

Maghtab Complex, Malta

Construction of a Steep Wall

Non-Hazardous Waste Landfill

Construction Management Plan

Report prepared for: WasteServ Malta

Date: November 2019

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Construction of a Steep Wall Non-Hazardous Waste Landfill

Construction Management Plan

30374

November 2019

Executive Summary

This report is being prepared as part of the full development PA/03144/19. It includes a description of the proposed works for the Construction of a Steep Wall Non-Hazardous Waste Landfill at the Maghtab Waste Complex, Malta. The project involves the proposed conversion of an un-used existing hazardous cell into non-hazardous cell, while retaining the existing cell boundary.

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Appendix 1 Drawings

1. Project Description

Wasteserv Malta Ltd. has submitted a development permit application PA 03144/19 titled 'Proposed conversion of an un-used existing hazardous cell into non-hazardous cell, including extension of cell boundary and sanctioning of excavation'. The scope of this application is the conversion and extension of the hazardous landfill within the confines of the Maghtab Environmental Complex (approved through PA 4834/04) to a non-hazardous cell, and the continued excavation (and sanctioning) of the south-eastern end of the existing hazardous cell.

The objective is to provide an increased void space for disposal of waste, to accommodate the demand for landfill services for the foreseeable future. The availability of new void space is essential once the void space in the existing landfill facilities is exhausted, and this must be provided in a manner that does not disrupt provision of service. Furthermore, the project must ensure best utilisation of land.

The Maghtab Complex covers an area of approximately 600,000m² with the proposed project occupying only the area covered by permit application PA 4834/04, a total area of approximately 30,000m² (approximately 5%).

The site location and associated development location is shown on Drawing Ref: 30374/WSM/SW/FD/01 in Appendix 1 with individual elements of the Maghtab Environmental Complex presented on Figure 1.



Figure 1 Maghtab Environmental Complex

Key:

Maghtab Environmental Complex: Maghtab landfill rehabilitation and associated lagoons (light blue), Zwejra Landfill (dark blue), hazardous cell (currently used as RDF storage – red), Malta North AD plant (green) and Malta North MTP & Bulky Line (orange).

The area marked in red is equivalent to the full extent of the proposed project.

Aerial photo from Google Earth (2008).

2. Access

The development location is set wholly within the site permit boundary.

The entrance to this development will be from the existing Maghtab complex from Triq il-Kosta, Naxxar.

Vehicle movements on-site will follow approved roads.

Access routes to, from and within the site are presented on **Error! Reference source not found..**

Access to the works area will be via an access ramp as shown on Drawing Ref: 30374/WSM/SW/FD/02 in Appendix 1.



Figure 2 Site Access

3. Phasing

The development will be undertaken over a continual period with the proposed development split into two Cells (A & B), with works commencing in Cell A.

The layout of the cells is shown on Drawing 30374/WSM/SW/FD/03 in Appendix 1.

4. Scope of Works

The works will include the construction of new non-hazardous waste disposal cells at the Maghtab Environmental Complex by means of a steepwall lining system construction which will maximise the void space available within the sites footprint.

The main design elements and the construction sequence will be as follows:

- Rock face inspection and treatment
- Prepare access ramp
- Prepare formation on quarry floor
- Install mineral liner on base
- Install rock bolts for the initial sidewall lift
- Install first lift of the steep wall liner support system
- Install geotextile and steel mesh
- Install vertical geological liner
- Install first panel of geomembrane sealing system on sides
- Install geomembrane sealing system on cell base
- Install leachate drainage stone
- Install leachate drainage pipes
- Install leachate collection sump
- Place side liner protection system
- Waste placement
- Phased lifts of steep wall system

This project includes the excavation of material to the desired level before construction of an EU compliant landfill disposal facility is constructed.

5. Traffic Management

The construction of the new disposal cells will utilise the existing infrastructure both when entering and exiting the facility and when on site.

The nature of the advanced method of construction will involve the reuse of materials available on site and of geosynthetics which present a much reduced carbon footprint and much reduced traffic movements compared to traditional materials.

