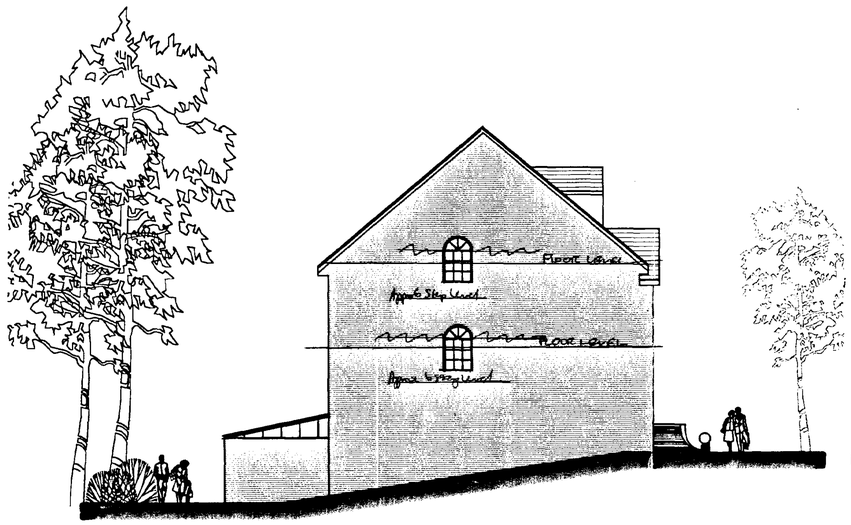
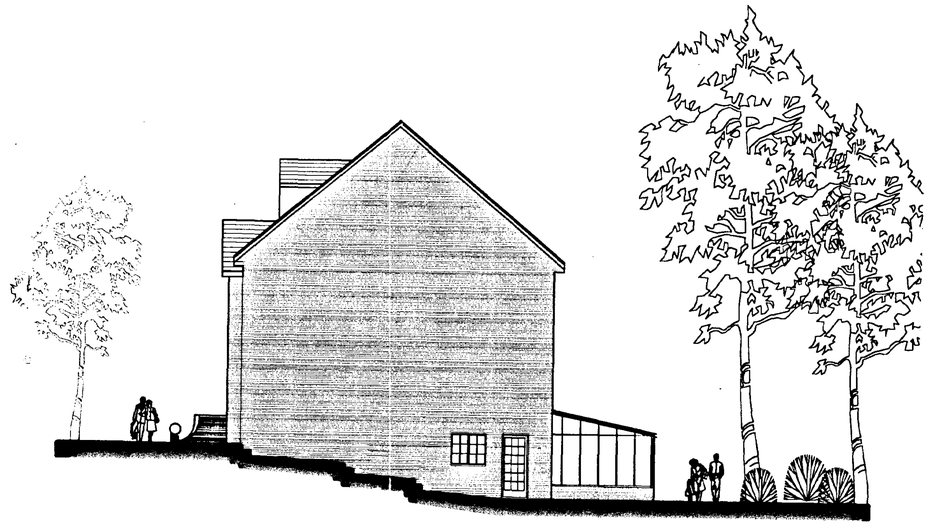


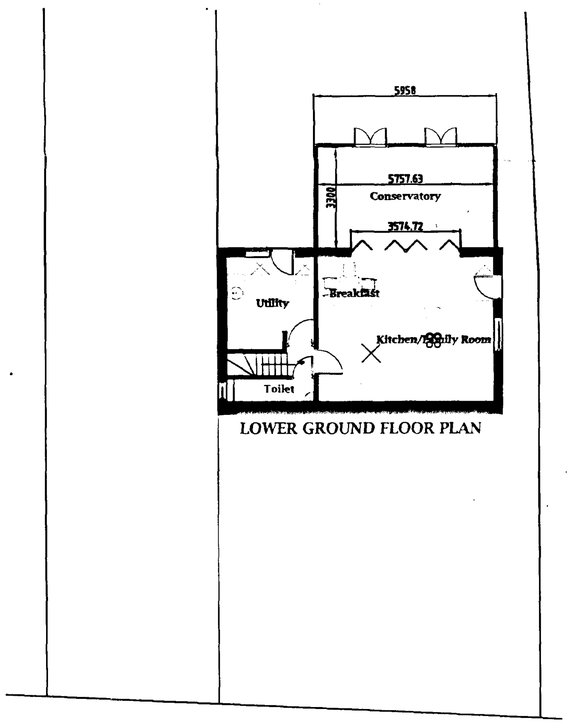
PROPOSED NORTH ELEVATION



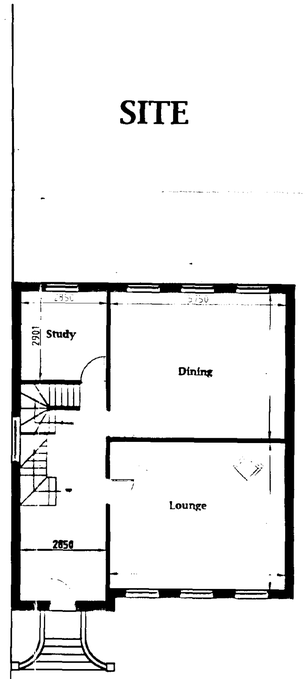
ELEVATION TO RIVER WELLAND



PROPOSED SOUTH ELEVATION

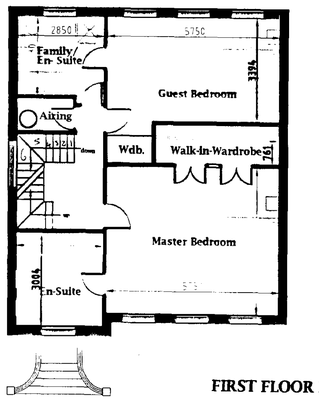


LOWER GROUND FLOOR PLAN

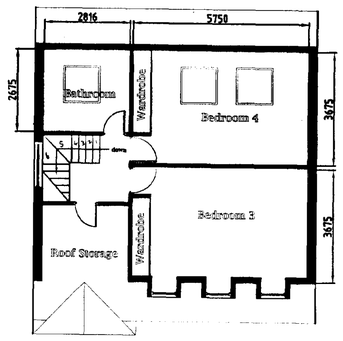


UPPER GROUND FLOOR PLAN

SITE



FIRST FLOOR



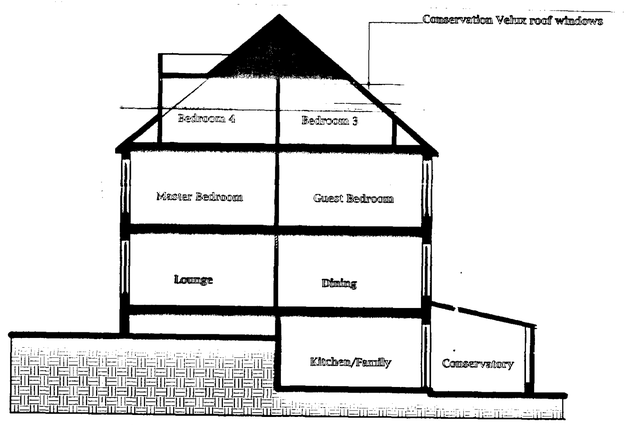
ATTIC FLOOR PLAN

EXTERNAL MATERIALS

Walls :- Red sandfaced facing bricks

Roof :- Natural blue/grey slates.

Windows :- Wood windows painted white.



SECTION THROUGH HOUSE

Scale : 1:100

COWBIT ROAD

FOOTPATH

COWBIT ROAD

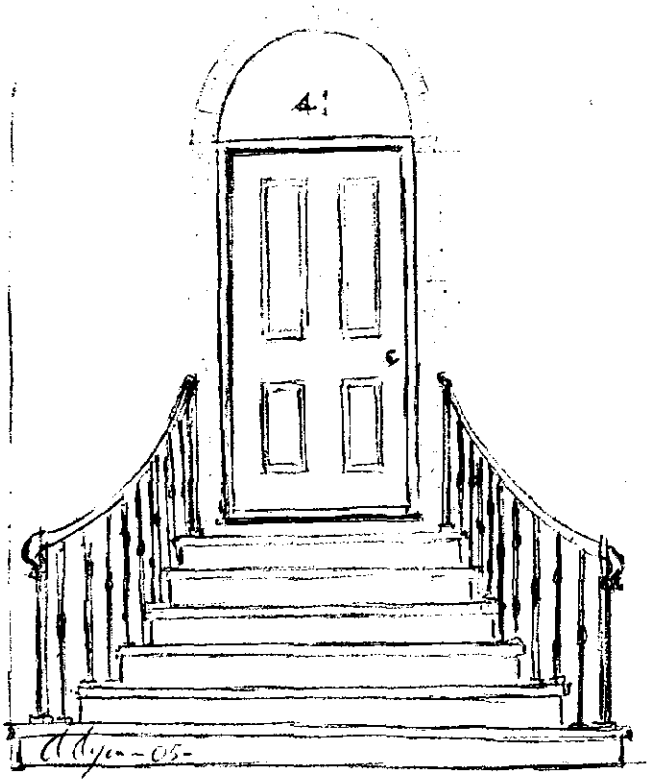
SHDC
Planning & Development
19 JUL 2001
Ref. 847/a

DETERMINED PLAN

JOHN D LYNCH
partnership
CHARTERED ARCHITECTS

Client: Mr & Mrs S & I Howes	
Project: New Dwelling No. 41 Cowbit Road, Spalding	
Drawing: Elevations, Plans and Section	
Date: July 2001	Drawn: JDL
Job No.: 1530	Drawing No.: AB1
Scale: 1 :100	Revision No.: A

SOUTH HOLLAND CUSTOMER SERVICES
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2 3 MAY 2005
BY
CS



1D

SHDC
Planning & Development
2 3 MAY 2005
Ref: 0847/02

AMENDED PLAN
Ref. A6



SITE PLAN
Scale 1:200

LOCATION PLAN
Scale 1:1250

A1

Planning Department SHDC
- 4 JUN 2003
0847/02

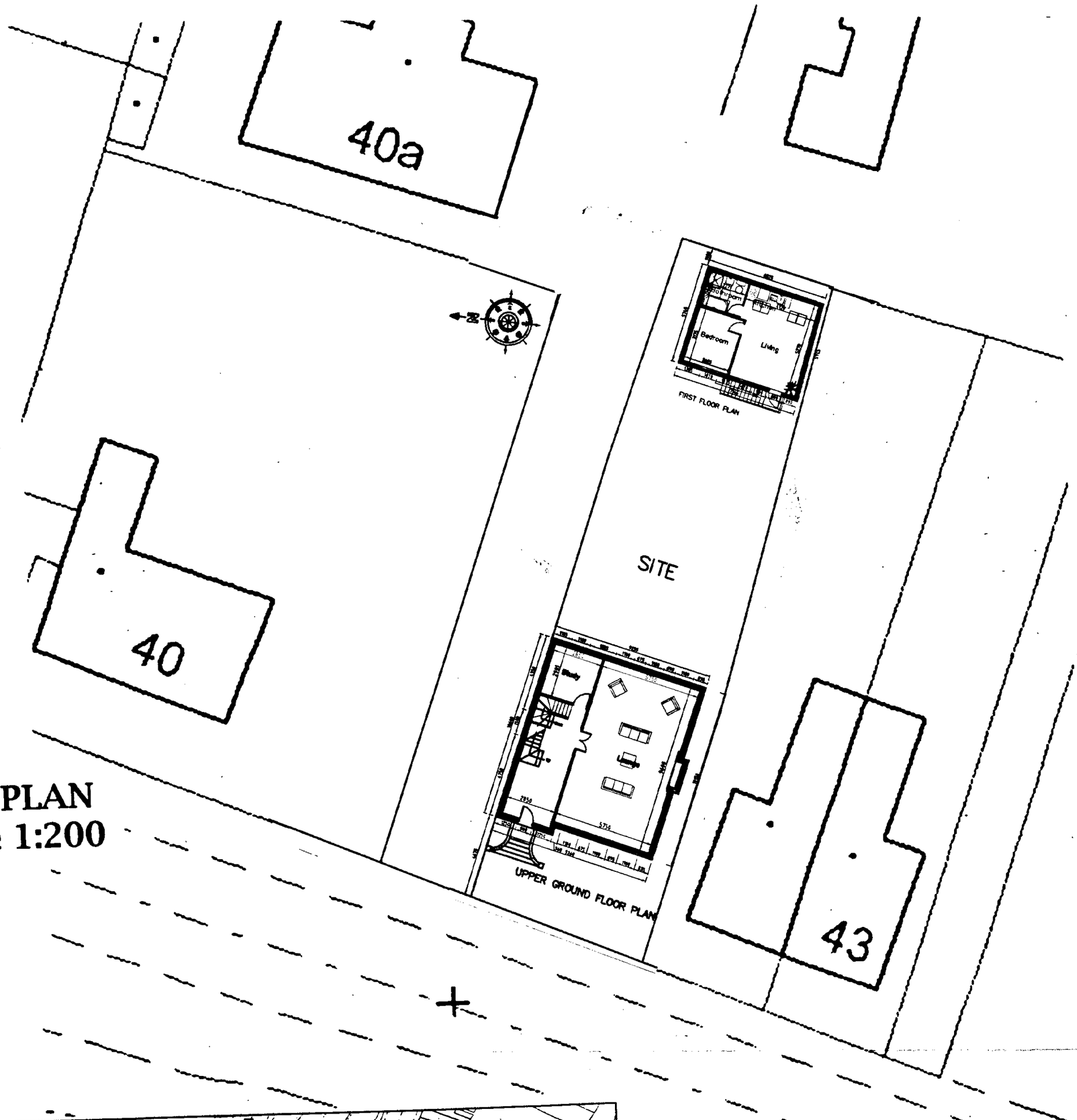
JOHN D LYNCH
partnership
CHARTERED ARCHITECTS

Client
Mr & Mrs S & I Howes

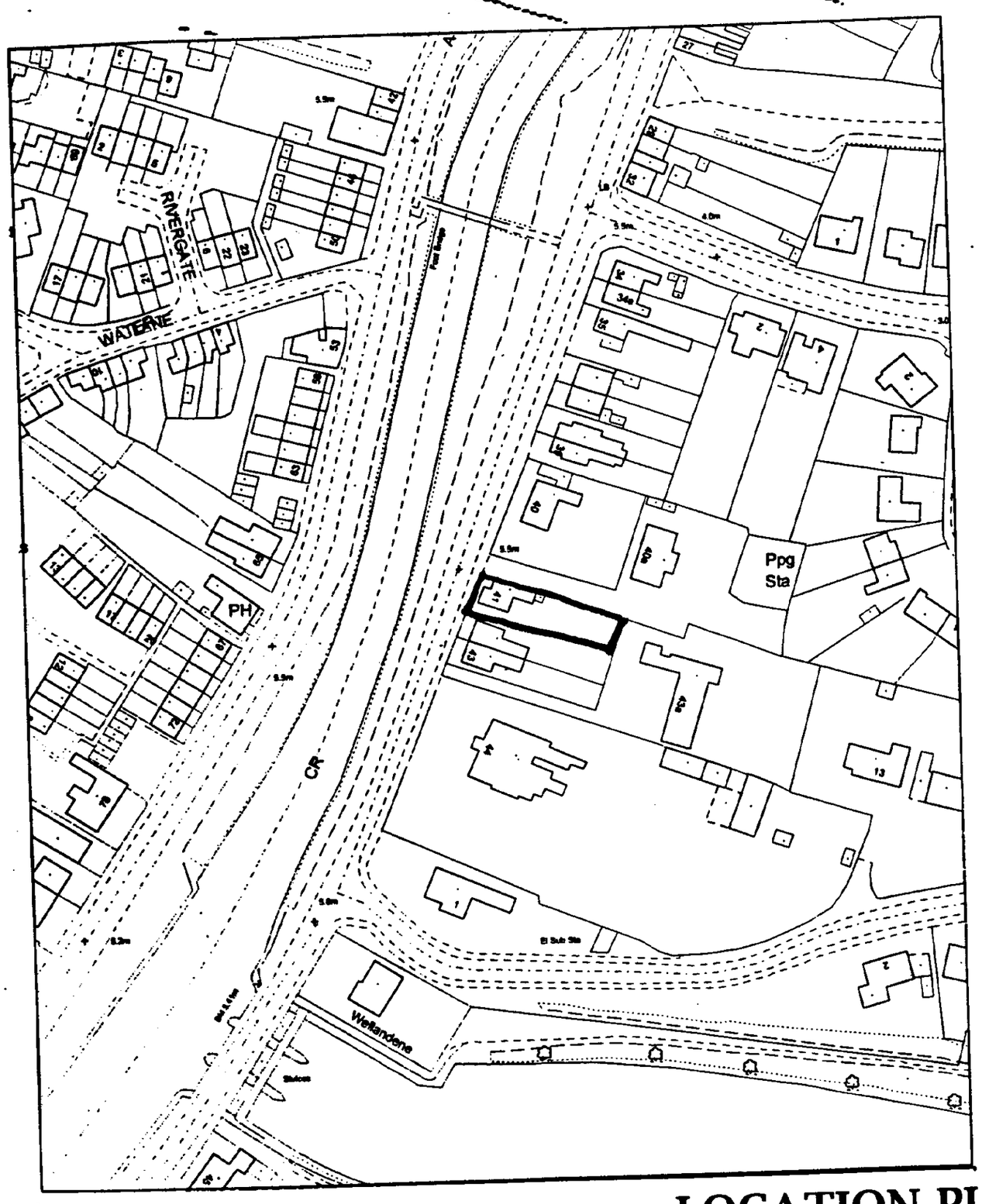
Project
Application to demolish existing dwelling

