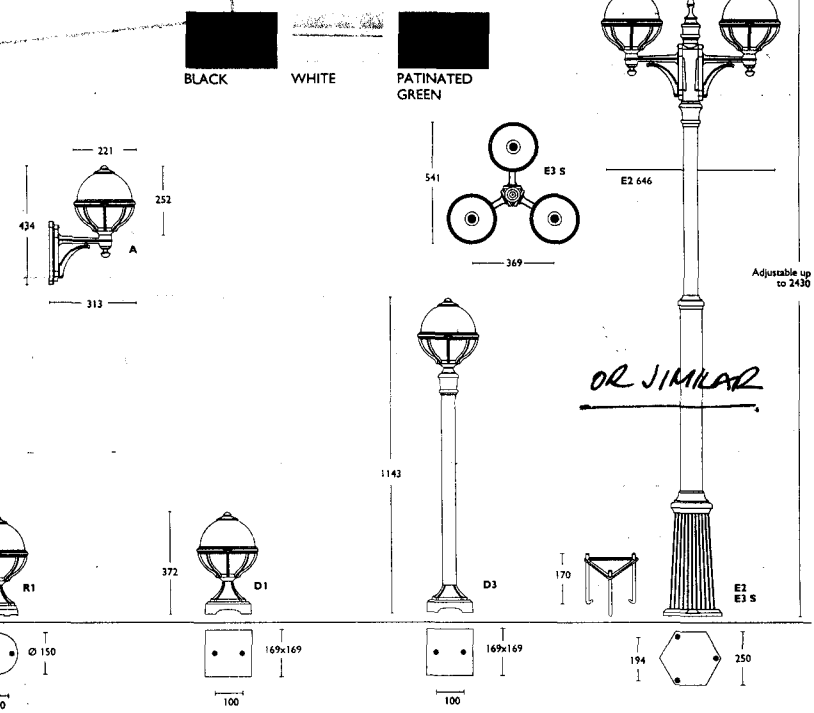
ORIGO II

All models are available in black, white or patinated green. Lenses in stabilized shatterproof polycarbonate. Light fittings, posts and brackets in PolySealed aluminium.

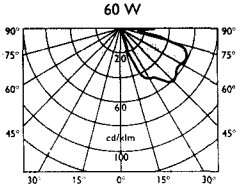
HOUSING STANDARDS
29 JUL 1997
Ref: 0730/97



INSTALLATION:

Includes concreting anchor for anchoring on site. Accessories available: adapter for standard foundations (Ø 108 mm), see page 177. Light fittings are supplied with cables of appropriate length already fitted.

60 W



WHEN ORDERING, PLEASE STATE:

Model/Bracket _____
Light fitting colour _____
Light source/W _____
Lens colour _____
Accessories _____

Sources/Protection class						Models/Brackets						Colours	
Source	Cap	Max W	Lumen	IP	Class	A	R1	D1	D3	E2	E3 S	Lens	Light Fitting
Incandescent bulb	**E27**	**60**	**650**	44	II	●	●	●	●	●	●	Smoked	Black, white, patinated green
Compact fluorescent tube	G24d-1	10	600	44	I	●	●	●	●	●		Opalescent white	

Bold type indicates that a product is held in stock.

DRAINAGE

Surface
Excavate for and lay in where indicated 100mm diam. flexible jointed UPVC drains on 100mm pea gravel bed from 100mm diam. upturned bend at base of downpipe to surface water soakaway.

Form soakaway where indicated a min. 5.0m from the nearest building. Excavate 1200 x 1200 x 1200mm deep, backfill with brick rubble to 300mm below ground level, lay in sheet polythene and make up with vegetable soil.

Foul
Supply and install proprietary upvc inspection chambers on 100mm pea gravel bed in strict accordance with manufacturers instructions. Inspection chambers to conform to the following sizes :-

Depth	Internal diam	Cover diam
.6m or less	190mm	190mm
1.0m or less	450 mm	450mm
1.5m or less	900mm	600mm
over 1.5m	1200mm	690mm

Excavate for and lay in where indicated 150mm diam. flexible jointed upvc drains on 100mm pea gravel bed at a gradient of 1 : 70.

Where 100mm diam. drains pass through walls they are to be protected by the use of a lintel over. Both sides the wall to be masked with rigid sheet material with 50mm clearance of the pipe.

