant and equipment shall not give rise to an 'offensive noise' as defined in the Protection of the Environment Operations Act 1997.
Reason: To protect the amenity of the area.

127. The windows of the cot room are to remain closed when in use.
Reason: To protect Acoustic Amenity

128. A log of all noise complaints is to be maintained by the management of the child care centre, with the following details recorded:
- The date of the complaint
- The name of the complainant
- Address of the complainant
- Phone contact details for the complainant
- The nature of the complaint (a description of the complaint)
- The action taken to respond to the complaint
- The date the action was taken

Reason: To protect Acoustic Amenity
The noise compliant log must be produced to Council upon request.

129. Adequate holding facilities shall be constructed for the storage of new and waste oils and other bulk liquids in accordance with AS 1940–2017 'The storage and handling of flammable and combustible liquids' before commencement of use.
Reason: To ensure that waste liquids are correctly contained.

130. All Dangerous Goods shall be stored in accordance with:
(a) AS 1940-2017: The Storage and Handling of Flammable and Combustible Liquids;
(b) Work Health and Safety Act 2011;
(c) Model code of Practice: Managing risks of Hazardous Chemicals in the workplace.

Reason: To ensure that the dangerous goods are correctly contained.

131. There are to be no external speakers at the premises.
Reason: To prevent loss of amenity to the area.

132. The applicant is to require that all suppliers and service providers to the child care centre must attend the centre within the centre operating hours of 7am to 7pm Monday to Friday.
Reason: To provide acoustic amenity

133. All putrescible waste shall be removed from the site with sufficient frequency to avoid nuisance from pests and odours.
Reason: To ensure provision of adequate waste disposal arrangements.

134. All waste storage areas are to be maintained in a clean and tidy condition at all times.
Reason: To ensure the ongoing management of waste storage areas.

135. Between collection periods, all waste/recyclable materials generated on site must be kept in enclosed bins with securely fitting lids so the contents are not able to leak or overflow. Bins must be stored in the designated waste/recycling storage room(s) or area(s) between collection periods.
Reason: To ensure waste is adequately stored within the premises.

DA/725/2020
45 Mobbs Lane, Carlingford
Demolition of existing structures and construction of a centre based child care centre for 56 children with basement car parking and associated landscaping works.

PROPOSED CHILD CARE CENTRE @ 45 MOBBS LANE CARLINGFORD DEVELOPMENT APPROVAL

SHEET SCHEDULE	
SHEET	TITLE
1	COVER SHEET
2	SITE ANALYSIS
3	LEP CONTROLS
4	ROOF SITE ANALYSIS
5	BASEMENT
6	GROUND
7	FIRST
8	ROOF PLAN
9	FSR CALC LAYOUTS
10	PLAY AREA CALC LAYOUTS
11	GROUND FL LANDSACPE DESIGN
12	EVACUATION PLAN LAYOUTS
13	EVACUATION PLAN LAYOUTS
14	ELEVATIONS
15	ELEVATIONS
16	SECTIONS
17	SHADOWS - JUN
18	3D SHADOWS
19	LANDSCAPED AREA CALS
20	MATERIALS & FINISHES
21	STREETSCAPE ANALYSIS

Member Australian Institute of Architects

issue k:
issue j: PLANNING PANEL MINUTES 21/10/2021
issue h: DA RFI 22/07/2021
issue g: DA RFI comments 28/06/2021
issue f: DA 26/10/2020
issue e: DA coordination 15/09/2020
issue d: Pre - DA 27/07/2020
issue c: Schematic design 23/07/2020
issue b: schematic 64 30/06/2020
issue a: schematic 60 05/06/2020

drawing: COVER SHEET
project: PROPOSED CHILD CARE CENTRE @ 45 MOBBS LANE CARLINGFORD
client: SKYCORP CONSTRUCTION GROUP
drawn: E.K. | scale: as shown | sheet size: A3 | Council
checked: J.E. | date: OCT | ref: 2020-192 | COP

i1

16 dunlop street
north parramatta nsw 2151
ph: +61 2 9630 9011
fax: + 61 2 9630 9022
mob: 0431 111 777
admin@designcorp.com.au
www.designcorp.com.au

designcorp
ARCHITECTS
nominated architect - joe el-khoury reg 6727

N

SITE CONTEXT ANALYSIS

1:3000

LANDMARKS

- Ⓐ Mobbs Lane Reserve
- Ⓑ Fred Spurway Reserve
- Ⓒ Carlingford Kindergarten
- Ⓓ Papilio Early Learning Epping
- Bus Stop
- **Proposed development**
- Sites being developed

ZONING

- RE1 Public Recreation
- SP2 Infrastructure
- B1 Neighbourhood Centre
- R1 General Residential
- R2 Low Density Residential
- E2 Environmental Conservation
- Heritage
- 9m Max Height of Building

issue k:
issue j: PLANNING PANEL MINUTES 21/10/2021
issue h: DA RFI 22/07/2021
issue g: DA RFI comments 28/06/2021
issue f: DA 26/10/2020
issue e: DA coordination 15/09/2020
issue d: Pre - DA 27/07/2020
issue c: Schematic design 23/07/2020
issue b: schematic 64 30/06/2020
issue a: schematic 60 05/06/2020

drawing: SITE ANALYSIS
project: PROPOSED CHILD CARE CENTRE @ 45 MOBBS LANE CARLINGFORD
client: SKYCORP CONSTRUCTION GROUP
drawn: E.K. | scale: as shown | sheet size: A3 | Council
checked: J.E. | date: OCT | ref: 2020-192 | COP

i2
16 dunlop street
north parramatta nsw 2151
ph: +61 2 9630 3011
fax: + 61 2 9630 3022
mob: 0431 111 777
admin@designcorp.com.au
www.designcorp.com.au
designcorp
ARCHITECTS

N

LAND ZONING - R2

BUILDING HEIGHT - 9M

FSR -0.5:1

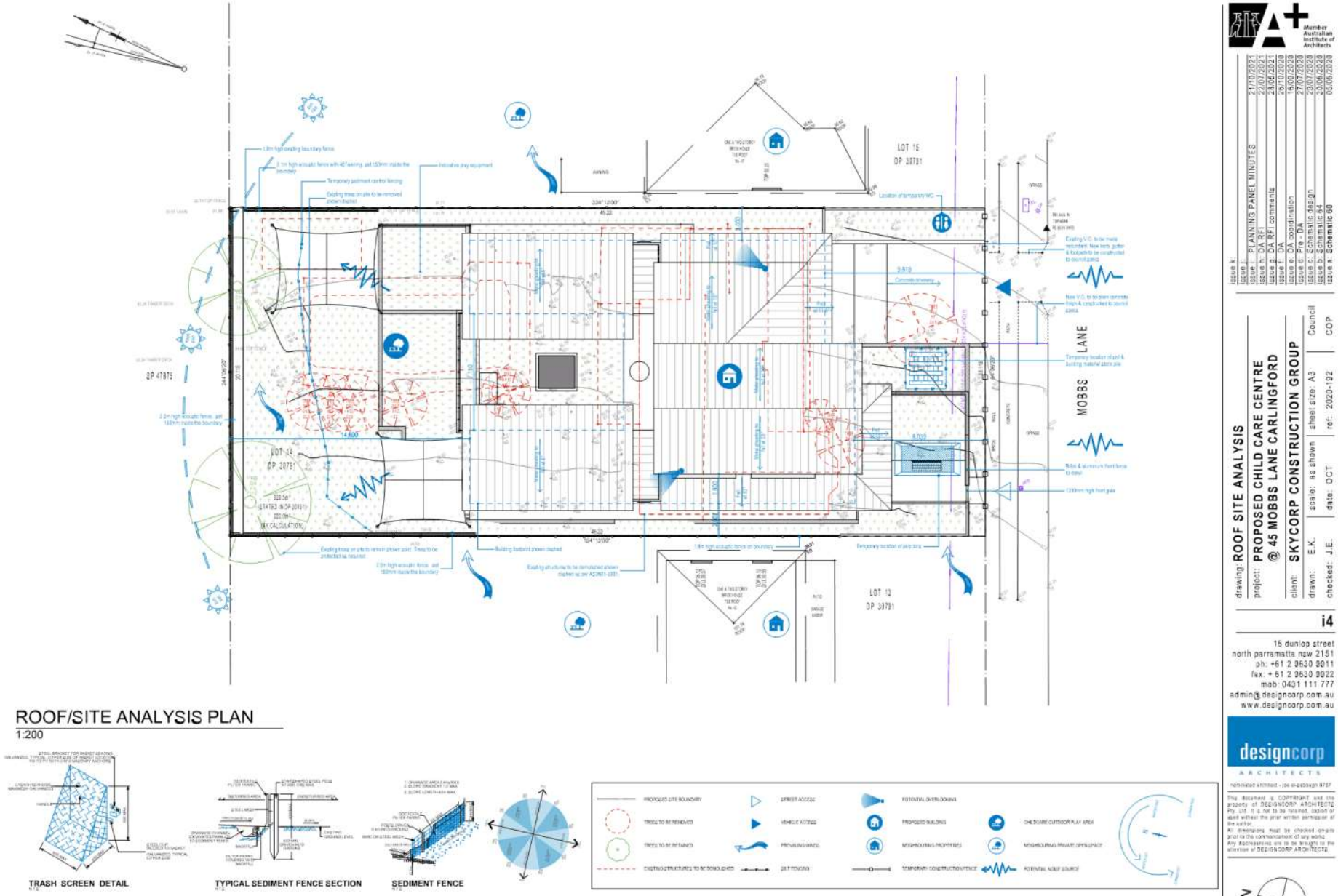
HERITAGE - N/A

issue k:
issue j: PLANNING PANEL MINUTES 21/10/2021
issue h: DA RFI 22/07/2021
issue g: DA RFI comments 28/04/2021
issue f: DA 26/10/2020
issue e: DA coordination 15/09/2020
issue d: Pre - DA 27/07/2020
issue c: Schematic design 22/07/2020
issue b: schematic 64 30/06/2020
issue a: schematic 60 05/06/2020

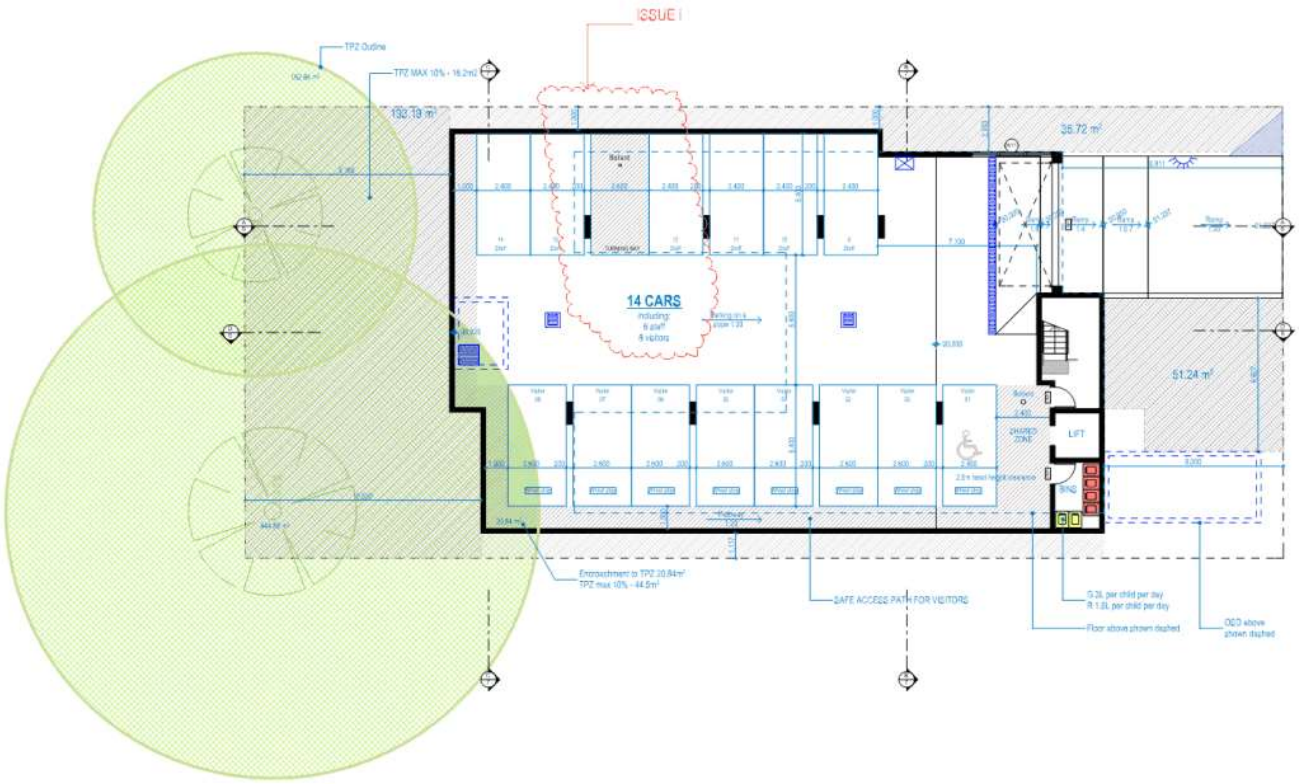
drawing: **LEP CONTROLS**
project: **PROPOSED CHILD CARE CENTRE @ 45 MOBBS LANE CARLINGFORD**
client: **SKYCORP CONSTRUCTION GROUP**
drawn: E.K. | scale: as shown | sheet size: A3 | Council
checked: J.E. | date: OCT | ref: 2020-192 | COP

i3
16 dunlop street
north parramatta nsw 2151
ph: +61 2 9630 9011
fax: + 61 2 9630 9022
mob: 0431 111 777
admin@designcorp.com.au
www.designcorp.com.au
designcorp
ARCHITECTS
nominated architect - joe el-khoury nsw 6787

N


LOT 15
DP 30791
LOT 14
DP 30791
LOT 13
DP 30791
DP 47975
MOBBS LANE
ROOF/SITE ANALYSIS PLAN
1:200
TRASH SCREEN DETAIL
TYPICAL SEDIMENT FENCE SECTION
SEDIMENT FENCE
issue k:
issue j: PLANNING PANEL MINUTES 21/10/2021
issue h: DA RFI 22/07/2021
issue g: DA RFI comments 28/06/2021
issue f: DA 26/10/2020
issue e: DA coordination 15/09/2020
issue d: Pre - DA 27/07/2020
issue c: Schematic design 23/07/2020
issue b: schematic 64 30/06/2020
issue a: schematic 60 05/06/2020
drawing: ROOF SITE ANALYSIS
project: PROPOSED CHILD CARE CENTRE @ 45 MOBBS LANE CARLINGFORD
client: SKYCORP CONSTRUCTION GROUP
drawn: E.K. scale: as shown sheet size: A3 Council
checked: J.E. date: OCT ref: 2020-192 COP
i4
16 dunlop street
north parramatta nsw 2151
ph: +61 2 9630 9011
fax: + 61 2 9630 9022
mob: 0431 111 777
admin@designcorp.com.au
www.designcorp.com.au
designcorp
ARCHITECTS
nominated architect - joe el-khoury nsw 6727
This document is COPYRIGHT and the property of DESIGNCORP ARCHITECTS Pty Ltd. It is not to be retained, copied or used without the prior written permission of the author.
All dimensions must be checked on-site prior to the commencement of any work.
Any discrepancies are to be brought to the attention of DESIGNCORP ARCHITECTS.
N

59 KIDS
Parking req 1 per 4 kids - 15 cars



BASEMENT
1:200

COMPLIANCE TABLE		
CONTROL	REQUIRED	PROPOSED
Site Area (m²) R2	N/A	932
Building Height	max 9m	8.6
Floor Space Ratio (0.5:1)	466.00	461.83
Transition area	min 4m	5
Outdoor play area	392	433.5
Indoor play area	182	196.2
Front Setback	Average	7.5
Side Setback	2m	2
Rear Setback	13.899	14.69
Landscaping - min 40% of site (2m min dim)	372.8	359.17
Landscaping - min 40% of site (2m min dim, < 1m soil depth)	372.8	423.84
Deep Soil - min 30 % of site (4m min dim)	279.80	244.43
Deep Soil - min 30 % of site (2m min dim)	279.80	280.15
Staff requirement	8.8	11
Parking 1 per 4 children	14	14

ISSUE I

	Number of children	Age group (years)	Indoor Play area min 3.25m2 per child		Outdoor Play area min 7m2 per child		Staff		Storage req m3		Storage provided m3	
			Required	Provided	Required	Provided	Required	Provided	indoor	outdoor	indoor	outdoor
Playroom 01	15	2-3	48.75	51.51	105	315.91	3	3	3	4.5	7.63	9.32
Playroom 02	16	3-6	52	53.23	112		1.5	2	3.2	4.8	3.24	
Playroom 03	17	0-2	55.25	56.43	119		3.4	4	3.4	5.1	5.55	
Playroom 04	8	3-6	26	35.03	56	86.77	0.8	2	1.6	2.4	6	8.29
Total	56		182	196.2	392	412.68	8.8	11	11.2	16.8	14.79	17.61

ISSUE I

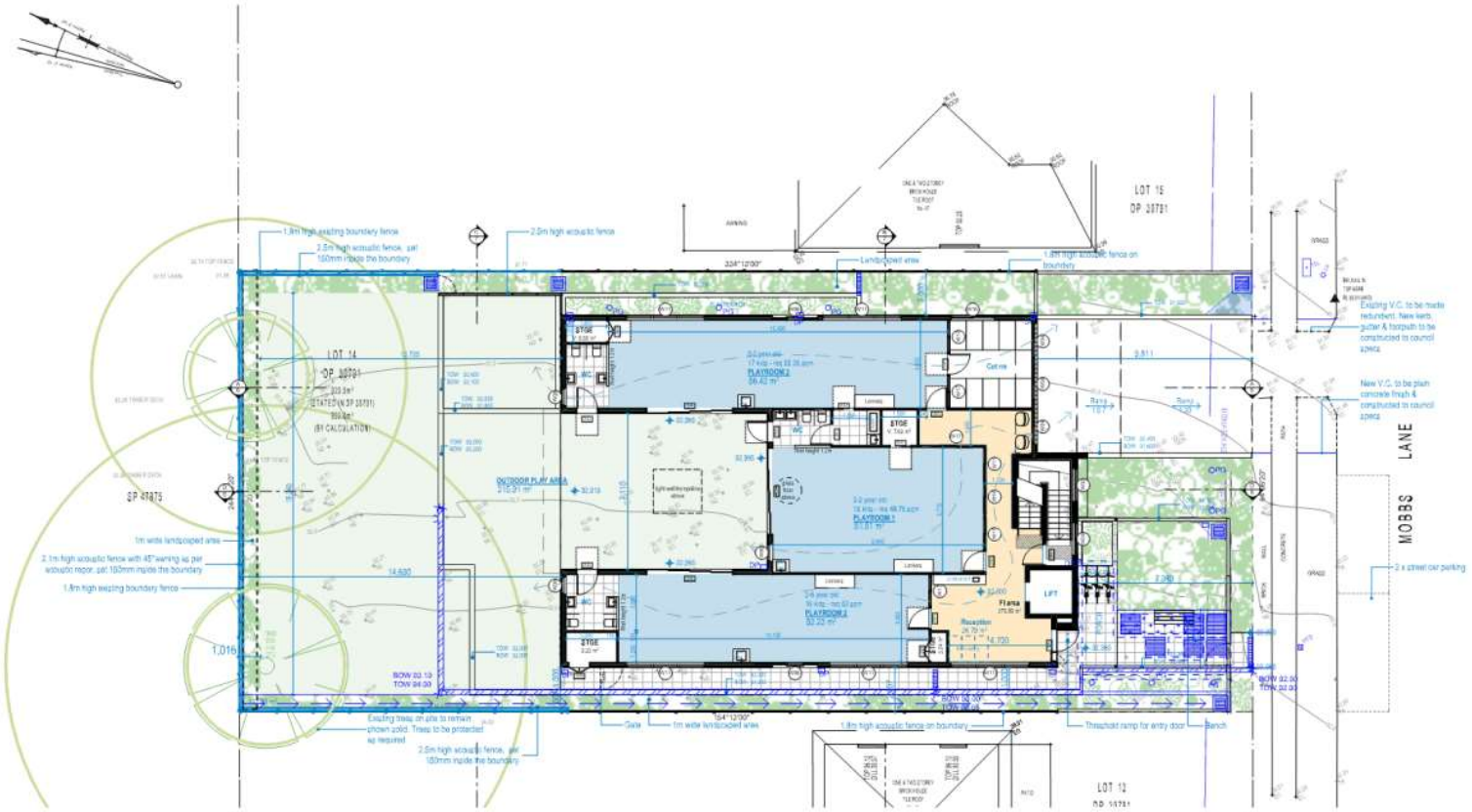
SITE DATA	
SITE AREA	932.00
CHILD CARE CENTRE	
Ground Floor Area	270.8
First Floor Area	191.03
Total	461.83
FSR	1 : 0.496

issue k:
issue j: PLANNING PANEL MINUTES 21/10/2021
issue h: DA RFI 22/07/2021
issue g: DA RFI comments 28/06/2021
issue f: DA 26/10/2020
issue e: DA coordination 15/09/2020
issue d: Pre - DA 27/07/2020
issue c: Schematic design 20/07/2020
issue b: schematic 64 30/06/2020
issue a: schematic 60 05/06/2020

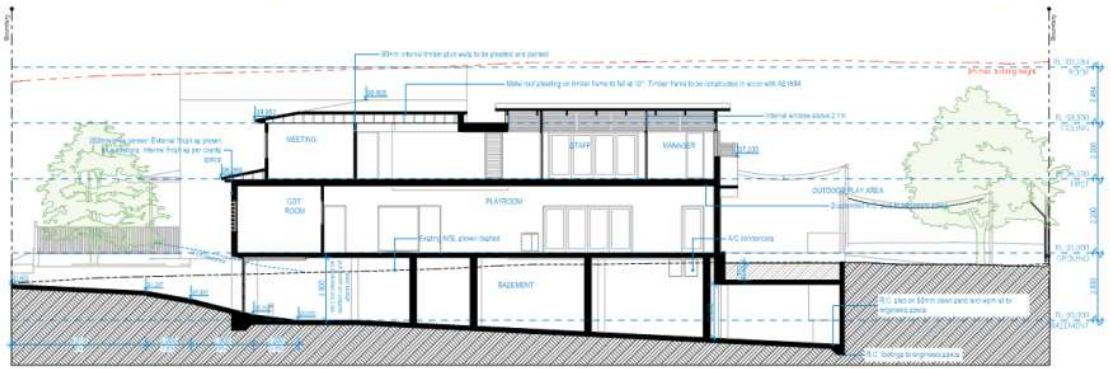
drawing: BASEMENT
project: PROPOSED CHILD CARE CENTRE @ 45 MOBBS LANE CARLINGFORD
client: SKYCORP CONSTRUCTION GROUP
drawn: E.K. | scale: as shown | sheet size: A3 | Council
checked: J.E. | date: OCT | ref: 2020-192 | COP

i5
16 dunlop street
north parramatta nsw 2151
ph: +61 2 9630 9911
fax: + 61 2 9630 9922
mob: 0431 111 777
admin@designcorp.com.au
www.designcorp.com.au
designcorp ARCHITECTS
nominated architect - joe el-khoury nsw 6787

N



GROUND
1:200



SECTION A
1:200

issue k:
issue j: PLANNING PANEL MINUTES 21/10/2021
issue h: DA RFI 22/07/2021
issue g: DA RFI comments 28/04/2021
issue f: DA 26/10/2020
issue e: DA coordination 16/09/2020
issue d: Pre - DA 27/07/2020
issue c: Schematic design 20/07/2020
issue b: schematic 64 30/06/2020
issue a: schematic 60 05/06/2020

drawing: GROUND
project: PROPOSED CHILD CARE CENTRE @ 45 MOBBS LANE CARLINGFORD
client: SKYCORP CONSTRUCTION GROUP
drawn: E.K. | scale: as shown | sheet size: A3 | Council
checked: J.E. | date: OCT | ref: 2020-192 | COP

i6
16 dunlop street
north parramatta nsw 2151
ph: +61 2 9630 9311
fax: + 61 2 9630 9322
mob: 0431 111 777
admin@designcorp.com.au
www.designcorp.com.au
designcorp ARCHITECTS
nominated architect - joe el-zeidaqh 8727

N

FIRST
1:200

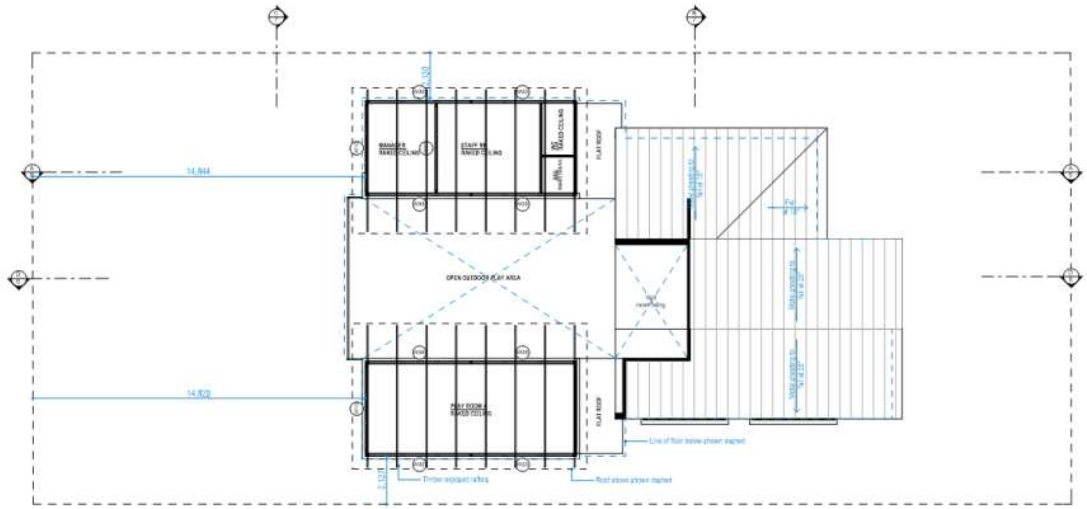
3D Height Plane

issue k:
issue j: PLANNING PANEL MINUTES 21/10/2021
issue h: DA RFI 22/07/2021
issue g: DA RFI comments 28/04/2021
issue f: DA 26/10/2020
issue e: DA coordination 15/09/2020
issue d: Pre - DA 27/07/2020
issue c: Schematic design 23/07/2020
issue b: schematic 64 30/06/2020
issue a: schematic 60 05/06/2020

drawing: FIRST
project: PROPOSED CHILD CARE CENTRE @ 45 MOBBS LANE CARLINGFORD
client: SKYCORP CONSTRUCTION GROUP
drawn: E.K. | scale: as shown | sheet size: A3 | Council
checked: J.E. | date: OCT | ref: 2020-192 | COP

i7
16 dunlop street
north parramatta nsw 2151
ph: +61 2 9630 9911
fax: + 61 2 9630 9922
mob: 0431 111 777
admin@designcorp.com.au
www.designcorp.com.au
designcorp
ARCHITECTS

N



ROOF
1:200

WINDOW SCHEDULE

ID	TYPE	SILL	WIDTH	HEIGHT	PLAN	ELEVATION	Q
W01	FIXED WINDOW	900	1,800	1,200			2
W02	FIXED WINDOW	0	1,500	2,400			1
W03	FIXED WINDOW	900	1,500	2,400			1
W04	DOUBLE SLIDING WINDOW	900	1,500	1,500			5
W05	LOUVRE WINDOW	0	800	2,100			9
W06	LOUVRE WINDOW	300	800	1,800			6
W07	FIXED WINDOW	0	3,800	1,000			1
W08	LOUVRE WINDOW	0	4,600	800			4
W09	FIXED WINDOW	0	4,600	400			4
W10	FIXED WINDOW	0	2,800	400			2
W11	FIXED WINDOW	1,800	2,600	600			6
W12	FIXED WINDOW	1,200	1,500	800			4
W13	SLIDING WINDOW	900	1,500	1,200			1
W14	SLIDING WINDOW	900	920	1,200			2
W15	SLIDING WINDOW	200	800	1,800			1
W16	SLIDING WINDOW	1,800	2,000	600			1
W17	SLIDING WINDOW	1,200	1,500	1,200			9

DOOR SCHEDULE

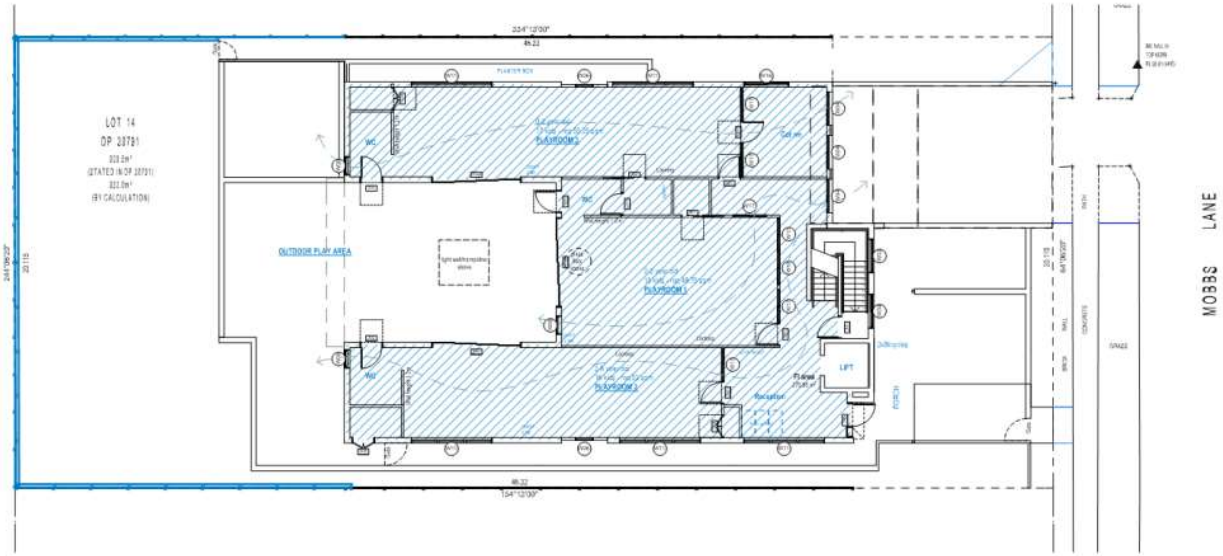
ID	TYPE	HEIGHT	WIDTH	PLAN	ELEVATION	Q
D01	SWING DOOR	2,070	920			17
D02	POCKET DOOR	2,070	920			1
D03	SWING DOOR	2,100	1,000			4
D04	SLIDING DOOR	2,100	4,000			5
D05	SWING DOOR WITH SIDELIGHT	2,400	1,550			1
D06	BIFOLD DOOR	2,070	2,730			1
D07	GARAGE DOOR	2,250	5,500			1
D08	DOUBLE DOOR	2,070	920			5

issue k:
issue j: PLANNING PANEL MINUTES 21/10/2021
issue h: DA RFI 22/07/2021
issue g: DA RFI comments 28/04/2021
issue f: DA 26/10/2020
issue e: DA coordination 15/09/2020
issue d: Pre - DA 27/07/2020
issue c: Schematic design 22/07/2020
issue b: schematic 64 30/06/2020
issue a: schematic 60 05/06/2020

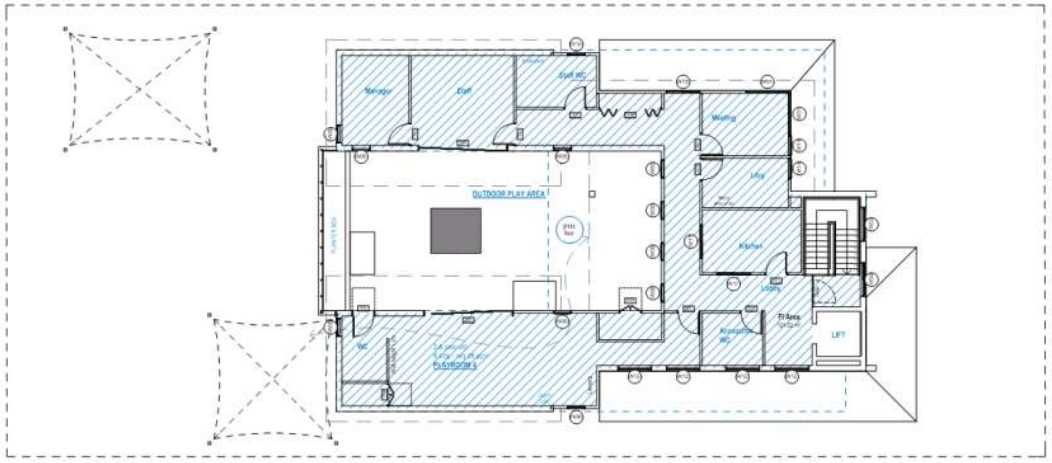
drawing: ROOF PLAN
project: PROPOSED CHILD CARE CENTRE @ 45 MOBBS LANE CARLINGFORD
client: SKYCORP CONSTRUCTION GROUP
drawn: E.K. | scale: as shown | sheet size: A3 | Council
checked: J.E. | date: OCT | ref: 2020-192 | COP

i8
16 dunlop street
north parramatta nsw 2151
ph: +61 2 9630 9911
fax: + 61 2 9630 9922
mob: 0431 111 777
admin@designcorp.com.au
www.designcorp.com.au
designcorp ARCHITECTS
nominated architect - joe el-khoury nsw 6727

N



GROUND FSR CALC PLAN
1:200



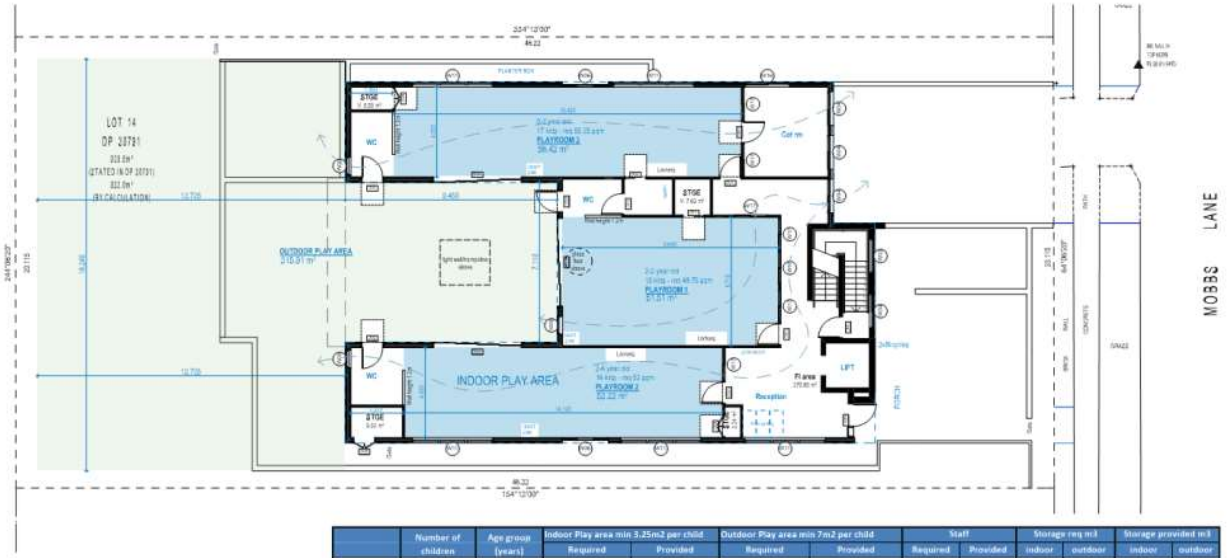
FIRST FSR CALC PLAN
1:200

issue k:
issue j:
issue i: PLANNING PANEL MINUTES 21/10/2021
issue h: DA RFI 22/07/2021
issue g: DA RFI comments 28/06/2021
issue f: DA 26/10/2020
issue e: DA coordination 15/09/2020
issue d: Pre - DA 27/07/2020
issue c: Schematic design 23/07/2020
issue b: schematic 64 20/06/2020
issue a: schematic 60 05/06/2020

drawing: FSR CALC LAYOUTS
project: PROPOSED CHILD CARE CENTRE @ 45 MOBBS LANE CARLINGFORD
client: SKYCORP CONSTRUCTION GROUP
drawn: E.K. | scale: as shown | sheet size: A3 | Council
checked: J.E. | date: OCT | ref: 2020-192 | COP

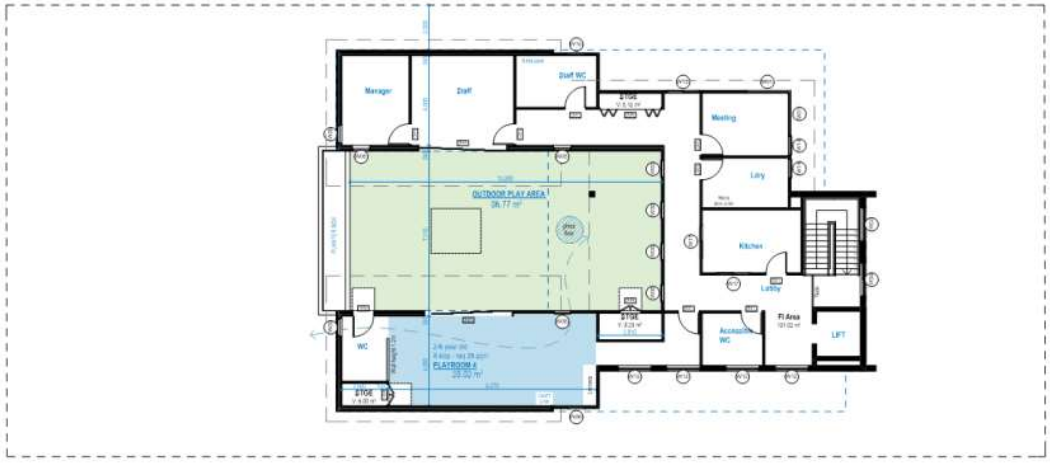
i9
16 dunlop street
north parramatta nsw 2151
ph: +61 2 9630 9911
fax: + 61 2 9630 9922
mob: 0431 111 777
admin@designcorp.com.au
www.designcorp.com.au
designcorp ARCHITECTS
nominated architect - joe el-khoury reg 8727

N



GROUND PLAY AREA CALC
1:200

	Number of children	Age group (years)	Indoor Play area min 3.25m2 per child		Outdoor Play area min 7m2 per child		Staff		Storage req m3		Storage provided m3	
			Required	Provided	Required	Provided	Required	Provided	indoor	outdoor	indoor	outdoor
Playroom 01	15	2-3	48.75	51.51	105	315.91	3	3	3	4.5	7.63	9.32
Playroom 02	16	3-6	52	53.23	112		1.6	2	3.2	4.8	3.24	
Playroom 03	17	0-2	55.25	56.43	119		3.4	4	3.4	5.1	5.55	
Playroom 04	8	3-6	26	35.03	56	96.77	0.8	2	1.6	2.4	6	8.29
Total	56		182	196.2	392	412.68	8.8	11	11.2	16.8	14.79	17.61



FIRST PLAY AREA CALC
1:200

OUTDOOR PLAY AREA

INDOOR PLAY AREA

issue k:
issue j: PLANNING PANEL MINUTES 21/10/2021
issue i: DA RFI 22/07/2021
issue h: DA RFI comments 28/04/2021
issue g: DA 26/10/2020
issue e: DA coordination 16/09/2020
issue d: Pre - DA 27/07/2020
issue c: Schematic design 23/07/2020
issue b: schematic 64 30/06/2020
issue a: schematic 60 05/06/2020

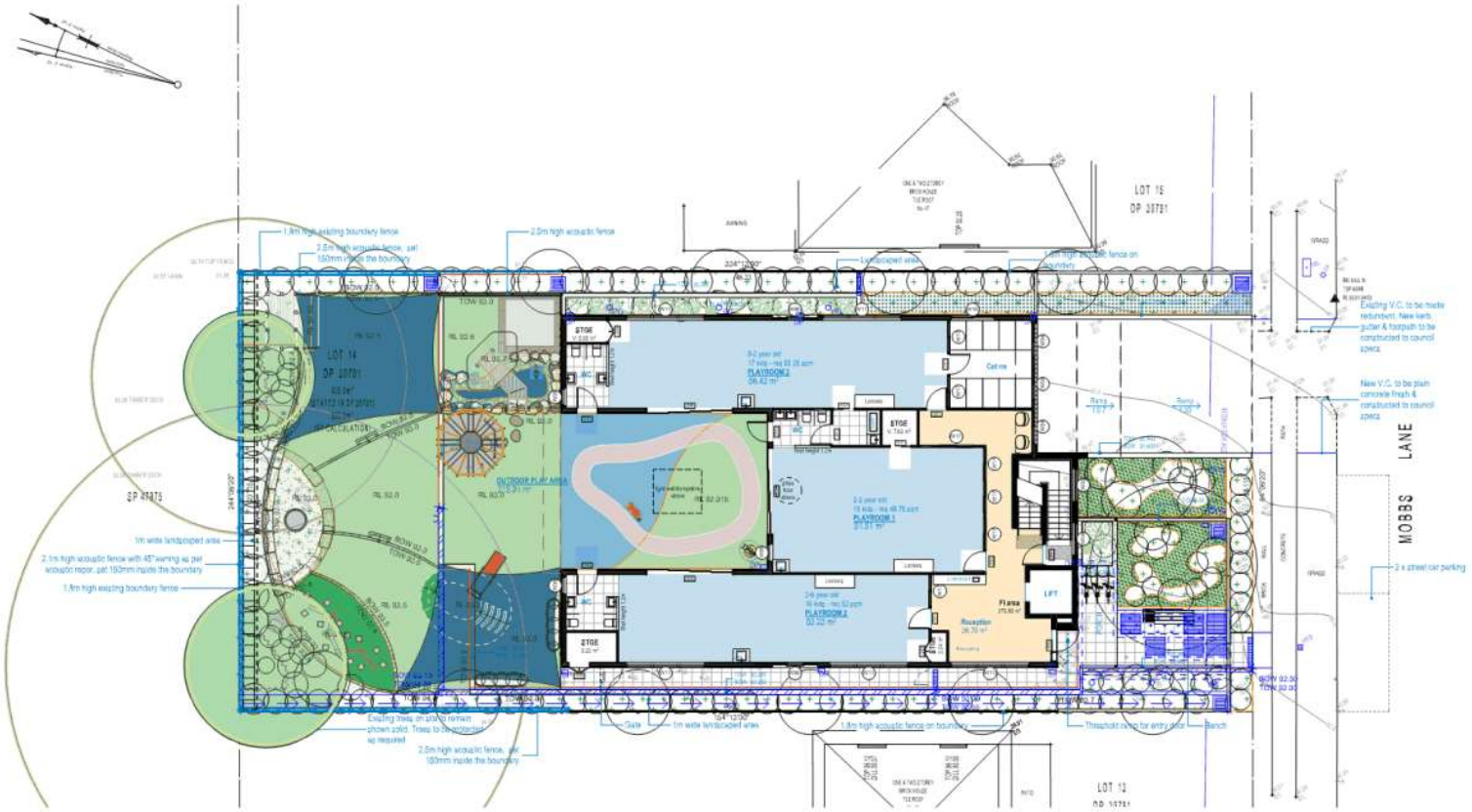
drawing: PLAY AREA CALC LAYOUTS
project: PROPOSED CHILD CARE CENTRE @ 45 MOBBS LANE CARLINGFORD
client: SKYCORP CONSTRUCTION GROUP
drawn: E.K. | scale: as shown | sheet size: A3 | Council
checked: J.E. | date: OCT | ref: 2020-192 | COP

i10

16 dunlop street
north parramatta nsw 2151
ph: +61 2 9630 9011
fax: + 61 2 9630 9022
mob: 0431 111 777
admin@designcorp.com.au
www.designcorp.com.au

designcorp ARCHITECTS

N



GROUND FL LANDSCAPE DESIGN
1:200

issue k:
issue j: PLANNING PANEL MINUTES 21/10/2021
issue h: DA RFI 22/07/2021
issue g: DA RFI comments 28/06/2021
issue f: DA 26/10/2020
issue e: DA coordination 15/09/2020
issue d: Pre - DA 27/07/2020
issue c: Schematic design 23/07/2020
issue b: schematic 64 30/06/2020
issue a: schematic 60 05/06/2020

