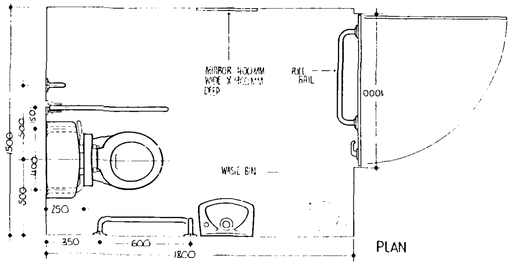
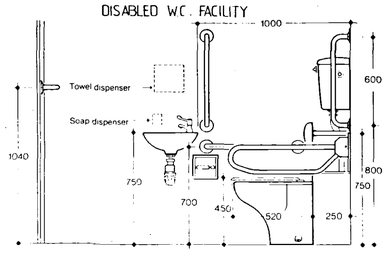
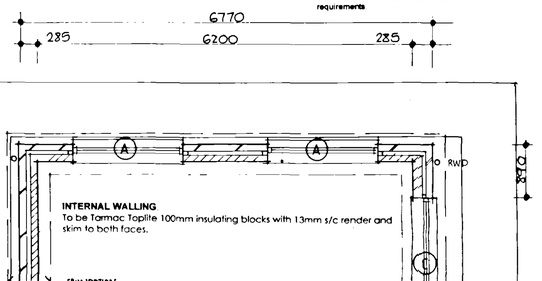
Provide eave to eave ventilation equivelent to 10,000mm /m run. Use either ventilating soffit boards, continuous over fascia ventilation system; Provide 100mm fibreglass insulation quilt inbetween ceiling ties and 200mm fibreglass insulation quilt over ceiling ties (total 300mm thickness). Ensure to maintain a min. 50mm air space between roof insulation and roofing felt.







ROOF COVERING:
Concrete interlocking roof tiles on 50 x 25mm treated softwood battens, gauge to suit tiling on B.S.747 type 1F untearable roofing felt or similar on cut/trussed rafters as applicable. Contractor is to determine tile fixing specification from manufacturers published literature with due consideration for site location, anticipated wind velocities and roof pitch.

ROOF CONSTRUCTION:
Wall plates generally 100 x 65mm treated softwood with half lapped joints and fully bedded strapped down to support wall with 30 x 5mm GNS straps at max 1.2m centres. Cut rafters fully birdsmouthed over and twice nailed to all supports. Trussed rafter roof to be designed and manufactured by an approved manufacturer and fixed, together with min 100 x 25mm sawn SW binders and bracing in accordance with B.S.5268 Part 111 1985 (and any subsequent amendment). Twinaplate trusses spaced at max 600mm centres and pitched at 3 "incl. Pink Trusses
Provide 30 x 5mm once bent (900/100) glav.M.S. lateral restraint straps to external walls at ceiling and rafter level where shown at max 1.8m fixed with 4N 50mm B gauge CSK screws or 5N 3.5 x 50mm galv. round wire nails to 3N trusses/ceiling joists coupled with solid blocking support and edge packing.

Provide edge restraint noggings at perimeters for plasterboard fixing.

LATERAL RESTRAINT STRAPS
Tie roof structure to blockwork wall with 30X5 galvanised mild steel straps at max 1.8m ctrs where rafters and ceiling joists run parallel to blockwork walls. Also fit at max 1.8m ctrs to anchor wallplate to blockwork wall with min 3no. fixings per strap.

All 25X100 diagonal and longitudinal wind bracing, and ceiling tie bracing to be free from all major defects and any weak points and fixed all in accordance with manufacturers details. Lap joints (if required) to be taken over 2no trusses all in accordance with BS5268 Part 3 - 1985. Bracing to be fixed with 2no. 3.35 x 65mm galvanised round wire nails at each cross over and to firmly butt against walls.

