



Earthworks Strategy

The purpose of this drawing/EW exercise is to understand:

- whether an EW balance is achievable,
- indicative overall volumes,
- general areas of cut/fill.

It is based on BWB Finished Levels Drawing: 243912-BWB-EXT-XX-D-C-0600

- Site Strip**

The site red line boundary is approx 4.64ha. Based on the level / earthworks drawings 0600 & 0630, the earthwork extents is anticipated to be approximately 4ha.

The existing site is farmland/arable in nature, therefore a topsoil strip will be required. Based off the site investigation report it is expected the average topsoil thickness is approx. 0.3m.

This could therefore generate a site strip in the region of: 40,000m² x 0.3m = 12,000m³ topsoil.

For more information on how the topsoil is managed refer to BWB drawing: 243912-BWB-EXT-XX-D-C-0631_Topsoil Strip Strategy.

The site investigation identifies what appears to be a backfilled pond near the southeastern boundary. This may need to be excavated / processed prior to the bulk earthworks commencing. This could also impact on the volumes below depending on whether material needs to be removed from site tbc.

- Bulk Earthworks**

Following the site strip (survey minus 0.3m) the bulk earthworks required to reach proposed formation levels (FFL minus an assumed average construction thickness of 0.45m) could generate the following:

Gross	cut	fill
	4,070	13,135
Net		9,065

i.e. Deficit/shortfall of approx 9,065m³.

- Construction Arisings**

In the future as the plots are built out construction arisings generated from on plot foundation/drainage/services etc will generate additional material.

Based on an arising rate of 0.15m³/m² over the hardstanding areas (3.67ha) this could amount to:

36,700m² x 0.15m³/m² = 5,505m³.

The Oldlands Farm Phase 3 FRA & DS suggests the attenuation storage required could be in the region of 2,800m³. The total the construction arisings could therefore be approx 5,505m³ + 2,800m³ = 8,305m³.

- Earthworks Summary**

The above shows once you take construction arisings (exact volume tbc) into consideration, an approximate earthworks balance should be achievable. Any additional fill material can easily be accommodated through lowering Units 2 & 3 by approx 25mm.

This does assume the deficit highlighted from the bulk EW operation will be filled by future construction arisings.

Earthworks Notes

- Do not scale this drawing. All dimensions must be checked/ verified on site. If in doubt ask.
- This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.
- All dimensions in millimetres unless noted otherwise. All levels in metres unless noted otherwise.
- Any discrepancies noted on site are to be reported to the engineer immediately.
- The earthworks quantities have been provided by BWB for guidance only and the developer/contractor are to satisfy themselves with all cut/fill figures associated with the scheme.
- No bulking factors have been allowed for in the volume calculations.
- It should be noted that the earthwork volumes provided by BWB are accurate to ±5%. This margin takes account of the variations that may result through the use of modelling software.

Investigation Location Plan Key

- TP** Trial Pit Location
- RBH** Borehole Location
- CPT** CPT Location
- BH** Historic Borehole Location
- DS*** Dynamic Sample Location
- Trial Trench Extents

P01	18.10.24	Preliminary Issue	JJA	TAJ
Rev	Date	Details of issue / revision	Drw	Rev

Issues & Revisions

Birmingham

| 0121 233 3322

Leeds

| 0113 233 8000

London

| 020 7407 3879

Manchester

| 0161 233 4260

Nottingham

| 0115 924 1100

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Client

PANATTONI

Project Title

Newlands Road, Bognor Regis

Drawing Title

Earthworks Strategy

Drawn:	J.Arnold	Reviewed:	T.Jones
BWB Ref:	243912	Date:	18.10.24
Scale@A1:	1:500		

Drawing Status

PRELIMINARY

Project - Originator - Zone - Level - Type - Role - Number	Status	Rev
243912-BWB-EXT-XX-D-C-0630	S1	P01

Notes

- Do not scale this drawing. All dimensions must be checked/ verified on site. If in doubt ask.
- This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.
- All dimensions in millimetres unless noted otherwise. All levels in metres unless noted otherwise.
- Any discrepancies noted on site are to be reported to the engineer immediately.
- Existing Ground Levels have been taken from Maptec surveys topographical survey: Oldlands Farm Industrial Estate dated November 2023.
- Masterplan has been taken from UMC site layout: 23361-UMC-ZZZZ-SI-M2-A-0601.P01 dated 15/10/24.
- This drawing is to be read in conjunction with BWB drawings: 243912-BWB-EXT-XX-D-C-0600_Finished Levels & 243912-BWB-EXT-XX-D-C-0631_Topsoil Strip Strategy

Legend

- Site Boundary (4.64ha)
- Major isopachyte contour indicating depth of Cut in 100mm intervals (existing ground minus 300mm site strip to Proposed Formation)
- Minor isopachyte contour indicating depth of Cut in 25mm intervals (existing ground minus 300mm site strip to Proposed Formation)
- Isopachyte contour indicating zero cut/fill (i.e existing ground minus 300mm site strip is at Proposed Formation)
- Major isopachyte contour indicating depth of Fill in 100mm intervals (existing ground minus 300mm site strip to Proposed Formation)
- Minor isopachyte contour indicating depth of Fill in 25mm intervals (existing ground minus 300mm site strip to Proposed Formation)
- Main Site Earthworks Model Boundary (4ha)
- Gas 10ft easement
- Approx extent of made ground
- Approx extent of Backfilled Pond

Important CDM / H&S Notes

For more information of specified hazard refer to BWB Designers Risk Assessment: 243912-BWB-EXT-XX-HS-C-0001

Any construction personnel including operatives intending to construct the designs shown on this drawing should ensure that they have been regularly and thoroughly briefed by the principal Contractor on all health and safety matters and have had sight of:

- The full Designers and Contractors risk assessments and risk registers.
- The developed construction health and safety plan.
- The Contractors construction method statements.

Hazards that are obvious to a competent Contractor are not shown, as are every day and low risk hazards.