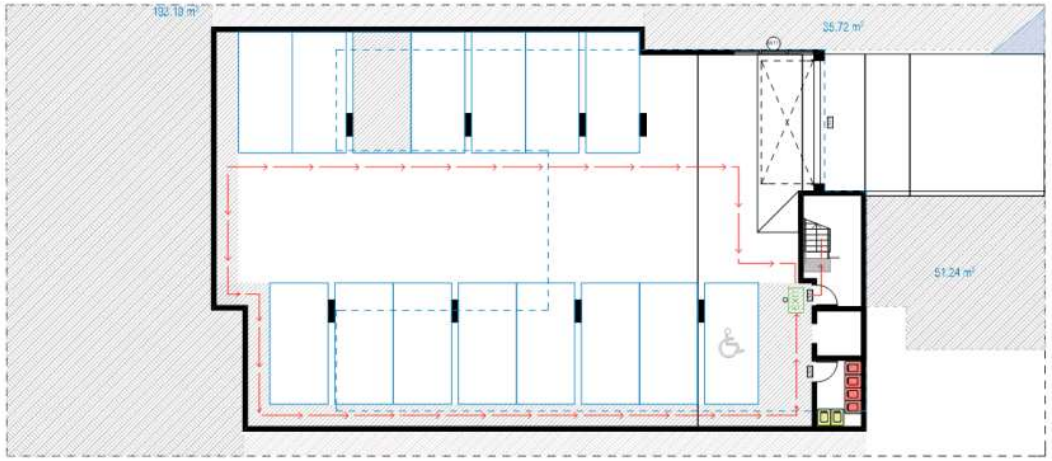
drawing: GROUND FL LANDSACPE DESIGN
project: PROPOSED CHILD CARE CENTRE @ 45 MOBBS LANE CARLINGFORD
client: SKYCORP CONSTRUCTION GROUP
drawn: E.K. | scale: as shown | sheet size: A3 | Council
checked: J.E. | date: OCT | ref: 2020-102 | COP

i11

16 dunlop street
north parramatta nsw 2151
ph: +61 2 9630 9011
fax: + 61 2 9630 9022
mob: 0431 111 777
admin@designcorp.com.au
www.designcorp.com.au

designcorp ARCHITECTS

N



BASEMENT - EVACUATION PLAN
1:200

GROUND - EVACUATION PLAN
1:200

DIRECTION OF EGRESS → ASSEMBLY POINT EXIT SIGN EXIT

issue k:
issue j: PLANNING PANEL MINUTES 21/10/2021
issue h: DA RFI 22/07/2021
issue g: DA RFI comments 28/04/2021
issue f: DA 26/10/2020
issue e: DA coordination 15/09/2020
issue d: Pre - DA 27/07/2020
issue c: Schematic design 23/07/2020
issue b: schematic 64 30/06/2020
issue a: schematic 60 05/06/2020

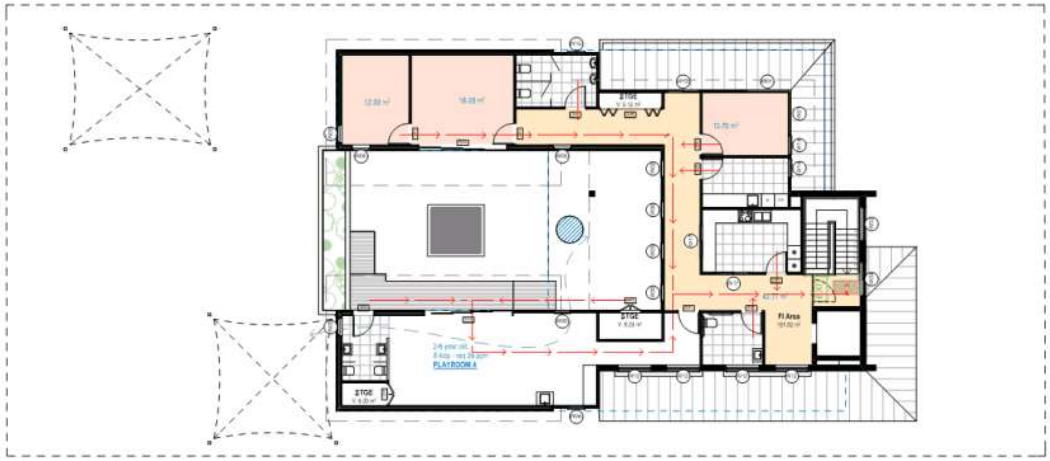
drawing: EVACUATION PLAN LAYOUTS
project: PROPOSED CHILD CARE CENTRE @ 45 MOBBS LANE CARLINGFORD
client: SKYCORP CONSTRUCTION GROUP
drawn: E.K. | scale: as shown | sheet size: A3 | Council
checked: J.E. | date: OCT | ref: 2020-192 | COP

i12

16 dunlop street
north parramatta nsw 2151
ph: +61 2 9630 9911
fax: + 61 2 9630 9922
mob: 0431 111 777
admin@designcorp.com.au
www.designcorp.com.au

designcorp ARCHITECTS
nominated architect - joe el-gabbagh 6727

N



FIRST - EVACUATION PLAN
1:200

DIRECTION OF EGRESS ⟶ ASSEMBLY POINT ● EXIT SIGN EXIT

issue k:
issue j: PLANNING PANEL MINUTES 21/10/2021
issue h: DA RFI 22/07/2021
issue g: DA RFI comments 28/06/2021
issue f: DA 26/10/2020
issue e: DA coordination 15/09/2020
issue d: Pre - DA 27/07/2020
issue c: Schematic design 23/07/2020
issue b: schematic 64 30/06/2020
issue a: schematic 60 05/06/2020

drawing: EVACUATION PLAN LAYOUTS
project: PROPOSED CHILD CARE CENTRE @ 45 MOBBS LANE CARLINGFORD
client: SKYCORP CONSTRUCTION GROUP
drawn: E.K. | scale: as shown | sheet size: A3 | Council
checked: J.E. | date: OCT | ref: 2020-192 | COP

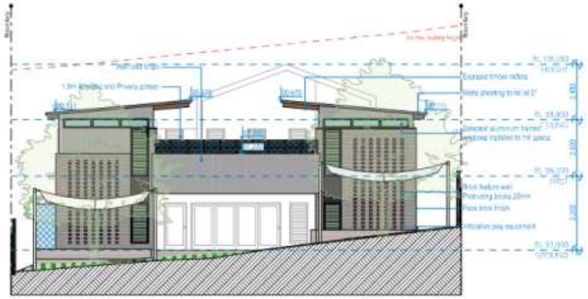
i13

16 dunlop street
north parramatta nsw 2151
ph: +61 2 9630 9011
fax: + 61 2 9630 9022
mob: 0431 111 777
admin@designcorp.com.au
www.designcorp.com.au

designcorp ARCHITECTS
nominated architect - joe el-khoury nsw 6727

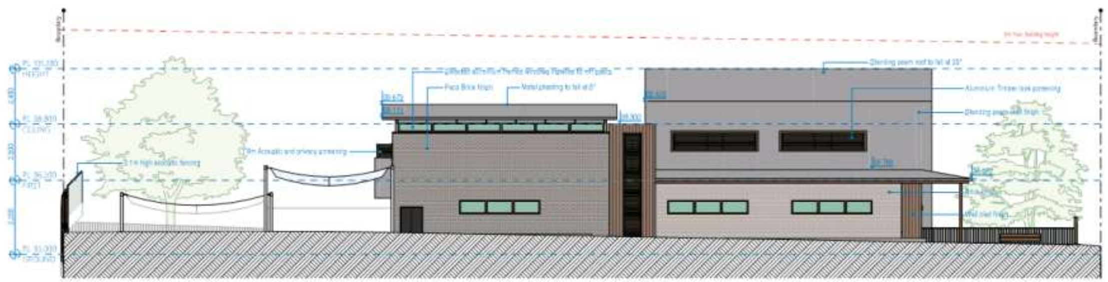
N

SOUTH ELEVATION
1:200

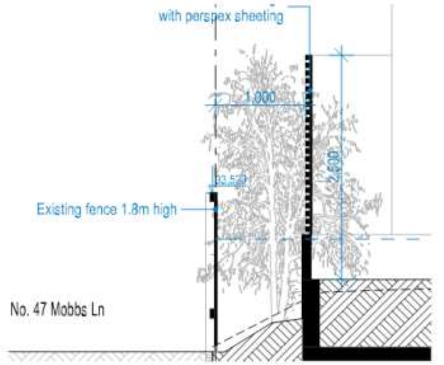


NORTH ELEVATION
1:200

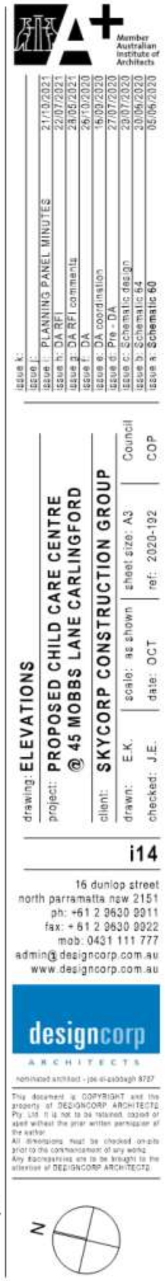
EAST ELEVATION
1:200



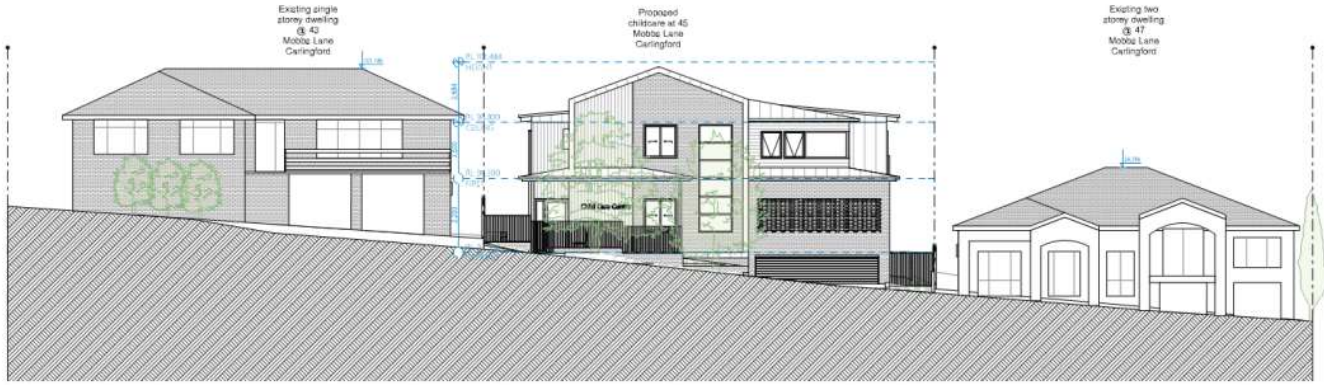
WEST ELEVATION
1:200



SECTION C - TYPICAL FENCE DETAIL
1:50

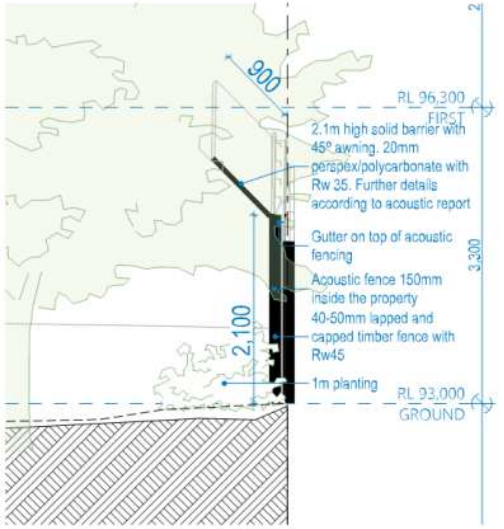


Member Australian Institute of Architects
issue k:
issue j: PLANNING PANEL MINUTES 21/10/2021
issue h: DA RFI 22/07/2021
issue g: DA RFI comments 28/06/2021
issue f: DA 26/10/2020
issue e: DA coordination 15/09/2020
issue d: Pre - DA 27/07/2020
issue c: Schematic design 20/07/2020
issue b: Schematic 64 30/06/2020
issue a: Schematic 60 05/06/2020
drawing: ELEVATIONS
project: PROPOSED CHILD CARE CENTRE @ 45 MOBBS LANE CARLINGFORD
client: SKYCORP CONSTRUCTION GROUP
drawn: E.K. scale: as shown sheet size: A3 Council
checked: J.E. date: OCT ref: 2020-192 COP
i14
16 dunlop street
north parramatta nsw 2151
ph: +61 2 9630 0011
fax: +61 2 9630 0022
mob: 0431 111 777
admin@designcorp.com.au
www.designcorp.com.au
designcorp
ARCHITECTS



SOUTH STREETSCAPE
1:200

SOUTH FENCE DETAIL
1:100



SECTION D - ACOUSTIC DETAIL
1:50

Member Australian Institute of Architects

issue k:
issue j:
issue i: PLANNING PANEL MINUTES 21/10/2021
issue h: DA RFI 22/07/2021
issue g: DA RFI comments 23/06/2021
issue f: DA 26/10/2020
issue e: DA coordination 15/09/2020
issue d: Pre - DA 27/07/2020
issue c: Schematic design 23/07/2020
issue b: schematic 64 30/06/2020
issue a: schematic 60 05/06/2020

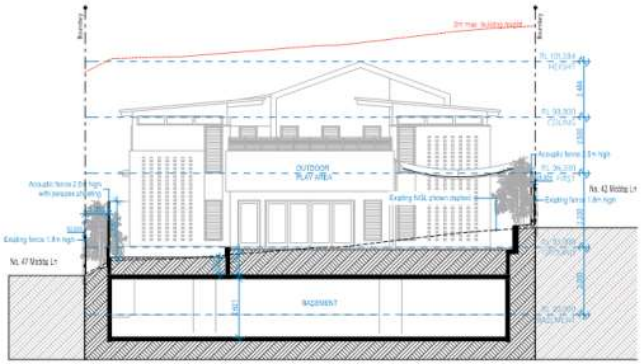
drawing: ELEVATIONS
project: PROPOSED CHILD CARE CENTRE @ 45 MOBBS LANE CARLINGFORD
client: SKYCORP CONSTRUCTION GROUP
drawn: E.K. | scale: as shown | sheet size: A3 | Council
checked: J.E. | date: OCT | ref: 2020-192 | COP

i15

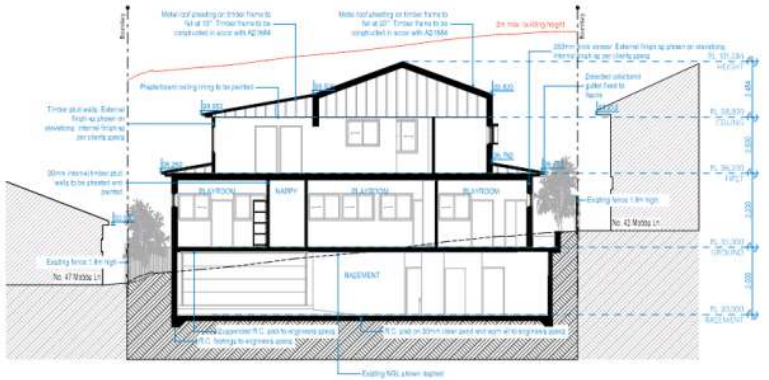
16 dunlop street
north parramatta nsw 2151
ph: +61 2 9630 9911
fax: + 61 2 9630 9922
mob: 0431 111 777
admin@designcorp.com.au
www.designcorp.com.au

designcorp
ARCHITECTS
nominated architect - joe el-gabbagh 6727

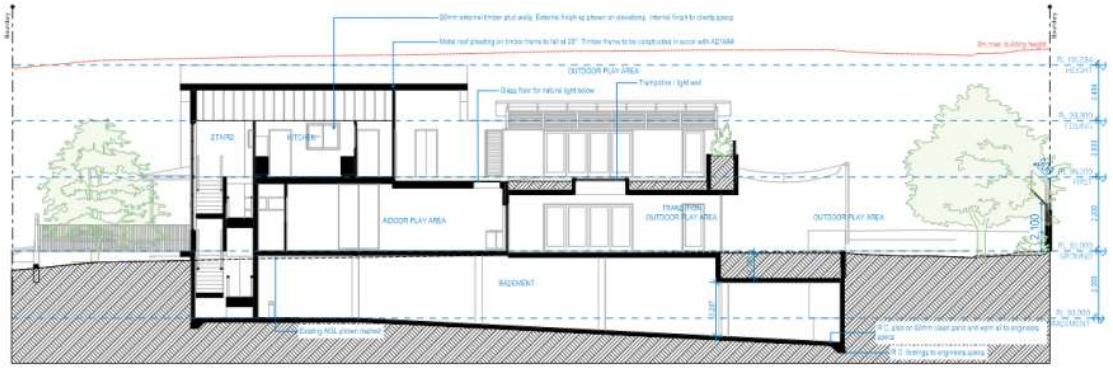
N



SECTION C
1:200



SECTION B
1:200



SECTION D
1:200

issue k:
issue j: PLANNING PANEL MINUTES 21/10/2021
issue h: DA RFI 22/07/2021
issue g: DA RFI comments 28/06/2021
issue f: DA 26/10/2020
issue e: DA coordination 16/09/2020
issue d: Pre - DA 27/07/2020
issue c: Schematic design 23/07/2020
issue b: Schematic 64 30/06/2020
issue a: Schematic 60 05/06/2020

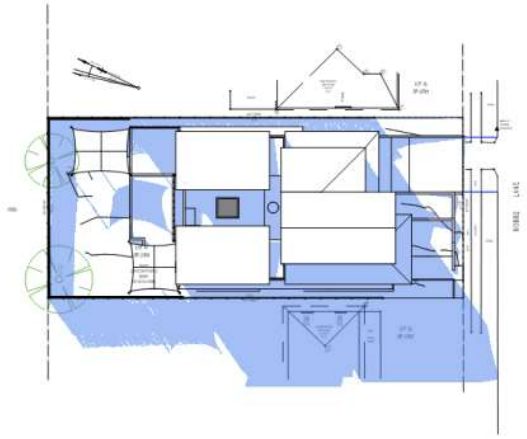
drawing: SECTIONS
project: PROPOSED CHILD CARE CENTRE @ 45 MOBBS LANE CARLINGFORD
client: SKYCORP CONSTRUCTION GROUP
drawn: E.K. | scale: as shown | sheet size: A3 | Council
checked: J.E. | date: OCT | ref: 2020-192 | COP

i16

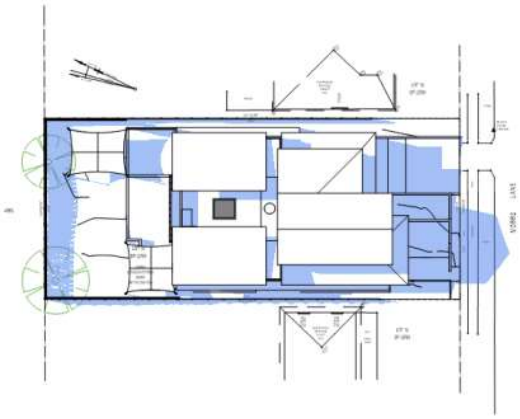
16 dunlop street
north parramatta nsw 2151
ph: +61 2 9630 9911
fax: + 61 2 9630 9922
mob: 0431 111 777
admin@designcorp.com.au
www.designcorp.com.au

designcorp
ARCHITECTS

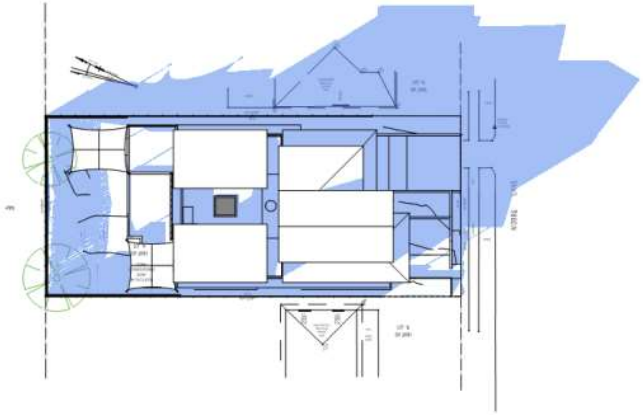
N



Jun-21-9am
1:500



Jun-21-12pm
1:500



Jun-21-3pm
1:500

issue k:
issue j: PLANNING PANEL MINUTES 21/10/2021
issue h: DA RFI 22/07/2021
issue g: DA RFI comments 28/06/2021
issue f: DA 26/10/2020
issue e: DA coordination 15/09/2020
issue d: Pre - DA 27/07/2020
issue c: Schematic design 23/07/2020
issue b: schematic 64 30/06/2020
issue a: schematic 60 05/06/2020

drawing: SHADOWS - JUN
project: PROPOSED CHILD CARE CENTRE @ 45 MOBBS LANE CARLINGFORD
client: SKYCORP CONSTRUCTION GROUP
drawn: E.K. | scale: as shown | sheet size: A3 | Council
checked: J.E. | date: OCT | ref: 2020-192 | COP

i17

16 dunlop street
north parramatta nsw 2151
ph: +61 2 9630 9011
fax: + 61 2 9630 9022
mob: 0431 111 777
admin@designcorp.com.au
www.designcorp.com.au

designcorp
ARCHITECTS

N

3D VIEWS FROM THE SUN - SHADOW ANALYSIS - JUN 21

SOLAR ACCESS ANALYSIS

* EVERY SURFACE SEEN IN THIS VIEW RECEIVES SUN ON THE NOMINATED HOUR

9AM

10AM

11AM

12PM

1PM

2PM

3PM

Member Australian Institute of Architects

issue k:		
issue j:		
issue i:	PLANNING PANEL MINUTES	21/10/2021
issue h:	DA RFI	22/07/2021
issue g:	DA RFI comments	28/05/2021
issue f:	DA	26/10/2020
issue e:	DA coordination	16/09/2020
issue d:	Pre - DA	27/07/2020
issue c:	Schematic design	23/07/2020
issue b:	Schematic 64	30/06/2020
issue a:	Schematic 60	05/06/2020

drawing: 3D SHADOWS

project: PROPOSED CHILD CARE CENTRE @ 45 MOBBS LANE CARLINGFORD

client: SKYCORP CONSTRUCTION GROUP

drawn: E.K. | scale: as shown | sheet size: A3 | Council

checked: J.E. | date: OCT | ref: 2020-192 | COP

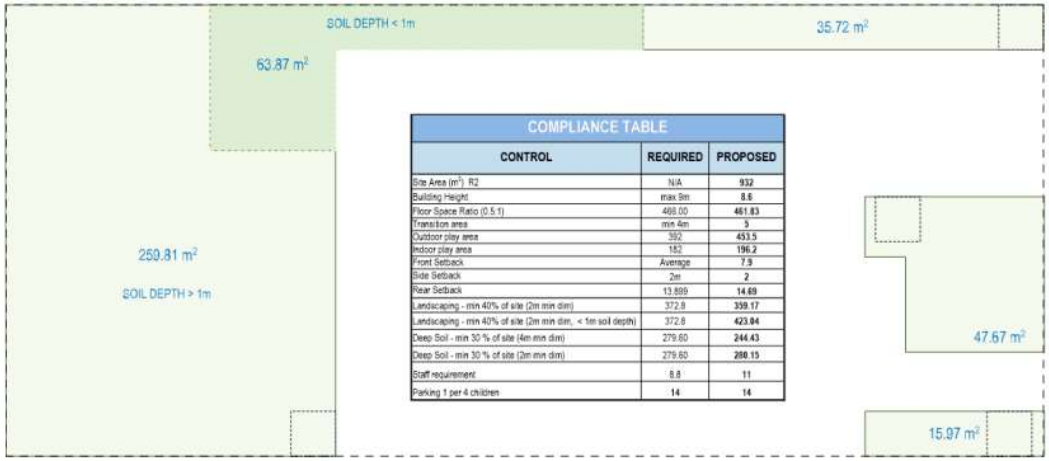
i18

16 dunlop street
north parramatta nsw 2151
ph: +61 2 9630 9911
fax: + 61 2 9630 9922
mob: 0431 111 777
admin@designcorp.com.au
www.designcorp.com.au

designcorp ARCHITECTS

nominated architect - joe el-sabbagh 8757

N



COMPLIANCE TABLE		
CONTROL	REQUIRED	PROPOSED
Site Area (m^2) R2	N/A	932
Building Height	max 9m	8.6
Floor Space Ratio (0.5:1)	466.00	461.83
Transition area	min 4m	5
Outdoor play area	392	453.5
Indoor play area	182	196.2
Front Setback	Average	7.9
Side Setback	2m	2
Rear Setback	13.889	14.69
Landscaping - min 40% of site (2m min dim)	372.8	359.17
Landscaping - min 40% of site (2m min dim, < 1m soil depth)	372.8	423.04
Deep Soil - min 30 % of site (4m min dim)	279.60	244.43
Deep Soil - min 30 % of site (2m min dim)	279.60	280.15
Staff requirement	8.8	11
Parking 1 per 4 children	14	14

LANDSCAPED ARAE CALCS
1:200

issue k:
issue j: PLANNING PANEL MINUTES 21/10/2021
issue h: DA RFI 22/07/2021
issue g: DA RFI comments 23/06/2021
issue f: DA 26/10/2020
issue e: DA coordination 15/09/2020
issue d: Pre - DA 27/07/2020
issue c: Schematic design 23/07/2020
issue b: schematic 64 30/06/2020
issue a: schematic 60 05/06/2020

drawing: LANDSCAPED AREA CALS
project: PROPOSED CHILD CARE CENTRE @ 45 MOBBS LANE CARLINGFORD
client: SKYCORP CONSTRUCTION GROUP
drawn: E.K. | scale: as shown | sheet size: A3 | Council
checked: J.E. | date: OCT | ref: 2020-192 | COP

i19
16 dunlop street
north parramatta nsw 2151
ph: +61 2 9630 9911
fax: + 61 2 9630 9922
mob: 0431 111 777
admin@designcorp.com.au
www.designcorp.com.au
designcorp
ARCHITECTS
nominated architect - joe el-khoury nsw 6727

N

MATERIALS & FINISHES SCHEDULE @ 45 MOBBS LANE CARLINGFORD

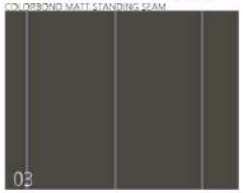
DRIVEWAY
CHARCOAL CONCRETE

FRONT RENCE & REAR AWNING
TIMBER LOOK ALUMINIUM FINISH

EXTERNAL BRICK WALLS 01
FACE BRICK - PGH VOLCANIC

EXTERNAL BRICK WALLS 02
FACE BRICK - PGH MINERAL

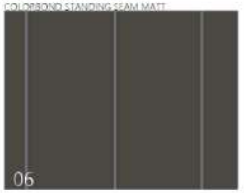
EXTERNAL CLADDING 01
COLORBOND MATT STANDING SEAM



EXTERNAL CLADDING 02
TIMBER LOOK - JAMES HARDIE OR SIMILAR

DOORS & WINDOWS
ALUMINIUM - COLORBOND MONUMENT

ROOF MATERIAL
COLORBOND STANDING SEAM MATT

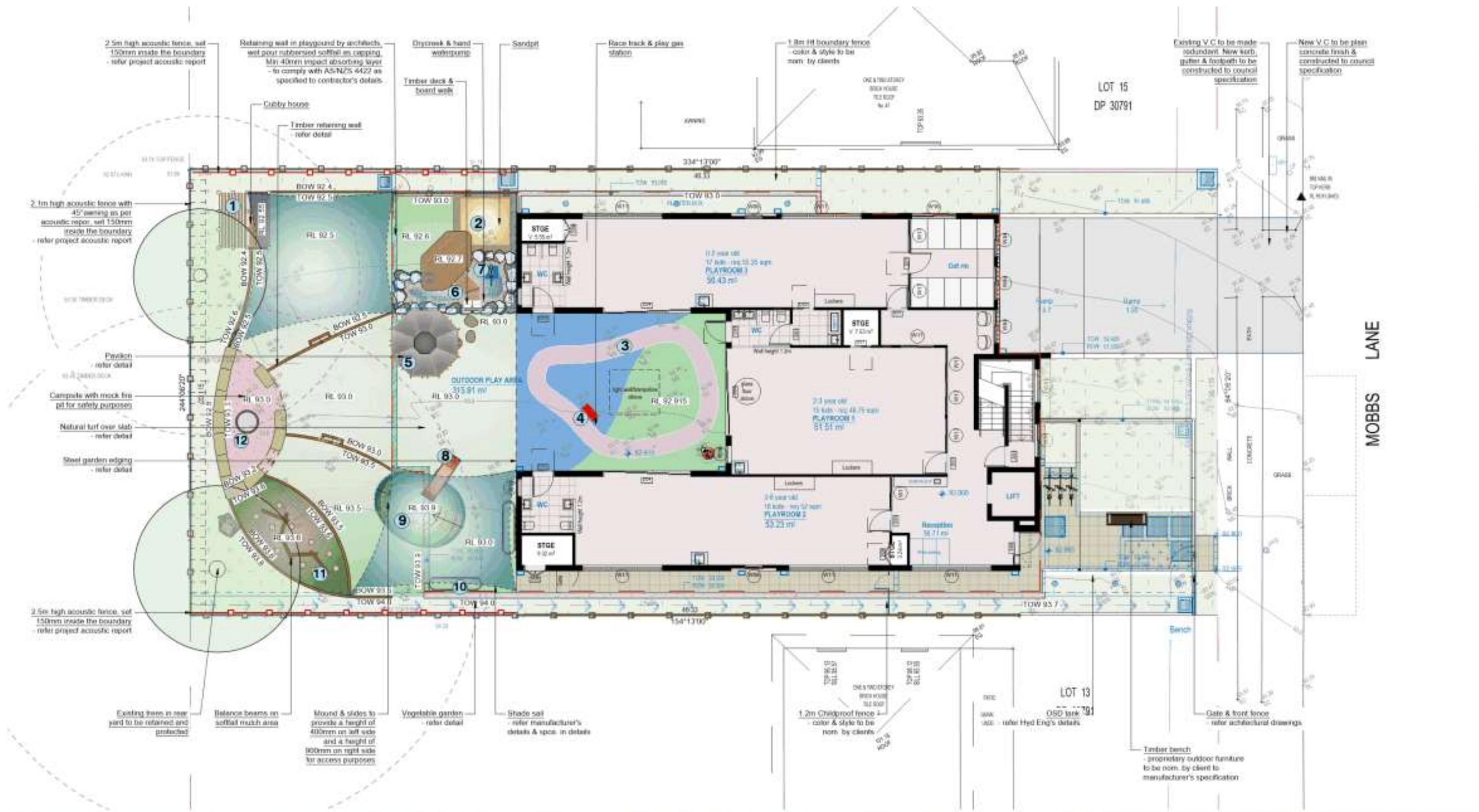


issue k:
issue j: PLANNING PANEL MINUTES 21/10/2021
issue h: DA RFI 22/07/2021
issue g: DA RFI comments 28/06/2021
issue f: DA 26/10/2020
issue e: DA coordination 15/09/2020
issue d: Pre - DA 27/07/2020
issue c: Schematic design 23/07/2020
issue b: schematic 64 30/06/2020
issue a: schematic 60 05/06/2020

drawing: MATERIALS & FINISHES
project: PROPOSED CHILD CARE CENTRE @ 45 MOBBS LANE CARLINGFORD
client: SKYCORP CONSTRUCTION GROUP
drawn: E.K. | scale: as shown | sheet size: A3 | Council
checked: J.E. | date: OCT | ref: 2020-192 | COP

i20
16 dunlop street
north parramatta nsw 2151
ph: +61 2 9630 9011
fax: + 61 2 9630 9022
mob: 0431 111 777
admin@designcorp.com.au
www.designcorp.com.au
designcorp ARCHITECTS
nominated architect - joe el-khoury nsw 6727

N



LOCATION PLAN
Scale: NTS

OTHER LANDSCAPE ITEMS

- Natural turf area - refer detail
- Rubberised soft fall - refer detail
- Artificial turf area - refer detail
- Concrete retaining / raised planter wall, wet pour rubberised softfall as capping. Min 40mm impact absorbing layer - to comply with AS/NZS 4422 to contractor's details
- Timber retaining wall - refer detail
- Steel garden edging - refer detail
- Deco granite surface finishes - refer detail
- Timber decking - refer detail
- Sandpit - refer detail
- Sandpit sandstone retaining wall - refer detail
- Drycreek & hand pump - refer detail
- Cubby house - refer manufacturer's detail & Spec. in detail
- Racing slides - refer detail & manufacturer's detail & Spec.
- Shade sail - refer manufacturer's detail & Spec. in detail
- Mound & play tunnel - refer manufacturer's detail & Spec.
- Tesla recharging play - refer manufacturer's detail & Spec.
- 1.2m Childproof fence - color & style to be nom. by clients
- 1.8m Boundary fence - color & style to be nom. by clients
- 2.1m high acoustic fence with 45°awning - refer project acoustic report
- 2.5m high acoustic fence - refer project acoustic report
- Push pull cart - refer manufacturer's detail & Spec.
- Play train - refer manufacturer's detail & Spec.
- Play train rail - refer manufacturer's detail & Spec.
- Lady bugs - refer manufacturer's detail & Spec.
- Trees proposed to be removed and replaced with new landscaping
- Existing trees proposed to be retained and protected


1 CUBBY HOUSE


2 SANDPIT


3 RACE TRACK


4 PLAY GAS STATION


5 PAVILION


6 DRYCREEK BED


7 WATER PUMPS


8 RACE SLIDES


9 MOUND & TUNNEL


10 VEGETABLE GARDEN


11 BALANCE BEAMS


12 STORYTELLING ARAE

CHILDCARE / PLAYGROUND SAFETYFALL ZONES (As Published by KIDSAFE NSW)

1. Playground equipment that measures 600mm or more above ground level requires a falling space and impact area.
2. Surfaces must have proof of testing in accordance with AS/NZS 4422
3. The maximum height of platforms in Education and Care Services is 1800mm
4. For static equipment items with platforms 600-1500mm above the ground, the falling space and impact area is 1500mm
5. A falling space/impact area of 1.7m is required for the maximum 1.8m platform height in SECS
6. Slides - Falling space and impact areas are required to be provided surrounding slides elevated more than 600mm above the playing surface
7. Equipment less than 600mm above ground level must be provided with an impact area of less than 1500mm. Kidsafe NSW recommends a circulation zone of 1000mm is provided surrounding low equipment items that are designed for climbing rocking or jumping.
8. The maximum fall height for moveable equipment is 1.5m (at the highest foot support and/or platform)
9. A minimum falling space and impact area of 1.5m is required for equipment items that measure 600mm or more above the ground.

LANDSCAPE CALCULATIONS

SITE AREA:	932.0m²
REQUIRED LANDSCAPE AREA: (Minimum dimension 2m)	372.8m² (40%)
PROPOSED LANDSCAPE AREA:	423.04m² (45.39%)
REQUIRED DEEP SOIL AREA: (Minimum dimension 2m)	279.6m² (30%)
PROPOSED DEEP SOIL AREA:	280.15m² (30.05%)

- refer to architectural plan Pg H5, Ref No. 2020-102, provided by DESIGNCORP ARCHITECTS

DRAINAGE PITS AND DRAINAGE LINES SHOULD BE LOCATED WITHIN GARDEN AREAS TO ALLOW FOR SITE DRAINAGE WHILE MINIMISING IMPACT ON THE PROPOSED PLANTING SCHEME. WHERE POSSIBLE, PITS AND LINEWORK SHOULD BE LOCATED AT THE EDGE OF LANDSCAPE STRIPS TO AVOID PRECLUDING PLANTING CENTRALLY IN GARDEN AREAS. WHERE PITS AND LINEWORK OCCUR WITHIN GARDEN BEDS, THE LANDSCAPE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO AVOID DAMAGING STORM WATER WHEN PLANTING SHRUBS AND TREES. LANDSCAPE CONTRACTORS SHALL NOT ALTER THE FORM OF SWALES DESIGNED TO DIRECT OVERLAND FLOW.

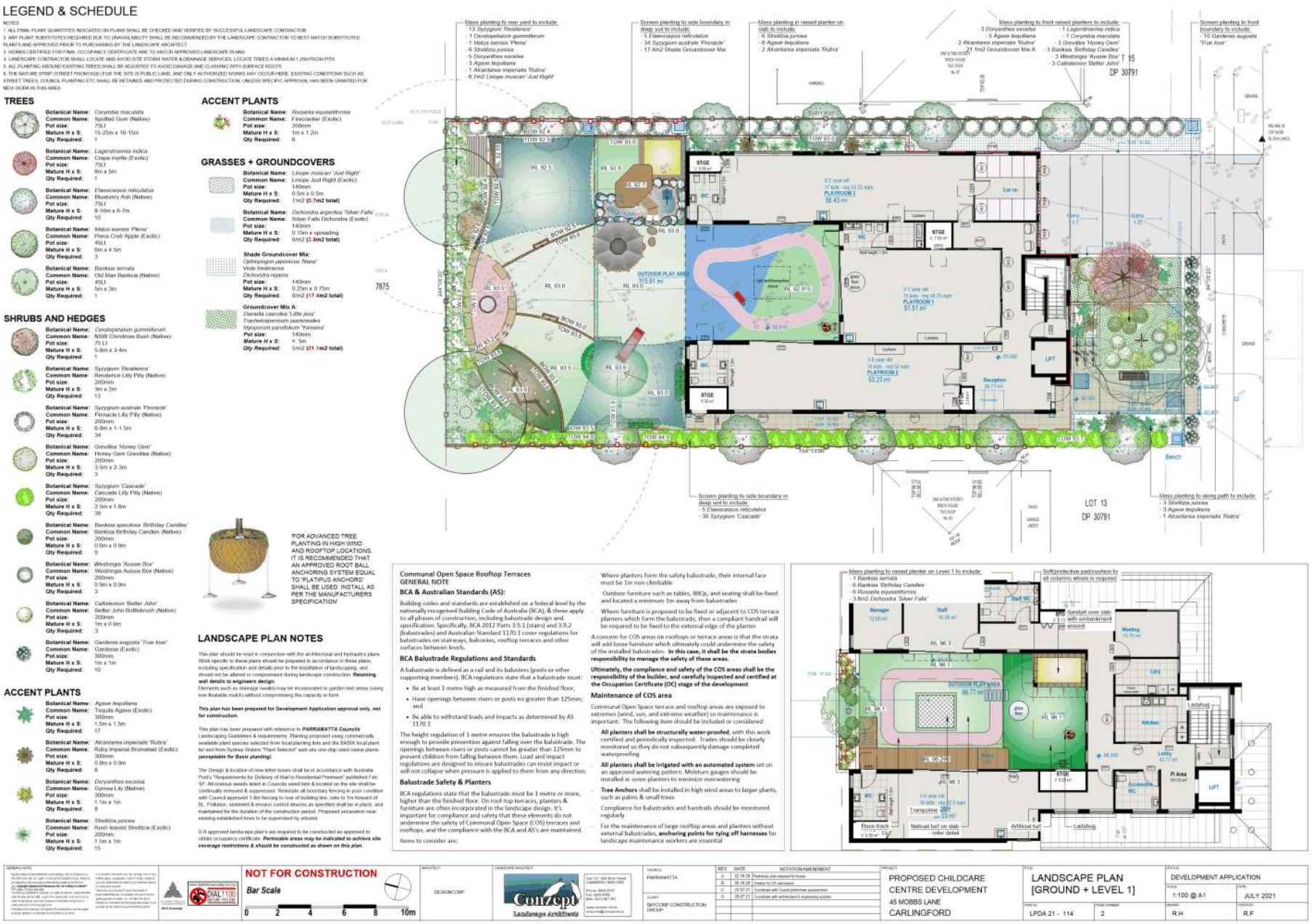
NOT FOR CONSTRUCTION

Bar Scale 0 2 4 6 8 10m

Architect: DESIGNCORP
Landscape Architect: Conzept Landscape Architects
Council: PARRAMATTA
Client: SKYCORP CONSTRUCTION GROUP

REV	DATE	NOTATION/AMENDMENT
A	22.10.20	Preliminary plan prepared for review
B	28.10.20	Finalise for DA submission
C	23.07.21	Coordinate with Council preliminary assessments
D	28.07.21	Coordinate with architectural & engineering updates

Project: PROPOSED CHILDCARE CENTRE DEVELOPMENT, 45 MOBBS LANE, CARLINGFORD
Title: HARDSCAPE/ SITE PLAN
Status: DEVELOPMENT APPLICATION
Scale: 1:100 @ A1
Date: JULY 2021
Drawing: LPDA 21 - 114
Page number: 1
Drawn: R.H
Checked: R.F


LEGEND & SCHEDULE
TREES
ACCENT PLANTS
GRASSES + GROUNDCOVERS
SHRUBS AND HEDGES
ACCENT PLANTS
LANDSCAPE PLAN NOTES
Communal Open Space Rooftop Terraces
GENERAL NOTE
BCA & Australian Standards (AS):
BCA Balustrade Regulations and Standards
Maintenance of COS area
Balustrade Safety & Planters
NOT FOR CONSTRUCTION
Bar Scale
0 2 4 6 8 10m
PROPOSED CHILDCARE CENTRE DEVELOPMENT
45 MOBBS LANE
CARLINGFORD
LANDSCAPE PLAN [GROUND + LEVEL 1]
DEVELOPMENT APPLICATION
1:100 @ A1
JULY 2021
LPDA 21 - 114
R.H
R.F

LANDSCAPE WORK SPECIFICATION

PRELIMINARIES

1.01 GENERAL

The following general conditions should be considered prior to the commencement of landscape works:

- The landscape plans should be read in conjunction with the architectural plans, project arborist's assessment, hydraulic plans, service plans and survey prepared for the proposed development.
- All services including existing drainage should be accurately located prior to the commencement of landscape installation. Any proposed tree planting which falls close to services will be relocated on site under the instruction of the landscape architect.
- Installation of conduit for required irrigation, electrical and other services should be completed prior to the commencement of hardscape works and hardstand pours.
- All outdoor lighting specified by architect or client to be installed by qualified electrician.
- Warranties that occur in these plans should be brought to our immediate attention.
- Where an Australian Standard applies for any landscape material testing or installation technique, that standard shall be followed.

