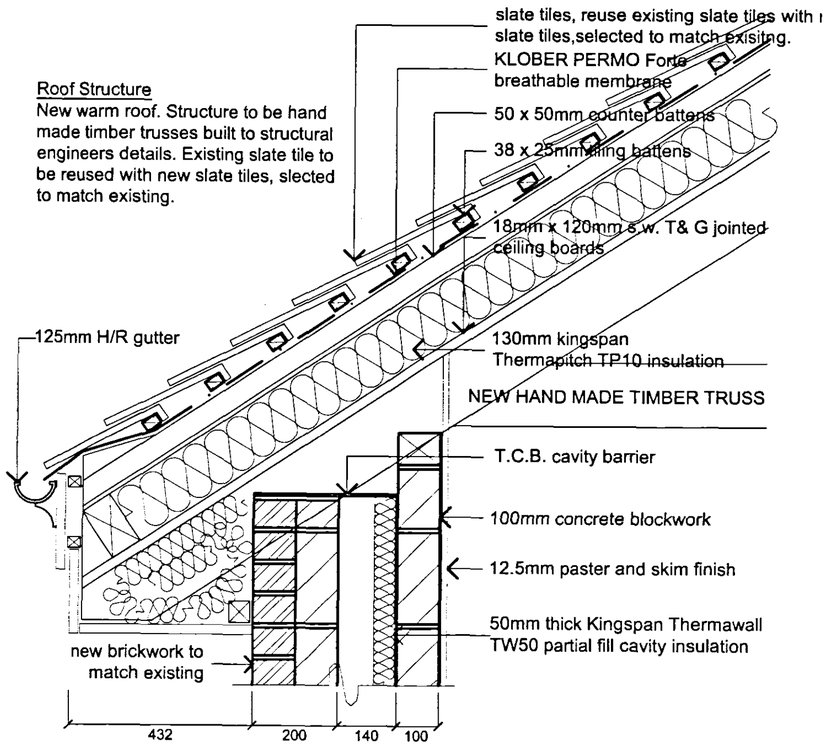
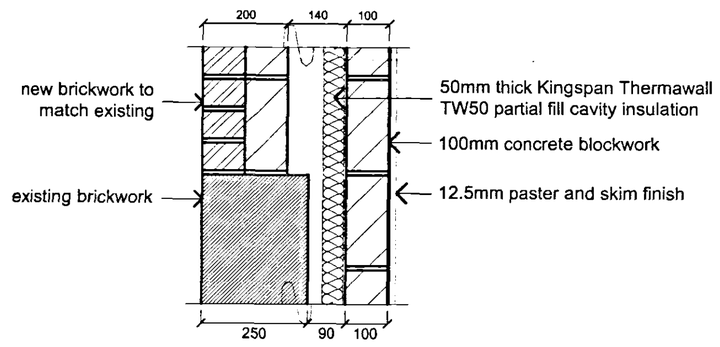
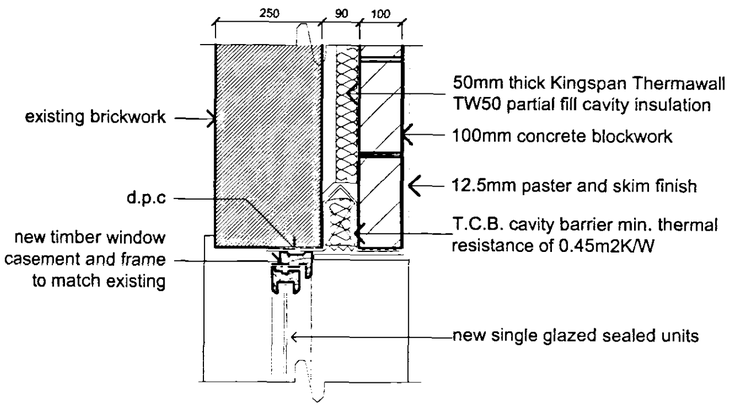


Roof Structure
New warm roof. Structure to be hand made timber trusses built to structural engineers details. Existing slate tile to be reused with new slate tiles, slected to match existing.