Drawing
Site and Location Plans

Date :	*Drawn*
Nov. 2001	**JDL**
Job No. **1530**	*Drawing No.* **Dem/1**
Scale. **1:50**	*Revision No.*



SITE PLAN
Scale 1:200



LOCATION PLAN
Scale 1:1250

AMENDED PLAN
Ref. A4

SHDC
Planning & Development
2 3 JUL 2004
Ref: 847/02

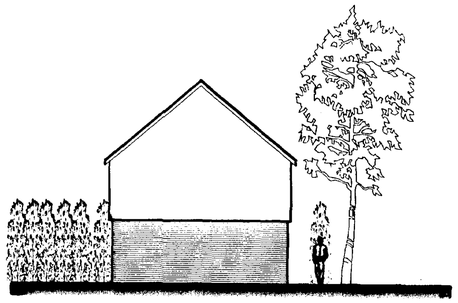
JOHN D LYNCH
partnership
CHARTERED ARCHITECTS

Client
Mr & Mrs S & I Howes

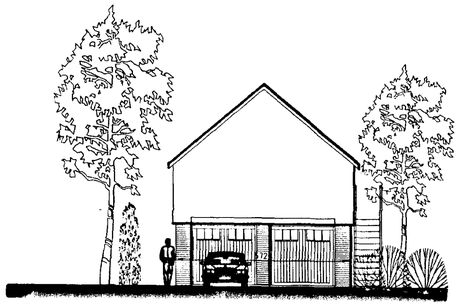
Project
Application to demolish existing dwelling

Drawing
Site and Location Plans

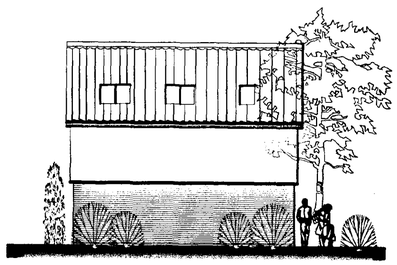
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Nov. 2001	**JDL**
Job No. **1530**	*Drawing No.* **Dem/1**
Scale. **1:50**	*Revision No.*



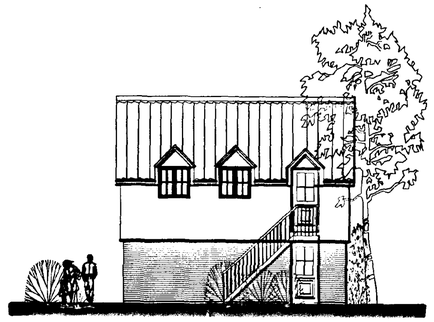
SOUTH ELEVATION OF GARAGE



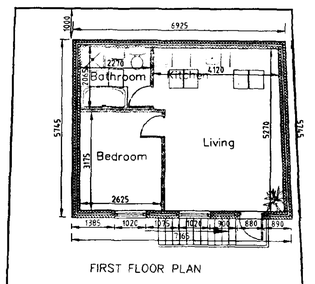
NORTH ELEVATION OF GARAGE



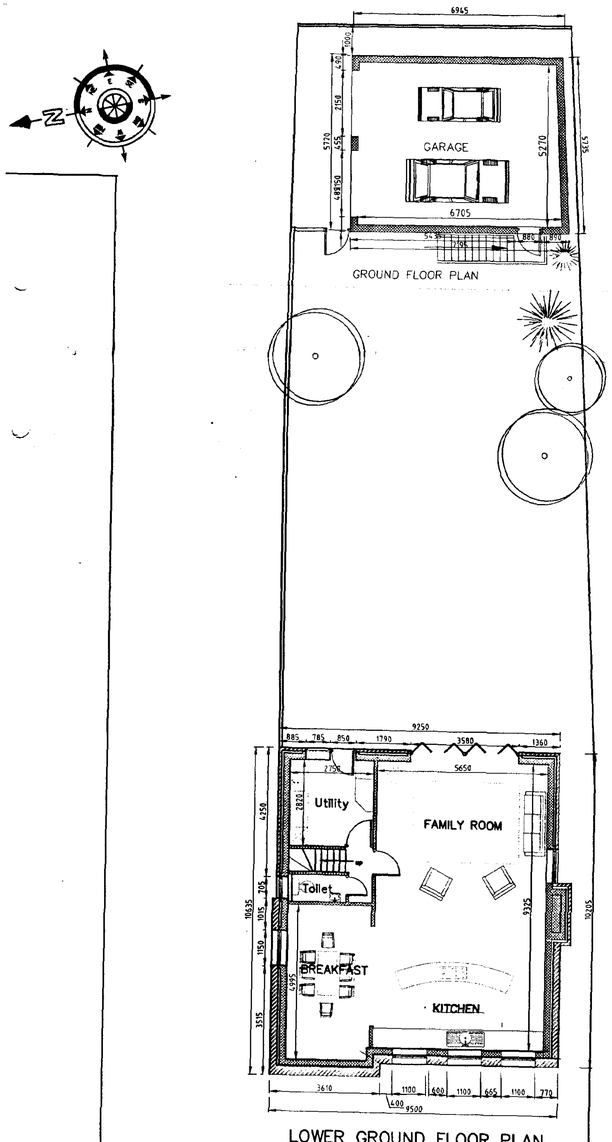
EAST ELEVATION OF GARAGE



WEST ELEVATION OF GARAGE

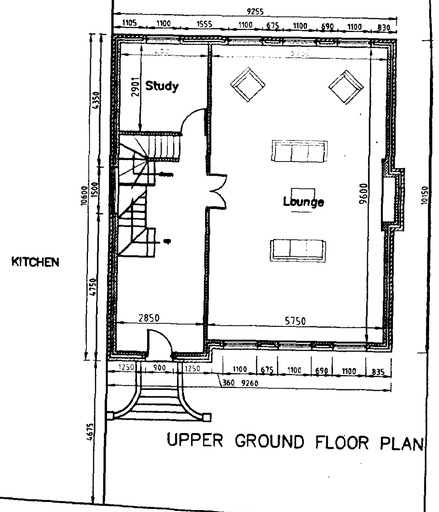


FIRST FLOOR PLAN



GROUND FLOOR PLAN

SITE

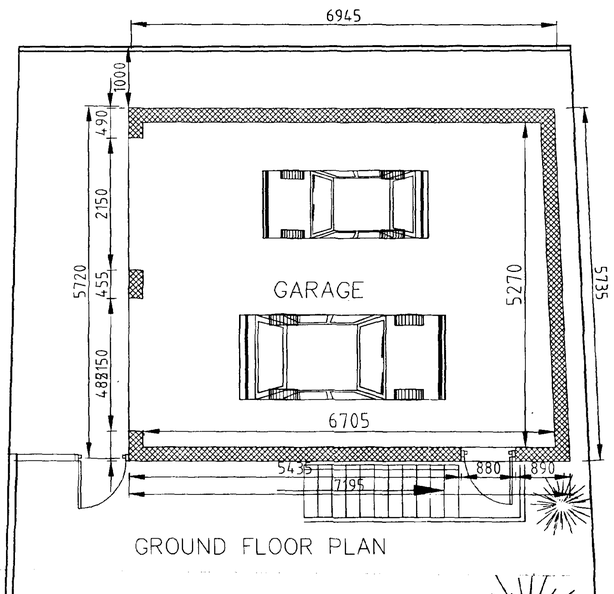


UPPER GROUND FLOOR PLAN

No. 42

LOWER GROUND FLOOR PLAN

No. 42



GROUND FLOOR PLAN

AMENDED PLAN
Ref. A1
SHDC
Planning
- 4 JUN 2003
Ref. 0847/02

JOHN D LYNCH
partnership
CHARTERED ARCHITECTS

Client:-
Mr & Mrs S & I Howes

Project:-
New garage and Flat over

Drawings
Elevations & Plans

Date :	Drawn
May 2003	**JDL**
Job No. **1530**	Drawing No. **AG/2**
Scale. **1:100 & 1:50**	Revision No. **A.**



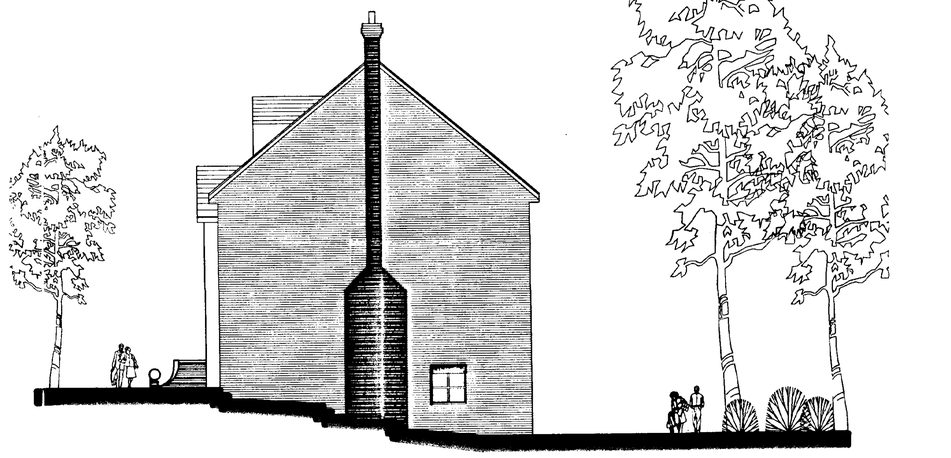
ELEVATION TO RIVER WELLAND



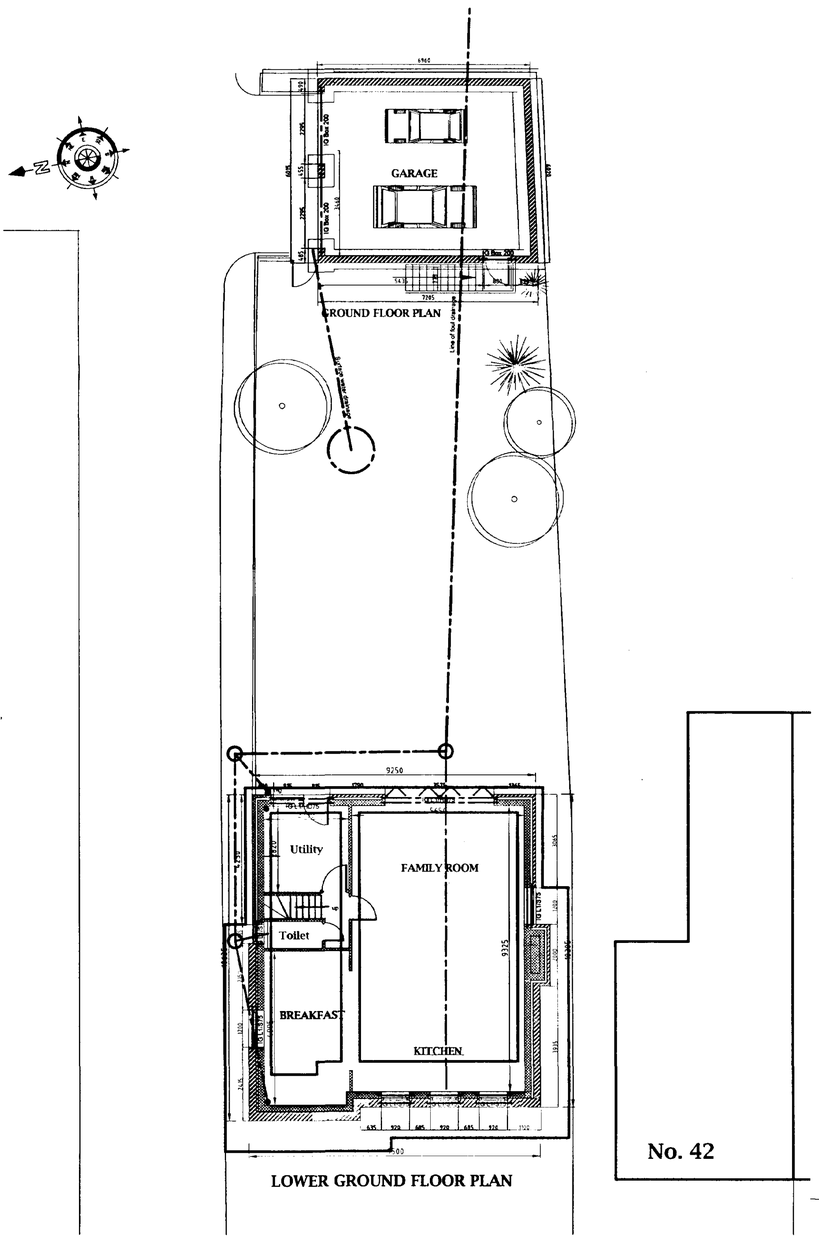
PROPOSED REAR ELEVATION

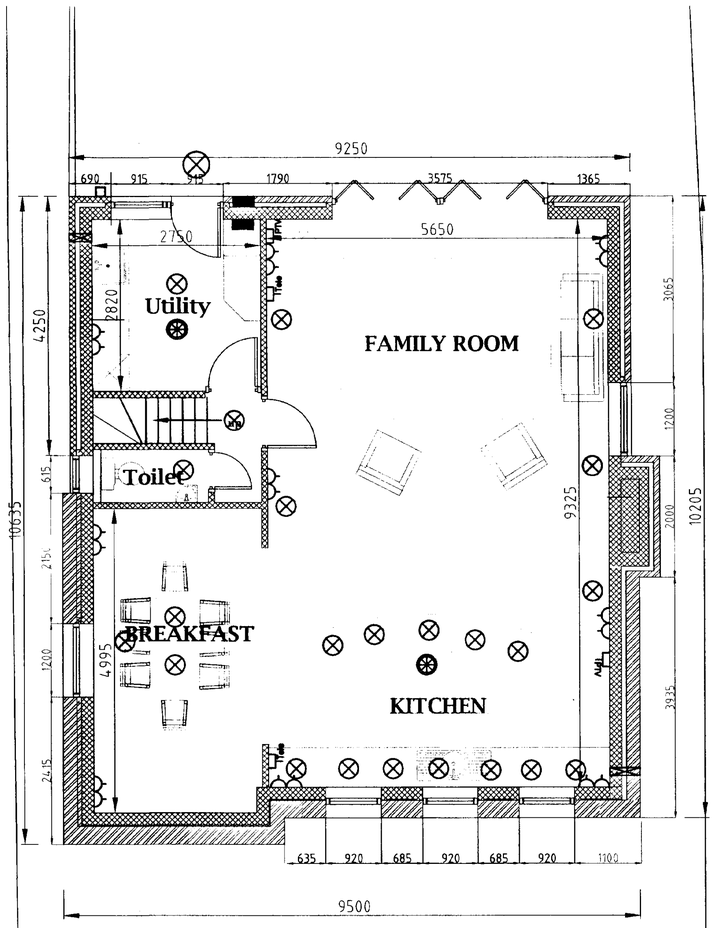


PROPOSED NORTH ELEVATION



PROPOSED SOUTH ELEVATION





LOWER GROUND FLOOR PLAN

No. 42

ELECTRICAL SYMBOLS

- Power points
- Light
- Smoke alarm
- Extractor fan
- Meter Box
- Distribution board

2 0 AUG 2003

Fic 0847/02

JOHN D LYNCH partnership
CHARTERED ARCHITECTS

Client:-
Mr & Mrs S&I Howes

Project:-
New Dwelling & Garage at 41 Cowbit Road, Spalding

Drawings
Lower ground floor plan, site Plan & elevations

Date	Drawn
July 2003	JDL

Job No.	Drawing No.
1530	WD2

Scale.	Revision No.
1:100	A

INTERNAL BLOCK PARTITIONS

Internal non loadbearing partitions unless otherwise stated are to be 100mm Toplite GTI lightweight blocks.

DAMP PROOF COURSE

Build in Hyload DPC to CP102 to all walls minimum 150mm above ground level and inner leaf linked with the DPM of floors. Provide vertical DPC around the perimeter of all external openings as cavity closers. All DPC's to be bedded on mortar.

Flues are to be provided with a DPC at their junction with the roof by the use of three courses of clay engineering bricks to BS 3921 laid break bond.

