PROPOSED SINGLE STOREY REAR EXTENSION AND RELACEMENT DETACHED GARAGE AND STORE at 24, TOWN HILL, BROUGHTON, BRIGG, N. LINCS., DN20 0HD for Mr & Mrs M. Goude. Project No. 18/07.

OUTLINE SPECIFICATION.

1.0. GENERALLY.

1.1. Archaeological Interest : Not applicable.
1.2. Arboriculture Report : Not applicable.
1.3. Flood Risk : Not applicable
1.4. Boundary Issues : None.
1.5. **Radon Gas Protection :** Not applicable.
1.6. **Public Sewer Build Over *:*** Not applicable.
1.7. **Planning Designation :** We are replacing an existing Conservatory with habitable space on an enlarged footprint which is wholly behind the existing dwelling and does not exceed 6m projection or 4m in height. *A Pre-App was submitted ref PRE/2018/69 and a response was received on 2.5.18.*
1.8. **Building Regulations :** Required.
1.9. Ordinary Watercourse Consent : Required
1.10. Drawings & Schedules :
1.10.1. 18/07/01 – Existing.
1.10.2. 18/07/02 – Proposed.
1.10.3. 18/07/03 - Replacement Garage
1.10.4. 18/07/04 – Site Plans.
1.10.5. 18/07/05 – Elevations.
1.10.6. 18/07/LS1 – Lintel & Beam Schedule.
1.10.7. 18/07/CS1&2 – Beam Calculation Sheets

2.0. EXTENSION :

General Notes :

There is a water course 'Moorbeck' running West to East on the Southern boundary to the site to the east exceeding 3m from the extension.
The foul water drainage is at the head of the drain and outfalls to a manhole in 26, Town Hill.

2.1. Site Preparation and Strip :

Protect services under existing paving & landscaped areas.
Locate and protect existing services and drainage before commencing excavations.
Demolish Conservatory.
Break up and remove the conservatory slab.
Check the condition of existing drainage to be retained within the footprint of the proposed and replace as necessary before casting the oversite concrete.
Remove all paving slabs adjacent to the extension and retain for re-use.
Remove topsoil and vegetable matter from the footprint of the new extension.

2.2. Foundations (trench fill) :

Should the subsoil be found to be cohesive (clay) a reassessment of the foundation design may be necessary.
600mm wide concrete (1:2:4).
Depth to underside min 900mm.
Actual width & depth of foundations to be compatible with ground conditions and determined on site with the BCO.
Max loading 15KN per m.r.
Drain runs passing through foundations to be surrounded in expanding foam or something similar to allow movement without fracturing the pipe.

2.3. Footings (up to dpc) :

100mm 4.2N Plasmor Stranlite blocks (1400kg/m.cu) in 1: 3 mortar.
Exposed face work (min 3 courses) to be Class B engineering bricks or equivalent porosity in 1 : 3 mortar.
Mechanically compacted hardcore backfilling under over paving

2.4. Ground Slab (ground bearing) (max U value .20) :

150mm mechanically compacted hardcore
1200g polythene dpm lapped onto dpc's
100mm conc (1:2:4) oversite slab
150mm Kingspan
500g polythene vapour check.
Underfloor heating coils
90mm pea gravel concrete screed
10mm floor finish

2.5. Drainage :

Existing MH3 to be relocated for foundations
Rainwater to be disposed of via soakaway.
If existing soakaway does not have the necessary additional capacity provide new soakaway in the rear garden located a minimum of 5m from any building and designed in accordance with BRE Digest 365. The results of the percolation test to be submitted to building Control in order to justify the size of the proposed soakaway.
All new drainage to be 100mm dia UPVC laid to 1:80 fall beded and surrounded in 150mm pea gravel.

2.6. Air Leakage.

Building envelope to be built in accordance with guidance contained within the 'Robust Construction' manual to limit unwanted air leakage and cold bridging.

2.6. External cavity walls 315mm (max U value .28) :

Two coat render with white masonry paint finish. Arisses and bell stops to be SS with corner protection to bell stops at dpc level.
100mm 3.6N Plasmor Fibolite block (850kg/m.cu)(k = .25 w/m deg C) outer skin in 1:1:6 mortar.
100mm cavities with ss cavity ties at 750mm crs horizontally, 450mm crs vertically in a diamond stagger pattern with additional ties at 300mm crs at openings.
100mm Dritherm insulation.
100mm 3.6N Plasmor Fibolite block (850kg/m.cu)(k = .25 w/m deg C) inner skin 9mm plasterboard dry lining.
Joints to existing masonry in algnment to be cut, toothed and bonded.
Internal joints to existing masonry to be straight joined and secured with Furfix
Cut through for continuous cavity.
Chop into existing walls for cavity tray and code 4 lead cover flashing at roof abutment.
Provide weep holes at 900mm crs at cavity trays
Damp proof courses to be 2000t pvc
Proprietary insulated cavity closers at window and door opening jambs and sills.

