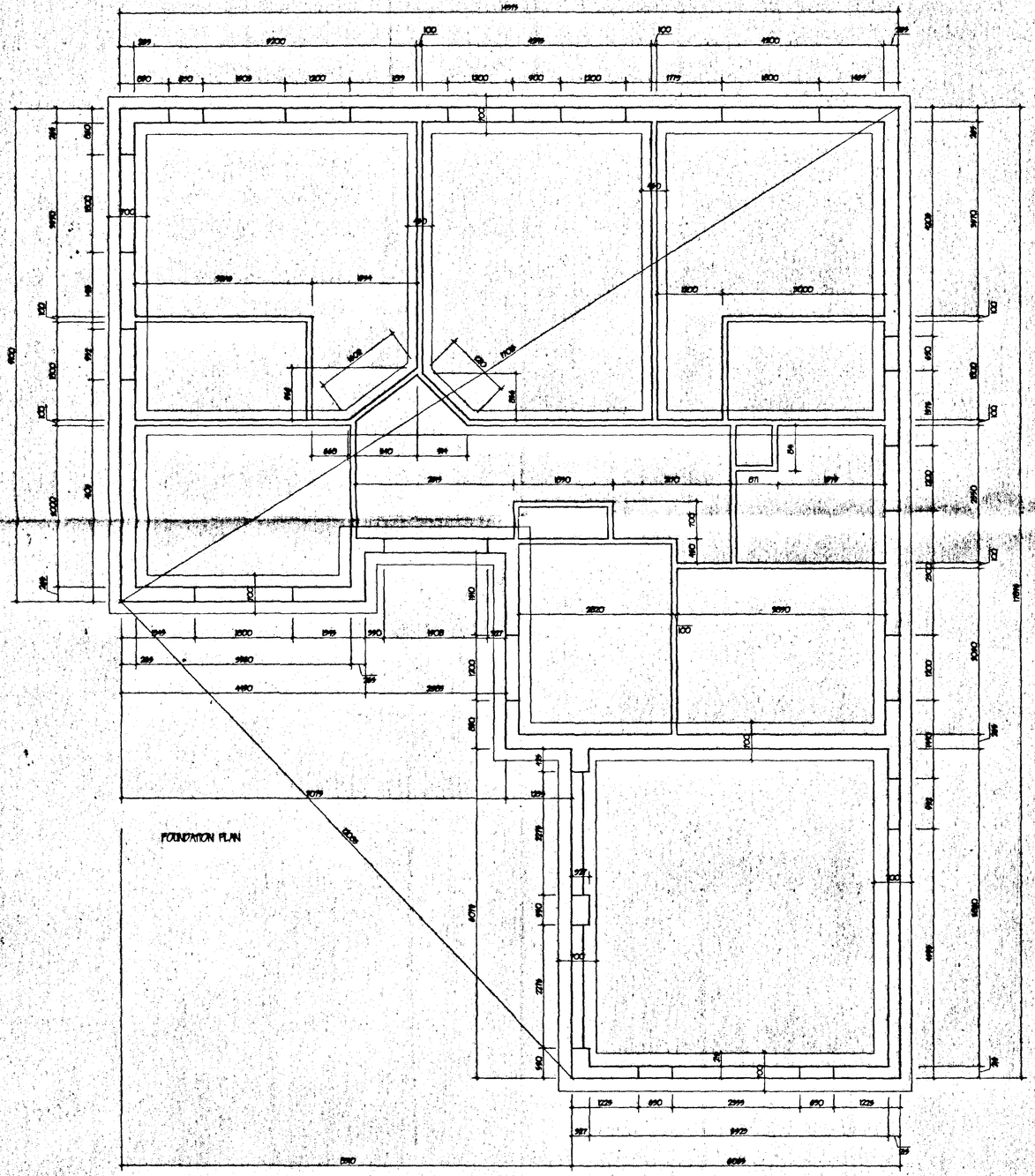


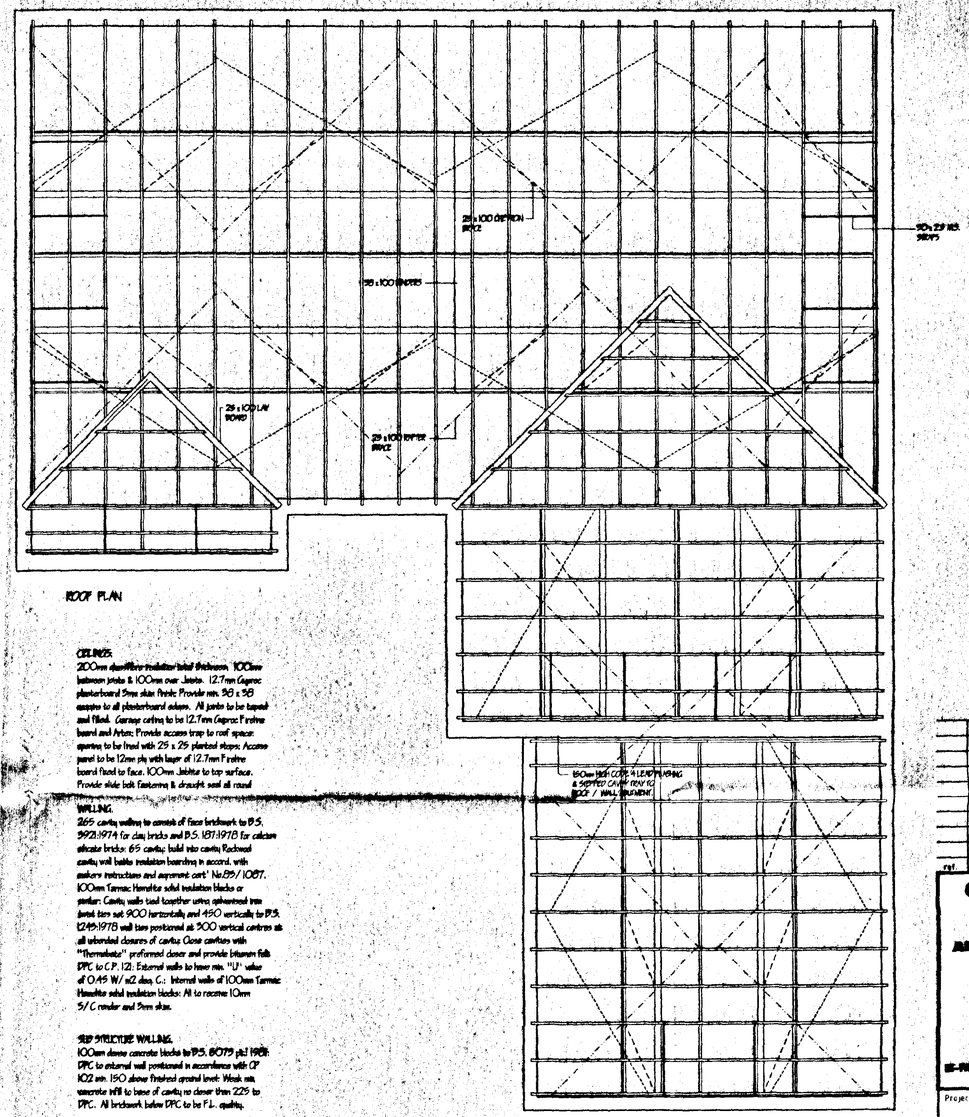


ROOF PLAN

**CEILINGS.**
200mm dust/fire insulation total thickness. 100mm between joists & 100mm over. Joists: 12.7mm Gyproc plasterboard 3mm skim finish: Provide min. 90 x 38 noggins to all plasterboard edges. All joints to be taped and filled. Garage ceiling to be 12.7mm Gyproc Fireline board and Artex: Provide access trap to roof space: openings 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 fasteners & draught seal all round

**WALLING.**
265 cavity walling to consist of Ibstock Leicester Class B engineering brickwork in accordance with B.S. 3921:1974 for clay bricks and B.S. 187:1978 for calcium silicate bricks: 65 cavity: build into cavity Rockwool cavity wall batts insulation boards in accord. with makers instructions and approved cert.' No 89/1087. 100mm Tarmac Hemelite solid insulation blocks or similar: Cavity walls tied together using galvanised iron twisted ties set 900 horizontally and 450 vertically to B.S. 1243:1978 wall ties positioned at 300 vertical centres at all unbonded closures of cavities Close cavities with "Thermabate" preformed closer and provide bitumen felt DPC to C.P. 121: External walls to have min. "U" value of 0.45 W/m2 deg. C.: Internal walls of 100mm Tarmac Hemelite solid insulation blocks: All to receive 10mm S/C render and 3mm skim.

