Roof construction:

New section of roof constructed of interlocking tiles to match existing installed to manufacturers recommendations on 38x38 fully treated battens on sarking felt on built up roof formed of

- 38x150 rafters at 400mm cts
- 38x225 ceiling joists at 400mm cts.
- 38x300 purlins
- 38x300 main collars at approx. mid span.
- 75x150 ridge beam
- 75x150 gallows at ridge
- 38x150 wallplate and ceiling tie at mid span.
- 38x150 wallplate and pole plate.

All structural timber to be grade SC3 and marked dry or kiln dry.

Roof pitch approx. 35°.

Install small area of built up roof above front bedroom window formed by reducing the rafters on 38x100 rafters and tiled together with 25x175 layboards.

Retain small area of pitched roof over front of garage with rafters and ceiling joists built into new wall. Install code 4 lead flashing at top of this roof contained with cavity tray dpc.

Eaves and verge construction to match existing including corbelled brick to rear garage. Install min. 1400mm² per metre roof void ventilation strip to new eaves.

Install preformed fibreglass valley gutters.

Install 3.2mm mild steel straps between roof structure and walls @ 2000 cts. Straps installed at ceiling level and at slope of roof where straps at right angles to timbers they are to extend over 3no timbers supported by noggings.

Roof insulation:

Install 1 layer of 100mm thick fibreglass quilt between joists and 1 layer of 150mm thick quilt over joists. Maintain roof void ventilation at eaves. Average U value 0.15 w/m²k (0.04 w/mk).

Floor insulation:

Install 200mm thick fibreglass quilt insulation between joists above garage.

Suspended floor:

Constructed of 18mm thick T and G flooring grade chipboard on 38x147 joists at 400mm cts. Joists over garage to either increased to 300mm depth or packed out to provide 200mm deep void for insulation. Install solid strutting at mid span.
Install double joists bolted together below stud partition.

Retain existing ceiling and joists over utility, W.C. etc with joists supported from new floor joists.

Ceilings:

Install 12.5mm thick plasterboard ceiling with 'Artex' finish at first floor with all joints and perimeter scrimmed. Install 12.5mm thick Gyproc fireline board ceiling with Artex finish to garage with perimeter scrimmed. Form ceiling to extend under new lintel to front wall of extension.

Cavity wall:

Constructed of 102mm facing brick, 75mm cavity and 100mm thick Thermalite standard block with 9.5mm plasterboard and skim on slope as internal finish.
Cavity insulated with 75mm thick Dritherm or equivalent standard insulation batts installed as to manufacturers recommendations. Average U value 0.35 w/m²k.
Dpc's insulated at dpc to reveals with frames lapping by min. 15mm

Wall ties to be installed at 900mm cts horizontally, 450mm cts vertically and at 225mm cts within 225mm of reveals.

Steel fins at cavities.

New face brickwork fully bonded to existing with blockwork bonded into wall at stepped profiles.

Install cavity tray dpc above ground floor lintels.

Lintels:

Install IG type LI/S75 steel lintel to 2no new window openings and IG check existing ground floor lintels for suitability. IG type LI/HD75 over garage.

Foundations:

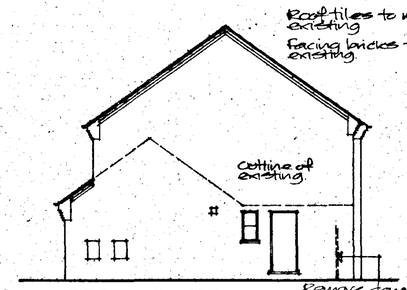
If required the existing foundations are to be exposed to confirm suitability.

Windows:

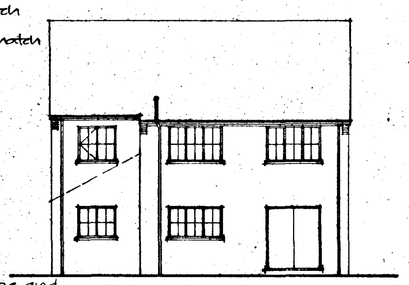
New upvc window frames as existing to be double glazed with sealed units to provide min. 2.0 w/m²k standard. Opening lights to be straight sashes. Install trickle vents to give min. 8000mm² background ventilation. Opening lights to provide min. 1/20th of floor area as ventilation and are to be suitable as fire escape windows.



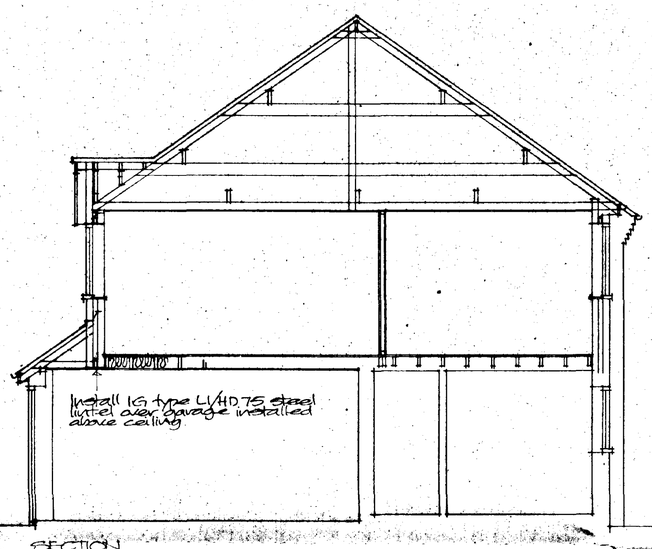
FRONT ELEVATION



SIDE ELEVATION



REAR ELEVATION



SECTION

Stud partitions:

