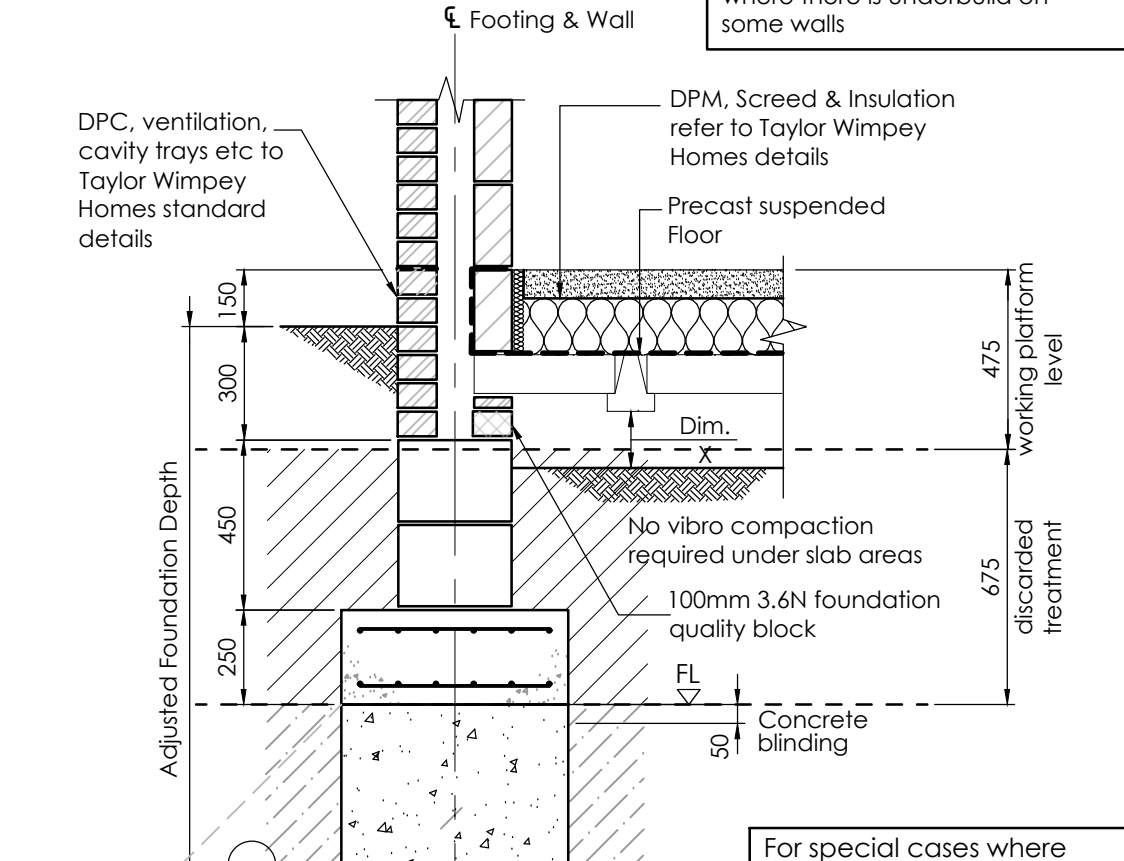




scale 1:20

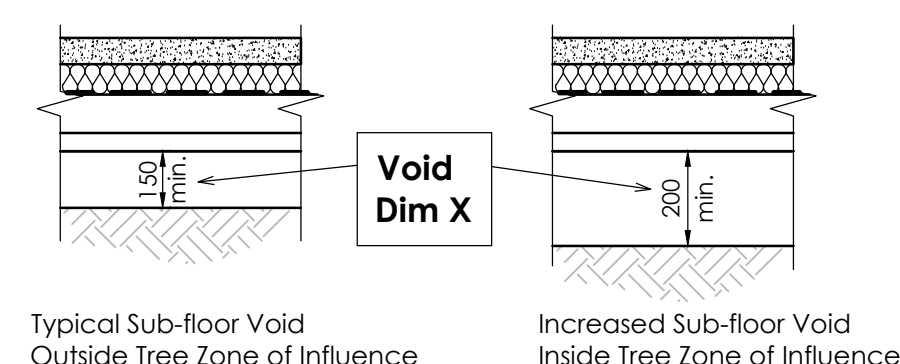
- Precast Suspended Precast suspended floor
- Vibro specialist to appraise themselves of site ground conditions and confirm vibro treatment as a suitable solution.
- Vibro specialist to confirm that the Geo-environmental investigation etc is adequate for the detailed design and specification of improvement.
- Vibro specialist responsible for design and method of ground improvement, including testing and verification of satisfactory treatment
- RC Strip to span over and between treatment points no greater than 2m spacing, to house type specific design and specification
- No Heave protection required
- No gas protection required

Vibro treatment is assumed to be carried out at maximum 475mm below FFL in all cases, including where there is underbuild on some walls



Special External Wall Detail RC Strip & Mass Fill Foundation over Vibro Improvement

Sub-floor Void Requirement
Where the surface soils are found to be desiccated, a sub-floor void may be required where not shown on this plan



Void

61 This drawing is to be read in conjunction with the following information:

Site Investigation: Taylor Wimpey Appraisal Site Layout Ref: 17-3000-B12
dated June 2024

Topographical survey: Geographical Engineering Operations Ref: G2410/041
dated March 2020

Planning Layout: Taylor Wimpey Appraisal Site Layout Ref: 20553-D0-1000 Ref
date 09.10.25

External Works Drawings: BCS Associates Preliminary Drainage Layout Ref: TAT173_G03_BET_X_X_DR_C-001 Ref: R08 dated 05.12.25

Arboreal/Crop Record: Indiscope Ref: 411/20/04 dated November 2025

62 The foundation types indicated are based upon observations & field tests
conducted during the Site Investigation

63 Third party information, accepted in good faith, may also have been used
in this document.

64 It should be recognised that strata may vary considerably between
sampling points and that groundwater regime may be influenced by
seasonal or other factors.

65 The proposed strata, depths and depths where applicable, are therefore for
guidance purposes only, and should be continually reviewed in light of
any new conditions encountered during construction work and/or