**SUB STRUCTURE WALLING.**
100mm dense concrete blocks to B.S. 6073 pt.1 1981: DPC to external wall positioned in accordance with CP 102 min. 150 above finished ground level: Weak mix concrete infill to base of cavity no denser than 22% to DPC.. All brickwork below DPC to be F.L. quality.

**GROUND FLOOR CONSTRUCTION.**
Strip all vegetable soil and lay floor as follows: 75mm sand and cement screed with chicken wire reinforcement on 150 Kg polythene D.P.M. on 50mm Polystyrene insulation board, on 1200g polythene D.P.M. lapped continuous with D.P.C. lay min. 100mm, lay 200mm wide D.P.M. strip into D.P.C. to top floor D.P.M. All on 100 concrete oversite: Concrete mix GEN4 to B.S. 5928: pt 1991: 150 blinded and consolidated hardcore: Alternative Floor construction as above but 19mm T&G. flooring grade chipboard on 50mm Polystyrene insulation board laid on oversite in lieu of screed and insulation board. Ensure 12mm separation gap to perimeter of boarding. Use treated chipboard to kitchen and bathroom.

**FOUNDATIONS.**
Under walls as shown provide strip concrete foundations as follows: Under 265 cavity walls provide 225 x 100 and under 100 walls provide 225 x 450 all GEN4 mix to B.S. 5928: pt 1991. All foundations taken down to bear on load bearing strata: min. depth of 600 to top of foundations: should dirt/rubble soil conditions be found on site then foundations shall be taken down to a depth of 1 metre below ground level. Where internal walls are taken off floor then thicken out slab to 225 x 450 or if considered necessary be taken down to 225 x 450 foundation.

**LINTELS.**
All lintels to be manufactured by Ribmore U.K. and to be installed in accordance with makers' instructions, and to have min. end bearing of 150mm and at internal positions to have cavity tray D.P.C. to CP. 121: Internal lintels to be U.K. 100 Plus type. Lintels in openings to be underlined with 12.7 firelite board or receive 12mm render and skim. Provide Perp-end weep holes and stopends to cavity tray

**SOIL DRAINAGE**
Inspection chamber construction to be "Classic" and installed in accordance with makers' instructions with the internal diameter relevant to the depth in accordance with B.S. 8301:1985. 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 flexi joints to correspond with joints in pipework. Provide 65 x 100 prestressed concrete lintel bridging where pipes pass through walls, allow 50mm gap around pipe, opening sealed both sides of wall with rockpol sheet material. Soil and vent pipes to be 110mm dia. PVC to B.S. 4514: 1969 and to extend 900mm above window head terminating with PVC balloon. 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.

**SURFACE WATER DRAINAGE.**
115mm dia. half round rainwater gutters to 65mm dia. rainwater pipes: 110mm dia. underground pipes flexibly jointed to a fall of 1:70 pipes bedded and surrounded in pea gravel and discharge to 1.2m dia. soakaway min. 5.0m to edge from dwellings

**PITCHED ROOF CONSTRUCTION.**
Interlocking concrete roof tiles to B.S. EN 490 / 491, on 25 x 38 softwood treated battens on underfelt 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. headlap of 75mm and to be fixed in accordance with respect to wind speed, roof pitch and exposure category as detailed in CP3 chapter V part 2 1972. Trenchless specialist made prefabricated roof trusses to comply with B.S. 5268 part 3 1988. TRUSS CALCS TO BE " SUBMITTED TO L/A MIN. 28 DAYS PRIOR TO ERECTION. Trusses to be at 600c/c to a pitch of 35° slope. 38 x 100 ridge rank 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 "Glidrate FW00" 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 9.0m provide additional bracing within the plane of the walls in accordance with Truss Plate Assoc. tech. bulletin sheet 4: Timber supports are to be provided beneath water storage tanks over 4No ceiling joists. At roof intersections provide 25 x 100 lay boards and dwangs trusses at 600 c/c: Install code 4 lead valley liner.

**LIMITATIONS.**
This drawing is limited to 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 G.R.M. 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.

