

Site Classification

AS2870-2011 Residential Slabs and Footings



SAMPLE

Date: 11/12/2019
Date of Fieldwork: 9/12/2019
Site Number: XXXX
Site Address: Lot. XXX No. xx, Address, Suburb Vic, XXXX
Client:

Summary of Assessment Results

| | |
|-------------------------------|-------------------------------------|
| Site Classification: | 'X' in accordance with AS2870-2011 |
| Climatic Zone: | 'X' in accordance with AS2870-2011 |
| Wind Rating: | 'XX' in accordance with AS4055-2012 |
| Bushfire Attack Level: | 'XX' in accordance with AS3959:2018 |

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Direct Contact

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Document Revision History

| Date | Rev | Engineer | Comments |
|------------|-----|------------|---------------|
| 11/12/2019 | A | XXXXXXXXXX | First Edition |

1 Introduction

Intrax Consulting Engineers Pty Ltd (Intrax) have been engaged by the client to conduct an investigation of the surface and subsurface conditions at **Lot. xxx** , **No. xx**, **Address**, **Suburb** , **Vic**, **xxxx** as depicted on the cover page with a view to reporting on the Site Classification for a proposed residential dwelling.

2 Site Classification

2.1 Site Geology

The available Geological Survey Maps showed the site to be underlain by xxxxxxxxxxxxxxxx The subsurface profile encountered in the boreholes is considered to be consistent with the geological map indications.

2.2 Field Investigation

THREE(3) boreholes were advanced using a **Mechanical Auger** XXX, ie deXX, Address, Suburb, hole logs (refer to Appendix B). These boreholes were positioned as indicated on the site plan (refer to Appendix A) along with details of the existing surface conditions such as slope, trees, and existing buildings. Disturbed materials obtained from augering boreholes were logged in accordance with AS1726-2016 and then classified in accordance with AS2870-2011.

A guide to the existing/natural soil profile consisted of:

FILL – CLAY overlying the naturally occurring:

SILT and

CLAY

Full details of the observed subsurface material and conditions have been recorded on the borehole logs and presented in Appendix B.

2.3 Site Classification in Accordance With AS2870-2011

In accordance with AS2870-2011 "Residential Slabs and Footings Construction" a site classification of **xxxxxx** is applicable to this site **xxxxxxxx**

In the absence of the fill material, the designing engineer should recognise that the natural soils encountered on this site result in a 'xxxxxxxx' site classification applying to this site.

xxxx

Based on the findings of this investigation, the soil profile combined with this writer's local knowledge and experience, the characteristic surface movement (Y_s) on this site, under normal condition, has been estimated to be in the range of xxx - xxxx

Should a more detailed investigation (by others) with relevance to the reactivity of the soils in the local area be available, Intrax should be provided with this documentation. It is a condition of this report that any information the client may have with regards to the site and its history be provided to Intrax. This may lead to Intrax reviewing the above classification and conducting a more detailed geotechnical investigation with regards to the additional information. This

report is not a detailed geotechnical investigation. It complies with the requirements of AS2870-2011 and is limited to the items required under Clause 2.2.2(a). Should a more rigorous assessment be required, Intrax can provide a Geotechnical Investigation of the site upon request.

2.3.1 Additional Notes Relating to This Site Classification

XXXXXX

2.4 Wind Rating

At the time of our site visit an investigation of this site and the surrounding terrain was conducted to determine the Wind Classification Design Speed. The maximum design gust wind speed for this site is **xxx** based on wind speed calculations (Vh) for use in ultimate limit state design only calculated in accordance with the limitations as in AS4055 Section 1.2.

The Wind Rating for this site has been assessed as **xx**

SAMPLE

3 Founding Recommendations

xxxxx

3.1 Allowable Bearing Pressures

The following allowable bearing pressures can be adopted for the soils listed in the table below. These bearing pressures apply where typically the embedment is a minimum of 100mm into the specified material.

Table 1: Allowable Bearing Pressures

| Soil Type | Indicative Founding Depth (mm) | Maximum Allowable Bearing Capacity (kPa) |
|------------------------------------|--------------------------------|--|
| Controlled Fill¹ | xxx mm into layer | XXX |
| Natural Silts² | xxx mm into layer | XXX |
| Natural Clay² | xxx mm into layer | XXX |
| Natural Clay² | xxx mm into layer | XXX |

SILT * xxxxxxx

Controlled Fill xxxxxxx

Natural Material xxxxxxx

4 Construction Techniques and Difficulties

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5 Conditions of Use of This Report

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5.2 Variations to This Report

