

## **BCA REPORT – EXTENSION TO AN EXISTING CHILD CARE CENTRE**

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My Early Learning Centre – Earlwood

20 Earlwood Avenue, Earlwood, NSW 2206)

Lot 136 of DP 14127


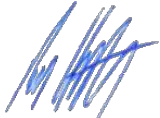
<b>PREPARED FOR</b>	Joe Loufty Vogue Building Service Pty Ltd
<b>REVISION NUMBER</b>	02
<b>DATE</b>	17/02/2022
<b>CERTIS REFERENCE</b>	7450
<b>PREPARED BY</b>	M Anisur Rahman
<b>TELEPHONE</b>	1300 702 085



## REVISION HISTORY

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Revision	Date	Description
1	09/02/2021	Concept Design Assessment
2	10/09/2022	QA Review
3	17/02/2022	Reissued

Action	Name	Date	Signed
Issue	M Anisur Rahman	09/02/2021	
Peer Review	Peter Hofstetter	10/02/2022	



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# 1. INTRODUCTION

## 1.1 Project Description

The subject property is located at *20 Earlwood Avenue EARLWOOD* and is within the local government area of *CANTERBURY-BANKSTOWN LGA*. The lot is located at the intersection of two roads, Earlwood Avenue to the West and Gueudecourt Avenue at the North side of the property.



The existing building is two storey with the following uses:

- Ground Floor: Early Childhood Centre
- First Floor: Sole occupancy unit (Dwelling)

## 1.2 Purpose of the Report

The subject proposal involves extension of the existing childcare centre at ground floor by converting the first-floor use from dwelling (class 2 building) to an early childhood centre (Class 9b). This report has been prepared, on behalf of Vogue Building Service Pty Ltd, to undertake an assessment against the Deemed-to-Satisfy (DTS) provisions of Volume 1 of NCC BCA 2019 Amdt 1.

## National Construction Code of Australia

The relevant National Construction Code Building Code of Australia applicable to this project has been determined as being Volume 1 of NCC 2019 Amendment 1.

## 1.3 National Construction Code of Australia Building Description

The following characteristics of the building have been determined in accordance with the NCC. These characteristics influence the NCC requirements applicable to the building.

Table 1 | NCC Classification

Level	Use	Existing/Proposed	NCC Classification
Ground	Early Childhood Centre (existing)	Existing	Class 9b
Level 1	Sole occupancy unit (Dwelling)	Existing	2
	Change of use to Early Childhood Centre	Proposed	Class 9b



Table 2 | Building Characteristics

NCC Clause	Clause Summary	Description	
A1.1	Effective Height	3.03 m	
A1.1	Climate Zone	5	
C1.1	Minimum Type of Construction	B	
C1.2	Rise in Storeys	2	
C2.2	General Floor Areas (m <sup>2</sup> )  Note: Floor areas measure to outside of external walls and includes balcony areas	Level	Area
		Ground Fl.	193 m <sup>2</sup>
		First Fl.	197 m <sup>2</sup>
		<b>Total = 390 m<sup>2</sup></b>	
A7	United Building	No	
G5	Bushfire Prone Area	Not Applicable	

#### 1.4 Exclusions

The scope of the report is limited to only Sections C, D, E, F, G and H of Volume 1 of BCA 2019 Amendment 1 .

This report does not consider the following except where specifically mentioned:

- Structural design under Section B of the NCC
- Section J of the NCC
- The Disability Discrimination Act 1992<sup>1</sup>
- Disability (Access to Premises – Buildings) Standards 2010
- Local Government Act & Regulations
- Statutory Authority Approvals
- Occupation Health and Safety Act and Regulations
- WorkCover requirements
- Service Provider requirements

Please note, the proposal has been checked against all clauses of NCC BCA Vol 1, but those clauses that are never applicable to this type of development have been deleted.



