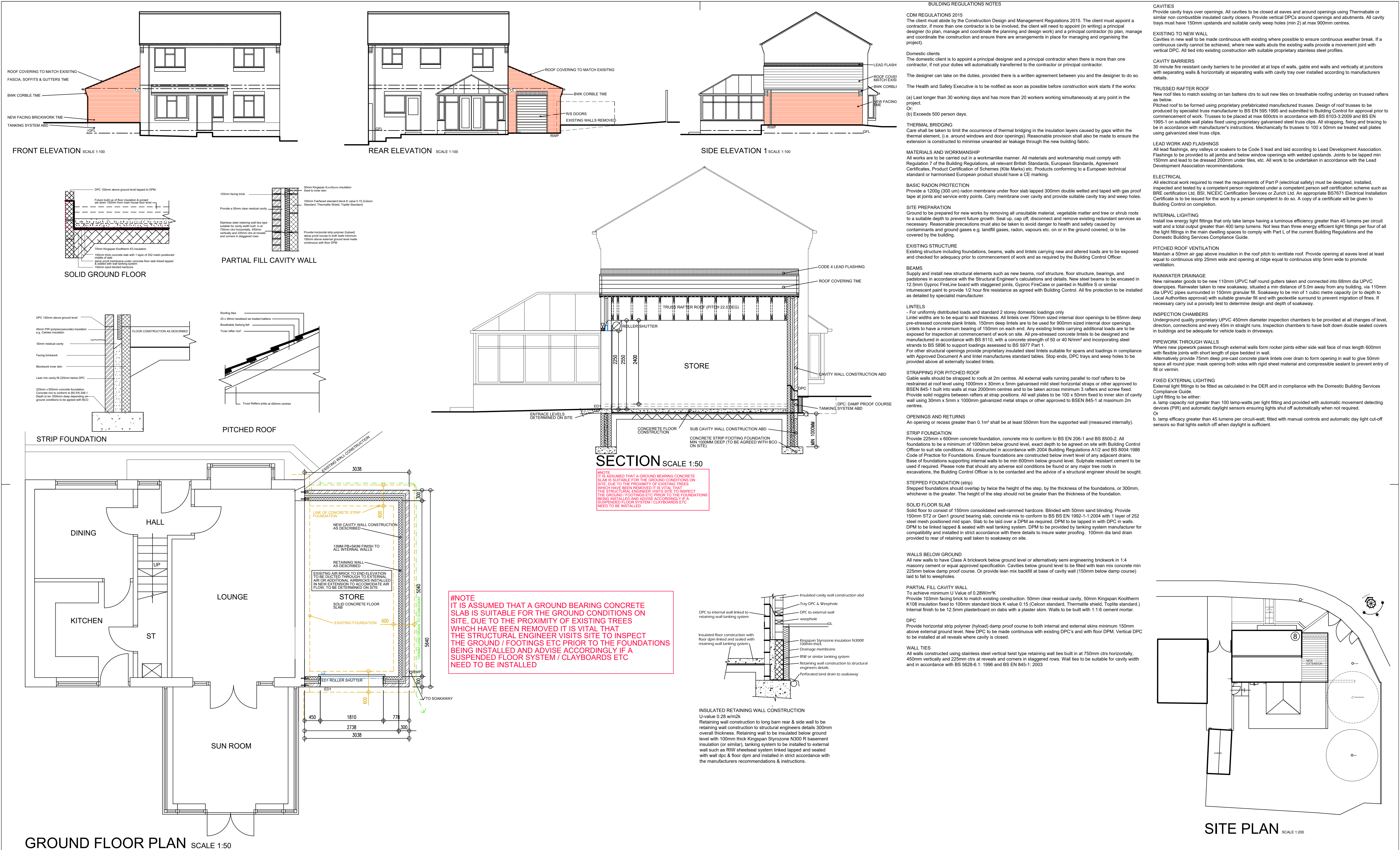




BUILDING REGULATIONS NOTES

CDM REGULATIONS 2015

The client must abide by the Construction Design and Management Regulations 2015. The client must appoint a contractor, if more than one contractor is to be involved, the client will need to appoint (in writing) a principal designer (to plan, manage and coordinate the planning and design work) and a principal contractor (to plan, manage and coordinate the construction and ensure there are arrangements in place for managing and organising the project).

Domestic clients

The domestic client is to appoint a principal designer and a principal contractor when there is more than one contractor, if not your duties will automatically transferred to the contractor or principal contractor.

The designer can take on the duties, provided there is a written agreement between you and the designer to do so.

The Health and Safety Executive is to be notified as soon as possible before construction work starts if the works:

- (a) Last longer than 30 working days and has more than 20 workers working simultaneously at any point in the project.
- Or
- (b) Exceeds 500 person days.