NEW WALLS

Walls to be dimensions shown and in strict accordance with BS 5628:Part 3:1985.
Below DPC (in 1:3 cement/sand)
Cavity walls above DPC to comprise internal skin of Toplite Standard 100mm concrete blocks with 90 mm cavity. External skin of FL Grade brickwork to terminate minimum 2 courses below ground level then continue in facing brickwork to DPC. Internal skin (including internal 100mm walls) below DPC to comprise 100mm Toplite Hemelite Standard concrete blocks.
Cavity to be filled to ground level with weak mix concrete splayed outwards.
Walls above DPC (in 1:1:6 cement/lime/sand)
Cavity walls to comprise 102.5mm outer skin facing brickwork, 80mm cavity containing 40mm Celotex double-R "tuff-R" CW2040 insulation, a 50mm clear cavity and an inner skin of 100mm Toplite Standard concrete blocks to give a minimum U value of 0.35W/m.sq. C. Cavities closed at heads of walls and at all openings by closing blockwork onto brickwork building in Hyload Vertical DPC with Celotex double-R "tuff-R" CW 2025 Insulation behind to give 1.2W/m.sq. C. Build in stout stainless steel wall ties with insulation retaining discs at maximum 750mm ctrs horizontally and 450mm ctrs vertical with extra ties at openings at every block course where the cavity is closed.
Wall ties and cavity insulation to be built all in accordance with manufacturers recommendations.

All facing brickwork to be durability designation FL

SUSPENDED CONCRETE FLOORS

Suspended concrete floors to comprise Jetfloor Precast Concrete system type Jetfloor Standard 150mm deep and 215mm wide precast beams Ref No. RDJ4 laid to Manufacturers recommendations. System to incorporate 100mm deep building block infills, spacers and infill blocks where necessary.
Top beam and block with a levelling slurry to receive 60mm Celotex double-R FL2060 insulation slabs covered with 1200 gauge polythene damp proof membrane turned up at all edges.

Floor to be topped with a 65mm concrete screed incorporating a warm water underfloor heating pipework system.

NEW FOUNDATIONS

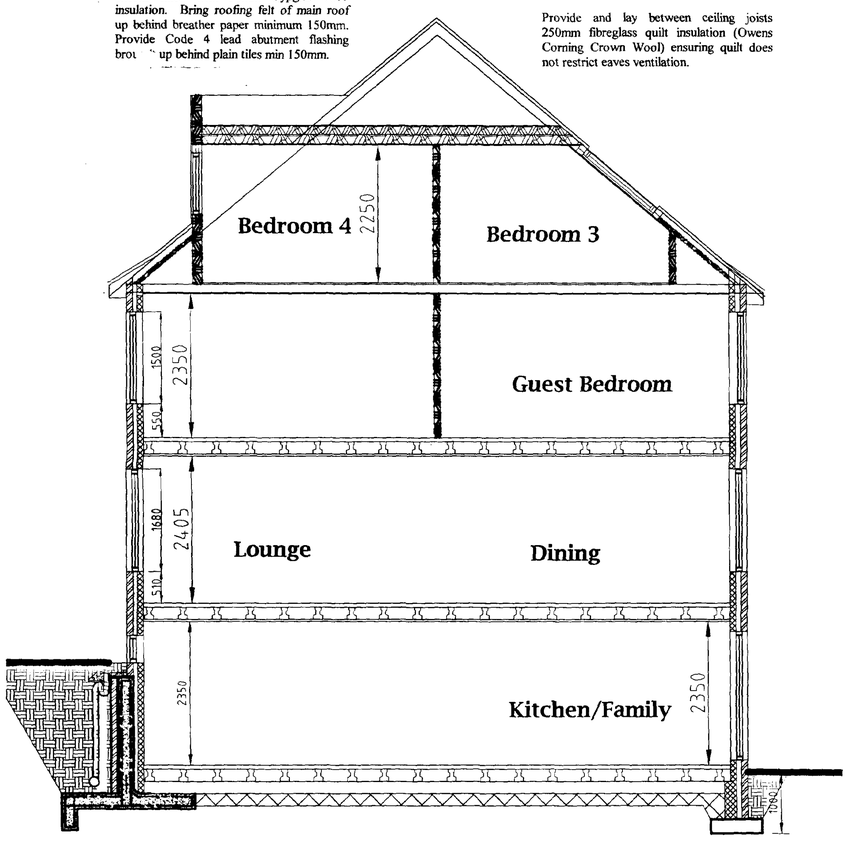
Strip foundations to be ST1 concrete to BS 5328:1981 225mm thick and minimum of 800mm below ground level but local ground conditions to be taken in consideration and final depth to be taken down to firm load-bearing strata and to Local Authority satisfaction.
Foundation width to be :-
Cavity walls 850mm
Internal loadbearing wall 765mm
External and Internal 100 mm load-bearing walls 600mm.
225mm load-bearing walls 700mm
(Non-load-bearing walls to be built off 225mm thickened floor slab).

DORMER WINDOWS

Roof covering to be as main dwelling, all on 125 x 47mm SC3 rafters at max 400mm ctrs. Dormer cheeks to comprise 50 x 100mm studs with 100 x 50mm head and sole plates. Internal side to be Gyproc Wallboard Duplex and skim. External side of dormer cheeks to be vertical plain tiles to match main roof on 38 x 19mm treated softwood battens on 38 x 19mm softwood treated counter battens on untearable breather paper on 9mm external grade plywood fixed to studs. Void of dormer cheeks filled with 90mm Gypglas 1005 insulation. Bring roofing felt of main roof up behind breather paper minimum 150mm. Provide Code 4 lead abutment flashing brou[illegible] up behind plain tiles min 150mm.

INSULATION

Provide and lay between ceiling joists 250mm fibreglass quilt insulation (Owens Corning Crown Wool) ensuring quilt does not restrict eaves ventilation.



SECTION THROUGH HOUSE
Scale : 1:50

RETAINING WALL

By specialist engineer and constructed in RC 40 to engineers design specification and calculations. Cover to all reinforcement to be a minimum of 40mm with 300mm laps horizontally.
Construction joints to be sealed with the locations agreed with the engineers. Stone backfill to be carefully compacted in 200mm layers using a vibrating plate.

ACCESS FOR THE DISABLED

The dwelling is to be so designed and constructed as to comply with the requirements of the latest amendments to Part M of the Building Regulations in respect of access and facilities for the disabled with the approach, thresholds, staircases and doorways. The access route for the disabled is to be through the rear patio, garden room and French windows
The minimum requirements for the provision of accessible switches and socket outlets, space in corridors and toilets are to

FIRE ALARM SYSTEM

To BS 5839
Fire Alarm System to be automatic heat and smoke detectors serviced by mains supply and mains operated. Heat & smoke detector alarm system to be wired back to fuse board in accordance with BS 5446. All alarms within the dwelling are to be positioned as shown on the drawings and interconnected.
Internal doors to all habitable rooms throughout the dwelling are to be fitted with self closing devices and to be half hour fire resistant.

EXTRACTOR FAN

Extractor fans are to be Expelair built in extractor wall fans, model no WX9 complete with time delay facility up to 20 minutes. Wall fan is to be installed strictly in accordance with the manufacturers instructions.

FIREPLACE & FLUE

Fireplace to be 800 x 600 x 500mm high. Open fire to have class 1 flue, comprising of 250mm diameter HA/refractory concrete flue lining, laid socket uppermost with combined lintel/gather unit. Void around flue to be fully filled with mortar as work proceeds. Hearths to class 1 appliances to be 500mm min projection and 300mm min wider than recess, 125mm min thickness (comprises floor slab and screed). Ventilation to class 1 installations to comprise 2no. 225 x 150mm Stadium plastic louvre air brick, sleeves and internal hit and miss grille (2500mm2 free air) 225mm above DPC. Brickwork stack to terminate 600mm above ridge line finished with brickwork detail

ROOF CONSTRUCTION

Roof to be constructed with prefabricated "Room in the Roof" trussed rafters fixed strictly in accordance with the Manufacturers instructions and to BS 5268 pt. 3 1985. Roof pitch to be to match the existing pitch.
Manufacturers details and calculations for the prefabricated trusses are to be submitted to the Local Authority for approval not less than 28 days prior to fixing on site.
Wall Plate to be 100mm x 50mm and to be fixed with BAT straps 30mm x 50mm x 1000mm long at 2000 ctrs.
All bracing for prefabricated trusses to be in accordance with BS 5268 Part 3 : 1985 and to be 100mm x 25mm diagonals and longitudinals to be nailed to each truss member. During construction, trussed rafters should be provided with temporary wind bracing.
All members to be Celcure treated or similar approved. All structural timbers to be kept 40mm clear of chimney/flue blocks etc

WALL AND ROOF STRAPS

Secure each structural member to wall plate using BAT galvanised steel joist framing anchors all in accordance with the Buyilding Regulations Section A1/2 items 1C33 to 1C38 and shown on diagrams 18 & 19.
Wall Plate to be 100mm x 50mm and to be fixed with BAT straps 30mm x 50mm x 1000mm long at 2000 ctrs.

WINDOWS/DOORS OPENING

To be manufactured and supplied by an Approved manufacturer and supplied and installed to conform to the revised requirements of Part L1 of The Building Regulations 2000 as specified, weather stripped and beaded for double glazing with 16mm air gap to sealed units. Windows in habitable rooms to provide head ventilation giving 8000sq mm free air ventilation and have min 1/20th floor area opening lights. Patio doors ventilation of 10,000sqmm, if no opening lights are provided.
Windows to Kitchen, and WC to be provided with head ventilators giving 4000sqmm of free air ventilation.

EMERGENCY EGRESS

All windows to habitable rooms to have at least one opening window to provide a minimum of 0.33 sq. metres of clear opening with a minimum clear horizontal or vertical dimension of 450mm for escape purposes.
Sill height from finished floor level to be not less than 800mm and not greater than 1100mm.

Second floor bedroom windows to have a Davis safety escape ladder wall mounted adjacent to opening window.

LINTELS

To be fabricated from galvanised steel to BS EN 10142 1991 Specification for hot dipped zinc coated steel. Lintels to be as manufactured by IG Limited, as indicated on lintel schedule to BS 5977. Provide cavity trays over all external lintels and 2no. Weep holes. Lintels to have minimum 150mm end bearing and to be installed in accordance with manufactures details and instructions.

STEELWORK

All exposed steelwork internally is to receive Gyproc Fireline Board with taped and filled joints system to provide fire protection to structural steel sections in accordance with BS 476 Part 8:1972.
Provide the required no of layers of fire protection board determined by the situation in accordance with the manufacturers instructions and in accordance with BS 4 Part 1: 1980 .

VELUX ROOF WINDOWS

Roof windows are to be Velux type GGL installed complete with all flashings and linings as supplied by Velux and installed strictly in accordance with the Manufacturers specifications and details.

ROOF VENTILATION

Provide Glidevale ventilators at eaves to provide the equivalent of 25mm continuous ventilation.
Provide and fix Glidevale ridge ventilators to ridges to give the equivalent of 5mm continuous ventilation.
Maintain 50mm min air gap over insulation at rafter positions.

ROOF ACCESS

Construct roof access between pair of trusses as shown. Fix 125 x 75mm trimmers and line out opening with 32mm rebated sw lining to form min 750mm wide opening between trusses. Roof access panel to be 22mm blockboard insulated on upper surface with 40mm Celotex double-R GA 2040 high performance insulation.

VENTILATION

All window opening lights to exceed 1/20th *of room floor area.*
All habitable rooms to have trickle vents (8000sq.mm free air).
Windows to Kitchen, Utility room, Bathrooms and WC to have trickle vents (*4000sq.mm free air*). Kitchen to have either 60 litre/second extractor fan, manual switched or duct cooker hood giving 30 litre/second extraction. Bath/shower/cloak rooms to have opening window and 15 *litres/second extractor manual switched* or where no window, mechanical extractor wired to light switch with 15 minute over-run timer to give three air changes per hour.
All ducting within roof space to be insulated *of twin wall construction or incorporate a* condensation trap and discharge to ridge through vent tile.

WINDOWS & GLAZING

All windows are to be as manufactured by Jeld-Wen or equal and approved, comprising Stormsure softwood Regency vertical bar casement windows with 24mm sealed *double glazed units incorporating* Pilkington K glass bead glazed. All windows to have extended sills
Glazing within 1500mm of floor level to doors and within 800mm of floor level for windows to be laminated or toughened to BS 6206 1981.

ELECTRICS

To be *in accordance with current* IEE Regulations for Electrical Installations, 15th Edition and latest amendments. Electrical installation is to be carried out by an NICEIC approved contractor and to the requirements of the Area Electricity Board.

All lighting fittings are to be fitted with energy efficient lighting with lamps that have a luminous efficacy greater than 40 lumens per circuit watt, *all in accordance* with the Building Regulations 2000, 2002 Edition, Part L1.

HEATING & HOT WATER

The heating and hot water installations are to be installed in strict compliance with the relevant Codes of Practice as regards materials, engineering design and workmanship and in accordance with the latest provisions of Part J of The Building Regulations 2000 in respect of Heat Producing Appliances Parts J1 to J6.
The heating will be provided by low pressure underfloor hot water pipework distributed to all floor areas supplied and fitted by specialist sub contractors. The heat source will be by a wall mounted gas fired, balanced flue boiler located in the utility room. Balanced flue boilers to be fitted and installed in strict compliance with the manufacturers instructions and recommendations.

TIMBER WINDOW SPECIFICATION

All widows are to be manufactured and supplied by an approved supplier and in accordance with the latest provisions and standards of the revised Part L of the Building Regulations 2002.

Timber window an are to be as shown and of Conservation type constructed to match existing windows and manufactured from Douglas Fir and shall comply with CP 112: Part 2. Timber and manufactured components are not to be delivered to site until they can be put into suitable dry storage conditions.
The moisture content of all external joinery work must not exceed 16% at the time of fixing.
All Joinery work is to be pressure impregnated with preservative and a certificate of treatment from the supplier will be required.
All joinery work is to be manufactured and assembled in accordance with BS 1186 Part 2, properly morticed, tennoned and wedged and with the joints glued under pressure.
All external joinery components are to be primed on site after assembly and prepared to receive paint finish.
Windows are to be glazed with 24mm Annealed glass insulating units incorporating Fine Lambs rapid ventilation" equivalent to at least 1/20th of the floor area.Tongue glazing bars bonded to the glass and stepped rebated to the frames.
All widows to habitable rooms to have opening lights capable of providing a minimum free opening for "

TIMBER DOOR SPECIFICATION

Timber doors and frames are to be manufactured from Douglas Fir and shall comply with CP 112: Part 2. Timber and manufactured components are not to be delivered to site until they can be put into suitable dry storage conditions.
The moisture content of all external joinery work must not exceed 16% at the time of fixing.
All Joinery work is to be pressure impregnated with preservative and a certificate of treatment from the supplier will be required.
All joinery work is to be manufactured and assembled in accordance with BS 1186 Part 2, properly morticed, tennoned and wedged and with the joints glued under pressure.
All external joinery components are to be primed on site after assembly and prepared to receive paint finish.
All doors to existing bedrooms to be fitted with self closing devices and new doors to study and Master Bedroom to be half hour fire resistant

STAIRCASE

Staircase to be constructed with 200mm rise and 230mm going and to be a minimum of 825mm clear width between handrails.
Staircase handrails to be mounted 900mm above the pitch line. Minimum headroom from pitch line to ceiling to be 2000mm.
All balustrading is to satisfy the 100mm sphere rule.
Staircase to incorporate two no. winders at each quarter landing.
Maximum pitch of stairs to be 42 degrees.

SURFACE WATER DRAINAGE

New system to comprise Osmadrain as described for foul drainage. Provide upturned bend to all downpipe positions. Drains to fall 1:40 on main runs to soakaways in positions shown on plans minimum 5m away from any boundary or buildings, 1200mm dia x 1500mm deep with 500mm vegetable soil over mineral board cover with coarse granular material below especially around outlet. This to be subject to a standard percolation test.
New rainwater goods to be Upvc with 125mm ogee section Upvc gutters and 65mm square Upvc downpipes.
Gutter laid to a fall of 1: 600. RWPs sealed to drain at ground level.

FOUL DRAINAGE

Internal waste pipes to be 'Osma' or similar approved UPVC connected to the appliance in the approved manner with 75 mm deep seal traps.
Wastes to be:-

Sinks	38mm
Shower	38mm
Bath	38mm
WC	110mm

Sinks to discharge into sealed gulley with screwed access cover. Gulley to continue to *inspection chamber. Sink to discharge into* Back Inlet Gulley as shown on drawing.

Underground drainage to be 110 mm 'Osmadrain' with flexible joints to a fall of 1:60 on main runs.
Trenches to be backfilled with selected backfill. Where drains pass through walls to be protected by reinforced concrete lintels cast over giving 50mm space around the pipe. Mask opening both sides with rigid sheet material to prevent entry of fill or vermin. Where pipes pass under the building bed as normal and continue to surround and backfill up to the underside of the dpm sand blinding level, all in accordance with manufacturers recommendations. Where pipes are not under a drive/traffic area and have less than 600mm cover, concrete-paving slabs should be used as bridging above the pipes with 100mm of granular material between the top of the pipe and the underside of the slabs. Where pipes are under the drive/traffic area and have less than 900mm cover reinforced concrete bridging should be used instead of paving slabs.
Inspection chambers to be 'Osma' Universal in polypropylene having cast iron covers and frames. Chambers to be bedded in minimum 150mm pea gravel and 150mm concrete around top of shaft to provide bed for frame. IC's to traffic/parking areas to have Grade B covers and frames. Intercepting inspection chamber to have 450 x 600 mm Cast Iron covers and frames and built in accordance with the details outlined in drawing AB/3.