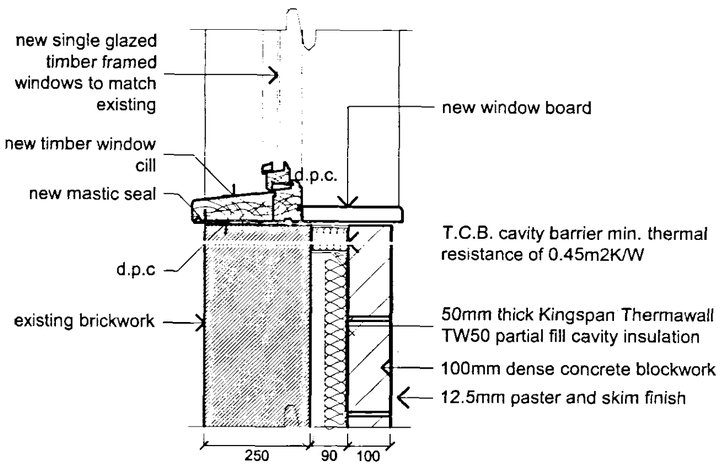
Detail E: Eaves (Existing Wall) 1:10



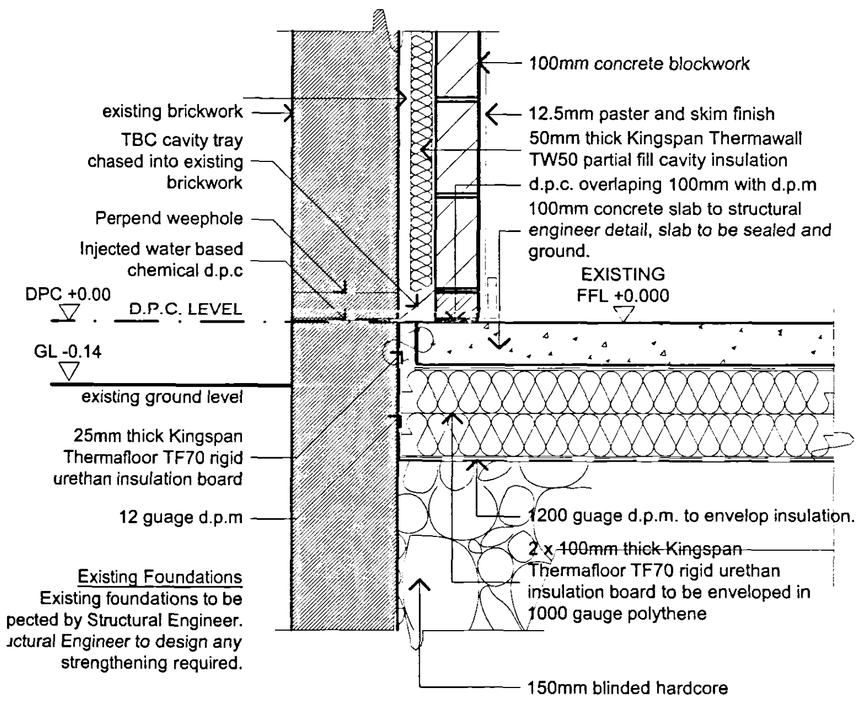
Detail F: Junction (Existing Wall) 1:10



Detail G: Head (Existing Wall) 1:10

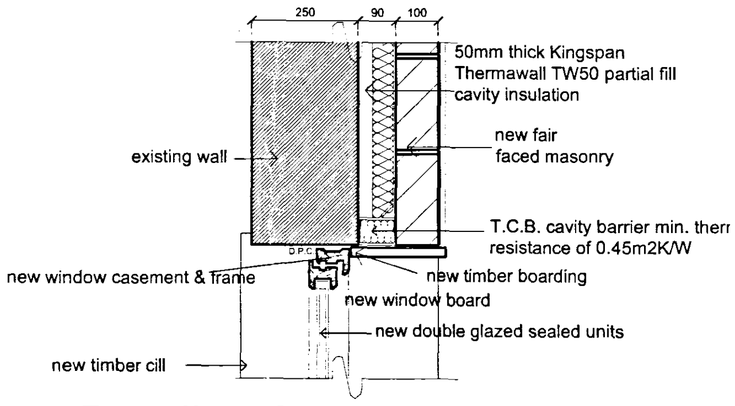


Detail H: Cill (Existing Wall) 1:10



Existing Foundations
Existing foundations to be pected by Structural Engineer. ıctural Engineer to design any strengthening required.

