



PILED GROUND BEAM / PILECAP NOTES

- A Soils Investigation Report has been carried out on 27th OCT. 2022 by LEAP ENVIRONMENTAL LTD.
- Concrete to be in accordance with BS EN 206-1, BS 500-1 and BS 500-2 and should be at minimum the following grades:
Location Designated Concrete Design Chem Class Consistency Class
Blinding GEN1 DS-1 AC-1 S3
Piling RC32/40 DS-1 AC-1 S4
Ground Beams RC32/40 DS-1 AC-1 S3
Pilecaps RC32/40 DS-1 AC-1 S3
Substructure Mortar M6 DS-1 AC-1
CFA piling not suitable for AC-5 Ground Design Chemical Class
- Pile loads shown are un-factored in kilonewtons (kN). Piles shall be designed by the piling specialist in accordance with the requirements of the project specification and associated documents using recognised empirical formula and to the satisfaction of the checking authority. Design to include for 10kN lateral load/pile and to overcome the risk of ground heave.
- Maximum pile diameter to be 300mm and to be positioned centrally about ground beams unless noted otherwise, any variation from this diameter is to be notified to the Engineer immediately. Nursery & Apartments piles to be 400mm Dia.
- Bottoms of all foundation excavations shall be trimmed, levelled and protected from inclement weather and kept free of water. Bottoms of excavations to receive reinforced concrete, shall be blined with not less than 50mm of designated concrete in accordance with the table above.
- The Contractor is responsible and liable for ensuring the stability of the works and services at all stages of construction. Unless shown on the project drawings, we have no knowledge of existing underground services or obstructions.
- All ground beams to be shuttered using MAX FRANK PECAFIL or equivalent permanent formwork unless ground conditions provide good stability of trench sides. Where foundations are cast against an earth face, increase foundation widths to achieve minimum 75mm cover.
- Reinforced concrete shall be compacted by means of a mechanical vibrating poker and the workability shall be such that, when compacted, a dense concrete, free from voids shall be produced.
- Construction joints in ground beams shall be formed against a vertical grout tight shutter and shall be located in the middle third of any beam span between piles, subject to being a minimum of 1.5m from any junction with other ground beams.
- Piles are to be left in a sound condition with the reinforcement projecting 40 x bar diameter above the stated cut off level. Pile reinforcement to be turned into ground beams cages and lapped with top reinforcement as shown on the drawings. Use a minimum of 6H16 bars having an anchorage length of 650mm into the pile concrete and a minimum lap length of 650mm with the top layer of ground beam reinforcement.
- Piles have been designed on a maximum deviation position of 75mm. Any piles out of position greater than 75mm to be reported to the Engineer immediately.
- Pile Head to have a minimum embedment of 50mm into ground beams and 75mm into Pile Caps.
- All Piles are to be cast a minimum of 300mm above their cut off level and then broken down to the levels indicated on the Pile Table.
- All piles to be 100% integrity tested. Provide one static load test to 1.5 x working pile load with F.O.S. of 2.5 or alternatively design for a F.O.S. of 3.0 with no static load test required subject to Local Authority and NHBC approval. Test pile to be nominated upon receipt of daily piling logs, by Engineer. Piling Contractor to include for the construction of all anchor piles for the static load test.
- The maximum vertical settlement of the pile is not to exceed 10mm, unless noted otherwise in the specification.
- For all crane base foundations, refer to crane suppliers drawings and details for links and stirrups to be cast into foundations.

GENERAL NOTES

- The drawings, design and all information contained therein are the sole copyright of Richard Jackson Ltd and reproduction in any form is forbidden unless permission is obtained in writing.
- All drawings shall be read in conjunction with all relevant Civil / Structural Engineers drawings, the project specification and Architects, Services Engineers & Landscape Architects drawings.
- For all setting out information, D.P.M., D.P.C., Finishes and waterproofing details refer to the Architects drawings and details.
- The Contractor shall verify all site and setting out dimensions before putting work in hand. Where dimensions are shown on the Engineers drawings, any discrepancies shall be reported to him.
- Dimensions must not be scaled from the Engineers drawings.
- All dimensions are in millimetres unless noted otherwise.
- Dimensions marked * are subject to confirmation by site measurement before construction proceeds.
- All dimensions are given to structural surfaces unless noted otherwise.
- All lightning connectors to be fixed in accordance with specialist details.
- No holes, chases, cut-outs, existing or proposed services or the like may be formed in or pass through any beam, column, or load bearing wall unless written permission is obtained from the Engineer.
- Holes smaller than 225 x 225mm through slabs are not necessarily shown on the Engineers drawings.
- For size and location of all services refer to the Service Engineers and Architects drawings.
- Inspections made by the Local Authority, NHBC or other Statutory bodies, shall be arranged by the Contractor to suit his programme. Any costs arising out of failing to carry out the work to the satisfaction of the Checking Authority will be the sole responsibility of the Contractor.
- Non-structural fixings are generally not shown on the Engineers drawings and if any such detail is indicated it must be confirmed by cross-reference to other specialists before construction.
- All drawing specifications are given in accordance with NBS (National Building Specification) e.g. E10/130 which refers to NBS Section E10, Clause 130.
- Abbreviations:
CRS Centres TOC Top of concrete
TBC To be confirmed BOC Bottom of concrete
UNO Unless noted otherwise SSL Structural slab level
DIA Diameter TOS Top of steel
EGL Existing Ground Level FFL Finished Floor Level
FGL Finished Ground Level SOP Setting out point

