Pitched roof:
New section of pitched roof constructed of interlocking concrete tiles to match existing installed to manufacturers recommendations on 25x50 fully treated battens on sarking felt on 47x150 rafters at 450mm cts.
Ceiling joists to be 47x150 at 450mm cts. supported on 225x100 wall plates. (see detail 'A' for support detail at lower end).

Extant dry ridge detail (mono-ridge) incorporating roof void ventilation, equivalent to 10mm clear gap.

30x5mm mild steel straps to be installed between roof structure and walls at average 1.800 cts. with straps extending over min. 3no. timbers where at right angles with solid noggings under.

Superlux or similar seals to tops of cavity walls.

Roof insulation:
Install 2 layers of 100mm thick glassfibre quilt roof insulation to pitched section of roof with 1 layer between ceiling joists and 1 layer over ceiling joists.

Code 4 lead flashing together with cavity tray and apron flashing between top of flat roof and wall. Stepped flashing at gable.

This section of roof formed of upvc glazing support bars and multi skin polycarbonate translucent sheeting. Roof pitch to be similar to main building.

Sides of glazed area formed of upvc frames with double glazing (12mm gap) on dwarf brick walls (300mm from d.p.c. to u/s of cills).

All walls within glazed area to be fair-faced brick finish.
Note: This glazed link area is an unheated area.

Floor construction:
To be constructed of 65mm thick lightly reinforced steel fibre concrete on 500 gauge separating membrane on 50mm thick 'celite' slip grade expanded vermiculite on 100mm thick grade 20 concrete slab on 1200 gauge Visqueen d.p.m. lapped with d.p.c.'s to walls on min. 150mm hardcore well blinded and consolidated.

D.P.M. to be sealed to existing wall d.p.c.

Internal 100mm thick Celcon standard blocknork walls to be supported on thickened concrete slab min. 200mm thick x 450mm wide.

Heating:
Extend existing heating system into extension with thermostatic valves fitted to new radiators. All new heating pipework to be insulated with armaflex or similar of thickness to match pipe outside diameter.

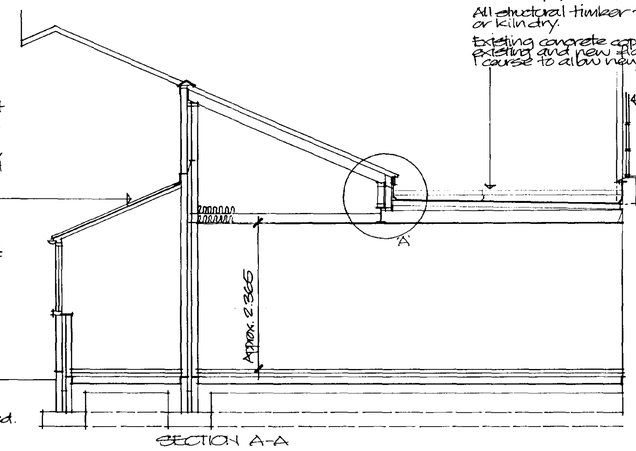
Lintels:
Install 1 no. L1/5 steel lintels to new openings in cavity walls with cavity tray d.p.c. above (see details of window flashing).
Install 2 no. 100x115x10 steel lintels to enlarged opening in existing wall adjacent to new toilets.
All lintels to be installed to manufacturers recommendations.

Gutters/downpipes:
New gutters to be 112mm dia. hr upvc. with 68mm dia. downpipes.

All new rainwater outlets connected to drains of 110mm dia. upvc. bedded and surrounded in 100mm pea gravel. Drains to fall approx. 1in 40 and to be connected to existing storm water drains if available (to be agreed on site with L.A. building control.

Foul drains:
New stub stacks to be connected to 110mm dia. Upvc. drains bedded and surrounded in 100mm pea gravel and to fall at approx. 1 in 40 to connect to existing inspection chamber.
All new and existing drains passing through walls to be protected by prestressed concrete slab lintels and to have min. 50mm clearance and protection from vermin entry.

Install new screwed down double seal inspection chamber cover to existing chamber.



SECTION A-A

Flat roof:
New area of flat roof constructed of mineral chippings min. 12mm thick bedded in bitumen to built up felt of similar roof finish to min. BS 747 standard installed on certain 'tempcheck' ref. 2000 (70mm thick) insulated roof decking installed to manufacturers recommendations with all board edges supported installed on 47mm wide firrings to fall min. 1in 60 on 47x150 joists at 450mm cts. Soffit or similar edging to roof finish on exposed roof edge.

'U' value of flat roof structure = 0.22 w/m²k

All structural timber to be grade SC3 marked dry or kiln dry.

Existing concrete coping to parapet wall between existing and new split levels to be raised approx. 1 course to allow new roof finish to be finished to u/s of coping.