ongoing investigations.

66 With reference to landscape proposals, it has been assumed that any new
planting will be of a species, and so sized, as to not affect the proposed
roadline construction.

67 Foundation depths and precautions to foundations and floor slabs have
been assessed in accordance with HBNC Standards Chapter 4.2 Building
These have been assessed using known existing and proposed ground level
and foundation ground levels are amended other use of this drawing refer to
Bets Assets Associates for further advice.

68 All construction work in close proximity to trees is to be in accordance with
HBNC 2007: Trees in the vicinity of construction

69 Where necessary, construction work may be stepped in accordance with HBNC
Standards and Part A of the Building Regulations.

70 Drainage constructed on/ over clay strata must be designed to take
account of movement due to clay heave in accordance with HBNC
Standards Chapter 2.11.

71 All foundation design is based on shallow plan drainage - circa 1m deep
BPGAL

72 Foundation by others that poses a risk of undermining the foundation
should immediately be brought to the attention of Bets Associates and the
affected plot foundation not continued.

73 Where house foundations are deep or abnormal, retaining walls within site or
on boundaries may need to be constructed.

74 At preliminary or tender status this assessment plan and the level table may
not be used for such specific purposes as detailed design or detailed review
of retaining wall requirements and interaction with plot foundations is
warranted.

75 Any deviation from schedule formation depth is to be reported to Taylor
Wimpey Homes and Bets Associates.

GF1	The ground floor construction is generally to be precast suspended in accordance with Taylor Wimpey. Where the plot is affected by trees, a suspended precast Precast suspended floor is recommended in accordance with Taylor Wimpey. Plots affected by trees will require an increased sub-floor void of 200mm. Refer to plan, details & level table for plots requiring future protection.
GF2	DPM, DPC & Insulation will be in accordance with Taylor Wimpey & specification.
GF3	Ground floors to incorporate a gas resistant DPM - refer to Taylor Wimpey standard details.