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**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 must be reasonably inferred as necessary to carry out the works shall be deemed to be included.

| ref. | revision | date |
|---|---|---|


**G. R. MERCHANT**
**I.ENG AMICE FTWO**
**ARCHITECTURAL, STRUCTURAL AND LAND DRAINAGE CONSULTANTS**
Unit 4, Wrights Mews
12A Park Road, Holbeach,
Spalding, Lincs. PE12 7EE
Tel: 01406 490600
Fax: 01406 425744
E-Mail: G. R. Merchant @ Merchant. Ftb. Co. UK


Project
PROPOSED BUNGALOW & GARAGE
PLOT 2
LOW LANE, HOLBEACH,
SPALDING, LINCS

Client
S. WILES

Drawing
FOUNDATION PLAN / ROOF PLAN

| Job Ref. | Drawing No |
|---|---|
| 024/00 | 024/00/02 |
| Date | Drawn |
| MAY '00 | J.C.P |
| Scales | |
| 1:50 | FOUNDATION PLAN |


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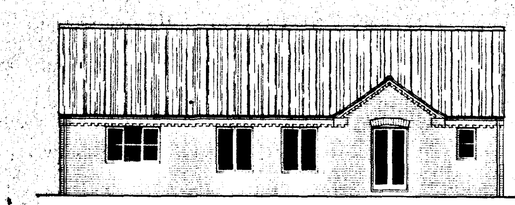
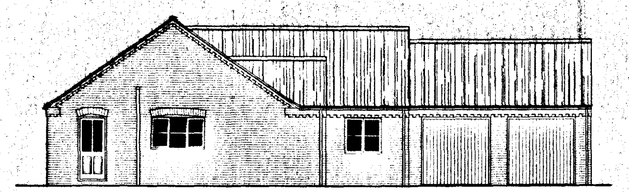
The Steward Contractor is to check all dimensions on site and report any discrepancies to the Architect.
All details shown on this drawing including foundations are based upon typical site conditions related to the area. No responsibility can be accepted for abnormal conditions which may be discovered during construction unless reported to the Architect as their design permanently may be considered. Site soil surveys are recommended in respect of foundations to establish specific site conditions before foundation work is undertaken.

