

OUTLINE EARTHWORKS STRATEGY REPORT

Monckton Coke & Chemical Works, Royston, Barnsley

For Monckton Developments Ltd

Date 24/12/2020
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1. INTRODUCTION

Project Understanding

Monckton Developments Ltd (MD Ltd) are proposing a residential development at the former Monckton Coke Works site at Lund Hill, Royston.

Pegasus Group have been engaged by MD Ltd to produce an illustrative masterplan for the redevelopment of the site.

Geo2 Limited have been engaged by MD Ltd to produce a remediation assessment for the propose site redevelopment.

Bright Young Consulting Ltd (BYC) is engaged by Monckton Developments Ltd to provide an earthwork strategy report to provide an overview of bulk earthworks cut and fill requirements to achieve target development levels.

Agreed Scope of Works

The following scope of works is agreed

- Liaison with Geo2
- Production of earthworks strategy report
- Production of isopachyte drawings (as appendix to report)

Basis of Earthworks Strategy

A mound removal and isopachyte drawing has been produced based solely on the following information (copies are included with the appendix to the report). It should be noted that these drawings are not intended to be 'stand-alone' and must be read with the text of this report. In addition, it should be noted that the earthworks assessment is a volumetric assessment and does not extend to the consideration of ground conditions, soil types or remediation considerations.

Topographical survey by Landform Surveys dating from 10/07/20 as supplied to BYC

Illustrative masterplan by Pegasus Design – ref P19-1805_0100 dated 08/07/20.

BYC target development level assessment

BYC preliminary construction build-up assessment

Requirements to accommodate remediated ground beneath the designated public open space (POS) area in the centre of the site.

Topographical survey

The Landform Survey topographical survey of the site from 2015 that forms the basis of the volumetric assessment, subject to the following assumptions:

- No allowance for basements, voids or subsurface features has been made.
- Where areas are indicated as 'demolition site - no access' on the survey levels have been estimated.
- Where embankments are partially shown, additional embankments have been interpolated.

Illustrative Masterplan

The Illustrative Masterplan provided by Pegasus Design provides for the redevelopment of the site for residential use, the site being divided into 23 parcels of land separated by a new adopted access road system.

A central POS area is proposed along with a surface water attenuation feature at the northern extreme of the site.

Target Development levels

Target development levels for the site are driven by existing road levels along the eastern boundary, where a level of approximately 67.7 dictates the tie-in point for the new access road. The site falls naturally towards the proposed attenuation feature where the end point of the main spine road concludes at a proposed target level of 62.5 (approximately 400 – 500 above existing levels).

Allowing for primary surface water infrastructure along the spine road, all further adopted roads and target plot levels radiate from the spine road to provide suitable falls towards the attenuation feature.

Construction Build-ups

The following construction build-ups have been assumed throughout in producing an outline cut/fill assessment for the site:

Building footprints – allowance has been made for reduced levels to 750mm below finished floor levels (FFL) to allow for 300mm piling/vibro platforms at 450 below FFL.

Roadways – an allowance has been made for adopted road constructions from target finished levels of 500mm.

Gardens and soft landscaping areas – an allowance has been made for 1000mm of clean cover.

Earthworks Model Outputs

The earthwork model output is in two parts. Firstly, an assessment has been made for the mounded areas that sit above general site levels. These have been identified and quantified as three separate mounds – refer drawing 3014/101 r2.

Secondly, an isopachyte drawing has been produced to provide a visual aid to understand the cut and fill assessment for the bulk earthworks. This drawing (3014/102 r4) provides a colour coded visual representation of cut/fill depths – refer appendix B.

APPENDICES

Appendix A – Base information

Appendix B - Earthworks Model Outputs

Appendix C - Limitations