JOHN D LYNCH
partnership
CHARTERED ARCHITECTS

Client:-
Mr & Mrs S&I Howes

Project:-
New Dwelling & Garage at 41 Cowbit Road, Spalding

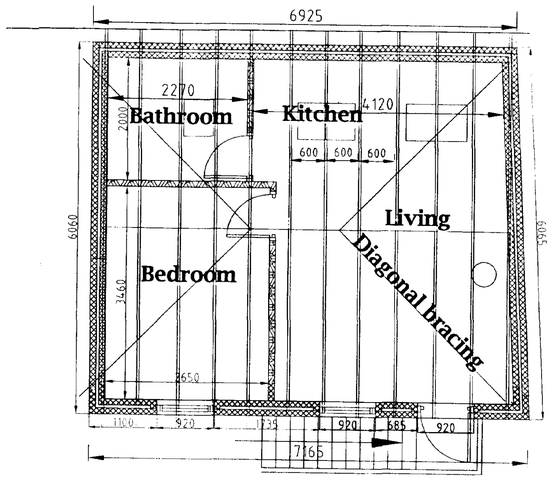
Drawings
Section & specification

Date :	*Drawn*
July 2003	**JDL**
Job No.	*Drawing No.*
1530	**WD4**
Scale.	*Revision No.*
1:50	**A**

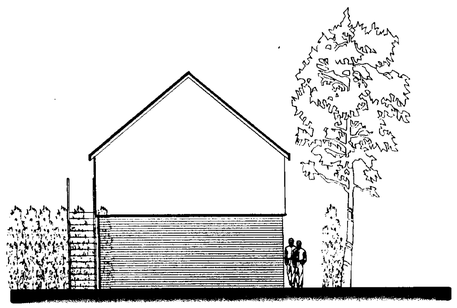
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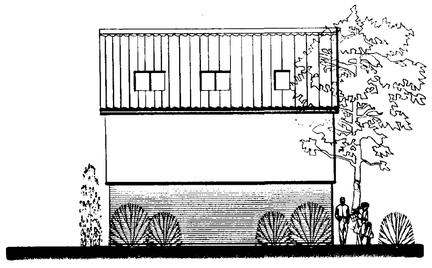
FIRST FLOOR PLAN



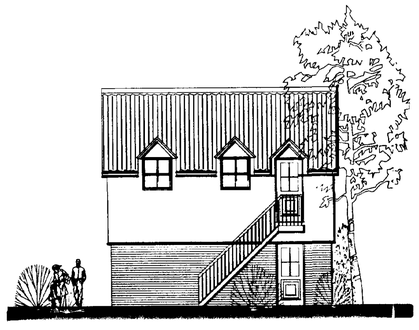
SOUTH ELEVATION OF GARAGE



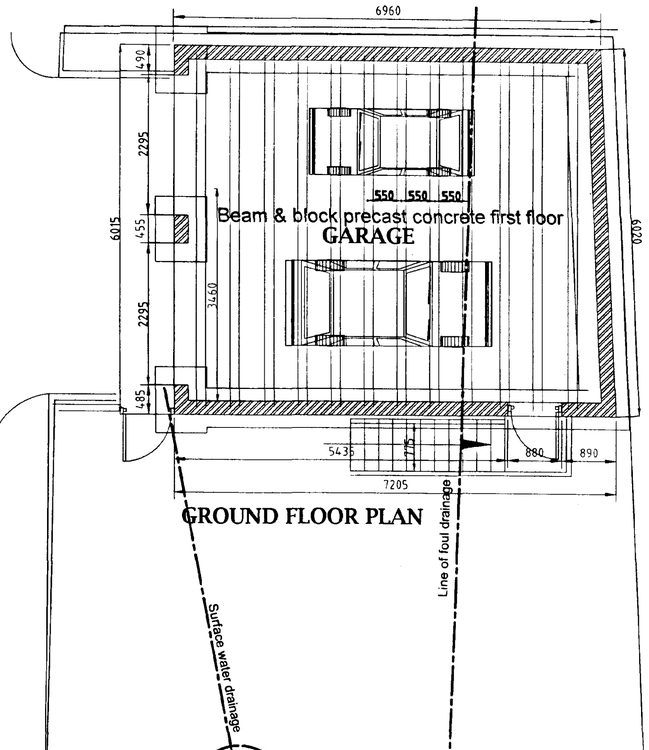
NORTH ELEVATION OF GARAGE



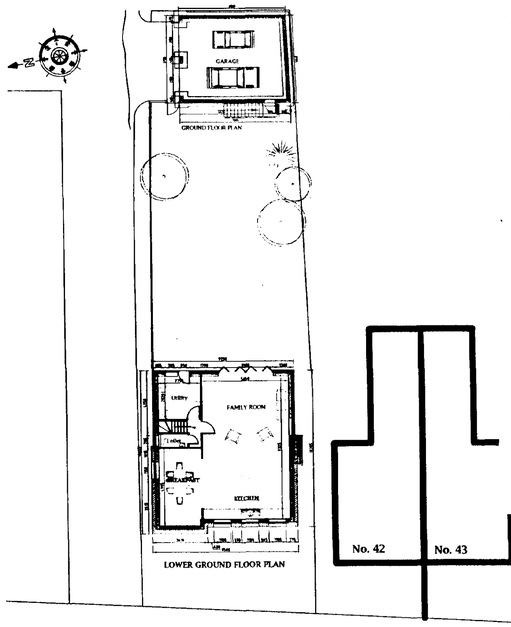
EAST ELEVATION OF GARAGE



WEST ELEVATION OF GARAGE



GROUND FLOOR PLAN



COWBIT ROAD

LOWER GROUND FLOOR PLAN

Surface water drainage

Line of foul drainage

NEW WALLS

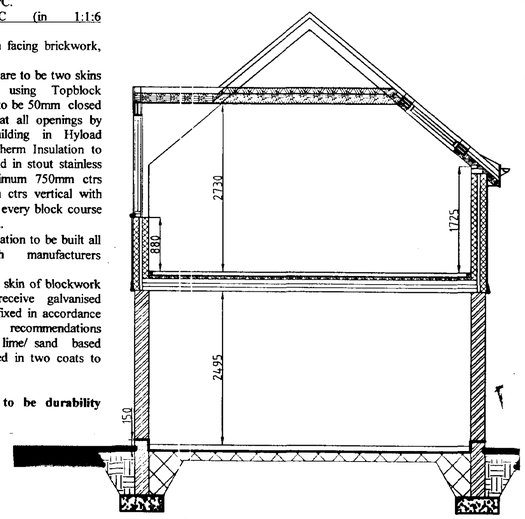
Walls to be dimensions shown and in strict accordance with BS 5628:Part 3:1985.
Below DPC (in 1:3 cement/sand).

Garage walls above DPC to comprise 225mm brickwork laid English bond and of FL Grade brickwork to terminate minimum 2 courses below ground level then continue in facing brickwork to DPC.
Walls above DPC (in 1:1:6 cement/lime/sand)
and to comprise 230mm facing brickwork, laid English bond,
First floor external walls are to be two skins of cavity blockwork using Topblock Standard blocks. Cavity to be 50mm closed at heads of walls and at all openings by closing blockwork, building in Hyload Vertical DPC with Dritherm Insulation to give 1.2W/m.sq. C. Build in stout stainless steel wall ties at maximum 750mm ctrs horizontally and 450mm ctrs vertical with extra ties at openings at every block course where the cavity is closed.
Wall ties and cavity insulation to be built all in accordance with manufacturers recommendations.
External face of external skin of blockwork to be prepared to receive galvanised expanded metal lathing fixed in accordance with the manufacturers recommendations and to receive cement/ lime/ sand based external rendering applied in two coats to roughcast finish

All facing brickwork to be durability designation FL

WALL AND ROOF STRAPS

Secure each structural member to wall plate using BAT galvanised steel joist framing anchors all in accordance with the Buyilding Regulations Section A1/2 items 1C33 to 1C38 and shown on diagrams 18 & 19.
Wall Plate to be 100mm x 50mm and to be fixed with BAT straps 30mm x 50mm x 1000mm long at 2000 ctrs.



SECTION THROUGH GARAGE

DAMP PROOF COURSE

Build in Hyload DPC to CP102 to all walls minimum 150mm above ground level and inner leaf linked with the DPM of floors. Provide vertical DPC around the perimeter of all external openings as cavity closers. All DPC's to be bedded on mortar.

NEW FOUNDATIONS

Strip foundations to be ST1 concrete to BS 5328:1981 225mm thick and minimum of 800mm below ground level but local ground conditions to be taken into consideration and final depth to be taken down to firm load-bearing strata and to Local Authority satisfaction.
Foundation width to be :-

225mm load-bearing walls 700mm

ROOF CONSTRUCTION

Roof to be constructed with prefabricated trussed rafters fixed strictly in accordance with the Manufacturers instructions and to BS 5268 pt. 3 1985. Roof pitch to be to match the existing pitch.
Manufacturers details and calculations for the prefabricated trusses are to be submitted to the Local Authority for approval not less than 28 days prior to fixing on site.
Wall Plate to be 100mm x 50mm and to be fixed with BAT straps 30mm x 50mm x 1000mm long at 2000 ctrs.
All bracing for prefabricated trusses to be in accordance with BS 5268 Part 3 : 1985 and to be 100mm x 25mm diagonals and longitudinals to be nailed to each truss member. During construction, trussed rafters should be provided with temporary wind bracing.
All members to be Celcure treated or similar approved. All structural timbers to be kept 40mm clear of chimney/flue blocks etc

WINDOWS/DOORS OPENING

To be manufactured and supplied by an Approved manufacturer and supplied and installed to conform to the revised requirements of Part L1 of The Building Regulations 2000 as specified, weather stripped and beaded for double glazing with 16mm air gap to sealed units. Windows in habitable rooms to provide head ventilation giving 8000sq mm free air ventilation and have min 1/20th floor area opening lights. Patio doors ventilation of 10,000sqmm, if no opening lights are provided.
Windows to Kitchen, and WC to be provided with head ventilators giving 4000sqmm of free air ventilation.

EMERGENCY EGRESS

All windows to habitable rooms to have at least one opening window to provide a minimum of 0.33 sq. metres of clear opening with a minimum clear horizontal or vertical dimension of 450mm for escape purposes.
Sill height from finished floor level to be not less than 800mm and not greater than 1100mm.

VENTILATION

All window opening lights to exceed 1/20th of room floor area.
All habitable rooms to have trickle vents (8000sq.mm free air). Rooflights to Kitchen and Bathroom to have trickle vents (4000sq.mm free air). Kitchen to have either 60 litre/second extractor fan, manual switched or duct cooker hood giving 30 litre/second extraction. Bath/shower/cloak rooms to have opening window and 15 litres/second extractor manual switched. All ducting within roof space to be insulated of twin wall construction or incorporate a condensation trap and discharge to ridge through vent tile.

ROOF VENTILATION

Provide Glidevale ventilators at eaves to provide the equivalent of 25mm continuous ventilation.
Provide and fix Glidevale ridge ventilators to ridges to give the equivalent of 5mm continuous ventilation.
Maintain 50mm min air gap over insulation at rafter positions.

DORMER WINDOWS

Roof covering to be as main dwelling, all on 125 x 47mm SC3 rafters at max 400mm ctrs. Dormer cheeks to comprise 50 x 100mm studs with 100 x 50mm head and sole plates. Internal side to be Gyproc Wallboard Duplex and skim. External side of dormer cheeks to be vertical plain tiles to match main roof on 38 x 19mm treated softwood battens on 38 x 19mm softwood treated counter battens on untearable breather paper on 9mm external grade plywood fixed to studs. Void of dormer cheeks filled with 90mm Gypglas 1005 insulation. Bring roofing felt of main roof up behind breather paper minimum 150mm. Provide Code 4 lead abutment flashing brought up behind plain tiles min 150mm.

WINDOWS & GLAZING

All windows are to be as manufactured by Clearview Windows Ltd or equal and approved, comprising Heritage style REHAU pvcu top hung windows with 24mm sealed double glazed units incorporating Pilkington K glass bead glazed. All windows to have extended sills
Glazing within 1500mm of floor level to doors and within 800mm of floor level for windows to be laminated or toughened to BS 6206 1981.

VELUX ROOF WINDOWS

Roof windows are to be Velux type GGL installed complete with all flashings and linings as supplied by Velux and installed strictly in accordance with the Manufacturers specifications and details.

GARAGE FLOOR CONSTRUCTION

Garage floor construction to comprise 150mm well consolidated hardcore with 25mm sand blinding to receive 1200 gauge polythene damp proof membrane turned up at all edges and 100m concrete oversite slab, float finished.
Slab to be thickened at edge between piers.

SUSPENDED CONCRETE FIRST FLOOR

Suspended concrete first floor to comprise Jetfloor Precast Concrete system type Jetfloor Standard 150mm deep and 215mm wide precast beams Ref No. RDJ4 laid to Manufacturers recommendations. System to incorporate 100mm deep building block infills, spacers and infill blocks where necessary.
Top beam and block with a levelling slurry to receive 60mm Celotex double-R FL2060 insulation slabs covered with 1200 gauge polythene damp proof membrane turned up at all edges.
Floor to be topped with a 65mm concrete screed incorporating a warm water underfloor heating pipework system.

FOUL DRAINAGE

Internal waste pipes to be 'Osma' or similar approved UPVC connected to the appliance in the approved manner with 75 mm deep seal traps.
Wastes to be:-

Sinks	38mm
Shower	38mm
Bath	38mm
WC	110mm

Sinks to discharge into sealed gulley with screwed access cover. Gulley to continue to inspection chamber. Sink to discharge into Back Inlet Gulley as shown on drawing.

Underground drainage to be 110 mm 'Osmadrain' with flexible joints to a fall of 1:60 on main runs.
Trenches to be backfilled with selected backfill. Where drains pass through walls to be protected by reinforced concrete lintels cast over giving 50mm space around the pipe. Mask opening both sides with rigid sheet material to prevent entry of fill or vermin. Where pipes pass under the building bed as normal and continue to surround and backfill up to the underside of the dpm sand blinding level, all in accordance with manufacturers recommendations. Where pipes are not under a drive/traffic area and have less than 600mm cover, concrete-paving slabs should be used as bridging above the pipes with 100mm of granular material between the top of the pipe and the underside of the slabs. Where pipes are under the drive/traffic area and have less than 900mm cover reinforced concrete bridging should be used instead of paving slabs.
Inspection chambers to be 'Osma' Universal in polypropylene having cast iron covers and frames. Chambers to be bedded in minimum 150mm pea gravel and 150mm concrete around top of shaft to provide bed for frame. IC's to traffic/parking areas to have Grade B covers and frames. Intercepting inspection chamber to have 450 x 600 mm Cast Iron covers and frames and built in accordance with the details outlined in drawing AB/3.

SURFACE WATER DRAINAGE

New system to comprise Osmadrain as described for foul drainage. Provide upturned bend to all downpipe positions. Drains to fall 1:40 on main runs to soakaways in positions shown on plans minimum 5m away from any boundary or buildings, 1200mm dia x 1500mm deep with 500mm vegetable soil over mineral board cover with coarse granular material below especially around outlet. This to be subject to a standard percolation test.
New rainwater goods to be Upvc with 125mm ogee section Upvc gutters and 65mm square Upvc downpipes.
Gutter laid to a fall of 1: 600. RWPs sealed to drain at ground level.