Where flexible pipes are not under a road and have less than 600mm cover they are to have concrete paving slabs laid as bridging above the pipes for protection and

are to have a min. 75mm granular material between the top of the pipe and the underside of he slab.

Where flexible pipes are under a roadstrive with less than 900mm cover reinforced concrete bridging is to be used instead of paving slabs.

Install where indicated a 100mm diam. soil and vent pipe jointed to 100mm diam. upturned bend at base. Finish at top, a min. 900mm above window head height, with a durable cage.

Install where indicated trapped (rodddable) gullies - waste pipes to discharge below grating level and above water level.

Install 40mm diam. pvc waste to sinks and showers, 32mm diam. pvc waste to hand basins all with 75mm deep traps. 40mm diam. pvc waste to bath with combined trapped waste and overflow. *Unless specified other wise on plan.*
All waste pipes to have rodding access at each change of direction and be readily accessible throughout their length.

Install where indicated a proprietary septic tank, having a min. capacity of 3500 litres, in full accordance with the manufacturers instructions and specifications. The tank is to be provided with land drains, the length of which is to be determined by a percolation test (min 25.0m), laid at 40mm w/fished gravel. The tank is to be sited a min. 12.0m from the nearest dwelling and preferably within 30.0m from a point from which the tank emptying vehicle can reach.

Above ground drainage to comply with BS5572 : 1978
Below ground drainage to comply with BS8301 : 1985

All drainage items are to be installed in strict accordance with the manufacturers instructions.

ROOF CONSTRUCTION

Tiles
The roof is to be covered with interlocking concrete roof tiles fixed in strict accordance with manufacturers instructions.

Battens
Approved quality tanalised site battens, 38 x 25mm, are to be laid at a gauge suitable for the tiles and fixed with 65 x 3.35mm wire nails. Battens should be at least 1.2m in length and should be of sufficient length to be supported at each end and intermediately by at least three rafters, trusses or walls. Butt joints over intermediate supports should be staggered and the ends must be sawn.

Underlay
Approved reinforced roofing felt, type 1F to BS 747, is to be laid over the rafters lapped 150mm at the joins and secured with clout nails. The underlay should extend over the fascia board and into the eaves gutter. In order to prevent water traps behind the fascia it is recommended that a strip of 6mm marine plywood is provided to support the underlay. The ply is to be laid over the rafters and under the roofing felt positioned as close as possible to the last tiling batten and secured to the fascia.

Eaves
Eaves are to be formed with standard eave tiles and purpose made eave fillers must be nailed to the fascia board. Eave tiles must be laid at the same pitch as the main body of tiling and should overhang the fascia by an amount sufficient to ensure that the water discharges into the centre of the gutter.

Verges
Verges are to be formed with 150mm wide adhesive cement strip onto which is bedded the tiles which form the verge projecting approx. 50mm over gable brickwork.

Ridge
The ridge is to be covered with segmental ridge tiles of the same colour as the main body of tiling, unless specified otherwise, and secured using a proprietary ventilated dry ridge system having ventilation equivalent to a continuous 6mm gap.

Valleys
Valleys are to be formed with Code 4 lead lining supported by boards with the adjacent tiling neatly cut and bedded onto plain tile slips leaving a clear channel approx. 125mm wide.

Abutments
The tiling is to be cut closely at abutments and weathered by Code 4 lead flashing dressed down over the tiles and up the abutment a min. 150mm.

Mortar
All bedding mortar is to consist of 3 parts sharp sand to 1 part Portland cement and should be struck off to give a smooth face and pointed in one operation.

Trusses
Gangnail trusses, 35° pitch, at 450mm centres to be designed, fixed and braced in accordance with BS5268 : pt3 : 1985 and secured to wall plate with proprietary stainless steel clips.

Manufacturers details and calculations in respect of prefabricated trusses, include compound roof trusses, are to be submitted to the Local Authority Building Control Dept. for approval at least 28 days prior to fixing on site.

Truss positions and bracing shown is indicative only and is to be confirmed/superseded by truss manufacturer.

All bracing to be 100 x 25mm.

Insulation
To be Rockwool Rollbatts (k = 0.037 W/m/K), 160mm laid between joists with a further layer of 80mm laid at right angles over the top.