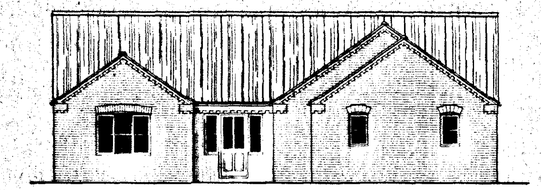

SOUTH HOLLAND DC
HOUSING & PLANNING
- 5 MAY 2000
Ref: 0563/00



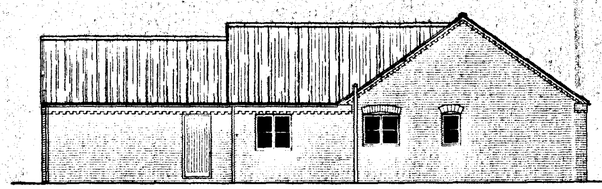
SOUTH ELEVATION



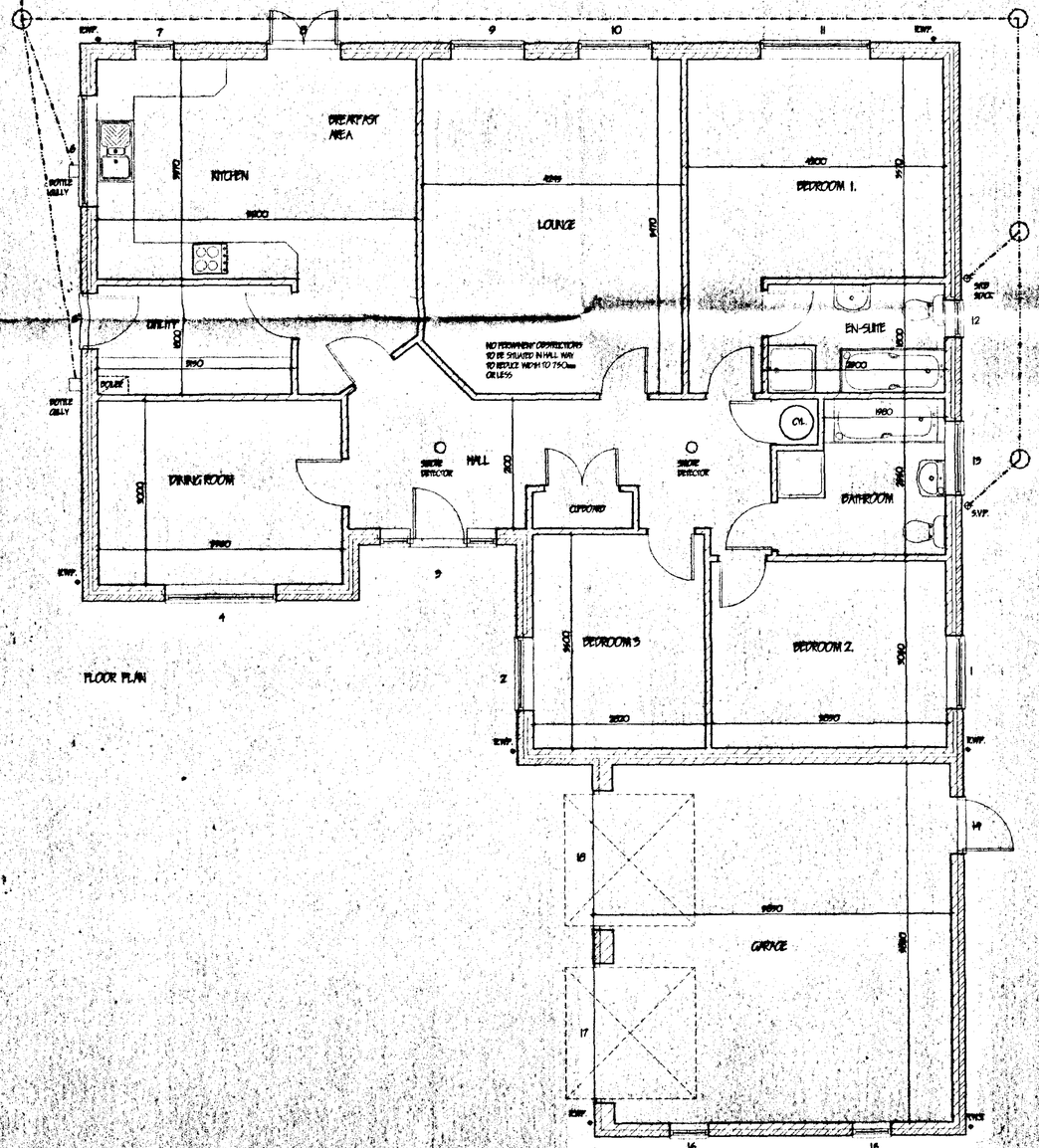
WEST ELEVATION



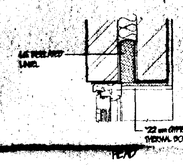
NORTH ELEVATION

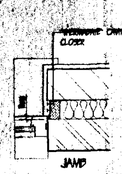


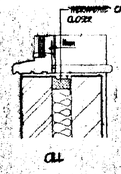
EAST ELEVATION




FLOOR PLAN



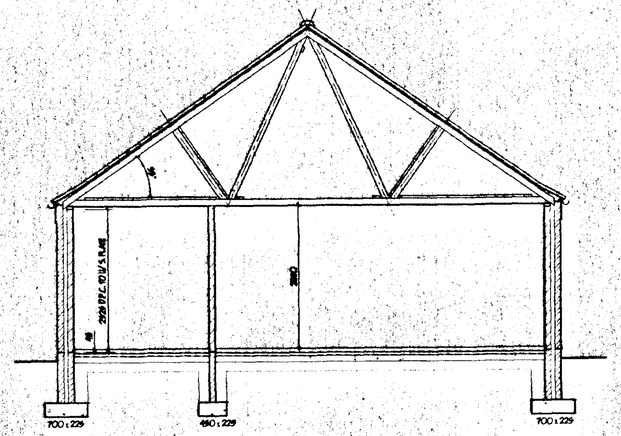




REVEAL DETAILS

JOINERY / LINTEL SCHEDULE

| POSTN. | JOINERY | LINTEL | LENGTH |
|---|---|---|---|
| 1 | H212CC | LG LI/590 | 1500 |
| 2 | H212CC | LG LI/590 | 1500 |
| 3 | HH9C/ FN129M-WDP/ FH9C | LG LI/590 | 1800 |
| 4 | FD9CC | LG LI/590 | 2100 |
| 5 | FN129M | LG LI/590 | 1200 |
| 6 | FD9CCG | LG LI/590 | 2100 |
| 7 | H11OC | LG LI/590 | 900 |
| 8 | FD9120 | LG LI/590 | 1500 |
| 9 | T219CC | LG LI/590 | 1500 |
| 10 | T219CC | LG LI/590 | 1500 |
| 11 | FD9120C | LG LI/590 | 2100 |
| 12 | H11OC | LG LI/590 | 900 |
| 13 | H2100CC | LG LI/590 | 1500 |
| 14 | FN129M | LG BOX200 | 1350 |
| 15 | H11OC | LG BOX200 | 900 |
| 16 | H11OC | LG BOX200 | 900 |
| 17 | W1070NS | LG BOX200 | 2700 |
| 18 | W1070NS | LG BOX200 | 2700 |

JOINERY CODES ARE RUDDY JOINERY LTD.




SECTION

**FOUL DRAINAGE**
Inspection chamber construction to be "Osma" and installed in accordance with makers' instructions with the internal diameter related to the depth in accordance with B.S. 8301:1985. 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 laid 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 flexal joints to correspond with joints in pipework. Provide 65 x 100 prestressed concrete lintel bridging where pipes pass through walls, allow 50mm gap around pipe, opening sealed both sides of wall with rubber sheet material. Soil and vent pipes to be 110mm dia. PVC to B.S. 4514: 1969 and to extend 900mm above window head terminating with PVC balloon. 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 90mm waste.

**SURFACE WATER DRAINAGE.**
115mm dia. half round rainwater gutters to 65mm dia. rainwater pipes: 100mm dia. underground pipes flexibly jointed to a fall of 1:70 pipes bedded and surrounded in pea gravel and discharge to 1.2m dia. soakaway min. 9.0m to edge from dwelling.

**GLAZING.**
Double glaze properly throughout (remote from air gap to all units). All glazing between f.f.l. and 800mm high and between f.f.l. and 1900mm high in doors and side lights to be safety glass to B.S. 6206. All windows / doors to be draught sealed.