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Plan
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Fee: 0847.00

JOHN D LYNCH
partnership
CHARTERED ARCHITECTS

Client:-
Mr & Mrs S&I Howes

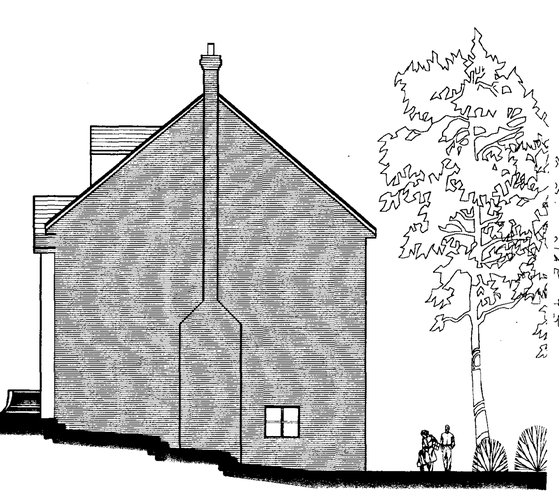
Project:-
New Dwelling & Garage at 41 Cowbit Road, Spalding

Drawings
Plans, elevations & sections of new garage

Date :	*Drawn*
July 2003	**JDL**
Job No. **1530**	*Drawing No.* **WD1**
Scale. **1:200, 1:100, 1:50**	*Revision No.* **4**



ELEVATION TO RIVER WELLAND



PROPOSED SOUTH ELEVATION

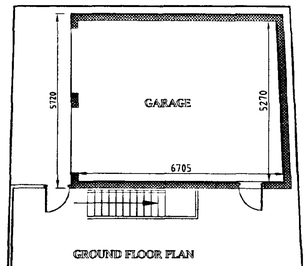


PROPOSED REAR ELEVATION

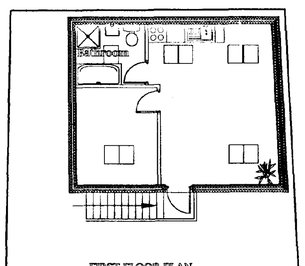


PROPOSED NORTH ELEVATION



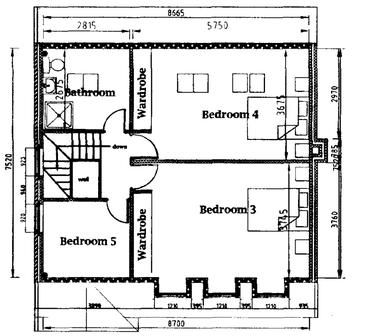


GROUND FLOOR PLAN

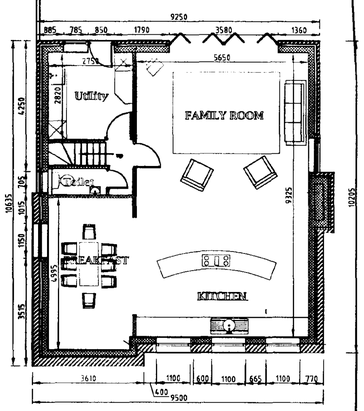


FIRST FLOOR PLAN

SITE

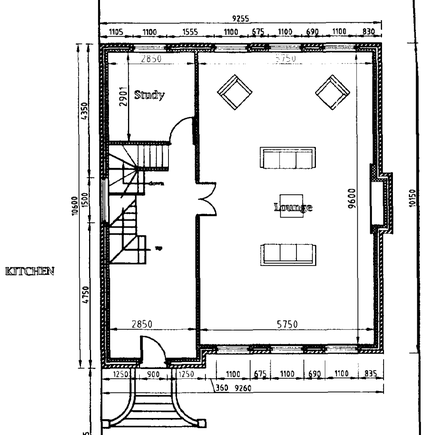


ATTIC FLOOR PLAN



LOWER GROUND FLOOR PLAN

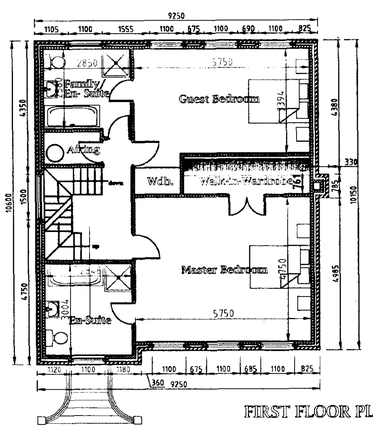
No. 42



KITCHEN

UPPER GROUND FLOOR PLAN

No. 42



FIRST FLOOR PLAN

AMENDED PLAN
Ref.

SHDC
Planning & Development
2 3 JUL 2004
Ref: 847/02

JOHN D LYNCH
partnership
CHARTERED ARCHITECTS

Client:-
Mr & Mrs S & I Howes

Project:-
New dwelling at 41 Cowbit Road Spalding

Drawings
Elevations & FloorPlans

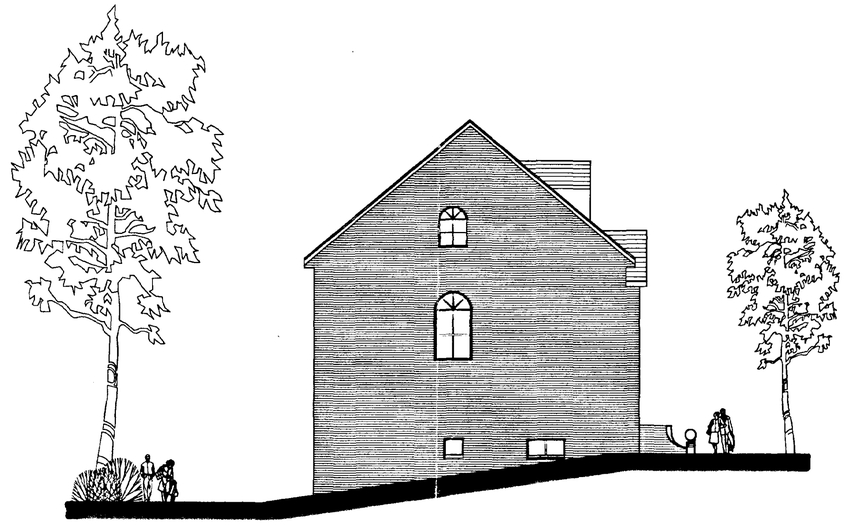
Date :	*Drawn*
May 2003	**JDL**
Job No. **1530**	*Drawing No.* **WD1**
Scale. **1:100**	*Revision No.* **A**



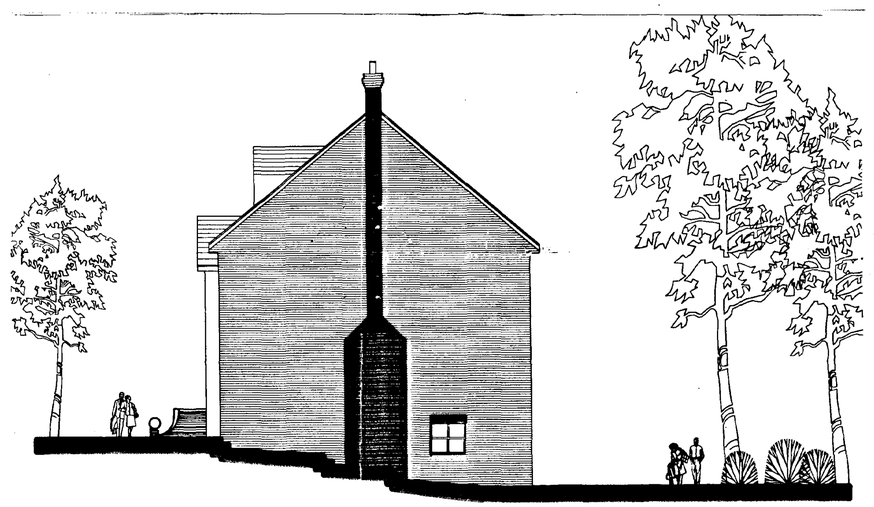
ELEVATION TO RIVER WELLAND



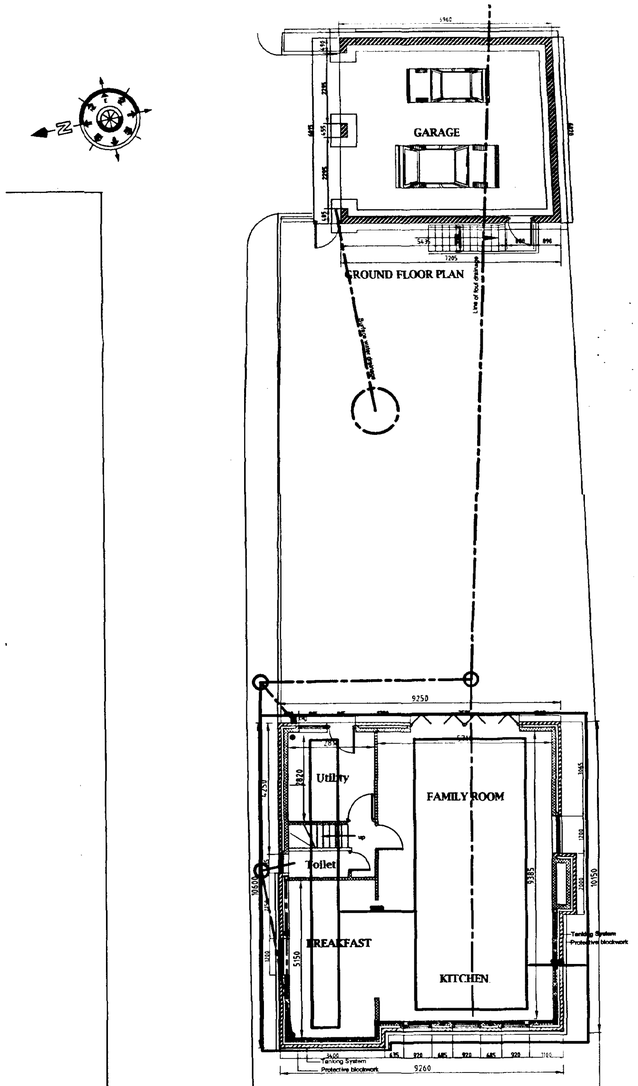
PROPOSED REAR ELEVATION



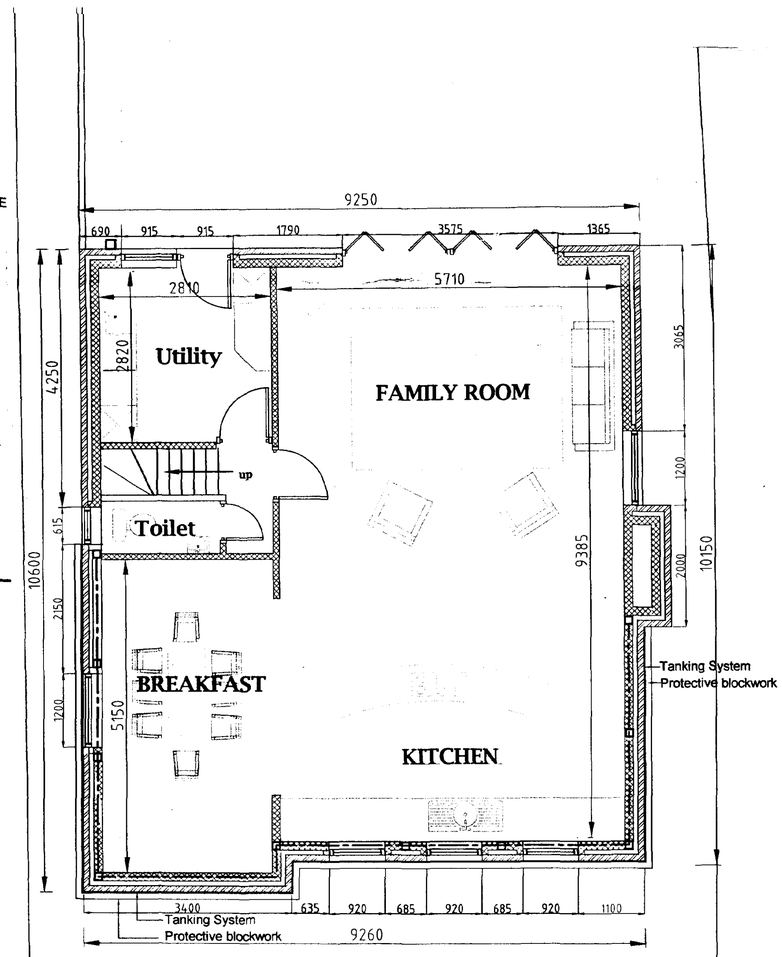
PROPOSED NORTH ELEVATION



PROPOSED SOUTH ELEVATION



LOWER GROUND FLOOR PLAN



LOWER GROUND FLOOR PLAN

No. 42

AMENDED PLAN
Ref. A1-5

S.H.D.C. Planning & Development
-9 DEC 2004
847/02
Ref

JOHN D LYNCH
partnership
CHARTERED ARCHITECTS

Client:-
Mr & Mrs S&I Howes

Project:-
New Dwelling & Garage at 41 Cowbit Road, Spalding

Drawings
Lower ground floor plan, site Plan & elevations

Date :	Drawn
July 2003	JDL
Job No. 1530	Drawing No. WD2
Scale. 1:100	Revision No. A

HEATING AND HOT WATER

The heating and hot water installations are to be installed in strict compliance with the relevant Codes of Practice as regards materials, engineering design and workmanship and in accordance with the latest provisions of Part J of The Building Regulations 2002 in respect of Heat Producing Appliances Parts J1 to J6.

The heating will be provided by wall mounted gas fired domestic boiler/s serving a low pressure hot water system incorporating an expansion tank and comprising radiators sized to the heat requirements of the rooms and controlled by thermostatic valves on each radiator. The heating is to be designed to maintain a temperature of 22C in all living and bathroom areas and 20C in all bedrooms and circulation areas when the external temperature is -3C.

The space heating is to be provided with zone, timing & temperature controls such that each functional area is maintained at the required temperature only when the space is occupied.

The boiler will serve the hot water installation and include a 210 litre factory insulated storage cistern complete with a dual emersion heater and thermostatically controlled, designed and tested in accordance with BS 6700.

The boiler room is to be provided with permanent ventilation for combustion purposes and calculated in accordance with the requirements of Part J 1, Sections 2, 3 & 4 of the Building Regulations 2000.

Upon completion, the heating installer is to provide a Commissioning Certificate and maintenance manual for heating & hot water systems.

STAIRCASE

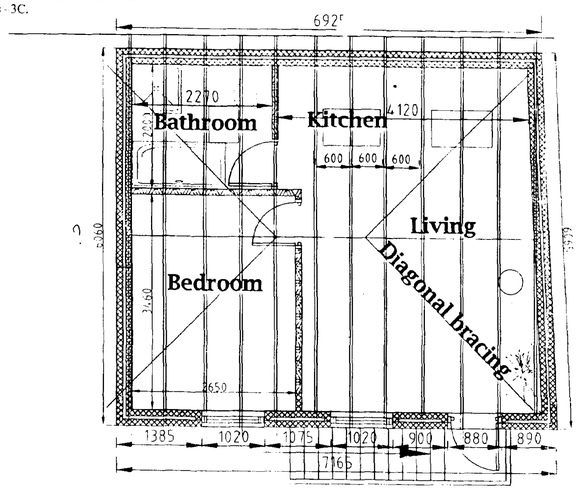
External access and fire escape staircase to be constructed in galvanised steel or alloy with 210mm rise and 230mm going and to be a minimum of 775mm clear width between handrails.

Staircase handrails to be mounted 900mm above the pitch line. Minimum headroom from pitch line to any obstruction to be 2000mm.

All balustrading is to satisfy the 100mm sphere rule.

Staircase to incorporate two no. winders at quarter landing.

Maximum pitch of stairs to be 42 degrees.

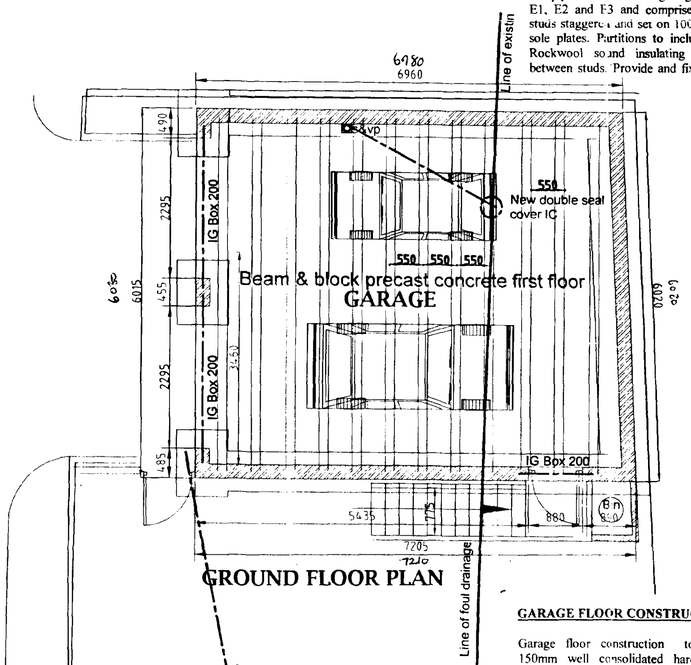


FIRST FLOOR PLAN

STUD PARTITIONS

Internal stud partitions to be constructed to comply with the Building Regulations Parts E1, E2 and E3 and comprise 38 x 57mm studs staggered and set on 100mm head and sole plates. Partitions to include 50mm of Rockwool sound insulating quilt woven between studs. Provide and fix to each side of partitions, two layers 12.5mm Gyproc wallboard. Studs to be spaced at 400mm ctrs. Set to each face of head and sole plates Provide noggins at all board joints. All joints to be taped and filled. Boards to be finished with skim.

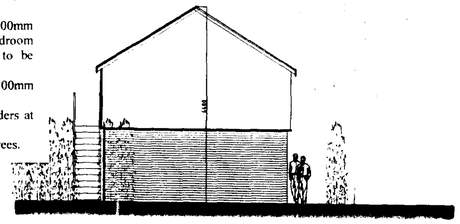
All first floor studwork to be built off double joists or off timber blocking pieces where perpendicular to span. All doubled up joists to be bolted together using 12mm diameter bolts and toothplate connections at 750mm ctrs.