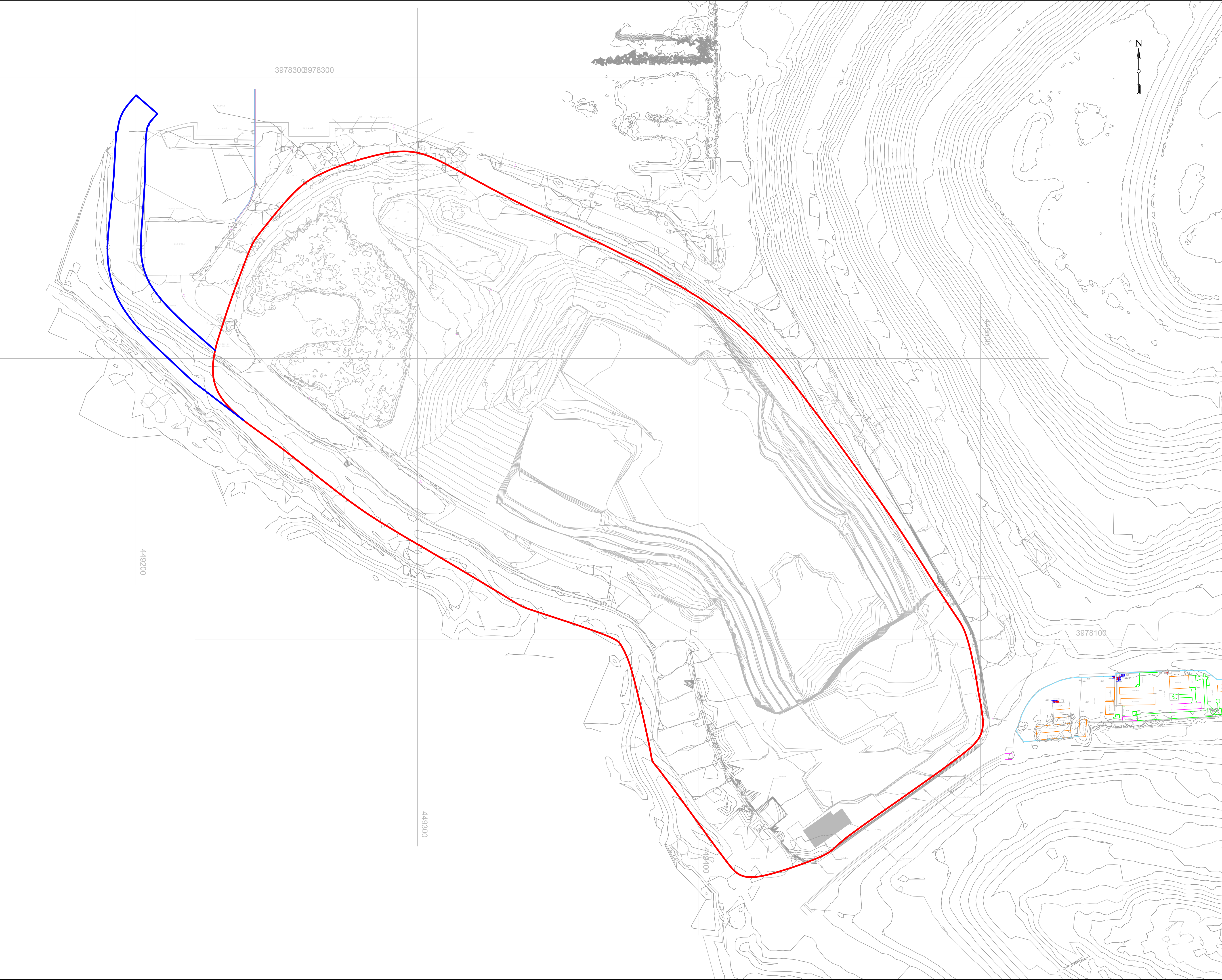
All deliveries to site will be expected to follow the existing traffic management plan for site.

The project is expected to have a negligible to minimal effect on additional traffic movements to and from site.

6. Stability

The stability of the adjacent landfills has been assessed and is presented in a standalone Stability Risk Assessment document which should be read in conjunction with this plan.