Ceilings
12.7mm foil backed plasterboard, fixed in accordance with manuf. instructions with all necessary noggins etc., and finish with artex/skim finish in accord with clients instructions.
Ceiling to garage to be 12.7mm Gypsum Fireline Board with 50mm cover strips to joints to give a half hour fire resistance.

Ventilation
Provide over fascia ventilation to the roof space equal to not less than a 10mm continuous gap to provide cross ventilation.

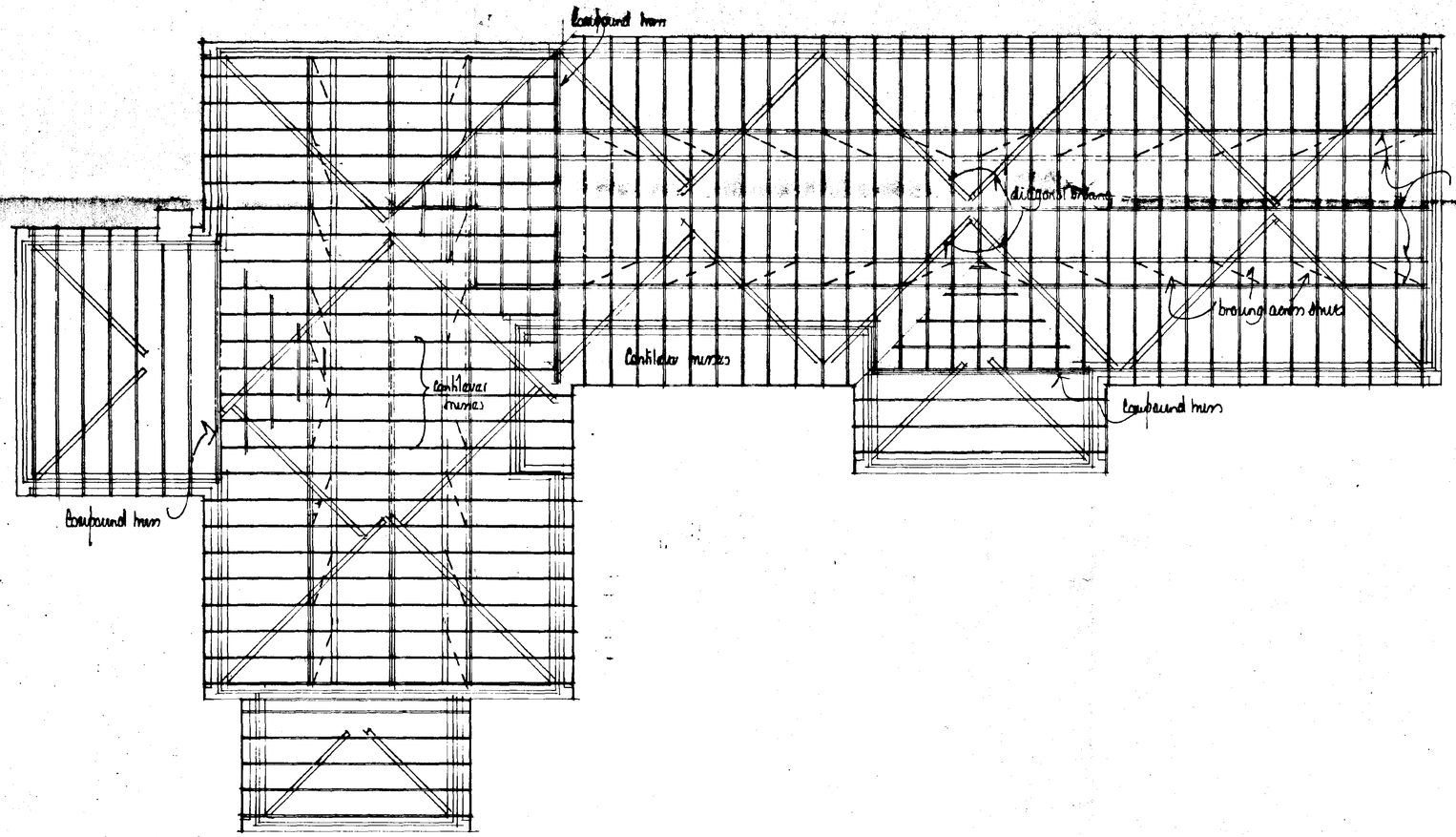
Rainwater Goods
Supply and fix 103mm PVC gutters to fascia with all necessary brackets, stop ends, outlets etc.