Detail J: Ground Floor (Existing Wall) 1:10



Detail E (Typical Jamb) 1:10

NEW STRIP FOUNDATIONS
(Subject to ratification by Clients Consulting Structural Engineer)
Trench excavation to a firm base a minimum of 1000mm below ground level (unless otherwise agreed with Building Control). Foundations to be 750mm wide for 340mm cavity walls. Back fill excavation with ready mix concrete GEN 1 to *BS5328 or a 1:2:4 mix will be satisfactory.* Foundation depth to be a minimum of 250mm thickness. Foundation excavation to be inspected by Local Authority Building Control Officer.

EXISTING DAMP PROOFING
Client to commission damp report to determine condition of any existing damp proofing methods. Recommendations to be carried out by specialist contractor. copy of report to be provided to Search Architects & Building Control.

DAMP PROOF COURSE.
Dpc to be installed to BS5628: Part 3: 1985 and in full compliance with manufacturer's recommendations and CP102. Dpc to be positioned at *finished floor level, in both* leaves of external wall. The Dpc in external leaf is to project min 5 mm externally, in accordance with manufacturer's recommendations. Dpc in internal leaf to lap min 100 mm with dpm on floor slab. Provide vertical dpc to perimeter of all openings (stapled to all windows/door frames). Provide additional dpc above all external lintels sloping outwards.

Where the existing masonry wall is to be retained, a water *based chemical injected damp proof course will be used, to be* installed by a specialist Contractor.

GROUND FLOOR CONSTRUCTION (PLAYROOM)
Break out and remove existing floor, excavate to reduced levels. Buld up *hardcore in maximum 150mm layers & blinded* with 50mm sand. Over blinding lay 1200 gauge D.P.M. to be lapped with the wall D.P.C. Over D.P.M. lay 2 x 1 00mm thick KINGSPAN THERMAFLOOR TF70 rigid urethane CFC & HCFC free insulation boards with suitable compressive strength to be specified by Structural Engineer. Install 25mm rigid urethane insulation board to vertical perimeter of conrete oversite. Insulation manufactured by KINGSPAN.

Envelope rigid urethane with 1000 gauge polythene membrane with 300mm overlapped joints.

Over insulation install 200mm thick C35 insitu concrete ground floor, with 2 layers A393 mesh, to Structural Engineers details.

Floor layer to lay nominal sand/cement screed over slab to suit floor tiles.

#NEW GALLERY FLOOR CONSTRUCTION (GALLERY)
New gallery floor, within extension, to comprise 220mm x 50mm SC4 (C24) timber joists @ 600 centres, fixed to new and exisitng walls.

Support to edge of gallery floor to be 2 No. 220mm x 75mm SC4 (C24) timber joists, fixed by M10 bolts @ 600 staggered centres. Where indicated, newel posts fixed to ground floor continuing to *full height of 900mm high guarding.* Trimer joist to be 2 No. 220 x 50mm SC4 (C24) tiber joists. Timber sizes and fixings to be provided by clients structural engineer.

Fix over joists 25 x 150mm thick T & G flooring planks.

Fix between joists 100mm thick quilt insulation.

Fix to the underside of the joists 15mm thick plasterboard and skim finish.

EXISTING EXTERNAL WALLS
Existing masonry wall to form outerleaf of cavity wall, with overall thickness of 440mm. Hack off existing plaster & dry lining to existing masonry walls, repair any cracks etc as necessary. Form a 90mm wide cavity to be partially filled with *50mm KINGSPAN THERMAWALL TW50 to be CFC & HCFC* free. 100mm dense concrete blockwork (7N/mm ^{2}), to form new inner leaf.