2.8. Beams & Lintels :

For beams and Lintels see separate Lintel Schedule.
All spans for beams and lintels to be checked on site before ordering.
All bearings (min 150mm) to be full blocks / bricks fully bonded or concrete padstones as indicated.
Loadings assumed for calculation purposes are as follows :

a) Existing cavity wall 4KN/m.sq.
b) Proposed cavity wall 3KN/m.sq.
c) Pitched tile roof & ceiling 2.25KN/m.sq.

Fabricated steel beam/frame D1 to be designed by supplier. It is to be butt welded construction finished fine for graphite grey powder coating, colour to match that of the door/window framing.

2.9. Roof Carcassing (vaulted traditional) :

50mm x 100mm (C16) wall plate.
38mm x 125mm (C24) rafters at 600mm crs. @ 15 degree pitch
Rafters to be doubled up each side of the roof window trimmed openings.
4No. Roof windows to be located on site.
Ensure that head and cill trimmers are located to accommodate horizontal and vertical splays.
Rafters to be birdsmouthed around plate at eaves and cut to ridge beam at apex and secured with mechanical plate fixings.
Fascias & soffites to be graphite grey UPVC

2.10. Pitched Roofing (max U value .18) :

Santoft 20/20 dark grey concrete roof tiles at 15 degree pitch.
Every tile nailed and installed in accordance with 'Code of Practice for slating and Tiling' ref BS5534.
38 x 22 battens.
Roof Shield (by Proctor) underlay.
Provide min 50mm air gap between insulation and underlay.
Provide min 150mm high code 4 lead vertical skirting flashing at abutment.
75mm Celotex FR575 between rafters and GD5075mm under drawing with taped joints to maintain vapour check (U value .13)
Rockwool to eaves voids.
9mm plasterboard and 3mm plaster skim
Velux roof windows (4No.) installed with splayed heads and cills

2.11. Rainwater Disposal (graphite grey UPVC) :

115mm gutter & 75mm sq fall pipe.

2.12. External Windows & Doors (max 'U' value 1.6 W/m.sq. K) :

Bi Fold Doors and over glazing to be graphite grey powder coated aluminium externally with a thermal break and white internally with 28mm gas filled, high performance double glazed units (max U value 1.6)
Roof Windows to be centre pivot opening Velux ref M06 size 780mm x 1180mm with white polyurethane finish internally and fitted with electrical opening & closing mechanisms (max U value 1.4)
SG – Safety glass.
Trickle vents to be inserted into door and window heads in accordance with Part F.
Door and Window opening sizes to be checked on site prior to manufacture.
Area of glazing to external walls, including allowances for removed areas does not exceed 25% of the net floor area.

2.13. Fire Protection :

Exposed faces of steel beams and lintels to be clad in one layer 12.7mm plasterboard with 3mm plaster skim finish.

2.14. Joinery :

Skirtings – 125mm MDF, Architraves – 75mm MDF.

2.15. Decorations :

Emulsion to walls & ceilings and oil based paint to woodwork.

2.16. Electrical Installations :

All Electrical Works required to meet the requirements of Part P (Electrical Safety) must be designed, installed, inspected and tested by a person competent to do so. Prior to completion the Local Authority – Building Control should be satisfied that Part P has been complied with. This will require an appropriate BS7671 Electrical Installation certificate to be issued for the work by a person competent to do so.
Economy light fitting (ELF) to be installed as indicated on layout drawings or at a rate of 3 in 4 fittings, whichever is the greater.
All new switches and sockets to be in accordance with AD M.

2.17. Heating System :

Water filled under floor heating.
Existing boiler to be checked for sufficient capacity to accommodate underfloor heating.
Installation to be certified at completion by a suitably qualified competent person.

3.0. DETACHED DOUBLE GARAGE.

General Notes :

The intention is to retain the foundation and footing to the Moorbeck side to minimise disturbance to the retaining wall.
We will be applying for 'Ordinary Watercourse Consent' via the NLC Lead Local Flood Authority in respect of the proposed extended foundation adjacent to the Moorbeck watercourse retaining wall.

3.1. Site Preparation and Strip :

Isolate services.
Demolish Garage and break out slab.
Remove topsoil and vegetable matter from the footprint.

3.2. Foundations (trench fill) :

3.2.1. Standard Foundation :

Should the subsoil be found to be cohesive (clay) a reassessment of the foundation design may be necessary.
600mm wide concrete (1:2:4).
Depth to underside min 900mm.
Actual width & depth of foundations to be compatible with ground conditions and determined on site with the BCO.
Max loading 30KN per m.r.

3.2.2. Superimposed Foundation :

Excavate down to the underside of the existing foundation and clean off surface soil.
Drill 20mm 150mm deep holes, in pairs, into the foundation at 45 degrees and grout in 300mm long 16mm m.s. dowels at 600mm crs.
Cast concrete (1:2:4) 200mm thick and 400mm projection from inside face of existing footing.

