**Liquefication video**

<https://www.youtube.com/watch?v=pZ4kH-BJSL0>

**Liquefaction lessons**

<https://www.buildmagazine.org.nz/index.php/articles/show/liquefaction-lessons>

**Seismically resilient non-structural elements**

<https://www.branz.co.nz/pubs/branz-facts/non-structural-elements/>

**ArcGIS Map Viewer**

<https://www.arcgis.com/apps/mapviewer/index.html?layers=0445835b5e2349fd80066e19db4a65ad>

**Example Address**

12 Heaphy Place

**Christchurch District Plan**

<https://ccc.govt.nz/the-council/plans-strategies-policies-and-bylaws/plans/christchurch-district-plan>

**Search a Property**

<https://districtplan.ccc.govt.nz/PropertySearch/PropertySearchContainer.html>

**Planning Maps and chapters**

<https://districtplan.ccc.govt.nz/pages/plan/book.aspx?exhibit=DistrictPlan>

**Christchurch Liquefaction Information**

<https://apps.canterburymaps.govt.nz/ChristchurchLiquefactionViewer/>

**To find the site size**

<https://www.oneroof.co.nz/>

1. **A**

Get an relevant address at the liquification prone area

1. B

Base on the address find the relevant zone such as Residential Suburban Zone, Residential Medium Density Zone, etc.,

Base on your zone, you need to identify the relevant building codes. (Remember you need to cite correctly to the code)

After identifying the codes, you will need to describe the codes in your own understanding or quote appropriately as per APA ed. 7.

The answer could be:

**TIP 1: You will need to reference both Christchurch District Plan Codes and NZS 3604:2011**

**TIP 2:** Refer to relevant section of the building code/District Plan <https://districtplan.ccc.govt.nz/Pages/plan/Book.aspx?hid=86942&exhibit=DistrictPlan>

* What the type of construction that can be built on the chosen site?
* What is non-specific design? NZS 3604
* Foundation
* foundation,
* sub-floor,
* wall and roof bracing and
* external finish.

1. C

Determine if the new-build design is suitable for the site or if it will require modification to comply with the relevant legislation.

**TIPS: You will need to reference both Christchurch District Plan Codes and NZS 3604:2011 and the given drawing for the assignment 2.**

What is your conclusion? (Yes / No)

What is your recommendation? (If “Yes” that what is your recommendation?)

1. A

Identify the Christchurch District Plan. Mostly on Section 14 and Its Appendix.

**(Make assumption of your building height. It could be 5m to 8m as it is a single story building)**

* recession planes (The answer should be site specific, you will need to do at least two elevations)
* *site coverage\**
* *setbacks\**
* *fencing\**
* *site density\**
* *outdoor living space\**

**(Note: \*** These items can be shown on one site plan. Be site specific. The footprint of your house needs to refer to the given drawing.**)**

|  |
| --- |
| Y°  Xm |
| Figure 1: Elevation (Probably East elevation depend on your site) Recession Plane |

|  |
| --- |
|  |
| Figure 2: Elevation (Probably North elevation depend on your site) Recession Plane |

138-22 = 116 sqm Approximate

|  |
| --- |
| [This Photo](https://www.allaboutlean.com/lean-construction/construction-site-plan/) by Unknown Author is licensed under [CC BY-SA](https://creativecommons.org/licenses/by-sa/3.0/) |
| Figure 3: Site Plan please. Be site specific. Don’t forget to use the correct building outline |

**Two B**

**Recommend and describe a foundation for the new-build design based on the chosen site. Justify the suitability of the foundation you chose**

For sketch and selection: Refer to relevant section of NZS 3604

Why selection this type of foundation? **(TIPS: Advantages of your selected foundation should be written)**

**Two C**

Describe the design aspects and construction details of a suspended particle board timber floor for the new-build design that is suitable for the liquefaction scenario

**(TIPS: This should be refer to NZS 3604) –** We will discussion in detail at week 9.

**Three A**

**TIPS:** Use NZS 3604 – identify (select a detail) and describe your selection. (10 marks)

**Three B**

**TIPS:** Give reasons why you select each of the elements (10 marks)

|  |
| --- |
| Always read the question carefully.  Underline the key words.  Study the marking rubric. |