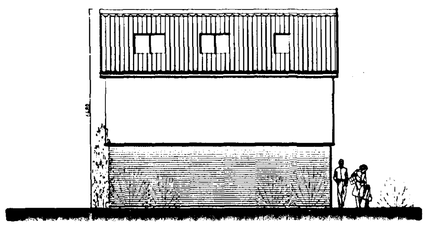
GROUND FLOOR PLAN

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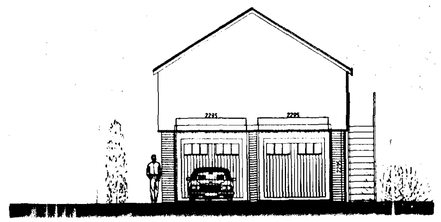


SOUTH ELEVATION OF GARAGE

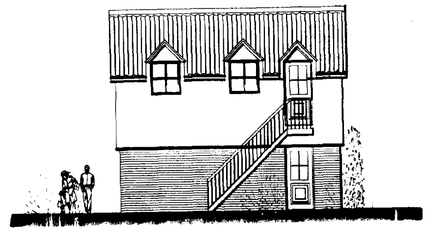


EAST ELEVATION OF GARAGE

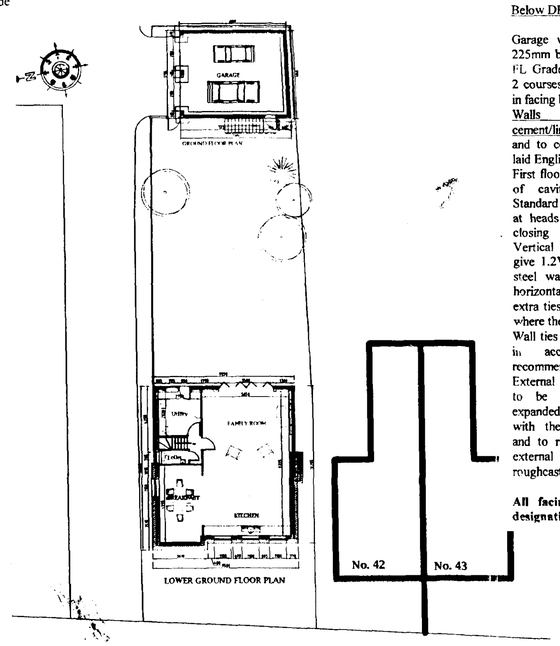
Reversed Heights ridge 6.35
to floorland Height to eave 4.55



NORTH ELEVATION OF GARAGE



WEST ELEVATION OF GARAGE



COWBIT ROAD

LOWER GROUND FLOOR PLAN

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Maintain 50mm min air gap over insulation at rafter positions.

DORMER WINDOWS

Roof covering to be as main dwelling, all on 125 x 47mm SC3 rafters at max 400mm ctrs. Dormer cheeks to comprise 50 x 100mm studs with 100 x 50mm head and sole plates. Internal side to be Gyproc Wallboard Duplex and skim. External side of dormer cheeks to be vertical plain tiles to match main roof on 38 x 19mm treated softwood battens on 38 x 19mm softwood treated counter battens on untearable breather paper on 9mm external grade plywood fixed to studs. Void of dormer cheeks filled with 90mm Gypglas 1005 insulation. Bring roofing felt of main roof up behind breather paper minimum 150mm. Provide Code 4 lead abutment flashing brought up behind plain tiles min 150mm.

WINDOWS & GLAZING

All windows are to be as manufactured by Clearview Windows Ltd or equal and approved, comprising Heritage style REHAU pvcu top hung windows with 24mm sealed double glazed units incorporating Pilkington K glass bead glazed. All windows to have extended sills

Glazing within 1500mm of floor level to doors and within 800mm of floor level for windows to be laminated or toughened to BS 6206 1981.

VELUX ROOF WINDOWS

Roof windows are to be Velux type GGL installed complete with all flashings and linings as supplied by Velux and installed strictly in accordance with the Manufacturers specifications and details.

VENTILATION

All window opening lights to exceed 1/20th of room floor area.

All habitable rooms to have trickle vents (8000sq.mm free air). Rooflights to Kitchen and Bathroom to have trickle vents (4000sq.mm free air). Kitchen to have either 60 litre/second extractor fan, manual switched or duct cooker hood [illegible] litre/second extraction. Bath/shower/cloak rooms to have opening window and 15 litres/second extractor manual switched. All ducting within roof space to be insulated of twin wall construction or incorporate a condensation trap and discharge to ridge through vent tile.

FOUL DRAINAGE

Internal waste pipes to be 'Osma' or similar approved UPVC connected to the appliance in the approved manner with 75 mm deep seal traps.

Wastes to be:-

Sinks	38mm
Shower	38mm
Bath	38mm
WC	110mm

Sinks to discharge into sealed gulley with screwed access cover. Gulley to continue to inspection chamber. Sink to discharge into Back Inlet Gulley as shown on drawing.

Underground drainage to be 110 mm 'Osmadrain' with flexible joints to a fall of 1:60 on main runs.

Trenches to be backfilled with selected backfill. Where drains pass through walls to be protected by reinforced concrete lintels cast over giving 50mm space around the pipe. Mask opening both sides with rigid sheet material to prevent entry of fill or vermin. Where pipes pass under the building bed as normal and continue to surround and backfill up to the underside of the dpm sand blinding level, all in accordance with manufacturers recommendations. Where pipes are not under a drive/traffic area and have less than 600mm cover, concrete-paving slabs should be used as bridging above the pipes with 100mm of granular material between the top of the pipe and the underside of the slabs. Where pipes are under the drive/traffic area and have less than 900mm cover reinforced concrete bridging should be used instead of paving slabs.

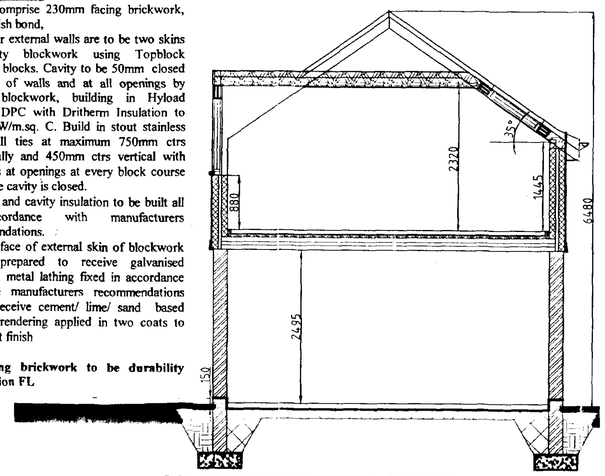
Inspection chambers to be 'Osma' Universal in polypropylene having cast iron covers and frames. Chambers to be bedded in minimum 150mm pea gravel and 150mm concrete around top of shaft to provide bed for frame. IC's to traffic/parking areas to have Grade B covers and frames. Intercepting inspection chamber to have 450 x 600 mm Cast Iron covers and frames and built in accordance with the details outlined in drawing AB/3.

SURFACE WATER DRAINAGE

New system to comprise Osmadrain as described for foul drainage. Provide upturned bend to all downpipe positions. Drains to fall 1:40 on main runs to soakaways in positions shown on plans minimum 5m away from any boundary or buildings, 1200mm dia x 1500mm deep with 500mm vegetable soil over mineral board cover with coarse granular material below especially around outlet. This to be subject to a standard percolation test.

New rainwater goods to be Upvc with 125mm ogee section Upvc gutters and 65mm square Upvc downpipes.

Gutter laid to a fall of 1: 600. RWPs sealed to drain at ground level.



GARAGE FIRST FLOOR

Garage first floor joists to be SC4 grade 170mm x 45mm at 450mm ctrs supported from loadbearing walls on 100mm x 50mm wall plate and over ms UB size 254 x 146 x 37mm situated at centre span.. Provide 38 x 50mm s.w. herringbone strutting at max 2.0m ctrs or midspan. Provide 30 x 5mm once bent galvanised m.s. lateral restraint straps perpendicular to span at max 2.0m ctrs, built into cavity wall and screwed back to a minimum of 3no. joists with solid timber noggins below. Noggins to extend at least half the depth of the joist and be at least 38mm thick. Edge pack between last joist and wall. Flooring to be 19mm flooring grade chipboard nailed to joists. Floor to be insulated with Celotex GA 2059 insulating board fixed between the joists and the flooring to be underlined with Gyproc Fireline boarding taped at joints. Steel beam to be encased with Fireline board.

Where pipes or services pass through first floor, openings are to be protected and fire stopped in accordance with The Building Regulations, B3, Section 10, Protection of openings and Fire Stopping.

SECTION THROUGH GARAGE

DAMP PROOF COURSE

Build in Hyload DPC to CP102 to all walls minimum 150mm above ground level and inner leaf linked with the DPM of floors. Provide vertical DPC around the perimeter of all external openings as cavity closers. All DPC's to be bedded on mortar.

NEW FOUNDATIONS

Strip foundations to be ST1 concrete to BS 5328:1981 225mm thick and minimum of 800mm below ground level but local ground conditions to be taken into consideration and final depth to be taken down to firm load-bearing strata and to Local Authority satisfaction.

Foundation width to be :-

225mm load-bearing walls 700mm

Plan A3

JOHN D LYNCH
partnership
CHARTERED ARCHITECTS

Client:-
Mr & Mrs S&I Howes

Project:-
New Dwelling & Garage at 41 Cowbit Road, Spalding

Drawings
Plans, elevations & sections of new garage

14 NOV 2003
Ref: 0847/02

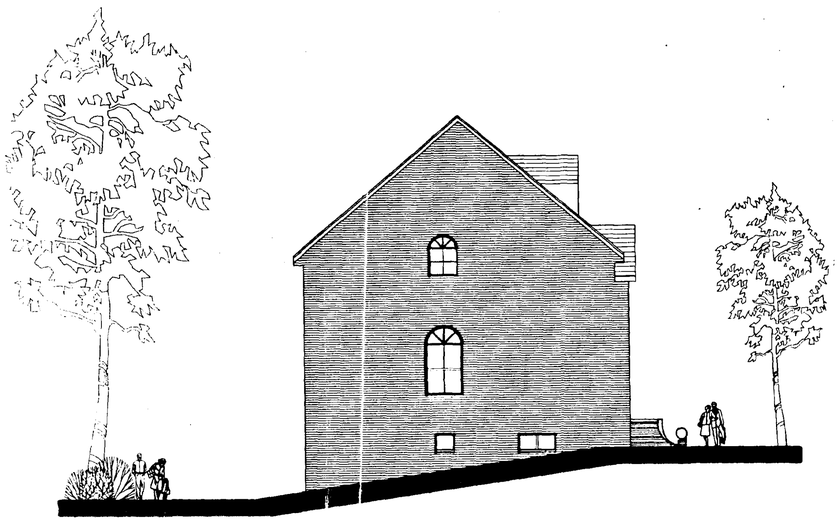
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Job No. 1530	Drawing No. WD1
Scale 1:200, 1:100, 1:50	Revision No. 4



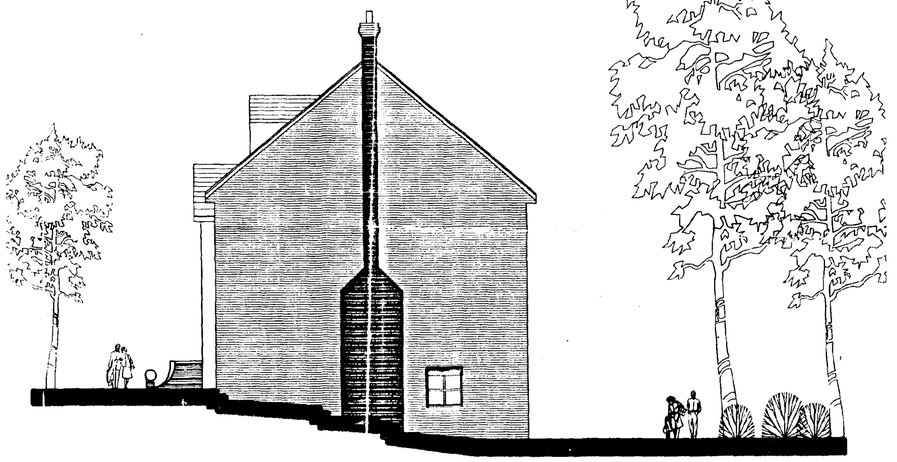
ELEVATION TO RIVER WELLAND



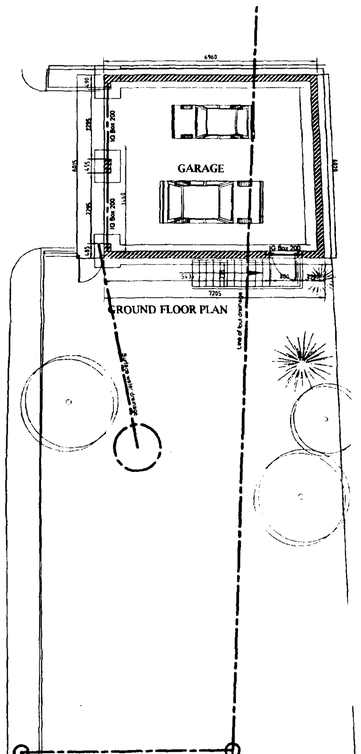
PROPOSED REAR ELEVATION



PROPOSED NORTH ELEVATION



PROPOSED SOUTH ELEVATION



FIREPLACE & FLUE

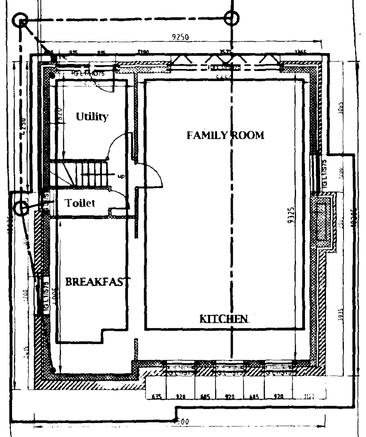
Fireplace opening to be 900 x 750mm high. Open fire to have class 1 flue, comprising of 250mm diameter HA/refractory concrete flue lining, laid socket uppermost with combined lintel/gather unit. Void around flue to be fully filled with mortar as work proceeds. Hearths to class 1 appliances to be 500mm min projection and 300mm min wider than recess, 125mm min thickness (comprises floor slab and screed). Ventilation to class 1 installations to comprise 2no. 225 x 150mm Stadium plastic louvre air brick, sleeves and internal hit and miss grille (2500mm2 free air) 225mm above DPC. Brickwork stack to terminate 600mm above ridge line finished with brickwork detail.

The fireplace is have a hearth designed and constructed in accordance with Part J Section) of the Building regulations 2000, General Guidance Section 26.

The flue is to be constructed in accordance with Part J Section 2 of the Building Regulations and is to terminate above the roof in accordance with the requirements of Diagram 2.1, Section 2.14 & 2.15.

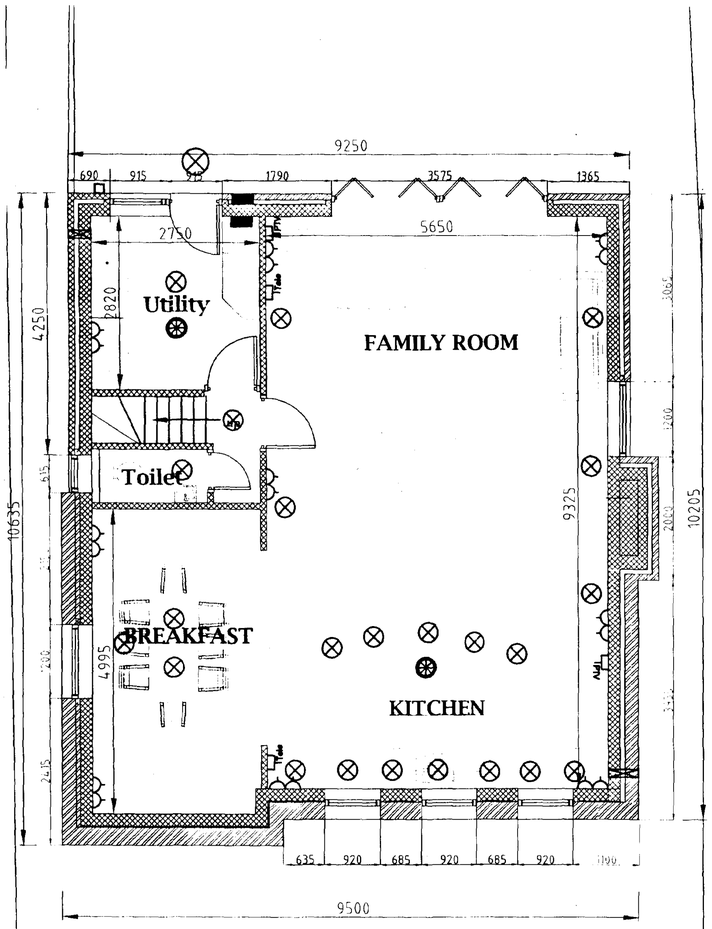
The chimney is to be constructed with masonry & clay flue liners with rebates or sockets in accordance with BS EN 1457:1999 and installed in accordance with the manufacturers instructions.