ROOF / LOFT ACCESS
Provide insulated roof access trap door with a fully weathered sealed frame and a 38mm brass bolt or to clients requirements

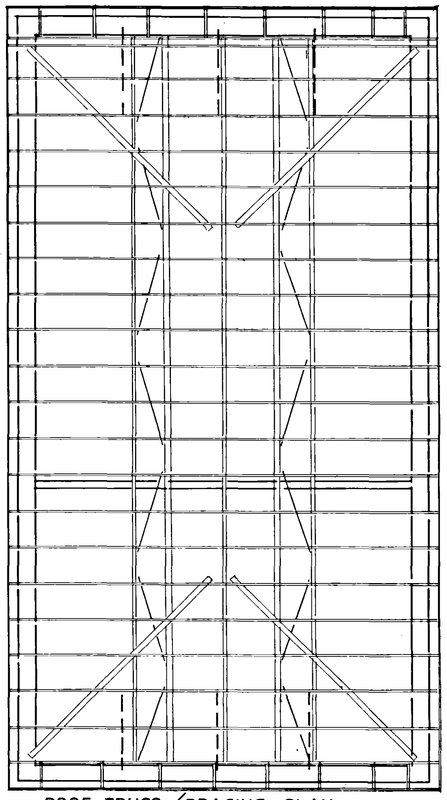
NOTE: MANUFACTURER'S DETAILS & CALCULATIONS TO BE FORWARDED TO SHDC'S BUILDING CONTROL OFFICER FOR APPROVAL AT LEAST 21 DAYS PRIOR TO FIXING ON SITE

Pre - Fabricated Trussed Rafters to be at max 600mm ctrs gable wall extrusions. Roof construction to be designed strictly in accordance with BS5268 Part 3 1985 and contractor to ensure trusses are fitted strictly in accordance with specialist manufacturers design drawings & calculations. First and last truss to be fixed 25-50mm from wall.

30x5 m/s straps (S) over 2no trusses at max 2m ctrs to gable ends and ceiling level. At least 1no gable strap to be within 500mm of nidge. Provide solid noggings under each strap.

Note: Provide 50x50 timber noggings for partition head fixing and pendant light fixings. Position of light fixings to be agreed on site with client.

Solid pack void between last rafter and blockwork with mineral fibre insulation and solid timber packs.



SECONDARY LIGHTING. (EL)

Provide and install a secondary lighting system in accordance with the current British Standard 5266. The system should be supplied with electricity from a source independent of the main electrical supply and arranged to come into operation automatically on failure of the local lighting circuit.

Additionally, the system should be capable of:-

Maintaining the necessary level of illumination for a minimum period of one hour from the time of failure or disconnection of the normal supply.

Illuminating all corridors and exit routes as shown, sufficiently to enable persons to make their way out of the premises.

Ensuring that all notices, fire alarm call points and fire fighting equipment can be readily identified.

FOUNDATIONS.
Strip all top soil / vegetable soil locally and reduce levels further as necessary. Unless otherwise stated foundations to be 700mm wide x 225mm deep under cavity walls and 450mm wide x 225mm deep under 100mm loadbearing walls. Foundations to be taken down minimum 750mm below ground level or to an approved firm base as agreed with local authority on site Building Control Inspector. Foundation concrete ST4 strength class.

Any foundation in close proximity to tree's to be deepened in accordance with current NHBC practice 'note 3' and any subsequent amendment.

SUB STRUCTURE WALLING.
Class 'B' engineering brickwork or Class 'A' concrete brickwork (7 n/mm²) in 1:3 cement mortar. Bricks below D.P.C. to be F.L. designation and to BS 3921
1:2 lean mix concrete cavity fill and to terminate 225mm below lowest D.P.C. level. Internal 100mm walls below D.P.C. in class 'A' concrete blockwork. Drains passing through walls to be protected by concrete lintel with a 50mm gap between underside of the lintel and the crown of the pipe. Gap filled with compressible material. Provide vermin guard to external face of wall.
D.P.C. installed a minimum 150mm above ground levels to both skins of cavity walls and all internal walls.

EXTERNAL WALL
285mm cavity wall construction to comprise: -
100mm facing brick (to B.S. 3921: 1974 for clay brick, B.S. 187: for calcium silicate brick).
85mm dritherm insulation to cavity.
Inner leaf to be 100mm Tarmac Toplite or similar approved insulation blockwork.
13mm s/c render and skim to internal face.
Provide galvanised or stainless steel wall ties to B.S. 1243: 1978 installed at 750mm ctrs. Max. Horizontally, 450mm ctrs. Vertically. Ties at 225mm cts. Max. Vertically within 225mm of reveals at unbound jambs to all openings.
Cavity to be closed at all openings and in roof space incorporating horizontal and vertical D.P.C.'s Damcor insulating vertical D.P.C.