Supply and fix 64mm PVC downpipes securely clipped to walls at 1800mm cts with all necessary offsets, bowmecks, adaptors etc. and taken into 100mm diam. upturned bend at base.

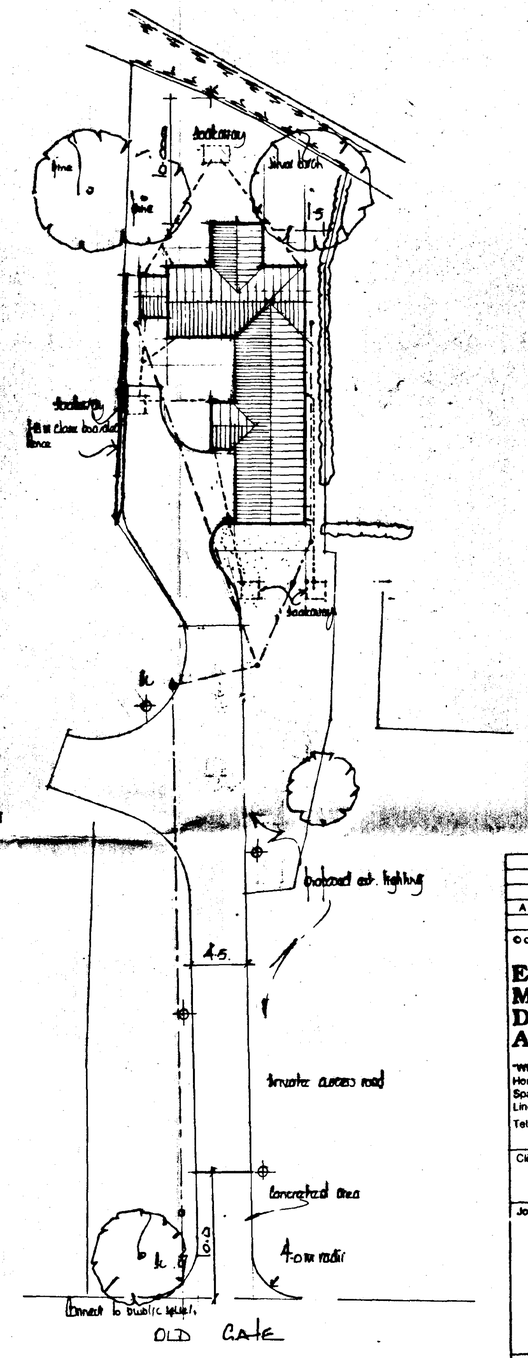
STRAPPING

Where rafters, floor joist and ceiling ties run parallel to gable they are to be strapped at 1800mm cts. Straps to be fixed to a min. 3No. rafters etc., having nogged between beforehand, and hooked into the cavity a min. 180mm.
Similar straps to be used at 1800mm cts to hold down the wall plate.

Straps to be 30 x 5mm galv. m.s.



ROOF PLAN



SOUTH HOLLAND D.C.
HOUSING & PLANNING
28 JUL 1997
Ref: S730/97

AMENDED PLAN
Ref.

		Ext. lighting added
		Ditty trap plumbed
A		Screen added to western boundary
	Date	Revisions

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East Midlands Design Associates
"Willow Ledge",
Horseshoe Road,
Spalding,
Lincs. PE11 3JA
Tel: Spalding (0775) 767968

Client
Mr. & Mrs J. Watson

Job Title
Proposed Bungalow at
Plot D Old Gate
St Johns Road
Lowe Suttons. Spalding.

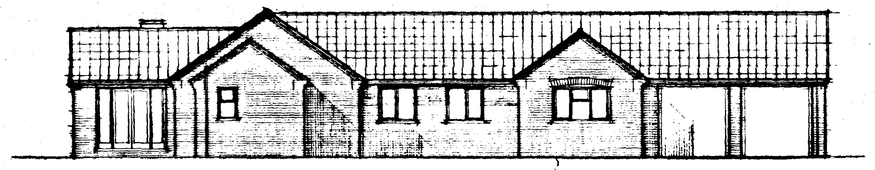
Drawing Title
Roof Plan

DETERMINED PLAN

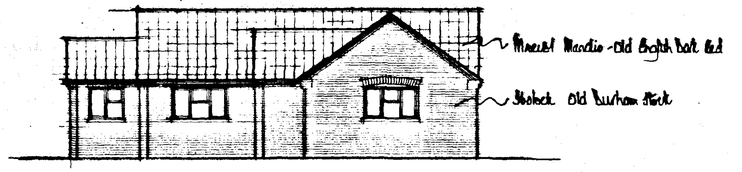
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Date June 97 | Drawn by AL