Upon completion, provide and fix a Notice Plate conveying the information about the correct application and use required by Part J Section 1 clause 1.56 of the Building regulations and locate alongside the consumer unit.



LOWER GROUND FLOOR PLAN

No. 42



LOWER GROUND FLOOR PLAN

ELECTRICAL SYMBOLS

- Power points
- Light
- Smoke alarm
- Extractor fan
- Meter Box
- Distribution board

Size A3

Planning & C
14 NOV 2003
Ref 0847/02

JOHN D LYNCH
partnership
CHARTERED ARCHITECTS

Client:-
Mr & Mrs S&I Howes

Project:-
New Dwelling & Garage at 41 Cowbit Road, Spalding

Drawings
Lower ground floor plan, site Plan & elevations

Date	Drawn
July 2003	JDL

Job No.	Drawing No.
1530	WD2

Scale.	Revision No.
1:100	A

INTERNAL BLOCK PARTITIONS

Internal non loadbearing partitions unless otherwise stated are to be 100mm Toplite GTI lightweight blocks.

DAMP PROOF COURSE

Build in Hyload DPC to CP102 to all walls minimum 150mm above ground level and inner leaf linked with the DPM of floors. Provide vertical DPC around the perimeter of all external openings as cavity closers. All DPC's to be bedded on mortar.

Flues are to be provided with a DPC at their junction with the roof by the use of three courses of clay engineering bricks to BS 3921 laid break bond.

NEW WALLS

Walls to be dimensions shown and in strict accordance with BS 5628:Part 3:1985.
Below DPC (in 1:3 cement/sand)
Cavity walls above DPC to comprise internal skin of Toplite Standard 100mm concrete blocks with 90 mm cavity. External skin of FL Grade brickwork to terminate minimum 2 courses below ground level then continue in facing brickwork to DPC. Internal skin (including internal 100mm walls) below DPC to comprise 100mm Toplite Hemelite Standard concrete blocks.
Cavity to be filled to ground level with weak mix concrete splayed outwards.
Walls above DPC (in 1:1:6 cement/lime/sand)
Cavity walls to comprise 102.5mm outer skin facing brickwork, 80mm cavity containing 40mm Celotex double-R "tuff-R" CW2040 insulation, a 50mm clear cavity and an inner skin of 100mm Toplite Standard concrete blocks to give a minimum U value of 0.35W/m.sq. C. Cavities closed at heads of walls and at all openings by closing blockwork onto brickwork building in Hyload Vertical DPC with Celotex double-R "tuff-R" CW 2025 Insulation behind to give 1.2W/m.sq. C. Build in stout stainless steel wall ties with insulation retaining discs at maximum 750mm ctrs horizontally and 450mm ctrs vertical with extra ties at openings at every block course where the cavity is closed.
Wall ties and cavity insulation to be built all in accordance with manufacturers recommendations.

All facing brickwork to be durability designation FL

SUSPENDED CONCRETE FLOORS

Suspended concrete floors to comprise Jetfloor Precast Concrete system type Jetfloor Standard 150mm deep and 215mm wide precast beams Ref No. RDJ4 laid to Manufacturers recommendations. System to incorporate 100mm deep building block infills, spacers and infill blocks where necessary.
Top beam and block with a levelling slurry to receive 60mm Celotex double-R FL2060 insulation slabs covered with 1200 gauge polythene damp proof membrane turned up at all edges.

Floor to be topped with a 65mm concrete screed incorporating a warm water underfloor heating pipework system.

NEW FOUNDATIONS

Strip foundations to be ST1 concrete to BS 5328:1981 225mm thick and minimum of 800mm below ground level but local ground conditions to be taken in consideration and final depth to be taken down to firm load-bearing strata and to Local Authority satisfaction.
Foundation width to be :-
Cavity walls 850mm
Internal loadbearing wall 765mm
External and Internal 100 mm load-bearing walls 600mm.
225mm load-bearing walls 700mm
(Non-load-bearing walls to be built off 225mm thickened floor slab).

DORMER WINDOWS

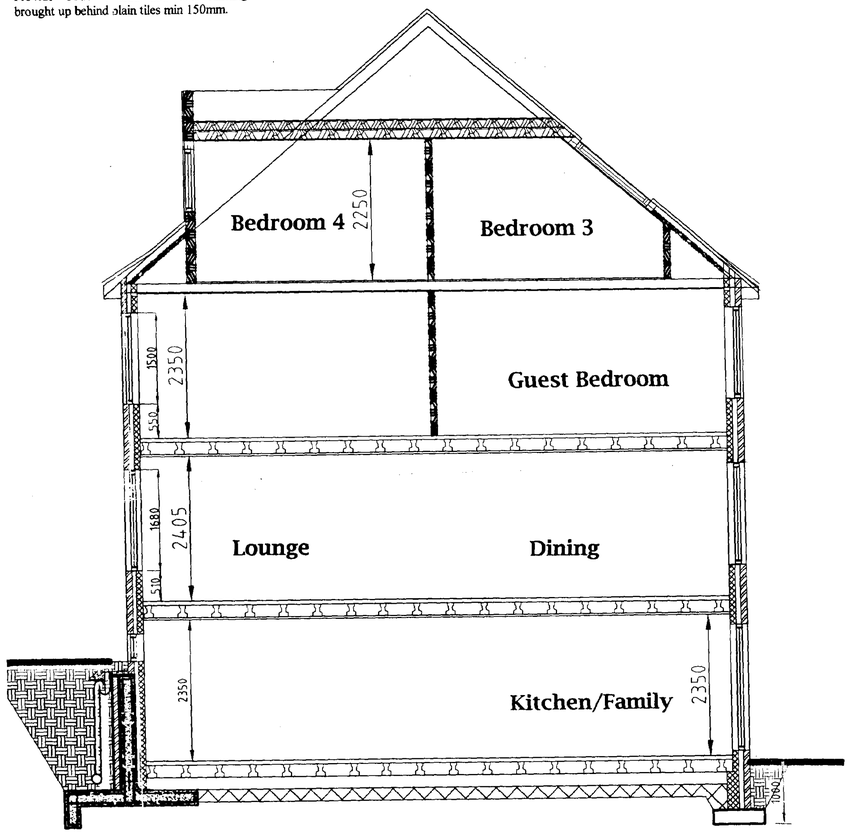
Roof covering to be as main dwelling, all on 125 x 47mm SC3 rafters at max 400mm ctrs. Dormer cheeks to comprise 50 x 100mm studs with 100 x 50mm head and sole plates. Internal side to be Gyproc Wallboard Duplex and skim. External side of dormer cheeks to be vertical plain tiles to match main roof on 38 x 19mm treated softwood battens on 38 x 19mm softwood treated counter battens on untearable breather paper on 9mm external grade plywood fixed to studs. Void of dormer cheeks filled with 90mm Gypglas 1005 insulation. Bring roofing felt of main roof up behind breather paper minimum 150mm. Provide Code 4 lead abutment flashing brought up behind plain tiles min 150mm.

INSULATION

Provide and lay between ceiling joists 250mm fibreglass quilt insulation (Owens Corning Crown Wool) ensuring quilt does not restrict eaves ventilation. Roof insulation to be counter laid.

ELECTRICS

To be in accordance with current IEE Regulations for Electrical Installations, 15th Edition and latest amendments. Electrical installation is to be carried out by an NICEIC approved contractor and to the requirements of the Area Electricity Board.
All lighting fittings are to be fitted with energy efficient lighting with lamps that have a luminous efficacy greater than 40 lumens per circuit watt, all in accordance with the Building Regulations 2000, 2002 Edition, Part L1.



SECTION THROUGH HOUSE
Scale : 1:50

ACCESS FOR THE DISABLED

The dwelling is to be so designed and constructed as to comply with the requirements of the latest amendments to Part M of the Building Regulations in respect of access and facilities for the disabled with the approach, The provision of level thresholds, staircases and doorways. Where ramps are provided, they should not be steeper than 1 in 20 and no less then 900mm in width. The minimum clear opening width to the external doorway, principal living areas , bathroom & toilet internally, is to be 775mm.
The access route for the disabled is to be through the rear patio, garden room and French windows.
The minimum requirements for the provision of accessible switches and socket outlets, space in corridors and toilets are to be observed with the minimum height of switches and sockets to be not less than 450mm and not greater than 1200mm.

FIRE ALARM SYSTEM

To BS 5839
Fire Alarm System to be automatic heat and smoke detectors serviced by mains supply and mains operated. Heat & smoke detector alarm system to be wired back to fuse board in accordance with BS 5446. All alarms within the dwelling are to be positioned as shown on the drawings and interconnected.
Internal doors to all habitable rooms throughout the dwelling are to be fitted with self closing devices and to be half hour fire resistant.

EXTRACTOR FAN

Extractor fans are to be Expelair built in extractor wall fans, model no WX9 complete with time delay facility up to 20 minutes. Wall fan is to be installed strictly in accordance with the manufacturers instructions.

FIREPLACE & FLUE

Fireplace to be 800 x 600 x 500mm high. Open fire to have class 1 flue, comprising of 250mm diameter HA/refractory concrete flue lining, laid socket uppermost with combined lintel/gather unit. Void around flue to be fully filled with mortar as work proceeds. Hearths to class 1 appliances to be 500mm min projection and 300mm min wider than recess, 125mm min thickness (comprises floor slab and screed). Ventilation to class 1 installations to comprise 2no. 225 x 150mm Stadium plastic louvre air brick, sleeves and internal hit and miss grille (2500mm2 free air) 225mm above DPC. Brickwork stack to terminate 600mm above ridge line finished with brickwork detail

ROOF CONSTRUCTION

Roof to be constructed with prefabricated "Room in the Roof" trussed rafters fixed strictly in accordance with the Manufacturers instructions and to BS 5268 pt. 3 1985. Roof pitch to be to match the existing pitch.
Manufacturers details and calculations for the prefabricated trusses are to be submitted to the Local Authority for approval not less than 28 days prior to fixing on site.
Wall Plate to be 100mm x 50mm and to be fixed with BAT straps 30mm x 50mm x 1000mm long at 2000 ctrs.
All bracing for prefabricated trusses to be in accordance with BS 5268 Part 3 : 1985 and to be 100mm x 25mm diagonals and longitudinals to be nailed to each truss member. During construction, trussed rafters should be provided with temporary wind bracing.
All members to be Celcure treated or similar approved. All structural timbers to be kept 40mm clear of chimney/flue blocks etc

WALL AND ROOF STRAPS

Secure each structural member to wall plate using BAT galvanised steel joist framing anchors all in accordance with the Buyilding Regulations Section A1/2 items 1C33 to 1C38 and shown on diagrams 18 & 19.
Wall Plate to be 100mm x 50mm and to be fixed with BAT straps 30mm x 50mm x 1000mm long at 2000 ctrs.

WINDOWS/DOORS OPENING

To be manufactured and supplied by an Approved manufacturer and supplied and installed to conform to the revised requirements of Part L1 of The Building Regulations 2000 as specified, weather stripped and beaded for double glazing with 16mm air gap to sealed units. Windows in habitable rooms to provide head ventilation giving 8000sq mm free air ventilation and have min 1/20th floor area opening lights. Patio doors ventilation of 10,000sqmm, if no opening lights are provided.
Windows to Kitchen, and WC to be provided with head ventilators giving 4000sqmm of free air ventilation.

EMERGENCY EGRESS

All windows to habitable rooms to have at least one opening window to provide a minimum of 0.33 sq. metres of clear opening with a minimum clear horizontal or vertical dimension of 450mm for escape purposes.
Sill height from finished floor level to be not less than 800mm and not greater than 1100mm.

Second floor bedroom windows to have a Davis safety escape ladder wall mounted adjacent to opening window.

LINTELS

To be fabricated from galvanised steel to BS EN 10142 1991 Specification for hot dipped zinc coated steel. Lintels to be as manufactured by IG Limited, as indicated on lintel schedule to BS 5977. Provide cavity trays over all external lintels and 2no. Weep holes. Lintels to have minimum 150mm end bearing and to be installed in accordance with manufactures details and instructions.

STEELWORK

All exposed steelwork internally is to receive Gyproc Fireline Board with taped and filled joints system to provide fire protection to structural steel sections in accordance with BS 476 Part 8:1972.
Provide the required no of layers of fire protection board determined by the situation in accordance with the manufacturers instructions and in accordance with BS 4 Part 1: 1980 .

VELUX ROOF WINDOWS

Roof windows are to be Velux type GGL installed complete with all flashings and linings as supplied by Velux and installed strictly in accordance with the Manufacturers specifications and details.

ROOF VENTILATION

Provide Glidevale ventilators at eaves to provide the equivalent of 25mm continuous ventilation.
Provide and fix Glidevale ridge ventilators to ridges to give the equivalent of 5mm continuous ventilation.
Maintain 50mm min air gap over insulation at rafter positions.

ROOF ACCESS

Construct roof access between pair of trusses as shown. Fix 125 x 75mm trimmers and line out opening with 32mm rebated sw lining to form min 750mm wide opening between trusses. Roof access panel to be 22mm blockboard insulated on upper surface with 40mm Celotex double-R GA 2040 high performance insulation.

VENTILATION

All window opening lights to exceed 1/20th of room floor area.
All habitable rooms to have trickle vents (8000sq.mm free air).
Windows to Kitchen, Utility room, Bathrooms and WC to have trickle vents (4000sq.mm free air). Kitchen to have either 60 litre/second extractor fan, manual switched or duct cooker hood giving 30 litre/second extraction. Bath/shower/cloak rooms to have opening window and 15 litres/second extractor manual switched or where no window, mechanical extractor wired to light switch with 15 minute over-run timer to give three air changes per hour. All ducting within roof space to be insulated of twin wall construction or incorporate a condensation trap and discharge to ridge through vent tile.

WINDOWS & GLAZING

All windows are to be as manufactured by Jeld-Wen or equal and approved, comprising Stormsure softwood Regency vertical bar casement windows with 24mm sealed double glazed units incorporating Pilkington K glass bead glazed. All windows to have extended sills
Glazing within 1500mm of floor level to doors and within 800mm of floor level for windows to be laminated or toughened to BS 6206 1981.

HEATING & HOT WATER

The heating and hot water installations are to be installed in strict compliance with the relevant Codes of Practice as regards materials, engineering design and workmanship and in accordance with the latest provisions of Part J of The Building Regulations 2002 in respect of Heat Producing Appliances Parts J1 to J6.
The installation is to be designed to comply with the latest provisions of Part L2 to achieve the required energy efficiency in accordance with the guidance notes detailed on the CIBSE Guide on Energy Efficiency in Buildings.
The heating will be provided by low pressure underfloor hot water pipework distributed to all floor areas supplied and fitted by specialist sub contractors. The heat source will be by a wall mounted gas fired, balanced flue boiler located in the utility room. Balanced flue boilers to be fitted and installed in strict compliance with the manufacturers instructions and recommendations.
The space heating is to be provided with zone, timing & temperature controls such that each functional area is maintained at the required temperature only when the space is occupied.
The boiler will serve the hot water installation and include a 210 litre factory insulated storage cistern complete with a dual emersion heater and thermostatically controlled, designed and tested in accordance with BS 6700.
Upon completion, the heating installer is to provide a Commissioning Certificate and maintenance manual for heating & hot water systems.

TIMBER WINDOW SPECIFICATION

All widows are to be manufactured and supplied by an approved supplier and in accordance with the latest provisions and standards of the revised Part L of the Building Regulations 2002.

Timber window an are to be as shown and of Conservation type constructed to match existing windows and manufactured from Douglas Fir and shall comply with CP 112: Part 2. Timber and manufactured components are not to be delivered to site until they can be put into suitable dry storage conditions.
The moisture content of all external joinery work must not exceed 16% at the time of fixing.
All Joinery work is to be pressure impregnated with preservative and a certificate of treatment from the supplier will be required.
All joinery work is to be manufactured and assembled in accordance with BS 1186 Part 2, properly morticed, tennoned and wedged and with the joints glued under pressure.
All external joinery components are to be primed on site after assembly and prepared to receive paint finish.
Windows are to be glazed with 24mm Annealed glass insulating units incorporating Fine Lambs rapid ventilation" equivalent to at least 1/20th of the floor area.Tongue glazing bars bonded to the glass and stepped rebated to the frames.
All widows to habitable rooms to have opening lights capable of providing a minimum free opening for "

TIMBER DOOR SPECIFICATION

Timber doors and frames are to be manufactured from Douglas Fir and shall comply with CP 112: Part 2. Timber and manufactured components are not to be delivered to site until they can be put into suitable dry storage conditions.
The moisture content of all external joinery work must not exceed 16% at the time of fixing.
All Joinery work is to be pressure impregnated with preservative and a certificate of treatment from the supplier will be required.
All joinery work is to be manufactured and assembled in accordance with BS 1186 Part 2, properly morticed, tennoned and wedged and with the joints glued under pressure.
All external joinery components are to be primed on site after assembly and prepared to receive paint finish.
All doors to existing bedrooms to be fitted with self closing devices and new doors to study and Master Bedroom to be half hour fire resistant

STAIRCASE

Staircase to be constructed with 200mm rise and 230mm going and to be a minimum of 825mm clear width between handrails.
Staircase handrails to be mounted 900mm above the pitch line. Minimum headroom from pitch line to ceiling to be 2000mm.
All balustrading is to satisfy the 100mm sphere rule.
Staircase to incorporate two no. winders at each quarter landing.
Maximum pitch of stairs to be 42 degrees.