Extend height of existing masonry wall, up to level of new wall plate, with 100mm thick facing brick, to match existing brick and 100mm thick dense blockwork, forming the outer leaf of the cavity wall, as per detail ?.

Insert cavity closure at new window cills, new window jambs and top wall plate, as detailed on drawings. Build in,' perpend,' weep holes above new lintels, min 2 No. per lintel, generally at 450 centres.

Build into the cavity walls stainless steel wall ties to BS1449: Part 2 1983 at 750mm horizontal and 450mm vertical centres in staggered formation, with additional wall ties at every block at perimeter of all openings and where the cavity is vertically closed.

Apply two coats of plaster, to the face of the inner leaf, with a skim finish to the second coat.

NEW EXTERNAL WALLS
New external walls to comprise 340mm overall thickness, 100mm thick facing brickwork outer leaf to BS 3921: 1974 amd to match existing brick, 100mm cavity partially filled with 50mm KINGSPAN THERMAWALL TW50 to be CFC & HCFC free and 140mm dense concrete blockwork, (7N/mm ^{2}), inner leaf to BS 6073: 1981.

Insert air bricks where located on plan and elevation.....

Insert cavity closure at window cills, window jambs and top wall plate, as detailed on drawings. Build in,' perpend,' weep holes above new lintels, min 2 No. per lintel, generally at 450 centres.

Fill cavity with lean mix concrete uo to a min 150mm below the dpc level and slope off towards external leaf.

Build into the cavity walls stainless steel wall ties to BS1449: Part 2 1983 at 750mm horizontal and 450mm vertical centres in staggered formation, with additional wall ties at every block at perimeter of all openings and where the cavity is vertically closed.

Apply two coats of plaster, to the face of the ineer leaf, with a skim finish to the second coat.

#LINTELS
Unless otherwise noted, all lintels specified to be manufactured by I G Lintels Limited and to be installed in strict compliance with manufacturers instructions.

Minimum end bearing of 150 mm both ends. All lintels to include proprietary insulation and to have weep holes included in perpendicular mortar joints above all external windows and doors.

Build in I.G cavity trays above all lintels. Cavity trays to be installed in strict compliance with *manufacturers instructions.*

WINDOWS AND DOORS
All new external joinery to be purpose made to match existing and to be single glazed units, with the exception of W3, which will be doubled glazed.
Single glazed units to comprise.....
Double glazed units to comprise, 6 mm Pilkington K glass internally, (safety glass is to be used where applicable), 16 mm air filled gap and 6 mm clear float glass externally giving a U-Value of 1.7 W/m3K. Opening casements to be as detailed on the drawings. Windows to be top hung and to open *outwards, client to ensure use of adequate/required* ironmongery. Softwood Vac-Vac treated frames and casements.
Doors to include weather bar and draft seals.
All new joinery to incorporate trickle ventilators and security locks to windows.
All internal doors to have a clear opening width of 800mm minimum.

CRITICAL GLAZING LOCATIONS.
All glass below 800 mm above finished floor level to be safety glass. In addition, install safety glass below 1500 mm above finished floor level in doors and within 300 mm either side of the doors.

DRAUGHT STRIPPING.
To all new and existing joinery proprietary rubber double sealed draught strips are to be installed to all opening casements. Brush type draught seals to be provided the bottom of all internal and external doors except in the case of the additional sanitary accommodation.

#NEW GALLERY STAIRCASE, (INTERNAL).
Staircase to comprise softwood timber construction, with 15 No. risers approximatly 214mm and goings generally 250mm (min approx 50mm, max approx 550mm). Staircase to be 1000mm overall width, including hanrail and it's pitch is to be *maximum 42°.*

Provide minimum 2.0 m headroom above the pitch line, measured vertically from the centre of the staircase. Landings are to be provided at the top and bottom of the flights, minimum of 400mm in length.

Provide a continuous handrail guarding to the staircase, landing and gallery, 900mm high (measured to the top of the *handrail from the pitch line)* and located on the side of the widest going. Handrail guarding to be capable of withstanding a horizontal force of 0.36KN/M.