Appendix 1 Drawings



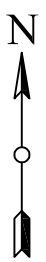
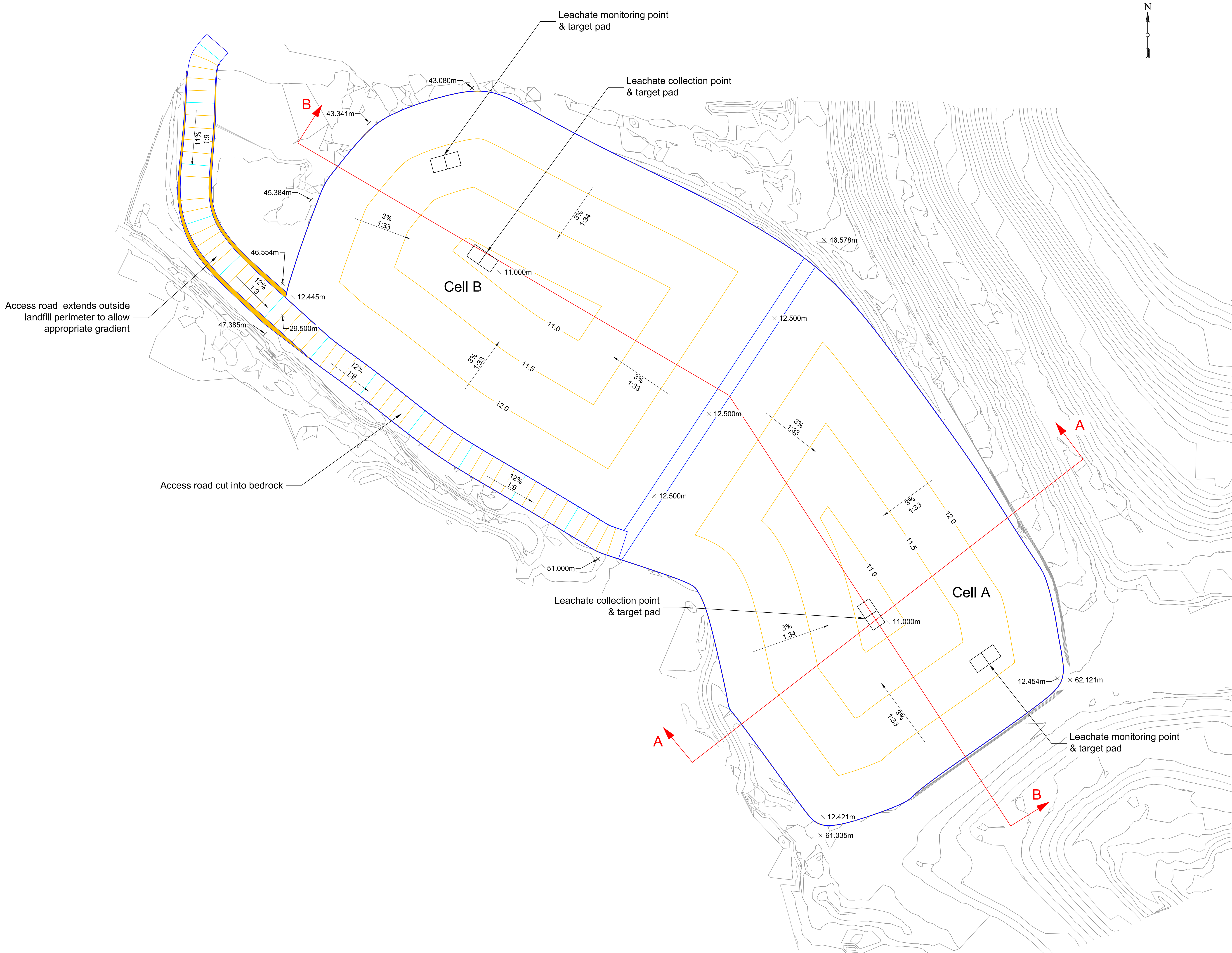
NOTES

Topographic survey data
November 2018

LEGEND

- New landfill boundary
- New landfill access road boundary

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Construction of a Steep Wall Non-Hazardous Waste Landfill															
PROJECT NUMBER															
30374															
CLIENT															
Wasteserv Malta Ltd.															
LOCATION															
Maghtab Environmental Complex															
DRAWING TITLE															
New Landfill Location Plan															
REVISIONS															
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Landfill Formation Plan			
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