1.02 PROTECTION OF ADJACENT FINISHES

The Contractor shall take all precautions to prevent damage to all or any adjacent finishes by providing adequate protection to these areas / surfaces prior to the commencement of the Works.

1.03 PROTECTION OF EXISTING TREES

Existing trees identified to be retained shall be done in accordance with (AS4970 Protection of trees on development sites as well as in accordance with the tree protection measures prepared by project arborist.

Where general works are occurring around such trees, or pruning is required, a qualified Arborist shall be engaged to oversee such works and manage tree health.

Existing trees designated on the drawing for retention shall be protected at all times during the construction period. Any soil within the drip line of existing trees shall be excavated and removed by hand only. No stockpiling shall occur within the root zone of existing trees to be retained.

Any roots larger in diameter than 50mm shall only be severed under instruction by a qualified arborist. Roots smaller than 50mm diameter shall be cut cleanly with a saw.

Temporary fencing shall be installed around the base of all trees to be retained prior to the commencement of landscape works. Where possible this fencing will be located around the drip line of these trees, or a minimum of 3m from the trunk. The fencing shall be maintained for the full construction period.

1.04 EROSION & POLLUTION CONTROL

The Contractor shall take all proper precautions to prevent the erosion of soil from the subject site. The contractor shall install erosion & sediment control barriers and as required by council, and maintain these barriers throughout the construction period. Note that the sediment control measures adopted should reflect the soil type and erosion characteristics of the site.

Erosion & pollution control measures shall incorporate the following:

- Construction of a sediment trap at the vehicle access point to the subject site.
- Sediment fencing using a geotextile filter fabric to the location indicated on the erosion control plan or as instructed on site by the landscape architect.
  - Earth banks to prevent scour of stockpiles.
  - Sandbag rock sediment traps.
  - Straw bale & geotextile sediment filter.
  - E-coloured fabric shall be pegged with an approved sole matting in preparation for mass planting.

Refer to 'Silsoe Reference 46' as prepared by DLWC & WSROC (1997) for construction techniques.

SOIL WORKS

2.01 MATERIALS

Specified Soil Conditioner (Generally to improve site soil)

The specified soil conditioner for site top-soil improvement shall be an organic mix, equal to 'Botany Humus', as supplied by ANL. Note that for sites where soil testing indicates toxins or extremes in pH, or soils that are extremely poor, allow to excavate and supply 300mm of imported soil mix.

New gardens & proposed Planting

New garden and planting areas shall consist of a 50/50 mix of clean site soil (refer a) below) and imported 'Organic Garden Mix' as supplied by ANL or approved equal. All mixes are to comply with AS 4419 Soils for landscaping & garden use, & AS 4454 Composts, Soil conditioners & mulches.

Specified Soil Mix - Turf

The specified soil mix for all turf areas shall be a min 75mm layer of imported soil mix consisting of 85% washed river sand (reasonably coarse), and 20% composted organic matter equivalent to mushroom compost or soil conditioner, or other approved bend top dress.

Site Topsoil

Site topsoil is to be clean and free of unwanted matter such as grass, clay lumps, grass, weeds, tree roots, rocks, bulbs and plastics, and any deleterious materials and materials toxic to plants. The topsoil must have a pH of between 5.5 and 7. Use 100% imported soil mix when site clean site when site topsoil mix not.

2.02 INSTALLATION (TO GARDEN OUTSIDE OF TREE PROTECTION ZONES OF TREES RECOMMENDED TO BE RETAINED)

Note: No level changes (Cut or Fill, soil ripping within the Tree Protection Zones of trees to be retained at Footing

All footing is to be conducted in accordance with AS 1289 Methods for testing soils for engineering purposes. Site soil shall be given a pH test prior to modifying to ensure conditions are appropriate for planting as stated above. Tests shall be taken in several areas where planting is proposed, and the pH shall be adjusted accordingly with sulphur or lime to suit.

Note that a soil test conducted by the "Sydney Soil Lab" or approved equal shall be prepared for all commercial, industrial and multi unit residential sites. The successful landscape contractor shall implement the recommendations of this test.

b) Set Out of Individual Trees & Mass Planting Areas

All individual tree planting positions and areas designated for mass planting shall be set out with stakes or another form of marking, ready for inspection and approval. Locate all services.

c) Establishing Subgrade Levels outside of tree protection zones of trees to be retained

Subgrade levels are defined as the finished base levels prior to the placement of the specified material (i.e. soil conditioner). The following subgrade levels shall apply:

- Mass Planting Beds - 300mm below existing levels with specified imported soil mix.
- Turf areas - 100mm below finished surface level.

Note that all subgrades shall consist of a relatively free draining natural material, consisting of site topsoil placed previously by the Civil Contractor. No builders waste material shall be acceptable.

d) Subgrade Cultivation

Cultivate all subgrades to a minimum depth of 100mm in all planting beds and all turf areas, ensuring a thorough breakup of the subgrade into a reasonably coarse tilth. Grade subgrades to provide falls to surface and subsurface drains, prior to the placement of the final specified soil mix.

e) Drainage Works

Install subfloor and subsurface drainage where required and as detailed on the drawing. Drain subsurface drains to outlets provided, with a minimum fall of 1:100 to outlets and / or service pits.

f) Placement and Preparation of Specified Soil Conditioner & Mixes.

- Trees in turf & beds - Holes shall be twice as wide as root ball and minimum 100mm deeper - backfill hole with 50/50 mix of clean site soil and imported 'Organic Garden Mix' as supplied by ANL or approved equal.
- Mass Planting Beds - Install specified soil conditioner to a compacted depth of 100mm.

Place the specified soil conditioner to the required compacted depth and use a rotary hoe to thoroughly mix the conditioner into the top 300mm of garden bed soil. Ensure thorough mixing and the preparation of a reasonably fine tilth and good growing medium in preparation for planting.

- Turf Areas - Install specified soil mix to a minimum compacted depth of 75mm.

Place the specified soil mix to the required compacted depth and grade to required finished soil levels, in preparation for planting and turfing.

PLANTING

3.01 MATERIALS

a) Quality and Size of Plant Material

All trees supplied above a 25L container size must be grown and planted in accordance with AS 2303:2015 'TREE STOCK FOR LANDSCAPE USE'. Certification that these have been grown to AS 2303:2018 is to be provided upon request of Council's Tree Management Officer.

Above - Ground Assessment

The following plant quality assessment criteria should be followed:

Plant to be sure, Good vigour and health, free from pest & disease, free from injury, self-supporting, good stem taper, has been pruned correctly, is aerially dominant, has even crown symmetry, free from included bark & stem junctions, even trunk position in pot, good stem structure.

Below - Ground Assessment

Good root division & direction, installed acceptance, root/soil depth, height of crown, non-suckering For further explanation and description of these assessment criteria, refer to Floyd Clark's book.

All Plant material shall be to the type and size specified. No substitutions of plant material shall be permitted without written prior approval by the Landscape Architect. No plant shall be accepted which does not conform to the standards listed above.

b) Stakes and Ties

Provide min. 3 No. Stakes and ties to all plants identified as trees in the plant schedule. Stakes shall be sound, prepointed, straight hardwood, free of knots and pointed at one end. They shall be 1800mm x 50mm x 50mm Hardwood timber, or as per council specification where is available. Ties shall be 50mm wide hessian webbing material.

c) Fertilizers

Fertilizer's shall be approved slow release fertilizers suitable for the proposed planting types. Note that for native plants, specifically Proteaceae family plants including Grevillea species, low phosphorus fertilizers shall be used.

d) Mulch

Mulch for general planters bed shall be an approved equal to 'Forest Blend' as supplied by ANL. Mulch shall be completely free from any soil, weeds, rubbish or other debris. Mulch for bio-retention/rain garden area where is required shall be non-floatable materials that could include crushed rock, gravel, coarse river sand, scoria or river pebbles. A Free screenings or similar.

e) Turf

Turf for proposed site shall be soft leaf Buffalo or 'Zoysia matrella 'Nara' or equivalent unless stated otherwise, free from any weeds and other grasses, and be in a healthy growing condition. Re-turfing to native strip where is required shall use species that match existing on street.

3.02 INSTALLATION

a) Setting Out

All planting set out shall be in strict accordance with the drawings, or as directed. Note that proposed tree planting location over services should be adjusted at this stage. Notify Landscape Architect for inspection for approval prior to planting.

b) Planting

All plant material shall be planted as soon after delivery as possible. Planting holes for trees shall be excavated as detailed and specified. Plant containers shall be removed and discarded, and the outer roots gently teased from the soil mass. Immediately set plant in hole and backfill with specified soil mix, incorporating the approved quantity of fertiliser for each plant type. Ensure that plants are set plumb vertically and root balls set to the consolidated finished grades detailed on the drawings. Compact the backfilled soil and saturate by hand watering to expel any remaining air pockets immediately after planting.

c) Staking and Tying

Staking and tying shall be in strict accordance with the drawings and shall occur immediately following plant placement and soil backfilling. All plants identified as "Trees" on the planting schedule shall be staked with a min. 3 stakes.

d) Mulching

Mulch for general planter bed shall be an approved equal to 'Forest Blend' as supplied by ANL. Mulch shall be completely free from any soil, weeds, rubbish or other debris. Mulch for bio-retention/rain garden area where is required shall be non-floatable materials that could include crushed rock, gravel, scoria or river pebbles. A Free screenings or similar.

e) Turfing

Maintain soil prior to the turf being laid. Turf shall be neatly butt jointed and true to grade to finish flush with adjacent surfaces. Incorporate a turf fertiliser and Biostimulants water in. Keep turf moist until roots have taken and underside cannot be lifted. Keep all traffic off turf until this has occurred. Allow for top dressing of all turf areas. All turf shall be rolled immediately following installation.

f) Timber retaining wall

Where it is required, the Contractor shall install timber retaining wall as detailed on the drawings, to all mass planting beds adjoining turf or gravel mulched areas, and where required. The resultant edge shall be true to line and flush with adjacent surfaces. **However, no edging shall be used within the Structural Root Zone (SRZ) of trees to be retained.**

g) Earth retaining structure

All walls which form part of drainage works must be built as detailed by the hydraulic engineer. All walls exceeding 900mm shall be of reinforced concrete/steel materials, construction details to be provided by a qualified engineer. Install turf to all site levels and to manufacturer's specification.

HARDSCAPE WORKS

4.01 GENERAL

The Contractor shall undertake the installation of all landscape works as detailed on the drawing, or where not detailed, to manufacturer's specification.

- Paving - refer to typical details provided, and applicable Australian Standards. Permission paving may be used as a suitable means of satisfying Council permeable surface requirements, while providing a useable, hardwearing, practical surface. In most instances, the client shall nominate the appropriate paving material to be used.

Australian Standards shall be adhered to in relation to all concrete, masonry & metal work. Some details are typical and may vary on site. All hardscape works shall be vetted as per the drawings, and inspected and approved by the Landscape Architect prior to installation. All workmanship shall be of the highest standard. Any queries or problems that arise from hardscape variations should be brought to the attention of the Landscape Architect.

Your attention is directed to any obligations or responsibilities under the Dividing Fences Act, 1991 in respect of adjoining property owners which may arise from this application. Any enquiries in this regard may be made to the Crome Lamb Division on (02) 9810 5122.

IRRIGATION WORKS

5.01 GENERAL (PERFORMANCE SPECIFICATION

New irrigation systems to planting areas shall be a Commercial Grade irrigation System conforming to all relevant Australian standards, including AS 3500 & the Electrical Safety Act 2002, Workplace Health & Safety Act 1983 & the latest Sydney Water Code.

An automated drip irrigation system is to be installed to all gardens, planters and lawn areas in accordance with the approved Irrigation Design.

The system shall be designed and installed by a qualified and licensed irrigation specialist, to the highest industry standards and to maximise the efficient usage of water.

The Installer is required to obtain all approvals necessary for the completion of works in accordance with the Laws of Australia, Laws of the State of NSW, PARRAMATTA Council by Laws and Ordinances.

Drawings:

- The Landscape Contractor nominated Licensed Irrigation Specialist shall provide irrigation drawings for approval upon engagement.

Design Requirements:

- The irrigation system shall be installed prior to all planting works. It shall incorporate a commercially available irrigation system, with sub-surface dripper lines to irrigate all gardens, planters and lawn areas.
- It shall incorporate a suitable back flow prevention device for the scale of works, as in the Blue, check valves, and suitable high and low density poly hose fittings and PVC piping to achieve flow rates suitable for specified planting.
- The irrigation application rate shall not exceed the infiltration rate of the soil or create run off.
- The landscape contractor shall check the existing pressure available from the city mains and size irrigation piping to suit. Supply shall be from local hose cock where available.
- All piping and fittings shall be below 50mm below the finished soil levels in garden and lawn areas, and secured in position at 300mm centres with galv wire pins.
- Size of pipes shall be selected to ensure the working pressure at the end of the line does not decrease by more than 5%.

Servicing Co-ordination:

- Co-ordination is required by Landscape Contractor or Project Manager to provide required conduit, pipe work and penetration through slabs and planter walls for water and power provision.
- The Landscape Contractor shall be engaged with the Irrigation Specialist to co-ordinate with the Project Manager to identify the preferred service and conduit location.
- Project Manager and Landscape Contractor to establish area suitable for irrigation control system with required area, power provision and water supply.

Testing & Defects:

Upon completion of installation, the system shall be tested, including:

- Main Line Pressure Test. The main line is pressurised to test for leaks. All valves are shut and the pressure is taken over a determined length of time.
- Dripper Perimeter Test. Measurement at flushing valves are taken and the pressure gauged to make sure it conforms to the manufacturer recommendations. The inlet pressure is then tested under the same conditions to check it does not exceed 30Mpa.
- All components are to be satisfactorily functional and operational prior to approval. Should any defect develop, or the capacity or efficiency of the system decline during the agreed maintenance system, then these faults shall be immediately rectified.

Warranty:

- A full 12 month warranty shall be included to cover labour and all parts.

Further Documentation:

- On request, a detailed irrigation performance specification report can be issued.

LANDSCAPE MAINTENANCE

6.01 GENERAL

The consolidation and maintenance period shall be 12 months beginning from the approved completion of the specified construction work (Practical Completion). A qualified landscape maintenance contractor shall undertake the required landscape maintenance works. Consolidation and maintenance shall mean the care and maintenance of Contractor works by accepted trade skills or horticultural practices, ensuring that all plants are in optimum growing conditions and appearance at all times, as well as rectifying any defects that become apparent to the contracted works.

This shall include, but not be limited to, the following items where and as required:

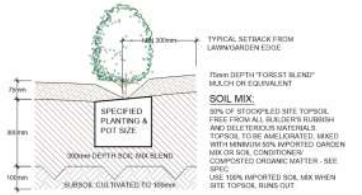
- Watering all planting and lawn areas / irrigation maintenance.
- Clearing litter and other debris from landscaped areas.
- Pruning by weed, pruning and general plant maintenance.
- Replacement of damaged, stolen or unhealthy plants.
- Make good areas of soil subsidence or erosion.
- Topping up of mulched areas.
- Spray / treatment for insect and disease control.
- Fertilising with approved fertilizers at correct rates.
- Mowing lawns & trimming edges each 14 days in summer or 15 days in winter.
- Adjusting ties to Stakes.
- Maintenance of all paving, retaining and hardscape elements.

On the completion of the maintenance period, the landscape works shall be inspected and at the satisfaction of the superintendent or landscape architect, the responsibility will be signed over to the client.

PROVIDE FENCING AS DETAILED TO ALL TREES PROPOSED TO BE RETAINED ON THE SUBJECT SITE. FENCING TO BE LOCATED TO THE DRIP LINE OF TREES OR AS INDICATED ON PLANS OR DIRECTED ON SITE BY ARBORIST. NO STOCKPILING WITHIN FENCE PERIMETERS

TREE PROTECTION ZONE

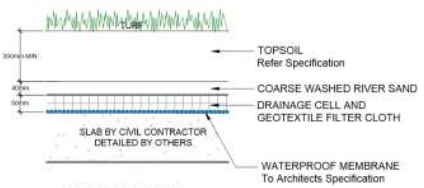
N.T.S



TYPICAL GARDEN PREPARATION DETAIL

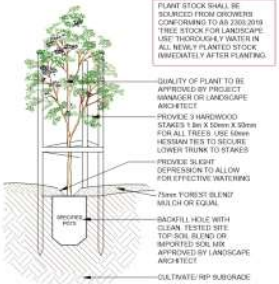
SCALE 1:10

(ONLY APPLICABLE FOR PLANTING AREA OUTSIDE TREE PROTECTION ZONE OF TREES TO BE RETAINED. NO CHANGES ARE TO OCCUR TO EXISTING LEVELS, INCLUDING RIPPING/CULTIVATING OF THE SOIL WITHIN THE TPZ OF TREES TO BE RETAINED ON SITE)



TURF ON SLAB

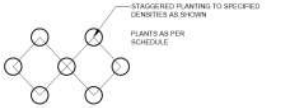
1:10



TREE PLANTING DETAIL

SCALE: 1:10

(ONLY APPLICABLE FOR PLANTING AREA OUTSIDE TREE PROTECTION ZONE OF TREES TO BE RETAINED. NO CHANGES ARE TO OCCUR TO EXISTING LEVELS, INCLUDING RIPPING/CULTIVATING OF THE SOIL WITHIN THE TPZ OF TREES TO BE RETAINED ON SITE)

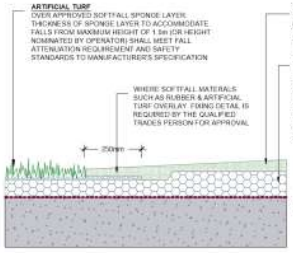


MASS PLANTING SETOUT

N.T.S

STEEL EDGE DETAIL

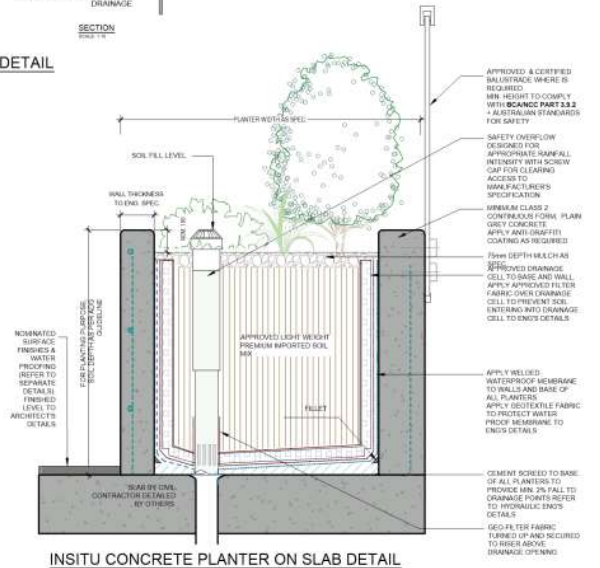
SCALE: 1:10



'ALL ARTIFICIAL GRASS INSTALLED BY MANUFACTURE'S SPEC & DETAIL

TYPICAL RUBBERISED SOFTFALL AND SYNTHETIC TURF ON SLAB

SCALE: 1:15



INSITU CONCRETE PLANTER ON SLAB DETAIL

SCALE: 1:10

NOT FOR CONSTRUCTION

DESIGNCORP

Conzept Landscape Architects

PARRAMATTA

SKYCORP CONSTRUCTION GROUP

REV	DATE	NOTATION/AMENDMENT
A	22.10.19	Preliminary plan prepared for review
B	28.10.19	Finalise for DA submission
C	20.07.21	Coordinate with Council preliminary assessments
D	26.07.21	Coordinate with architectural & engineering updates

PROJECT: PROPOSED CHILDCARE CENTRE DEVELOPMENT
45 MOBBS LANE
CARLINGFORD

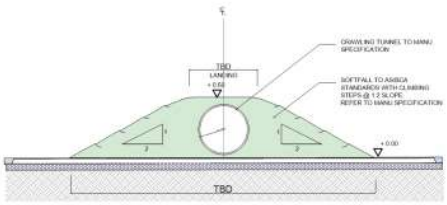
TITLE: SPECIFICATIONS & DETAILS

STATUS: DEVELOPMENT APPLICATION

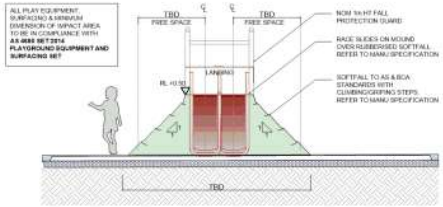
DWG No.	PHASE NUMBER	SCALE	DATE
LPDA 21 - 114	3	1:100 @ A1	JULY 2021

DRAWN: R.H

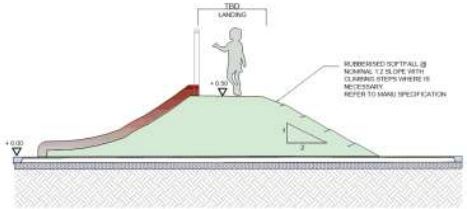
CHECKED: R.F



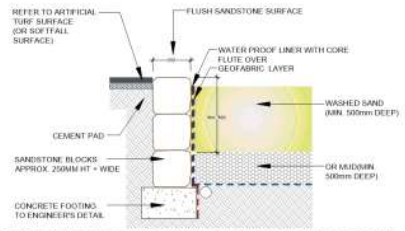
CRAWLING TUNNEL - FRONT ELEVATION
SCALE: 1:20



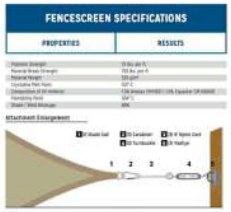
SLIDE ON MOUND - FRONT ELEVATION
SCALE: 1:20

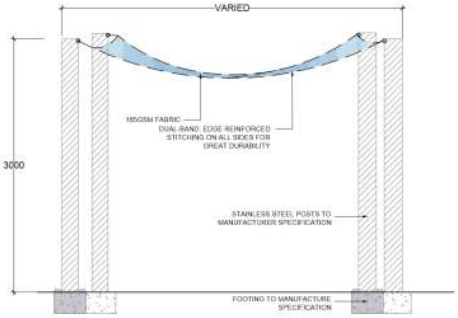


SLIDE ON MOUND - SECTION/ ELEVATION
SCALE: 1:20

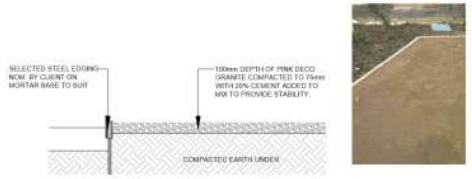


TYPICAL SANDPIT & SANDSTONE EDGING DETAIL
SCALE 1:20

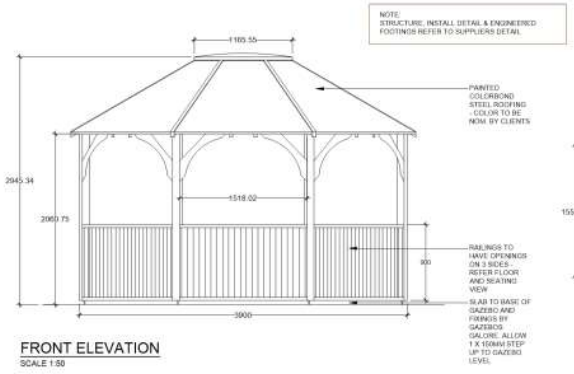




TRELLIS FIXED ON TIMBER FENCE
SCALE: 1:20

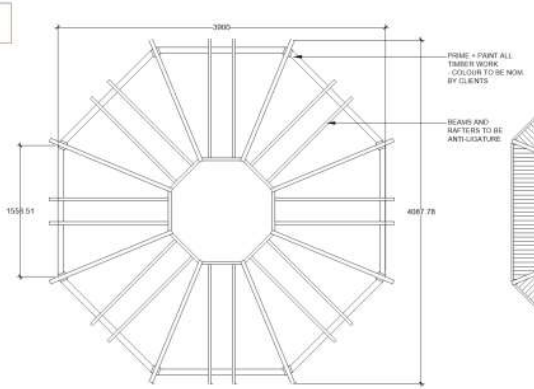


TYPICAL COMPACTED DECO GRANITE DETAIL
SCALE 1:10

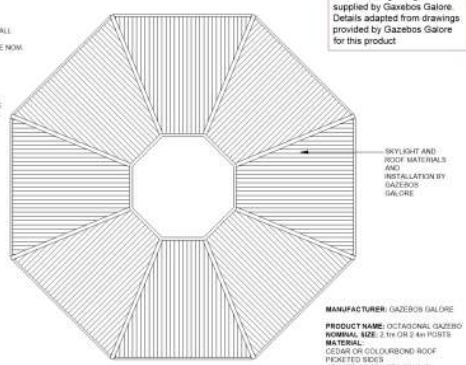


FRONT ELEVATION
SCALE 1:50

OCTAGONAL GAZEBO TYPICAL DETAIL
scale as shown



BEAM & RAFTERS VIEW
SCALE 1:50



ROOF VIEW
SCALE 1:50

Outdoor octagonal gazebo supplied by Gaxebos Galore. Details adapted from drawings provided by Gazebos Galore for this product

MANUFACTURER: GAZEBOS GALORE
PRODUCT NAME: OCTAGONAL GAZEBO
NOMINAL SIZE: 2.1m OR 2.4m POSTS
MATERIAL: CEDAR OR COLOURBOND ROOF PICKETED SIDES STAINED OR PAINTED FINISHE
PH: 1800500129
WEBSITE: https://gazebosgalore.com.au/octagonal-hexagonal-pentagon-gazebos/octagonal-gazebo

NOT FOR CONSTRUCTION

DESIGNCORP

Conzept Landscape Architects

PARRAMATTA

SKYCORP CONSTRUCTION GROUP

REV	DATE	NOTATION/AMENDMENT
A	02.10.19	Preliminary plan prepared for review
B	28.10.19	Finalise for DA submission
C	23.07.21	Coordinate with Council preliminary assessments
D	26.07.21	Coordinate with architectural & engineering updates

PROPOSED CHILDCARE CENTRE DEVELOPMENT
45 MOBBS LANE
CARLINGFORD

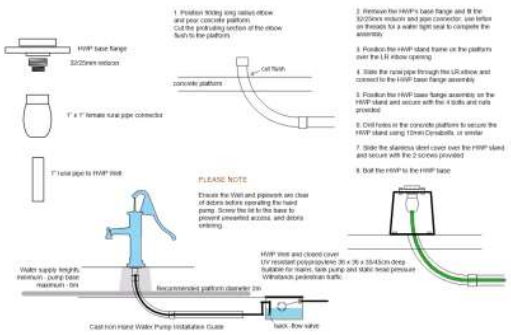
DETAILS

LPDA 21 - 114 | 4

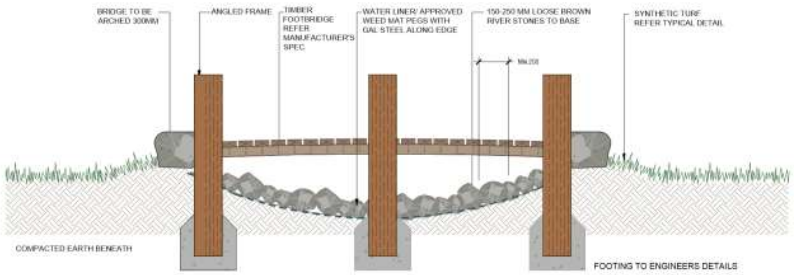
DEVELOPMENT APPLICATION

1:100 @ A1 | JULY 2021

R.H | R.F



CAST IRON HAND WATER PUMP
N.T.S



TYPICAL FOOT BRIDGE DETAILS
SCALE 1:20

CUBBY HOUSE
SCALE N.T.S

MANUFACTURER: AARONS OUTDOOR LIVING

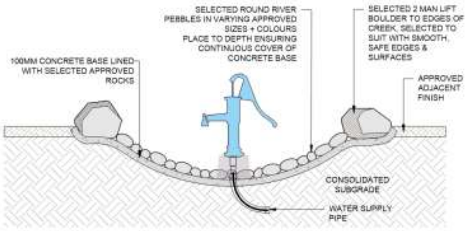
PRODUCT NAME: TAJ MAHAL CUBBY HOUSE
3.3M(W) X 3.3M(L) X 2.1M(H)

MATERIAL: TREATED PINE(ARSENIC FREE) - INSIDE AND OUT

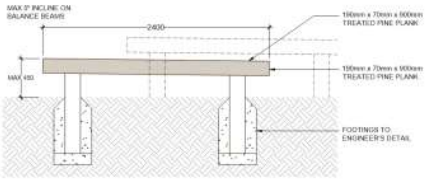
COLOURBOND ROOF - CHOICE OF COLOURS

PH: 1300 227 667

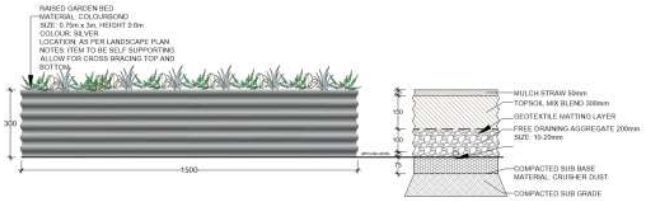
WEBSITE: http://www.aaronsoutdoor.com.au/



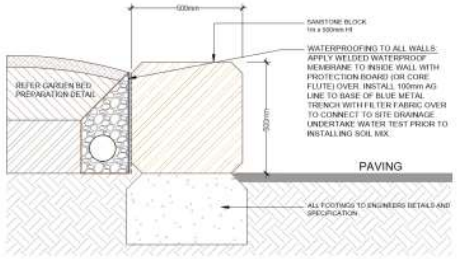
TYPICAL DRY RIVER BED WIH WATER PUMP TREATMENT
SCALE: N.T.S



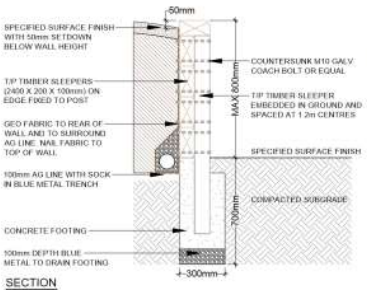
BALANCE BEAMS TYPICAL DETAIL
SCALE: 1:25



RAISED COMMUNITY GARDEN BED
SCALE: 1:20



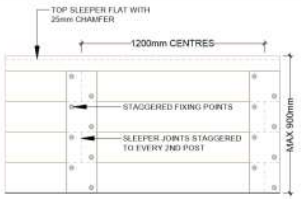
SANDSTONE BLOCK RETAINING WALL DETAIL
SCALE 1:10



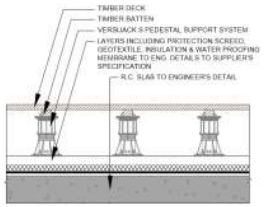
SECTION

TIMBER SLEEPER RETAINING WALL
SCALE 1:10

NOTE: TYPICAL DETAIL ONLY. ALL WALLS WHICH FORM PART OF DRAINAGE WORKS MUST BE BUILT AS DETAILED BY THE HYDRAULIC ENGINEER. ALL WALLS EXCEEDING 800mm SHALL BE OF **NO** TIMBER CONSTRUCTION MATERIALS. CONSTRUCTION DETAILS TO BE PROVIDED BY A QUALIFIED ENGINEER. INSTALL WALL TO SUIT SITE LEVELS AND TO MANUFACTURE'S SPECIFICATION.



ELEVATION



TIMBER DECKING DETAIL
SCALE 1:20

NOT FOR CONSTRUCTION

DESIGNCORP

Conzept Landscape Architects

PWINNAMATTA

SKYCORP CONSTRUCTION GROUP

REV	DATE	NOTATION/AMENDMENT
A	22.10.19	Preliminary plan prepared for review
B	26.10.20	Finalise for DA submission
C	23.07.21	Coordinate with Council preliminary assessments
D	09.07.21	Coordinate with architectural & engineering updates

PROPOSED CHILDCARE CENTRE DEVELOPMENT
45 MOBBS LANE
CARLINGFORD

DETAILS

DEVELOPMENT APPLICATION

SCALE	DATE
1:100 @ A1	JULY 2021

DWG No.	PROJ. NUMBER	DRAWN	CHECKED
LPDA 21 - 114	5	R.H	R.F

45 MOBBS LANE, CARLINGFORD
PROPOSED CHILD CARE CENTRE
STORMWATER CONCEPT PLANS

LEGEND

- PROPOSED STORMWATER
- PIPE OVERCROSSING MINIMUM 150mm CLEARANCE
- E+S — EXISTING SEWER MAIN (FROM RECORDS)
- E+W — EXISTING WATER (FROM RECORDS)
- E+E — EXISTING POWER (FROM RECORDS)
- E+T — EXISTING TELSTRA (FROM RECORDS)
- GP — GUTTER DOWNPIPE
- ROOF SLOPE
- PG — PLANTER GRATE
- FG — FLOOR GRATE
- RWO — RAINWATER OUTLET
- SURFACE FLOW ARROWS
- X RL 47.00 — DESIGN SURFACE LEVEL
- 50 24.45 — EXISTING SURFACE LEVEL
- IL 47.00 — INVERT LEVEL OF PIPE JUNCTION
- FENCE WITH 50mm GAP BENEATH FOR OVERLAND FLOWS
- CLOSED STYLE FENCING
- MASONRY RETAINING WALL TO STRUCTURAL ENGINEER'S DETAILS
- SWALE DRAIN
- PROPOSED OSD STORAGE
- ROOF AREA TO RAINWATER TANK
- AREA BYPASSING OSD
- PROPOSED WSUD / BIO-RETENTION AREA / POND
- TREES TO BE RETAINED
- TREES TO BE REMOVED
- RAISED CONCRETE EDGING
- Ø65 RISER WITH NON-RETURN VALVE
- OF — EMERGENCY OVERFLOW SPITTERS/PIPES

DRAWING INDEX

Drawing No.	DESCRIPTION
000	COVER SHEET, LEGEND & NOTES
101	STORMWATER CONCEPT PLAN BASEMENT LEVEL SHEET 1 OF 2
102	STORMWATER CONCEPT PLAN BASEMENT LEVEL SHEET 2 OF 2
103	STORMWATER CONCEPT PLAN
104	OSD & WSUD DETAILS AND CALCULATION SHEETS SHEET 1 OF 3
105	OSD & WSUD DETAILS AND CALCULATION SHEETS SHEET 2 OF 3
106	OSD & WSUD DETAILS AND CALCULATION SHEETS SHEET 3 OF 3
107	SEDIMENT & EROSION CONTROL PLAN AND DETAILS
108	MISCELLANEOUS DETAILS SHEET

Regulated Design Record

Project Address: 45 Mobbs Lane, Carlingford
Project Title: CHILD CARE CENTRE
Consent No: DA/725/2020 Body Corporate Reg No: –
Drawing Title: COVER SHEET, NOTES & LEGEND Drawing No: 000

Rev	Date dd.mm.yy	Description	DP Full Name	Reg No
1	27.07.21	COUNCIL COMMENTS	ANTHONY HASHAM	DEP0000105

ROOF NOTE:
IT IS CONTRACTOR'S RESPONSABILITY TO ENSURE MINIMUM 30 TO 40mm OF PONDING IS ACHIEVED OVER THE FLOOR WASTES BY GRADING CATCHMENT'S SURFACES AT MINIMUM 1% FALL.

PIPES NOTE:
Ø65 PVC @ MIN 1.0%
Ø90 PVC @ MIN 1.0%
Ø100 PVC @ MIN 1.0%
Ø150 PVC @ MIN 1.0%
Ø225 PVC @ MIN 0.5%
Ø300 PVC @ MIN 0.4%
UNLESS NOTED OTHERWISE

GENERAL NOTES

1. ALL LINES ARE TO BE Ø90 uPVC 1.0% GRADE UNLESS NOTED OTHERWISE. CHARGED LINES TO BE SEWERGRADE & SEALED.
2. EXISTING SERVICES LOCATIONS SHOWN INDICATIVE ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE & LEVEL ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY EARTHWORKS.
3. ALL PIPES TO HAVE MIN 150mm COVER IF LOCATED WITHIN PROPERTY.
4. ALL PITS IN DRIVEWAYS TO BE 450x450 CONCRETE AND ALL PITS IN LANDSCAPED AREAS TO BE 450x450 PLASTIC.
5. PITS LESS THAN 600mm DEEP MAY BE BRICK, PRECAST OR CONCRETE.
6. ALL BALCONIES AND ROOFS TO BE DRAINED AND TO HAVE SAFETY OVERFLOWS IN ACCORDANCE WITH RELEVANT AUSTRALIAN STANDARDS.
7. ALL EXTERNAL SLABS TO BE WATERPROOFED.
8. ALL GRATES TO HAVE CHILD PROOF LOCKS.
9. ALL DRAINAGE WORKS TO AVOID TREE ROOTS.
10. ALL DPs TO HAVE LEAF GUARDS.
11. ALL EXISTING LEVELS TO BE CONFIRMED BY BUILDER PRIOR TO CONSTRUCTION.
12. ALL WORK WITHIN COUNCIL RESERVE TO BE INSPECTED BY COUNCIL PRIOR TO CONSTRUCTION.
13. COUNCIL'S ISSUED FOOTWAY DESIGN LEVELS TO BE INCORPORATED INTO THE FINISHED LEVELS ONCE ISSUED BY COUNCIL.
14. ALL WORK SHALL BE IN ACCORDANCE WITH S.C.A. AND A.S.3500.3.
15. REFER TO LANDSCAPE ARCHITECT'S DRAWINGS FOR LANDSCAPING.
16. CARE TO BE TAKEN AROUND EXISTING SEWER. STRUCTURAL ADVICE IS REQUIRED FOR SEWER PROTECTION AGAINST ADDITIONAL LOADING FROM NEW PITS, PIPES, RETAINING WALLS AND OSD BASIN WATER LEVELS.
17. ALL WALLS FORMING THE DETENTION BASINS SHALL BE CONSTRUCTED WHOLLY WITHIN THE PROPERTY BOUNDARIES OF THE SITE BEING DEVELOPED.
18. OSD WARNING SIGN AND SAFETY FENCING SHALL BE PROVIDED TO ABOVE GROUND OSD STORAGE AREA IN ACCORDANCE WITH COUNCIL REQUIREMENTS.
19. ENSURE THAT NON FLOATABLE MULCH IS USED IN DETENTION BASINS, ie. USE DECORATIVE ROCK MULCH OR EQUIVALENT.
20. ALL PIPES IN BALCONIES TO BE Ø65 uPVC CAST IN CONCRETE SLAB. CONTRACTOR TO PROVIDE A BREAK / OPEN VOID IN RAIL / BALLUSTRADE FOR STORMWATER EMERGENCY OVERFLOW. ALL ENCLOSED AREAS/PLANTER BOXES TO BE FITTED WITH FLOOR WASTES & DRAINED TO OSD DOWNPIPES TO BE CHECKED BY ARCHITECT & PLUMBER PRIOR TO CONSTRUCTION.
21. THE OSD BASIN / TANK IS TO BE BUILT TO THE CORRECT LEVELS & SIZE AS PER THIS DESIGN. ANY VARIATIONS ARE TO BE DONE UNDER CONSULTATION FROM OUR OFFICE ONLY. ANY AMENDMENTS WITHOUT OUR APPROVAL WOULD RESULT IN ADDITIONAL FEES FOR REDESIGN AT OC STAGE OR IF A SOLUTION CANNOT BE FOUND, RECONSTRUCTION IS REQUIRED UNDER THE CONTRACTOR'S EXPENSES.

