

**From:** LGOIMA Requests <lgoima@cdc.govt.nz>  
**Sent:** Friday, 11 August 2023 2:40 pm  
**To:** [REDACTED]  
**Subject:** RE: Response: LGOIMA request: 2023-42 Go Zone

Thank you [REDACTED]

Attached, are two more documents that we were not able to include due to the amount of information we had to send you. These following documents are as follows:

- Notice to Fix for RG record 220296
- CDC Playground Assessment Report - R1

Kind regards



**SERAH PETTIGREW** | Democratic Services Officer | Executive Assistant to Mayor  
**CARTERTON DISTRICT COUNCIL**

Email: [serah@cdc.govt.nz](mailto:serah@cdc.govt.nz)

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Te Kaunihera-ā-Rohe o Taratahi

**CARTERTON**  
DISTRICT COUNCIL

| 28 Holloway Street | PO Box 9 | Carterton 5743 | [www.cdc.govt.nz](http://www.cdc.govt.nz) | Ph 06 379 4040 |  
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## Form 13

### Notice to fix

**NF0070**

Sections 164 and 165, Building Act 2004

To:

s 7(2)(a)

s 7(2)(a)

s 7(2)(a)

s 7(2)(a)

And to:

s 7(2)(a)

s 7(2)(a)

s 7(2)(a)

s 7(2)(a)

s 7(2)(a)

#### The building

Street address of building: 45A Norman Avenue

Legal description of land where building is located: LOT 2 DP 340930

Valuation number: 1814011802

Building name: Industrial Building

Location of building within site/block number:

Level/unit number:

#### Particulars of contravention or non-compliance

On the 2<sup>nd</sup> March 2023 at approximately 2.30pm, Council officers undertook an inspection at the above property and identified that a significant structure for a children's play area had been constructed inside the building.

This included a multi-level (floor to roof) steel structure, large slides, and other steel structures.

The installation has affected the buildings means of escape.

Council have no record of a building consent having been applied for or obtained for this building work.

This is in breach of section 40 of the Building Act which provides

**40 Building work not to be carried out without consent**

- (1) A person must not carry out any building work except in accordance with a building consent.
- (2) A person commits an offence if the person fails to comply with this section.
- (3) A person who commits an offence under this section is liable on conviction to a fine not exceeding \$200,000 and, in the case of a continuing offence, to a further fine not exceeding \$10,000 for every day or part of a day during which the offence has continued.

Furthermore, the Building's approved use as detailed in Building (Specified Systems, Change the Use, and Earthquake-prone Buildings) Regulations 2005 is Working high (WH) whereas on completion of the work the use will be Crowd large (CL).

Council has no record of any written notice of change the use having been provided to Carterton District Council (The Territorial Authority).

This is in breach of section 114 of the Building Act which provides the following:

**114 Owner must give notice of change of use, extension of life, or subdivision of buildings**

- (1) In this section and [section 115](#), change the use, in relation to a building, means to change the use of the building in a manner described in the regulations.
- (2) An owner of a building must give written notice to the territorial authority if the owner proposes—
  - (a) to change the use of a building; or
  - (b) ...
  - (c) ...
- (3) A person who fails to comply with subsection (2)—
  - (a) commits an offence; and
  - (b) is liable on conviction, —
    - (i) in the case of an individual, to a fine not exceeding \$5,000;
    - (ii) in the case of a body corporate, to a fine not exceeding \$25,000.

Section 115 of the Building Act 2004 provides that:

**115 Code compliance requirements: change of use**

An owner of a building must not change the use of the building, —

- (a) in a case where the change involves the incorporation in the building of 1 or more household units where household units did not exist before, unless the territorial authority gives the owner written notice that the territorial authority is satisfied, on reasonable grounds, that the building, in its new use, will comply, as nearly as is reasonably practicable, with the building code in all respects; and
- (b) in any other case, unless the territorial authority gives the owner written notice that the territorial authority is satisfied, on reasonable grounds, that the building, in its new use, —
  - (i) will comply, as nearly as is reasonably practicable, with every provision of the building code that relates to the following:
    - (A) means of escape from fire, protection of other property, sanitary facilities, structural performance, and fire-rating performance;
    - (B) access and facilities for persons with disabilities (if this is a requirement under section 118); and
  - (ii) will, —
    - (A) if it complied with the other provisions of the building code immediately before the change of use, continue to comply with those provisions; or

*(B) if it did not comply with the other provisions of the building code immediately before the change of use, continue to comply at least to the same extent as it did then comply.*

**To remedy the contravention or non-compliance you must:**

- 1) Supply to Carterton District Council, suitable reports from suitably qualified people showing how the building will satisfy the requirements of section 115 of the Act 2004.
- 2) Make a satisfactory application for a certificate of acceptance as detailed in section 97 of the Building Act in regard to the completed steel structures. This must include appropriate documentation from a suitably qualified structural engineer confirming that that the structures comply with the Building Code clause B1 Structure.