SURFACE WATER DRAINAGE

New system to comprise Osmadrain as described for foul drainage. Provide upturned bend to all downpipe positions. Drains to fall 1:40 on main runs to soakaways in positions shown on plans minimum 5m away from any boundary or buildings, 1200mm dia x 1500mm deep with 500mm vegetable soil over mineral board cover with coarse granular material below especially around outlet. This to be subject to a standard percolation test.
New rainwater goods to be Upvc with 125mm ogee section Upvc gutters and 65mm square Upvc downpipes.
Gutter laid to a fall of 1: 600. RWPs sealed to drain at ground level.

FOUL DRAINAGE

Internal waste pipes to be 'Osma' or similar approved UPVC connected to the appliance in the approved manner with 75 mm deep seal traps.
Wastes to be:-

Sinks	38mm
Shower	38mm
Bath	38mm
WC	110mm

Sinks to discharge into sealed gulley with screwed access cover. Gulley to continue to inspection chamber. Sink to discharge into Back Inlet Gulley as shown on drawing.

Underground drainage to be 110 mm 'Osmadrain' with flexible joints to a fall of 1:60 on main runs.
Trenches to be backfilled with selected backfill. Where drains pass through walls to be protected by reinforced concrete lintels cast over giving 50mm space around the pipe. Mask opening both sides with rigid sheet material to prevent entry of fill or vermin. Where pipes pass under the building bed as normal and continue to surround and backfill up to the underside of the dpm sand blinding level, all in accordance with manufacturers recommendations. Where pipes are not under a drive/traffic area and have less than 600mm cover, concrete-paving slabs should be used as bridging above the pipes with 100mm of granular material between the top of the pipe and the underside of the slabs. Where pipes are under the drive/traffic area and have less than 900mm cover reinforced concrete bridging should be used instead of paving slabs.
Inspection chambers to be 'Osma' Universal in polypropylene having cast iron covers and frames. Chambers to be bedded in minimum 150mm pea gravel and 150mm concrete around top of shaft to provide bed for frame. IC's to traffic/parking areas to have Grade B covers and frames. Intercepting inspection chamber to have 450 x 600 mm Cast Iron covers and frames and built in accordance with the details outlined in drawing AB/3.

Ref. A3

SHDC
Planning Department
14 NOV 2003
Ref. 0847/02

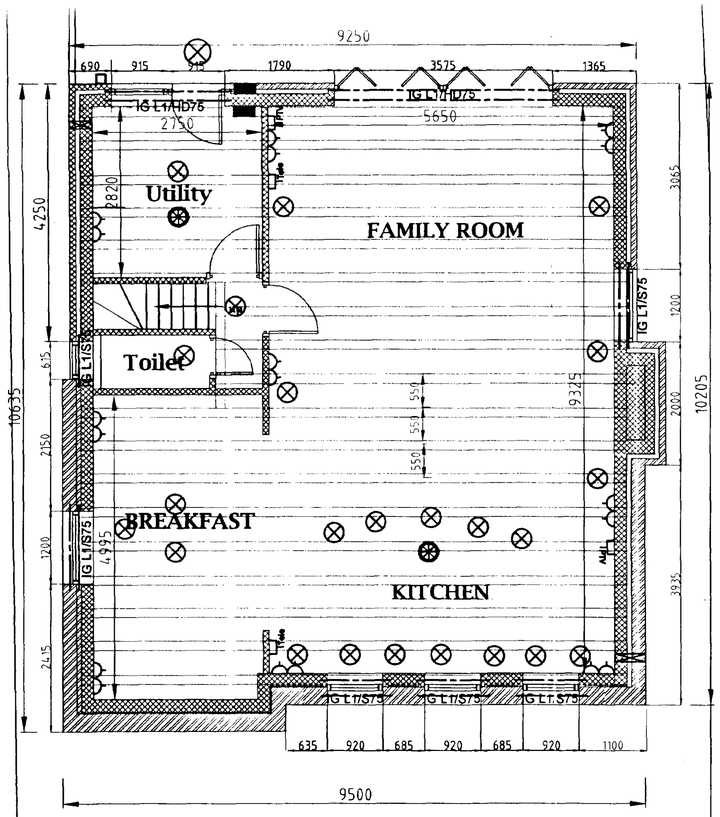
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partnership
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Client:-
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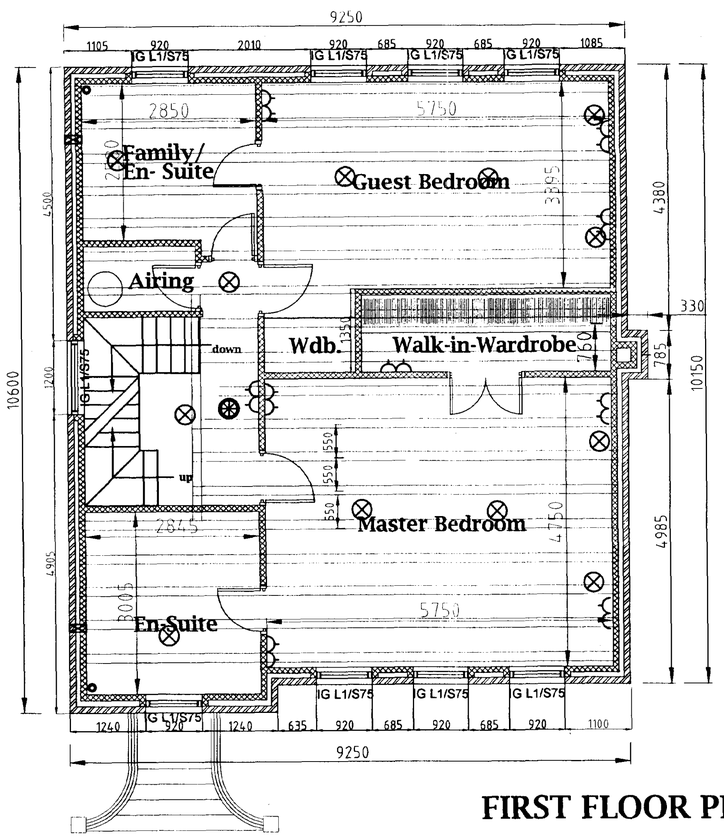
Project:-
New Dwelling & Garage at 41 Cowbit Road, Spalding

Drawings
Section & specification

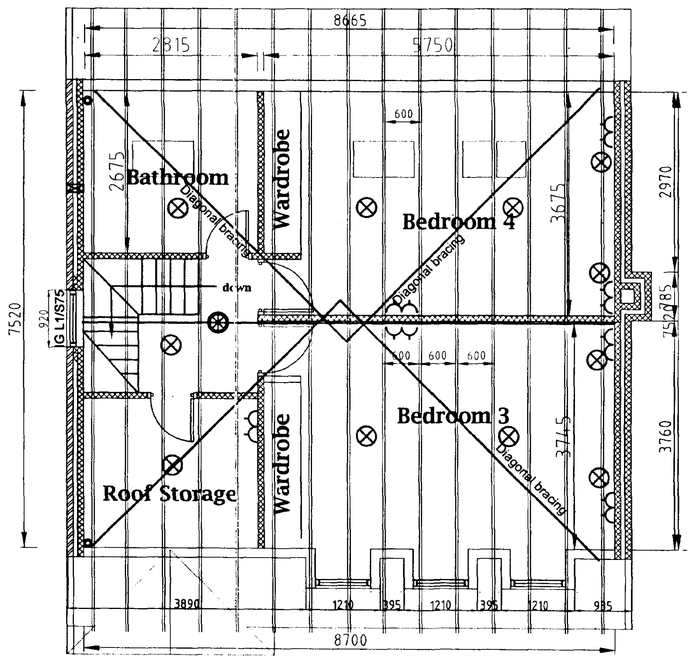
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July 2003	**JDL**
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Scale. **1:50**	*Revision No.* ~~A~~ B



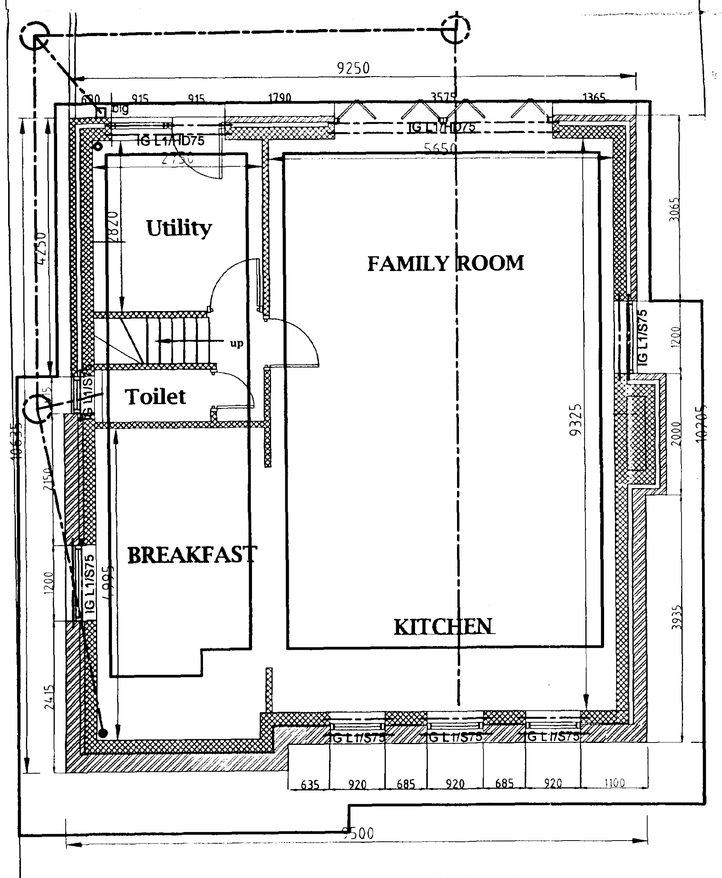
LOWER GROUND FLOOR PLAN



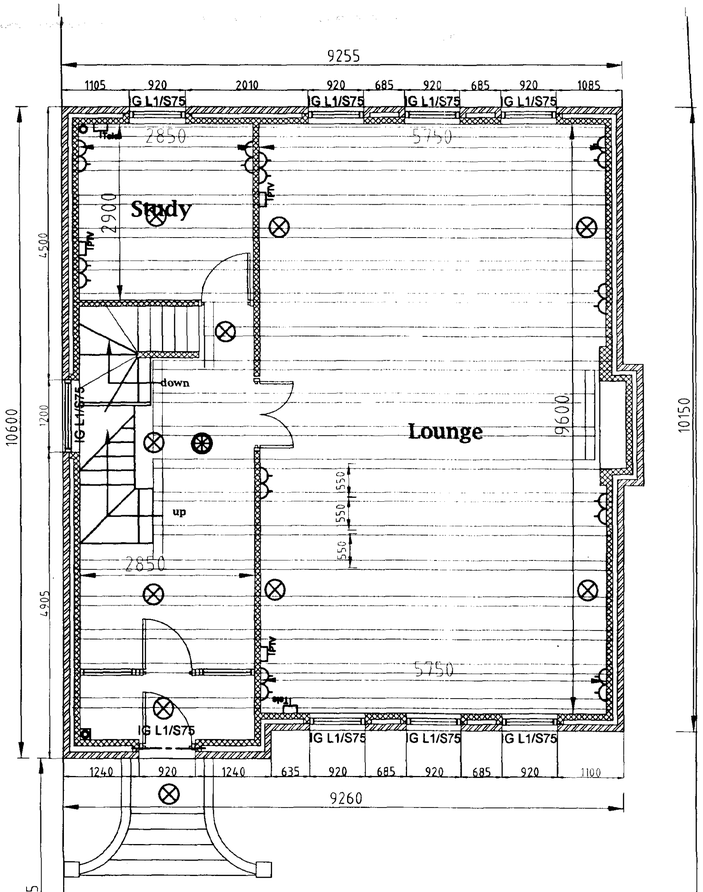
FIRST FLOOR PLAN



ATTIC FLOOR PLAN



LOWER GROUND FLOOR PLAN



UPPER GROUND FLOOR PLAN

Beam: Breakfast Area — **Span: 3.250 m.**

	Load name	Loading w1	Start x1	Loading w2	End x2	R1comp	R2comp
U L	Wall	1.8x3.25	0		L	9.51	9.51
U L	Floor	2.8x9.26/2	0		L	21.07	21.07
				Unfactored reactions (kN)	Total:	30.57	30.57
					Dead:	0.00	0.00
					Live:	30.57	30.57

Load types: U:UDL (positions in m. from R1) D: Dead; L: Live

Maximum B.M. = 24.84 kNm at 1.62 m. from R1
Maximum S.F. = 30.57 kN at R1
Live load deflection = 27.33 x 1e8/EI at 1.63 m. from R1 (E in N/mm², I in cm⁴)
Total deflection = 27.33 x 1e8/EI at 1.63 m. from R1
Steel calculation to BS449 Part 2 using Grade 43 steel
SECTION SIZE : 203 x 133 x 25 UB
D=203.2 mm B=133.2 mm t=5.7 mm T=7.8 mm I_x=2,340 cm⁴ r_y=3.10 cm Z_x=230 cm³
L_E/r_y = 3.25x100/3.10 = 105 D/T = 26.1
Permissible bending stress, p_{bc} = 124.1 N/mm² (Table 3a)
Actual bending stress, f_{bc} = 24.84 x 1000/230.0 = 108.0 N/mm² OK
Maximum shear in web, f_s = 30.57 x 1000/(5.7 x 203.2) = 26.4 N/mm² OK
Check unstiffened web capacity with load of 30.57 kN
Bearing: p_b = 210N/mm² (Table 9); C1 = 31.9 kN; C2 = 1.20 kN/mm
Buckling: p_c = 142N/mm² (Table 17a); C1 = 82.0 kN C2 = 0.807 kN/mm
Unstiffened web bearing capacity, P_w = 31.9kN: no minimum stiff bearing length required
Live load deflection = 27.3 x 1e8/205,000 x 2,340 = 5.7 mm (0.0018 L) OK (L/360=9.03mm)
Total deflection = 27.3 x 1e8/205,000 x 2,340 = 5.7 mm (0.0018 L)

Beam: Stairs — **Span: 2.850 m.**

	Load name	Loading w1	Start x1	Loading w2	End x2	R1comp	R2comp
U L	Partition	2.5x2.85/2	0		L	5.08	5.08
				Unfactored reactions (kN)	Total:	5.08	5.08
					Dead:	0.00	0.00
					Live:	5.08	5.08

Load types: U:UDL (positions in m. from R1) D: Dead; L: Live

Maximum B.M. = 3.617 kNm at 1.42 m. from R1
Maximum S.F. = 5.077 kN at R1
Live load deflection = 3.061 x 1e8/EI at 1.42 m. from R1 (E in N/mm², I in cm⁴)
Total deflection = 3.061 x 1e8/EI at 1.42 m. from R1
Steel calculation to BS449 Part 2 using Grade 43 steel
SECTION SIZE : 127 x 76 x 13 UB
D=127.0 mm B=76.0 mm t=4.0 mm T=7.6 mm I_x=473 cm⁴ r_y=1.84 cm Z_x=75.0 cm³
L_E/r_y = 2.85x100/1.84 = 155 D/T = 16.7
Permissible bending stress, p_{bc} = 108.2 N/mm² (Table 3a)
Actual bending stress, f_{bc} = 3.617 x 1000/75.0 = 48.2 N/mm² OK
Maximum shear in web, f_s = 5.077 x 1000/(4.0 x 127.0) = 10.0 N/mm² OK
Check unstiffened web capacity with load of 5.077 kN
Bearing: p_b = 210N/mm² (Table 9); C1 = 22.1 kN; C2 = 0.840 kN/mm
Buckling: p_c = 149N/mm² (Table 17a); C1 = 37.8 kN; C2 = 0.596 kN/mm
Unstiffened web bearing capacity, P_w = 22.1kN: no minimum stiff bearing length required
Live load deflection = 3.06 x 1e8/205,000 x 473 = 3.2 mm (0.0011 L) OK (L/360=7.92mm)
Total deflection = 3.06 x 1e8/205,000 x 473 = 3.2 mm (0.0011 L)

Scale A3

Planning & D
14 NOV 2003
Ref 0847/02

JOHN D LYNCH
partnership
CHARTERED ARCHITECTS

Client:-
Mr & Mrs S&I Howes

Project:-
New Dwelling & Garage at 41 Cowbit Road, Spalding

Drawings
Detailed floor plans

Date	*Drawn*
July 2003	**JDL**
Job No. **1530**	*Drawing No.* **WD3**
Scale. **1:50**	*Revision No.* **A**