NOT FOR CONSTRUCTION

Issue	Description	Date	Design	Checked
B	COUNCIL COMMENTS	27/07/2021	AGN	JSF
A	ISSUE FOR DEVELOPMENT APPLICATION	22/10/2020	EHZ	JSF

Certification by Dr Anthony Hasham (NPER)

Architect: Designcorp, 16 dunlop street north parramattaNSW 2151, PHONE: +61 2 9630 9911, Email: admin@designcorp.com.au

Client: Skycorp Construction Group

Council: City of Parramatta Council

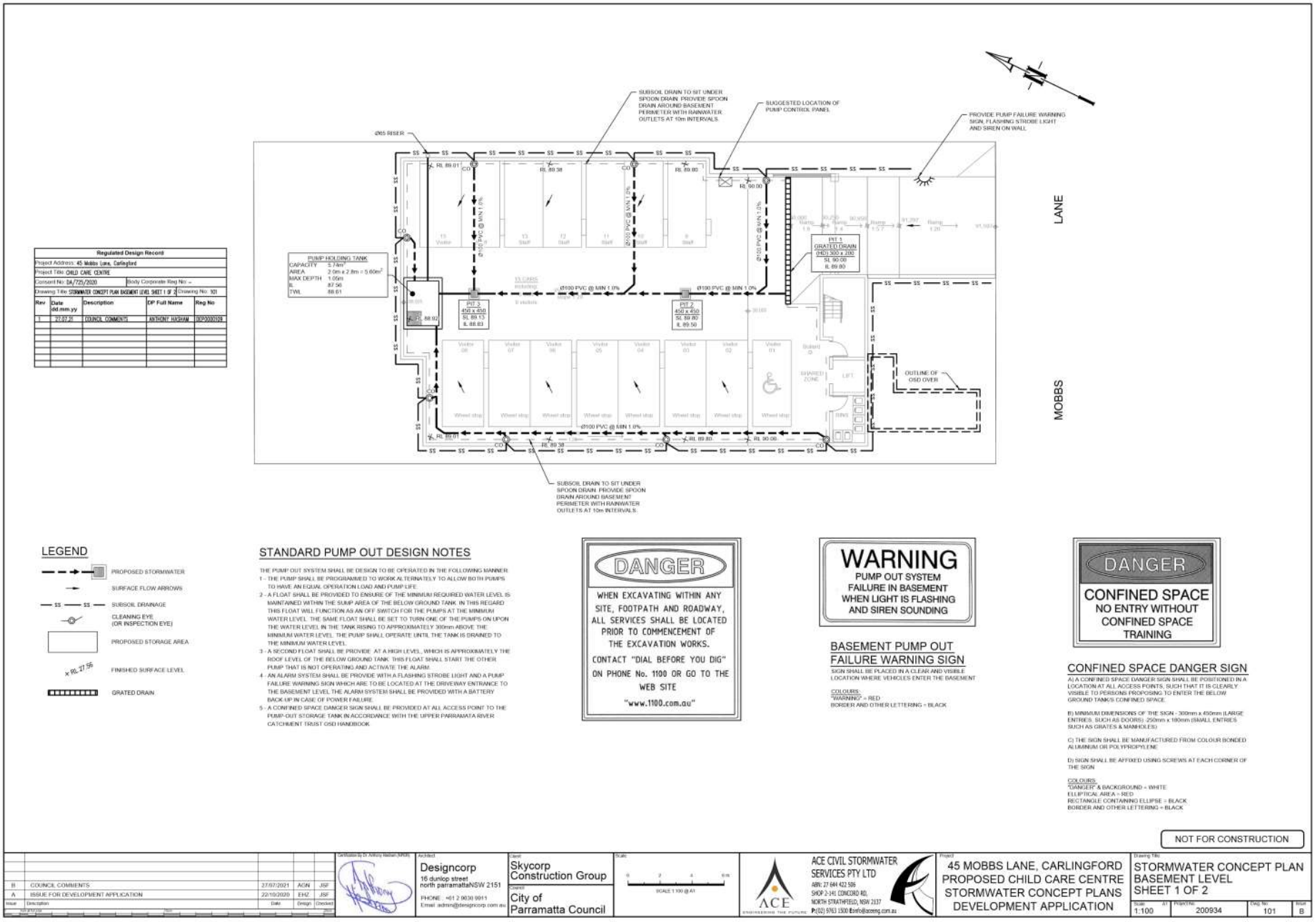
Scale:

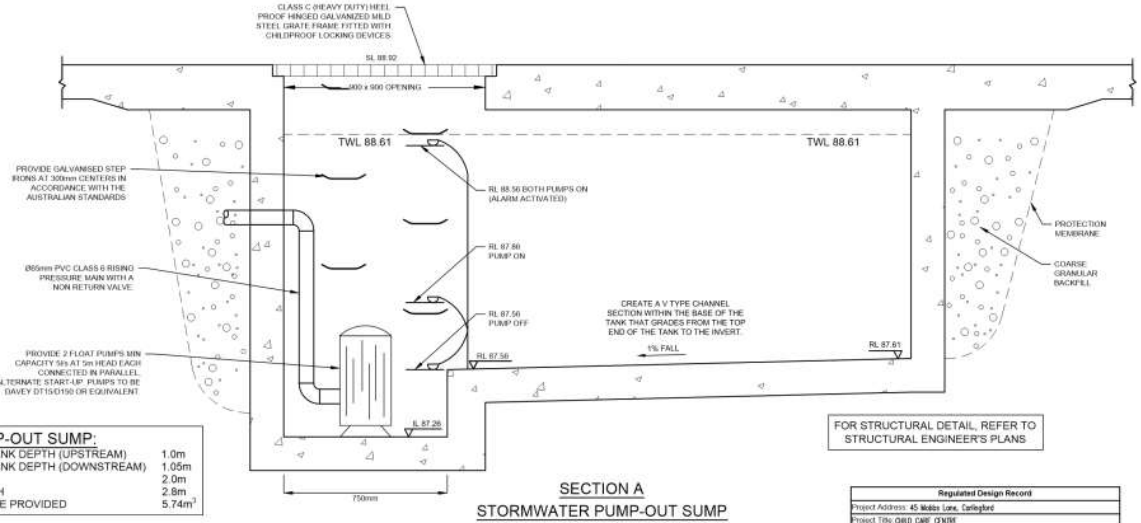
ACE CIVIL STORMWATER SERVICES PTY LTD
ABN: 27 644 422 586
SHOP 2-141 CONCORD RD, NORTH STRATHFIELD, NSW 2137
P:(02) 9763 1300 E:info@aceeng.com.au

Project: 45 MOBBS LANE, CARLINGFORD
PROPOSED CHILD CARE CENTRE
STORMWATER CONCEPT PLANS
DEVELOPMENT APPLICATION

Drawing Title: COVER SHEET, NOTES & LEGEND

Scale	AT	Project No.	Dwg No.	Issue
N.T.S.		200934	000	B


Regulated Design Record
Project Address: 45 Mobbs Lane, Carlingford
Project Title: CHILD CARE CENTRE
Consent No: DA/725/2020
Body Corporate Reg No: –
Drawing Title: STORMWATER CONCEPT PLAN BASEMENT LEVEL SHEET 1 OF 2
Drawing No: 101
Rev | Date dd.mm.yy | Description | DP Full Name | Reg No
1 | 27.07.21 | COUNCIL COMMENTS | ANTHONY HASHAM | BDP0002109
SUBSOIL DRAIN TO SIT UNDER SPOON DRAIN. PROVIDE SPOON DRAIN AROUND BASEMENT PERIMETER WITH RAINWATER OUTLETS AT 10m INTERVALS.
SUGGESTED LOCATION OF PUMP CONTROL PANEL
PROVIDE PUMP FAILURE WARNING SIGN, FLASHING STROBE LIGHT AND SIREN ON WALL
Ø65 RISER
PUMP HOLDING TANK
CAPACITY 5.7m³
AREA 2.0m x 2.8m = 5.60m²
MAX DEPTH 1.05m
IL 87.56
TWL 88.61
PIT 1 GRATED DRAIN Ø/D1 300 x 200 SL 90.00 IL 89.80
PIT 3 450 x 450 SL 89.13 IL 88.83
PIT 2 450 x 450 SL 89.80 IL 89.50
Ø100 PVC @ MIN 1.0%
OUTLINE OF OSD OVER
LANE
MOBBS
SUBSOIL DRAIN TO SIT UNDER SPOON DRAIN. PROVIDE SPOON DRAIN AROUND BASEMENT PERIMETER WITH RAINWATER OUTLETS AT 10m INTERVALS.
LEGEND
PROPOSED STORMWATER
SURFACE FLOW ARROWS
SUBSOIL DRAINAGE
CLEANING EYE (OR INSPECTION EYE)
PROPOSED STORAGE AREA
FINISHED SURFACE LEVEL
GRATED DRAIN
STANDARD PUMP OUT DESIGN NOTES
THE PUMP OUT SYSTEM SHALL BE DESIGN TO BE OPERATED IN THE FOLLOWING MANNER.
1 - THE PUMP SHALL BE PROGRAMMED TO WORK ALTERNATELY TO ALLOW BOTH PUMPS TO HAVE AN EQUAL OPERATION LOAD AND PUMP LIFE.
2 - A FLOAT SHALL BE PROVIDED TO ENSURE OF THE MINIMUM REQUIRED WATER LEVEL IS MAINTAINED WITHIN THE SUMP AREA OF THE BELOW GROUND TANK. IN THIS REGARD THIS FLOAT WILL FUNCTION AS AN OFF SWITCH FOR THE PUMPS AT THE MINIMUM WATER LEVEL. THE SAME FLOAT SHALL BE SET TO TURN ONE OF THE PUMPS ON UPON THE WATER LEVEL IN THE TANK RISING TO APPROXIMATELY 300mm ABOVE THE MINIMUM WATER LEVEL. THE PUMP SHALL OPERATE UNTIL THE TANK IS DRAINED TO THE MINIMUM WATER LEVEL.
3 - A SECOND FLOAT SHALL BE PROVIDE AT A HIGH LEVEL, WHICH IS APPROXIMATELY THE ROOF LEVEL OF THE BELOW GROUND TANK. THIS FLOAT SHALL START THE OTHER PUMP THAT IS NOT OPERATING AND ACTIVATE THE ALARM.
4 - AN ALARM SYSTEM SHALL BE PROVIDE WITH A FLASHING STROBE LIGHT AND A PUMP FAILURE WARNING SIGN WHICH ARE TO BE LOCATED AT THE DRIVEWAY ENTRANCE TO THE BASEMENT LEVEL THE ALARM SYSTEM SHALL BE PROVIDED WITH A BATTERY BACK-UP IN CASE OF POWER FAILURE.
5 - A CONFINED SPACE DANGER SIGN SHALL BE PROVIDED AT ALL ACCESS POINT TO THE PUMP-OUT STORAGE TANK IN ACCORDANCE WITH THE UPPER PARRAMATA RIVER CATCHMENT TRUST OSD HANDBOOK
DANGER
WHEN EXCAVATING WITHIN ANY SITE, FOOTPATH AND ROADWAY, ALL SERVICES SHALL BE LOCATED PRIOR TO COMMENCEMENT OF THE EXCAVATION WORKS.
CONTACT "DIAL BEFORE YOU DIG" ON PHONE No. 1100 OR GO TO THE WEB SITE
"www.1100.com.au"
WARNING
PUMP OUT SYSTEM FAILURE IN BASEMENT WHEN LIGHT IS FLASHING AND SIREN SOUNDING
BASEMENT PUMP OUT FAILURE WARNING SIGN
SIGN SHALL BE PLACED IN A CLEAR AND VISIBLE LOCATION WHERE VEHICLES ENTER THE BASEMENT
COLOURS:
"WARNING" = RED
BORDER AND OTHER LETTERING = BLACK
DANGER
CONFINED SPACE
NO ENTRY WITHOUT CONFINED SPACE TRAINING
CONFINED SPACE DANGER SIGN
A) A CONFINED SPACE DANGER SIGN SHALL BE POSITIONED IN A LOCATION AT ALL ACCESS POINTS, SUCH THAT IT IS CLEARLY VISIBLE TO PERSONS PROPOSING TO ENTER THE BELOW GROUND TANKS CONFINED SPACE.
B) MINIMUM DIMENSIONS OF THE SIGN - 300mm x 450mm (LARGE ENTRIES, SUCH AS DOORS) -250mm x 180mm (SMALL ENTRIES SUCH AS GRATES & MANHOLES)
C) THE SIGN SHALL BE MANUFACTURED FROM COLOUR BONDED ALUMINUM OR POLYPROPYLENE
D) SIGN SHALL BE AFFIXED USING SCREWS AT EACH CORNER OF THE SIGN
COLOURS:
"DANGER" & BACKGROUND = WHITE
ELLIPTICAL AREA = RED
RECTANGLE CONTAINING ELLIPSE = BLACK
BORDER AND OTHER LETTERING = BLACK
NOT FOR CONSTRUCTION
B | COUNCIL COMMENTS | 27/07/2021 | AGN | JSF
A | ISSUE FOR DEVELOPMENT APPLICATION | 22/10/2020 | EHZ | JSF
Issue | Description | Date | Design | Checked
Certification by Dr Anthony Hasham (NPER)
Architect: Designcorp, 16 dunlop street north parramattaNSW 2151, PHONE: +61 2 9630 9911, Email: admin@designcorp.com.au
Client: Skycorp Construction Group
Council: City of Parramatta Council
SCALE 1:100 @ A1
ACE CIVIL STORMWATER SERVICES PTY LTD
ABN: 27 644 422 586
SHOP 2-141 CONCORD RD, NORTH STRATHFIELD, NSW 2137
P:(02) 9763 1300 E:info@aceeng.com.au
Project: 45 MOBBS LANE, CARLINGFORD
PROPOSED CHILD CARE CENTRE
STORMWATER CONCEPT PLANS
DEVELOPMENT APPLICATION
Drawing Title: STORMWATER CONCEPT PLAN BASEMENT LEVEL SHEET 1 OF 2
Scale: 1:100 | Project No: 200934 | Dwg No: 101 | Issue: B



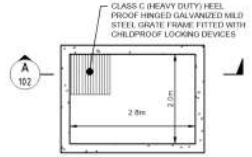
PUMP-OUT SUMP:

MAX TANK DEPTH (UPSTREAM)	1.0m
MAX TANK DEPTH (DOWNSTREAM)	1.05m
WIDTH	2.0m
LENGTH	2.8m
VOLUME PROVIDED	5.74m³

FOR STRUCTURAL DETAIL, REFER TO STRUCTURAL ENGINEER'S PLANS

SECTION A
STORMWATER PUMP-OUT SUMP

SCALE 1:10



NOTE:
1- FOR ALL THE STRUCTURAL DETAILS, REFER TO STRUCTURAL ENGINEER'S PLAN.
2- ALL THE AG LINES BEHIND BASEMENT WALLS TO BE CONNECTED TO PUMP-OUT SUMP.

PUMP-OUT SUMP DETAIL PLAN VIEW

SCALE 1:50

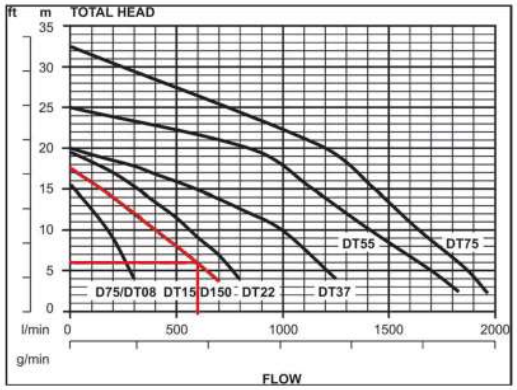
PUMP STORAGE VOLUME CALCULATION

- $I_{5\,60\,min}$ = 62.25 mm/hour
- PUMP STORAGE CATCHMENT AREA: A = 57.1 m² = 0.00571 ha
- Q = C x I x A / 360 WHERE C = 1.0 (REFER TO AS3500.3.5.4.8 (a))
  = 1.0 x 62.25 x 0.00571 / 360
  = 0.000987 m³/s
  = 0.987 L/s
- THEREFORE, THE PUMP HOLDING TANK VOLUME IS:
  V = 0.987 x 1.5 x 3600
  = 5.33 m³

Regulated Design Record

Project Address: 45 Mobbs Lane, Carlingford
Project Title: CHILD CARE CENTRE
Consent No: DA/725/2020 Body Corporate Reg No: –
Drawing Title: STORMWATER CONCEPT PLAN BASEMENT LEVEL SHEET 2 OF 2 Drawing No: 102

Rev	Date dd.mm.yy	Description	DP Full Name	Reg No
1	27.07.21	COUNCIL COMMENTS	ANTHONY HASHAM	BDP0000109



PUMP CALCULATIONS

Project Address: 45 Mobbs Lane, Carlingford

HL=(3.35x10e6xQ/(d^2.63xC))^1.852
HL(m/100m), Q(L/s(, d(mm)

h1=kv^2/2g
k(cum), v(m/s), g=9.8(m

H(total head)=Hf+h1+Elevation Head(static head)

d(mm)= 65
v(m/s)= 0.00
Bend Losses, Kb= 3.06
Valve Losses, Kv= 2.13
Entry/Exit Losses, Ke= 5.00
Cum Losses, K= 10.19

Elevation Head(m)= 5
Pipe Length(m)= 10

Hazen - Williams C= 145

Hazen-Williams Constant
125-140 Commercial steel pipe
135-140 Bitumen Lined Cast iron pipe
140-145 Copper Tube
145-150 PVC

Start Flow= 0
Increment= 1

Q(L/s)		0	1	2	3	4	5	6	7	8	9	10
HL(m/100m)		0.00	0.18	0.64	1.36	2.32	3.51	4.92	6.55	8.39	10.44	12.68
Hf(m)	HL x pipe Length/100	0.00	0.02	0.06	0.14	0.23	0.35	0.49	0.66	0.84	1.04	1.27
v(m/s)	Q(L/s) / area of pipe crossing section	0.00	0.30	0.60	0.90	1.21	1.51	1.81	2.11	2.41	2.71	3.01
h1(m)	k(cum) x v(m/s)^2/2xg	0.00	0.05	0.19	0.42	0.76	1.18	1.70	2.31	3.02	3.82	4.72
H(m)	=Hf+H1+Elevation Head	5.00	5.07	5.25	5.56	5.99	6.53	7.19	7.97	8.86	9.87	10.99

UNDERGROUND PUMP - OUT SUMP STAGED STORAGE CALCULATIONS

DEPTH (mm)	AREA (m²)	CUMULATIVE VOLUME (m³)
0	5.6	0
100	5.6	0.420
200	5.6	0.980
300	5.6	1.540
400	5.6	2.100
500	5.6	2.660
600	5.6	3.220
700	5.6	3.780
800	5.6	4.340
900	5.6	4.900
1000	5.6	5.460
1050	5.6	5.740

NOT FOR CONSTRUCTION

Issue	Description	Date	Design	Checked
B	COUNCIL COMMENTS	27/07/2021	AGN	JSF
A	ISSUE FOR DEVELOPMENT APPLICATION	22/10/2020	EHZ	JSF

Certification By Dr Anthony Hasham (NPER)

Architect: Designcorp, 16 dunlop street north parramattaNSW 2151, PHONE: +61 2 9630 9911, Email: admin@designcorp.com.au

Client: Skycorp Construction Group

Council: City of Parramatta Council

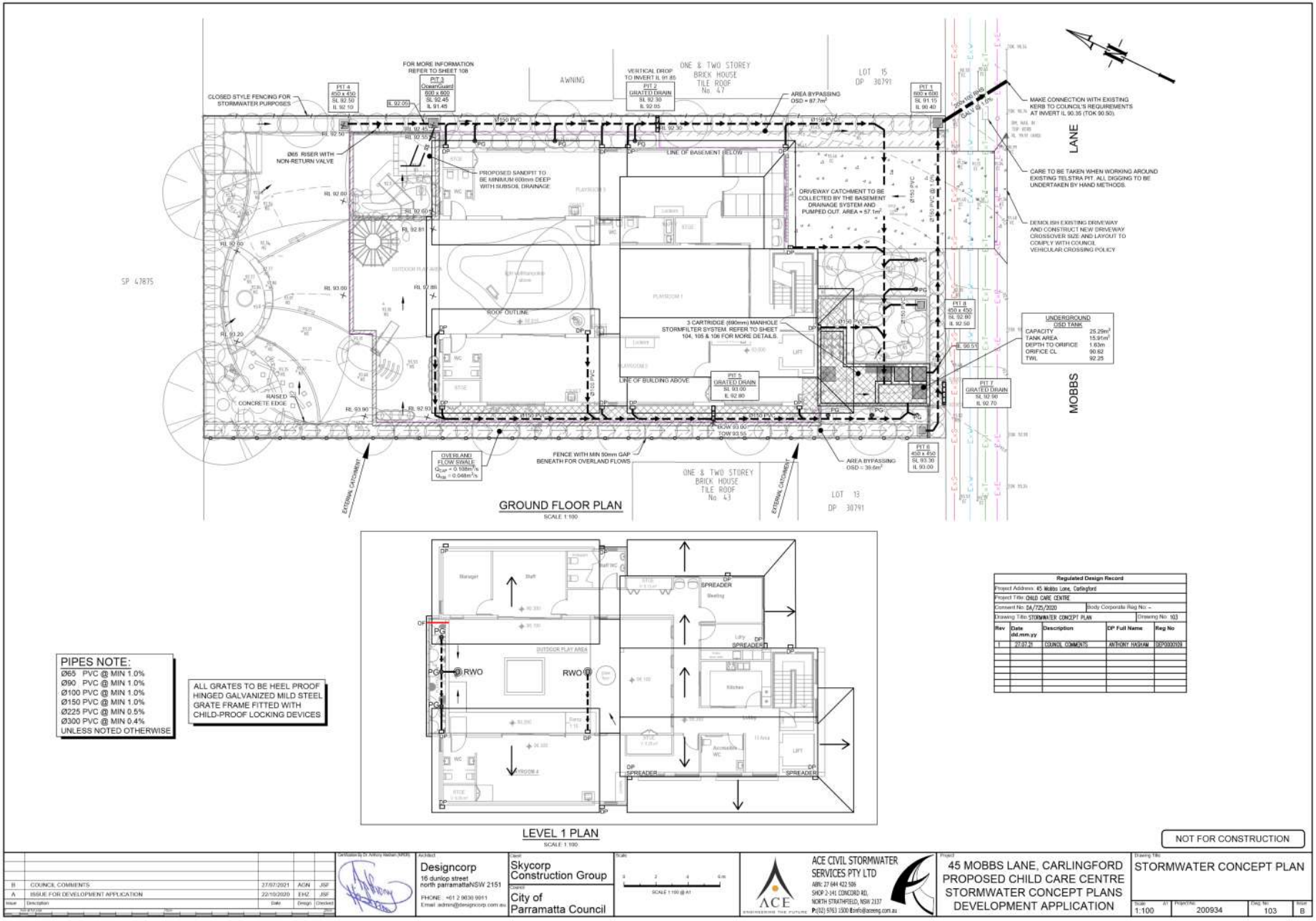
Scale: SCALE 1:10 @ A1; SCALE 1:50 @ A1

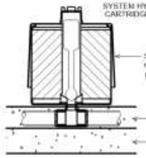
ACE CIVIL STORMWATER SERVICES PTY LTD
ABN: 27 644 422 586
SHOP 2-141 CONCORD RD, NORTH STRATHFIELD, NSW 2137
P:(02) 9763 1300 E:info@aceeng.com.au

Project: 45 MOBBS LANE, CARLINGFORD
PROPOSED CHILD CARE CENTRE
STORMWATER CONCEPT PLANS
DEVELOPMENT APPLICATION

Drawing Title: STORMWATER CONCEPT PLAN BASEMENT LEVEL SHEET 2 OF 2

Scale: AT As Shown | Project No: 200934 | Dwg No: 102 | Issue: B

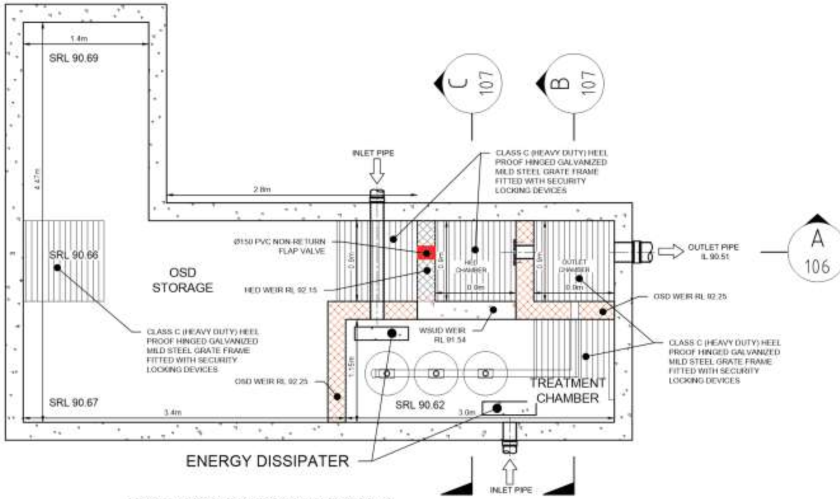

GROUND FLOOR PLAN
SCALE 1:100
LEVEL 1 PLAN
SCALE 1:100
LANE
MOBBS
ONE & TWO STOREY BRICK HOUSE TILE ROOF No. 47
LOT 15 DP 30791
LOT 13 DP 30791
SP 47875
AWNING
LINE OF BASEMENT BELOW
ROOF OUTLINE
LINE OF BUILDING ABOVE
DRIVEWAY CATCHMENT TO BE COLLECTED BY THE BASEMENT DRAINAGE SYSTEM AND PUMPED OUT. AREA = 57.1m²
PROPOSED SANDPIT TO BE MINIMUM 600mm DEEP WITH SUBSOIL DRAINAGE
Ø65 RISER WITH NON-RETURN VALVE
CLOSED STYLE FENCING FOR STORMWATER PURPOSES
FOR MORE INFORMATION REFER TO SHEET 108
RAISED CONCRETE EDGE
3 CARTRIDGE (690mm) MANHOLE STORMFILTER SYSTEM. REFER TO SHEET 104, 105 & 106 FOR MORE DETAILS.
OVERLAND FLOW SWALE
FENCE WITH MIN 50mm GAP BENEATH FOR OVERLAND FLOWS
AREA BYPASSING OSD = 87.7m²
AREA BYPASSING OSD = 39.6m²
MAKE CONNECTION WITH EXISTING KERB TO COUNCIL'S REQUIREMENTS AT INVERT IL 90.35 (TOK 90.50).
CARE TO BE TAKEN WHEN WORKING AROUND EXISTING TELSTRA PIT. ALL DIGGING TO BE UNDERTAKEN BY HAND METHODS.
DEMOLISH EXISTING DRIVEWAY AND CONSTRUCT NEW DRIVEWAY CROSSOVER SIZE AND LAYOUT TO COMPLY WITH COUNCIL VEHICULAR CROSSING POLICY
UNDERGROUND OSD TANK
CAPACITY 25.29m³
TANK AREA 15.91m²
DEPTH TO ORIFICE 1.63m
ORIFICE CL 90.62
TWL 92.25
PIT 1 600 x 600 SL 91.15 IL 90.40
PIT 2 GRATED DRAIN SL 92.30 IL 92.05
PIT 3 OceanGuard 600 x 600 SL 92.45 IL 91.45
PIT 4 450 x 450 SL 92.50 IL 92.10
PIT 5 GRATED DRAIN SL 93.00 IL 92.80
PIT 6 450 x 450 SL 93.30 IL 93.00
PIT 7 GRATED DRAIN SL 92.90 IL 92.70
PIT 8 450 x 450 SL 92.80 IL 92.50
RWO
SPREADER
PIPES NOTE:
Ø65 PVC @ MIN 1.0%
Ø90 PVC @ MIN 1.0%
Ø100 PVC @ MIN 1.0%
Ø150 PVC @ MIN 1.0%
Ø225 PVC @ MIN 0.5%
Ø300 PVC @ MIN 0.4%
UNLESS NOTED OTHERWISE
ALL GRATES TO BE HEEL PROOF HINGED GALVANIZED MILD STEEL GRATE FRAME FITTED WITH CHILD-PROOF LOCKING DEVICES
Regulated Design Record
Project Address: 45 Mobbs Lane, Carlingford
Project Title: CHILD CARE CENTRE
Consent No: DA/725/2020
Body Corporate Reg No: –
Drawing Title: STORMWATER CONCEPT PLAN
Drawing No: 103
Rev | Date dd.mm.yy | Description | DP Full Name | Reg No
1 | 27.07.21 | COUNCIL COMMENTS | ANTHONY HASHAM | DDP0002029
NOT FOR CONSTRUCTION
B | COUNCIL COMMENTS | 27/07/2021 | AGN | JSF
A | ISSUE FOR DEVELOPMENT APPLICATION | 22/10/2020 | EHZ | JSF
Issue | Description | Date | Design | Checked
Designcorp
16 dunlop street north parramattaNSW 2151
PHONE: +61 2 9630 9911
Email: admin@designcorp.com.au
Skycorp Construction Group
City of Parramatta Council
SCALE 1:100 @ A1
ACE CIVIL STORMWATER SERVICES PTY LTD
ABN: 27 644 422 586
SHOP 2-141 CONCORD RD, NORTH STRATHFIELD, NSW 2137
P:(02) 9763 1300 E:info@aceeng.com.au
45 MOBBS LANE, CARLINGFORD
PROPOSED CHILD CARE CENTRE
STORMWATER CONCEPT PLANS
DEVELOPMENT APPLICATION
STORMWATER CONCEPT PLAN
Scale: 1:100 @ A1
Project No: 200934
Dwg No: 103
Issue: B



STORMFILTER DESIGN TABLE

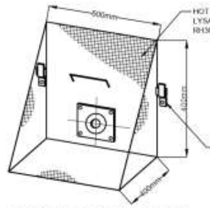
- STORMFILTER TREATMENT CAPACITY VARIES BY NUMBER OF FILTER CARTRIDGES INSTALLED AND BY REGION SPECIFIC INTERNAL FLOW CONTROLS. CONVEYANCE CAPACITY IS RATED AT 80L/S
- ALL PARTS PROVIDED AND INTERNAL ASSEMBLY BY STORMWATER360 AUSTRALIA UNLESS OTHERWISE NOTED

CARTRIDGE HEIGHT	690		460		310	
SYSTEM HYDRAULIC DROP (H - REQ'D. MIN.)	930		700		550	
TREATMENT BY MEDIA SURFACE AREA L/S/m2	1.4	0.7	1.4	0.7	1.4	0.7
CARTRIDGE FLOW RATE (L/s)	1.42	0.71	0.95	0.47	0.63	0.32



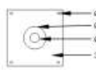
UNDERGROUND OSD/WSUD TANK PLAN VIEW

SCALE 1:25



TRASH SCREEN DETAIL

N.T.S.



ORIFICE PLATE DETAIL

N.T.S.

UNDERGROUND OSD TANK STAGED STORAGE CALCULATIONS

DEPTH (mm)	AREA (m²)	CUMULATIVE VOLUME (m³)
0	15.91	0
100	15.91	0.9546
200	15.91	2.5456
300	15.91	4.1366
400	15.91	5.7276
500	15.91	7.3186
600	15.91	8.9096
700	15.91	10.5006
800	15.91	12.0916
900	15.91	13.6826
1000	15.91	15.2736
1100	15.91	16.8646
1200	15.91	18.4556
1300	15.91	20.0466
1400	15.91	21.6376
1500	15.91	23.2286
1600	15.91	24.8196
1630	15.91	25.2969

CITY OF PARRAMATTA COUNCIL
On-Site Detention Calculation Sheet

Project:	ACE200934.SW.DA	Lot No.	14
Location:	45 Mobbs lane, Carlingford	DP No.	30791
Designer:	Albert Nasseh	D.A. No.	
Phone:	02 9763 1500		

OSD Area: Front Lot	UPRCT		UPRCT Drowned	
Site Area	0.093		0.093	
Basic Storage Volume	23.30		43.80	
Basic Discharge	19.57		7.46	
Area of Site to Storage	0.084	91%	0.084	91%
Percentage of Site	90.58		0.58	
Storage per ha of contributing area	276.00		8.88	
Volume/PSD Adjustment	166.35		9.95	
PSD for site	14.04		5.90	
Maximum Head to Orifice Centre	1.630		[illegible]	
Calculated Orifice Diameter	0.071		0.071	
Maximum discharge	14.035		14.044	
Head for high early discharge	1.530		[illegible]	
High Early Discharge	13.598	97%	13.606	231%
Mean Discharge	13.817		13.825	
Average Discharge per Hectare	163.666		163.[illegible]	
Final Site Storage Ratio	280		[illegible]	
Site Storage Volume	23.67		23.[illegible]	
Volume Provided	25.29	107%	25.29	107%

Checked By:	Joe Frangie
Date Checked:	26-Jul-21
OSD Plan Number:	101-108

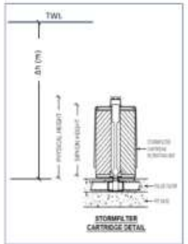
NOTE:
USE 61.4mm ORIFICE DIAMETER. REFER TO ORIFICE CALCULATIONS ON SHEET 105

StormFilter Flow Calculator - Psorb Media

The equation below defines the relationship between the diameter of the orifice plate, the flow rate through the cartridge and head.

Q = (0.111d^2.08h^0.5)/60
where d = Restrictor Disc Diameter
Δh = head

Cartridge Name	690
Cartridge Quantity	3
Δh (m)	1.55
Total Q at head	3.81



GENERAL NOTES

1. INLET AND OUTLET PIPING SHALL BE SPECIFIED BY SITE CIVIL ENGINEER (SEE PLANS) AND PROVIDED BY CONTRACTOR. STORMFILTER IS PROVIDED WITH OPENINGS AT INLET AND OUTLET LOCATIONS.
2. IF THE PEAK FLOW RATE, AS DETERMINED BY THE SITE CIVIL ENGINEER, EXCEEDS THE PEAK HYDRAULIC CAPACITY OF THE PRODUCT, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED. PLEASE CONTACT STORMWATER360 FOR OPTIONS.
3. THE FILTER CARTRIDGE(S) ARE SIPHON-ACTUATED AND SELF-CLEANING. THE STANDARD DETAIL DRAWING SHOWS THE MAXIMUM NUMBER OF CARTRIDGES. THE ACTUAL NUMBER SHALL BE SPECIFIED BY THE SITE CIVIL ENGINEER ON SITE PLANS OR IN DATA TABLE BELOW. PRECAST STRUCTURE TO BE CONSTRUCTED IN ACCORDANCE WITH AS3600.
4. FOR SHALLOW, LOW DROP OR SPECIAL DESIGN CONSTRAINTS, CONTACT STORMWATER360 FOR DESIGN OPTIONS.
5. ALL WATER QUALITY PRODUCTS REQUIRE PERIODIC MAINTENANCE AS OUTLINED IN THE O&M GUIDELINES. PROVIDE MINIMUM CLEARANCE FOR MAINTENANCE ACCESS.
6. STRUCTURE AND ACCESS COVERS DESIGNED TO MEET AUSTROADS T44 LOAD RATING WITH 0-2m FILL MAXIMUM.
7. THE STRUCTURE THICKNESSES SHOWN ARE FOR REPRESENTATIONAL PURPOSES AND VARY REGIONALLY.
8. ANY BACKFILL DEPTH, SUB-BASE, AND OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY SITE CIVIL ENGINEER.
9. STORMFILTER BY STORMWATER360: SYDNEY (AU) PHONE: (02) 9525 5833, BRISBANE (AU) PHONE: (07) 3272 1872.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			1
WATER QUALITY FLOW RATE (L/S)			-
PEAK FLOW RATE (L/S)			-
RETURN PERIOD OF PEAK FLOW (yrs)			-
# OF CARTRIDGES REQUIRED (8-22)			3
CARTRIDGE HEIGHT (310, 460 or 690mm)			690
MEDIA TYPE (PERLITE, PERLITE/ZEOLITE OR ZPG)			PSORB
PRECAST VAULT WEIGHT		- kg	
PRECAST LID WEIGHT		- kg	
PIPE DATA	I.L.	MATERIAL	DIAMETER
PIPE ORIENTATION	UPSTREAM FLOW 180°	90° / 270°	0° DOWNSTREAM FLOW
LADDER			YES/NO
ANTI-FLOTATION BALLAST	N/A	N/A	
	N/A	N/A	

STORMFILTER TABLE

N.T.S.

WSUD CHAMBER DETAILS

TOTAL SITE AREA = 932m²
BY-PASS AREA = 87.7m²
SITE AREA DRAINING TO OSD = 844.3m²

EFFECTIVE DEPTH OF WATER WITHIN FILTRATION CHAMBER=
0.69 (CARTRIDGE HEIGHT) + 0.08 (HEAD REQUIRED FOR SW 690 CARTRIDGE) = 0.77m
AREA NEEDED FOR THE FILTRATION CARTRIDGES= 844.3*0.003 /0.77 = 3.29m²
AREA PROVIDED = 3.4 m²

3x690m PSORB CARTRIDGES PROVIDED - OUTFLOW = 3.81 L/s

OSD ORIFICE DETAILS

PSD (2) = PSD (1) - 3.81 L/s
= 14.03 - 3.81 = 10.22 L/s
ORIFICE HEAD = 92.25 - 90.62 = 1.63m NEW ORIFICE DIAMETER = Ø51mm

ORIFICE CALCULATIONS:

$Q = C \times A \times (2 \times g \times h)^{0.5}$

SO: $A = Q / (C \times \sqrt{2 \times g \times h})$
$= 0.01022 / (0.61 \times \sqrt{2 \times 9.81 \times 1.63})$
$= 0.00296\ m^2$

THEREFORE:
$d = \sqrt{4 \times A / \pi}$
$= \sqrt{4 \times 0.00296 / 3.14159}$
$= 61.4\ mm$

Regulated Design Record

Project Address: 45 Mobbs Lane, Carlingford				
Project Title: CHILD CARE CENTRE				
Consent No: DA/725/2020		Body Corporate Reg No: -		
Drawing Title: OSD & WSUD DETAILS AND CALCULATION SHEETS SHEET 1 OF 3			Drawing No: 104	
Rev	Date dd.mm.yy	Description	DP Full Name	Reg No
1	27.07.21	COUNCIL COMMENTS	ANTHONY HASHAM	DEP0000109

NOT FOR CONSTRUCTION

Issue	Description	Date	Design	Checked
B	COUNCIL COMMENTS	27/07/2021	AGN	JSF
A	ISSUE FOR DEVELOPMENT APPLICATION	22/10/2020	EHZ	JSF

Certification By Dr. Antony Hasham (MRO)

Architect: Designcorp, 16 dunlop street, north parramattaNSW 2151, PHONE: +61 2 9630 9911, Email: admin@designcorp.com.au

Client: Skycorp Construction Group

Council: City of Parramatta Council

Scale: 0 0.2 0.4 0.6 0.8 1.0 1.2m — SCALE 1:25 @ A1

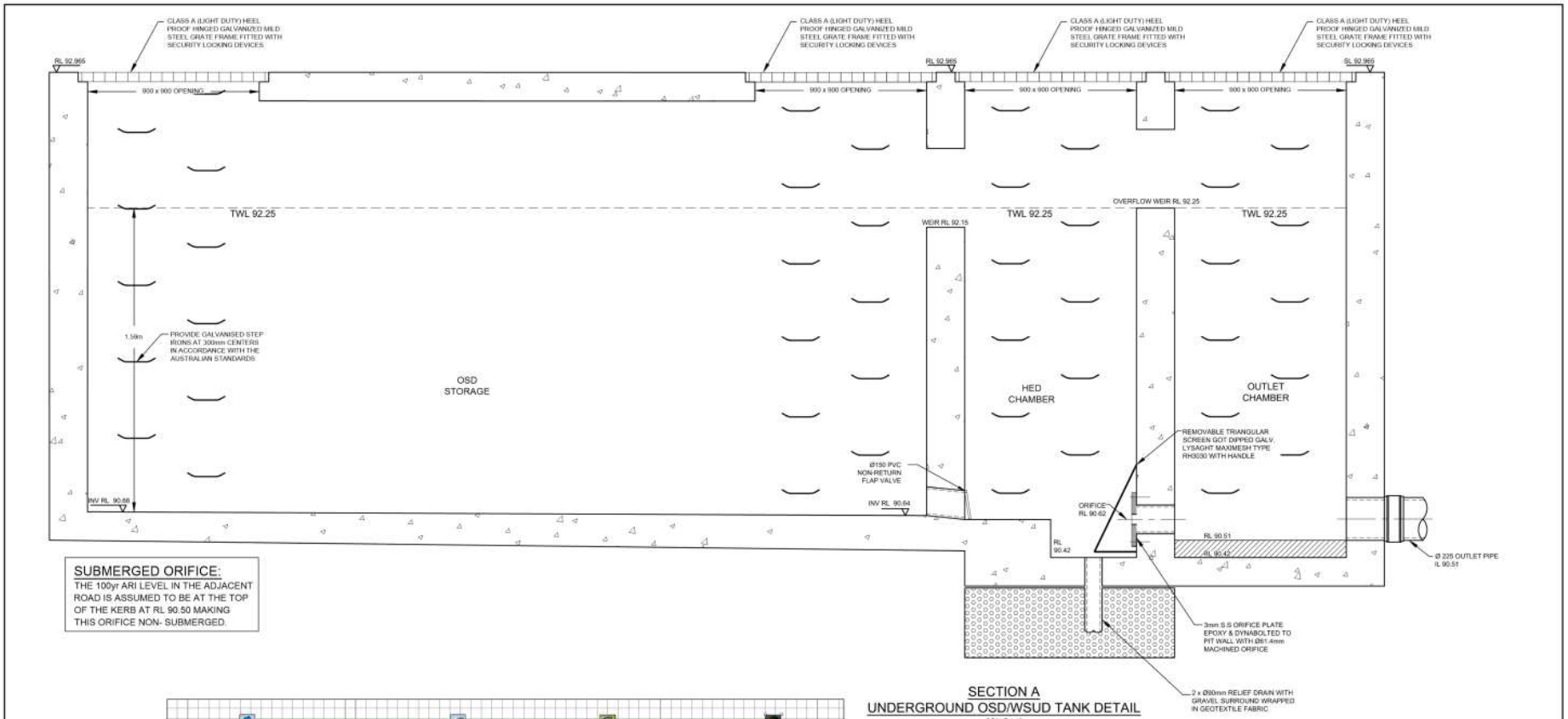
ACE CIVIL STORMWATER SERVICES PTY LTD, ABN: 27 644 422 506, SHOP 2-141 CONCORD RD, NORTH STRATHFIELD, NSW 2137, P:(02) 9763 1500 E:info@aceeng.com.au

ACE ENGINEERING THE FUTURE

Project: 45 MOBBS LANE, CARLINGFORD PROPOSED CHILD CARE CENTRE STORMWATER CONCEPT PLANS DEVELOPMENT APPLICATION

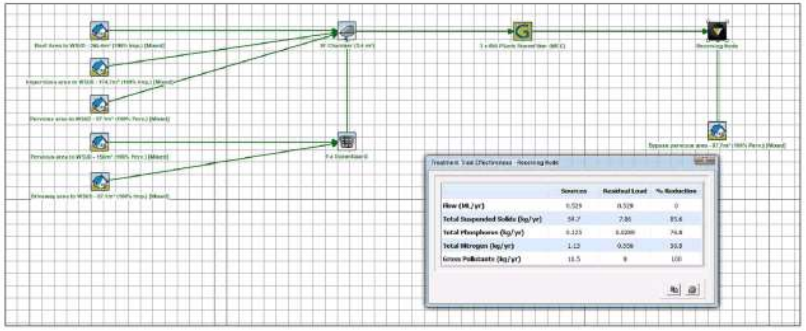
Drawing Title: OSD & WSUD DETAILS AND CALCULATION SHEETS SHEET 1 OF 3

Scale	Project No	Dwg. No	Issue
As Shown	200934	104	B



SUBMERGED ORIFICE:
THE 100yr ARI LEVEL IN THE ADJACENT ROAD IS ASSUMED TO BE AT THE TOP OF THE KERB AT RL 90.50 MAKING THIS ORIFICE NON- SUBMERGED.