## 2. NATIONAL CONSTRUCTION CODE ASSESSMENT

### 2.1 NCC Section B – Structure

Clause	Comment / Information required by Building Surveyor	Status
<b>Part B1 – Structural Provisions</b>		
B1.2 & B1.4	A structural engineer will need to confirm that the building is capable of carrying the loads imposed by the change of use.	Capable of Complying

### 2.2 NCC Section C – Fire Resistance

Clause	Comment/Information required by Building Surveyor	Status
<b>Part C1 – Fire Resistance and Stability</b>		
C1.1	<b>Type of construction required:</b> The building requires Type B Construction with required FRL prescribed in Table 4 of Specification C1.1. It is understood that this aspect of compliance was covered in the application to convert the use of the ground floor to early Learning Centre.	Complies
C1.2	<b>Calculation of rise in storeys: 2</b>	Complies
C1.8	<b>Lightweight construction:</b> Building deemed able to comply. Updated final plans and specifications will be required prior to CC stage.	Not applicable
C1.9	<b>Non-combustible building elements:</b> Updated final plans and specifications will be required prior to CC stage.	Capable of Complying
C1.10	<b>Fire hazard properties of wall and floor linings:</b> Updated final plans and specifications will be required prior to CC stage.	Capable of Complying
C1.14	<b>Ancillary Elements:</b> Building deemed able to comply. Updated final plans and specifications will be required prior to CC stage if proposed.	Capable of Complying
<b>Part C2 – Compartmentation and Separation</b>		
C2.2	<b>General floor area &amp; volume limitations:</b> Floor area is less than 5,500m <sup>2</sup> and Max. Volume is less than 33000m <sup>3</sup> as provide under Table C2.2 of the NCC.	Complies
<b>Part C3 – Protection of Openings</b>		
C3.2	<b>Protection of openings in external wall:</b>	Complies



Clause	Comment/Information required by Building Surveyor	Status
	There are existing openings at Western, Southern and Eastern external walls within 3m from South Boundary and protected with external wall-wetting sprinklers. This is clearly a requirement of the original approval to convert the original house from Class 1a to Class 4 & 9b.	
C3.4	<b>Acceptable Methods of protection:</b> Wall-wetting sprinklers are provided over all windows less than 3m from the boundary. This is an existing solution.	Complies

### 2.3 NCC Section D – Access and Egress

Clause	Comment/Information required by Building Surveyor	Status
<b>Part D1 – Provision for Escape</b>		
D1.2	<b>Number of exits required:</b> Each storey in an early childhood centre (Class 9b) requires not less than 2 exits.	Complies
D1.4	<b>Exit travel distances:</b>	Complies
D1.5	<b>Distance between alternative exits:</b>	Complies
D1.6	<b>Dimensions of exits and paths of travel to exits:</b> Both stairs are shown as 1m wide.	Complies
D1.9	<b>Travel via non-fire-isolated stairways or ramps:</b>	Complies
D1.10	<b>Discharge from exits:</b>	Complies
D1.13	<b>Number of persons accommodated:</b> Under Table D1.13 (early childhood centre), the following number of persons were considered for each storey: a. Ground Floor: 29 children b. First Floor: 10 children	Note
D1.14	<b>Measurement of distances:</b>	Note
D1.18	<b>Egress from early childhood centres:</b> The subject building is not more than 2 storeys and is the only use proposed.	Complies
<b>Part D2 – Construction of Exits</b>		
D2.8	<b>Enclosure of space under stairs:</b> There is no enclosure shown under the existing stairs.	Complies



Clause	Comment/Information required by Building Surveyor	Status
D2.10	<b>Pedestrian ramps:</b> There are no ramps proposed in the current design.	Not applicable
D2.13	<b>Goings &amp; risers:</b> Any proposed new stair must have – <ul style="list-style-type: none"> <li>a. not more than 18 and not less than 2 risers in each flight, and</li> <li>b. going (G), riser (R) and quantity (2R + G) in accordance with Table D2.13 for public stair,</li> <li>c. adjacent risers, or between adjacent goings, is no greater than 5 mm;</li> <li>d. the largest and smallest riser within a flight, or the largest and smallest going within a flight, does not exceed 10 mm</li> <li>e. risers which do not have any openings that would allow a 125 mm sphere to pass through between the treads</li> <li>f. treads which have—               <ul style="list-style-type: none"> <li>i. a surface with a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586</li> <li>ii. a nosing strip with a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586</li> </ul> </li> </ul>	Capable of Complying
D2.14	Landings in a stair must - <ul style="list-style-type: none"> <li>a. Have a maximum gradient of 1:50</li> <li>b. a surface with a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586</li> <li>c. a strip at the edge of the landing with a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586, where the edge leads to a flight below.</li> </ul>	Capable of Complying
D2.15	<b>Thresholds:</b> The threshold of a doorway must not incorporate a step or ramp at any point closer to the doorway than the width of the door leaf unless— <ul style="list-style-type: none"> <li>a. in a building required to be accessible by Part D3, the doorway opens to a road or open space and is provided with a threshold ramp or step ramp in accordance with AS 1428.1, or</li> <li>b. in other cases—               <ul style="list-style-type: none"> <li>i. the doorway opens to a road or open space, external stair landing or external balcony; and</li> <li>ii. the door sill is not more than 190 mm above the finished surface of the ground, balcony, or the like, to which the doorway opens.</li> </ul> </li> </ul>	Capable of Complying