**This notice must be complied with by:**

In regard to point 1 above within 30 working days.

In regard to point 2 above within 20 working days

**Please note:** If there is any additional building work to be undertaken you will need to apply for and obtain a building consent before undertaking additional building work (unless that work is specifically exempt under schedule 1 of the Building Act 2004)

You may wish to combine a building consent application with point 1 above. If so, we may be prepared to extend the timeframe for compliance with point 1 as detailed above.

**Further particulars**

All building work, other than the building work detailed in building consent 220296, must cease immediately until the authority that issued this notice is satisfied that you are able and willing to resume operations in compliance with the Building Act 2004 and regulations under that Act.

Please be aware of the requirements of section 363 of the Building Act which provides the following:

***363 Protecting safety of members of public using premises open to public or intended for public use***

- (1) A person who owns, occupies, or controls premises to which section 362W applies must not use, or permit the use of, any part of the premises that is affected by building work—*
  - (a) if—*
    - (i) a building consent is required for the work; but*
    - (ii) no building consent has been granted for it; or*
  - (b) if a building consent has been granted for the work, but—*
    - (i) no code compliance certificate has been issued for the work; and*
    - (ii) no certificate for public use has been issued under section 363A for the part; or*
  - (c) if a building consent has been granted for the work, and a certificate for public use has been issued under section 363A for the part, but—*
    - (i) no code compliance certificate has been issued for the work; and*
    - (ii) the certificate for public use has been issued for the part subject to conditions that have not been complied with.*
- (2) For the purposes of subsection (1), a part of premises may be affected by building work—*
  - (a) whether or not the work has been completed; and*
  - (b) whether the work is being or has been done to or in, or involves or involved the building of, —*
    - (i) the part itself; or*
    - (ii) some other part of the building that the premises comprise or form part of.*
- (3) A person who fails to comply with subsection (1) commits an offence.*
- (4) A person who commits an offence under this section is liable on conviction to a fine not exceeding \$200,000 and, in the case of a continuing offence, to a further fine not exceeding \$20,000 for every day or part of a day during which the offence has continued.*

If you do not comply with this notice, you commit an offence under section 168 of the Building Act 2004 and may be liable to a fine of up to \$200,000 and a further fine of up to \$20,000 for each day or part of a day that you fail to comply with this notice.



**John Tait**

**Building Services Team Leader**

Date: 6/03/23

Carterton District Council

# CDC PLAYGROUND REVIEW STRUCTURAL ASSESSMENT

12 JUNE 2023

CONFIDENTIAL



## CDC PLAYGROUND REVIEW STRUCTURAL ASSESSMENT

Carterton District Council

WSP  
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+64 6 350 2500  
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REV	DATE	DETAILS
<u>R1</u>	<u>12/06/2023</u>	<u>Issued to client</u>

	NAME	DATE	SIGNATURE
Prepared by:	s 7(2)(a)	09/06/2023	s 7(2)(a)
Reviewed by:	s 7(2)(a)	09/06/2023	s 7(2)(a)
Approved by:	s 7(2)(a)	<u>12/06/2023</u>	s 7(2)(a)

This report ('Report') has been prepared by WSP exclusively for Carterton District Council ('Client') in relation to Structural Assessment of Playground ('Purpose') and in accordance with Short form Agreement with the Client dated 04/05/23. The findings in this Report are based on and are subject to the assumptions specified in the Report and Offer of Services dated 19/04/2023. WSP accepts no liability whatsoever for any reliance on or use of this Report, in whole or in part, for any use or purpose other than the Purpose or any use or reliance on the Report by any third party.

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# 1 EXECUTIVE SUMMARY

The purpose of this report is to assess whether the new playground equipment at GoZone, Carterton, satisfies the structural loading and design in accordance with the latest NZ Building Code.