THERMAL BRIDGING

Care shall be taken to limit the occurrence of thermal bridging in the insulation layers caused by gaps within the thermal element, (i.e. around windows and door openings). Reasonable provision shall also be made to ensure the extension is constructed to minimise unwanted air leakage through the new building fabric.

MATERIALS AND WORKMANSHIP

All works are to be carried out in a workmanlike manner. All materials and workmanship must comply with Regulation 7 of the Building Regulations, all relevant British Standards, European Standards, Agreement Certificates, Product Certification of Schemes (Kite Marks) etc. Products conforming to a European technical standard or harmonised European product should have a CE marking.

BASIC RADON PROTECTION

Provide a 1200g (300 um) radon membrane under floor slab lapped 300mm double welled and taped with gas proof tape at joints and service entry points. Carry membrane over cavity and provide suitable cavity tray and weep holes.

SITE PREPARATION

Ground to be prepared for new works by removing all unsuitable material, vegetable matter and tree or shrub roots to a suitable depth to prevent future growth. Seal up, cap off, disconnect and remove existing redundant services as necessary. Reasonable precautions must also be taken to avoid danger to health and safety caused by contaminants and ground gases e.g. landfill gases, radon, vapours etc. on or in the ground covered, or to be covered by the building.

EXISTING STRUCTURE

Existing structure including foundations, beams, walls and lintels carrying new and altered loads are to be exposed and checked for adequacy prior to commencement of work and as required by the Building Control Officer.

BEAMS

Supply and install new structural elements such as new beams, roof structure, floor structure, bearings, and pedestals in accordance with the Structural Engineer's calculations and details. New steel beams to be encased in 12.5mm Gyproc FireLine board with staggered joints, Gyproc FireCase or painted in Nullifire S or similar intumescent paint to provide 1/2 hour fire resistance as agreed with Building Control. All fire protection to be installed as detailed by specialist manufacturer.

LINTELS

For uniformly distributed loads and standard 2 storey domestic loadings only. Lintel widths are to be equal to wall thickness. All lintels over 750mm sized internal door openings to be 65mm deep pre-stressed concrete plank lintels. 150mm deep lintels are to be used for 900mm sized internal door openings. Lintels to have a minimum bearing of 150mm on each end. Any existing lintels carrying additional loads are to be exposed for inspection at commencement of work on site. All pre-stressed concrete lintels to be designed and manufactured in accordance with BS 8110, with a concrete strength of 50 or 40 N/mm² and incorporating steel strands to BS 5896 to support loadings assessed to BS 5977 Part 1. For other structural openings provide proprietary insulated steel lintels suitable for spans and loadings in compliance with Approved Document A and lintel manufacturers standard tables. Stop ends, DPC trays and weep holes to be provided above all externally located lintels.

STRAPPING FOR PITCHED ROOF

Gable walls should be strapped to roofs at 2m centres. All external walls running parallel to roof rafters to be restrained at roof level using 1000mm x 30mm x 5mm galvanised mild steel horizontal straps or other approved to BS EN 845-1 built into walls at max 2000mm centres and to be taken across minimum 3 rafters and screw fixed. Provide solid noggin between rafters at strap positions. All wall plates to be 100 x 50mm fixed to inner skin of cavity wall using 30mm x 5mm x 1000mm galvanised metal straps or other approved to BS EN 845-1 at maximum 2m centres.

OPENINGS AND RETURNS

An opening or recess greater than 0.1m² shall be at least 550mm from the supported wall (measured internally).

STRIP FOUNDATION

Provide 225mm x 600mm concrete foundation, concrete mix to conform to BS EN 206-1 and BS 8500-2. All foundations to be a minimum of 1000mm below ground level, exact depth to be agreed on site with Building Control Officer to suit site conditions. All constructed in accordance with 2004 Building Regulations A1/2 and BS 8004:1986 Code of Practice for Foundations. Ensure foundations are constructed below invert level of any adjacent drains. Base of foundations supporting internal walls to be min 600mm below ground level. Sulphate resistant cement to be used if required. Please note that should any adverse soil conditions be found or any major tree roots in excavations, the Building Control Officer is to be contacted and the advice of a structural engineer should be sought.

STEPPED FOUNDATION (strip)

Stepped foundations should overlap by twice the height of the step, by the thickness of the foundations, or 300mm, whichever is the greater. The height of the step should not be greater than the thickness of the foundation.