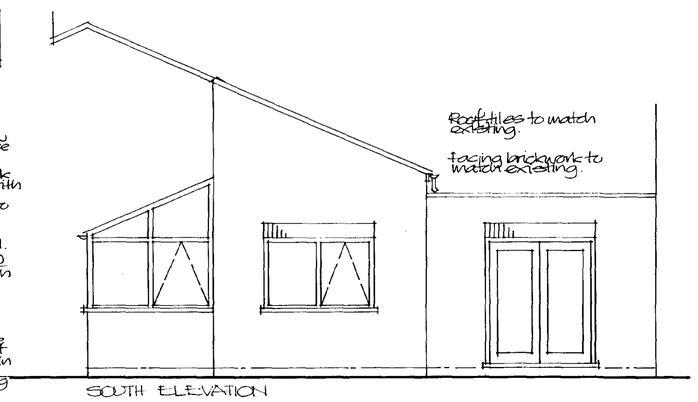
Existing steel framed window to stairwell.

Lower section of existing window frame up to first cross bar to be removed, and new metal cill installed together with 200mm thick Celcon concrete blockwork plastered internally together with new inner cill.
Flat roof finish to be taken up to underside of new cill.

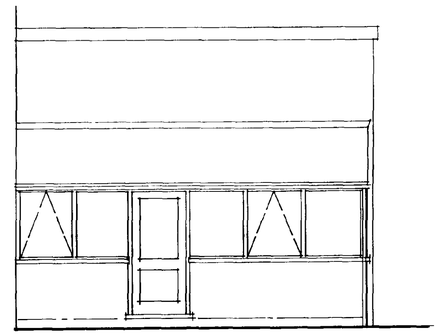
Ends of flat roof joists supported on joist hangers on existing wall.

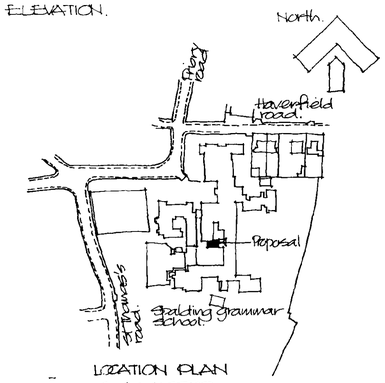
All new ceilings to be formed of 9.5mm thick 'Plasterboard with 'Artex' finish.
All plasterboard edges to be supported.

Foundations:
Install 225x100 wide concrete strip foundations grade 3:1:4 at min. depth of 750mm (1.000 min. in shrinkable soil) depth to be agreed on site with L.A. building control.



SOUTH ELEVATION


WEST ELEVATION.

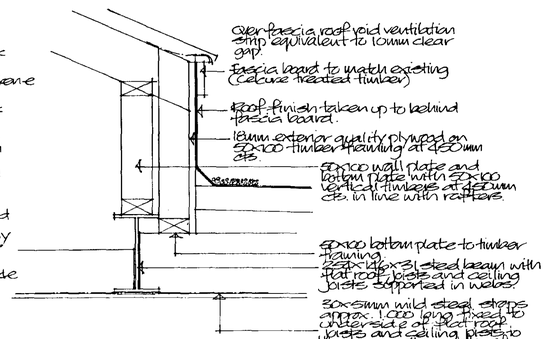


LOCATION PLAN
Scale 1:2500

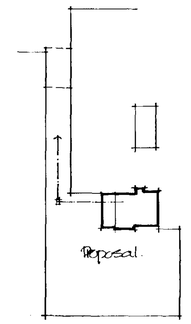
Cavity walls:
Constructed of 102mm facing brick, 65mm cavity and 100mm Celcon standard or Tarmac Toplite block with dense plaster finish.
Walls insulated with 65mm thick RMC Polybead or similar approved bonded bead expanded polystyrene installed by specialist installer.
'U' value = 0.40 w/m²c average.
Walls within glazed link area all to be facing brick finish.
Damp proof insulated d.p.c. to reveals.
Wall ties to be installed at 450mm cts. vertically, 900mm horizontally and 225mm cts. within 225mm of reveals.
Blockwork below d.p.c. level to be class 'A' concrete fill to base of cavity to within 225mm of d.p.c. level.

Windows/doors:
All to be UPVC. framed including glazed link and all to be double glazed (12mm gap).
Any glass to doors or adjacent windows and any glass within 800mm of floor to be safety glass to B.S. 6206.