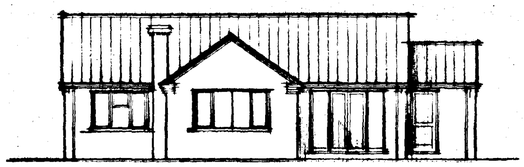
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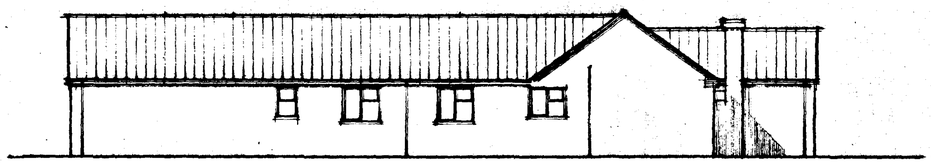
S WEST



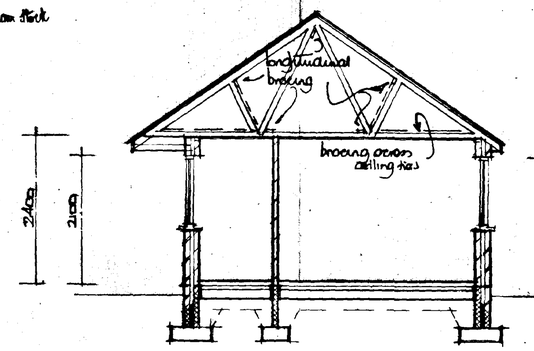
S EAST



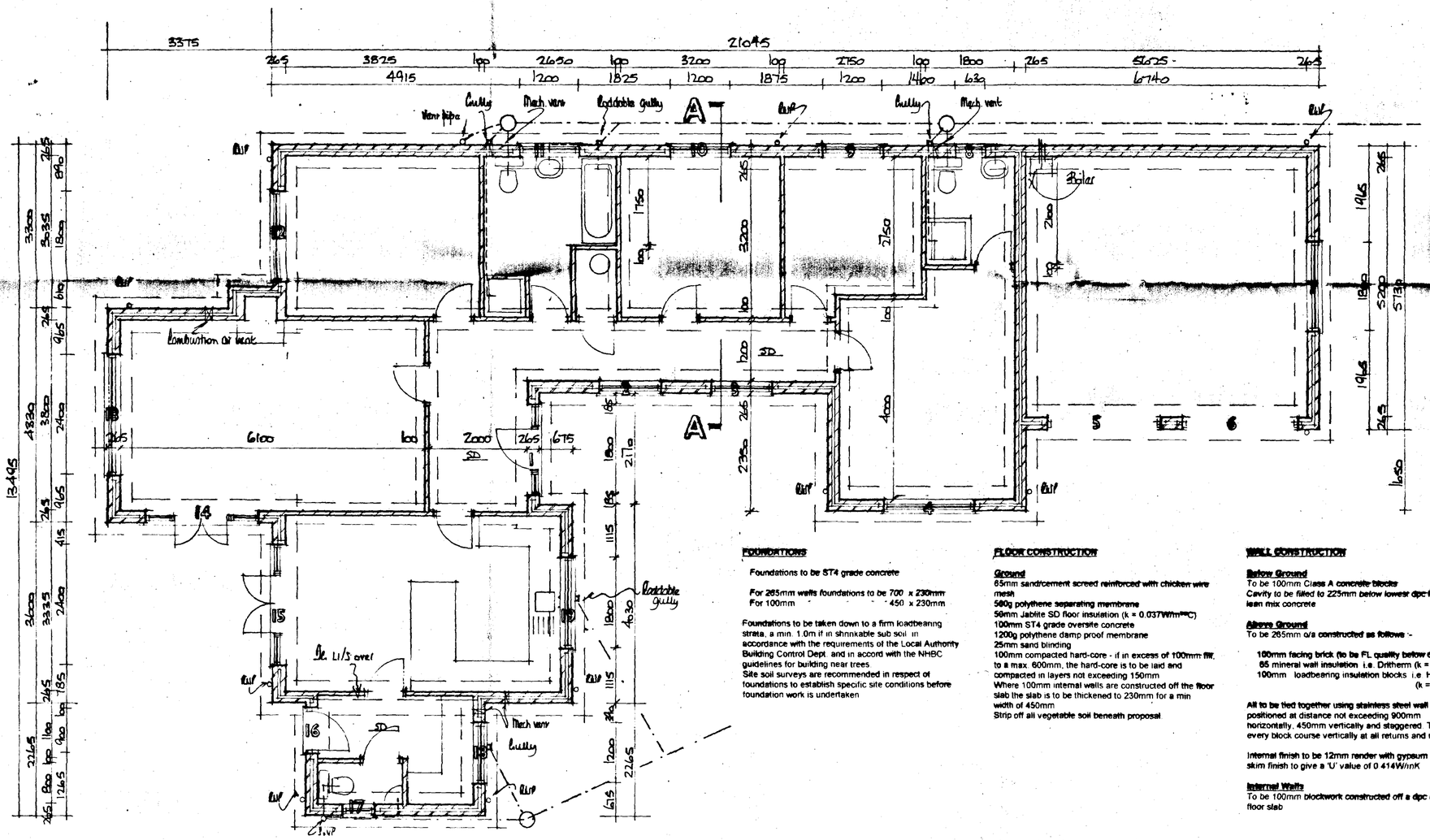
N WEST



N EAST



SECTION A - A



GROUND FLOOR PLAN

FOUNDATIONS

Foundations to be ST4 grade concrete

For 265mm walls foundations to be 700 x 230mm
For 100mm " 450 x 230mm

Foundations to be taken down to a firm loadbearing strata, a min. 1.0m if in shrinkable sub soil in accordance with the requirements of the Local Authority Building Control Dept. and in accord with the NHBC guidelines for building near trees.
Site soil surveys are recommended in respect of foundations to establish specific site conditions before foundation work is undertaken.

FLOOR CONSTRUCTION

Ground
65mm sand/cement screed reinforced with chicken wire mesh
500g polythene separating membrane
50mm Jablite SD floor insulation (k = 0.037W/m°C)
100mm ST4 grade oversite concrete
1200g polythene damp proof membrane
25mm sand blinding
100mm compacted hard-core - if in excess of 100mm fill, to a max. 600mm, the hard-core is to be laid and compacted in layers not exceeding 150mm
Where 100mm internal walls are constructed off the floor slab the slab is to be thickened to 230mm for a min width of 450mm
Strip off all vegetable soil beneath proposal.

WALL CONSTRUCTION

Below Ground
To be 100mm Class A concrete blocks
Cavity to be filled to 225mm below lowest dpc level with lean mix concrete

Above Ground