SECTION A
UNDERGROUND OSD/WSUD TANK DETAIL
SCALE 1:10



MUSIC MODEL AND RESULTS

Regulated Design Record				
Project Address: 45 Mobbs Lane, Carlingford				
Project Title: CHILD CARE CENTRE				
Consent No: DA/725/2020		Body Corporate Reg No: –		
Drawing Title: OSD & WSUD DETAILS AND CALCULATION SHEETS SHEET 2 OF 3			Drawing No: 105	
Rev	Date dd.mm.yy	Description	DP Full Name	Reg No
1	27.07.21	COUNCIL COMMENTS	ANTHONY HASHAM	DP1000039

NOT FOR CONSTRUCTION

Rev	Description	Date	Design	Checked
B	COUNCIL COMMENTS	27/07/2021	AGN	JSF
A	ISSUE FOR DEVELOPMENT APPLICATION	22/10/2020	EHZ	JSF

Certification By Dr Anthony Hasham (NPER)

Architect: Designcorp, 16 dunlop street north parramattaNSW 2151, PHONE +61 2 9630 9911, Email admin@designcorp.com.au

Client: Skycorp Construction Group

Council: City of Parramatta Council

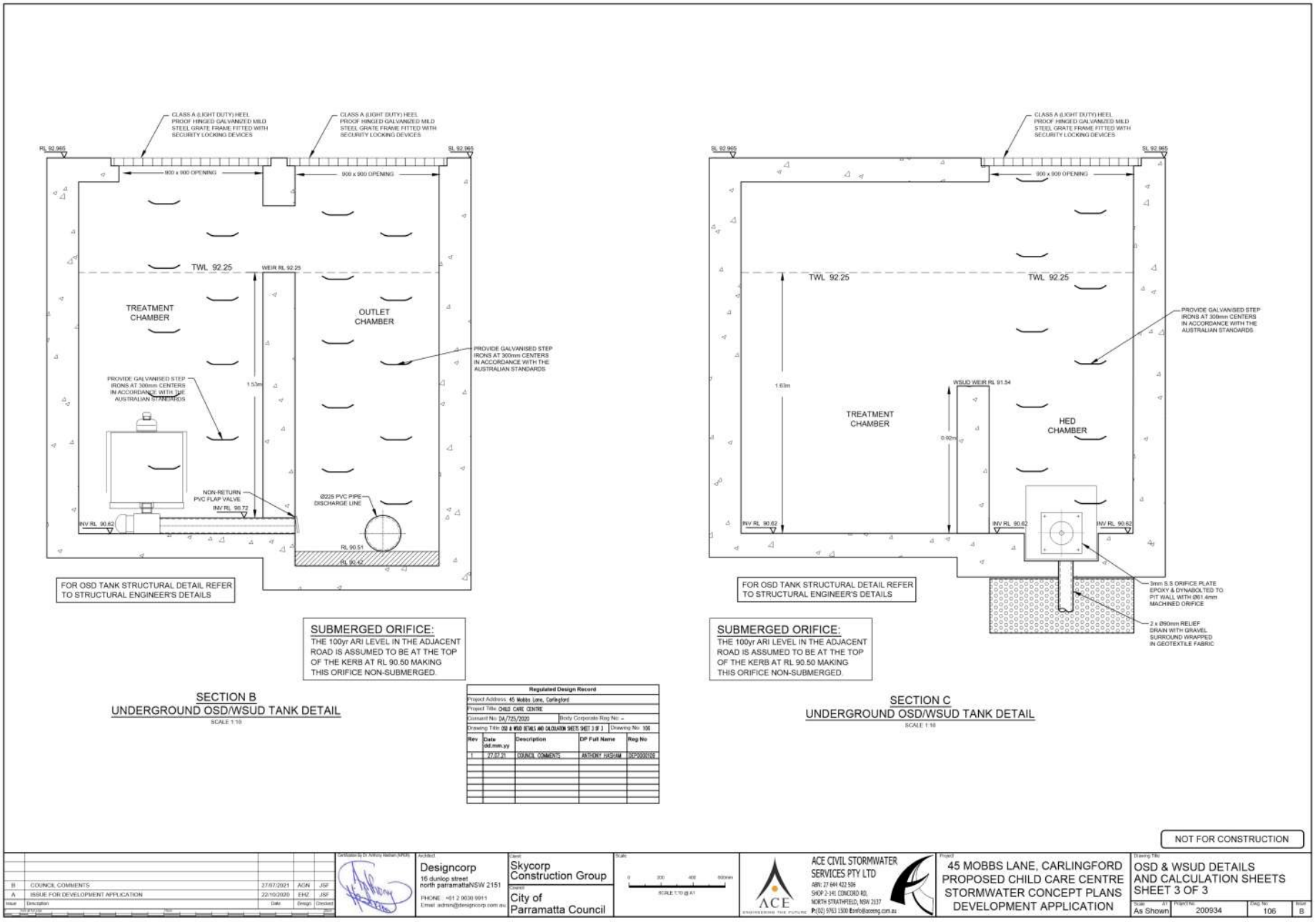
Scale: 0 200 400 600mm, SCALE 1:10 @ A1

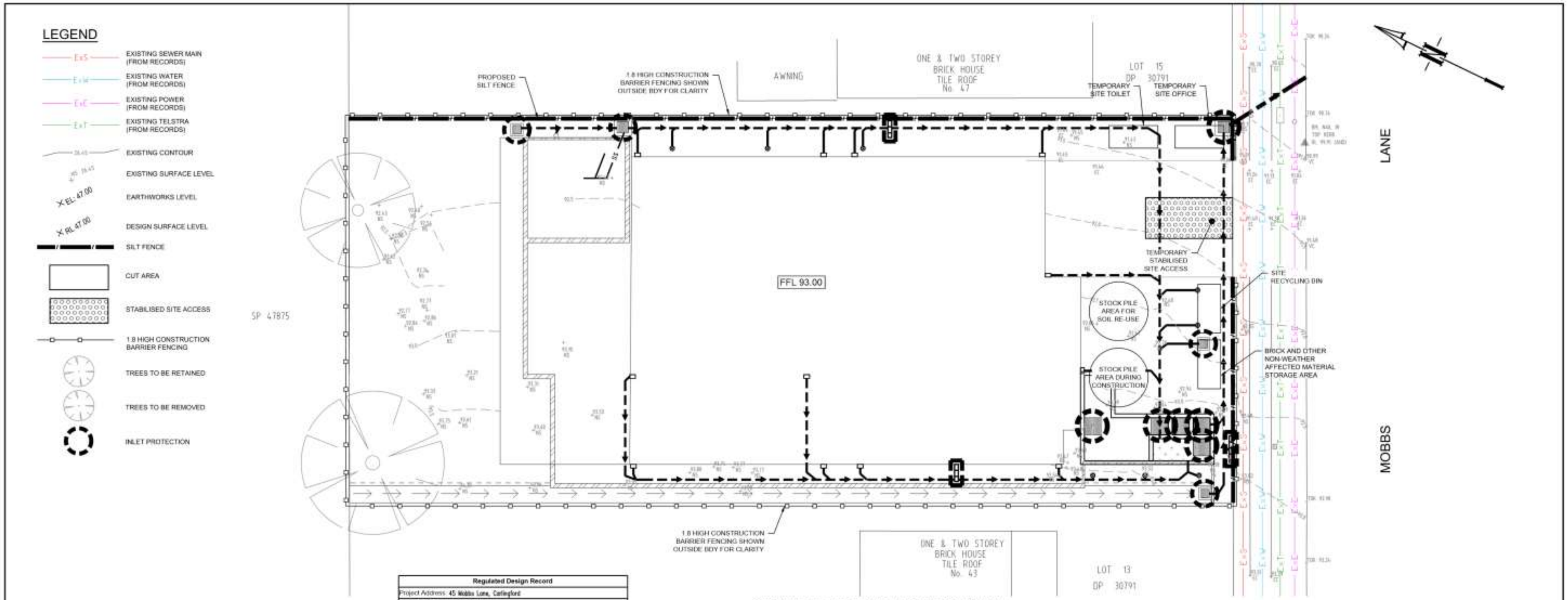
ACE ENGINEERING THE FUTURE
ACE CIVIL STORMWATER SERVICES PTY LTD
ABN: 27 644 422 586
SHOP 2-141 CONCORD RD, NORTH STRATHFIELD, NSW 2137
P:(02) 9763 1300 E:info@aceeng.com.au

Project: 45 MOBBS LANE, CARLINGFORD
PROPOSED CHILD CARE CENTRE
STORMWATER CONCEPT PLANS
DEVELOPMENT APPLICATION

Drawing Title: OSD & WSUD DETAILS AND CALCULATION SHEETS SHEET 2 OF 3

Scale: AT	Project No:	Dwg No:	Issue
As Shown	200934	105	B


CLASS A (LIGHT DUTY) HEEL PROOF HINGED GALVANIZED MILD STEEL GRATE FRAME FITTED WITH SECURITY LOCKING DEVICES
CLASS A (LIGHT DUTY) HEEL PROOF HINGED GALVANIZED MILD STEEL GRATE FRAME FITTED WITH SECURITY LOCKING DEVICES
RL 92.965
SL 92.965
900 x 900 OPENING
900 x 900 OPENING
TWL 92.25
WEIR RL 92.25
TREATMENT CHAMBER
OUTLET CHAMBER
PROVIDE GALVANISED STEP IRONS AT 300mm CENTERS IN ACCORDANCE WITH THE AUSTRALIAN STANDARDS
PROVIDE GALVANISED STEP IRONS AT 300mm CENTERS IN ACCORDANCE WITH THE AUSTRALIAN STANDARDS
1.53m
NON-RETURN PVC FLAP VALVE INV RL 90.72
Ø225 PVC PIPE DISCHARGE LINE
INV RL 90.62
RL 90.51
RL 90.42
FOR OSD TANK STRUCTURAL DETAIL REFER TO STRUCTURAL ENGINEER'S DETAILS
SUBMERGED ORIFICE:
THE 100yr ARI LEVEL IN THE ADJACENT ROAD IS ASSUMED TO BE AT THE TOP OF THE KERB AT RL 90.50 MAKING THIS ORIFICE NON-SUBMERGED.
SECTION B
UNDERGROUND OSD/WSUD TANK DETAIL
SCALE 1:10
CLASS A (LIGHT DUTY) HEEL PROOF HINGED GALVANIZED MILD STEEL GRATE FRAME FITTED WITH SECURITY LOCKING DEVICES
SL 92.965
SL 92.965
900 x 900 OPENING
TWL 92.25
TWL 92.25
PROVIDE GALVANISED STEP IRONS AT 300mm CENTERS IN ACCORDANCE WITH THE AUSTRALIAN STANDARDS
1.63m
WSUD WEIR RL 91.54
0.92m
TREATMENT CHAMBER
HED CHAMBER
INV RL 90.62
INV RL 90.62
INV RL 90.62
FOR OSD TANK STRUCTURAL DETAIL REFER TO STRUCTURAL ENGINEER'S DETAILS
3mm S.S ORIFICE PLATE EPOXY & DYNABOLTED TO PIT WALL WITH Ø61.4mm MACHINED ORIFICE
2 x Ø90mm RELIEF DRAIN WITH GRAVEL SURROUND WRAPPED IN GEOTEXTILE FABRIC
SUBMERGED ORIFICE:
THE 100yr ARI LEVEL IN THE ADJACENT ROAD IS ASSUMED TO BE AT THE TOP OF THE KERB AT RL 90.50 MAKING THIS ORIFICE NON-SUBMERGED.
SECTION C
UNDERGROUND OSD/WSUD TANK DETAIL
SCALE 1:10
Regulated Design Record
Project Address: 45 Mobbs Lane, Carlingford
Project Title: CHILD CARE CENTRE
Consent No: DA/725/2020
Body Corporate Reg No: –
Drawing Title: OSD & WSUD DETAILS AND CALCULATION SHEETS SHEET 3 OF 3
Drawing No: 106
Rev | Date dd.mm.yy | Description | DP Full Name | Reg No
1 | 27.07.21 | COUNCIL COMMENTS | ANTHONY HASHAM | DCP2000108
NOT FOR CONSTRUCTION
B | COUNCIL COMMENTS | 27/07/2021 | AGN | JSF
A | ISSUE FOR DEVELOPMENT APPLICATION | 22/10/2020 | EHZ | JSF
Issue | Description | Date | Design | Checked
Certification By Dr Anthony Hasham (NPER)
Architect
Designcorp
16 dunlop street
north parramattaNSW 2151
PHONE: +61 2 9630 9911
Email: admin@designcorp.com.au
Client
Skycorp Construction Group
Council
City of Parramatta Council
Scale
0 200 400 600mm
SCALE 1:10 @ A1
ACE CIVIL STORMWATER SERVICES PTY LTD
ABN: 27 644 422 586
SHOP 2-141 CONCORD RD,
NORTH STRATHFIELD, NSW 2137
P:(02) 9763 1300 E:info@aceeng.com.au
Project
45 MOBBS LANE, CARLINGFORD
PROPOSED CHILD CARE CENTRE
STORMWATER CONCEPT PLANS
DEVELOPMENT APPLICATION
Drawing Title
OSD & WSUD DETAILS AND CALCULATION SHEETS SHEET 3 OF 3
Scale: AT As Shown
Project No: 200934
Dwg No: 106
Issue: B



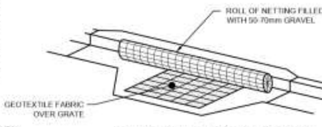
SEDIMENT & EROSION CONTROL PLAN

SCALE 1:100

Regulated Design Record				
Project Address: 45 Mobbs Lane, Carlingford				
Project Title: CHILD CARE CENTRE				
Consent No: DA/725/2020		Body Corporate Reg No: -		
Drawing Title: SEDIMENT & EROSION CONTROL PLAN AND DETAILS			Drawing No: 107	
Rev	Date dd.mm.yy	Description	DP Full Name	Reg No
1	27.07.21	COUNCIL COMMENTS	ANTHONY HASHAM	DEP0000109

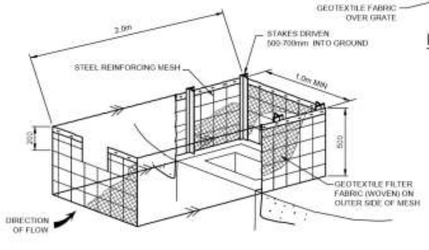
SEDIMENT & EROSION NOTES

1. IMMEDIATELY FOLLOWING SETTING OUT OF THE WORKS, BUT PRIOR TO COMMENCEMENT OF ANY CLEARING OR EARTHWORKS, THE CONTRACTOR AND SUPERINTENDENT SHALL WALK THE SITE TO NOMINATE THE LOCATIONS AND TYPES OF SEDIMENT AND EROSION CONTROL MEASURES TO BE ADOPTED. THESE MEASURES SHALL BE IMPLEMENTED PRIOR TO ANY CLEARING OR EARTHWORKS AND MAINTAINED UNTIL THE WORKS ARE COMPLETED AND NO LONGER POSE AN EROSION HAZARD, UNLESS OTHERWISE APPROVED BY THE SUPERINTENDENT.
2. IMMEDIATELY FOLLOWING SETTING OUT OF THE WORKS, BUT PRIOR TO COMMENCEMENT OF ANY CLEARING OR EARTHWORKS, THE CONTRACTOR AND SUPERINTENDENT SHALL WALK THE SITE TO IDENTIFY AND MARK TREES WHICH ARE TO BE PRESERVED. NOTWITHSTANDING THE ABOVE,THE CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS TO MINIMISE DISTURBANCE TO EXISTING VEGETATION AND GROUND COVER OUTSIDE THE MINIMUM AREAS REQUIRED TO COMPLETE THE WORKS AND SHALL BE RESPONSIBLE FOR RECTIFICATION, AT ITS OWN COST, OF ANY DISTURBANCE BEYOND THOSE AREAS.
3. PROVIDE GULLY GRATE INLET SEDIMENT TRAPS AT ALL GULLY PITS.
4. PROVIDE SILT FENCING ALONG PROPERTY LINE AS DIRECTED BY SUPERINTENDENT.
5. ADDITIONAL CONTROL DEVICES TO BE PLACED WHERE DIRECTED BY THE PRINCIPLE.
6. ALTERNATIVE DESIGNS TO BE APPROVED BY SUPERINTENDENT PRIOR TO CONSTRUCTION.
7. WASH DOWN/RUMBLE AREA TO BE CONSTRUCTED WITH PROVISIONS RESTRICTING ALL SILT AND TRAFFICKED DEBRIS FROM ENTERING THE STORMWATER SYSTEM.
8. NO WORK OR STOCKPILING OF MATERIALS TO BE PLACED OUTSIDE OF SITE WORK BOUNDARY.
9. APPROPRIATE EROSION AND SEDIMENT CONTROLS TO BE USED TO PROTECT STOCKPILES AND MAINTAINED THROUGH OUT CONSTRUCTION.
10. IT IS THE CONTRACTORS RESPONSIBILITY TO TAKE DUE CARE OF NATURAL VEGETATION. NO CLEARING IS TO BE UNDERTAKEN WITHOUT PRIOR APPROVAL FROM THE SUPERINTENDENT.
11. TO AVOID DISTURBANCE TO EXISTING TREES, EARTHWORKS WILL BE MODIFIED AS DIRECTED ON-SITE BY THE SUPERINTENDENT.
12. THE LOCATION OF EROSION AND SEDIMENTATION CONTROLS WILL BE DETERMINED ON SITE BY THE SUPERINTENDENT.
13. ACCESS TRACKS THROUGH THE SITE WILL BE LIMITED TO THOSE DETERMINED BY THE SUPERINTENDENT AND THE CONTRACTOR PRIOR TO ANY WORK COMMENCING.
14. ALL SETTING OUT IS THE RESPONSIBILITY OF THE CONTRACTOR PRIOR TO WORKS COMMENCING ON SITE. THE SUPERINTENDENT'S SURVEYOR SHALL PEG ALL ALLOTMENT BOUNDARIES, PROVIDE COORDINATE INFORMATION TO THESE PEGS AND PLACE BENCH MARKS. THE CONTRACTOR SHALL SET OUT THE WORKS FROM AND MAINTAIN THESE PEGS.
15. PLANS ARE MINIMUM REQUIREMENTS AND ARE TO BE USED AS A GUIDE ONLY. EXACT MEASURES USED SHALL BE DETERMINED ON SITE IN CONJUNCTION WITH PROGRAM OF CONTRACTORS WORKS etc.



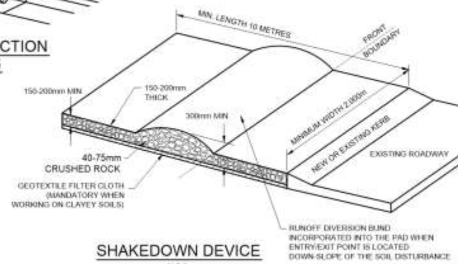
KERB INLET PROTECTION SAG GULLIES

N.T.S.



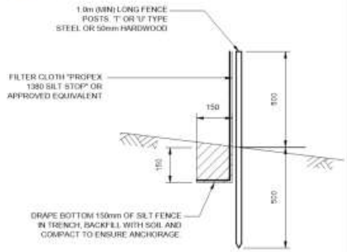
FIELD INLET SEDIMENT TRAP

N.T.S.



SHAKEDOWN DEVICE

N.T.S.



SILT FENCE DETAIL

N.T.S.

SILT FENCE NOTES:

1. FILTER CLOTH TO BE FASTENED SECURELY TO POSTS WITH GALVANISED WIRE TIES, STAPLES OR ATTACHMENT BELTS.
2. POSTS SHOULD NOT BE SPACED MORE THAN 3.0m APART.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 150mm AND FOLDED.
4. FOR EXTRA STRENGTH TO SILT FENCE, WOVEN WIRE (14mm GAUGE, 150mm MESH SPACING) TO BE FASTENED SECURELY BETWEEN FILTER CLOTH AND POSTS BY WIRE TIES OR STAPLES.
5. INSPECTIONS SHALL BE PROVIDED ON A REGULAR BASIS, ESPECIALLY AFTER RAINFALL AND EXCESSIVE SILT DEPOSITS REMOVED WHEN "BULGES" DEVELOP IN SILT FENCE.
6. SEDIMENT FENCES SHALL BE CONSTRUCTED WITH SEDIMENT TRAPS AND EMERGENCY SPILLWAYS AT SPACINGS NO GREATER THAN 40m ON FLAT TERRAIN DECREASING TO 20m SPACINGS ON STEEP TERRAIN.

NOT FOR CONSTRUCTION

Issue	Description	Date	Design	Checked
B	COUNCIL COMMENTS	27/07/2021	AGN	JSF
A	ISSUE FOR DEVELOPMENT APPLICATION	22/10/2020	EHZ	JSF

Architect: Designcorp
16 dunlop street north parramattaNSW 2151
PHONE : +61 2 9630 9911
Email: admin@designcorp.com.au

Client: Skycorp Construction Group

Council: City of Parramatta Council

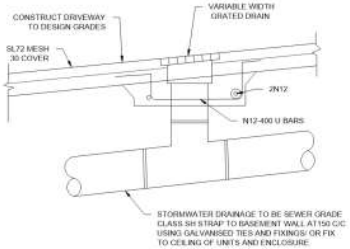
SCALE 1:100 @ A1

ACE CIVIL STORMWATER SERVICES PTY LTD
ABN: 27 644 422 506
SHOP 2-141 CONCORD RD, NORTH STRATHFIELD, NSW 2137
P:(02) 9763 1500 E:info@aceeng.com.au

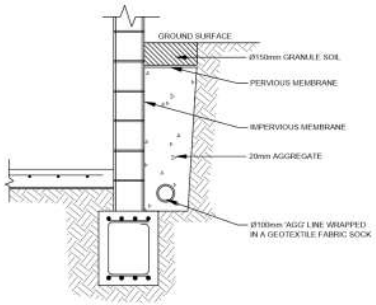
Project: 45 MOBBS LANE, CARLINGFORD
PROPOSED CHILD CARE CENTRE
STORMWATER CONCEPT PLANS
DEVELOPMENT APPLICATION

Drawing Title: SEDIMENT & EROSION CONTROL PLAN AND DETAILS

Scale	Project No.	Dwg. No.	Issue
As Shown	200934	107	B



GRATED DRAIN DETAIL
N.T.S

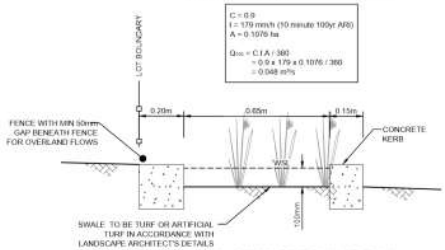


TYPICAL SUBSOIL DRAIN
N.T.S

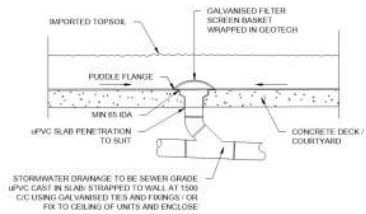
CALCULATION OF OPEN CHANNEL FLOW CAPACITY

Width (m)	0.65	Velocity (m/s)	1.850
Depth (m)	0.1	Capacity (m3/s)	0.108
Slope (%)	1.80	Capacity (L/s)	107.6
n	0.01	Multi Capacity (m3/s)	0.108
No parallel conduits	1		
X-Sect Area	0.065		

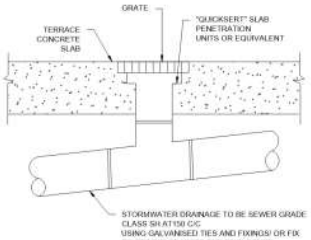
C = 0.9
I = 179 mm/h (10 minute 100yr ARI)
A = 0.1076 ha
$Q_{DES} = C.I.A / 360$
$= 0.9 \times 179 \times 0.1076 / 360$
$= 0.048\ m^3/s$



TYPICAL SWALE DRAIN DETAIL
SCALE 1:10

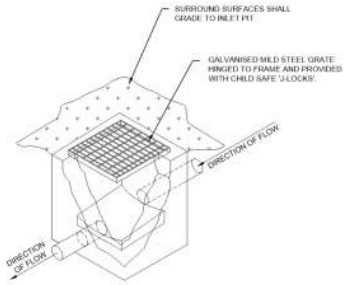


PLANTER GRATE DETAIL
N.T.S

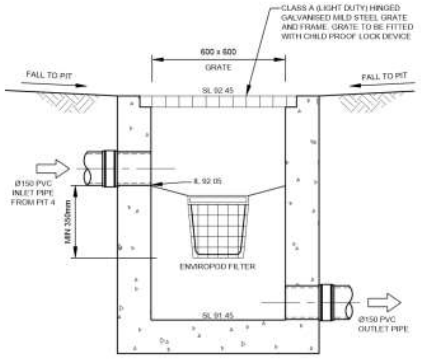


RAINWATER OUTLET DETAIL
N.T.S

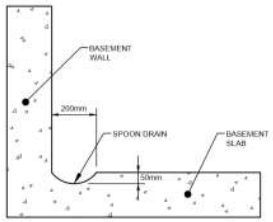
Regulated Design Record				
Project Address: 45 Mobbs Lane, Carlingford				
Project Title: CHILD CARE CENTRE				
Consent No: DA/725/2020		Body Corporate Reg No: –		
Drawing Title: MISCELLANEOUS DETAILS SHEET			Drawing No: 108	
Rev	Date dd.mm.yy	Description	DP Full Name	Reg No
1	27.07.21	COUNCIL COMMENTS	ANTHONY HASHAM	DES0000109



TYPICAL GRATED INLET PIT DETAIL
N.T.S



PIT 3 OceanGuard CONFIGURATION SECTION
SCALE 1:10



SPOON DRAIN SECTION DETAIL
SCALE 1:10

NOT FOR CONSTRUCTION

Issue	Description	Date	Design	Checked
B	COUNCIL COMMENTS	27/07/2021	AGN	JSF
A	ISSUE FOR DEVELOPMENT APPLICATION	22/10/2020	EHZ	JSF

Certification By Dr Anthony Hasham (NR08)

Architect: Designcorp, 16 dunlop street north parramattaNSW 2151, PHONE +61 2 9630 9911, Email admin@designcorp.com.au

Client: Skycorp Construction Group

Council: City of Parramatta Council

Scale: 0 200 400 600mm, SCALE 1:10 @ A1

ACE ENGINEERING THE FUTURE

ACE CIVIL STORMWATER SERVICES PTY LTD
ABN: 27 644 422 586
SHOP 2-141 CONCORD RD, NORTH STRATHFIELD, NSW 2137
P:(02) 9763 1300 E:info@aceeng.com.au

Project: 45 MOBBS LANE, CARLINGFORD
PROPOSED CHILD CARE CENTRE
STORMWATER CONCEPT PLANS
DEVELOPMENT APPLICATION

Drawing Title: MISCELLANEOUS DETAILS SHEET

Scale	AT	Project No.	Dwg No.	Issue
N.T.S.		200934	108	B

acouras CONSULTANCY

Skycorp Construction Group Pty Ltd

45 Mobbs Lane, Carlingford

Childcare Centre DA Assessment

Author	Fu Siong Hie, B.Eng, MAAS Principal Consultant
Document Reference:	SYD2018-1022-R003D
Date	21/07/2021
Comments:	New drawings & children numbers.

Table of Contents

Index of Figures

Index of Tables

1 Introduction

The following report has been prepared by Acouras Consultancy on behalf of Skycorp Construction Group Pty Ltd to assess the potential for noise impact associated with the 45 Mobbs Lane, Carlingford.

The development will include:

- Basement level carpark.
- Ground level: Three (3) indoor playrooms, open outdoor playarea, undercover outdoor playarea, cot room, reception and amenities.
- First level – One (1) indoor playroom, outdoor playarea on balcony, staff room, meeting, manager office, kitchen, laundry and amenities.

The proposed childcare centre development is located on a site surrounded by existing residential properties. The site location is shown in Figure 1.

Figure 1 – Site Location, Nearest Residents and Noise Logger Position

2 Noise Criteria

The following standards and guidelines are applicable to this project:

- Parramatta City DCP (2011) Appendix 10 "Acoustic Privacy - Child Care Centres".
- NSW EPA "Industrial Noise Policy" (INP) and "Road Noise Policy" (RNP).
- Association of Australian Acoustical Consultants (AAAC) "Guideline for Child Care Centre Acoustic Assessment" (September 2010).
- Australian standard AS/NZS 2107-2016: Acoustics – Recommended design sound levels and reverberation times for building interiors.
- Australian standard AS 1055.1-1997: Acoustics – Description and measurement of environmental noise - General procedures.

2.1 Internal Noise Levels

For a childcare centre development, Parramatta DCP recommends that the following L_{Aeq} levels are achieved in the internal spaces.

Table 1— Parramatta DCP Childcare Centre Internal Noise Level

Space	Internal Noise Criteria
Sleeping Rooms	L_{Aeq} 15 minute of 35 dB(A)
Other rooms	L_{Aeq} 15 minute 40dB(A)

Also, AS/NZS 2107–2016 outlines the acceptable internal noise levels within occupied spaces in new and existing buildings. Table 2 presents the recommended internal design noise levels for the various spaces in a childcare centre.

Table 2— Recommended Internal Design Noise Levels (AS/NZS 2107)

Type of occupancy/activity	Design Sound Level ($L_{Aeq,t}$) Range
Office areas	40 to 45
Staff common rooms	40 to 45
Toilets	< 55

2.2 Outdoor Noise Levels

Association of Australian Acoustical Consultants (AAAC) "Guideline for Child Care Centre Acoustic Assessment" (September 2010) recommends the following criteria for noise intrusion from traffic, rail and industry.

> *The noise level $L_{eq,1hr}$ from road, rail traffic or industry at any location within the outdoor play or activity area during the hours when the Centre is operating shall not exceed 55 dB(A).*

In addition to the above, the Parramatta City DCP (2011) Appendix 10 also recommends that for:

> *All external areas at the centre that are utilised by children or babies for external recreation and learning activities.*
>
> *External Noise - Playgrounds and Activity Areas LAeq 1 Hour 55 dB(A)*

2.3 Noise Survey and Project Specific Limits

An unattended noise survey was carried out at the site to measure the background and ambient noise levels. Nose monitoring was conducted between Wednesday 11th to Tuesday 17th April 2018.

Measurements were conducted using the following equipment:

- SVAN 977 Type 1 Real time Analyser/Noise Logger. Serial No. 34135.
- SVAN 977 Type 1 Real time Analyser/Noise Logger. Serial No. 34892.
- SVAN SV30A Type 1 Sound Level Calibrator. Serial No. 31830.

Noise monitoring was conducted in general accordance with Australian standard AS 1055.1-1997: Acoustics-Description and measurement of environmental noise-General procedures. The noise analyser was calibrated immediately before and after measurements were taken with no discernible differences between these two recorded levels. The sound analyser is Type 1 and complies with Australian standard AS1259.2: 1990.

The monitor was positioned at the following locations as shown in Figure 1:

- Location 1 (L1): Front of 45 Mobbs Lane. Noise logger was position on the front veranda facing Mobbs Lane to determine existing traffic noise levels.
- Location 2 (L2): Rear of 45 Mobbs Lane. Noise logger was positioned in the rear yard adjacent near the western boundary.

During the monitoring period any adverse weather condition and weekend data have been excluded. The noise logger results are presented in Appendix C.

2.3.1 Measured Traffic Noise Levels

Table 3 presents a summary of the measured ambient noise level and traffic noise impacting the development. There is no correction for façade reflection.

Table 3 – Measured Ambient and Traffic Noise and Levels, dBA

Location	Period	Average L_{eq}	Highest L_{eq} 1hr
L1: Mobbs Lane	Day (07:00-22:00)	58	61
	Night (22:00-07:00)	52	59

2.3.2 Children Activity Noise Limits (DCP)

For childcare centres, Table A10.1 of the Parramatta DCP states that,

> *Noise Criteria: Intrusiveness: A source noise (sound pressure) level of 75dB(A) at 1m, positioned a minimum of 1m above the ground, must be adopted for noise from children's activities (internal and external). LAeq 15 minute from the child care centre must not exceed the pre-existing background LA90 noise levels plus 5 dB(A), at 1 m from the facade of sensitive receivers.*
>
> *Applicable to: Noise emissions from activities at the child care centre (including noise from external and internal play/teaching/sleeping areas, car parking and fixed plant).*

Table 4 presents a summary of the measured background noise level and the allowable intrusive noise limit for this project in accordance with the DCP.

Table 4—Noise Survey Summary and Project Limits, dBA

Position	Time Period	Existing Noise Levels			DCP Noise Limits, L_{A90}+5 dB(A)=$L_{eq(15min)}$
		$L_{eq\ (period)}$	$L_{90\ (period)}$	RBL	
L1	Day (07:00-18:00)	58	43	40	48
	Evening (18:00-22:00)	57	42	39	47
	Night (22:00-07:00)	52	35	33	N/A
L2	Day (07:00-18:00)	52	43	40	48
	Evening (18:00-22:00)	49	44	41	49
	Night (22:00-07:00)	48	38	35	N/A

2.3.3 NSW Industrial Noise Policy

For the proposed childcare centre, the procedures as set out in the NSW Industrial Noise Policy have been applied to determine the allowable noise limits for the operation of mechanical plant. Table 5 presents a summary of the measured background noise level and the allowable intrusive and amenity noise limit for this project. The amenity criteria are based on a suburban receiver.

During detailed design stage, the design and selection of the mechanical equipment required to service the proposed development will be required to achieve the EPA noise limits as presented in Table 5.

Table 5—Noise Survey Summary and INP Project Limits, dBA

Type of Receiver/ Noise logger Location	Time Period	Existing Noise Levels		NSW Industrial Noise Policy	
		L_{eq} (period)	RBL	Amenity Criteria Recommended Noise Level (acceptable), L_{eq}	Project Specific Limit L_{eq}
Residential/ L1	Day (07:00-18:00)	58	40	55	45
	Evening (18:00-22:00)	57	39	45	43
	Night (22:00-07:00)	52	33	40	38
Residential/ L2	Day (07:00-18:00)	52	40	55	45
	Evening (18:00-22:00)	49	41	45	43
	Night (22:00-07:00)	48	35	40	38

2.3.4 Summary of Children Activity Noise Limits

The following Table 5 presents a comparative summary of the noise limit in accordance with the DCP and the EPA INP for this project. For the purpose of this assessment, the EPA INP noise limits have been applied.

Table 6—Summary of Children Activity Noise Limits, dBA

Position	Time Period	DCP Noise Limits, $L_{eq(15min)}$	EPA INP Limit $L_{eq(15min)}$
L1	Day (07:00-18:00)	48	45
	Evening (18:00-22:00)	47	43
	Night (22:00-07:00)	N/A	N/A
L2	Day (07:00-18:00)	48	45
	Evening (18:00-22:00)	49	43
	Night (22:00-07:00)	N/A	N/A

2.4 Traffic Noise Generation

The development of the childcare centre has the potential to generate increased traffic noise along Mobbs Lane will be assessed in accordance with the NSW EPA Road Noise Policy (RNP). Table 7 sets out the assessment criteria for residences to be applied to particular types of project, road category and land use.

Table 7— Road Traffic Noise Assessment Criteria

Road Category	Type of project/land use	Assessment Criteria - dBA	
		Day (7am-10pm)	Night (10pm-7am)
Local roads	Existing residences affected by additional traffic on existing local roads generated by land use developments	$L_{Aeq, (1\ hour)}$ 55 (external)	$L_{Aeq, (1\ hour)}$ 50 (external)

For existing residences and other sensitive land uses affected by additional traffic on existing roads generated by land use developments, any increase in the total traffic noise level should be limited to 2 dB above that of the corresponding 'no build option'.

3 Assessment and Recommendations

3.1 Façade Glazing Requirements

Acoustic glazing for the various spaces are given in Table 8 is required to reduce noise intrusion into the internal spaces and should result in noise levels within such units in accordance with the DCP and the Australian Standards AS/NZS 2107:2016.

Table 8 – Schedule of Window and Glazing (R_w)

Level	Façade	Space	Glazing Thickness	Minimum R_w (Glazing+Frame)
All	All	All	6.38mm laminated	30

All Windows/doors should be well sealed (air tight) when closed with good acoustic seals around the top and bottom sliders. Mohair seals are not considered to be acoustic seals.

3.2 Building Façade Construction

To provide sufficient acoustic attenuation, the general external construction of the proposed building would need to be constructed as detailed in Table 9.

Table 9 – External Façade Construction (R_w)

Building Element	Proposed Construction	Minimum R_w
External Wall	Brick Veneer of Double brick	45
Roof and ceiling	Corrugated colourbond roof with 75mm insulation (nominal density 10kg/m^3) and suspended 13mm plasterboard ceiling	45

3.3 Noise from Children Activities

The proposed childcare centre intends to operate Monday to Friday between 7.00am to 7.00pm to accommodate a total of 58 children. Staff arriving before 7am are to minimise any excessive noise outside the centre to prevent any potential noise impact or likelihood of sleep disturbance. The facility will be closed on Public Holidays. To control activity noise, there will be restricted outdoor activity before 8:00am or after 5.30pm. The time made available for outdoor activities is approximately an hour in the morning and in the afternoon. For the assessment of the children activity noise, the nearest potentially affected receivers are:

- R1: 43 Mobbs Lane.
- R2: 47 Mobbs Lane.
- R3: 2 Freeman Place (townhouses).

The proposed centre would have a total of 58 children and the following spaces indicate that maximum allowable in each of the external spaces:

- Ground Level:
  - Play Room 1: up to 15 children aged 2-3.
  - Play Room 2: up to 16 children aged 3-6.
  - Play Room 3: up to 17 children aged 0-2.
  - Outdoor Playarea to have a maximum of:
    - 16 children aged 3-6 or aged 2-3 at any one time.
    - 17 children aged 0-2 at any one time.
- Level 1:
  - Play Room 4: up to 10 children aged 3-6.
  - Outdoor Playarea on the balcony to have a maximum of 10 children aged 3-6 at any one time.

The assessment of children activity noise in the external playscape have been predicted based on the following parameters:

- Source noise is averaged of the entire area of the outdoor playarea.
- Source height is taken a 1m from the playarea ground level.
- The elevated equipment located in the undercover and on level 1 are relatively low in height, with only ever one child on the equipment at any one time. The effect of the elevated equipment would be negligible to the overall noise level.
- Calculations have been conducted based on ISO9613 using CadnaA (version 4.5.149).
- Pre-recorded music played in the centre has not been included in these predictions. However, if any pre-recorded music is played in the indoors activity rooms, it is recommended that all doors and windows closed.

- For this assessment, the assumed sound power for children noise is presented in Table 10 below depending on the age range. The sound power levels given in the table below have been extrapolated for the proposed number of children in each playscape or activity room as outlined above.

Table 10—Typical Sound Power Levels from Children (Source: AAAC)

Description	Sound Power Level
10 Children aged 0-2 years	77-80
10 Children aged 2-3 years	83-87
10 Children aged 3-6 years	84-90

Based on the initial predictions, noise level of children activity at the nearest receivers without any noise mitigation controls would exceed the DCP activity noise limits for children activity. Therefore, the following noise control measures are recommended:

- Ground level barriers are detail in Figure 2 and Figure 3. For the outdoor playarea on level 1 balcony, there is a have a 1.8m high solid screen/balustrade (no gaps).
- The screen/balustrade can be constructed of laminated glass (10.38mm thick laminated) or 20mm thick perspex/polycarbonate with a minimum acoustic performance of Rw35.
- The acoustic barrier (no gaps). on the boundary can be constructed of lapped and capped timber fence (40-50mm thick), masonry or brick with a minimum acoustic performance of Rw45.
- The underside/ceiling of the undercover outdoor playarea on the ground floor is to be lined with sound absorption material (min, NRC 0.5), such as Acoufelt, CSR Martini or similar.

The following Table 11 summaries the cumulative children noise at the nearest receivers. The noise model prediction in given in Figure 2 and Figure 3 using the AAAC noise levels.

Table 11 – Predicted Cumulative Noise from Outdoor Playarea (Ground & Level 1)

Receiver	INP Noise Limits, $L_{eq(15min)}$ (Day)	Applying AAAC Noise Levels		Applying DCP 75dBA @ 1m	
		Predicted Noise Level @ 1m from facade, $L_{eq15min}$ dBA	Complies (Y/N)	Predicted Noise Level @ 1m from facade, $L_{eq15min}$ dBA	Complies (Y/N)
R1	43	42	Y	38	Y
R2	43	40	Y	37	Y
R3	43	46	N	42	Y

Using the children noise levels given by the AAAC, the predictions we predict the noise level would comply with the children noise limit at 43 Mobbs Lane (R1) and 47 Mobbs Lane (R2). For the townhouse residents at 2 Freeman Place the noise level is predicted to marginally exceed by 3dB, which subjectively would be indiscernible to the average listener. Therefore, to manage any exceedances the operators of the centre should implement the strategies outlined in the following Section 3.4 .

By applying Council's DCP children noise level of 75dB at 1m, the predictions indicate the children noise levels would comply at all receivers.