WALLING BELOW D.P.C.
Any brickwork below d.p.c. level to be F. L. quality.
Class A blockwork to be used below d.p.c. to B.S. 6073
Below ground to be celcon Trench Block.
Provide lintel to wall wher pentrated by services.
Provide horizontal d.p.c. at 150mm min. above finished ground level.
D.p.c. to be continuous and lapped with d.p.m.
Lean mix to cavity to terminate 225 below lowest d.p.c. level.

DAMP PROOF COURSE.
To be from 2000 gauge black polythene to BS 6515 or bitumen based to BS 6398 laid to both leafs of external wall and to all internal walls. To external wall d.p.c. to be laid 150mm above ground level with d.p.c. to inner leaf linked to floor d.p.m. All d.p.c.'s to be bedded on mortar. All vertical and horizontal cavity closures to incorporate a d.p.c..

DRAINAGE - FOUL WATER.
Inspection chambers to be u.p.v.c. Bartol installed in accordance with manufacturer's instructions in positions shown on plan.
Foul water to discharge into treatment plant installed to manufacturer's instructions.
Below ground pipework to be 100mm dia. u.p.v.c. Bartol to B.S. 4460: 1989 flexible jointed pipework laid in accordance with manufacturer's specification to 1 : 70 fall with 150mm pea gravel bed and surround.
Where pipes pass below floors, provide 150mm min. pea gravel bed and surround to maintain flexibility.
Drains to be protected under driveway and where cover is less than 600mm, by provision of concrete slabs over min. 75mm pea gravel cover.
Below ground drainage is to comply with B.S. 8301: 1985.
110mm dia. u.p.v.c. soil and vent pipes to be installed in positions shown on plan. Provide balloon grating to terminate at 900mm min. above adjacent openings within 3.0m. Provide access plate at base of stack.
Where indicated on plan, air admittance valves are to be installed in accordance with manufacturer's instructions.
Waste pipes from appliances to discharge directly into soil pipes or gullies as appropriate with access plugs at all changes in direction.
40mm dia. polypropylene wastes from kitchen / utility snks, baths, showers and washing machines etc. 32mm dia. from wash basins with 50mm dia. combined wastes unless otherwise stated. All appliances to have 76mm deep seal traps, all above ground drainage to comply with B.S. 5572.
Where waste run exceeds 3.0m provide anti-syphon traps to appliances.
Shower tray to be set on raised plinth to allow access to trap.
where waste and soil pipes are encased in ply ducting provide adequate access panels.
Where drains run throughwalls provide concrete lintel over 900mm min. long length dependant on angle and number of drain runs.
A 50mm gap should be left all around the pipe with the opening covered by a rigid sheet material, and fill gap with compressible sealant.

DRAINAGE - SURFACE WATER.
112.5mm dia. half round u.p.v.c. gutters to discharge into 68mm dia. downpipes.
Below ground pipework to be 82mm dia u.p.v.c. flexible with 100mm - min. pea gravel bed and surround.
Pipes to be laid 1 : 70 fall to 1.2m soakaways at 5.0m m n. from any building.
All work to comply with Part H3 Building Regulations 1991.

INTERNAL DRAINAGE.
Waste pipes to be Osma or equal approved PVCu connected to the appliances in the approved manner with 75mm deep seal antivac traps.
Wastes to be :-
Wash hand basins - 32mm Dia.
W.C.'s - 100mm Dia.
Bath, shower and sinks - 40mm Dia.
Collection pipes - 50mm Dia.

HEATING.
Balanced flue boiler to be installed in position indicated on plan.
Proposed boiler efficiency to be in accordance with table 2 SEDBUK rating.

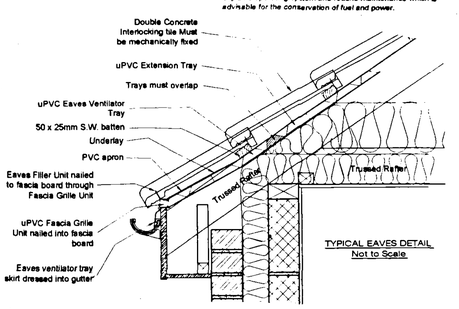
All hot water and heating pipes including cylinder to be insulated in accordance with REG. L1 Building Regulations.
Where balance flue appliance installed provide durable guard to flue outlet 600mm min. from adjacent openings and corners of building.