To be 265mm o/a constructed as follows :-

100mm facing brick (to be FL quality below dpc level)
65 mineral wall insulation i.e. Dritherm (k = 0.036)
100mm loadbearing insulation blocks i.e. Hemelite (k = 0.44)

All to be tied together using stainless steel wall ties positioned at distance not exceeding 900mm horizontally, 450mm vertically and staggered. To be at every block course vertically at all returns and reveals.

Internal finish to be 12mm render with gypsum plaster skim finish to give a 'U' value of 0.414W/m²K

Internal Walls
To be 100mm blockwork constructed off a dpc off the floor slab

DPC in Walls
To be a min. 150mm above finished ground level
An insulating vertical cavity closer and dpc, i.e. Thermabate, is to be provided to all cavity closures.
A dpc cavity tray, stepped as applicable, is to be constructed within the wall immediately above an abutment.

LINTELS

Lintels to be RS, or similar and equivalent, to have a min. 150mm end bearing and be installed in strict accordance with manufacturers instructions with a dpc cavity tray over where applicable.

Lintels over internal openings to be RS Internal 100 thrislx unless specified otherwise.

Lintels to be protected with min. 12mm gypsum plaster skim finish to give a min. half hour fire protection.

WINDOWS & DOORS

Windows and doors to be purpose made UPVC double glazed with 12mm air gap to sealed units and weather stripped.

Windows to habitable rooms are to incorporate a controllable trickle vent of 8000mm², 4000mm², to non habitable rooms.