**VENTILATION.**
All windows to have opening lights to give the equivalent of 1/20th the floor area. Provide background ventilation for habitable rooms min. 8000mm sq permanent free air ventilation per room. To all other rooms provide min 4000 sq. All kitchens rooms to have in addition to above Wall / Window mounted mechanical extractor fan. Kitchen to extract min. 60 litres per second. Utility room 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.

**HOT WATER AND SPACE HEATING.**
Provide wall mounted Gas fired condensing boiler with fan assisted balanced flue. Fit durable wire guard to externally to boiler flue. Provide timer switch and suitable zone thermostats to dwelling, fit thermostatic control valves to all radiators. Hot water system to be thermostatically controlled with timer switch and to be vented. All hot water storage tanks and pipework to be insulated to B.R. L1. part 3.

**SMOKE DETECTORS.**
Provide mains wired mains operated self-contained smoke alarms to B.S. 5446: pt.1:1990 in positions shown on plan. Where more than one detector is to be provided they will be interconnected. All permanently wired to a separate fused circuit at distribution board.

**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 and socket outlets to habitable rooms to be positioned at appropriate heights between 450mm & 1200mm from f.f.l.

**PITCHED ROOF CONSTRUCTION.**
Interlocking concrete roof tiles to B.S. EN 490 / 491, on 25 x 38 softwood treated battens on underfelt 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 headlap of 75mm and to be fixed in accordance with respect to wind speed, roof pitch and exposure catagory as detailed in CP3 chapter V part 2 1972. Formulate spacing, 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° also 90 x 100 ridge node binder 90 x 100 cotton binders. All trusses to be strapped to wall plate by 50 x 5 galvanised metal straps active 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: Glidevale EW100 10mm wide continuous air vap 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 roofs in accordance with Truss Plate Assoc. tech. bulletin sheet 4: Timber supports are to be provided beneath water storage tanks over 454c centres joists. All roof intersections provide 25 x 100 lay boards and diminishing trusses at 600 c/c: Install code 4 lead valley liner.