Hot water storage system to be insulated so as to limit heat loss to 90 W/M of surface area of system to comply with BS 1566: PAR'S 1& 2: 1984 or BS 3198: 1981.
Room thermostat / thermostat valves to radiator installed to control heat output from boiler system.

GROUND FLOOR CONSTRUCTION:

70mm sand/cement screed on 500 gauge p.v.c. dpm. on 50mm thickness Celotex double-R General Application boards GA2000, product code GA2039 (thermal resistance 1.53m²k/w) layed in strict accordance with manufacturers instructions. Insulation on 100mm concrete oversite slab ST4 to B.S. 5328:1990 on 1200 gauge (300 micron) p.v.c. d.p.m. with welted joints and lapped into wall d.p.c.'s.150mm min (max 600mm) well blinded and consolidated clean limestone or crushed carrstone hardcore base.
NOTE: Thicken out oversite under internal non loadbearing walls to a minimum dimensions 450mm wide x 225mm deep with 45° batters or alternatively provide a strip A252 mesh reinforcement centrally in oversite under walls 1 metre wide.

Contractor to provide an "Operating and Maintenance Instructions for Heating and Hot Water Systems" notice inside central locations which explains operating system and routine maintenance which is advisable for the conservation of fuel and power.



TYPICAL EAVES DETAIL
Not to Scale

SEPTIC TANK:
Connect foul drains to 825 gallon capacity Klargester septic tank installed in strict accordance with Local Authority approval. The sub-irrigational drainage system from the septic tank is to be determined by percolation tests in accordance with the provisions of Clause 15;3:2 of BS.6297:1983 The applicant is responsible for carrying out the tests and the minimum requirement is 41metres of sub-irrigational drainage or such length as may be determined by the test; whichever is the greater. The council recommend that tanks be sited 12metres from dwellings. It is essential that drainage falls be kept to a minimum, say 1:70, & the tank modified by reducing it's neck length by cutting to ensure both inlet & outlet are maintained above ground water level. N.R.A. consent must be sought under the provisions of schedule 12 of the Water Act 1989 for consent to discharge effluent into the land. N.R.A do not allow septic tank soakaway systems to be situated within 10 metres of any watercourse or discharge effluent into, directly or indirectly into an aquifer. Before septic tank installation percolation test results are to be referred to determining the length &depth of sub-irrigational drainage-porous or perforated pipes laid in trenches with a uniform gradient not steeper 1:200. Pipes laid a min. depth of 500mm below the surface and no deeper than 760mm in a closed circuit arrangement.

LINTELS.
Lintels to be I.G. galvanised steel or similar approved lintel to B.S. 5977.
Selection and installation to be in strict accordance with manufacturer's instructions.
Provide 150mm min. end bearing to all lintels with bit. felt d.p.c. Cavity tray provided in accordance with B.S. 5628 Part 3: 1985 to all external wall conditions except where protected by eaves overhang.

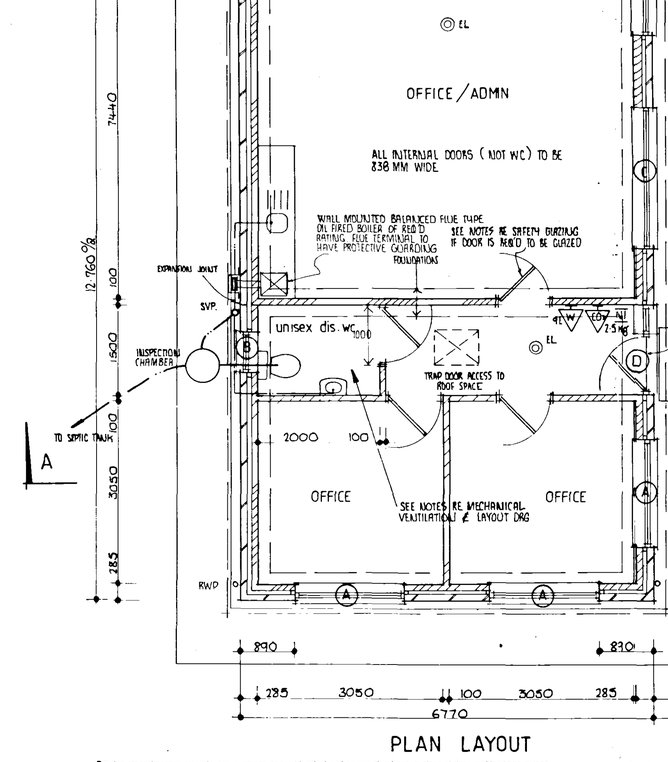
NOGGINS
Fix 38x38mm timber noggings to all potential loose plasterboard ceiling edges and light fittings Position of light fittings to be advised by client on site