ALL TRENCHFILL FOUNDATIONS TO BE 450mm WIDE AND CENTRALLY LOCATED BENEATH WALLS UNO

ALL PILE FOUNDATIONS TO BE 450w x 450dp AND CENTRALLY LOCATED BENEATH WALLS UNO. ALL TIE BEAMS TO BE 300w x 300dp UNO

Rev	Date	Description	Drawn	Chkd
C01	28.07.25	CONSTRUCTION ISSUE	MP	PC
T3	14.07.25	TRENCHFILL FOUNDATIONS AMENDED TO PILED FOUNDATIONS. SOFT JOINTS INDICATED WHERE NEEDED AND ADDED TO KEY. NOTES REVISED AS CLOUDED	MP	PC
T2	09.05.25	SCREEN WALL LOCATIONS ADDED. MINOR FOUNDATION LEVELS AMENDED.	AMJ	PC
T1	28.03.25	ISSUED FOR TENDER PURPOSES	AMJ	PC

REVISIONS
This drawing is to be read in conjunction with all other Engineer's drawings and all other project information. Any discrepancy between the Engineer's drawings and other project information is to be reported to the Engineer immediately.

PRECAST FLOOR CONSTRUCTION

- All design packages used for pre-cast concrete floor units shall be B.S.1. or agreement approved. Copies of relevant documentation shall be supplied to the Engineer on request.
- The pre-cast unit manufacturer shall supply the Engineer with 2 copies of all design calculations, drawings etc. (including reinforcement drawings for R.C. elements) and shall not proceed with manufacture until comments are received from the Engineer. Allow 5 working days for comments and programme works to comply with main contractors programme.
Self weight of floor units for ground floor construction to be not more than 300 kg/m². Self weight of floor units for upper floor construction to be not less than 300 kg/m² and not more than 340 kg/m².
Screed and finishes load:- refer to Architects drawings for floor construction (allow screed weight 2400kg/m³).
Timber floating floor and finishes load - 1.80 kN/m².
Imposed loads
Garages 2.50 kN/m², Houses 1.50 kN/m².
Partitions
UDL 0.50 kN/m².
Line load for non-loadbearing partitions: Timber 2.00 kN/m
Masonry 3.00 kN/m run.
- All structural concrete design shall comply with BS 8110 and shall allow for the unfactored loadings listed below.
Where beam and block floor systems are used, air bricks to ventilate the under floor voids shall not be located under beam bearings.
- All concrete units to have nominal 90mm (min. 75mm) bearings on structural steelwork sections and nominal 100mm (min. 90mm) bearings on masonry except where shown otherwise on the drawings.
- Where the sides of precast units are built into walls, pin up hard between wall and underside of unit with 1:3 cement:sand mortar to ensure structural continuity.
- All concrete infill between hollow plank units and for closing up of holes around services etc, not to be less than grade C28/35 max 6mm aggregate, S3 slump to BS EN 206-1, BS 8500-1 and BS 8500-2.
- Grouping of units shall be in strict accordance with manufacturer's instructions.
- External and party walls parallel with beam span shall be restrained at top of upper floor levels with galvanised 30x5.0mm straps having a size not less than 100x1000 and at no more than 2.0m centres in housing and 1.25 centres in flats.
- PCC planks to be designed to suit holes and notches as detailed on the drawings. Floor supplier to include for trimming around service holes, except as detailed on the drawings.
- Contractor/PCC Plank Supplier to submit erection sequence of planks prior to construction. When using Slimflor, ASB, beams with web angles or with bottom plates to support PCC, steelwork should always be loaded evenly on both sides during construction.

