

## Section Rear

Structural calculations/details should be provided for the steelwork highlighted, Details should include, padstone design, connection details, checks on the supporting structure.

## Proposed Steelwork Drawing

Depths shown are the minimum depths required. Please be advised that the foundations must be down to the existing foundation level and below any nearby drainage. This maybe below the depths shown. All excavations 600mm wide.

### Proposed Foundation Drawing

Section Side

## SPECIFICATION

- [illegible]

**Existing Garage Walls** - Line out garage walls with 47mm x 56mm timber studs. Provide a breasheable felt on the outside face of the studwork. Ensure a minimum of 30mm air gap is provided between stud wall and existing masonry. Insulate with a 75mm PIR board between studs ad a 37.5mm insulated plasterboard over.

**Existing garage floor** - Provide a 1200 gauge DPM over existing slab and insulate with 75mm PIR board or sufficient that levels match existing dwelling. Provide a 22mm chipboard over.

Garage Roof - Insulate garage as a warm roof as per section

**Roof insulation to ceiling over Entrance porch:** - Rockwool or similar loft insulation to be provided to ceiling. 100mm between ceiling joists and 200mm running perpendicular to joists.

**Lead Work:** - Code 4 lead flashing and cavity tray to all roof / wall junctions. Cavity tray to be by Cavity Trays limited or other equal and approved, installed in accordance with manufacturer's instructions and recommendations, lead flashing to comply with BS 1178. Valley's to be code 4 lead lined valley supported on 18 x 300mm WBP grade valley board Tiles to be cut and bedded in mortar bedded on an undercloak to provide a 125mm channel.

**Ventilation:** Windows to habitable rooms to have an opening light equivalent to 1/20 floor area of the room. Background ventilation to be provided in all habitable rooms equal to 8000mm<sup>2</sup> provided by trickle vents in the window head not less than 1750m above FFL. Alternatively airtight with bit and miss ventilators located through external walls. Kitchen and utility areas to be provided with mechanical extract ventilation at 30l/s, second plus background ventilation equivalent to 4000mm<sup>2</sup> by way of trickle ventilation, if the extract ventilation in kitchen is not via a cooker hood, then ventilation is to be equal to 60l/s / second. All extractor fan ducting is to be encased with 12mm of plasterboard with skim to provide 30mm/r/s fire resistance where appropriate.

**Finishes** - Timber Walls: 1 layers plasterboard to BS 1230 and Carlite skin. Supported and nailed at all edges to battens, joists or noggins. Block Walls, to be 12.5mm plasterboard and data, or other equal and approved, fixed in accordance with manufacturer's instructions, laid true and even complete with all edge protection as necessary. Ceiling: to be 12.5mm plasterboard to BS 1230 and Carlite skin. Supported and nailed at all edges to battens, joists or noggins, vapour control layer to be provided between the joists and the plasterboard. Where required garage floor: to be power floated to the recommendations of BS 8204. All joints to be well sealed.

**Windows and Glazing:** Windows to be to egress request upcode double glazed windows. Windows to habitable rooms at first floor level and to inner rooms to be fire escape, windows giving minimum clear opening dimensions of 450mm x 750mm. Roof Lights, by Velux, complete with flashing and linings, stylize to be approved by client. All glazing to be double-glazed to BS 5713 and BS 6262, with 20mm air gap and a 'soft' low E coating, or double glazed with a 16mm argon filled cavity and a 'soft' low E coating. U value for windows to be 1.8W/m<sup>2</sup>K, and for doors to be 1.8W/m<sup>2</sup>K minimum. NOTE: Due to amount of glazing required a SAP calculations will be required to be provided by Building Control to prove compliance. All glazing below 600mm in windows and glazed panels in doors below 1500mm and glazing within 300mm either side of

Smoke Alarms: Smoke alarms and heat detectors to be mains wired and interlinked, within 3m of bedrooms and 7m of other rooms, to BS 5833.

**Lighting:** 1 out of 3 rooms to be illuminated with energy efficient lights, the circuit is only to take lamps having a luminous efficiency greater than 40 lumens per circuit watt.

**Hot water Drainage.** All drainage pipe work to be Pvc 50mm (min) diameter, deep seal traps to be provided to all fittings. Hot and cold water systems: All service pipes to be either copper or PVC and be insulated throughout their length.

**Rainwater goods** - Rainwater pipes, gutters and fittings to be upvc to match existing. Fitted in accordance with manufacturer's instructions and recommendations. Surface water to be taken back to existing surface water drain.

**Heating/Hot water** - Existing heating system to be investigated by corgi registered plumber before work commences. If possible existing hot water/central heating system to be extended. System to be designed to meet Clean Air Act and provide 21°C in living rooms and 18°C in bedrooms when external temperature is -1°C. Radiators to be fitted with thermostatic radiator valves. If new boiler is fitted it is to be installed as per the Office of the Deputy Prime Minister Publication "Domestic Heating Compliance Guide".

**Existing structure** - Where new work is to be carried out all existing structure to be removed. All sanitary and kitchen fittings and shelving to be removed. All drainage that is

**Others** - All fitted furniture, kitchen and bathroom fittings, to be selected by client and installed to the manufacturer's instructions and recommendations.

reasonably be painted with 2 coats of black bituminous paint.

All dimensions and loads are to be checked on site prior to commencement of work. All work and materials are to be in accordance with the relevant British standards. Codes of practice and Trade recommendations and instructions. All Party Wall issues are the responsibility of the homeowner. All CDM requirements must be assumed by the chosen principle contractor.

Flat roof to be formed as follows:

- 4mm, 40 x 100mm joists at 400mm c/c
- Furring to create fall as required.
- 18mm external OSB
- Vapour control layer
- 120mm PIR insulation

- 18mm external OSB
- Approved weatherproof covering

mm std walls filled  
with 100 mm  
polyisocyanurate  
insulation and  
12.5mm  
gypsum board

walls to be fully filled with cavity batts and achieve a maximum U' value of 0.28w2mk.

Floor to be formed as follows: 150mm compacted hardcore, 25mm sand blinding, 1200 gauge DPM, 75mm PIR board, 500 gauge separating layer, 25mm perimeter

insulation and 100mm concrete slab.

Foundations to be taken down a minimum of 900mm below existing ground level.  
Final details to be in accordance with Building Regulations.

Final depth set by balancing control.

Section Side

## Week 1: Designing

# panda Design

10 Cotcliffe Way, Nunthorpe.

urn: KJS	Client: Mr & Mrs Nzekwe	:
----------	-------------------------	---

Postcode: LS	Address: 7 Moor Park Eaglescliffe
--------------	--------------------------------------

	Stöckton-on-Tees	
--	------------------	--

ext.: Two storey rear extension, single storey side extensions, front extension, part garage, pergola canopy to side & 1.8m timber fence.

---