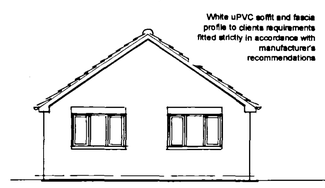
INTERNAL JOINERY SKIRTING & ARCHITRAVES
All internal finished timber to be free from all defects and to clients approval prior to ordering any materials

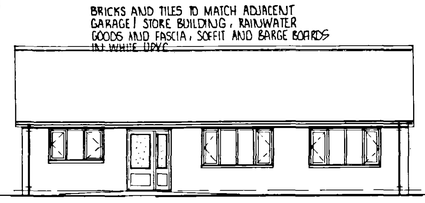
ELECTRICAL INSTALLATION
To be in strict accordance with the latest I.E.E Regulations and Engineer to advise if any appliance or position of appliance does not conform to regulations. Contractor to seek advice from Client with regard to lighting requirements

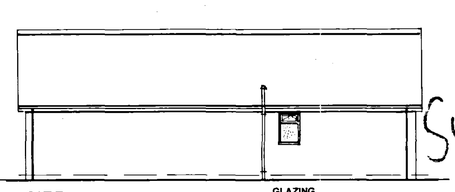
ACCESSIBLE SWITCHES & SOCKETS
Inorder to use the dwelling more easily by all persons then wall mounted switches, sockets, TV sockets, telephone jack points and door bells ... etc should be positioned between 450mm and 1200mm from finished floor level. Door bells & light switches to be fitted 1200mm from FFL and the remainder 450mm from FFL

COMMISSIONING OF HEATING AND HOT WATER SYSTEM
Contractor to submit a cetificate to show that commissioning has been successfully carried out. The certificate should be made available to the Client and SHDC building inspector. A suitable certificate should be one published as part of the Benchmark Code of Practise for Installation, Commissioning and Servicing of Central Heating Systems, a blank copy may be included within the boiler manufacturers installations instructions or from C.H Information Council on Tel no 01926 423 284.

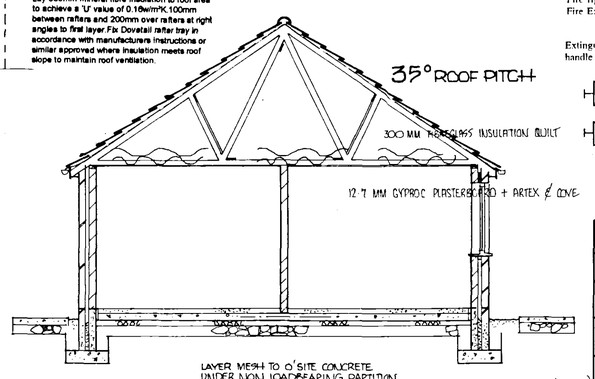








ROOF INSULATION
Lay 300mm mineral fibre insulation to roof area to achieve a 'U' value of 0.16w/m²K 100mm between rafters and 200mm over rafters at right angles to first layer. Fix Dovetail rafter tray in accordance with manufacturers instructions or similar approved where insulation meets roof slope to maintain roof ventilation.



FIRE FIGHTING EQUIPMENT.
Fire fighting equipment conforming to British Standard 5423 - 'Specification for Portable Fire Extinguishers' should be provided in the locations shown on the drawing.

Extinguishers should be mounted on brackets securely fixed to the wall with their carrying handle approximately 1 metre from floor level.