The guarding to the stairway, landing and gallery is to contain no apertures allowing the passage of a 100mm sphere and should not be easily climbable by children.

STAIRCASE MANUFACTURER IS TO CONFIRM *FLOOR-TO-FLOOR DIMENSIONS* AND SITE WORKING DIMENSIONS BEFORE MANUFACTURING THE STAIRS.

WARM ROOF CONSTRUCTION
Strip off existing slates and battens, set aside slates for re-use. Select new slate tiles to match existing.

Over new handmade timber trusses, constructed to engineers details, lay and fix 18mm x 120mm s.w. T& G jointed ceiling boards. Apply to T&G 2 coats of Quelfire Base Coat. Apply one coat Quelfire Transparent Top Coat Varnish to achieve *Class 0 surface spread of flame to BS 467: Part 7: 1971 to the* timber ceiling. Over ceiling boards lay & fix 130mm thick KINGSPAN THERMAPITCH TP10 rigid urethane insulation boards manufactured by KINGSPAN. Over insulation lay and fix 50 x 50mm softwood preservative treated timber counter battens @ centres to match rafters. Over counter battens lay KLOBER PERMO Forte breathable membrane, to lap with KLOBER EAVES CARRIER. Eaves carrier to lap 50mm into gutter. Over breather membrane lay & fix 38mm x 25mm softwood preservative treated battens at gauge to suit tiles. Over tiling battens fix existing slates and new slates *in* accordance with BS5534:1978. Slates to suit roof pitch and to be installed all necessary, ridge tiles, ridge vents, tile vents, verge undercloaks, clips, nails etc.

ROOF LIGHTS
2 No. roof lights to be installed in positions indicated on plan & elevation. Roof lights are to be manually operated CR-8 conservation rooflight, manufactured by The Metal Window Company.

Rafters to be doubled up either side of roof lights and trimmers to be inserted above and below.

#NEW RAINWATER GOODS.
Rainwater goods to comprise 150 mm half round plastic coated galvanised aluminium Alumasc Aqualine guttering manufactured by Alumasc, discharging into 100 mm plastic coated aluminium Alumasc down pipes in positions indicated on plan. Gutters should have a min. fall of 2.5mm per linear metre to any down pipe. The total length of a gutter run to a down pipe should not exceed 10m. Rainwater to discharge into new soakaway.

##COVERED AREA ROOF CONSTRUCTION.
New covered area roof construction to comprise 125 x 47mm C24 SW purlins @ 600 centres supporting 150 x 75mm C24 SW rafters @ 450 centres. Fix purlin to new 150 x 75 C24 sw *wall plate* fixed to existing external and retaining walls and positioned to 1 in 60 fall. Structural engineer to ratify details.

Over rafters fix 25 x 38mm SW battens and polycarbonate roof sheeting to manufacturers specification.

##COVERED AREA SCREEN CONSTRUCTION.
New covered area screen construction to be 100 x 47mm C24 SW railings fixed to 100 x 100mm C24 SW posts. Fix to railings 150 x 25 C24 SW slats. Fixings to structural engineers specification.

PLUMBING
All plumbing to be to BS5572:1978 and to be as follows:-

Basin 50mm dia waste with 75mm deep seal trap.
W.C. 100mm dia waste with 100mm deep seal trap.
Anti-vac traps to be fitted to all appliances.

Plumbing runs to have 1.5° gradient and to include 110mm UPVC soil and vent pipe where indicated on plan. SVP to terminate where indicate on elevations via. a tile vent. Include connection bosses where necessary and with access eye *above highest connection. 50mm common waste* where individual runs exceed that permissible, with rodding eyes at all changes in direction.

PIPEWORK.
All pipes, except those visible in the bathrooms are to be heavily lagged using insulation material having a thermal conductivity not greater than 0.045 W/mK and in thickness *equal to the outside diameter of the pipe* up to a maximum of 40 mm.

CONCEALED SERVICES.
All concealed services should be adequately boxed and sealed at floor and ceiling levels and piped services should be sealed where they project into hollow construction or voids including roof spaces and floor voids.