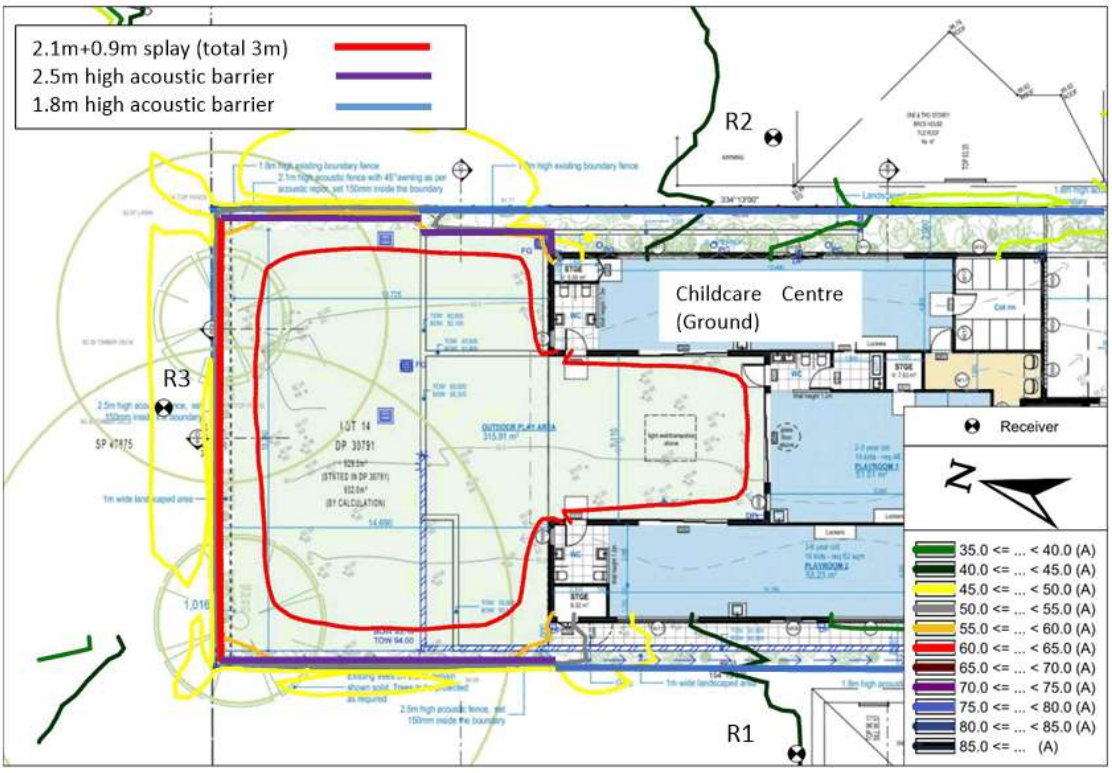


Figure 2 – Ground Level – Noise Model & Acoustic Barrier

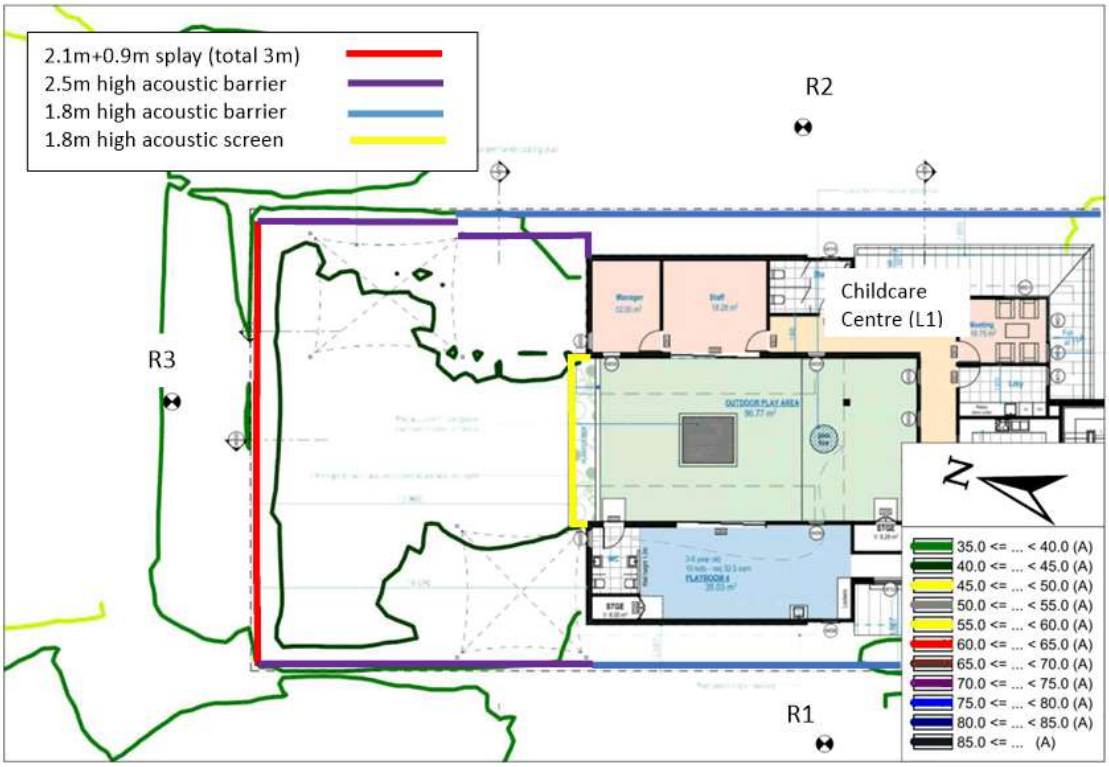


Figure 3 – Level 1 – Noise Model & Acoustic Barrier

3.4 Childcare Centre Noise Management

To manage noise from the centre, the following are the recommended managerial practices to be implemented to further limit the impact of children activity noise:

- Restricting the noisier games/activities to the indoor playareas. The outdoor sessions are based on supervised learning activities and designed to be educational.
- Any pre-recorded music is played in the indoors playareas, it is recommended that all doors and windows closed.
- Staff are to be properly trained and instructed in controlling the level of noise emissions from the external play activity areas. For example, staff should:
  - Not shout and to speak to children and to each other at a normal conversation noise level.
  - Remind parents who are talking too loudly while outdoors and request that they be mindful of the neighbours.
  - Pacify crying and over excited children, if necessary taking them indoors where necessary to ensure that the neighbours are not unduly impacted.
- Appropriate signage shall be placed within the premises to remind staff and parents to respect the rights of neighbours to quiet enjoyment.
- The childcare centre operator is to maintain a complaints register to record any noise complaints received by neighbours. Such complaints will be thoroughly investigated and where such complaints are justified, appropriate measures will be put in place to ensure that the offence is not repeated.
- Neighbours should be able to refer complaints directly to management by calling the telephone number posted on the outside of the premises.

3.5 Assessment of Traffic Noise Generation

This section details a review of the expected future traffic noise generated from the childcare centre. Based on the report prepared by TEF Consulting (Report No: 20092 Rep 01), dated 28th March 2018, the proposed childcare centre development will result in an increase in the traffic generation of approximately:

- Morning Peak (6:30am-9:30am) – 30 trips in, 21 trips out.
- Afternoon Peak (3:30pm-6:30pm) – 18 trips in, 26 trips out.

The traffic flow has been calculated over a 1-hour peak period during the morning and this would be considered as a worst case scenario.

By analysing both the predicted vehicle trips generated by the childcare centre, the impact of the vehicle noise (Table 12) in the carpark has been calculated by applying the ISO9613 method for using CadnaA (version 4.5.149) noise modelling software. The calculations include the attenuation effect from the 1.8m high solid fence on the eastern boundary near the driveway.

Table 12 – Typical Noise Level of Vehicles, L_{max} dBA

Type	Sound Pressure Level Range
General passenger vehicle	67-88 @ 0.5m, L_{max} dBA[1]

From our analysis, the predicted vehicle noise level would comply with the EPA noise limits at the rear yard of each of the adjoin residential properties. The predicted noise level are given in Table 13 on the following page are also graphically presented in Figure 4.

Table 13 – Predicted Traffic Noise Levels during Morning Peak Period

Receiver	Predicted Carpark Driveway Noise Level, $L_{eq\ (1hr)}$ dBA	Project Specific Limit L_{eq}
No. 47 Mobbs Lane	36 - 39	46

[1] Based on ADR83/00 external noise test.

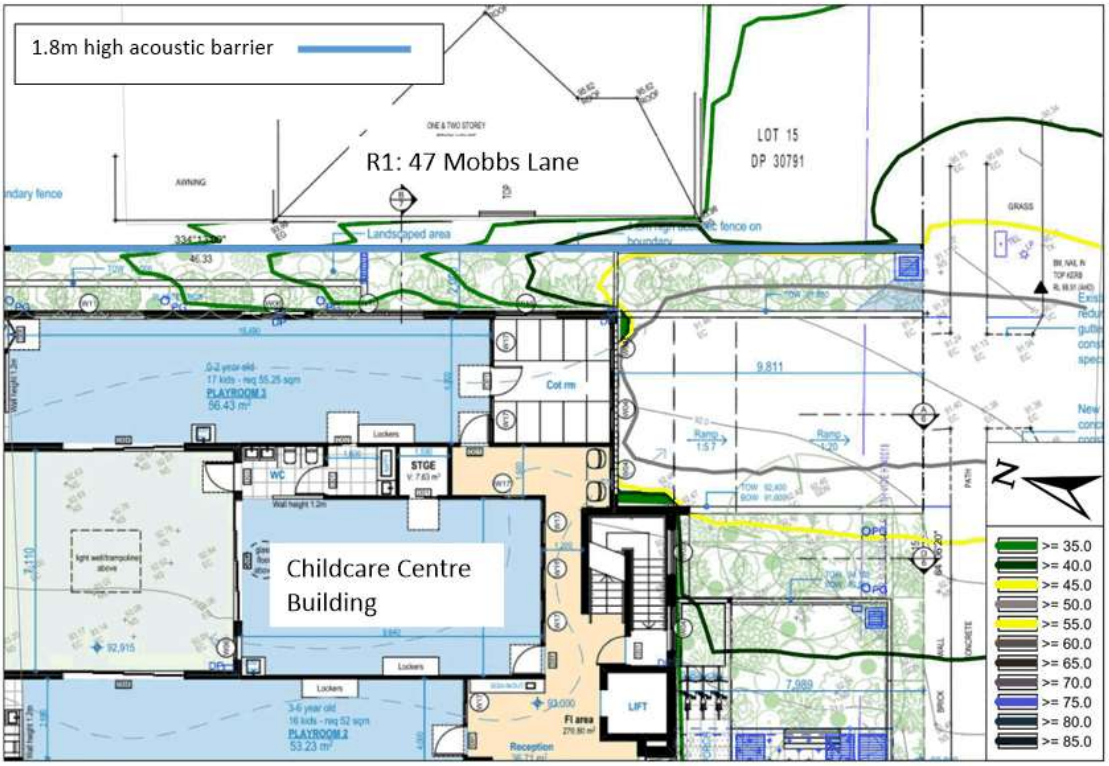


Figure 4 – Driveway Noise Levels – Noise Model (Ground Level)

The TEF traffic report does not indicted the current traffic flow rates on Mobbs Lane. However, Mobbs Lane is a major thoroughfare connecting Marsden Road and Misdon Road, and the current noise levels already exceed the NSW EPA Road Noise Policy (RNP) criteria for local roads. It is therefore unlikely that the additional vehicle trips generated by the centre would increase the existing traffic noise levels by more than 2dB.

3.6 Indoor Playarea Ventilation

All windows and doors for the indoor playareas can be opened at anytime for natural ventilation. However, it is our recommendation that the windows and doors should be closed when music is played (live or recorded).

When windows and doors are closed, an alternate outside air system can supplement the proposed A/C system to provide the required natural ventilation in accordance with Australian Standards. At the DA stage, the design and selection of mechanical equipment has not been finalised, however during the Construction Certification Stage a detail can complete by the mechanical consultant.

3.7 Mechanical Systems

At the DA stage, the design and selection of mechanical equipment has not been selected or finalised. Typically, based on similar sized residential projects we would expect the following noise control measures to be implemented:

- Carpark exhaust/supply fans located in the basement:
  - Exhaust and supply fans operate with a VSD and CO sensor.
  - Provide acoustic attenuators to the supply and discharge of the fans.
  - The fans are not to operate during the night period of between 10pm and 7am.
- Apartment exhaust fans (toilet, laundry, kitchen):
  - Electrically inter-locked with the light switch or have manual switch for the room served.
  - Internally lined ducts and acoustic flex ducts to be fitted to the fans.
  - The fans are not to operate during the night period of between 10pm and 7am.
- Outdoor A/C condenser:
  - Outdoor condenser(s) are to be located in the basement.
  - Typical commercial condensers have a noise level of approximately SPL 60-65dBA at 1m. It is estimated that these A/C units would be inaudible at the boundary and at the nearest affected receivers during the day or evening.
  - The condenser are not to operate during the night period of between 10pm and 7am.

Following the DA approval of the proposed development, during the Construction Certification Stage a detail assessment of all mechanical plant and equipment will be conducted to ensure compliance with the EPA INP noise criteria.

4 Conclusion

An acoustic assessment of the proposed development has been carried out in accordance with the requirements of Parramatta City DCP 2011 and EPA noise policies.

An environmental noise survey of the site has been conducted and the noise limiting criteria for mechanical plant/equipment noise emission has been determined based on the DCP requirements in accordance with the Councils DCP noise limits. The limits are presented in Table 4.

The proposed construction for glazing and external walls detailed in Section 3.1 and Section 3.2 would be sufficient to achieve the projects internal noise levels.

Section 3.3 details our assessment of the potential noise impact from children in the indoor activity rooms and outdoor playscapes. Using the children noise levels given by the AAAC, the predictions we predict the noise level would comply at the receivers except at 2 Freeman Place, where the noise level is predicted to marginally exceed by 3dB. However, when applying Council's DCP children noise levels, the predictions indicate the children noise levels would comply at all receivers. Where the children activity noise does exceed, the managerial control as outlined in Section 3.4 are to be implemented to minimise impact.

Based on the traffic report provided by Loka Consuting Engineers, the vehicle noise levels in the basement carpark driveway are expected to comply with the EPA noise limits with the installation of a 1.8m high boundary fence. Also, the traffic flow generated by the childcare centre is expected to comply with the EPA limits and in our opinion would not cause an adverse impact to the future surrounding residential properties.

Providing the recommendations in this report are implemented, the noise from the proposed development is predicted to comply with acoustic requirements of the Parramatta City DCP 2011 and EPA noise policies.

Appendix A – Acoustic Terminology

Decibel, dB: A dimensionless unit which denotes the ratio between two quantities that are proportional to power, energy or intensity. One of these quantities is a designated reference by which all other quantities of identical units are divided. The sound pressure level in decibels is equal to 10 times the logarithm (to the base 10) of the ratio between the pressure squared divided by the reference pressure squared. The reference pressure used in acoustics is 20 micro Pascals.

A-WEIGHTING: A measure of sound pressure level designed to reflect the response of the human ear, which does not respond equally to all frequencies. To describe sound in a manner representative of the human ear's response it is necessary to reduce the effects of the low and high frequencies with respect to medium frequencies. The resultant sound level is said to be A-weighted, and the units are in decibels (dBA). The A-weighted sound level is also called the noise level.

Sound Pressure Level, L p (dB), of a sound: 20 times the logarithm to the base 10 of the ratio of the r.m.s. sound pressure to the reference sound pressure of 20 micro Pascals. Sound pressure level is measured using a microphone and a sound level meter, and varies with distance from the source and the environment.

Ambient Noise/Sound: All noise level present in a given environment, usually being a composite of sounds from many sources far and near. Traffic, HVAC, masking sound or even low-level background music can contribute to ambient level of noise or sound.

Percentile Level - L 90 , L 10 , etc: A statistical measurement giving the sound pressure level which is exceeded for the given percentile of an observation period, e.g. L 90 is the level which is exceeded for 90% of a measurement period. L 90 is commonly referred to as the "background" sound level.

Background Noise (L 90): The sum total of all unwanted residual noise generated from all direct and reflected sound sources in a space that can represent an interface to, or interfere with good listening and speech intelligibility.

Rating Background Level – RBL: Method for determining the existing background noise level which involves calculating the tenth percentile from the L A90 measurements. This value gives the Assessment Background Noise Level (ABL). Rating Background Level is the median of the overall ABL.

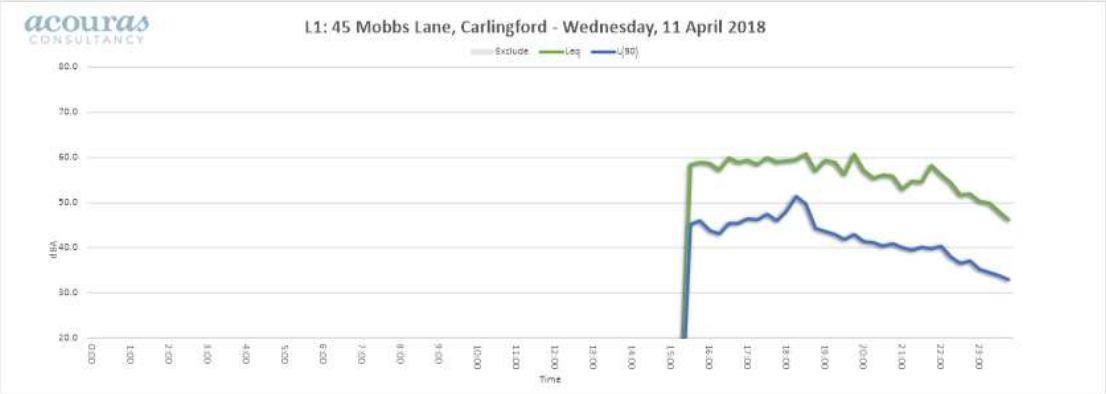
L AEQ,T : Equivalent continuous A-weighted sound pressure level. The value of the A-weighted sound pressure level of a continuous steady sound that, within a measurement time interval T, has the same A-weighted sound energy as the actual time-varying sound.

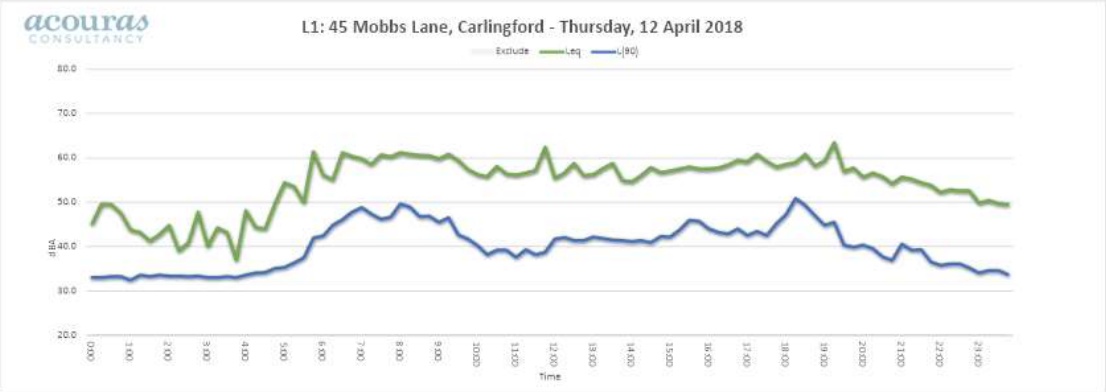
Appendix B – Architectural Drawings

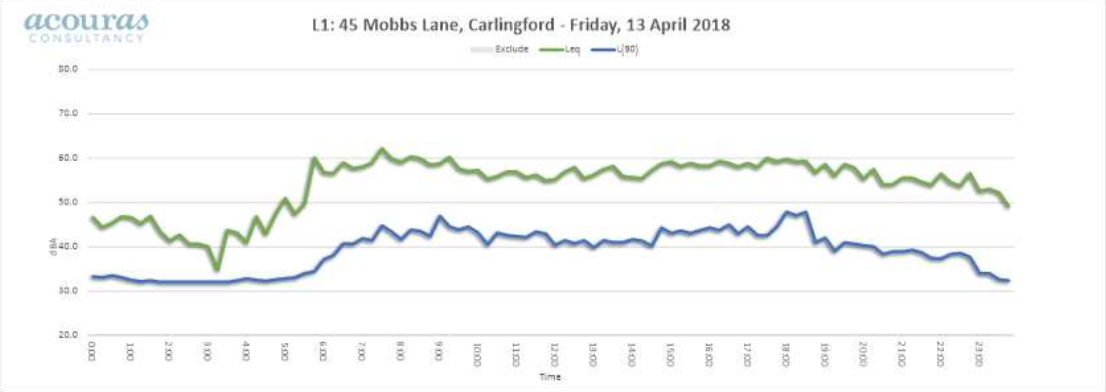
This assessment was based on the following architectural drawings provided by Designcorp Architects.

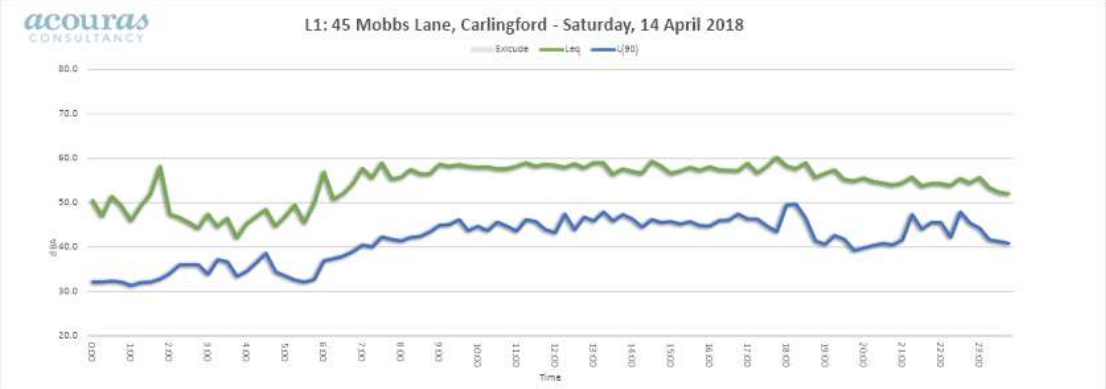
Drawing	Issue	Date	Description
H2	H	13-07-21	Site Analysis
H3	H	13-07-21	Site Plan
H4	H	13-07-21	Roof Site Analysis
H5	H	13-07-21	Basement
H6	H	13-07-21	Ground
H7	H	13-07-21	First
H8	H	13-07-21	Roof Plan
H10	H	13-07-21	Play Area Cal Layouts
H13	H	13-07-21	Elevations
H14	H	13-07-21	Elevations
H15	H	13-07-21	Sections

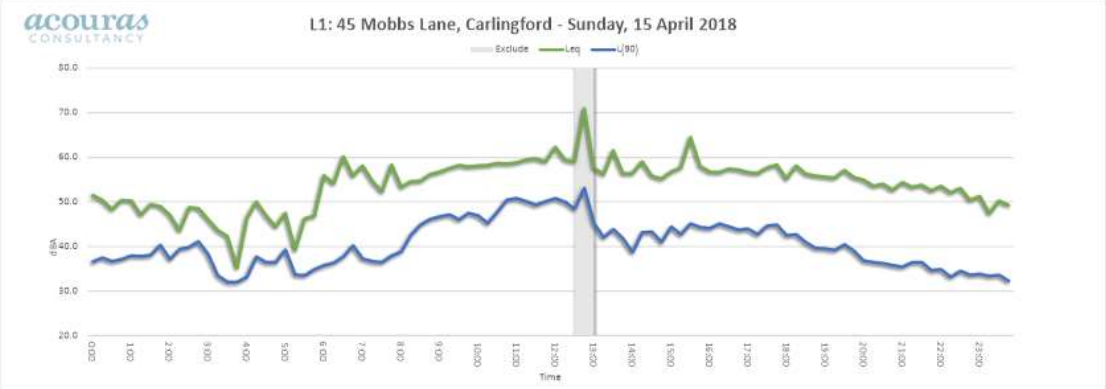
Appendix C – Noise Logger Results

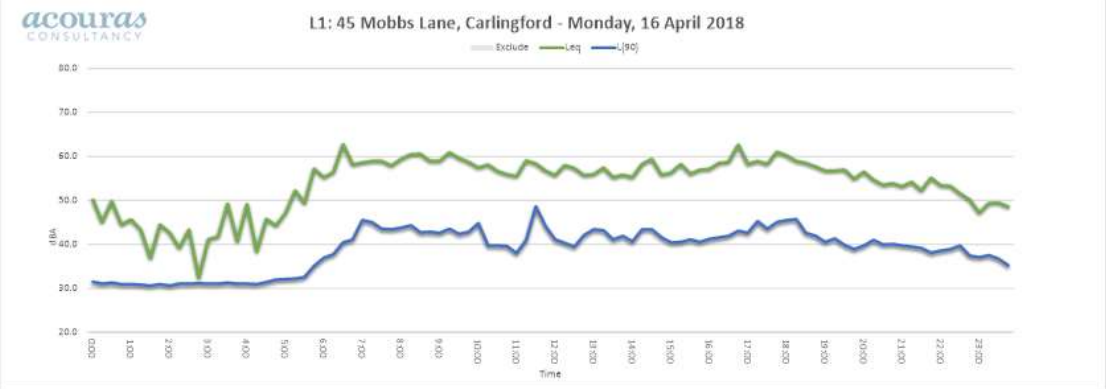


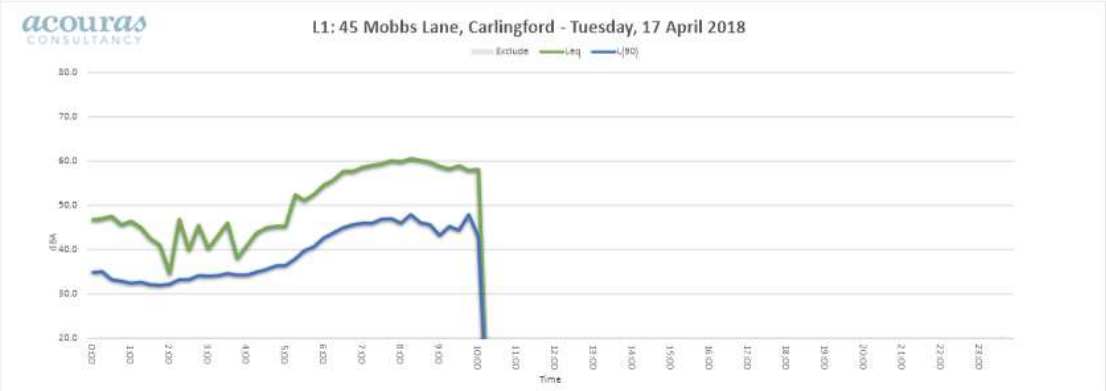


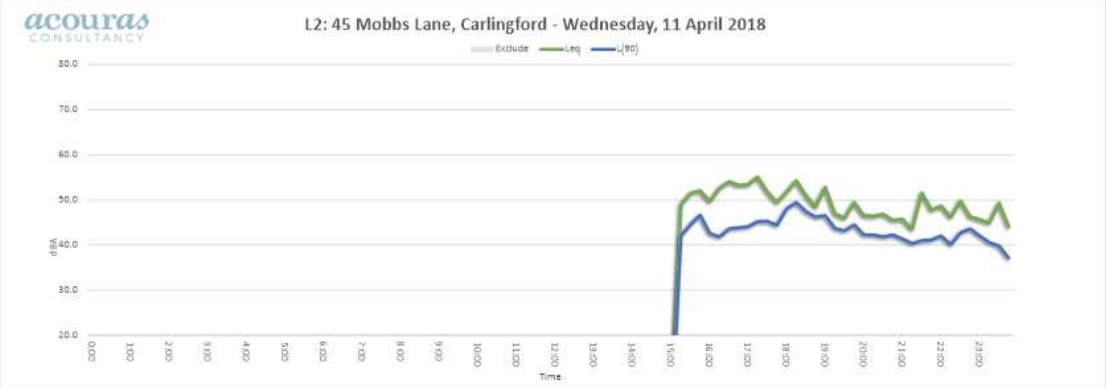


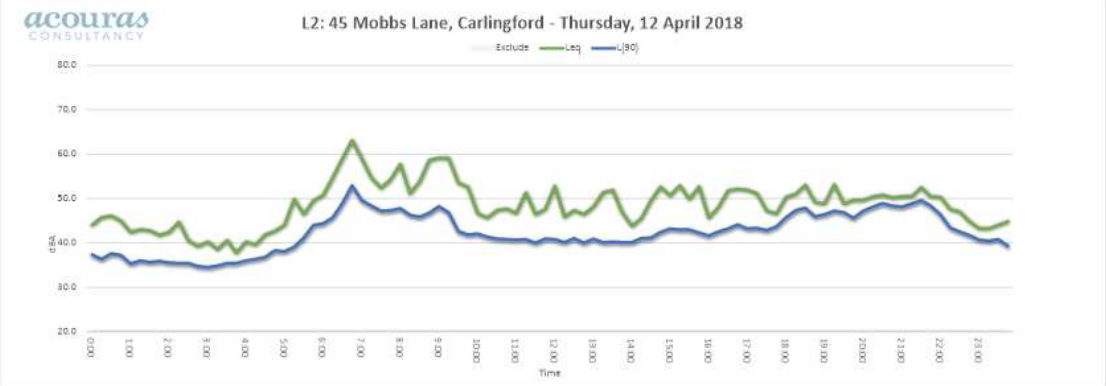

acouras CONSULTANCY
L1: 45 Mobbs Lane, Carlingford - Saturday, 14 April 2018
Exclude
Leq
L(90)
dBA
Time

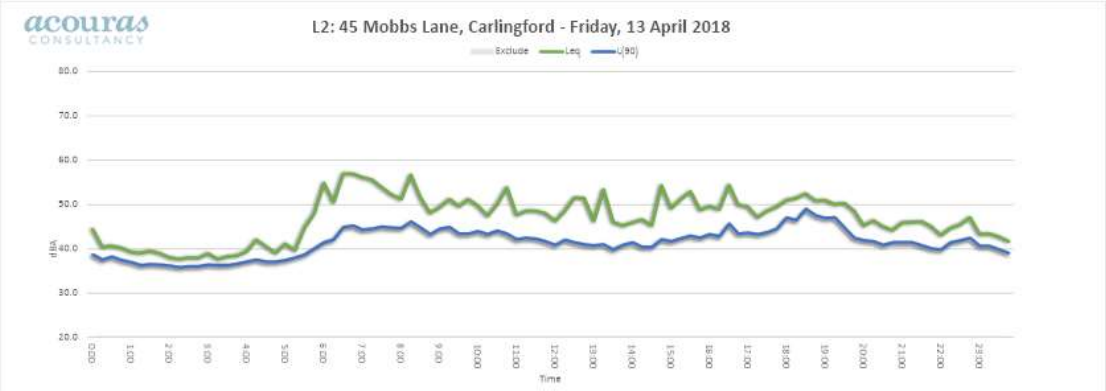

acouras CONSULTANCY
L1: 45 Mobbs Lane, Carlingford - Sunday, 15 April 2018
Exclude
Leq
L(90)
dBA
Time

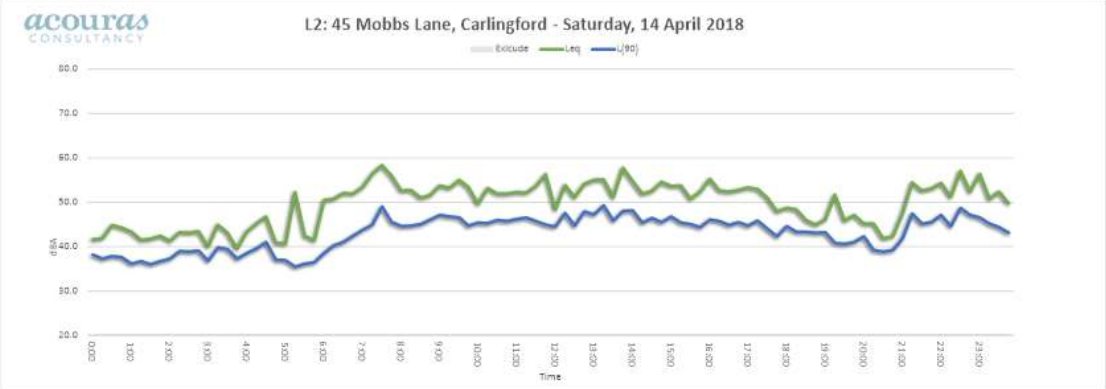

acouras CONSULTANCY
L1: 45 Mobbs Lane, Carlingford - Monday, 16 April 2018
Exclude
Leq
L(90)
dBA
Time

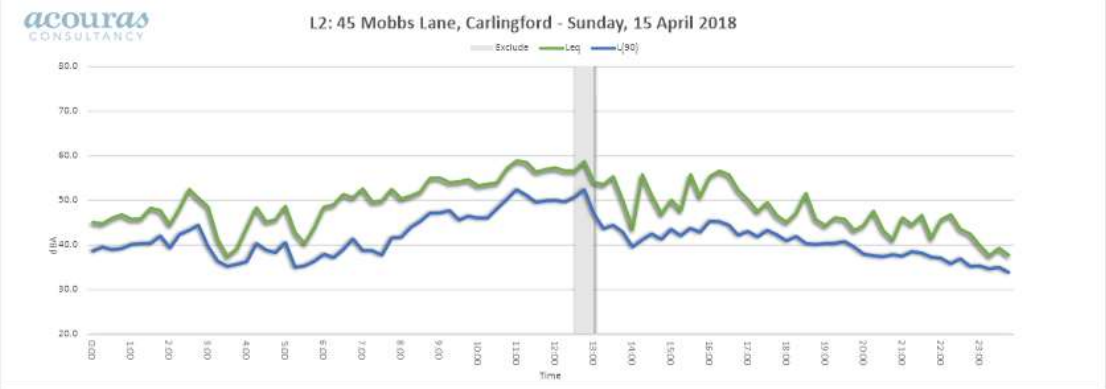

L1: 45 Mobbs Lane, Carlingford - Tuesday, 17 April 2018
Exclude
Leq
L(90)
dBA
Time

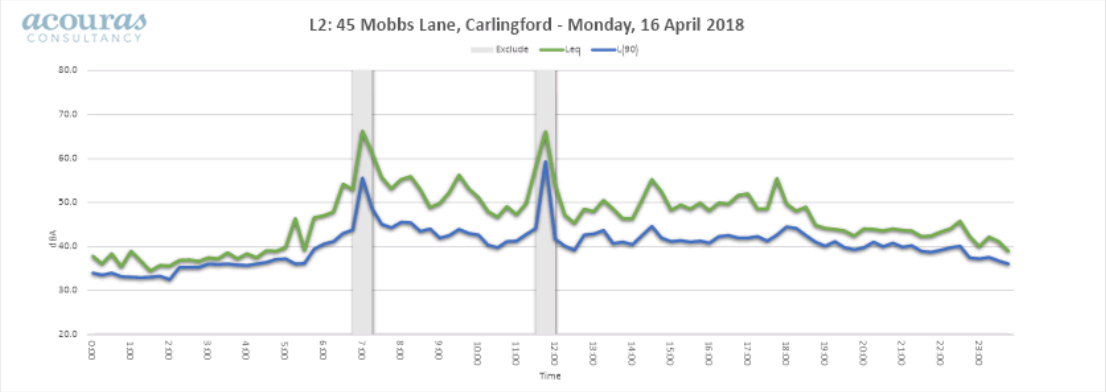

L2: 45 Mobbs Lane, Carlingford - Wednesday, 11 April 2018
Exclude
Leq
L(90)
dBA
Time

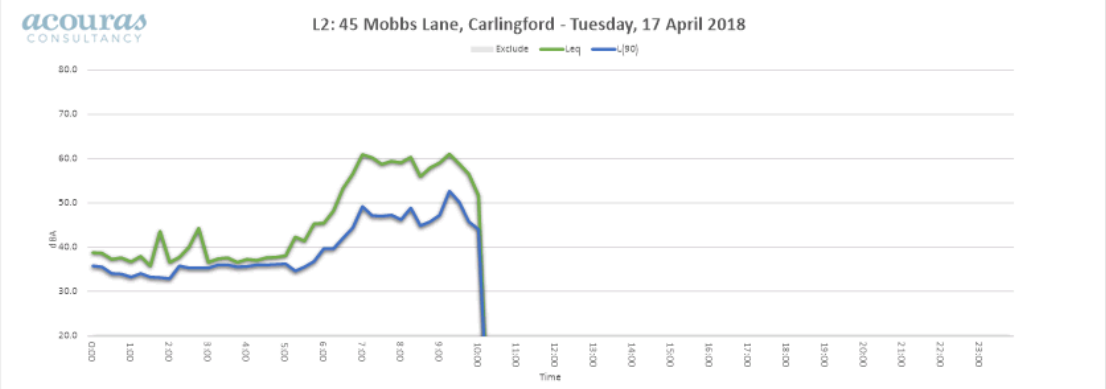

L2: 45 Mobbs Lane, Carlingford - Thursday, 12 April 2018
Exclude
Leq
L(90)
dBA
Time


L2: 45 Mobbs Lane, Carlingford - Friday, 13 April 2018
Exclude
Leq
L(90)
dBA
Time


L2: 45 Mobbs Lane, Carlingford - Saturday, 14 April 2018
Exclude
Leq
L(90)
dBA
Time


L2: 45 Mobbs Lane, Carlingford - Sunday, 15 April 2018
Exclude
Leq
L(90)
dBA
Time


acouras CONSULTANCY
L2: 45 Mobbs Lane, Carlingford - Monday, 16 April 2018
Exclude
Leq
L90
dBA
Time


acouras CONSULTANCY
L2: 45 Mobbs Lane, Carlingford - Tuesday, 17 April 2018
Exclude
Leq
L90
dBA
Time

planning lab

OPERATIONAL PLAN OF MANAGEMENT

45 MOBBS LANE, CARLINGFORD

Prepared by Planning Lab

23 July 2021

Contents

1. Hours of Operation

The childcare centre is to operate from 7am – 7pm, Monday to Friday.

2. Staffing Numbers

A managing director (or their delegate) will be present on site during operational hours and will be provided in addition to class room staff. The Education and Care Services National Regulation applies the following staff numbers to the childcare centre:

Room No.	No. Children	Ages	Required staffing	Provided staffing
1	15	2-3	3	3
2	16	3-6	1.6	2
3	17	0-2	3.4	4
4	10	3-6	1	2
Total	58		9	11

3. Indoor and outdoor play areas

The centre provides over 3.25m2 of unencumbered indoor space per child and over 7m2 of unencumbered outdoor space per child in accordance with the requirements of the national regulations. Doors are provided to allow a direct transition between indoor and outdoor spaces.

Staff should stager the use of the outdoor areas to minimise the total number of children outside on either level at any one time in so far as it is possible to do so. The maximum capacities must not be exceeded. The centre has the following maximum capacities for indoor and outdoor areas:

Indoor Play Rooms:

- Play Room 1 (Ground): up to 15 children aged 2-3.
- Play Room 2 (Ground): up to 16 children aged 3-6.
- Play Room 3 (Ground): up to 17 children aged 0-2.
- Play Room 4 (Level 1): up to 10 children aged 3-6.

Ground Level Outdoor Play area:

- Maximum of 33 children comprised of:
    - Up to 16 children aged 3-6 or aged 2-3 at any one time, and
    - Up to 17 children aged 0-2 at any one time.

Level 1 Outdoor Play area:

The Level 1 outdoor play area is limited to use by a maximum of 10 children at any one time. This is in accordance with the Acoustic Report prepared by Acouras Consultancy (21/07/2021).

Access to Play Areas

Children will be allocated to outdoor play areas by the childhood educators operating the centre. Children must be allocated to play areas in accordance with the maximum occupancies described in this section. The operator must ensure that supervision complies with all relevant standards. The movement of children between areas must be at the direction of staff and under appropriate supervision. Children must not be permitted to wander between the Ground floor and Level 1 play areas.

4. Traffic & Car Parking

15 car parking spaces are provided in the building basement which is accessible from Mobbs Lane. The following types of parking are provided:

- 6 staff parking spaces
- A total of 9 visitor parking spaces
- One accessible visitor parking space

All visitor parking spaces can access a protected walkway around the permitter of the parking lot. Staff should guide parents to use this protected walkway wherever practical to do so.

The following procedures should be observed to ensure the safety and wellbeing of children, their families, staff and visitors, when using the centre's car parking facilities including street parking. These procedures should be made known and available to all parents and staff.

Procedures for families when parking in the centre's basement:

- Ensure that the vehicle is parked strictly in allocated parking bays. This includes parking within parking bay lines; ensuring the vehicle does not cross over the parking bay lines or double parking.
- Obey any signage and markings within the car park.
- Ensure that adults and children are entering or exiting the vehicle only when the vehicle is at a complete stop and parked in an allocated parking bay.
- Ensure that when driving in the car park that a speed limit of 5kms per hour is observed.
- Vehicles must enter and exit the driveway in a forward direction.
- Be aware of pedestrians (especially children) when using the car park.
- Please do not block exit by waiting to turn right. If the road is too busy to turn right, then turn left.

- Ensure that no children are left in the vehicle when it is unattended. This is illegal and children can be exposed to heat stress, dehydration, playing with car controls, etc.
- At all times, ensure that children are supervised (preferably by holding the child's hand) when in the car park.
- The protected walkway should be used wherever practical to do so.
- Ensure that drop off and collection times are carried out efficiently to ensure parking spots are available to other families. Should a parent or visitor plan to remain at the centre for over 15 minutes during peak periods i.e. 7.00am-9.30am and 3.00-6.00pm, they may be required to park their vehicle outside the car park to ensure there are adequate parking spots for other users.
- Please be mindful of local residents when parking your vehicle and keep noise to a minimum.
- Any parent found to be driving dangerously can be excluded from using the car park and if deemed serious enough can be requested to leave the centre.

Procedures for families parking on street:

- Ensure that vehicle is strictly parked in allocated parking bay following the legal parking requirement/s outlined on street/parking signage.
- The Centre accepts no liability for families and/or visitors that receive parking and/or traffic infringements.
- Ensure that adults and children are entering or exiting the vehicle only when the vehicle is at a complete stop and parked in an allocated parking bay.
- Ensure that local speed limits are observed.
- Ensure that no children are left in the vehicle when it is unattended. This is illegal and children can be exposed to heat stress, dehydration, playing with car controls etc.
- At all times, ensure that children are supervised when travelling to or from the centre.
- At all times, ensure that children are supervised (preferably by holding the child's hand).
- Please be mindful of local residents when coming or going to the centre. Things to take into consideration are:
    - Not blocking driveways or parking too close to driveways.
    - Not always taking the same parking spots. Try and use a variety of spots.
    - Keep noise to a minimum.
    - Be as fast as possible in picking up and dropping off.
- Any parent found to be driving dangerously can be excluded from using the on-site car park and if deemed serious enough can be requested to leave the centre.

Procedures for Staff:

- Staff are to park their vehicles in the 6 designated staff parking spaces only.
- Please be mindful of local residents when parking your vehicle for the duration of your shift. Things to take into consideration are:
    - Not blocking driveways or parking too close to driveways.
    - Not always taking the same parking spots. Try and use a variety of spots.
    - Keep noise to a minimum.

5. Complaints

The childcare centre is to be contactable at all times during its operating hours via a telephone number displayed on the outside of the building. Any complaints must be taken seriously by staff and referred to the Managing Director. Complainants are to be treated with respect, understanding and courtesy.

A complaint register will be operated by the Managing Director or their delegate. Any complaints made to the centre are to record the name of the complainant, their contact information (for follow up and resolution), the nature of the complaint and any action taken to remedy the complaint. Wherever possible, action should be taken immediately to solve the issue. If immediate action is not possible, the centre should provide a follow up to the complainant and advise of what action has been taken.

It is the responsibility of the managing director or their delegates to provide a satisfactory resolution to complaints. If necessary, issues should be discussed at staff meetings or distributed to staff by memo or email.

6. Noise & Meetings/Events Outside Operational Times

The childcare centre is located in a residential neighbourhood and the centre must respect the right of its neighbours to the quiet enjoyment of their dwelling. The following measures must be observed at all times:

- Observe the maximum capacities of outdoor areas as described in section 3 of this Plan of Management.
- Restrict noisier games/activities to the indoor play areas. Outdoor sessions should emphasise supervised learning activities and designed to be educational.
- Any pre-recorded music is played in the indoor play areas with all doors and windows closed.
- Staff are to be properly trained and instructed in controlling the level of noise emissions from the external play activity areas. For example, staff should:

- Not shout and to speak to children and each other at a normal conversation noise level.
- Remind parents who are talking too loudly while outdoors and request that they be mindful of the neighbours.
- Pacify crying and over-excited children, if necessary, taking them indoors where necessary to ensure that the neighbours are not unduly impacted.

- Appropriate signage shall be placed within the premises to remind staff and parents to respect the rights of neighbours to quiet enjoyment.
- The childcare centre operator is to maintain a complaints register to record any noise complaints received by neighbours as described under section 5 of this Plan of Management.
- Neighbours should be able to refer complaints directly to management by calling the telephone number posted on the outside of the premises.

The centre should endeavour to have all events and meetings within the operating hours of 7am – 7pm, including meetings with parents and staff meetings. Where this is not possible, meetings are to be conducted quietly and are to take place indoors. The size of the meetings should be kept to a minimum to lessen vehicle movements.

7. Measures to Manage Child Safety

The following measures are to be observed concerning child safety.

Fire safety equipment and evacuation plans

The centre must carry certified fire equipment commensurate with the standards. All equipment is to be recertified as required by the law.

The centre has a documented Emergency Evacuation Plan (Appendix A). Evacuation diagrams are to be displayed throughout the centre.