**CEILINGS.**
200mm glass fibre insulation total thickness. 100mm between joists & 100mm over. Joists. 12.7mm Gyproc plasterboard 5mm skim finish: Provide min. 90 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 slate bolt fasteners & draught seal all round.
Garage ceilings to be 12.7mm Gyproc Fireline board

**LEVEL ENTRY THRESHOLD**
Provide "Deaton & Paul" Mobility door frame & threshold (MD29M-MOD) 775 door to all level over entrance to building.

**INTERNAL DOORS.**
All internal doors to ground floor habitable rooms and toilet accomodation to be 838mm wide.

**FOOTPATHS / DRIVES.**
Provide min. 900mm wide flagpath positioned at 0.9°L. level and min 150mm above, from face of wall to perimeter of building. At entrance positions ramp up to top of sub cill min 1:20. All footpaths to have slight fall away from building. Gap between wall & footpath to be filled with 150mm depth of 20mm washed gravel.
At least 5.0m of drive adjacent to building x 5.0m wide to be hard standing i.e. Concrete, Tarmac or Block pavers. All to be sloped up to footpath level at min. 1:20

**LINTELS.**
All lintels to be manufactured by Marsden, L.G. and 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 L.G. 100 Flat type. Lintels in opinion to be underlined with 12.7 fireline board or rockwool 12mm render and skim. Provide Perp-end weep holes and dispends to cavity tray.

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| ref. | revision | date |
|---|---|---|
| | | |

**G. R. MERCHANT**
**LEng AMICE FIWO**
**ARCHITECTURAL, STRUCTURAL AND LAND DRAINAGE CONSULTANTS**
**Unit 4, Wrights Mews**
**12A Park Road, Holbeach,**
**Spalding, Lincs. PE12 7EE**
**Tel: 01406 490900**
**Fax: 01406 425744**
**E-Mail: G. R. Merchant @ Merchant. FS. Co. UK**

Project
PROPOSED BUNGALOW & GARAGE
PLOT 2
LOW LANE, HOLBEACH,
SPALDING, LINC'S

Client
S. WILES

Drawing
FLOOR PLAN / SECTION / ELEVATION

| Job Ref. | Drawing No. |
|---|---|
| 024/00 | 024/00/01 |
| Date | Drawn |
| MAY '00 | J.C. |
| Scales | |
| 1:50 1:100 | |

SOUTH HOLLAND DC HOUSING & PLANNING
- 5 MAY 2000
Ref: 0563/00

DETERMINED PLAN 2

**DO NOT SCALE FROM THIS DRAWING**

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PERCOLATION TEST.

TIME TAKEN FOR WATER TO SEEP AWAY WAS 80 minutes = 4800 SECONDS

$V_p = \frac{4800}{250} = 19.2$

$A_s = 9 \times 19.2 \times 0.29 = 50m$

CONSIDER TRENCH WIDTH 700mm

$\frac{24}{0.7} = 34.28$ metre TRENCH LENGTH

● DENOTES CAST ALUMINIUM PEDESTRIAN LIGHTING BOLLARD. 900mm HIGH WITH 'DAWN TO DUSK' PHOTO CELL SWITCH. EACH TO BE SUPPLIED BY PROPOSED DWELLING.

2.0m HIGH ACCOUSTIC BARRIER TO SOUTH SIDE OF EXISTING HEDGING

G 2.00
S 10.00
H 15.00
WEEPING WILLOW

C.L. 9.70
I.L. 6.90

FOOTPATH/ CYCLEWAY

39 BS

GRAVEL PRIVATE DRIVE

C.L. 9.800
I.L. 8.500

C.L. 9.800
I.L. 8.59

HEDGING TO BE REMOVED TO FORM ACCESS ONLY

S.A.

C.L. 9.80
I.L. 8.80

C.L. 9.70
I.L. 8.749

3750l SEPTIC TANK WITH MIN. 56m PERFORATED PIPE SOAKAGE.

PLOT 1

PLOT 2

PLOT 3

PLANT 2 No. BETULA PENDULA 1.8 - 2.1m STANDARDS.