Key	Description
150 B&B	Indicates span of Beam and Block/PCC Floor.
(S)	Denotes Masonry Sub-Structure. Refer to Architects drawings for details. Substructure Block strengths to be min 7.3N/mm² or to match Ground Floor to First Floor strengths if higher. Mortar below DPC to be M6 and sulphate resisting for design chem class > DS2
(T)	Denotes Step in underside of Foundation.
(S)	Denotes Step in top of Foundation.
900dp	Denotes minimum depth of foundation below E.G.L. U.N.O., Foundation depth to be a minimum of 900mm.
*	External wall to be fully tied to internal wall at 225mm centres.
Allow 3kN/m	Allow 3kN/m on the beam and block floor for Bracing Walls.
SW	Denotes location of Screen wall. Refer to drawing LN41-RJL-00-FN-DR-S-5001 for details.
+47.000	Existing Ground Level
PC1	Denotes Pilecap reference.
--- (dashed)	Denotes Heaveguard to inner face of external beams, see sections for detail and thickness.
Hatch	Hatch indicates Cellcore is required to this beam and/or Pile Cap. Refer to drawing number LN41-RJL-00-FN-DR-S-4002 for details.
P01	Denotes Pile number
TB	All Tie Beams to be 300 x 300dp U.N.O.
--- (dotted)	Denotes soft joint between screen wall and house footings. Refer to drawing LN41-RJL-00-FN-DR-S-5001 for details.

SAFETY HEALTH & ENVIRONMENTAL INFORMATION

THIS IS TO BE READ IN CONJUNCTION WITH RISK REGISTER DOCUMENT
It is a requirement that only experienced and competent contractors carry out the described, using a recognised safe method of working. The following are specific significant residual risks identified by the designer and are additional to those hazard/risks normally associated with this type of work.

- CONSTRUCTION:**
- ⚠ Differential Settlement - Foundations must extend 150mm into Bearing Material
 - ⚠ Deep Excavations - Possible collapse of ground
 - ⚠ Flooding risk - River Bourne 360m west of site
 - ⚠ Contaminated ground potential

NO SETTING OUT INFORMATION IS SHOWN ON THIS DRAWING. FOUNDATION LOCATIONS ARE BASED ON ARCHITECTURAL HOUSETYPE LAYOUTS AT THE TIME OF DESIGN. FOR SETTING OUT OF FOUNDATIONS IN RELATION TO THE WALLS REFER TO ARCHITECTS HOUSETYPE DRAWINGS.

Key	Description	Notes
--- (dotted)	Denotes minimum 900mm depth of foundation below E.G.L.	No Heaveguard at these depths
--- (dotted)	Denotes minimum 1200mm depth of foundation below E.G.L.	
--- (dotted)	Denotes minimum 1500mm depth of foundation below E.G.L.	
--- (dotted)	Denotes minimum 1800mm depth of foundation below E.G.L.	
--- (dotted)	Denotes minimum 2100mm depth of foundation below E.G.L.	
--- (dotted)	Denotes minimum 2300mm depth of foundation below E.G.L.	Heaveguard Required at these foundation depths
--- (dotted)	Denotes minimum 2500mm depth of foundation below E.G.L.	
--- (dotted)	Denotes minimum 2500mm depth of foundation below E.G.L.	

The above shaded areas denote minimum depth of Excavation below Existing/Original or Proposed Ground Level, whichever gives the greatest depth. This table is to be read in conjunction with Trenchfill foundation on clay sites notes and Trenchfill Foundation Depth Guide on drawing 5001.

Minimum Foundation Thicknesses	
Minimum Width	Minimum Thickness
<900mm	500mm
1050mm	550mm
1200mm	600mm
1350mm	650mm
1500mm	700mm
1650mm	825mm
1800mm	900mm

Load Description	Value
DEAD LOADS Self Weight Finishes Services	By Specialist 1.80 kN/m ² 0.30 kN/m ²
LIVE LOADS Typical Partitions Common Areas Bike Store Bin Store Plant Room	1.50 kN/m ² 0.50 kN/m ² 3.00 kN/m ² 3.00 kN/m ² 3.00 kN/m ² 7.50 kN/m ²
PRIVATE STAIR LOADING Live Load Add. Dead Load	1.50 kN/m ² 0.50 kN/m ²
BLOCK WALLS 140 Thick 215 Thick Brick Block Cavity Wall Brick Metsec Cavity Wall	2.50 kN/m ² 4.00 kN/m ² 3.85 kN/m ² 3.30 kN/m ²

Richard Jackson Engineering Consultants

847 The Crescent, Colchester, Essex, CO4 9YQ
6th Floor, 1 St. Katherine's Way, London, E1W 1UN
Jubilee House, Hill Lane, Sawston, Cambridge, CB22 3HZ
6 The Old Church, St Matthews Rd, Norwich, Norfolk, NR1 1SP
New World Business Centre, Station Rd, Warrimley, Bristol, BS30 8XG

Tel: 01206 228800
Tel: 020 7448 9910
Tel: 01223 314994
Tel: 01603 230240
Tel: 01172 020070

Email Address: mail@rj.co.uk Web Site: http://www.richardjackson.co.uk

Scale: 1:100
Drawn: AMJ
Date: 28.07.25
R/L Project No: 62926

Project Manager: L. GREENAWAY
Checked: PC
Approved: PC
Security Code: ST4

Status: AUTHOURISED & ACCEPTED (CONSTRUCTION)

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