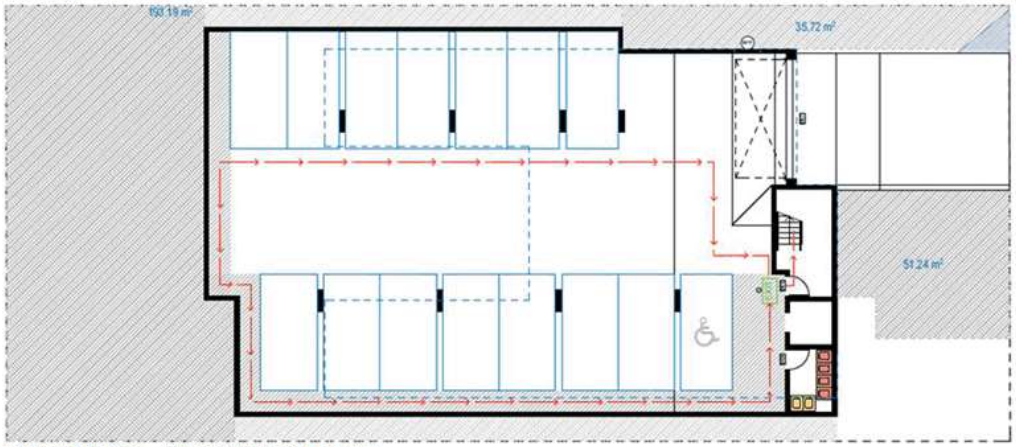
Prevention of a child escaping

The centre will have the following security measures in place:

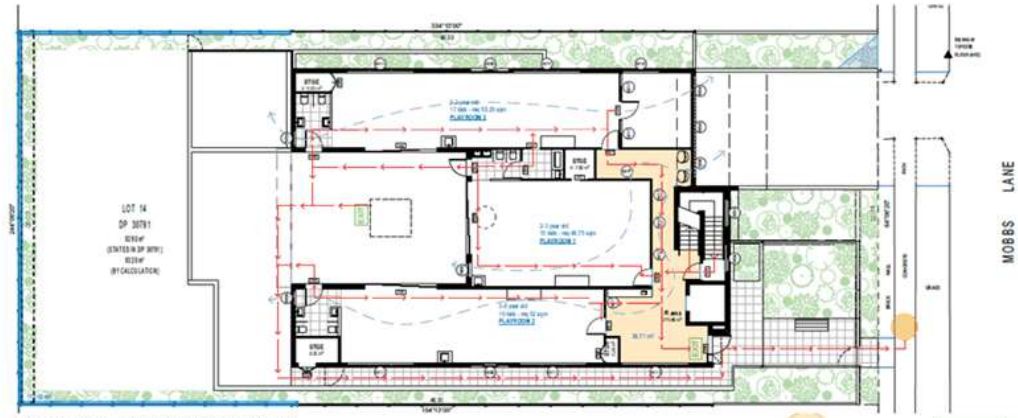
- Surrounding child-proof fences and gates
- Security cameras and CCTV – external and internal
- Swipe card access to all staff and parents to the centre.

Children are physically prevented from escaping the play rooms by at least 3 doors or gates. Staff must ensure that these doors remain closed when not being used for egress and ingress. Staff ratios must always comply with the national guidelines and the guidelines provided under section 2 of this Plan of Management.

8. Appendix A – Evacuation Plans

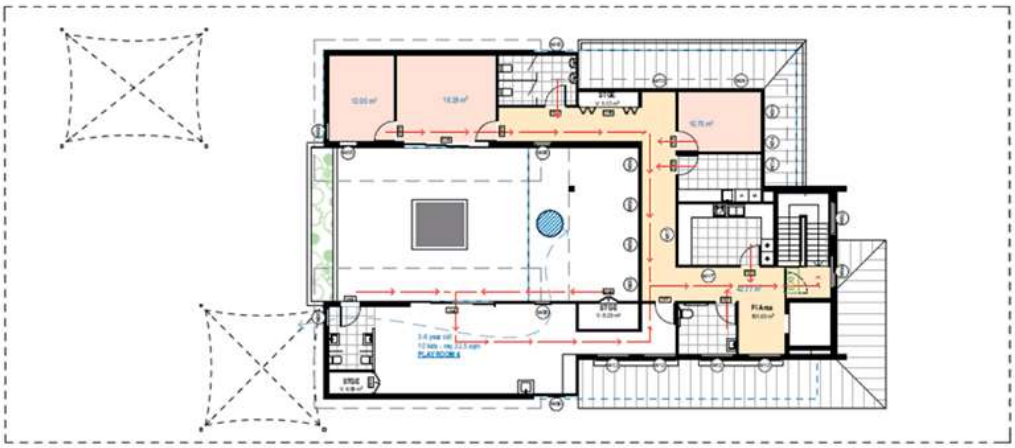


BASEMENT - EVACUATION PLAN
1:200



GROUND - EVACUATION PLAN
1:200

DIRECTION OF EGRESS → ASSEMBLY POINT EXIT SIGN EXIT



FIRST - EVACUATION PLAN
1:200

DIRECTION OF EGRESS → ASSEMBLY POINT EXIT SIGN EXIT

PO Box 215 Bondi NSW 2026 | ph.: +61 2 9332 2024 | fax.: +61 2 9332 2022 | mob.: +61 (0)4 1497 8067 | email: o.s@tefconsult.com.au | www.tefconsult.com.au

TRAFFIC AND PARKING IMPACTS REPORT
FOR A DEVELOPMENT APPLICATION
FOR A PROPOSED CHILD CARE CENTRE
AT No. 45 MOBBS LANE, CARLINGFORD NSW 2118

Property address	45 Mobbs Lane, Carlingford NSW 2118
Client	Designcorp Architects
Prepared by	O. Sannikov, MEngSc (Traffic Engineering), MIEAust, PEng, FAITPM
Date	22/07/2021
Job No.	20092
Report No.	20092 Rep 01a

Item	Report
Site location	• Refer to **Figure 1.**
Existing land use	• One (1) single storey residential dwelling
Proposed development	• Child care centre ◦ 58 children places ◦ 11 staff • Basement level car park ◦ 15 car parking spaces ▪ Including six (6) space for staff and nine (9) space for visitors (one (1) of them being for people with disabilities) • Ground floor level ◦ 3 bicycle parking spaces

Figure 1. Site location.

Item	Report
	Existing traffic and parking situation
Street characteristics	• Refer to **Figure 2.**
	• The key roads surrounding the proposed development are described below.
	◦ Mobbs Lane
	▪ Local collector road
	▪ 2 travel lanes and parking opportunities on both sides
	◦ Freeman Place
	▪ Local road
	▪ 2 travel lanes and parking opportunities on eastern side
	◦ Valley Road
	▪ Local road
	▪ 2 travel lanes and parking opportunities on both sides
	◦ Epping Park Drive
	▪ Local road
	▪ 2 travel lanes and parking opportunities on both sides
	◦ Other streets in the surrounding area are local/local collector roads. Street conditions are typical for a residential area, with low to moderate traffic volumes.
	▪ General speed limit is 50 km/h on local streets around the site.
	Public Transport
Bus	• There are three (3) bus stops within close walking distance. Two (2) bus stops are approximately 90 m from the site. The third bus stop is approximately 180 m from the site. Refer to **Figure 3.**
	◦ Bus route 521
	▪ PrePay-Only – Eastwood to Parramatta
	• 3 services operate during the morning peak hours.
	• 6 services operate during the afternoon peak hours.
	▪ PrePay-Only – Parramatta to Eastwood
	• 8 services operate during the morning peak hours.
	• 3 services operate during the afternoon peak hours.
	• The morning peak hours were between 6:30 a.m. and 9:30 a.m. and the afternoon peak hours were between 3:30 p.m. and 6:30 p.m.

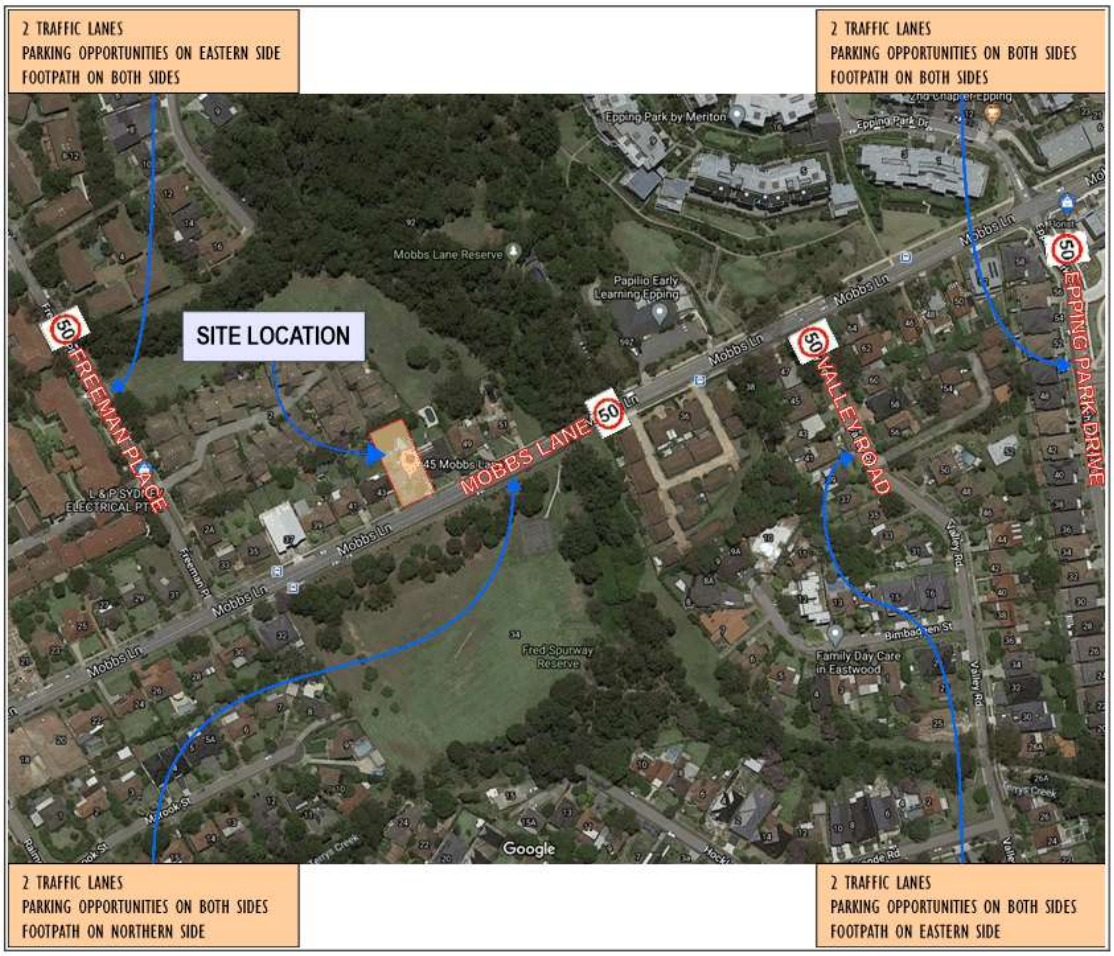


Figure 2. Street characteristics.

Figure 3. Public transport.

Item	Report
	Surveys and survey results
Parking survey	• A parking demand survey was conducted on Thursday 27 September 2018 (morning and afternoon) during the typical periods of children drop-off and pick-up.
	◦ The morning survey was between 6:30 a.m. and 10:00 a.m.
	◦ The afternoon survey was between 3:00 p.m. and 6:30 p.m.
	• Refer to **Figure 4** for survey locations
	◦ Areas in red represent convenient walking distances of up to 150 metres from the site.
	◦ Areas in blue represent close walking distances of approximately 150 to 250 metres from the site.
Survey results	• Refer to **Tables 1a** and **1b** for survey results.
	• Areas 1-2 (within 150 metres walking distance).
	◦ The morning peak occurred at 7:00 a.m.
	◦ The afternoon peak occurred at 3:00 p.m.
	◦ The survey results indicated that there were at least 35 spaces vacant throughout the day (to a maximum of 43) in the survey area.
	• Areas 3-6 (between 150 to 250 metres walking distance).
	◦ The morning peak occurred at 6:30 a.m.
	◦ The afternoon peak occurred at 4:30 p.m and 6:30 p.m.
	◦ The survey results indicated that there were at least 36 spaces vacant throughout the day (to a maximum of 44) in the survey area.
	◦ There are ample parking opportunities within walking distance from the site.

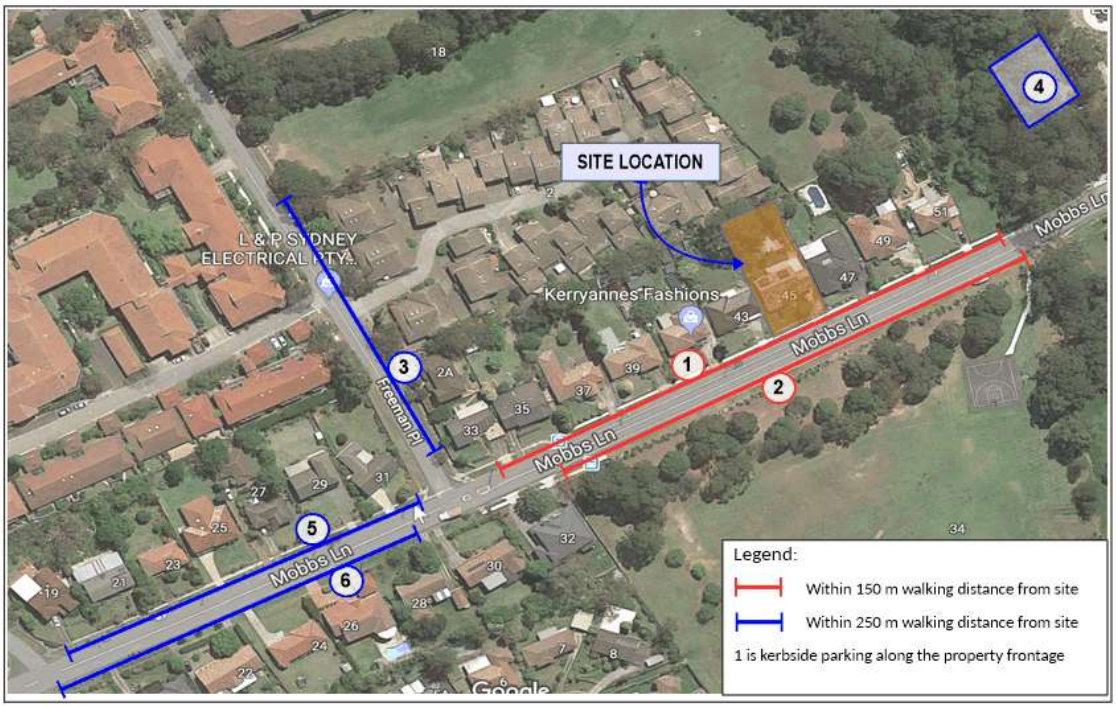


Figure 4. Parking demand survey locations.

Table 1. Parking demand survey results.

27/09/18	Number of parked cars								
Thursday	Parking Location						Total		
Time	1	2	3	4	5	6	1 to 2	3 to 6	All
6:30	3	2	12	0	5	1	5	18	23
7:00	6	2	10	0	5	1	8	16	24
7:30	5	2	8	2	4	1	7	15	22
8:00	5	1	6	2	4	2	6	14	20
8:30	3	1	4	3	3	1	4	11	15
9:00	4	2	4	3	4	2	6	13	19
9:30	3	1	4	3	3	1	4	11	15
10:00	3	0	4	3	2	1	3	10	13
15:00	3	1	3	5	2	1	4	11	15
15:30	3	0	4	5	3	1	3	13	16
16:00	0	1	4	5	2	2	1	13	14
16:30	0	1	6	3	3	3	1	15	16
17:00	1	0	6	3	2	2	1	13	14
17:30	1	0	7	2	2	2	1	13	14
18:00	0	0	7	1	2	3	0	13	13
18:30	0	0	9	1	2	3	0	15	15
No of spaces	19	24	13	16	11	14	43	54	97

27/09/18	Number of vacant parking spaces								
Thursday	Parking Location						Total		
Time	1	2	3	4	5	6	1 to 2	3 to 6	All
6:30	16	22	1	16	6	13	38	36	74
7:00	13	22	3	16	6	13	35	38	73
7:30	14	22	5	14	7	13	36	39	75
8:00	14	23	7	14	7	12	37	40	77
8:30	16	23	9	13	8	13	39	43	82
9:00	15	22	9	13	7	12	37	41	78
9:30	16	23	9	13	8	13	39	43	82
10:00	16	24	9	13	9	13	40	44	84
15:00	16	23	10	11	9	13	39	43	82
15:30	16	24	9	11	8	13	40	41	81
16:00	19	23	9	11	9	12	42	41	83
16:30	19	23	7	13	8	11	42	39	81
17:00	18	24	7	13	9	12	42	41	83
17:30	18	24	6	14	9	12	42	41	83
18:00	19	24	6	15	9	11	43	41	84
18:30	19	24	4	15	9	11	43	39	82

Note: negative numbers indicate vehicles parked illegally

Item	Report
Planning control document	• City of Parramatta Council ◦ Parramatta Development Control Plan (DCP) 2011 ▪ Part 3 – Development Principles ▪ Part 5 – Other Provisions ▪ Appendix A8 – Waste Management

Requirement	Compliance
Part 3 – Development Principles	
Section 3.6. Movement and Circulation	
3.6.1. Sustainable Transport	
C.1 to C3.	Not applicable
C.4. 1 carshare space can be provided in lieu of 3 car parking spaces.	Noted; not proposed
C.5 to C6.	Not applicable
Travel Plan	Not applicable
3.6.2. Parking and Vehicular Access	
P.1. Vehicle access points and parking areas are to be: • easily accessible and recognisable to motorists • undisruptive to pedestrian flow and safety • located to minimise traffic hazards and the potential for vehicles to queue on public roads • located to minimise the loss of on street car parking, and to minimise the number of access points.	Complies
P.2 Car parking and service/delivery areas are to *be located so that they do not visually dominate either the development or the public domain surrounding the development.	Complies
P.3 Parking and service/delivery areas and vehicular access points are to be located to minimise conflict between pedestrians and vehicles and to minimise impact on residential amenity.	Complies
P.4 Development on arterial roads is to seek access via a secondary street where possible.	Not applicable
P.5 Where properties have access to a rear lane or secondary street frontage (including desired lanes) parking and servicing access should be provided from the secondary street/lane.	Not applicable
P.6 On site parking is to be provided at a rate sufficient for residents, employees, visitors and service vehicles as relevant to the development.	Refer to **'Car Parking Rates'** of this section. Complies
P.7 Car parking spaces are to be designed to ensure ease of access, egress and manoeuvring on-site. The standards of AS 2890 are to be complied with.	Complies with AS/NZS 2890.1:2004 and AS/NZS 2890.6:2009
P.8 Driveways are to be designed to avoid a long and straight appearance by using landscaping and variations in alignment.	To be addressed by others

Item	Report	
	Requirement	**Compliance**
	P.9 Car parking areas and vehicle accessways are to be landscaped to integrate sympathetically with the development and the landscape character of the locality. Large car parking areas are to be broken up using landscaping.	To be addressed by others
	The design and layout of carparking areas must provide for suitable and safe pedestrian movements, including separate pedestrian access to buildings which are clearly defined and easily negotiated	Complies
	P.10 The area between property boundaries and driveways, access ways and parking spaces is to be of sufficient width to enable landscaping and screen planting.	To be addressed by others
	P.11 Car parking at ground level is not to encroach within building setbacks.	Not applicable
	P.12 Reasonable provision is to be made for the parking needs of people with disabilities.	Refer to **'Section 5.2.3.4'** in this report. Complies
	P.13 Basement car parking is to be:	
	• adequately ventilated	To be addressed by others
	• designed for safe and convenient pedestrian movement and to include separate pedestrian access points to the building that are clearly defined and easily negotiated	Complies
	• predominantly located within the building footprint located predominantly below existing ground level. Where slope conditions mean that this is unachievable, the basement projection of the floor level of the storey immediately above is less than 1m above ground level (existing).	Complies
	P.14 Basement car parks and manoeuvring must comply with AS 2890.	Complies with AS/NZS 2890.1:2004 and AS/NZS 2890.6:2009
	P.15 Vehicular ramps for all development types are to be designed with sufficient width for safe and efficient ingress and egress.	Complies with AS/NZS 2890.1:2004
	P.16 Car parking areas within multi dwelling developments and residential flat buildings must be designed to minimise headlight glare onto the windows of dwellings within the site or neighbouring properties.	Not applicable
	P.17 Visitor parking is to be marked or signposted to enable easy recognition.	Complies
	P.18 The design and layout of carparking areas must provide for suitable and safe pedestrian movements, including separate pedestrian access to buildings which are clearly defined and easily negotiated	Complies
	P.19 Car parking is not to be used as storage space.	Complies

Item	Report	
	Requirement	**Compliance**
	P.20 Development must provide safe vehicle access and adequate sight distances. Development on arterial roads or development that is not a dwelling house must make provision for vehicles to leave the site in a forward direction.	Complies Available sight distance to the west of the access, towards the crest on the road, is greater than required by AS/NZS 2890.1:2004 and by Austroads. Refer to design test results in Appenedix.
	NOTE: Refer to Section 3.3.7 Waste Management should a private waste collection vehicle be required to enter the property	Noted
	Bicycle parking	
	C.1 to C4.	Not applicable
	C.5 Bicycle parking is to be provided in the form of Class 2 compounds, as specified in AS 2890.3 – Bicycle Parking Facilities. These facilities may be located in storage areas if good access is provided.	Complies with AS 2890.3:2015
	C.6 All bicycle parking should be located in a safe and secure location that is under cover and convenient for users.	Bicycle racks are located on the ground floor, near the child care centre entrance. This setup is convenient and safe for cyclists. Satisfactory
	C.7 Trip end facilities including showers and lockers must be provided to adequately service the number of bicycle parking spaces required in business premises, office premises, retail and industrial development.	Not applicable
	C.8 Bicycle parking in the public domain must be located as close as possible to the main entrance of the building at ground level.	Not applicable
	Each on site car parking space must have the following dimensions:	
	C.9 Enclosed garage: 3.0 metres width x 5.4 metres length	Not applicable
	C.10 Disabled parking space must be in accordance with AS 2890.6 - 2009 Parking Facilities Off Street Parking for People with Disabilities	Complies with AS/NZS 2890.6:2009
	C.11 Clearance above the general parking surface must be in accordance with AS 2890	Complies with AS/NZS 2890.1:2004
	C.12 Unenclosed parking spaces must be in accordance with AS 2890	Not applicable
	Car Parking for People with a Disability	
	C.13 The number of accessible carparking spaces to be provided as prescribed in Table D3.5 of the Building Code of Australia.	Refer to **'Section 5.2.3.4'** in this report. Complies
	Provision on Splay Corners	
	C.31 Development on corner sites may be required to accommodate a splay corner to facilitate improved traffic conditions. This matter should be identified at the initial design stage in consultation with Council's development assessment officers.	Not applicable
	Car Parking Rates	
	C.32 The required number of car parking spaces are provided in Table A and Table B below.	Calculations are shown overleaf.

Item	Report	
	Requirement	**Compliance**
	Note: These tables do not apply to the Parramatta City Centre, which has Access and Parking Provisions in Section 4.3.3.5 of this DCP.	Noted
	Table 3.6.2.3 Minimum car parking rates **Type of building** / **Minimum number of parking spaces required** Child care centres / 1 space for every 4 children in attendances	
	Car parking required	**Car parking proposed**
	1 space per 4 children and there are a total of 58 children: • 58/4 = 14.5, rounded up to **15 spaces**	15 spaces are proposed. Complies
	C.33 All numbers are to be rounded up when calculating the parking requirements in Table 3.6.2.1 and Table 3.6.2.2.	Complies
	C.34 If a particular land use is not addressed in Table 3.6.2.1, where appropriate one of the following shall be conducted: • ...	Not applicable
	C.35 If a particular land use is not addressed in Table 3.6.2.2, the provisions in Table 3.6.2.1 apply.	Not applicable
	3.6.3. Accessibility and Connectivity	
	P.1 Pedestrian links should be provided where possible through development sites to improve connectivity between housing, open space networks, community facilities, public transport, local activity centres and schools.	Complies
	P.2 to P.4.	To be addressed by others
	P.5 Public, communal and private areas are to be clearly delineated within the site.	Complies
	P.6 Pedestrian and cycle links should be provided on sites adjacent to waterways to improve accessibility to these natural systems.	Not applicable
	P.7 Existing through-site pedestrian links are to be retained by all types of development, except where alternative access can be provided at Council's satisfaction.	Not applicable
	C.1 Pedestrian through-site links are to have a minimum width of 3 metres and are to be constructed to an appropriate standard, using materials and finishes acceptable to Council.	Not applicable
	Part 5 – Other Provisions	
	Section 5.2. Child Care Centres	
	5.2.3. Planning Controls for Child Care Centres	
	5.2.3.4. Access and Parking	
	Car parking rates	
	On site car parking is to be provided at the rate of a minimum of 1 parking space per 4 child care places. Parking for people with a disability is to be provided at the rate of 1 space in every 10 spaces. If the car parking required is less than 10 spaces then at least 1 space must be provided.	Refer to **'Car Parking Rates'** of Section 3.6.2. Complies Car parking requirements for people with disabilities are shown below.

Item	Report	
	Requirement	**Compliance**
	Car parking required for people with disabilities	**Car parking proposed for people with disabilities**
	There are a total of 15 spaces.	1 space is proposed.
	• **1 space**	Complies
	A reduction in the minimum parking requirement may be considered where:	Not applicable
	• there is sufficient safe on street parking available at appropriate times located outside the development within the frontage of the subject site; and	
	• the development is not likely to result in any adverse impact on the safe operation of the surrounding road network.	
	Notwithstanding the above, the availability of on street parking within cul-de-sacs will not be considered in any justification for the reduction in the minimum parking requirement.	Noted
	Any variation to the minimum parking requirement, is to be justified by a traffic and transport assessment. Refer to 'Supporting Technical Assessments' 5.2.4 of this section for the matters to be addressed in a traffic and transport assessment.	Not applicable
	Vehicle circulation and car parking design	
	Vehicle circulation and car parking areas shall be designed to allow the safe drop-off and collection of children and the safe movement and parking of staff, parent, visitor and service vehicles.	Complies
	In this regard:	
	• the design shall take into account nearby traffic generators, street design, and the existing environment for pedestrians and cyclists;	Complies
	• access driveways shall not be located opposite, or in the vicinity of, road intersections;	Complies
	• on site car parking and vehicle manoeuvring areas are to be designed so that vehicles are able to safely enter and leave the site in a forward direction;	Complies
	• the development must comply with the provisions of AS 2890.1 Parking Facilities - Off Street Car Parking;	Complies with AS/NZS 2890.1:2004
	• tandem parking may be provided but only where the spaces that are not accessible at all times are designated for staff use;	Not applicable
	• car parking areas and access ways shall not visually dominate the external appearance of the development and shall be softened by the provision of appropriate plantings in the front setback area;	To be addressed by others

Item	Report	
	Requirement	**Compliance**
	• access provision to the outdoor play spaces and playgrounds should allow for trucks that occasionally deliver items such as sand or gardening supplies through secure-locking gates; and	With the outdoor play area being behind the building, site constraints do not allow to create a full truck access path through the site. It is noted that deliveries of sand or gardening supplies are rare and can be done from a truck parked at the kerb. Satisfactory
	• provision of at least one secure bicycle parking space should be made for each development at a rate of one space per 25 child care places.	As below.
	Bicycle parking required	**Bicycle parking proposed**
	1 space per 25 children and there are a total of 58 children: • 58/25 = 2.32, say **3 spaces**	3 spaces are proposed. Complies
	Council will not support applications where existing traffic volumes or road geometry are such that danger would be created by pedestrians crossing the road to enter the child care centre site or by vehicles turning in the vicinity of the site.	Not applicable
	Pedestrian access design	
	Access arrangements must ensure that safe and convenient access to the entry of the child care centre is available to all persons. Additionally, outdoor play spaces in the centre must be accessible for children. In this regard:	Complies
	• pedestrian access that is separated from vehicular access is to be provided from the street to the building and from all car spaces to the building (it is essential that children using the centre do not need to walk past the back turning circle of a car);	Complies
	• the development must comply with the provisions of AS 1428.1 Design for Access and Mobility and comply with Part D of the Building Code of Australia;	Provisions of AS1428.1 are to be addressed by accessibility consultant. Complies with parking requirements for Part D of the BCA.
	• all pedestrian pathways in the development should have a minimum width of 1.2 metres to allow easy circulation throughout the site;	The pedestrian pathway is 1.0 m. Complies with Austroads Guide.
	• the maximum grade of the front setback and any area of the site to be counted as unencumbered play space should be no greater than 1 in 12;	To be addressed by others
	• hard paved surfaces are to be provided leading into the entry of a play environment and continuing inside that will allow children and adults with mobility aids as well as toddlers in strollers to enter with ease;	To be addressed by others

Item	Report	
	Requirement	**Compliance**
	• if basement car parking is to be incorporated into the proposal, a lift or ramp must be provided between the basement level and upper levels; and	Complies
	• the use of inclinators as the sole access for persons with a disability will not be supported.	Noted
	Appendix 8. Waste Management	
	Appendix A8.1. Waste Management Guidelines for New Development Applications 2016	
	9.0 Child Care Centres	
	9.1. Waste Management Plan	
	9.1.2 Details on the frequency and times of collection of waste, and the proposed measures to minimise impacts on neighbouring properties;	Details regarding the waste collection have been provided in the Dickens Solutions' Waste Management Plan.
	9.1.3 In the absence of Council being the nominated waste service provider, the applicant must submit written evidence demonstrating that they have contacted at least three (3) waste contractors regarding waste collection, and the details of the preferred private waste contractor to provide the service.	A licensed private waste collection contractor will provide all waste and recycling services to the child care centre. Refer to the Dickens Solutions' Waste Management Plan for further details.
	9.2. Site Plans/Drawings	
	9.2.1 Location of garbage and recycling bins in relation to the outdoor play spaces and neighbouring properties.	Complies
	9.3. Controls	
	9.3.1. Waste can be collected by either Council or a private waste contractor and collections must occur at least once per week or more, depending on the bin size combinations agreed upon.	Kerbside waste collection by a private waste collection contractor is proposed. Refer to the Dickens Solutions' Waste Management Plan for further details.

Item	Report
	Traffic impacts
Traffic generation	• **Base traffic generation rates** ◦ From RMS (2002) Guide to Traffic Generating Developments ▪ Updated statistics from TDT 2013 / 04a • **Existing traffic generation** ◦ One dwelling house (Peak hour vehicle trips = 0.99 per dwelling) • 0.99 × 1 = 0.99, say **1 trip** during the peak hour • **Traffic generated by the proposed development** ◦ Child care centres (long-day care) ▪ Morning peak hour • 0.8 vehicle trips / child ◦ 0.8 × 58 = 46.4, say **47 trips (in and out)** ▪ Assume 80% of staff driving (with 80% of staff arriving in the morning peak hour) • 11 x 0.8 x 0.8 = 7.04, say **7 trips in** ▪ Equal parent trips in and out • (46.4–7.04)/2 = 19.68, say **20 trips in** and **20 trips out** ◦ 27 trips in and 20 trips out ▪ Afternoon peak hour • 0.7 vehicle trips per child ◦ 0.7 × 58 = 40.6, say **41 trips (in and out)** ▪ 80% of staff driving (with 70% of staff leaving in the afternoon peak hour) • 11 x 0.8 x 0.7 = 6.16, say **6 trips out** ▪ Equal parent trips in and out • (40.6–6.16)/2 = 17.22, say **17 trips in** and **17 trips out** ◦ 17 trips in and 23 trips out • **Additional traffic generated by proposed development** ◦ Morning peak hour ▪ 27 – 1 = **26 additional trips in** ▪ 20 – 0 = **20 additional trips out** ◦ Afternoon peak hour ▪ 17 – 0 = **17 additional trips in** ▪ 23 – 1 = **22 additional trips out**
Traffic distribution	• Trip generation and attraction is assumed to be equal in all directions, with trip distribution taking into account the surrounding street network, connections and turn restrictions. ◦ Refer to **Figures 5a** and **5b.**
Traffic impacts	• **Impact on intersection operation** ◦ When distributed on the road network, turning movements at the nearest intersections will be low at 5 to 8 veh/h and will have no negative impact on the operation of the intersections.
Safety	◦ Accident statistics from RMS NSW indicate no crashes in 5 years. Safety risks are very low and do not preclude a child care centre at the proposed location. ▪ Refer to **Figure 6**.
Conclusion	• Additional traffic generation will have no negative impacts on the existing road network operation nor on road safety.

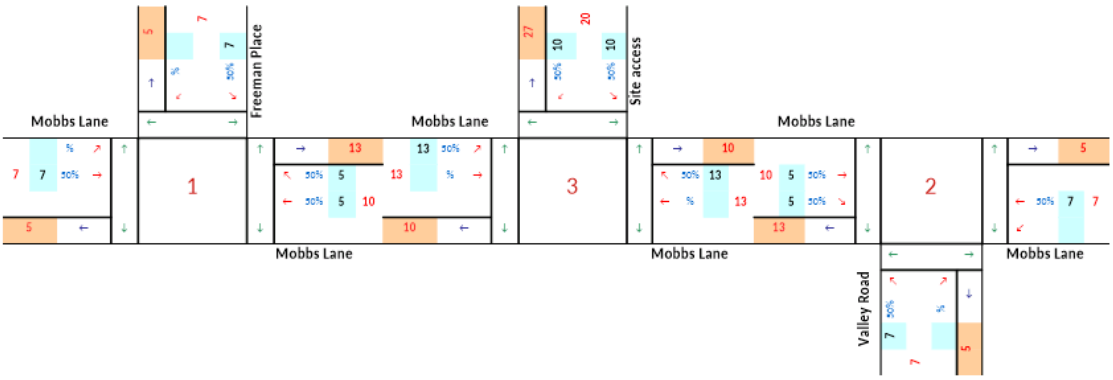


Figure 5a. Distribution of additional traffic volumes – morning peak hour.

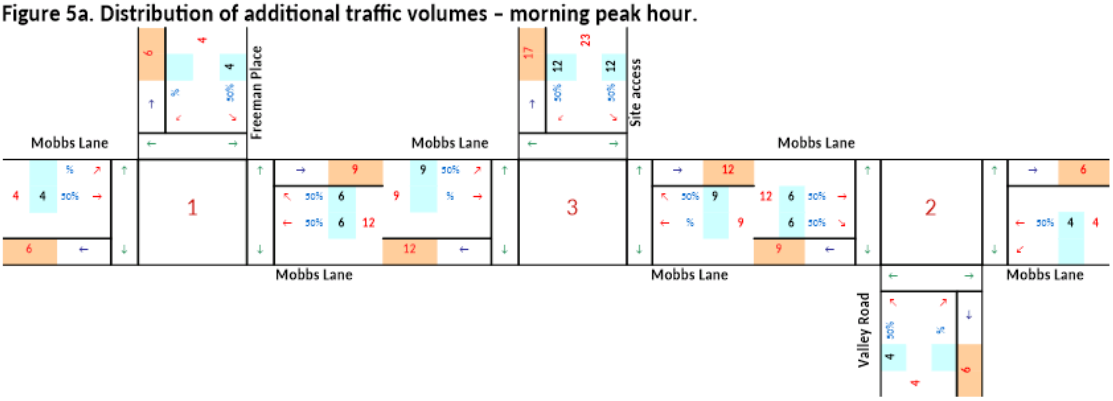
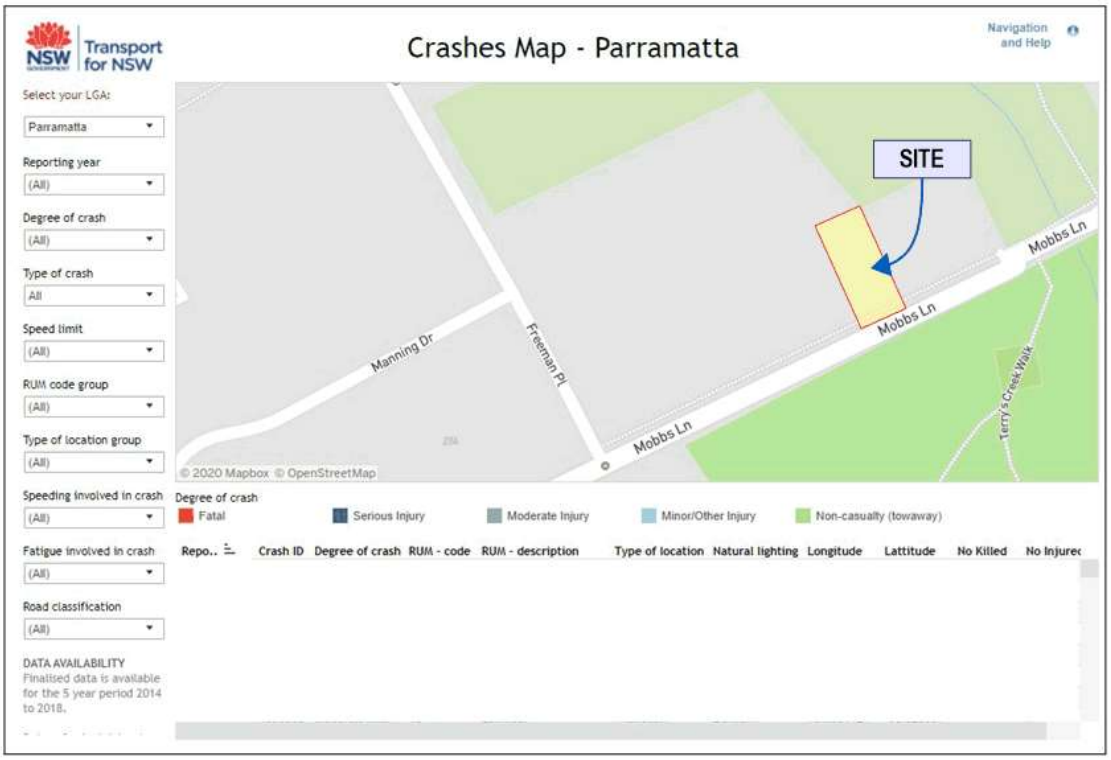


Figure 5b. Distribution of additional traffic volumes – afternoon peak hour.



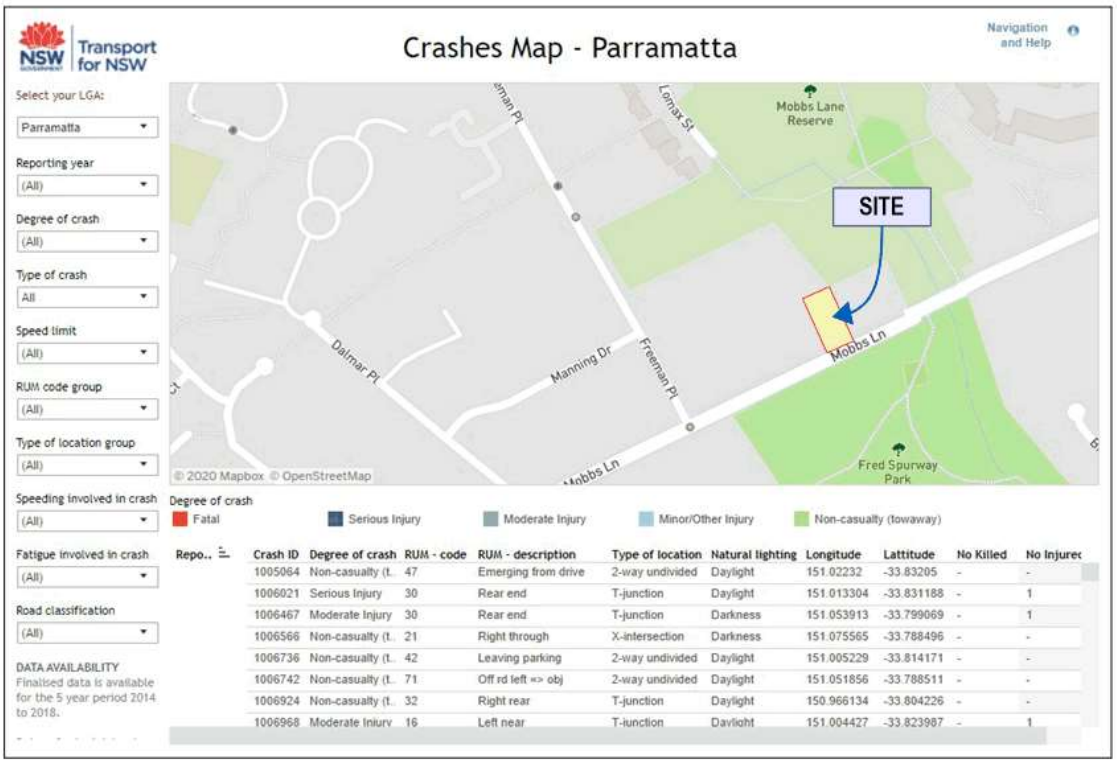


Figure 6. Crashes map – near the site and in the area.

Conclusions	• Proposed parking provision ◦ Complies with the Council's Development Control Plan requirements. ◦ In addition, there are ample parking opportunities exist in the surrounding streets. • Traffic impacts ◦ The additional traffic from the proposed development will have no negative impacts on the street network operation • Design of access, car parking and servicing facilities ◦ Complies with the relevant Standards • The proposed development is supportable on traffic and parking grounds.