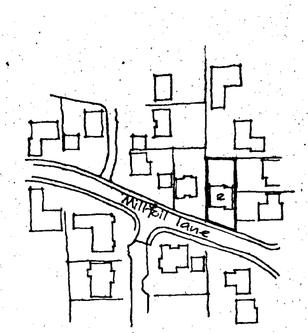
Constructed of 50x75 studs at 400mm cts with 50x75 sole and head plates and noggings at 1.200 cts clad both sides with 12.5mm plasterboard and skim. Install fibreglass quilt packing between studs.

Heating:

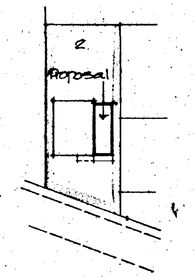
Extend existing heating system into proposal with thermostatic valves fitted to all new radiators and hot water pipes insulated with Armaflex or similar at thickness to match pipe outside diameter.

Gutters and dampipes:

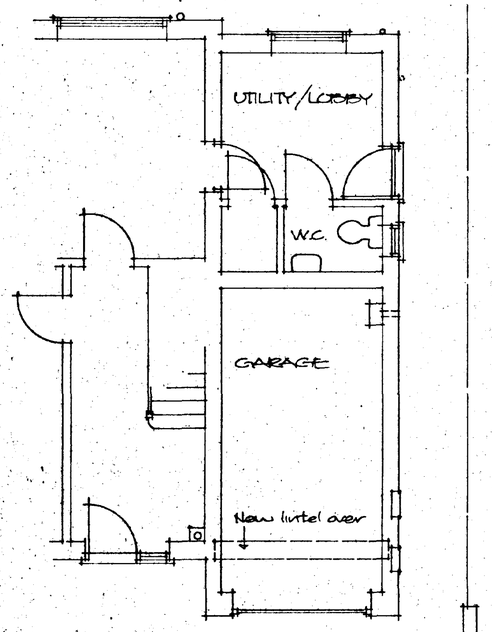
New upvc gutters and dampipes to match existing. New dampipe at rear connected to existing stormwater drain from existing redundant dampipe.



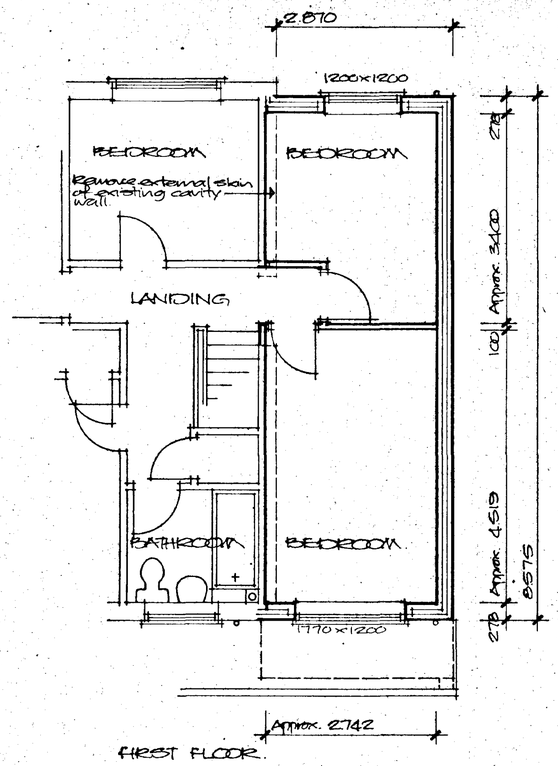
LOCATION PLAN Scale 1:1250



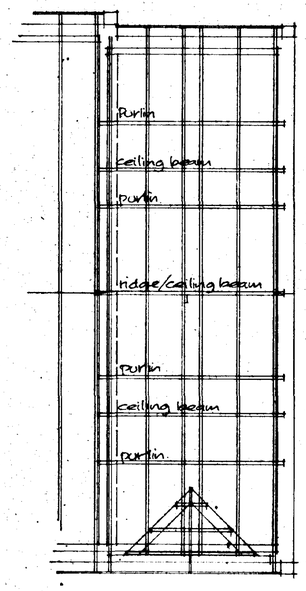
BLOCK PLAN
Scale 1:500



GROUND FLOOR



FIRST FLOOR.



ROOF STRUCTURE LAYOUT

DETERMINED PLAN

Sent: Planning & Development 14 MAY 2002 Ref 0578/02

BROADGATE BUILDERS LTD
The Race Ground
Spalding
Lincolnshire
PE11 3AP
Telephone: 01775 725616
Fax: 01775 725097

Project
PROPOSED EXTENSIONS TO HOUSE 2 MILLFOIL LANE, CURLEW DRIVE, COWBIT.

Client
MR & MRS JARVIS

Scale 1:50/1:100 Date MAY 02.