Clause	Comment/Information required by Building Surveyor	Status
D2.16	<b>Balustrades and other barriers:</b> Balustrades shown on the plans are not dimensioned but they scale off at 1000mm.	Capable of Complying
D2.17	<b>Handrails:</b> With the change in use, the stair is now required to comply with AS1428.1 and the handrail would need the “ram’s horn” terminations. That would interfere with the circulation space for the doors. Therefore, this will need to be addressed by a performance solution from an access consultant.	Performance Solution
D2.19	<b>Doorways and doors:</b>	Complies
D2.20	<b>Swinging doors:</b> Existing entry door opens outwards.	Complies
D2.21	<b>Operation of latch:</b> The existing front door has a lever handle.	Complies
D2.24	<b>Protection of openable windows:</b> All window openings must be provided with protection, if the floor below the window is 2 m or more above the surface beneath for early childhood centre in accordance with Clause D2.24.	Capable of Complying
<b>Part D3 – Access for People with a Disability</b>		
D3.1	<b>General building access requirements:</b> An early childhood centre must be accessible	Capable of Complying
D3.2	<b>Access to buildings:</b> Some of the existing doorways have insufficient circulation space (eg: the door from the entry lobby to the childcare centre). This would need to be addressed by an Access Consultant.  The change of use means that an accessible lift has been provided from Ground to level 1. - Complies	Performance Solution
D3.3	<b>Parts of the buildings to be accessible:</b> Any rooms that are not accessible will need to be addressed as part of the Access performance Solution.	Performance Solution
D3.5	<b>Accessible carparking:</b> No parking shown or proposed	Not applicable
D3.6	<b>Signage:</b> An accessible unisex sanitary facility requires signage	Capable of Complying



Clause	Comment/Information required by Building Surveyor	Status
D3.8	<b>Tactile indicators:</b> Tactile ground surface indicators must be provided at the top and bottom of the stairs.	Capable of Complying

## 2.4 NCC Section E – Services and Equipment

Clause	Comment/Information Required by Building Surveyor	Status
<b>Part E1 – Fire Fighting Equipment</b>		
E1.3	<b>Fire hydrants:</b> The floor area of the building does not exceed 500 m <sup>2</sup> .	Not applicable
E1.4	<b>Fire hose reels:</b> The floor area of the building does not exceed 500 m <sup>2</sup> .	Not applicable
E1.6	<b>Portable fire extinguishers:</b> Extinguishers are needed on both levels.	Capable of Complying
<b>Part E2 – Smoke Hazard Management</b>		
E2.2	<b>General requirements:</b> The building does not have rise in storeys more than 2.	Not applicable
<b>Part E3 – Lift Installations</b>		
E3.1	<b>Lift installations:</b> A new lift is proposed.	Capable of Complying
E3.3	<b>Warning against use of lifts in fire:</b> A warning sign must be displayed where it can be readily seen near every call button for a passenger lift. The warning sign must comply with the details and dimensions of Figure E3.3 and consist of <ul style="list-style-type: none"> <li>a. incised, inlaid or embossed letters on a metal, wood, plastic or similar plate securely and permanently attached to the wall</li> <li>b. letters incised or inlaid directly into the surface of the material forming the wall</li> </ul> Updated final plans and specifications will be required prior to CC stage.	Capable of Complying
E3.5	<b>Landings:</b> Access and egress to and from liftwell landings must comply with the Deemed-to-Satisfy Provisions of Section D.	Complies



