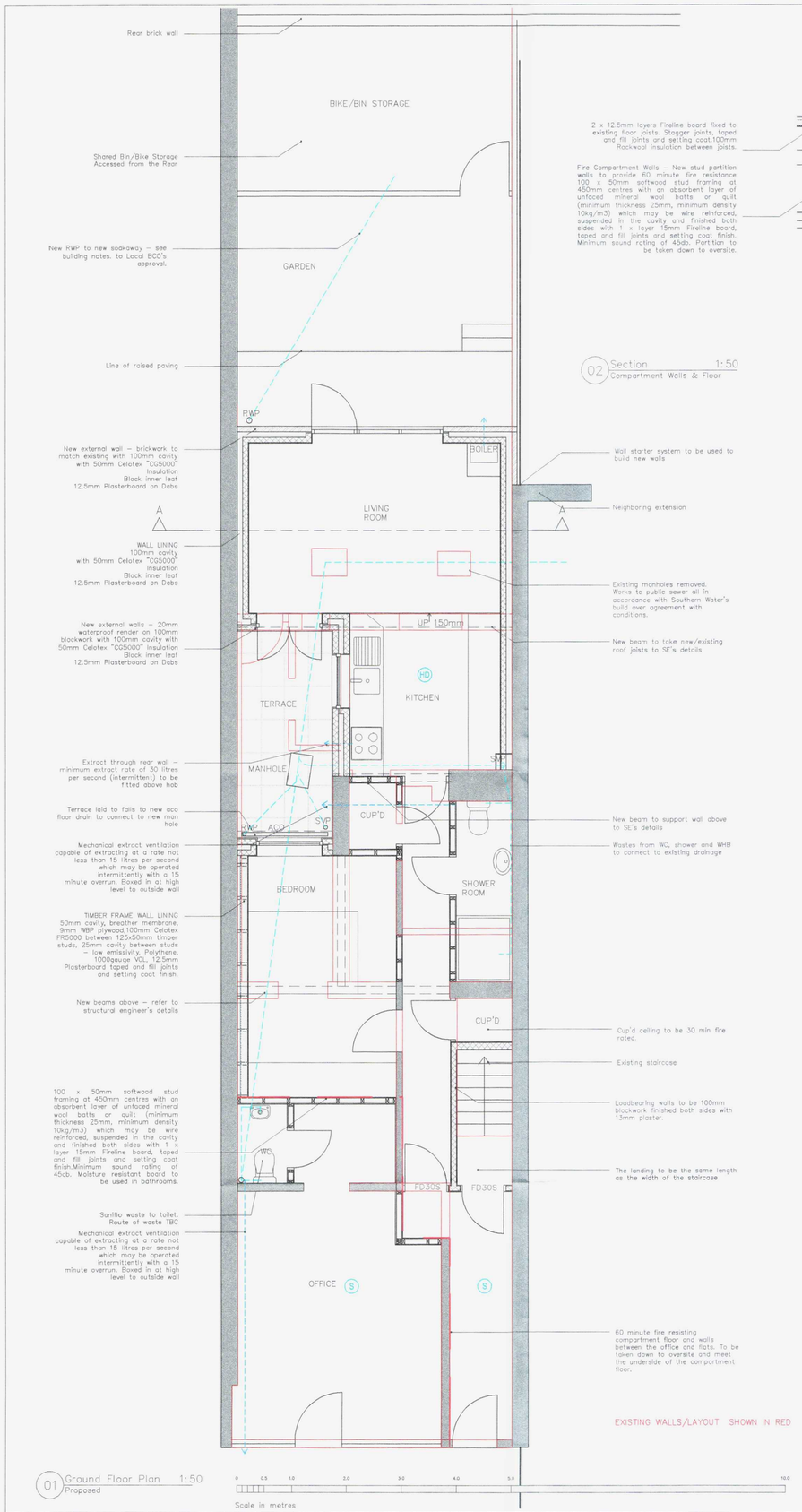
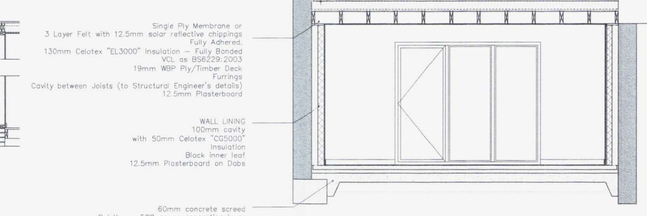
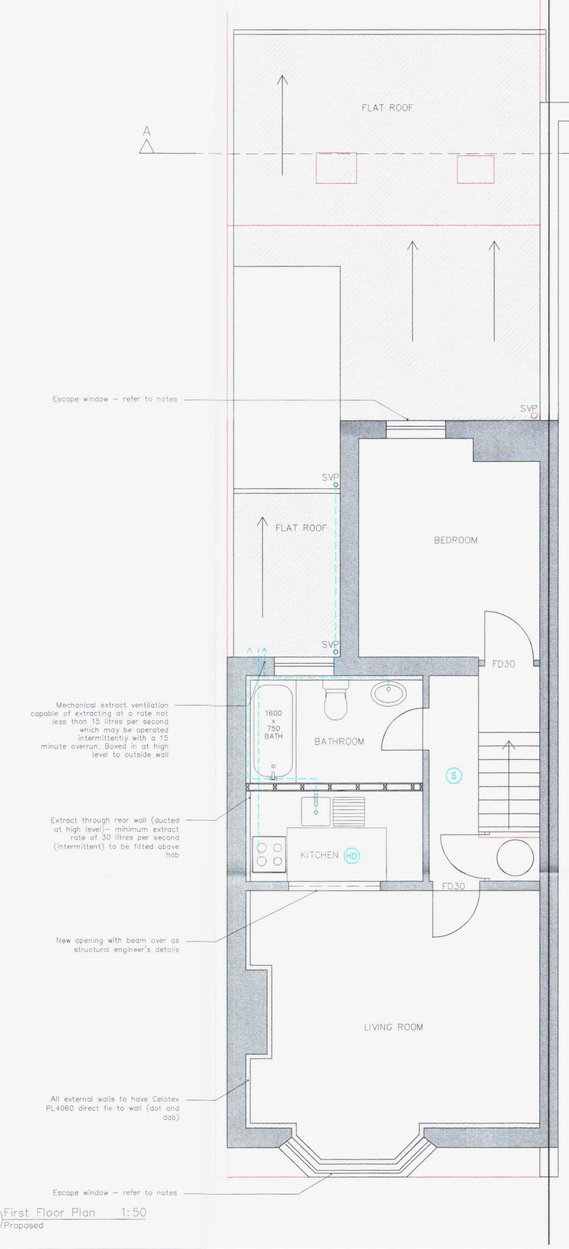