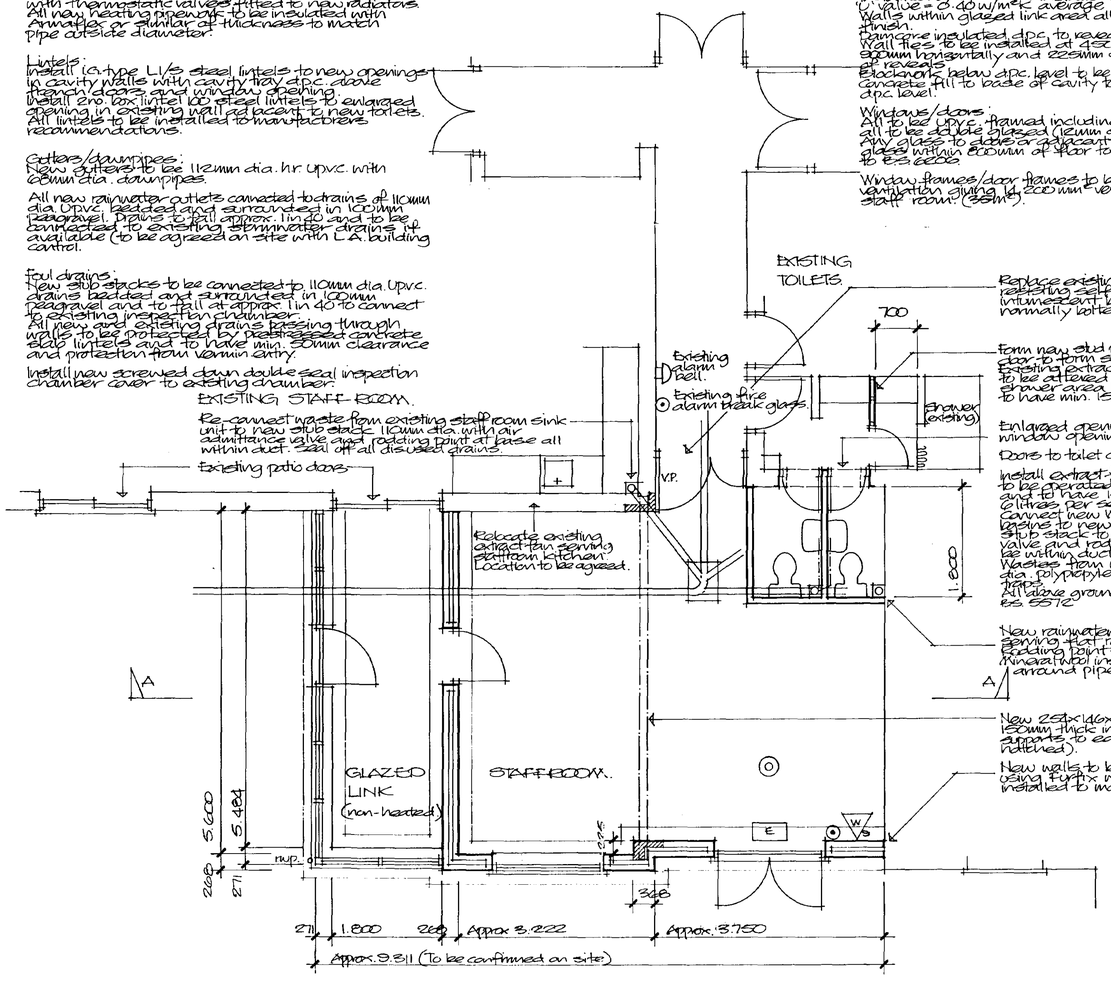
Window frames/door frames to be fitted with trickle ventilation giving 1/2 200 mm² ventilation to new staff room. (36m²).

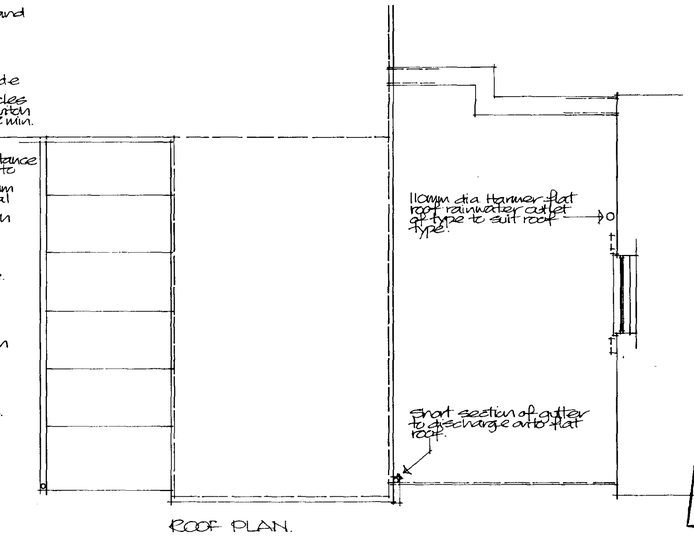


DETAILED SECTION 'A'



BLOCK PLAN
Scale 1:500





ROOF PLAN.

KEY TO SYMBOLS
- W/S — Water-type fire extinguisher, size in litres.
- (O) — Approx. location of emergency light fitting. Installation to comply with all relevant standards in particular BS 5266
- V.P. — Clear vision panel in door (safety glass)
- E — Non-illuminated exit sign above doors (illuminated by emergency light fitting)
- ⊙ — Fire alarm break glass point.

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SOUTH HOLLAND DC
HOUSING & PLANNING
20 MAR 1998
Ref: 0251/98.
DETERMINED PLAN

Client: QUEEN ELIZABETH ROYAL FREE GRAMMAR SCHOOL.
Job Title: PROPOSED EXTENSION TO EXISTING PREMISES
Scale: 1:50
Date: Dec. 96
Drawn by: A.C.H
Drg. No.
Rev