3.3. Footings (up to dpc) :

Select the required Garage Door before commencement of footings to determine the masonry pier sizes.
100mm 4.2N Plasmor Stranlite blocks (1400kg/m.cu) in 1: 3 mortar.
Exposed face work (min 3 courses) to be Class B engineering bricks or equivalent porosity in 1 : 3 mortar.
Mechanically compacted hardcore backfilling under over paving.

3.4. Ground Slab (ground bearing) :

150mm mechanically compacted and sand blinded hadcore.
1200g polythene dpm.
125mm conc (1:2:4) oversite with steel float finish.
25mm expansion joint filled with compressible material and surface sealed with two part polysulphide flxible filler. Provide 20mm m.s. dowels at 450mm crs embedded one side and sleeved the other to facilitate movement.
Embed a 5mm x 50mm galv m.s. weather bar at door thresholds
External thresholds to fall away from the door face line

3.5. Drainage :

Rainwater disposal to Soakaway.
100mm dia UPVC pipework laid to 1:80 fall beded and surrounded in 150mm pea gravel.
Provide bottle gully for rwp discharge.
Provide new soakaway in the rear garden located a minimum of 5m from any building and designed in accordance with BRE Digest 365. The results of the percolation test to be submitted to building Control in order to justify the size of the proposed soakaway.

3.6. External cavity walls 305mm :

Facing brick, colour and texture to match existing dwelling in 1:1:6 mortar.
100mm cavities with ss cavity ties at 750mm crs horizontally, 450mm crs vertically in a diamond stagger pattern with additional ties at 300mm crs at openings.
100mm Plasmor paint grade block inner skin in 1:1:6 mortar fair faced.
Damp proof courses to be 2000t pvc

3.7. Block Partitions (raised of oversite concrete) :

100mm Plasmor paint grade blocks in 1:1:6 mortar, fair faced.

3.8. Beams & Lintels :

For beams and Lintels see separate Lintel Schedule.
All spans for beams and lintels to be checked on site before ordering.
All bearings (min 150mm) to be full blocks / bricks fully bonded or concrete padstones as indicated.
Loadings assumed for calculation purposes are as follows :

a) Proposed cavity wall 3KN/m.sq.
b) Pitched tile roof & ceiling 2.25KN/m.sq.

3.9. Roof Carcassing (engineered trusses) :

50mm x 100mm (C16) wall plate.
Trusses to be designed by the manufacturer and installed in accordance with their instructions. Calculations to be submitted to Building Control for approval 7 days before installation.
Fascias & soffites to be white UPVC.

3.10. Pitched Roofing :

Dark grey Sandtoft 20/20 tiles to match the extension or flat concrete roof tiles at 35 degree pitch.
Every tile nailed and installed in accordance with 'Code of Practice for slating and Tiling' ref BS5534.
50x 25 battens.
Roof Shield (by Proctor) underlay.
If a dry verge system is to be installed it will comply to BS 8612 : Dry fixed ridge, hip and verge system for slating and tiling. This means that dry verge products must be secured by mechanical means to the face of the batten and not by nailing into the end grain of the batten.
12mm Supalux board ceiling

3.11. Rainwater Disposal (White UPVC) :

115mm gutter & 75mm sq fall pipe.

3.12. External Windows & Doors :

Roller Shutter Garage Door D2
Personnel door to be white UPVC security door D3.
Window to be white UPVC with single glazing
Door and Window opening sizes to be checked on site prior to manufacture.

3.13. Electrical Installations :

All Electrical Works required to meet the requirements of Part P (Electrical Safety) must be designed, installed, inspected and tested by a person competent to do so. Prior to completion the Local Authority – Building Control should be satisfied that Part P has been complied with. This will require an appropriate BS7671 Electrical Installation certificate to be issued for the work by a person competent to do so.
Economy light fitting (ELF) to be installed.
All new switches and sockets to be in accordance with AD M.
An electrical supply will be laid underground from the main dwelling distribution board to a dedicated Garage distribution board.

4.0. EXTERNAL WORKS :

4.1. Patio to Sun Room.

Perimeter foundations and footings
Hardcore filling
Patio Paving
Steps down to existing ground level
Balustrading.

4.2. Forecourt Paving.

Break up existing paving
Mechanically compacted hardcore
Paving to falls away from buildings

4.3. Paths. (North West side of Garage)

Excavate to remove topsoil and vegetable matter.
Lay 75mm concrete (1:2:4) falling away from the building.

4.4. Enclosure wall & Gate (1800mm high)

450mm wide trench fill foundation
Class B engineering bricks below dpc
Dpc to be 2000t
1B wall in facing bricks to match Garage
Two course half bonded plain tile creasing topped with Class A solid engineering brick on edge capping.
Timber Gate.

5.0. OPTIONAL SUGGESTIONS.

5.1. Render rear wall of the dwelling up to first floor level to match the extension (due to the poor quality brickwork patching).