WSP has assessed the playground equipment and found these results:

- Large Playground and Toddler Playground – The CHS columns satisfy the requirements as per New Zealand code. However, the beams does not satisfy the requirements as per New Zealand code. The overall equipment does not resist lateral loads as per New Zealand standards.
- Donut Slide – The equipment structure satisfies the requirements as per New Zealand code.
- Trampoline – The overall structure does not satisfy the requirements as per New Zealand standard.

WSP recommend the following to ensure that structures meet the New Zealand code:

- Addition of plywood or strap bracings for large playground, toddler playground and trampoline to resist lateral loads.

## 2 PROJECT BACKGROUND

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### 2.1 INTRODUCTION

WSP has been engaged by Carterton District Council (CDC) to complete a Structural Review of an Internal Playground at GoZone, Carterton at 45A Norman Avenue, Waingawa, Carterton. This report is based on existing documentation provided by Carterton District Council, and a walkover survey by a WSP structural engineer on 18 May 2023. This report summarizes the inputs, methodology and findings of the assessment.

The indoor playground equipment is designed and built using international building standards. The playground has been constructed onsite without a building consent from Carterton District Council. It has been assessed as per the information in the certification provided by the manufacturer and provisions mentioned in NZS 5828:2015 – Playground equipment and surfacing.

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### 2.2 PURPOSE

The purpose of this assessment is to establish whether the playground equipment satisfies the structural loading and design in accordance with the latest NZ Building Code.

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### 2.3 SCOPE OF WORK

Our scope of work for this project will include:

- Review existing playground equipment design, specification and calculations
- If design complies, provide a producer statement 1
- One site-visit to inspect onsite installation and fixings of playground structure
- If all work complies, provide a producer statement 4.
- Design of any required remedial works are not included in the scope of this project

## 3 STRUCTURE DESCRIPTION

### 3.1 OVERVIEW

The indoor playground, located at 45A Norman Avenue, Waingawa, Carterton, is divided into four play zones as shown in Figure 1:



Figure 1 Playground Layout

#### 3.1.1 Donut Slide

The equipment structure for the Donut Slide as shown in Figure 2 comprises of:

- A square hollow section (SHS) 40 mm x 40 mm x 2 mm welded frames in both horizontal and transverse directions.
- A 16 mm thick plywood bolted to the frames on all sides including the bottom of the slide.
- The frames are not bolted to the ground and hence will not resist uplift from the lateral loading.
- The lateral loading to be resisted by the plywood and the vertical loading from the user will be resisted by the framing members which will then transfer the loading to the base slab.

