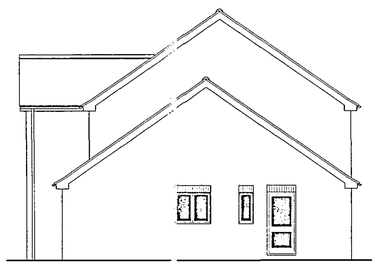
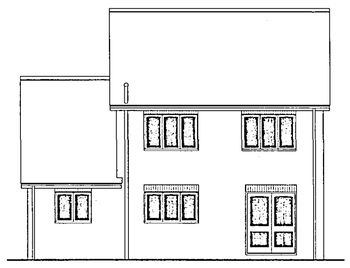


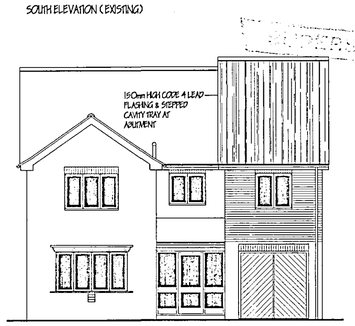
SOUTH ELEVATION (EXISTING)



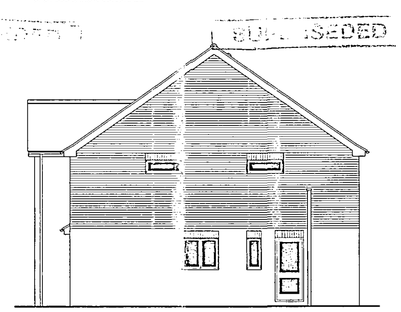
EAST ELEVATION (EXISTING)



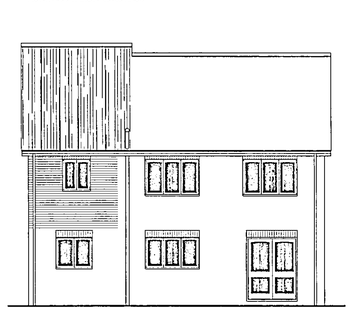
NORTH ELEVATION (EXISTING)



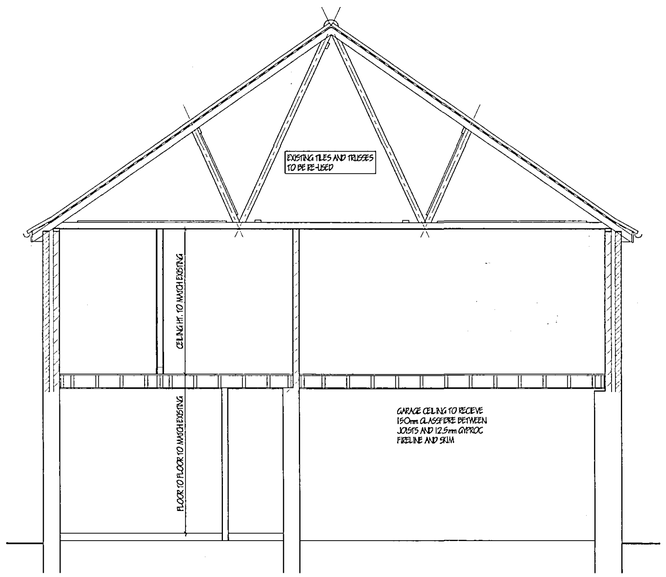
SOUTH ELEVATION (PROPOSED)



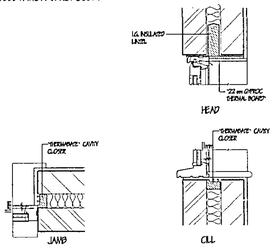
EAST ELEVATION (PROPOSED)



NORTH ELEVATION (PROPOSED)



SECTION A - A



REVEAL DETAILS

HOT WATER AND SPACE HEATING.
Extend and upgrade existing system as required. Ensure timer switch, suitable zone and boiler control interlocks, fit thermostatic control valves to all radiators. Hot water system to be thermostatically controlled with timer switch and to be vented.
Heating Engineer to provide L/A Building Control with a suitable Commissioning Certificate in accordance with that published as part of the Benchmark Code of Practice upon completion

LIGHTING.
To Bedroom provide energy efficient light fitting capable only of taking lamps having a luminous efficacy greater than 40 lumens per circuit.

