Melton Road Hull - Site Remediation

Project	JJM 3037 - Storage Yards - Remediation and Stabilisation
Location	Melton Road North Ferriby Hull
Client	RIX Group
Key works delivered	RDC Rapid Dynamic Compaction and Capping Stabilisation
Project Duration	6 weeks
Stabilised Area	40,000m2 RDC and Stabilisation
Earthworks	By JJMac

PROJECT OVERVIEW

- Capping and Re-development of the former Local Authority Land Fill
- The site required approx 20,000m3 of Material Remediation – to provide 600mm deep separation Capping Layer
- Site to be used for Parking and storage in the short term

PROJECT CHALLENGES

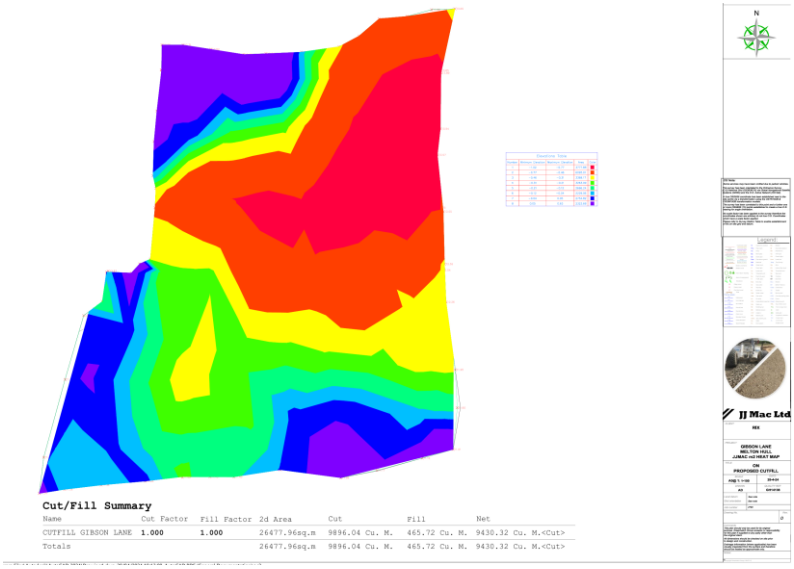
- Developing Remediation Strategy with Client and Consultants for submission and approval by EA to ensure the works are carried out efficiently and Cost effectively.
- The project has a very stringent Validation Testing and Compliance schedule.
- Proximity to other businesses on site meant very well managed works and deliveries were always required.

ENGINEERING AND SOLUTIONS TO OVERCOME THE CHALLENGES

- Validation of soils to show that all soil concentrations are below the site specific remediation targets (SSRT) for the protection of human health, controlled waters and the wider environment.
- Locked in stabilisation was specified for the Made Ground soils that were deemed to have soil leachate exceedances (with a min treatment thickness of 600 mm).
- Replacement of material (as part of the cut and fill) in accordance with the Earthworks Specification and engineering requirements.
- Our site team set to work with the MC team to develop a system to allow both earthworks and stabilisation to progress efficiently.
- All Environmental Permitting including **Standard Rules** SR2008 remediation Permits including MPP2 – **Mobile Plant Licence** for Remediation of Land and Groundwater submitted by **JJMac Ground Stabilisation Limited**

REMEDIATION and STABILISATION WORKS

JJMac carried out Topographical Surveys of the site and created a Finished Level Model for the GPS Dozer



Cut/Fill Summary

Name	Cut Factor	Fill Factor	2d Area	Cut	Fill	Net
CUTFILL GIBSON LANE	1.000	1.000	26477.96sq.m	9896.04 Cu. M.	465.72 Cu. M.	9430.32 Cu. M.<Cut>
Totals			26477.96sq.m	9896.04 Cu. M.	465.72 Cu. M.	9430.32 Cu. M.<Cut>

RDC Rapid Dynamic Compaction was carried out on the Land Fill Site prior to stabilisation of the Capping layer. The RDC will ensure sufficient compaction in the upper 2.0m of existing fill.

This particular 16tn RDC roller will influence approx 6.0m deep

EXCAVATIONS AND REMOVAL OF OBSTICLES

Sitewide excavations to approx. 600mm deep was undertaken to ensure a clean separation capping is provided between the landfill and finished levels

Screening and Crushing of made ground material was carried out prior to being replaced in 300mm layers for cement stabilsiation.

STABILISATION WORKS

Stabilisation was undertaken using Tractor Mounted Wirtgen WS320. Daily productivity by the stabilisation crew approx. 4,000m2 per day

COMPLETED WORKS

Stabilisation Layers completed

Type1 Capping to stabilised material

ADVANTAGES

The Cement Stabilisation works had numerous advantages to this site.

- Encapsulation of all leachates with cement binder reducing the need for any offsite disposal
- Capping layers and subbase replacement offers huge Reduction of Primary Aggregates
- Reduction of Lorries from the surrounding roads

BENEFITS TO CLIENT