Oleg I. Sannikov
Director
MEngSc (Traffic Engineering)
MIEAust, PEng
FAITPM

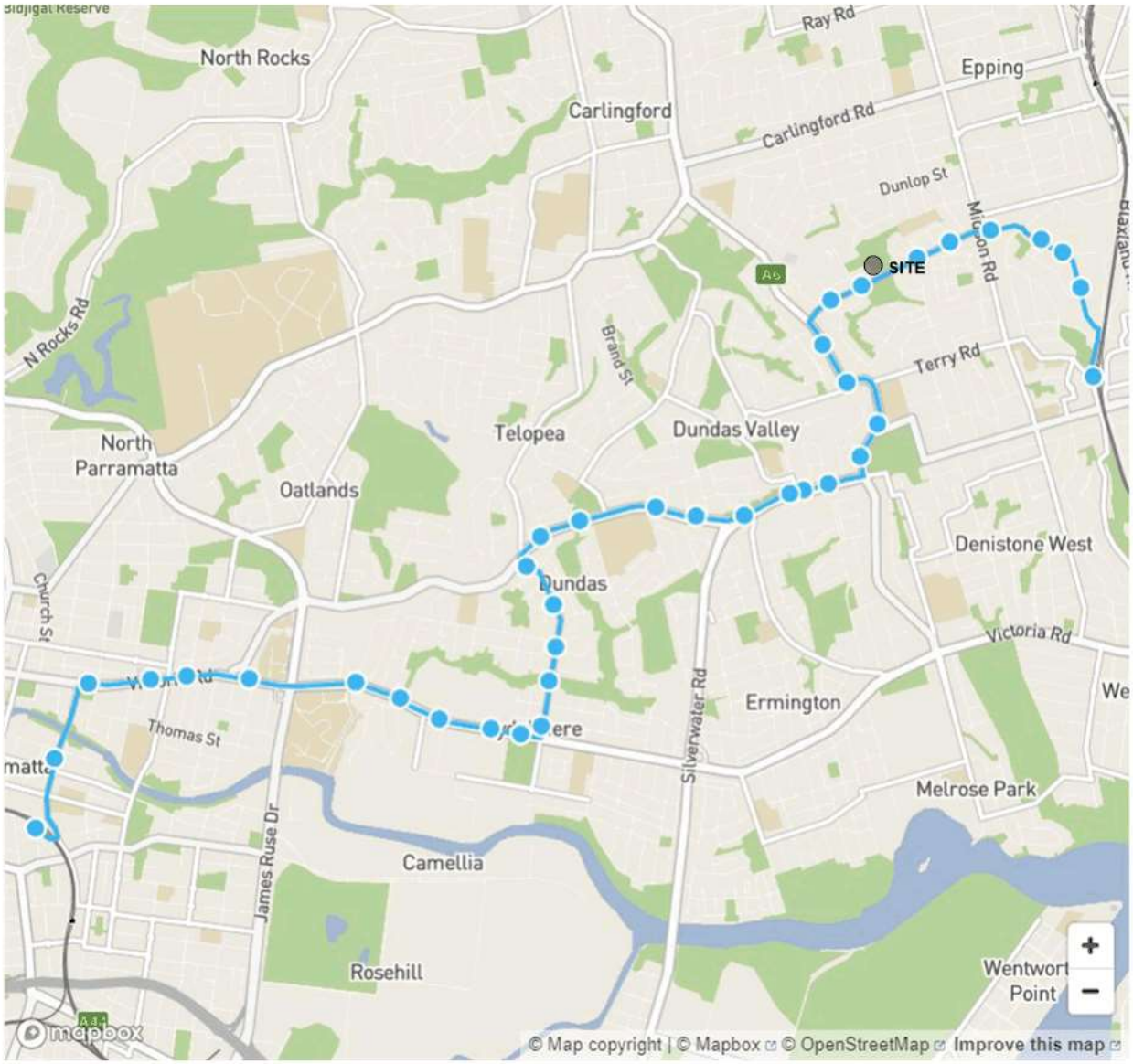
References:

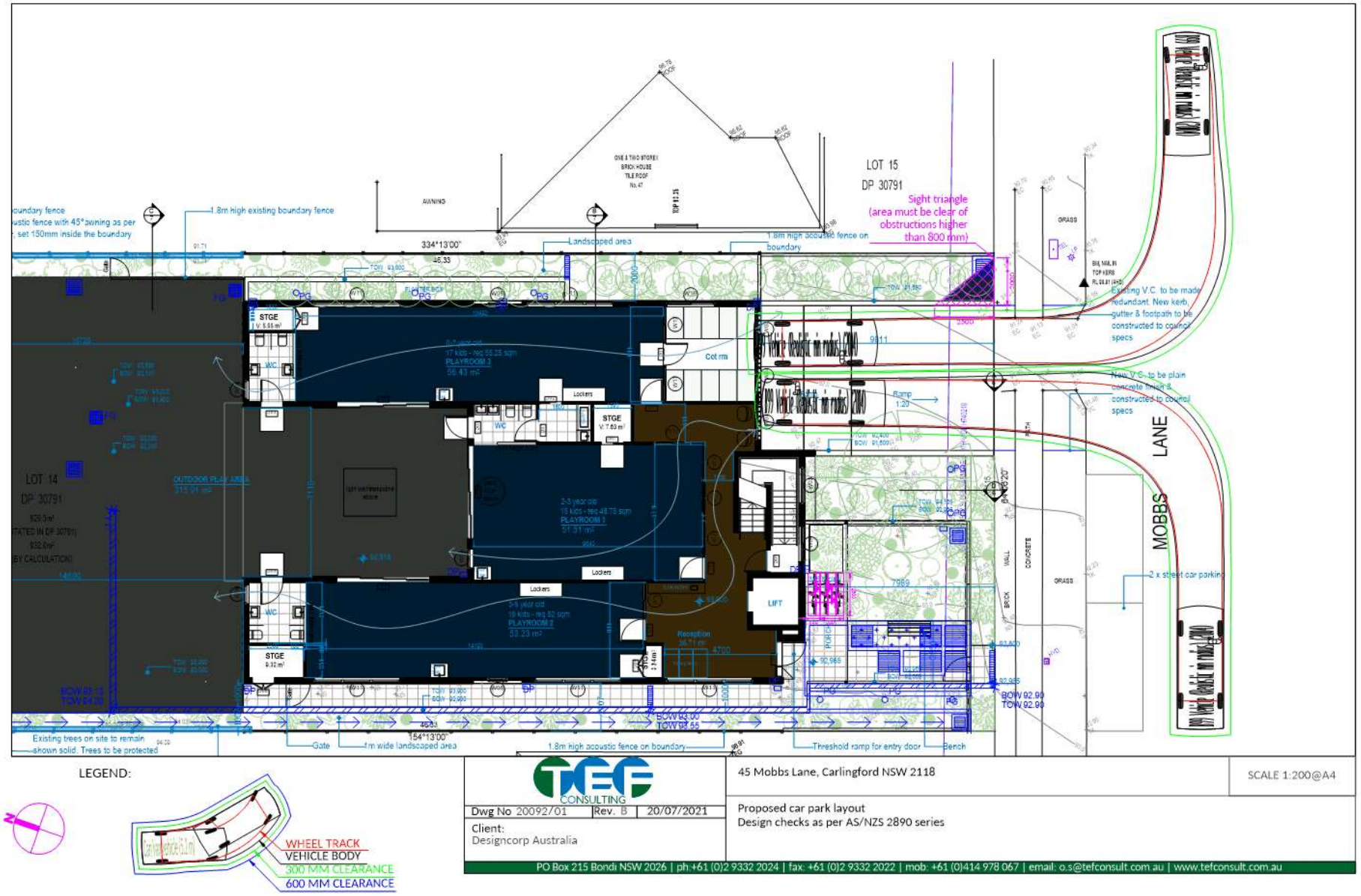
Parramatta Development Control Plan (DCP) 2011
RMS (2002) Guide to Traffic Generating Developments
AS/NZS 2890.1:2004: Parking Facilities – Off-street car parking
AS 2890.3:2015: Parking Facilities – Bicycle parking
AS/NZS 2890.6:2009: Parking Facilities – Off-street parking for people with disabilities

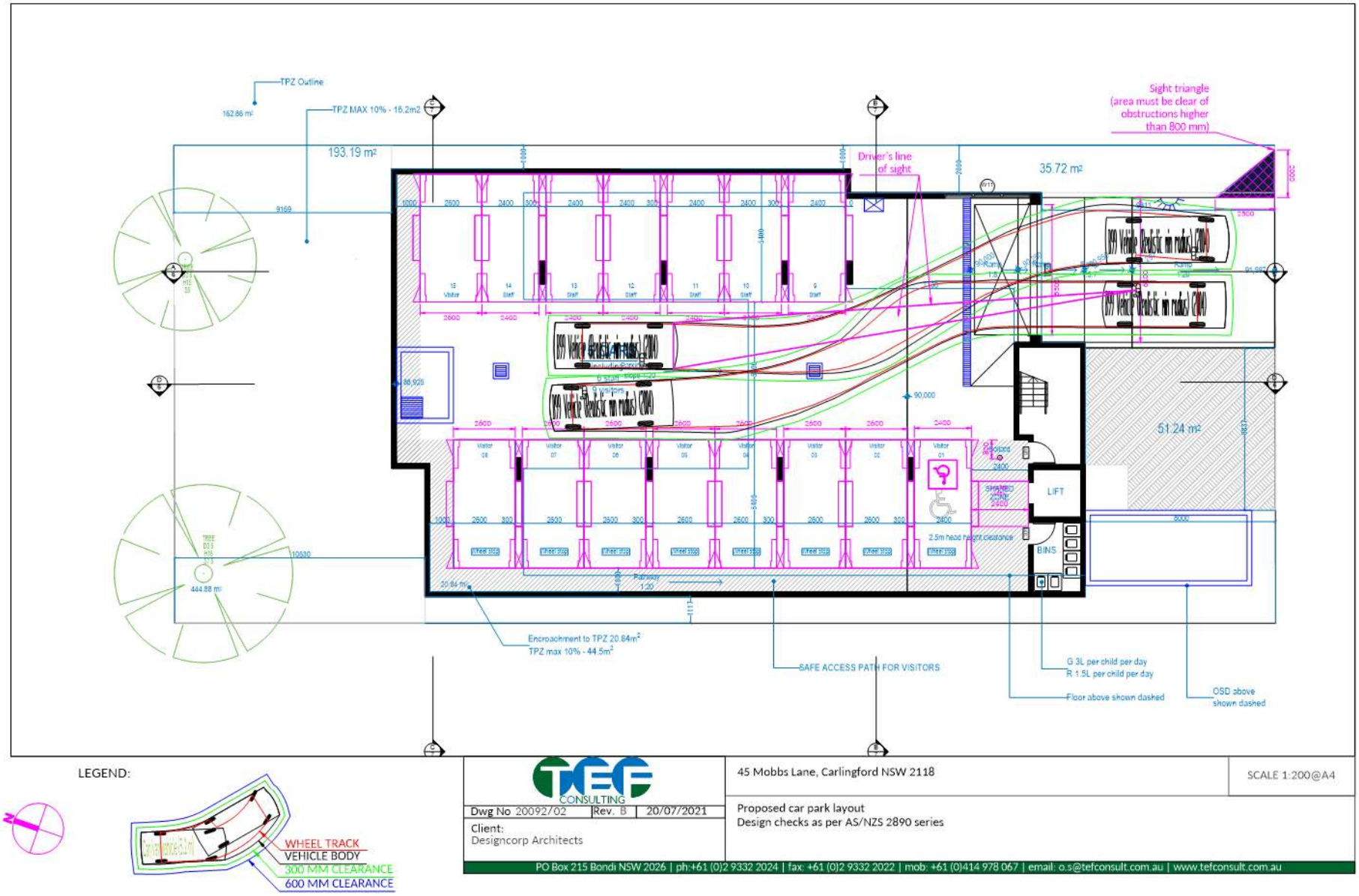
Appendix

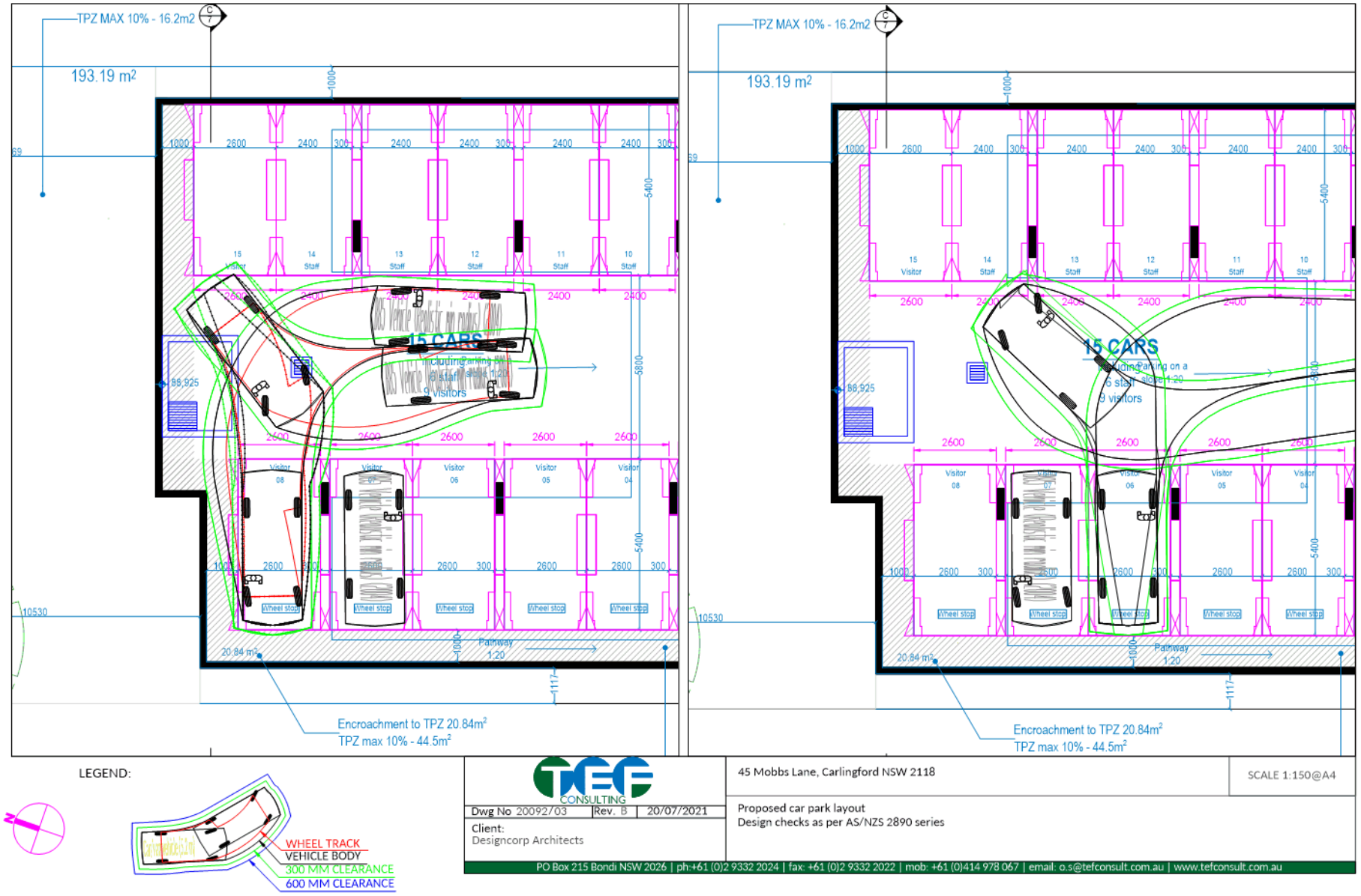
Bus route
Car park design checks and vehicle turning diagrams
Sight distance analysis

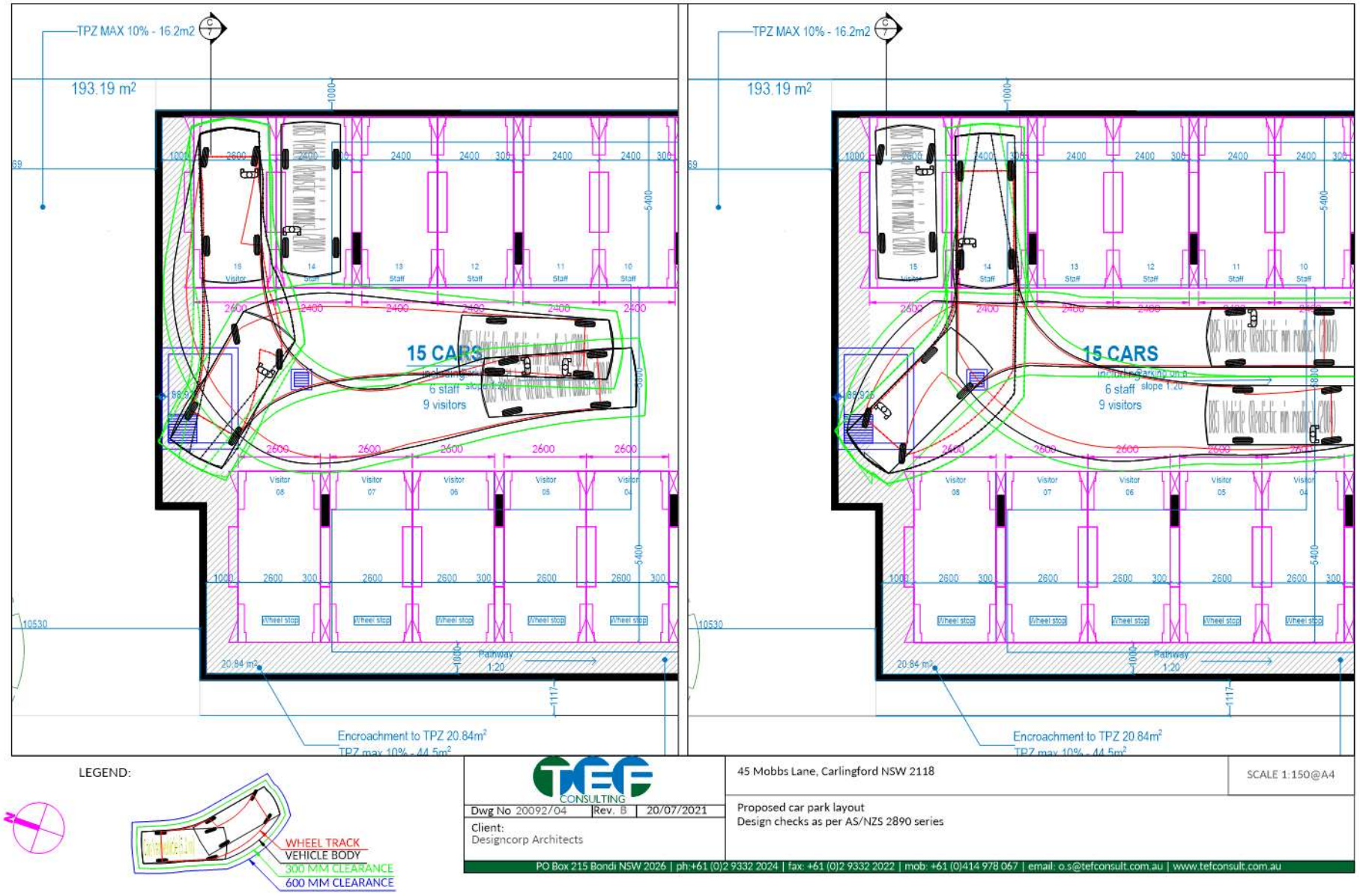
Bus Route 521

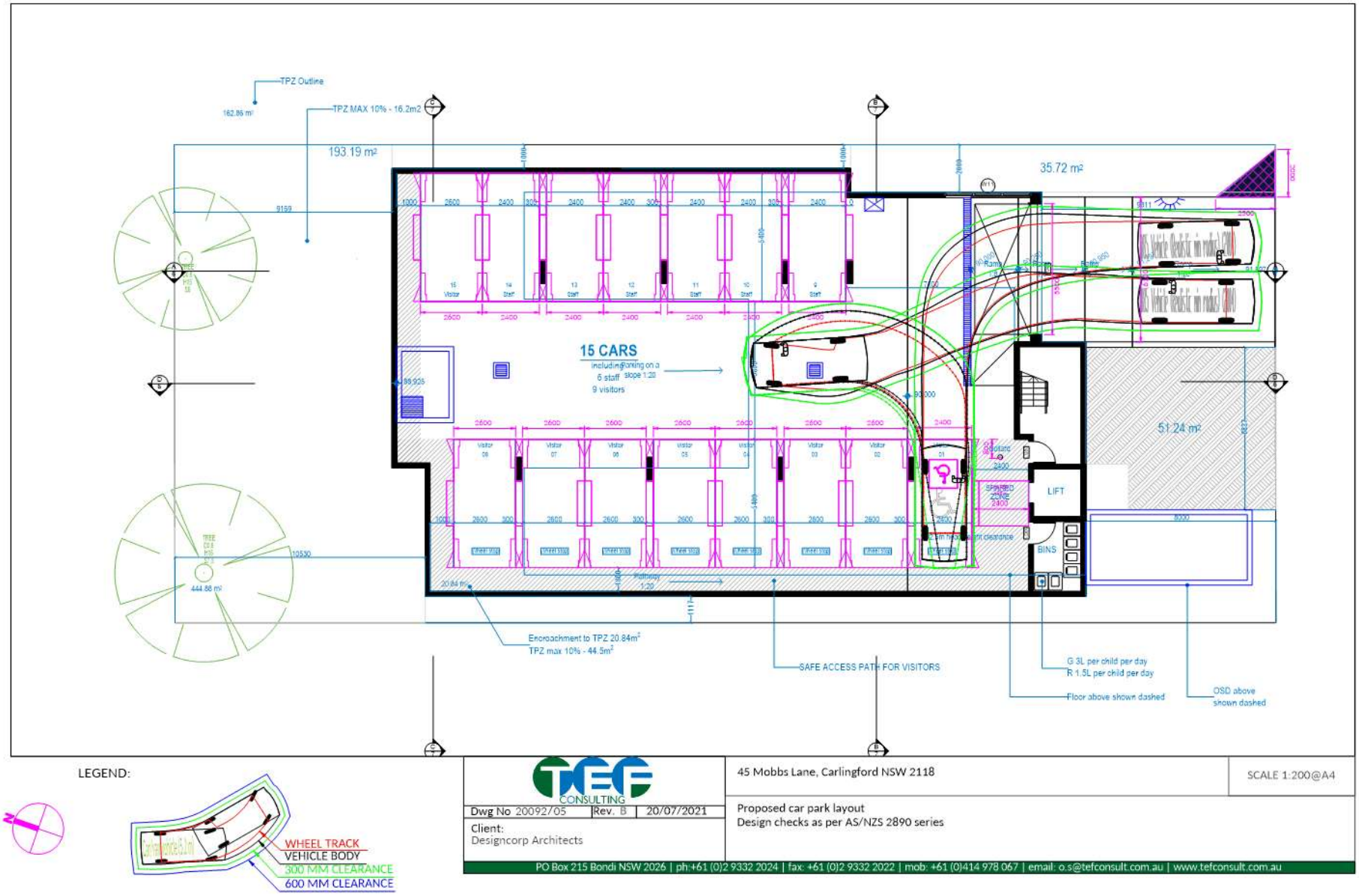


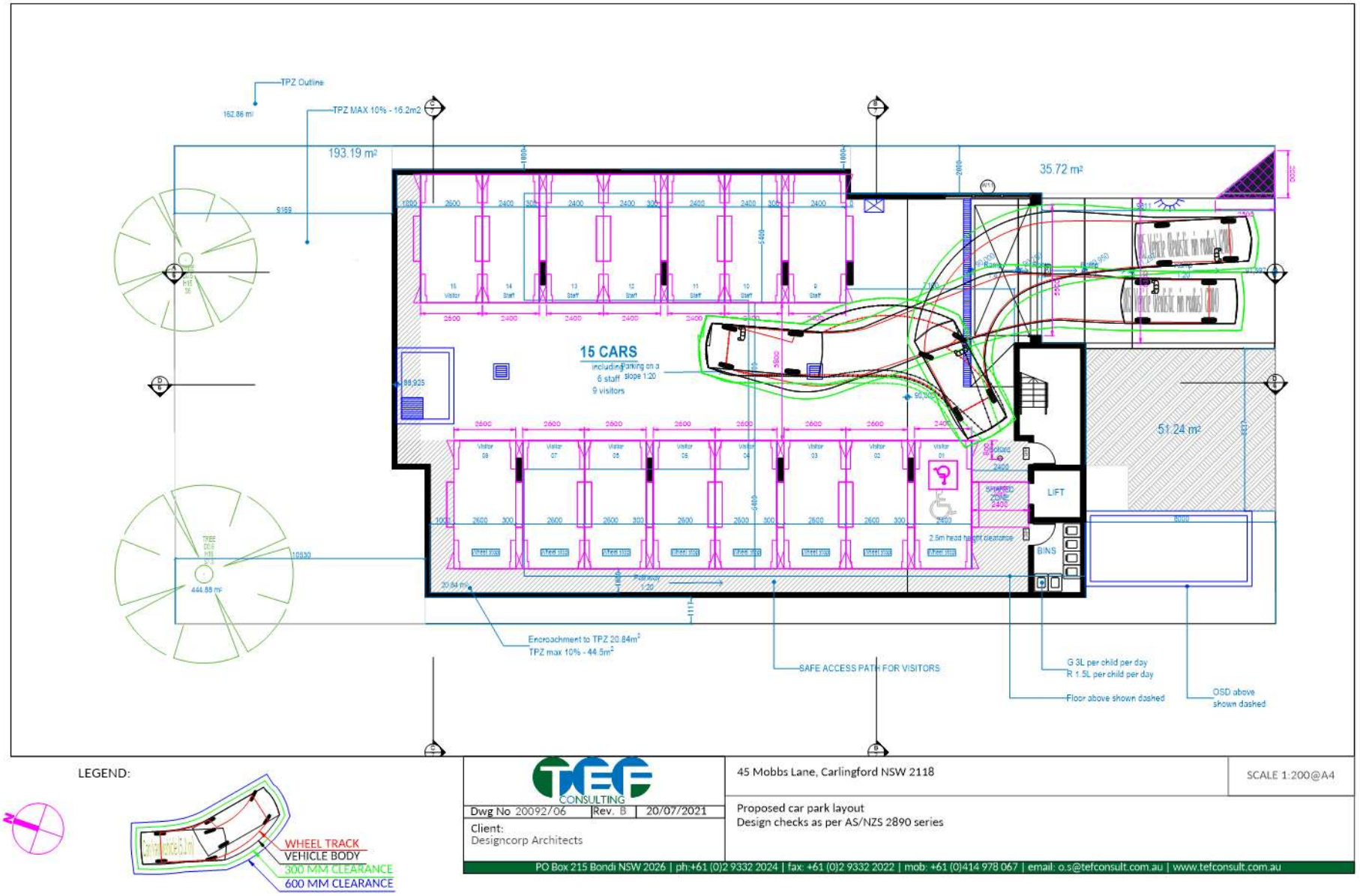

LOT 15
DP 30791
Sight triangle
(area must be clear of obstructions higher than 800 mm)
1.8m high existing boundary fence
1.8m high acoustic fence on boundary
Landscaped area
Existing V.C. to be made redundant. New kerb, gutter & footpath to be constructed to council specs
New V.C. to be plain concrete finish & constructed to council specs
MOBBS LANE
2 x street car parking
LOT 14
DP 30791
OUTDOOR PLAY AREA
315.01 m²
PLAYROOM 1
PLAYROOM 2
PLAYROOM 3
Lockers
LIFT
Reception
Ramp 1:20
Existing trees on site to remain shown solid. Trees to be protected
Gate
1m wide landscaped area
1.8m high acoustic fence on boundary
Threshold ramp for entry door
Bench
LEGEND:
WHEEL TRACK
VEHICLE BODY
300 MM CLEARANCE
600 MM CLEARANCE
TEF CONSULTING
Dwg No 20092/01
Rev. B
20/07/2021
Client:
Designcorp Australia
45 Mobbs Lane, Carlingford NSW 2118
SCALE 1:200@A4
Proposed car park layout
Design checks as per AS/NZS 2890 series
PO Box 215 Bondi NSW 2026 | ph:+61 (0)2 9332 2024 | fax: +61 (0)2 9332 2022 | mob: +61 (0)414 978 067 | email: o.s@tefconsult.com.au | www.tefconsult.com.au

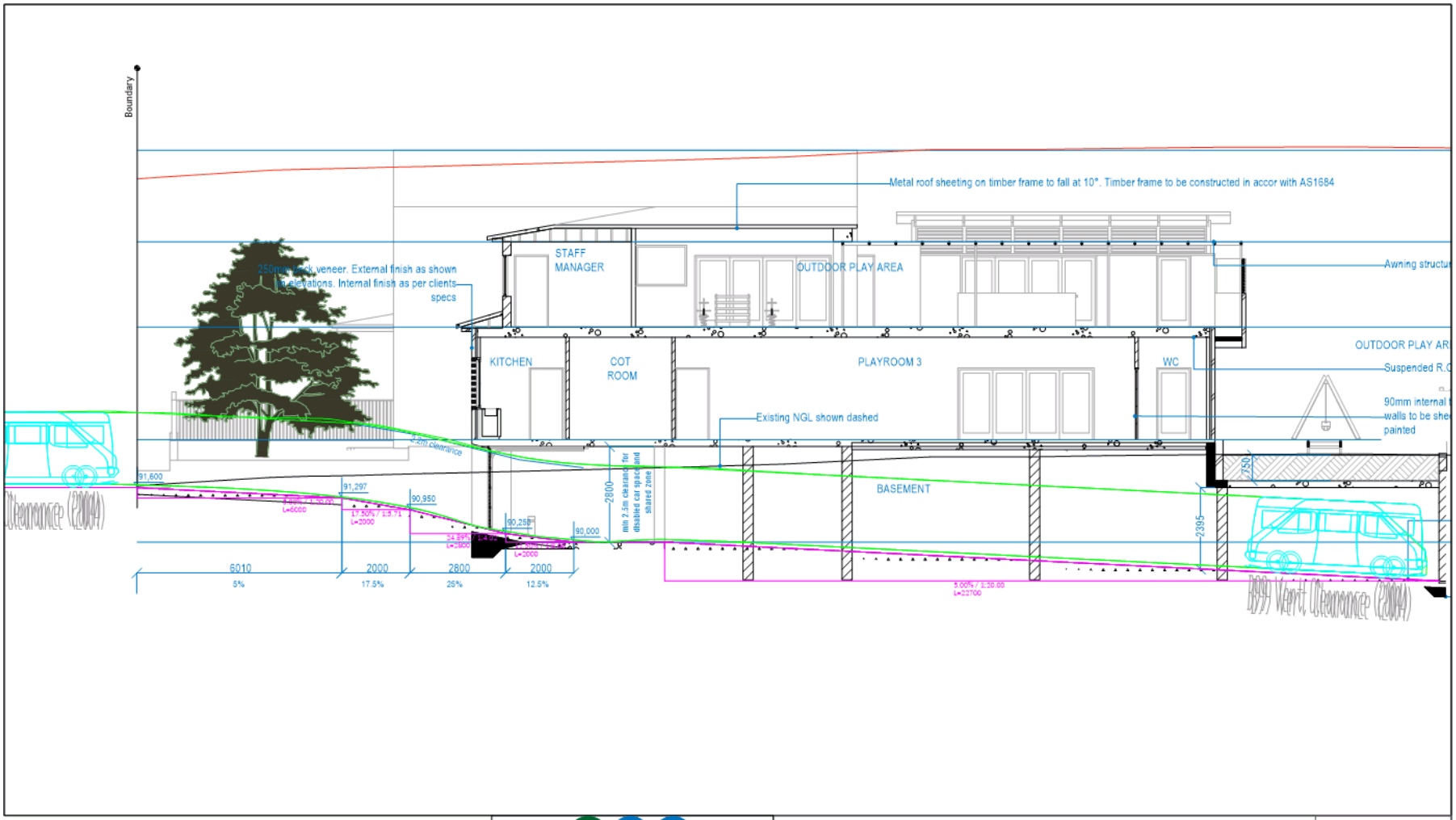

TPZ Outline
162.86 m²
TPZ MAX 10% - 16.2m2
193.19 m²
9169
Driver's line of sight
Sight triangle (area must be clear of obstructions higher than 800 mm)
35.72 m²
51.24 m²
LIFT
BINS
2.5m head height clearance
Encroachment to TPZ 20.84m²
TPZ max 10% - 44.5m²
SAFE ACCESS PATH FOR VISITORS
G 3L per child per day
R 1.5L per child per day
Floor above shown dashed
OSD above shown dashed
LEGEND:
WHEEL TRACK
VEHICLE BODY
300 MM CLEARANCE
600 MM CLEARANCE
TEF CONSULTING
Dwg No 20092/02 Rev. B 20/07/2021
Client:
Designcorp Architects
45 Mobbs Lane, Carlingford NSW 2118
SCALE 1:200@A4
Proposed car park layout
Design checks as per AS/NZS 2890 series
PO Box 215 Bondi NSW 2026 | ph:+61 (0)2 9332 2024 | fax: +61 (0)2 9332 2022 | mob: +61 (0)414 978 067 | email: o.s@tefconsult.com.au | www.tefconsult.com.au


TPZ MAX 10% - 16.2m2
193.19 m2
15 CARS
including parking on a
6 staff slope 1:20
9 visitors
88.925
20.84 m2
Encroachment to TPZ 20.84m2
TPZ max 10% - 44.5m2
Pathway
1:20
Wheel stop
LEGEND:
WHEEL TRACK
VEHICLE BODY
300 MM CLEARANCE
600 MM CLEARANCE
TEF CONSULTING
Dwg No 20092/03
Rev. B
20/07/2021
Client:
Designcorp Architects
45 Mobbs Lane, Carlingford NSW 2118
SCALE 1:150@A4
Proposed car park layout
Design checks as per AS/NZS 2890 series
PO Box 215 Bondi NSW 2026 | ph:+61 (0)2 9332 2024 | fax: +61 (0)2 9332 2022 | mob: +61 (0)414 978 067 | email: o.s@tefconsult.com.au | www.tefconsult.com.au

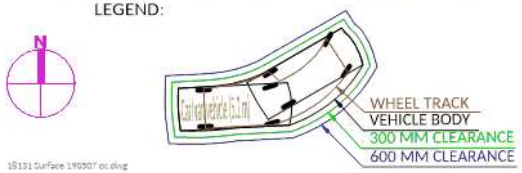

TPZ MAX 10% - 16.2m2
193.19 m2
15 CARS
6 staff
9 visitors
Encroachment to TPZ 20.84m2
TPZ max 10% - 44.5m2
TPZ MAX 10% - 16.2m2
193.19 m2
15 CARS
6 staff
9 visitors
Encroachment to TPZ 20.84m2
TPZ max 10% - 44.5m2
LEGEND:
WHEEL TRACK
VEHICLE BODY
300 MM CLEARANCE
600 MM CLEARANCE
TEF CONSULTING
Dwg No 20092/04
Rev. B
20/07/2021
Client:
Designcorp Architects
45 Mobbs Lane, Carlingford NSW 2118
SCALE 1:150@A4
Proposed car park layout
Design checks as per AS/NZS 2890 series
PO Box 215 Bondi NSW 2026 | ph:+61 (0)2 9332 2024 | fax: +61 (0)2 9332 2022 | mob: +61 (0)414 978 067 | email: o.s@tefconsult.com.au | www.tefconsult.com.au


TPZ Outline
162.86 m²
TPZ MAX 10% - 16.2m2
193.19 m²
35.72 m²
15 CARS
including parking on a slope 1:20
6 staff
9 visitors
51.24 m²
LIFT
BINS
444.88 m²
Encroachment to TPZ 20.84m²
TPZ max 10% - 44.5m²
SAFE ACCESS PATH FOR VISITORS
G 3L per child per day
R 1.5L per child per day
Floor above shown dashed
OSD above shown dashed
LEGEND:
WHEEL TRACK
VEHICLE BODY
300 MM CLEARANCE
600 MM CLEARANCE
CONSULTING
Dwg No 20092/05
Rev. B
20/07/2021
Client:
Designcorp Architects
45 Mobbs Lane, Carlingford NSW 2118
SCALE 1:200@A4
Proposed car park layout
Design checks as per AS/NZS 2890 series
PO Box 215 Bondi NSW 2026 | ph:+61 (0)2 9332 2024 | fax: +61 (0)2 9332 2022 | mob: +61 (0)414 978 067 | email: o.s@tefconsult.com.au | www.tefconsult.com.au


TPZ Outline
TPZ MAX 10% - 16.2m2
193.19 m²
35.72 m²
15 CARS
including parking on a slope 1:20
6 staff
9 visitors
51.24 m²
LIFT
BINS
SHARED ZONE
2.5m head height clearance
Encroachment to TPZ 20.84m²
TPZ max 10% - 44.5m²
SAFE ACCESS PATH FOR VISITORS
G 3L per child per day
R 1.5L per child per day
Floor above shown dashed
OSD above shown dashed
LEGEND:
WHEEL TRACK
VEHICLE BODY
300 MM CLEARANCE
600 MM CLEARANCE
TEF CONSULTING
Dwg No 20092/06
Rev. B
20/07/2021
Client:
Designcorp Architects
45 Mobbs Lane, Carlingford NSW 2118
SCALE 1:200@A4
Proposed car park layout
Design checks as per AS/NZS 2890 series
PO Box 215 Bondi NSW 2026 | ph:+61 (0)2 9332 2024 | fax: +61 (0)2 9332 2022 | mob: +61 (0)414 978 067 | email: o.s@tefconsult.com.au | www.tefconsult.com.au


Boundary
Metal roof sheeting on timber frame to fall at 10°. Timber frame to be constructed in accor with AS1684
250mm brick veneer. External finish as shown on elevations. Internal finish as per clients specs
STAFF MANAGER
OUTDOOR PLAY AREA
Awning structure
KITCHEN
COT ROOM
PLAYROOM 3
WC
OUTDOOR PLAY AR
Suspended R.C
90mm internal walls to be she painted
Existing NGL shown dashed
BASEMENT
min 2.5m clearance for disabled car space and shared zone
2800
2395
750
91,600
91,297
90,950
90,268
90,000
6010
2000
2800
2000
5%
17.5%
25%
12.5%
5.00% / 1:20.00
L=22700
LEGEND:
2200 MM HEIGHT CLEARANCE
2300
120 MM GROUND CLEARANCE
GROUND
20092 A SECTION A TEF 201105.dwg
TEF CONSULTING
Dwg No 20092/07
Rev. A
06/11/2020
Client:
Designcorp Architects
45 Mobbs Lane, Carlingford NSW 2118
SCALE 1:150@A4
Proposed car park layout
Design checks as per AS/NZS 2890 series
PO Box 215 Bondi NSW 2026 | ph:+61 (0)2 9332 2024 | fax: +61 (0)2 9332 2022 | mob: +61 (0)414 978 067 | email: o.s@tefconsult.com.au | www.tefconsult.com.au

LEGEND:



18131 Surface 190507 cc.dwg

TEF CONSULTING

Dwg No 18131/01	Rev. A	30/11/2018

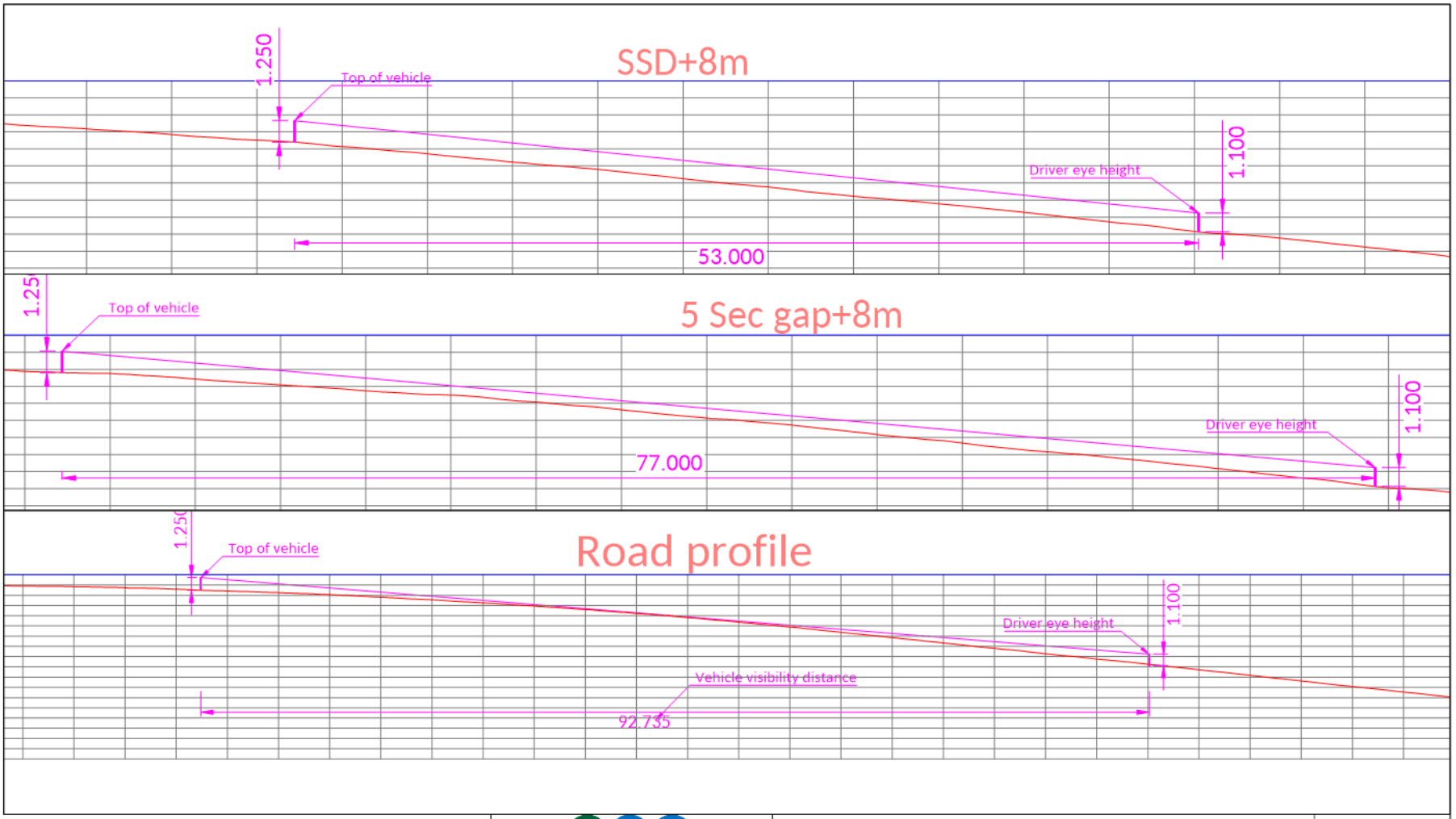
Client:
Zaks

45 Mobbs Lane, Carlingford NSW 2118

SCALE 1:200@A4

Proposed car park layout
Design checks as per AS/NZS 2890 series

PO Box 215 Bondi NSW 2026 | ph:+61 (0)2 9332 2024 | fax: +61 (0)2 9332 2022 | mob: +61 (0)414 978 067 | email: o.s@tefconsult.com.au | www.tefconsult.com.au


SSD+8m
1.250
Top of vehicle
Driver eye height
1.100
53.000
5 Sec gap+8m
1.25
Top of vehicle
Driver eye height
1.100
77.000
Road profile
1.25
Top of vehicle
Driver eye height
1.100
Vehicle visibility distance
92.735
LEGEND:
WHEEL TRACK
VEHICLE BODY
300 MM CLEARANCE
600 MM CLEARANCE
CONSULTING
Dwg No 18131/02
Rev. A
30/11/2018
Client:
Zaks
45 Mobbs Lane, Carlingford NSW 2118
SCALE 1:300@A4
Proposed car park layout
Design checks as per AS/NZS 2890 series
PO Box 215 Bondi NSW 2026 | ph:+61 (0)2 9332 2024 | fax: +61 (0)2 9332 2022 | mob: +61 (0)414 978 067 | email: o.s@tefconsult.com.au | www.tefconsult.com.au