9L W — FIRE EXTINGUISHER : WATER INCL. SIZE IN LITRES

2.5 Kg 10B — FIRE EXTINGUISHER : CARBON DIOXIDE : SIZE IN KILOGRAMMES

GLAZING
All glazing to be low - e type glass with 16mm air gap (Pilkington k-glass or equivalent).
To be in accordance with Part N1 Building Regulations and BS 6206: 1981.
All glazing to internal doors where fitted to be toughened / laminated safety glas.
All glazing to external doors to be toughened / laminated safety glass except solid doors incorporating small glazing area not exceeding 250mm width and 0.5m are a e.g. cottage style.
Patio and French doors to be fitted with safety glazing.
Double glazing to all external doors and windows.
Each safety glazed panel to incorporate the British Standard Kite Mark, as means of identification.

WINDOWS AND DOORS.
All windows to be double glazed and capable of providing not less than 1/20th floor area 'rapid' ventilation of habitable room served.
In addition, all habitable rooms to have propletry trickle vents installed to window frame at high level providing not less than 8000 sq. mm of 'background' ventilation. To W. C. not less than 4000 sq. mm. Where patio or French doors provide the only means of ventilation to a room provide 10,000 vent to frame.
Glazing to be in accordance with Part N Building Regulations 1991.
All extemd doors and opening lights to windows to be draught sealed.

DOOR / WINDOW / LINTEL SCHEDULE

Nº	QTY	BWK OPENING (MM)	LINTELS	LINTELS LENGTH	COMMENTS
A	5Nº	1810 w X 1200 H	IG L1/575 PROVIDE CAVITY TRAYS	2100 ABOVE IN GABLES	WINDOW HEIGHT TO BE CONFIRMED BY CLIENT 4000 MM² TRICKLE VENTS TO HEAD
B	1Nº	685 w X 1050 H	IG L1/S 75	900	4000 MM² TRICKLE VENT OBSCURE GLAZING
C	2Nº	2370 w X 1350 H	IG L1/HD 75	2700	HEIGHT TO BE CONFIRMED BY CLIENT
D	1Nº	1500 W X 2100 H	IG L1/S 75	1800	"MOBILITY THRESHOLD. 1M WIDE % DOOR FRAME.

OIL TANK: THIS IS TO SIT ON A HARD SURFACE OF MIN 42 MM THICKNESS AND EXTEND 300 MM BEYOND THE TANK. TANK CAPACITY NOT TO EXCEED 2500 LITRES AND TO BE SITED MIN 1800 MM FROM BUILDING & 760 MM FROM BOUNDARIES MINIMUM FROM THE TANK TO THE BOILER TO BE RESISTANT TO EFFECTS OF FIRE & TO BE FITTED WITH FIRE VALVE SYSTEM IN ACCORD WITH B.S. 5410. PT 1: 1997 SECTIONS 8.2 & 8.3. OIL OR EQUIVALENT TO TANK. FIT LABEL GIVING INSTRUCTIONS ON WHAT TO DO IN CASE OF AN OIL SPILLAGE & INCLUDE ENVIRONMENT AGENCY EMERGENCY HOTLINE 0800 80 70 60

Provide sloped access ramp to rear entrance door with min.1m clear opening. Level surface at door position to be at least 1.2m² with sloped gradient of not steeper than 1:15 if slope is not longer than 10m or not steeper than 1:12 if slope is less than 5m. Note additional DPC required at coarse above usual DPC level to level landing / sloped areas only. Ensure DPC is lapped with DPM in floorslab. Entrance door to dwelling to have min clear opening width 800mm and a level threshold.

ALL DIMENSIONS IN mm DO NOT SCALE : IF IN DOUBT ASK

Contractor To Check All Dimensions On Site Before Work Commences.

Rev.	Date.	Init.	Revision Details.

PODDINGTONS
Architectural Design Consultants
Unit 7. The Flaxmill, Flaxmill Lane, Pinchbeck.
Spalding, Lincs. PE11 3XQ.
Tel: 01775 720866 Fax: 01775 720877

Project.
PROPOSED OFFICE/ADMIN BUILDING TO TOURING CARAVAN SITE AT ROMAN BANK LUTTON GOWTS
FOR: SILVERHILL LEISURE LTD

Drawing.
PLAN PROPOSED

Scale. 1:50 1:100
Drawing. No. 3145-2
Drawn.
Date. AUGUST 03
Rev.

29 AUG 2003
Ref. 1055103