

Schedule of Assumptions

Site conditions are based on report "TE1456GIR1.2 FINAL July 2021" as recommended by Geotechnical and Environmental Engineer.

The following assumptions were made based on the report:

1. Topsoil.

Page 8 / "Executive Summary" / "Ground Conditions" states that "Topsoil was encountered at ground level in all exploratory hole locations to depths between 0.23m bgl to 0.38m bgl".

ASSUMPTION MADE: Topsoil depth is 300mm.

2. Buildup.

Details of construction depths for all pavements are to be confirmed once site specific ground investigation report is available. At this stage, the following were used only for a preliminary estimate of the earthworks volumes.

Page 8 / "Executive Summary" / "Ground Conditions" states that "Underlying the Topsoil is firm to stiff, locally very stiff clay (Till)".

California Bearing Ratio typical values (Source: "https://www.cbtesting.com/california-bearing-ratio-typical-values/") were used to select the appropriate CBR value.

ASSUMPTION MADE: Due to lack of site specific information, CBR value of 3% is assumed - the lowest recommended for clays is 5 or less.

ASSUMPTION MADE: For flexible pavements, construction depth is to be as per the Flexible Construction Table Selector. The following depth was used for both permeable and impermeable pavements:

- Capping 350mm
- Sub base 150mm
- Base 150mm
- Binder 60mm
- Surface course 50mm
- TOTAL: 760mm

ASSUMPTION MADE: For concrete pavements, TICE50 was used to specify the construction depth based on the assumed CBR. Construction depth is to be:

- Capping 350mm
 - Concrete sub-base 150mm
 - Concrete slab 200mm
 - TOTAL: 700mm
- details TBC.

ASSUMPTION MADE: Construction depth of footways was taken into account where they are part of the main carriageway. In all other areas, the total depth of 270mm was replaced by the depth of topsoil as set assumed for the landscape areas. In those areas, 300mm construction depth was used instead for the purpose of the cut and fill analysis.

3. Foundations.

ASSUMPTION MADE: Total area of foundations was set to approx. 10% of the plan area for each building.

ASSUMPTION MADE: Shapes and dimensions of the foundations are indicative only and were specified solely to represent the assumed excavation volume.

ASSUMPTION MADE: Top of foundation is set 450mm below the Finished Floor level for each building.

ASSUMPTION MADE: Foundation depth is set to 600mm (1050mm below the Finished Floor level for each building).



SURFACE LEVEL DATA			
NUMBER	MINIMUM LEVEL	MAXIMUM LEVEL	COLOUR
1	-3.500	-3.000	Red
2	-3.000	-2.500	Red
3	-2.500	-2.000	Red
4	-2.000	-1.500	Orange
5	-1.500	-1.000	Orange
6	-1.000	-0.500	Orange
7	-0.500	0.000	Yellow
8	0.000	0.500	Yellow
9	0.500	1.000	Yellow
10	1.000	1.500	Yellow
11	1.500	2.000	Yellow
12	2.000	2.500	Yellow
13	2.500	3.000	Yellow
14	3.000	3.500	Yellow
15	3.500	4.000	Yellow
16	4.000	4.500	Yellow
17	4.500	5.000	Yellow
18	5.000	5.500	Yellow

Refer to note 3.

Notes

- The analysis is based on the topographical survey "10670 / 1B" provided by Surveys Ltd.
- Tree protection area at the centre of the site was excluded from the analysis as it is identified as a no excavation zone similar to the various smaller root protection areas across the site.
- The presented isopachyte represents the earthworks elevation ranges for an indicative analysis between the post topsoil strip surface and the proposed ground. It was used solely for the presentation purposes. No earthworks volumes from this analysis are present. For the actual estimated earthworks volumes refer to:
 - "0600-Analysis 01-Topsoil Strip" which represents a cut volume at a uniform depth of 300mm for the site with the exception of root protection zones as indicated
 - "0600-Analysis 02-Earthworks" represents earthworks volume achieved by comparing the post topsoil strip surface and the proposed formation.
 - "0600-Analysis 03-Topsoil Deposit" represents the volume of topsoil deposited across the site. This includes embankments along the northern boundary of the site.
- For details of the proposed formation and other information relevant to the analysis refer to the Schedule of Assumptions in the drawing space.

P02	10.05.2023	FJB	Updated to reflect changes in layout.	WL	PJB
P01	31.01.2023	FJB	Coordination.	WL	PJB
P01.1	25.01.2023	FJB	Internal coordination.	WL	PJB
Rev	Date	By	Description	Chk	App

PLANNING



TIER CONSULT.
Richmond House,
Sandpiper Court,
Chester Business Park,
Chester | CH4 9QZ
T: 01244 684 900

Client
CBRE Ltd
One St Peters Square, 10th Floor,
Manchester, M2 3DE

Project
**Bryn Lane, Wrexham,
Wrexham Industrial Estate, Phase 2**

Title
**Cut & Fill Analysis
Earthworks**

Scale 1:500@A1	Drawn F.J.BEDNARSKI	Revision P02
Date 31.01.2023	Checked W.N.LLOYD	

Drawing No :
T_21_2486-52-01

Cut/Fill Summary

Name	Cut Factor	Fill Factor	2d Area	Cut	Fill	Net
0600-Analysis 01-Topsoil Strip	1.000	1.000	358206.589sq.m	9858543888Cu.MM.	0.000 Cu. M.	9858543888Cu.MM.<Cut>
0600-Analysis 03-Topsoil Deposit	1.000	1.000	98858.224sq.m	0.000 Cu. M.	88850.389 Cu. M.	88850.389 Cu. M.<Fill>
Totals			358206.589sq.m	9858544878Cu.MM.	88850.389 Cu. M.	85667.897 Cu. M.<Cut>

Cut/Fill Summary

Name	Cut Factor	Fill Factor	2d Area	Cut	Fill	Net
0600-Analysis 02-Earthworks	1.000	1.000	358206.589sq.m	8939246591Cu.MM.	9258508556Cu.MM.	8409.268 Cu. M.<Fill>
Totals			358206.589sq.m	8939246591Cu.MM.	9258508556Cu.MM.	8409.268 Cu. M.<Fill>