F1 Foundations are to be Reinforced Strip over Vibro placed stone columns/
vibro treated ground.
Refer to vibro specific notes.

VI The site may be suitable for vibratory ground treatment which would be the preferred option given the presence of made ground, contaminated/ to be remediated ground and the likely post demo fill present on site. This should be assessed by further investigation in the presence of vibro contractors.

Plots affected by trees will need to be deepened to depth indicated by a detailed assessment of trees (not included in FZP) which should be accounted in determining depth of treatment.

It is likely that retreating walls will require treatment by a double row of treatment points.

V2. Vibratory ground treatment has been considered as a suitable solution, however, the Contractor should be aware of the following:

Treatment is required to existing strata and filled ground.

Filling, settling of levels and use of a material suitable for vibro treatment, agreed with the Contractor.

V3. Confirmation that the site is suitable for the proposed system to be made available to the Engineer prior to commencement of the works.

V4. The Engineer shall require the Specialist Contractor to verify that the ground is suitable for satisfactory.

V5. Tests should be carried out to establish the degree of ground improvements, i.e. load bearing characteristics and settlement potential, and should be agreed with the Specialist Contractor.

V6. The Specialist Contractor shall provide testing to NHR Standards 4.5, and submit proposals for testing in the tender.

The Specialist Contractor proposals for testing must be sufficient to demonstrate that performance criteria can be met between stone columns as well as at its columns.

V7. Testing shall be generally in accordance with BS 5911 Clause 8.

V8. The Vibro Specialist is to provide calculations to confirm the load/settlement pressures of the vibro.

CM 1	Concrete mixes shall be, UNO, Designated Mixes in accordance with BS 8500-2:2006, BS EN 206 - 1 & NHBC Standards as follows:	
	Designated Mix	Consistence Class
General fill & binding	GEN 1	S3
Reinforced Strip Foundations	RC28/ 35	S3

D1	Drainage to take due account of clay plasticity in accordance with NHBC Standards Chapter 5.3.7
D2	Drainage to take due account of foundation depths and should be kept higher than formation levels. Drainage that must be deeper than the proposed formation levels of adjacent foundations should be brought to the attention of Betts Associates
D3	Drainage to take due account of ground conditions, especially where new fill is placed as settlement can occur.

Heave precautions shown are indicative and must be read in conjunction with the Foundation Assessment Plan and NHBC Standards 4.2 2025.

Void forms should accommodate movement in accordance with NHBC Chapter 4.2 Table 2 below:

	Against side of foundation & ground beam	Under ground beam and suspended in-situ slab	Sub-floor void under precast B&B floor
Volume change Potential	Void Dimension (mm)	Void Dimension (mm)	Void Dimension (mm)
Low	0	50	200

For compressible material the void dimension is the amount the material should be able to compress to accommodate heave. The actual thickness of compressible material required should be established from the manufacturer's recommendations and is generally in the order of twice the void dimension shown.

For void formers the void dimension is the remaining void after collapse, the actual thickness of void former required should be established from the manufacturer's recommendations.

