

# **UPDATED GEOTECHNICAL INVESTIGATION REPORT**

**WESTERN SPRINGS PINE  
REMOVAL  
LUC60321424**

**WESTERN SPRINGS PARK 859  
GREAT NORTH ROAD GREY LYNN  
AUCKLAND COUNCIL**

**Reference:** GH676.2

**Prepared:** 25<sup>th</sup> February 2021

**Issued to:** Karl Mcleod  
karlm@kotahiprojects.com

**Issued on:** 25<sup>th</sup> February 2021

# **UPDATED GEOTECHNICAL INVESTIGATION REPORT**

## **WESTERN SPRINGS PINE REMOVAL LUC60321424**

### **WESTERN SPRINGS PARK; 859 GREAT NORTH ROAD GREY LYNN**

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**REPORT:** Pages 1 to 3

#### **ATTACHMENTS:**

Overall Site Plan CLC Consulting Group Ltd drawing no. 21159-L101-C

Geoconsult Track cross section sketch.

## 1. INTRODUCTION

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This report presents the findings of a geotechnical investigation carried out at Western Springs Park.

This report is in addition to two previous reports carried out by Geoconsult:

*“Geotechnical Investigation Report; Western Springs Pine Removal; Western Springs Park 859 Great North Road; Greenscenenz Limited”*; ref. GH676, dated 01/06/16 and

*“Additional Geotechnical Investigation Report; Western Springs Pine Removal LUC60321424; Western Springs Park 859 Great North Road Grey Lynn; Auckland Council”*; ref. GH676.1, dated 17 October 2018.

The purpose of the first report was to provide recommendations for the proposed temporary forestry haul roads, landing areas and processing area.

The second report was prepared for Auckland Council to respond to Council’s Development Engineer’s further information requests and to address the slope stability concerns and other geotechnical matters raised by submitters to the resource consent application. Council’s Development Engineer’s further information requests were contained in the letter from Ashwita Murphy dated 5<sup>th</sup> September 2018 and were addressed within that report.

The first and second reports addressed a previous works design which involved an entrance track with one large processing area and two smaller landing areas, all designed for the transit of large, wheeled vehicles.

This current (third) report is at the direction of LUC60321424 Conditions of Consent, and in particular, condition 38A which reads:

*“Prior to commencing work, the consent holder shall provide the Council’s Team Leader Monitoring (Central) with an updated version of the Geoconsult Ltd report dated 17/10/2018 and referenced GH676.1, taking into account the finalised Specification of Works and updated Overall Site Plan certified in accordance with condition 38. The updated report and recommendations shall be to the satisfaction of the Council’s Team Leader Monitoring (Central). The updated report and recommendations shall be provided to the CLG.”*

Most matters addressed in the previous reports are not repeated here (site description, geology, subsoil conditions, slope stability, etc.), but information from those reports is used in this report where appropriate. This current report addresses the changes in the Overall Site Plan from previous plans as well as the recent Tree Removal Methodology.

This report has been prepared for Auckland Council.

## 2. OVERALL SITE PLAN

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We have been provided with a CLC Consulting Group Ltd “Overall site Plan” ref. 21159-L101-C, dated February 2021 (attached).

This updated overall site plan describes a site access track reduced in width and scale from previous proposals. It identifies a metalled stabilised access track from the lower stadium and staging area, up a moderately steep (1V:4H) slope to the first “landing/chipping” area. From there, the track continues via a cut and place formation, approximately 4m wide which continues along the contour through three more landing areas before culminating in a final landing area at the northern extent of the works. Landing Areas 1,2,3 and 5 are 10m wide and 19m long. Landing Area 4, which is located around a localised flat site, is 15m wide and 20m long. This area is shown to be an area “to be set aside for 15m wide vehicle manoeuvring if required.” It is noted on the site plan that the staging areas are locations for the processing of temporary material. Additional earthworks are not required at these staging locations.

This proposal has resulted in a significant reduction in the amount of earthworks from previous schemes.

### 3. TREE REMOVAL METHODOLOGY

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We have been provided with a Treescape document "*Western Springs – Tree Removal Methodology*". The relevant section as it effects this report is "Formation of Track", which discusses the access road, track for works and track reinstatement.

The access road is the southern-most entry to the site and climbs a moderately steep slope. The access track is for tracked machinery access. The proposal is to construct it with a geotextile roading fabric overlain with compacted crushed aggregate. Some minor vegetation will need to be removed. There may also be the need for minor, localised cutting for appropriate formation. There are no stability concerns with this proposal.