Clause	Comment/Information Required by Building Surveyor	Status
E3.6	<b>Passenger lifts:</b> The proposed lift must - <ul style="list-style-type: none"> <li>a. comply with Table E3.6 of the NCC</li> <li>b. have accessible features in accordance with Table E3.6b</li> <li>c. not rely on a constant pressure device for its operation if the lift car is fully enclosed</li> </ul>	Capable of Complying
<b>Part E4 – Visibility in an Emergency, Exit Signs and Warning Systems</b>		
E4.2	<b>Emergency lighting:</b> As a minimum, emergency lighting is needed over the stairs.	Capable of Complying
E4.4	<b>Design and operation of emergency lighting:</b> Every required emergency lighting system must comply with AS/NZS 2293.1.	Capable of Complying
E4.5, 4.6 & 4.8	<b>Exit signs:</b> Illuminated exit signs are needed and must comply with AS/NZS 2293.1.	Capable of Complying

## 2.5 NCC Section F – Health and Amenity

Clause	Comment/Information Required by Building Surveyor	Status
<b>Part F1 – Damp and Weatherproofing</b>		
F1.1	<b>Stormwater drainage:</b> Existing – Compliance assumed	Complies
F1.5	<b>Roof coverings:</b> Existing – Compliance assumed	Complies
F1.7	<b>Waterproofing of wet areas in buildings:</b> Existing – Compliance assumed	Complies
F1.13	<b>Glazed assemblies:</b> All new glazed assemblies, if proposed (referring to Clause C3.4 above), in an external wall must comply with AS 2047-2014 requirements for resistance to water penetration.	Capable of Complying
<b>Part F2 – Sanitary and Other Facilities</b>		
F2.3	<b>Facilities in Class 3-9 Buildings:</b> There are enough toilets for children. There is an existing staff toilet on ground floor and a ne PWD WC on level 1.	Complies



Clause	Comment/Information Required by Building Surveyor	Status
F2.4	<b>Accessible sanitary facilities:</b> Details of the unisex accessible toilet will need to be included in the building plans.	Capable of Complying
F2.5	<b>Construction of sanitary compartments:</b> In an <b>early childhood centre</b> , facilities for use by children must have each sanitary compartment screened by a partition which, except for the doorway, is opaque for a height of at least 900 mm but not more than 1200 mm above the floor level.	Capable of Complying
<b>Part F3 – Room Heights</b>		
F3.1	<b>Height of rooms and other spaces:</b> Min 2.4 m for habitable rooms and 2.1m for non-habitable rooms.	Complies
<b>Part F4 – Light and Ventilation</b>		
F4.1	<b>Provision of natural light:</b> Natural light must be provided in all playrooms or the like for the use of children in an early childhood centre.	Complies
F4.4	<b>Artificial lighting:</b>	Capable of Complying
F4.5	<b>Ventilation of rooms:</b> The building is provided with openable windows and doors and will be supplemented with mechanical systems.	Complies

## 2.6 NCC Section G – Ancillary Provisions

Clause	Comment/Information Required by Building Surveyor	Status
<b>Part G1 – Minor Structures and Components</b>		
G1.3	<b>Outdoor play spaces:</b> The outside play area at the first floor must be enclosed on all sides with a barrier complying with AS 1926.1 so that the barrier restricts children from exiting the premises (e.g. climbing/jumping over the existing balcony barrier) without the knowledge of staff in the centre.	Capable of Complying



## 2.7 NCC Section J – Energy Efficiency

Clause	Comment/Information Required by Building Surveyor	Status
All parts of Section J	<p>There is no change to the external fabric of the building. Therefore, the only aspects of the proposal that will need to comply with section J are the active systems:</p> <ul style="list-style-type: none"><li>• Electrical</li><li>• Hot water</li><li>• Mechanical</li></ul>	Capable of Complying



## APPENDIX A: REQUIRED FIRE RESISTANCE LEVELS

### TYPE B CONSTRUCTION

Building element	Class 5, 7a or 9
EXTERNAL WALL (including any column and other building element incorporated within it) or other external building element, where the distance from any <i>fire-source feature</i> to which it is exposed is—	
For <i>loadbearing</i> parts—	
less than 1.5 m	120/120/120
1.5 to less than 3 m	120/ 90/ 60
3 to less than 9 m	120/ 30/ 30
9 to less than 18m	120/30/-
18 m or more	-/-/-
For non- <i>loadbearing</i> parts—	
less than 1.5 m	-/120/120
1.5 to less than 3 m	-/ 90/ 60
3 m or more	-/-/-
EXTERNAL COLUMN not incorporated in an <i>external wall</i> , where the distance from any <i>fire-source feature</i> to which it is exposed is—	
<i>Loadbearing</i>	
less than 18m	120/-/-
18 m or more	-/-/-
For non- <i>loadbearing</i> columns	-/-/-
COMMON WALLS and FIRE WALLS—	120/120/120
INTERNAL WALLS—	
<i>Fire-resisting lift and stair shafts—</i>	
<i>Loadbearing</i>	120/120/120
<i>Non-loadbearing</i>	-/120/120
OTHER LOADBEARING INTERNAL WALLS	
and COLUMNS—	120/-/-
ROOFS	-/-/-
FLOOR SEPARATING STOREYS 9b	30/30/30