SOLID FLOOR SLAB

Solid floor to consist of 150mm consolidated well-rammed hardcore. Blinded with 50mm sand blinding. Provide 150mm ST/2 or Gen1 ground bearing slab, concrete mix to conform to BS BS EN 1992-1-1:2004 with 1 layer of 252 steel mesh positioned mid span. Slab to be laid over a DPM as required. DPM to be lapped in with DPC in walls. DPM to be linked lapped & sealed with wall tanking system. DPM to be provided by tanking system manufacturer for compatibility and installed in strict accordance with these details to insure water proofing. 100mm dia land drain provided to rear of retaining wall taken to soakaway on site.

WALLS BELOW GROUND

All new walls to have Class A brickwork below ground level or alternatively semi engineering brickwork in 1:4 masonry cement or equal approved specification. Cavities below ground level to be filled with lean mix concrete min 225mm below damp proof course. Or provide lean mix backfill at base of cavity wall (150mm below damp course) laid to fall to weepholes.

PARTIAL FILL CAVITY WALL

To achieve minimum U Value of 0.28W/m²K. Provide 103mm facing brick to match existing construction. 50mm clear residual cavity, 50mm Kingspan Kooltherm K108 insulation fixed to 100mm standard block K value 0.15 (Celcon standard, Thermaflex shield, Toplite standard.) Internal finish to be 12.5mm plasterboard on dabs with a plaster skim. Walls to be built with 1:1.6 cement mortar.

DPC

Provide horizontal strip polymer (hyalad) damp proof course to both internal and external skins minimum 150mm above external ground level. New DPC to be made continuous with existing DPC's and with floor DPM. Vertical DPC to be installed at all reveals where cavity is closed.

WALL TIES

All walls constructed using stainless steel vertical twist type retaining wall ties built in at 750mm ctrs horizontally, 450mm vertically and 225mm ctrs at reveals and corners in staggered rows. Wall ties to be suitable for cavity width and in accordance with BS 5628-8-1: 1996 and BS EN 845-1: 2003

CAVITIES

Provide cavity trays over openings. All cavities to be closed at eaves and around openings using Thermabate or similar non combustible insulated cavity closers. Provide vertical DPCs around openings and abutments. All cavity trays must have 150mm upstands and suitable cavity weep holes (min 2) at max 900mm centres.

EXISTING TO NEW WALL

Cavities in new wall to be made continuous with existing where possible to ensure continuous weather break. If a continuous cavity cannot be achieved, where new walls abut the existing walls provide a movement joint with vertical DPC. All tied into existing construction with suitable proprietary stainless steel profiles.

CAVITY BARRIERS

30 minute fire resistant cavity barriers to be provided at top of walls, gable end walls and vertically at junctions with separating walls & horizontally at separating walls with cavity tray over installed according to manufacturers details.

TRUSSED RAFTER ROOF

New roof tiles to match existing on tan battens ctrs to suit new tiles on breathable roofing underlay on trussed rafters as below.

Pitched roof to be formed using proprietary prefabricated manufactured trusses. Design of roof trusses to be produced by specialist truss manufacturer to BS EN 595:1995 and submitted to Building Control for approval prior to commencement of work. Trusses to be placed at max 600ctrs in accordance with BS 8103-3:2009 and BS EN 1995-1 on suitable wall plates fixed using proprietary galvanised steel truss clips. All strapping, fixing and bracing to be in accordance with manufacturer's instructions. Mechanically fix trusses to 100 x 50mm sw treated wall plates using galvanised steel truss clips.

LEAD WORK AND FLASHINGS

All lead flashings, any valleys or soakers to be Code 5 lead and laid according to Lead Development Association. Flashings to be provided to all jamps and below window openings with welded upstands. Joints to be lapped min 150mm and lead to be dressed 200mm under tiles, etc. All work to be undertaken in accordance with the Lead Development Association recommendations.

ELECTRICAL

All electrical work required to meet the requirements of Part P (electrical safety) must be designed, installed, inspected and tested by a competent person registered under a competent person self certification scheme such as BPEC certification Ltd, BSI, NICEIC Certification Services or Zurich Ltd. An appropriate BS7671 Electrical Installation Certificate is to be issued for the work by a person competent to do so. A copy of a certificate will be given to Building Control on completion.

INTERNAL LIGHTING

Install low energy light fittings that only take lamps having a luminous efficiency greater than 45 lumens per circuit watt and a total output greater than 400 lamp lumens. Not less than three energy efficient light fittings per four of all the light fittings in the main dwelling spaces to comply with Part L of the current Building Regulations and the Domestic Building Services Compliance Guide.

PITCHED ROOF VENTILATION

Maintain a 50mm air gap above insulation in the roof pitch to ventilate roof. Provide opening at eaves level at least equal to continuous strip 25mm wide and opening at ridge equal to continuous strip 5mm wide to promote ventilation.