FOUL DRAINAGE
Foul drainage pipes to be 110mm dia. UPVC, to B.S. 4660:1989 flexibly jointed and laid to makers' instructions to a fall of 1:70 bed and surround with 100mm pea gravel: Where pipes pass under floors encase in 150mm pea gravel: Where pipes pass under drives surround in 150mm concrete with flexed joints to correspond with joints in pipe work. Provide 65 x 100 pre-stressed concrete lintel bridging where pipes pass through walls, provide compressible filler around pipe, opening masked both sides of wall with rebated sheet material: Soil and vent pipes to be 110mm dia. PVC to B.S. 4514: 1989 and to extend 900mm above window head terminating with PVC bottom. Waste pipes to be generally 40mm dia. If over 3.0m long run increase to 50mm dia. All PVC to B.S. 5955: 1979 complete with rodding eyes at every change of direction: Bath, basins and sink to have 75 deep seal traps: Shower to be raised on 150mm plinth with access plate to anti-syphon trap and 50mm waste. All redundant drains to be grubbed out or filled with lean-mix concrete.

VENTILATION.
All windows to have opening lights to give the equivalent of 1/20th the floor area. Provide background ventilation to habitable rooms min. 8000mm sq permanent free air ventilation per room. To all other rooms provide min 4000 sq. All following rooms to have in addition to above Wall mounted mechanical extractor fan. Kitchen to extract min. 60 litres per second. Utility rooms to extract min. 30 litres per second. Bathrooms to extract min. 15 litres per second which may be operated intermittently. W.C. to extract min. 6 litres per second with 15 minute overrun.

SURFACE WATER DRAINAGE.
115mm dia. half round rainwater gutters to 65mm dia. rainwater pipes connected to existing system.

GLAZING.
Double glaze property extension throughout (minimum 12mm air gap to all units with Low 'E' 0.5 Glass) max 'U' value 2.0 W/ sqm. K excluding garage. All glazing between F.F.L. and 800mm high and between F.F.L. and 1500mm high in doors and side lights to be safety glass to B.S. 6206. All windows/ doors to be draught sealed.

GENERAL.
All electrical installations to be in accordance with the latest I.E.E. Regulations.
Provide hot & cold water supply to all wash basins.
All electrical switches, socket outlets, telephone and T.V. points to habitable rooms to be positioned at appropriate heights between 450mm & 1200mm from F.F.L.

FIRST FLOOR CONSTRUCTION
19mm T&G. flooring grade chipboard on 47 x 195 SC3 grade joists stamped 'DRY' or 'KD' to indicate moisture content of 20% or less all in accordance with BS. 4978, at 400c/c 50 x 5 galvanised, steel anchor and lateral restraint straps to joist at max. 1.5m c/c straps to be run over min. 3No. joists with solid bridging beneath: Provide herring bone strutting min. 38 x 38 at mid span of joists where span exceeds 2.5m: Provide 2No. joists bolted together under all first floor walls where not supported on block work below.
All joists at junction with external wall to be supported in solid steel galvanised hangers. Supported off 47 x 200 wall plate .Rawlbolted to inner skin of blockwork at 400mm centres with M10 x 125 bolts.
Alternatively screw each hanger to inner skin of blockwork.