01 Ground Floor Plan 1:50
Proposed

02 Section 1:50
Compartment Walls & Floor



03 Section AA 1:50
Proposed



04 First Floor Plan 1:50
Proposed

DESCRIPTION:
The proposal comprises internal alterations and a new rear extension to create 2 separate flats (one on the ground floor and on at first floor level) along with creating a smaller office at the front at ground floor.

1.0 FOUNDATIONS AND SUBSTRUCTURE:
New foundations to be in accordance with the Structural Engineer's design and details taken down to a depth agreed on site with the Building Control Officer. 150mm thick ground bearing concrete slab as per Structural Engineer's details. External work up to dpc in brickwork or Class A dense concrete blockwork with outer skin and lean mix concrete cavity fill up to adjoining ground level, min 150mm below dpc, which is min 150mm above ground level well lapped with dpm and existing dpcs. Engineer and Architect to be informed of any voids or ground found to be unsound.

2.0 STRUCTURE:
Drawings to be read in conjunction with Structural Engineer's calculations and drawings. See Structural Engineer's calculations also for details and specification of all structural matters including foundations strengthening, loadbearing walls, beams, lintels, timber joists, rafters, etc. Lintels to have min 150mm bearing each side, I.G. type with integrated insulation to external walls with cavity trays over and stop ends and weep holes at 450mm o/c and precast concrete plank lintels to internal blockwork walls, 65mm deep up to 900mm span 150mm deep thereafter.

3.0 GROUND FLOOR SLAB: 0.21 W/m²k U-value (max 0.22 W/m²k U-value)
65mm thick screed on polythene, 500 gauge separating layer, 60mm Celotex "GA4000" insulation board overlapping external wall insulation on damp proof membrane, ploythene1200 gauge, lapped with DPC and existing surrounding DPM/DPC as necessary, on 150mm thick concrete slab on minimum 150mm sand blinded hard core, insulation to be turned up at perimeters. Hard surfaces and vegetation to be removed prior to a depth of 150mm and level finish.
Existing ground floor slab to be inspected and faulty areas to be renewed as found necessary as above

4.0 EXTERNAL WALLS: (max 0.28W/m²k U-value)
New external wall to rear extension to be cavity wall with facing brick to match existing, 100mm cavity partially filled with 50mm Celotex "CG5000" cavity Insulation (50mm residual cavity), continue insulation below dpc overlapping floor insulation by 200mm, internal leaf of 100mm Celcon Standard/High Strength or similar approved blockwork(strength to Structural Engineer's requirements), finished internally with 12.5mm plasterboard on dabs.

