A. General Notes Do not scale this drawing.

## 2. This drawing is to be read in conjunction with all other relevant drawing issues and the specification.

- 3. All building materials, components and workmanship to comply with the appropriate public health acts, building regulations,
- British standards and codes of practice and the appropriate manufacturers recommendations.
- 4. For all specialist work see relevant drawings.
- 5. Any discrepancies, errors or omissions to be reported to the project co-ordinator for further instructions before commencement of works.
- 6. The Engineer is not responsible for dimensions, except where shown on his drawings. All setting out information, dimensions, etc, shall be calculated from the Architect's drawings.
- 7. All temporary propping to be to Contractor's design. The safety and stability of the structure in the temporary condition is the responsibility of the Contractor, until all bracing and stability elements have been installed.
- All dimensions are in millimetres (mm) unless noted otherwise. 8 Work to figured dimensions only.
- 10. For location of service penetrations through structure see Service Engineer's drawings.
- 11. All proprietary products to be installed in accordance with the Manufacturer's instructions/recommendations. 12. For dimensioned layouts of walls see Architect's drawings.
- Health & Safety/CDM Regulations 2015
- All drawings are to be read in conjunction with the Health and Safety plan and all risk assessments.
- 2. The drawings and specification of the works shall be read in conjunction with the Architect & Third-Party drawings and the following documentation.
- 3. Prior to the commencement of foundation works the contractor shall undertake trial pits to acquaint themselves with the soil investigation and ground conditions, and where necessary provide temporary shoring where deep excavations are undertaken.

4. The building has been designed to withstand the following imposed loads: Roof

0.6 kN/m² Imposed

C. Sub-Structure/Ground

## 1. For details of DPM's, DPC's, Insulation, oversite treatment and underfloor ventilation etc. see Architect's drawings.

- 2. Foundations to be central to walls. wall setting out to Architects details. min width of foundations to be 600mm u.n.o. on plan.
- 3. Foundations are to bear on Virgin Ground, with an allowable bearing pressure of 100kN/m<sup>2</sup>, at depths of min 1.0m (NHBC 4.2) unless otherwise indicated on plan below lower of existing or proposed ground level to B.C.O. approval. if tree roots found extend down 300mm beyond any existing tree or shrub roots. Note: If foundations are not poured immediately following excavation, bottoms of trenches to be concrete blinded to prevent softening of the formation.
- 4. Drainage or services pipework. Contractor to have sight of drainage and services drawings prior to excavation of foundations.
- 5. Steps in foundations are to be in accordance with NHBC requirements.
- 6. Min thickness of foundations to be 400mm U.N.O.
- 7. High groundwater level may be encountered during excavation. Contractor to make allowance for local pumping from sumps during foundation works.
- 8. Sub-grade below floor to be treated with a proprietary weed-killer.
- 9. Below dpc brickwork to be class F2/S2 bricks in Class M6 mortar and above Class M4 mortar. Below dpc blockwork to be foundation quality 7.3N/mm<sup>2</sup> in Class M6 mortar and above strength as indicated on plans in Class M4 mortar.
- 10. Concrete grade to be as follows to BS 8500 soil conditions DS-1 / AC-1):-Blinding/concrete -Gen1 Fill mass concrete -Gen3 Reinforced concrete elements - RC28/35 (U.N.O.)
- 11. Materials and workmanship for concrete to be in accordance with BS 8110.

- F. Structural Masonry: All load bearing masonry above ground level to be 3.6 N/mm<sup>2</sup> blocks in Class M4 mortar U.N.O. to BS 5628. 1. All unless noted otherwise on drawing.
- Fortis Structural Engineering Limited for comment prior to manufacture.
- 3. At movement joint locations wrap the lintel bearing in polythene or building paper to allow nominal movement horizontally.
- 4. Wall ties to be at 450mm c/c. vert & 750mm c/c horizontal and closed up to 225mm c/c. around reveals.
- G. Steelwork Notes 1. All internal steelwork to be grade \$355 J0 (50) blast cleaned to grade \$A2.5 and primed with high build zinc phosphate (75 microns).
- 2. All external steelwork and steelwork in contact with exposed external leaf to be hot dip galvanised to BS EN ISO 1461 (85 microns).
- 3. Fire protection to steelwork to architects details. Steelwork in cavity to be painted with RIW or MIO
- 4. Prior to fabrication the Steelwork Subcontractor is to submit the following: General arrangement drawings with individual steel members clearly identified.
- 5. All bolts to be Grade 8.8 (minimum)