PITCHED ROOF CONSTRUCTION.
Re-use existing interlocking concrete roof tiles to B.S. EN 490 / 491, on 25 x 38 softwood treated battens on under felt to B.S. 747 (type 1F) and in all cases to be lapped by 150mm both vertically and horizontally. Tiles to be laid with min. head lap of 75mm and to be fixed in accordance with regard to wind speed, roof pitch and exposure category as detailed in B. S 6399. Pt 2.
Re-use existing Twinplate specialist made prefabricated roof trusses to comply with B.S. 5268 part 3 1988. TRUSS CALC'S TO BE SUBMITTED TO L/A. MIN. 28 DAYS PRIOR TO ERECTION. trusses to be at 600c/c to a pitch of 35 deg. 38 x 100 ridge rade binder 38 x 100 ceiling binders: All trusses to be strapped to wall plate by 30 x 5 galvanised metal straps acting as anchor and lateral restraint straps at max. 1.5m c/c. Note: provide solid bridging beneath straps: 50 x 100 wall plate bedded on sand and cement: 25 x 175 fascia boards: 6mm ext. grade plywood soffit complete with 10mm wide continuous air gap and fly proof screen: All structural timber to be min.SC3 grade. stamped 'DRY' or 'KD' to indicate moisture content of 20% or less all in accordance with BS. 4978. Where span of trussed rafter exceeds 5.0m provide additional bracing within the plane of the webb in accordance with Truss Plate Assoc. tech. bulletin sheet 4: Timber supports are to be provided beneath water storage tanks over 4No ceiling joists

FIRE ESCAPE WINDOWS.
All habitable rooms in the upper story of a dwelling should have a window with an unobstructed openable area of at least 0.33 sq.mtr. and at least 450mm wide x 750mm high (the route through the opening may be at an angle rather than straight through) Th bottom of the openable area should not be more than 1100mm above floor level

CEILINGS.
Flat ceilings lay 250mm glass fibre insulation total thickness. 100mm between joists & 150mm over Joists to provide max. 'U' value of 0.16 W/ sq.m.K. Ensure 50mm air gap over all insulation. 12.7mm Gyproc plasterboard 3mm skim finish: Provide min. 38 x 38 noggins to all plasterboard edges. All joints to be taped and filled. Provide access trap to roof space: opening to be lined with 25 x 25 planted stops: Access panel to be 12mm ply with layer of 12.7mm Fireline board fixed to face. 100mm Jablite to top surface. Provide slide bolt fastening & draught seal all round

LINTELS.
All lintels to be manufactured by Messrs. I.G. Codes L1/ 5 50 and L1/ HD 50 all to be installed in accordance with makers' instructions, and to have min. end bearing of 150mm and at external positions to have cavity tray D.P.C. to CP. 121: Internal lintels to be I.G. 100 Dot tape. Lintels in garage to be underlined with 12.7 fire line board or receive 12mm render and skim. Provide Perp-end weep holes and stop ends to cavity tray

LIMITATIONS.
This drawing is limited in the amount of information contained and does not purport to contain a full specification of the works. It is solely for the purpose of obtaining Planning/ Building Regulation approval. The drawing must not be used as a contract document alone.
All dimensions shall be taken from site from actual work. Under no circumstances shall measurements be scaled from this drawing for construction or ordering purposes.
All given dimensions shall be checked by the Builder/ Contractor and will be his responsibility from commencement of site works.
The works will not be supervised or inspected on site by C.A.D. or any representative thereof. It is the client or their appointed agents responsibility to control workmanship, substitution of materials, adherence to specification, variations to contract etc.