Glazing to windows less than 800mm and doors (include sidelights to doors) less than 1500mm above floor level is to be laminated or toughened glass in accord with BS6206 : 1981.

WINDOW/DOOR & LINTEL SCHEDULE

Location	window/door ref. width x height	lintel ref. &	length
1	1800 x 2100	L1/S	2100
	front entrance door with sidelights		
2	1200 x 1200	L1/S	1500
3	1200 x 1200	L1/S	1500
4	1800 x 1200	L1/S	2100
5	std garage door	L1/S	2700
	and frame		
6	AS 5		
7	1800 x 1050	L1/S	2100
8	830 x 1050	L1/S	900
9	1200 x 1200	L1/S	1500
10	1200 x 1200	L1/S	1500
11	1200 x 1050	L1/HD	1500
12	1800 x 1350	L1/S	2100
13	2400 x 1350	L1/S	2700
14	2250 x 2100	L1/S	2550
	French doors and frames		
15	2400 x 2100	L1/S	2700
	French doors and frames		
16	900 x 2100	L1/S	1200
	Rear entrance door and frame		
17	830 x 1050	L1/S	900
18	1200 x 1050	L1/S	1500
19	1800 x 1050	L1/S	2100

VENTILATION

All habitable rooms are to have windows containing opening vents, the combined total of which is equal to not less than 1/20th of the floor area of the room.

The kitchen is to be mechanically ventilated direct to the external air. The capacity of the extractor is to be 60 litres/sec or 30 litres/sec if in a cooker hood.

All bath and shower rooms are to be mechanically ventilated direct to the external air. The capacity of the extractor is to be 15 litres/sec.

The utility is to be mechanically ventilated direct to the external air. The capacity of the extractor is to be 30 litres/sec.

SMOKE DETECTION

Self contained smoke alarms complying with BS5446 Pt 1 : 1990 are to be installed where indicated SD on the drawing. An alarm must be positioned within 3.0m of bedroom doors.

The alarms are to be permanently wired to a separately fixed circuit at the distribution board operating at a low voltage via a mains transformer.

The wiring installation is to comply with the I.E.E. Regulations.

HOT WATER SYSTEM

A room sealed oil fired central heating boiler is to be installed where indicated complete with fan assisted flow and combustion air vent, the area of which is to comply with the manufacturers recommendations. The flue is to be guarded externally with a stainless steel guard.
An electrical timing device is to be provided to control the operating periods of the boiler which in turn is to be controlled by room thermostat and should only fire the boiler when space heating or the hot water cylinder thermostat calls for heat.

A room thermostat or radiator valves are to be installed.

The hot water system is to be vented.

A 3 kW immersion heater is to be fitted to a hot water cylinder insulated with 35mm thick factory insulation plus an additional 50mm thick insulating jacket. The hot water cylinder is to be fitted with a thermostat and time switch.

All pipes not contributing to useful heat requirements are to be insulated using an insulation material with a thermal conductivity not exceeding 0.45W/mk and a thickness equal to the external diameter of the pipe up to a max. of 40mm.

CHIMNEY CONSTRUCTION

The chimney is to be constructed incorporating clay flue liners to BS1181 : 1989. Liners to be a min. 200mm internal diameter and laid socket uppermost. Weak mix concrete is to be used to fill the voids between the masonry brickwork of the chimney and the flue liner.

Chimney to terminate as indicated on elevation and flashed to the roof using Code 4 lead flashing, stepped as applicable, dressed up the chimney a min. 150mm.

Hearth to open fire to be min. 125mm o/a thickness, project 500mm from the face of the fire and extend 150mm past the jambs of the fire.

Fireguard fixing points to be provided.

A permanent air entry opening, to BS8303 : 1995, of at least 50% of the throat area is to be provided where indicated.

A	Date	Revisions

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DETERMINATION PLANS
SOUTH HOLLAND DC
HOUSING & PLANNING
Section 30 JUN 1997
Ref: 0730/97

Client
Mr. Mrs S. Watson.

Job Title
Proposed Bungalow At Plot 6. 'Oldgate',
St James Road
Long Sutton. Spalding

Drawing Title
Plans & Elevations.

Scale 1:100 & 1:50

Date June 97 | Drawn by AL

Drg. No 97/37/01 | Rev