The following summarises the main issues highlighted by the Site Investigation report, but must not be considered exhaustive.	
Summary of ground conditions at shallow depth	Ground conditions generally consisted of made ground from 0.35m bgl, although generally encountered to a depth less than 1.5m. Superficial deposits encountered between 3.30-4.44m bgl. The most common stratum recorded was an orange-brown sandy gravelly CLAY with occasional sandstones, mudstones, and interfines of coal and quartz. Typically, the CLAY was locally interbedded with orange very clay from 1.0m to medium sand from 0.70-4.44m bgl. bedrock encountered generally between 4.00-9.37m bgl.
Tree Influence?	Refer to plan
Plasticity	Low volume change potential
Groundwater and Shallow encountered instability?	Groundwater thirls were encountered as seepages in two locations at depths from 1.00-7.00m bgl. Using the monitoring programme, groundwater was recorded at depths ranging from 0.60 to 5.47 m bgl
Contamination	Widespread trichloroethene (TCE), Dichloroethene (cis 1,2-Dichloroethene, and trans 1,2-Dichloroethene), and Vinyl Chloride contamination and localized heavy metal exceedances have been identified in the groundwater analytical data at the site. It is noted that where there are exceedances of VOCs in soils, exceedances in groundwater were often recorded. Therefore, it is considered that the likely source of contamination which may be leaching across the site. Refer to 51 report and Remediation Strategy Report by others for detail and also Remediation Verification Reports.
Obstructions	Extensive obstructions are identified within the footprint of the main factory structure. Existing services inc. electric cables, gas pipes, water and sewer main. Low risk UKO area – no further works required. Diligence recommended given the site previous use as a munitions factory. In the northern part of the site in WS108, a notable concrete obstruction was identified within the Made Ground. These findings suggest the presence of remnants from a previous platform associated with the manufacturing yardings. As part of the process of creating a suitable development platform, all subterranean obstructions will need to be excavated and removed beneath new structures and infrastructure. Large below ground open pit in manufacturing area – to be backfilled put will present anomalies for works.
Mining	Low-Risk Site – Deemed to be land where coal mining has taken place. However, the depth of the site is not a risk to new development, and it, therefore, contains no known recorded risks and as such, no further assessment is required
Ground Gas Protection Measures	There are two noted areas falling within Characterisation Zone 2 (C32), and a further two areas falling within Characterisation Zone 3 (C33). As a precautionary measure, it is recommended that the whole site should be categorised within C32, which will require basic gas protection measures with any proposed plants within the area of C33 classification potentially requiring further protection (hydrocarbon odours in WS100)
Radon Protection Measures	No protection required
Design Sulphate Class	DS-1 [bpc in areas not investigated, ie within factory footprint]
ACEC Class	AC-1 [bpc in areas not investigated, ie within factory footprint]
Special Requirements for concrete?	None anticipated, but TBC following investigation of areas not investigated).
Special Requirements for substructure masonry?	Substructure masonry specification in accordance with architect's client details. Where aggressive ground conditions occur, masonry, including/cement, must be suitable for the Design Class specified in the GI
Special requirements for sub-structure mortar?	As above
Flood Risk	Flood Zone 1 - no risk flooding
Environmental Constraints	A Secondary (unidentified) aquifer and Secondary A aquifer (BS1) has been identified in the site in the superficial geology with a Principal aquifer in the bedrock geology and Source Protection Zone 3. An active groundwater abstraction licence is recorded within 50m of the site located 16 m SE, pertaining to the UK L10 and used for bundary purposes.
Bearing Capacity	To be confirmed by rapid vial specifi
Further investigation needed	Further investigation and subsequent testing is recommended in order to determine the spatial extent of the VOC contamination identified within the soils across the southern boundary of the Site and to understand whether leaching had occurred in the surrounding natural strata. Following demotion of the main factory structure, further investigation and subsequent testing is recommended in order to obtain representative soil samples from the underlying strata and determine whether the underlying soils are impacted with asbestos. Survey of below ground open pits within manufacturing area required.

Risk Items

- Refer to plan for highlighted risk items

P01	09/12/25	Preliminary Issue	R
Mark	Date	Details	B
Revision history			
Revision description:			



Cliff:

Taylor Wimpey

Glen Dimplex,
Rainhill, Liverpool

Drawing file: Preliminary
Foundation Zoning Plan

Source: As indicated, for the original size of AC.

Drawn by: RC | Checked by: a | Paved by: a

Drawing status: Preliminary

Preliminary

Job No:	Drawing No:						
	Project	Origin	Volume	Level	Type	Discp.	N
TAY 142		PFT	27	VV	DD	S	

Do not scale this drawing. Print in

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