DRAINAGE
To BS8301, lay PVCU drain pipes, sizes and gradients: 100mm dia. p.v.c.u. storm drain run @ 1:80 fall & 100mm dia. PVCU foul drain run 1:60 fall. All PVCU pipes and fittings to comply with BS4660 to be laid on 100mm pea gravel bed. Back fill drain excavation with pea gravel to a level of 100mm above the pipe. Where pipes run under the floor & are subject to vehicular loading place C30 conc. & 1 layer of A142 mesh top and bottom. Where pipes pass through external walls provide 100mm x 65 mm pre-stressed concrete lintels to support walls above. Provide minimum 50mm clearance all round the pipe and mask the open rigid sheet material. Provide where indicated a 450mm nominal diameter PVCU inspection chamber complete with blanking pieces to unused connections as required. Bed inspection chamber on 100mm pea gravel and surround with grade C20P concrete, 100mm thickness. Cover to comprise 450mm internal diameter BS497 grade 'B' cast iron cover and frame bedded in cement mortar. Drain runs serving gullies to have a minimum fall of 1:40.

All gullies to be fitted with fixed metal grates.

Inspection chambers with less than 1m invert to have an internal dimension of 450mm. Brick manholes with an invert up to 2.0m in depth to have an internal dimensions 1200mm x 750mm and a cover 600mm x 600mm. All light weight manhole covers are to be screwed down.

#SOAKAWAY.
Construct new surface water Soakaway where indicated on plan at least 5 metres from any building. Soakaway volume to be 1m³ below invert level and backfilled with granular material varing in size from 150mm Ø at base, gradually reducing in size to 10mm Ø at top, finishing at 500mm below ground level. The end of the inlet pipe should be surrounded by only the *large pieces to ensure that the rainwater can flow freely into* the main mass of granular material. Bind top of granular material with sand and cover with sheet of 1200 gauged polythene before covering with topsoil.

Surface water drains from building to be100 mm Ø drain pipe layed on 100 mm pea gravel bed. Backfill drainage excavation with pea gravel to a height of 100 mm above ground and pipe. Where soakaways are within 3.5m of the site boundary line, *construct trench with 1200 gauge polythene.*

SPACE HEATING.
Existing heating system is to be extended into the new playroom. The new system is to be fully commisioned by a *suitable heating engineer.*

ELECTRICAL WORK.
All electrical fittings and fixtures are to be installed in positions shown on plan. Cabelling to be within the new cavity in proprietary cable ducts.

All electrical work is to be carried out in accordance with the current IEE regulations and all relevant British Standards and *codes of practice.*

All external sockets to be MK Masterseal single 13a with RCD supplied by Alert Electrical.com Ref: MK56301GRY with all relevant fittings connection etc. or equivilant.

LIGHTING.
Fix in the lobby, larder, playroom and gallery 1No. light fittings that only take lamps having a luminous efficiency greater than 40 lumens per circuit-watt.

External lights to be fitted with movement sensors to enable effective control.

SMOKE DETECTORS.
Provide smoke detectors in the positions indicated on plan. Smoke detectors are to be mains operated with battery back up, conforming to BS5446. All smoke alarms are to be interlinked.

VENTILATION.
As per new external wall construction, install air blocks.....

HANDRAIL GUARDING
Handrail to gallery to be 900mm high & be able to withstand a horizontal force of 0.36KN/m. Handrail is to contain no apertures allowing the passage of a 100mm sphere and is not to be easily climbable by children.

DISABLED ACCESS, (THRESHOLD).
The footpaths are to be laid at finished floor level height adjacent the rear entrance and ramped to the parking spaces at a gradient not exceeding 1:20 fall.

Front door width to provide a minimum clear width of 800mm.

DETERMINED PLAN

Revision	Date	Description
A	25.10.04	Building Control Queries
B	02.11.04	Planning Application Queries

11/4/04

Alterations to Nene Lodge, East Bank, Sutton Bridge — JOB
1:50 — SCALE
Working Drawings - Details and Construction Notes — TITLE
B — REVISED
546/08
Mr. & Mrs. S. Proctor
June 2004

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