RAINWATER DRAINAGE

New rainwater goods to be new 110mm UPVC half round gutters taken and connected into 68mm dia UPVC downpipes. Rainwater taken to new soakaway, situated a min distance of 5.0m away from any building, via 110mm dia UPVC pipes surrounded in 150mm granular fill. Soakaway to be min of 1 cubic metre capacity (or to depth to Local Authorities approval) with suitable granular fill and with geotextile surround to prevent migration of fines. If necessary carry out a porosity test to determine design and depth of soakaway.

INSPECTION CHAMBERS

Underground quality proprietary UPVC 450mm diameter inspection chambers to be provided at all changes of level, direction, connections and every 45m in straight runs. Inspection chambers to have bolt down double sealed covers in buildings and be adequate for vehicle loads in driveways.

PIPEWORK THROUGH WALLS

Where new pipework passes through external walls form rocker joints either side wall face of max length 600mm with flexible joints with short length of pipe bedded in wall. Alternatively provide 75mm deep pre-cast concrete plank lintels over drain to form opening in wall to give 50mm space all round pipe: mask opening both sides with rigid sheet material and compressible sealant to prevent entry of fill or vermin.

FIXED EXTERNAL LIGHTING

External light fittings to be fitted as calculated in the DER and in compliance with the Domestic Building Services Compliance Guide.

Light fitting to be either:

- a. lamp capacity not greater than 100 lamp-watts per light fitting and provided with automatic movement detecting devices (PIR) and automatic daylight sensors ensuring lights shut off automatically when not required.
- Or
- b. lamp efficacy greater than 45 lumens per circuit-watt; fitted with manual controls and automatic day light cut-off sensors so that lights switch off when daylight is sufficient.

#NOTE
IT IS ASSUMED THAT A GROUND BEARING CONCRETE SLAB IS SUITABLE FOR THE GROUND CONDITIONS ON SITE, DUE TO THE PROXIMITY OF EXISTING TREES WHICH HAVE BEEN REMOVED IT IS VITAL THAT THE STRUCTURAL ENGINEER VISITS SITE TO INSPECT THE GROUND / FOOTINGS ETC PRIOR TO THE FOUNDATIONS BEING INSTALLED AND ADVISE ACCORDINGLY IF A SUSPENDED FLOOR SYSTEM / CLAYBOARDS ETC NEED TO BE INSTALLED

INSULATED RETAINING WALL CONSTRUCTION

U-value 0.28 w/m²k

Retaining wall construction to long barn rear & side wall to be retaining wall construction to structural engineers details 300mm overall thickness. Retaining wall to be insulated below ground level with 100mm thick Kingspan Styrozone N300 R basement insulation (or similar), tanking system to be installed to external wall such as RIV sheetseal system linked lapped and sealed with wall dpc & floor dpm and installed in strict accordance with the manufacturers recommendations & instructions.

1. THIS DRAWING AND THE COPYRIGHTS AND PATENTS THEREIN ARE THE PROPERTY OF NYP ARCHITECTURAL SERVICES LTD REGISTERED IN ENGLAND AND WALES No. 4631338 AND MAY BE USED OR REPRODUCED ONLY UNDER CONTRACT.
2. CONTRACTORS AND SUB-CONTRACTORS MUST CHECK AND AGREE ALL DIMENSIONS BEFORE PREPARING SHOP DRAWINGS OR COMMENCING WORK ON SITE
3. CONTRACTORS ARE RESPONSIBLE FOR INFORMING THE DESIGNER OF ANY DISCREPANCY DISCOVERED ON THIS DRAWING OR BETWEEN THIS DRAWING AND ANY OTHER RELATED DOCUMENT ISSUED UNDER THE STANDARD FORM OF CONTRACT IN RESPECT OF THE WORK.
4. WRITTEN DIMENSIONS ONLY ARE TO BE USED FROM THIS DRAWING. IF IN ANY DOUBT ASK FOR CLARIFICATION.

Notes.

Revisions.

Date	Suffix	Description
30-07-2018	A	REVISED TO CLIENTS REQ

Date	Suffix	Description

NYP ARCHITECTURAL SERVICES

The Grove, High Street, Dodworth, Barnsley, S75 3JG. Tel: 01226 200889. E-mail: scott@nypas.co.uk / stephen@nypas.co.uk

Project. **8 BLOOMFIELD RISE
DARTON, BARNSELY , S75-5AB**

Client. **MR S NEWBY**

Drawing Title. **BUILDING REGULATION DRAWING
PLANS , ELEVATIONS & SECTION**

Date. **JULY 2018**
Ref. **04/35**

Scale. **AS INDICATED**
Dwg. No. **B02**

Rev. **A**