D.P.C. 9.75

D.P.C. 9.65

EXISTING ACCESS TO No 61

G 2.00
S 10.00
H 15.00
WEEPING WILLOW

C.L. 9.90
I.L. 9.150

9.00
2.85
9.00
2.35
11.50
11.50
9.15

C.L. 9.80
I.L. 9.40

20.00
19.00

IN THE EVENT OF TREE ROOTS BEING ENCOUNTERED FOUNDATIONS TO WEST ELEVATIONS OF BUNGALOW & GARAGE TO BE 1.6m DEEP & TRENCH FILLED TO NORMAL FORMATION LEVEL. IN ACCORD. WITH N.H.B.C. STANDARDS.

PROPOSED 1.2m HIGH POST & RAIL TIMBER FENCING. TO WESTERN BOUNDARY TO BE REMOVEABLE FOR I.D.B. MAITAINANCE

CONTROL

1.8m HIGH CLOSE BOARDED TIMBER FENCING.

3750l SEPTIC TANK WITH MIN. 56m PERFORATED PIPE SOAKAGE.

1.8m HIGH CLOSE BOARDED TIMBER FENCING.

1.2m HIGH POST & RAIL TIMBER FENCING. TO SOUTHERN BOUNDARY

CONCRETE POSTS AT BOUNDARY INTERSECTIONS

5.00

61

59

G 0.70
S 4.00
H 8.00

| revision | date | init. | revision details. |
|---|---|---|---|
| A | MAR.99 | J.C. | SEPTIC TANK ADDED. |
| B | NOV.99 | J.C. | PLOT 3 DETAIL |
| C | MAY'00 | J.C. | PLOT 2 DETAIL |


COOPER ARCHITECTURAL DESIGN
BRONAVON, HOCKLESGATE, FLEET, SPALDING, LINC'S PE12 8LF
Tel/Fax : 01406 423782
Mobile : 0410 290852


Client.
S. WILES

Project.
RESIDENTIAL DEVELOPMENT
LOW LANE,
HOLBEACH

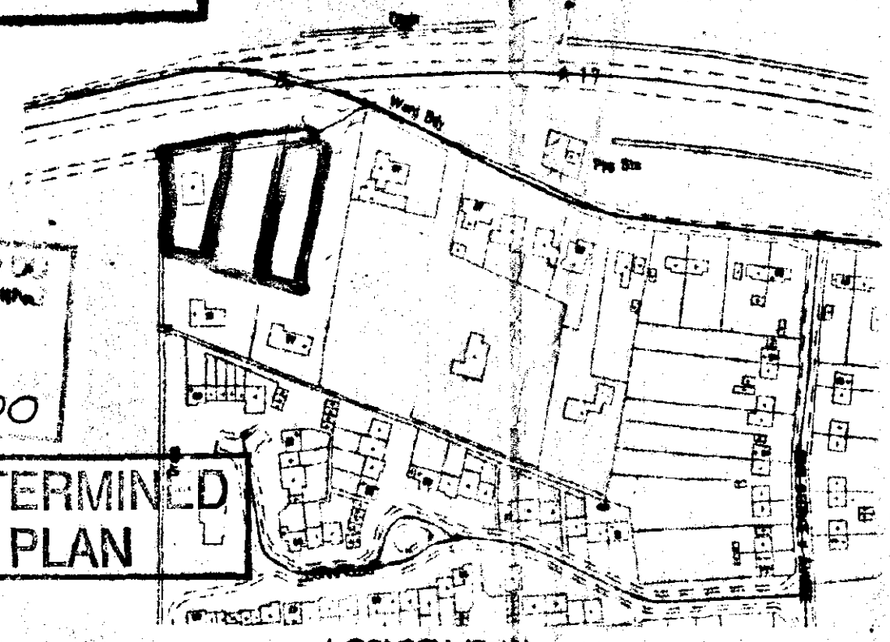
Drawing.
BLOCK/LOCATION PLAN

| Scale | Drawing No. |
|---|---|
| 1:250 1:2500 | 9848:3C |
| Date. FEB. 99 | Drawn. J.C. |

SOUTH HOLLAND DC HOUSING & PLANNING 19 MAY 2000 Ref:

19 MAY 2000
S63/00

DETERMINED PLAN




LOCATION PLAN

NORTH