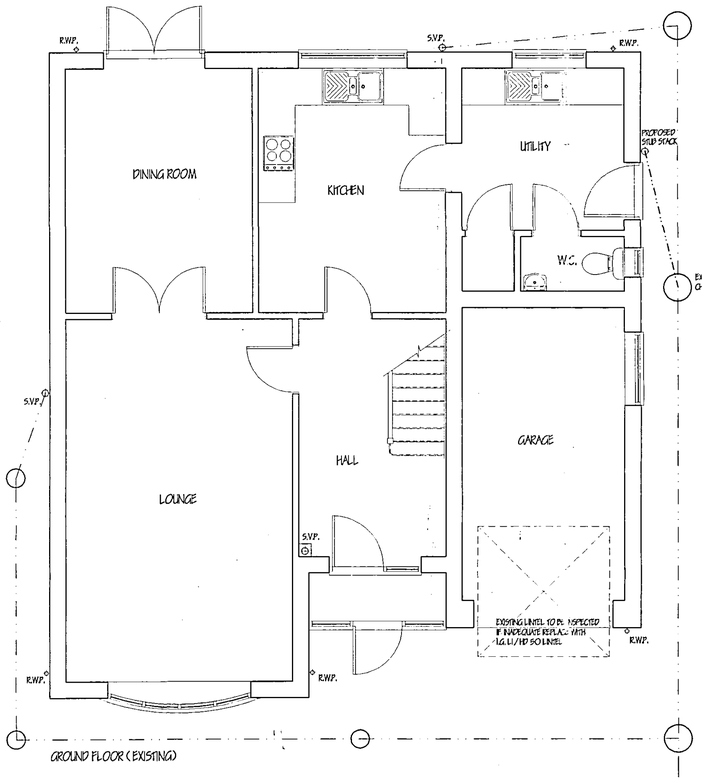
COPYRIGHT RESERVED.
Copies of this drawing must be made only with the written permission of Cooper Architectural Design.

STANDARDS.
All materials to be new unless otherwise stated and all components and materials etc. to be used fitted and installed etc. in strict accordance with manufacturers instruction and relevant Code of Practice.
Materials shall conform to appropriate British Standard Specification or BBA Certificate or European Code equivalent.

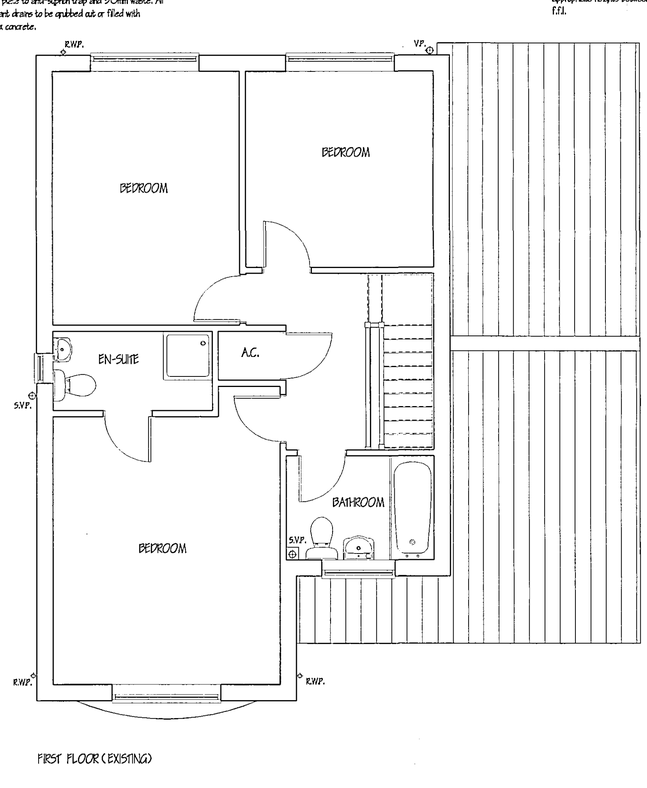
HEALTH & SAFETY.
The Employer / Client shall ensure that the selected contractor is conversant with and adopts all measures necessary to achieve compliance with Health & Safety legislation for Building Sites and Work Places.
The Employer / Client is advised that should the works need to comply with the Construction Design and Management Regulations an independent Planning Supervisor will be required.

SCOPE OF THE WORKS.
The works shall comprise of all that is shown on the drawing and details. Work that may not be specifically shown but may be reasonably inferred as necessary to carry out the works shall be deemed to be included.