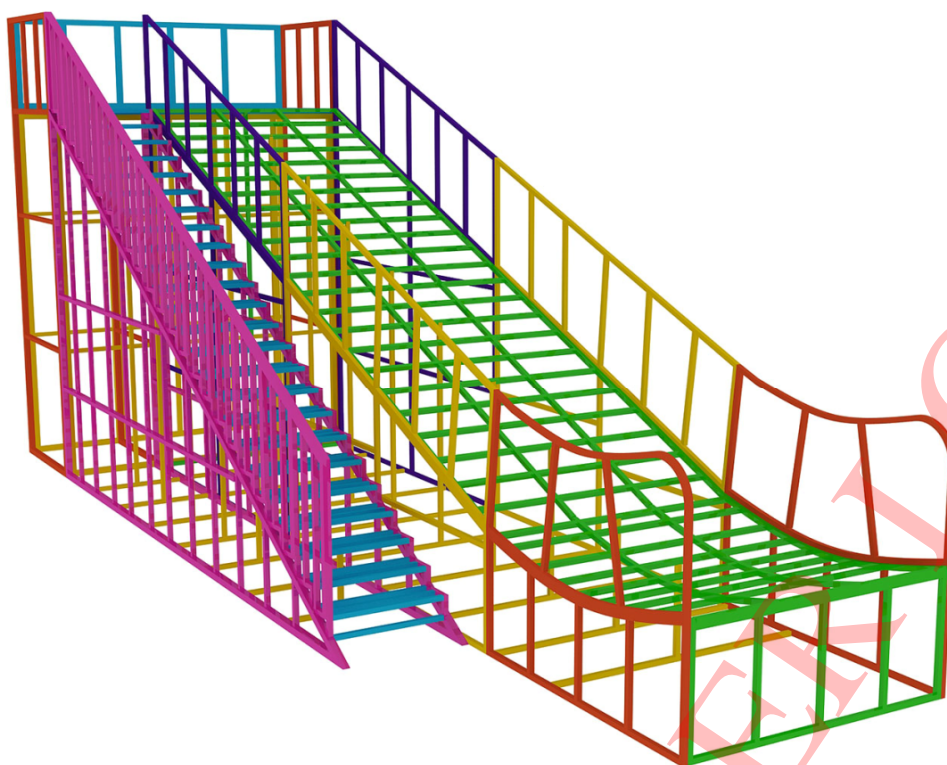


Figure 2. Donut Slide Layout

### 3.1.2 Large Playground

The equipment structure for Large Playground as shown in Figure 3 comprises of:

- A circular hollow section (CHS) 48 mm x 2 mm for framing structures.
- The hollow section members are assembled using heavy duty clamps which are tightened via heavy duty clamp set screw.
- The equipment structures are not bolted to the ground and hence will not resist uplift due to lateral loading.
- The clamped beam-column joints will not resist moments and hence the beams are designed as simply supported.
- The vertical loading from the user will be transferred to columns as compression.
- As per manufacturer's certification, the barrier or safety netting has been tested for the lateral loading from the user.



Figure 3. Playground Layout

### 3.1.3 Trampoline Area

The equipment structure for Trampoline Area as shown in Figure 4 comprises of:

- A square hollow section (SHS) 80 mm x 80 mm and presumably (SHS) 40 mm x 40 mm
- SHS 40 mm x 40 mm are bolted to columns ( SHS 80 mm x 80 mm) and welded to hollow sections in both transverse and horizontal directions.
- The frames are not bolted to the ground slab and hence will not resist uplift due to lateral loading.
- The vertical loading from the user will be resisted by the smaller hollow sections which in turn will transfer the loading to SHS 80 mm x 80 mm.



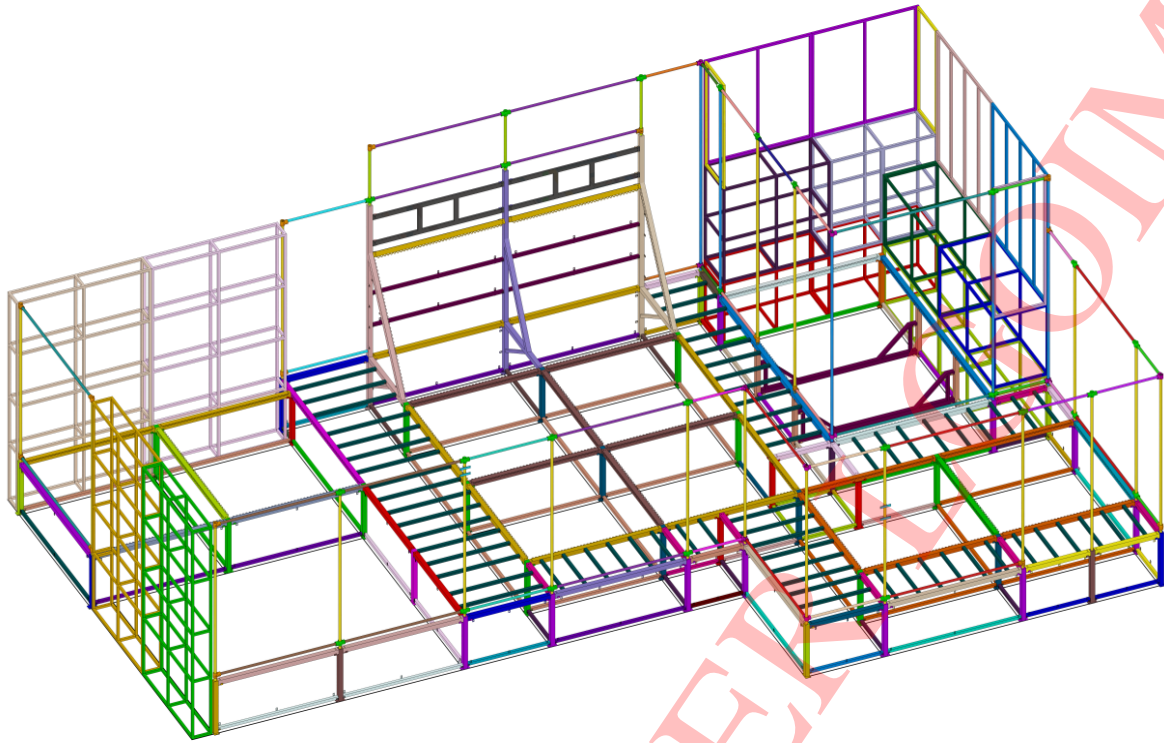


Figure 4. Trampoline Layout

### 3.1.4 Toddler Playground

The equipment structure for Toddler playground is similar in arrangement to the large playground as shown in Figure 5.