## APPENDIX B: DRAWINGS REVIEWED FOR THIS ASSESSMENT

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Dwg	Rev	Name
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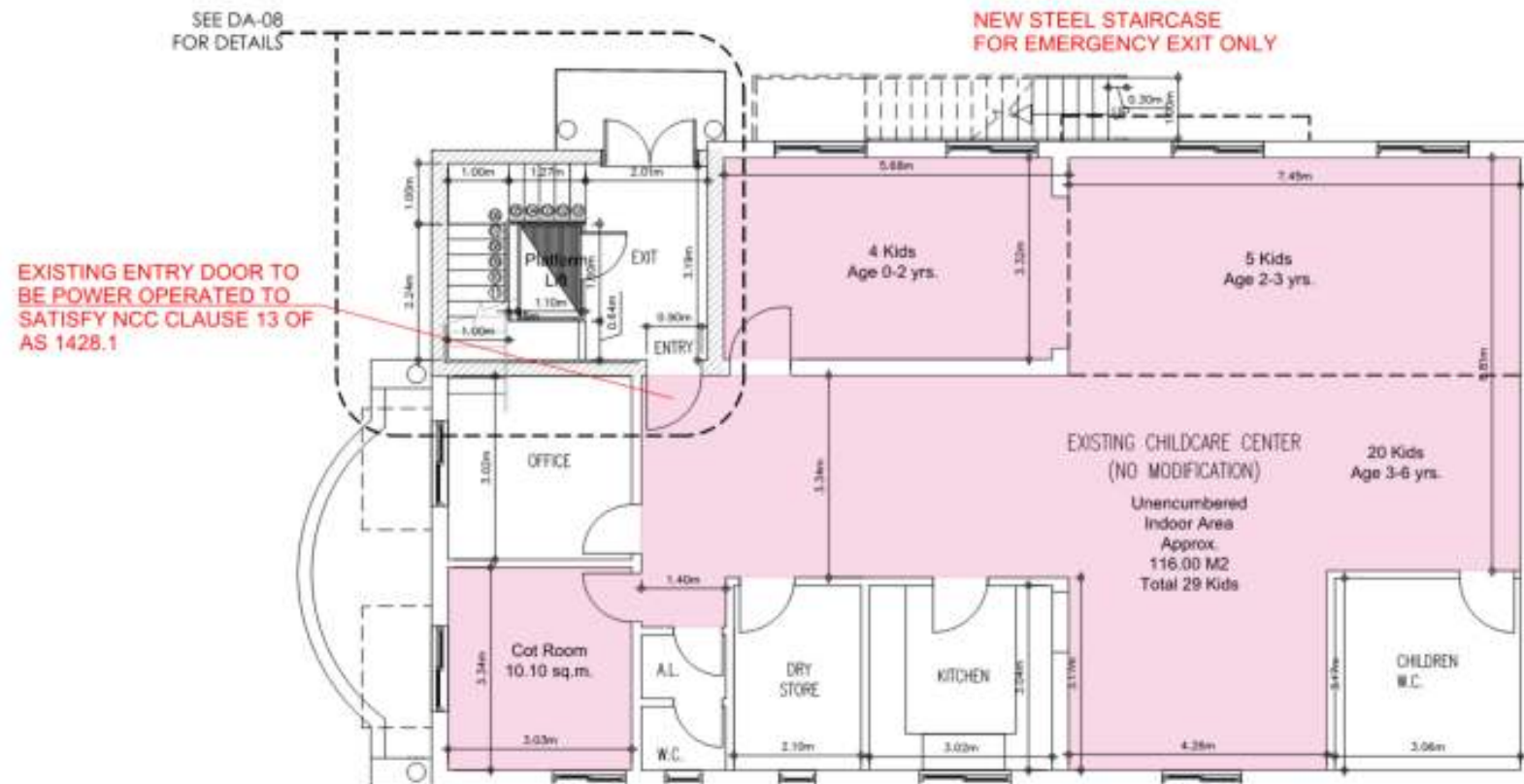
### Architectural