5.3 Loss or Damages

For and on behalf of Intrax Consulting Engineers Pty Ltd

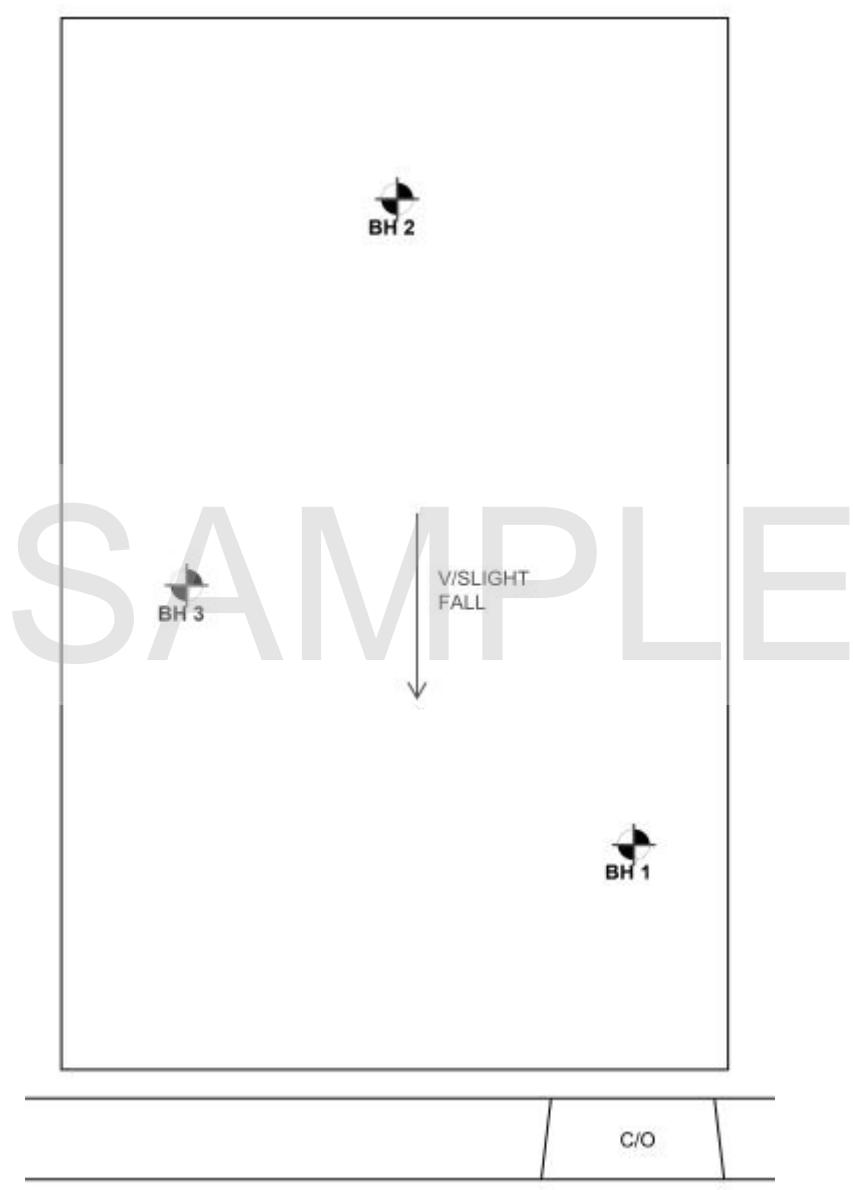
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Appendix A

Site Plan

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Site Plan



NOT TO SCALE

Appendix B

Borehole Logs

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Borehole Logs

| Site Address: Lot. xxxx, No. xxxxx, Street name, Suburb, State, Postcode | | | | | | | MECHANICAL AUGER | MECHANICAL AUGER | MECHANICAL AUGER |
|--|-----|-----------|--------------------------------|--------------------------------------|-------------------|---|-----------------------------|-----------------------------|-----------------------------|
| Horizon | USC | Soil Type | Moisture | Density/ Consistency/ Strength | Plasticity | Description | Borehole 1 | Borehole 2 | Borehole 3 |
| EXISTING SURFACE LEVEL | | | | | | | 0 | 0 | 0 |
| CONTROLLED FILL | CH | CLAY | Moist, Near Plastic Limit | Stiff | High Plasticity | grey brown concrete/rubble, root material, gravelly pockets. | 0 - 400 | 0 - 900 | 0 - 700 |
| A | CI | SILT | Moist, Dry Of Plastic Limit | Stiff | Medium Plasticity | brown, root material. | --- | --- | 700 - 900 |
| B | CH | CLAY | Moist, Near Plastic Limit | Stiff | High Plasticity | brown to grey brown, calcareous pockets, tending to weathered rock. | 400 - 1800 | 900 - 1900 | 900 - 1800 |
|  Intrax HOUSING | | | Intrax ID #: XXXXX | | | | NO REFUSAL | NO REFUSAL | NO REFUSAL |
| | | | Date of Fieldwork XXXXX | | | | Groundwater Not Encountered | Groundwater Not Encountered | Groundwater Not Encountered |

SAMPLE

Appendix C

Bushfire Attack Level

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Bushfire Attack Level Assessment

This site's BAL has been calculated using the Method 1 in accordance with the requirements of AS3959:2018 – Construction of Buildings in Bushfire Prone Areas.

For this particular site, with the house siting supplied, the following parameters were observed:

| Fire Danger Index (FDI) | | 100 | | | |
|--|-----------------|-------|-------|-------|-------|
| Approximate Direction | | North | East | South | West |
| Type of Vegetation Classified | Grassland | >50m | >50m | >50m | >50m |
| | Non - Grassland | >100m | >100m | >100m | >100m |
| Distance to Classifiable Vegetation from Proposed Siting | | - | - | - | - |
| Slope of the land under classified vegetation | | - | - | - | - |
| Bushfire Attack Level (BAL) | | N/A* | | | |

*- This site is within a non-designated bushfire prone area special BAL requirements not apply.

Notes:

1. If the house siting changes, the BAL will need to be reassessed to address the impact of moving the house further from or closer to the identified vegetation.
2. The above BAL rating is measured based on the condition of the vegetation at the time of assessment and it is valid on the condition that the vegetation is maintained as such.