Figure 5. Toddler Playground Layout

## 4 ASSESSMENT

### 4.1 ASSESSMENT METHODOLOGY

The capacity of relevant structural elements was calculated, and analysis was undertaken in accordance with NZS5828:2015 – Playground equipment and surfacing and NZS1170.5:2004 - Structural design actions Part 5 Earthquake actions – New Zealand.

The assessment of the buildings has been completed with hand calculations as per the above criteria.

### 4.2 LOADING PARAMETERS

The criteria in Table 1, taken from NZS1170.5:2004, were used to determine the ULS seismic demand.

TABLE 1 : PARAMETERS FOR SEISMIC LOAD DEMAND CALCULATIONS

PARAMETER	VALUE
Site Subsoil Class	D
Z	0.40
$R_u$ (ULS)	1.0
$N(T,D)$	1.0
$\mu$	1.25
$S_p$	0.50

The criteria mentioned in Cl. A2.2 from NZS5828:2015, were used to determine the user vertical and horizontal demand.

## 5 FINDINGS

Based on the assumptions and assessment, the following observations have been made.

TABLE 2 : OBSERVATION SUMMARY

EQUIPMENT	COMMENTS
Large Playground	<ul style="list-style-type: none"><li>• The CHS columns are able to resist the user loads as per NZS5828:2015</li><li>• The CHS beams are not able to resist user loads as per NZS5828:2015 in bending.</li><li>• The barrier netting as per manufacturer's testing will be able to resist lateral loads from user however this does not satisfy the lateral loading as per New Zealand Code.</li></ul>
Donut Slide	<ul style="list-style-type: none"><li>• The SHS columns and beams are able to resist the user loads as per NZS5828:2015.</li><li>• The 16mm thick plywood will resist lateral capacity as per NZS5828:2015 and NZS1170.5:2004.</li></ul>
Trampoline	<ul style="list-style-type: none"><li>• The trampoline structures are not sufficient for the loading as per NZS5828:2015.</li><li>• The existing structural arrangement are not designed to resist lateral loadings</li></ul>
Toddler Playground	<ul style="list-style-type: none"><li>• The structural arrangement for toddler playground and large playground is similar and hence, it can be concluded that the structure will resist similar user loadings as well.</li></ul>



## 6 ASSUMPTIONS AND LIMITATIONS

This report ('Report') has been prepared by WSP New Zealand Limited ('WSP') exclusively for Carterton District Council ('Client') in relation to Assessment of playground equipment ('Purpose') and in accordance with the Short Form Agreement with the Client dated 04/05/2023 ('Agreement'). The findings in this Report are based on and are subject to the assumptions specified in the Report and Offer of Services dated 19/04/2023. WSP accepts no liability whatsoever for any use or reliance on this Report, in whole or in part, for any purpose other than the Purpose or for any use or reliance on this Report by any third party.

In preparing this Report, WSP has relied upon data, surveys, analyses, designs, plans and other information ('Client Data') provided by or on behalf of the Client. Except as otherwise stated in this Report, WSP has not verified the accuracy or completeness of the Client Data. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in this Report are based in whole or part on the Client Data, those conclusions are contingent upon the accuracy and completeness of the Client Data. WSP will not be liable for any incorrect conclusions or findings in the Report should any Client Data be incorrect or have been concealed, withheld, misrepresented or otherwise not fully disclosed to WSP.

Below are the assumptions made during the assessment of all structures –

- Our assessment is based on the structure being in 'as new' condition, without taking in to account any damage or deterioration to the elements.
- The bolts and fillet welds at site are carried out as per the recommendations in the drawings.
- The testing capacity of the barrier netting for the large playground has been carried out as per the recommendations.
- The yield strength of the member has been assumed to be minimum 250 MPa.
- The plywood stress grade has been assumed to be F8 as per NZS AS 1720.1:2002.