DA-00	0	COVER SHEET
DA-01	0	PROJECT SPECIFICATIONS
DA-02	1	PROPOSED SITE PLAN
DA-03	0	PROPOSED GROUND FLOOR PLAN DEMOLITION PLAN
DA-04	0	PROPOSED FIRST FLOOR PLAN DEMOLITION PLAN
DA-05	1	PROPOSED GROUND FLOOR PLAN
DA-06	1	PROPOSED FIRST FLOOR PLAN
DA-07	1	PROPOSED ELEVATION
DA-08	1	PROPOSED STAIRS & LOBBY

## APPENDIX C: ASSESSED PLANS

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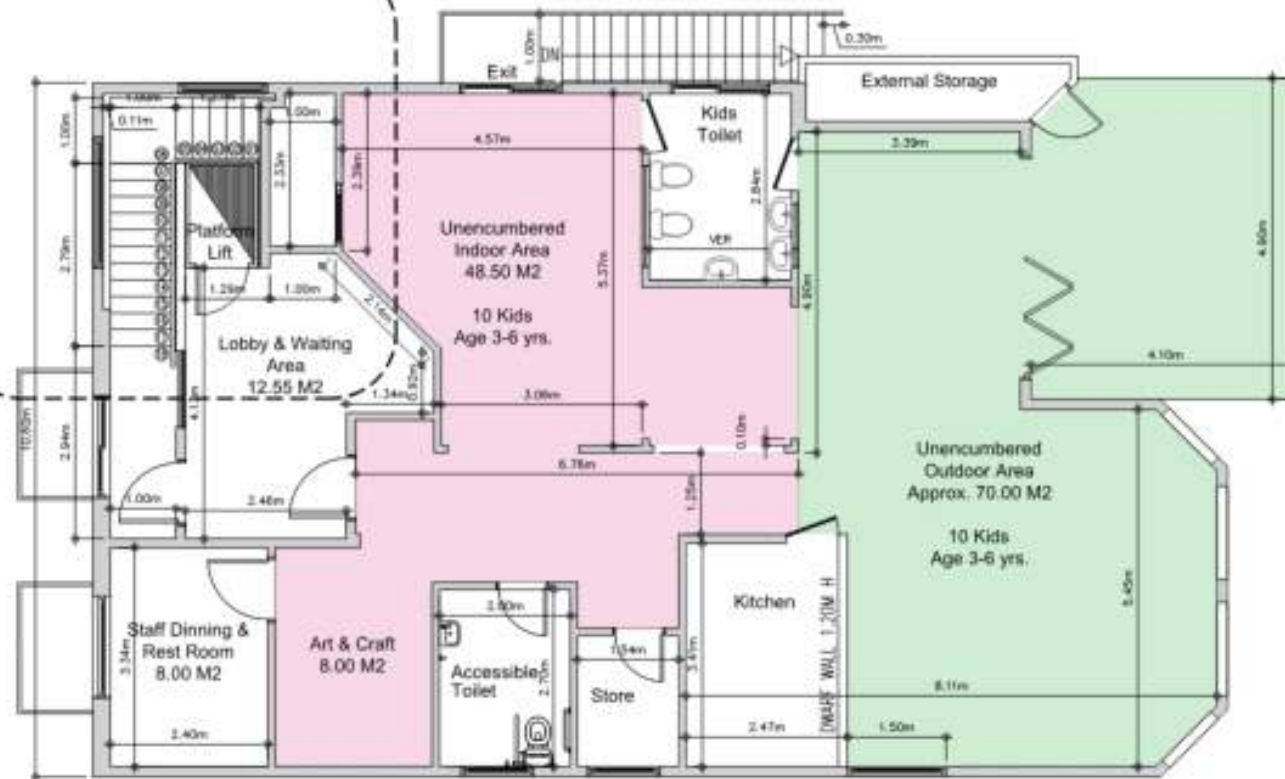
**PROPOSED GROUND FLOOR  
ENTRANCE LOBBY MODIFICATION**

1  
DA-05 1 : 100



SEE DA-08  
FOR DETAILS

NEW STEEL STAIRCASE  
FOR EMERGENCY EXIT ONLY



## PROPOSED FIRST FLOOR MODIFICATION



DA-06

1 : 100





2 NORTH ELEVATION