The main track will be formed by a cut and place method. Some vegetation will require removal, but the cut and place will be carried out from the surface and include existing topsoil. This will be appropriate as the only traffic will be tracked vehicles. For a 4m wide track with batters of 45°, maximum cut and fill depths will be in the order of 450mm for 1:1 batters.

For track reinstatement, it is proposed to replace the earth that was displaced in track construction and shape to suit original profiles, nominally compacted and stabilised with mulch chip and hay.

### 4. CONCLUSIONS & RECOMMENDATIONS

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This revised methodology of access and staging is superior to previous methodologies from a geotechnical viewpoint due to the need for wheeled vehicles being removed above the access track.

The proposed earthworks are much reduced (in the order of 60m<sup>3</sup>), less intrusive and temporary.

The proposed earthworks will be easier to reinstate and reinstate in a manner that returns the area to its original state.

The proposed earthworks are more favourable than previous schemes from stability, ground disturbance and dust generation points of view.

Our only recommendation is to shape the cut to place track so that it has a slight gradient back to the uphill side.

In order to satisfy consent conditions 55 & 56, a geotechnical engineer should be engaged to observe the earthworks on site as they occur.



## 5. LIMITATIONS

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The recommendations and opinions contained in this report are based on the subsoils encountered at discrete test locations. We have made assumptions about the nature of the ground conditions across the site based on this limited subsoil information and actual ground conditions may vary from those assumed in this report. If any variations from the assumed ground conditions are found to exist during construction the matter should be referred back to Geoconsult.

This report has been prepared solely for the benefit of Auckland Council as our client and their nominated agents. Geoconsult accepts no liability in respect to any matters arising from the use of the information given in this report by any other person or organisation or for any other purpose.

### GEOCONSULT

Author:

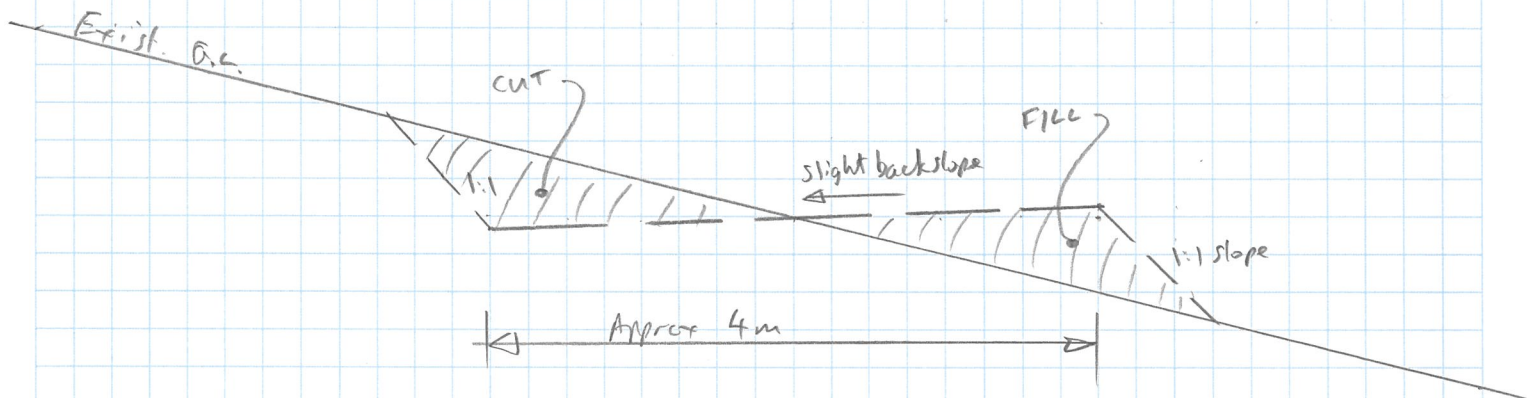
Phil Williams

Signed:

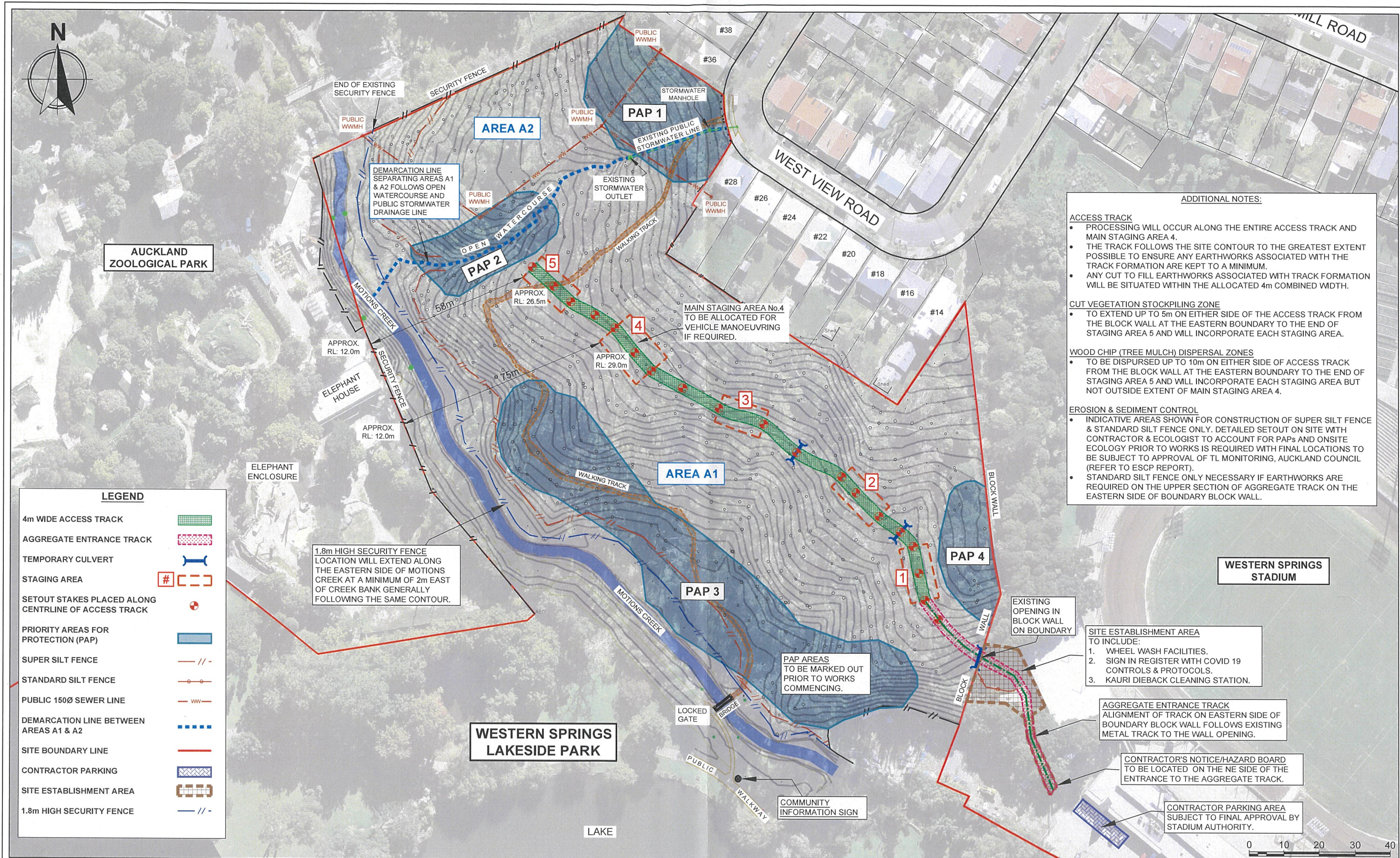
*PW my with*

Geotechnical Team Leader

Typical track cross section as proposed by Contractor:







**CLC CONSULTING GROUP LTD**  
CIVIL & STRUCTURAL ENGINEERS, PLANNERS & LAND SURVEYORS

PHONE: 09-576 3276  
EMAIL: [clc@clcgroup.co.nz](mailto:clc@clcgroup.co.nz)  
WEB: [www.clcgroup.co.nz](http://www.clcgroup.co.nz)

4 JOHNS LANE, PAKURANGA AUCKLAND 2010  
PO BOX 51-547, PAKURANGA AUCKLAND 2140

Revision Notes:

Rev:	Date:	Notes:
A	24-02-2021	Issued for review & comment.
B	25-02-2021	Additional features and comments added.
C	25-02-2021	Minor amendments.

Notes:

- Underlying topographical survey information by others.
- Levels are in terms of Auckland vertical Datum 1946.
- Horizontal datum in terms of Mt Eden 2000.

Client:

**TREESCAPE**

Drawn By:

OH  
23-02-2020

Checked By:

OH  
25-02-2020

Project:

**WESTERN SPRINGS PARK**  
859 Great North Rd, Grey Lynn

Drawing Title:

**OVERALL SITE PLAN**

Date:

**FEBRUARY 2021**

Scale @ A3:

**1:1000**

**21159-L101-C**