- J. Concrete Grades (BS 8500)
- 1. Mass concrete blinding to be GEN 1.
- 2. Mass concrete foundations to be GEN 3.
- 3. Reinforcement concrete to be RC28/35.
- 4. Mass concrete padstones to be C25/30.
- and damp when fresh concrete is cast against it.
- 7. Do not place concrete when the in-situ temperature is below 5° or above 30°C unless agreed in advance with Fortis Structural a strength of 5 N/mm<sup>2</sup>.
- 8. Discharge concrete so as not to cause segregation of ingredients. Fully compact concrete to all air.
- 9. All waterproof concrete (reinforced) to be constructed in accordance with the drawings and strictly in accordance with current water/cement ratio not in excess of 0.45, and other details conforming to current recommendations and requirements of Cementaid.

Notes:

2. Lintels over openings in cavity walls to be designed and scheduled by Catnic or equal approved. Calculations to be submitted to

Calculations for all major connections. Connections to be designed for the factored reactions indicated on this drawing.

6. All external exposed bolt assemblies to be sherardised to BS73-8 to give a minimum dry film thickness of 30 microns (Class S1)

7. The Steelwork Subcontractor is to provide holes in steelwork as necessary for fixing to timber plates.

8. All columns, base plates and bolts to be encased in 100mm concrete below ground, typically.

- K. Structural Timber:
- 1. All timber to be grade C16, free from shakes/wanes and in accordance with BS 5628, unless noted otherwise.
- 2. Doubled or trebled trimming joists are to be bolted together using M12 bolts at 600mm staggered c/c with 51 Ø double sided toothed plate connectors and 38x3 bolt head and nut washers.
- 3. Multiple floor joists to be doubled up under all parallel partitions and nailed together at 450mm staggered c/c. Provide joists at 200mm c/c under bath.
- T. Bolts for timber to timber connections to be grade 4.6 unless noted otherwise
- 5. Herringbone strutting or solid blocking to be provided at support points and at points along the span as listed below: Spans up to 2.5m - None Spans of 2.5 to 4.5m- At mid span
- Spans over 4.5m At Third points
- 6. Solid blocking to be min 38mm thick. Strutting and blocking should be min 3/4 depth of the joists.
- Proprietary strutting systems to be installed in accordance with manufacturer's details.
- 8. Trussed rafters to be designed and supplied by a Specialist Manufacturer in accordance with BS 5268. Calculations and working details to be submitted to Fortis Structural Engineering Limited for comment prior to manufacture.
- 9. All roof bracing to be provided by the Specialist Manufacturer in accordance with BS 5268.
- 10. Lateral restraint straps to be (150 + 1050) long at floors using 30x5mm thk galvanised mild steel straps. To be fixed at 1.2m c/c generally (2.0m c/c at first floor) using min 5No 12x50 wood screws.
- 11. Tank platform to be provided to suit Architect's details in accordance with BS 5268.
- U. Timber Roof
- Roof structure to be tied to masonry with galvanised restraint straps in accordance with the requirements of BS 5628 part 1 1. and N.H.B.C. standard building detail requirements.

Horizontal restraint to be a minimum 5mm x 30mm x 1000mm long (straight length) at max. 1200mm c/c. with 100mm turndown installed tight against face of wall inner leaf with timber packing between inner leaf and first rafter. solid blocking between minimum of 3no. rafters and with a minimum of 8no.3.75x30mm square twist nails.

Vertical restraint straps to be a minimum 5mm x 30mm x1000mm long (straight length) at max. 1200mm c/c. fixed to wall plate with 3no.3.75x30 square twist nails to masonry with 5 no.12x50mm wood screws plugged and screwed into masonry. The lowest fixing should be within 150mm of the bottom of the vertical strap.

5. Ready mixed concrete to be obtained from a plant that holds a current certificate of production conformity to NACCB.

6. Surface of concrete at construction joints to be sprayed and brushed whilst green to expose aggregate finish. Surface to be clean

EngineeringLimited. During the curing period no part of the concrete surface should fall below 7°C until the concrete has attained

Cementaid Everdue Caltite System specifications, using not less than 335kg of portland cement per cubic metre and having a

						Client	Drawing
						Billy & Emma Tresadern	
						Project 12 Norman Close	Scale 1:50 AT
							Status
	P1	PRELIMINARY	WT	SE	27-10-23		P
	Rev	Description	Drn	Chk	Date		