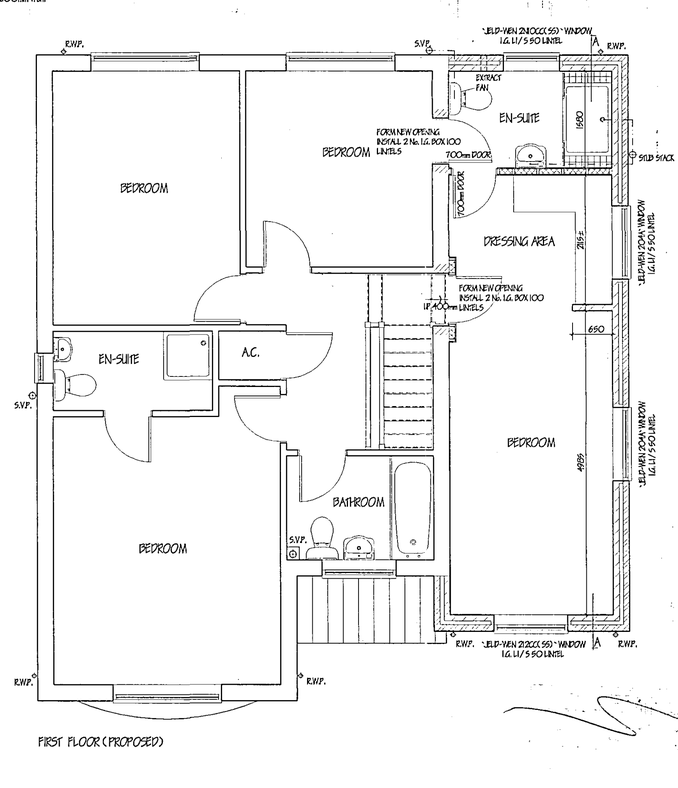
WALLING.
265 cavity walling to consist of face brickwork to B.S. 3921:1974 for clay bricks and B.S. 187:1978 for calcium silicate bricks: 65 cavity: build into cavity Dritherm cavity wall batt insulation boarding in accord. with makers instructions and agrement cert No.84/1268 & 86/1584. 100mm Tarmac Topflite standard solid insulation blocks or similar: Cavity walls tied together using galvanised iron twist ties set 750 horizontally and 450 vertically to B.S. 1243:1978 wall ties positioned at 300 vertical centres at all unbonded closures of cavity: Close cavities with "Thermabate" preformed closer and provide bitumen felt DPC to C.P. 121: All work to be carried out in accordance with BS Code of Practice 121 Part 1:1975. External walls to have max. 'U' value of 0.35 W/ sq.m.K : Internal walls of 100mm Tarmac Hamelite solid insulation blocks: All to receive 13mm lightweight plaster. Stud walls to consist of 38 x 89mm c.l.s studs at 400mm c/ c, both sides to be clad with 12.7mm plasterboard and skim. 100mm glass fibre infill between studs. Movement joints to be installed in blockwork in accordance with B.S. 5628 pt. 3 1985.



GROUND FLOOR (EXISTING)



FIRST FLOOR (EXISTING)



FIRST FLOOR (PROPOSED)

revision	date	init.	revision details.

COOPER ARCHITECTURAL DESIGN
WRIGHTS MEWS, 12A PARK ROAD, HOLBEACH, SPALDING, LINC'S PE12 7EE
Tel/Fax : 01406 423762
Mobile : 07808 125 778

Client.
MR & MRS R. GRAYSAN

Project.
PROPOSED FIRST FLOOR EXTENSION
52 NEEDHAM DRIVE
SUTTON ST JAMES
SPALDING
LINC'S.

SUPERSEDED

Drawing.

11 JUN 2003

ho 074103

Scale 1:50 1:100	Drawing No. 0221-01
Date. MAY '03	Drawn. J.C.