New external walls facing internal courtyard terrace to be rendered blockwork - Cavity wall with 20mm waterproof render on 100mm Celcon Standard/High Strength or similar approved blockwork(strength to Structural Engineer's requirements), 100mm cavity partially filled with 50mm Celotex "CG5000" cavity insulation (50mm residual cavity), continue insulation below dpc overlapping floor insulation by 200mm, internal leaf of 100mm Celcon Standard/High Strength or similar approved blockwork strength to Structural Engineer's requirements, finished internally with 12.5mm plasterboard on dabs.

External walls at first floor level to have Celotex PL4060 direct fix (Dot & Dab) to internal face.

Stainless steel wall ties 750mm horiz. c/c, 450mm vert, c/c staggered pattern and 225mm vert c/c to jambs. Continue cavities at all junctions throughout. DPC to each leaf, DPC min 150mm above adjacent ground level. Close cavities at jambs and cills with 'Thermabate' proprietary Insulated closer with combined DPC (max 0.45 W/m²K) ensure windows set back min 30mm overlapping cavity. Window frame head, jambs and cill to have mastic sealant externally and internally. External and internal cill boards to be mastic sealed. Cavity trays over window and door openings and below roof junctions with stop ends and weep holes. Cavity closed at head of walls with proprietary closer. Generally all construction to comply with 'Limiting thermal bridging and air leakage: Robust construction details for dwellings and similar buildings'.
The building fabric should be constructed so that there are no reasonably avoidable thermal bridges in the insulation layers caused by gaps within the various elements, at the joints between elements and at the edges of elements such as those around window and door openings. Reasonable provision should also be made to reduce unwanted air leakage through the new envelope parts.

EXIXSTING PARTY WALL IN BEDROOM - TIMBER FRAME WALL LINING
50mm cavity, breather membrane, 9mm WBP plywood,100mm Celotex FR5000 between 125x50mm timber studs, 25mm cavity between studs - low emissivity, Polythene, 1000gauge VCL. 12.5mm Plasterboard taped and fill joints and setting coat finish.

5.0 INTERNAL WALLS
100 x 50mm softwood stud framing at 450mm centres with an absorbent layer of unfaced mineral wool batts or quilt (minimum thickness 25mm, minimum density 10kg/m3) which may be wire reinforced, suspended in the cavity and finished both sides with 1 x layers 12.5mm Wallboard, taped and fill joints and setting coat finish.Minimum sound rating of 45db. Moisture resistant board to be used in bathrooms.
Loadbearing walls to be 100mm blockwork finished both sides with 13mm plaster.

6.0 UPPER FLOORS
Chipboard flooring in bathrooms to be moisture resistant. Double floor joists to be provided under all partitions running parallel with walls and to support all bath installation. Notches and holes in joists to comply with Building Regulations 2010: Approved Document A. Refer to Structural Engineer's drawings for sizes of joists.
100mm Rockwool insulation between joists.
Ceilings - 2 x12.5mmFire line board taped and fill joints and setting coat finish.
Loft doors will require insulation fixed to the rear side to prevent cold spots.

7.0 STAIRCASE
As existing.

8.0 FLAT ROOF (WARM ROOF): (max 0.18W/m²k U-value)
Single Ply Membrane or 3 Layer Felt, with solar reflective chippings, fully adhered on 130mm Celotex "EL3000" Insulation fully bonded. Vapour Control Layer as BS6229:2003. 19mm WBP Ply on furrings min 1:80 fall. 50x200 Joists to Structural Engineer's calculation, 12.5mm plasterboard. 25mm softwood fascia board. Fully adhered flashing min 150mm high.

9.0 TIMBER TREATMENT:
All structural and exposed timber to be treated with preservative against rot and infestation in accordance with British Standard Code of Practice 98. Treat cut ends liberally with tinted preservative.

10.0 FIRE PROTECTION
All elements of structure to be ½ hour fire resistant. All cladding to steelwork to relate to the HPA factors and provide full 30 minutes fire protection.
Ensure fire stopping, to maintain the continuity of fire resistance, where services are taken through compartment walls/ceilings
Flat entrance doors to be FD30S fir doors to achieve a min of 30 mins fire resistance with smoke seals and 3no. hinges and door closers to b.regs approval
All internal flat doors to be min FD20 with 3 no. hinges and intumescent seals to b.regs approval.

11.0 WINDOWS AND GLAZING:
All new or replaced windows and patio doors to achieve an average U-value of 1.6 W/m²K timber or Upvc framed 16mm gap argon filled double glazed Low E with full draught excluding and weather stripping. Window frame head, jambs and cill to have mastic sealant externally and internally. External and internal cill boards to be mastic sealed.
All windows to be fitted with trickle vents to provide background ventilation to all habitable rooms.
All areas of glazing below 800mm from finished floor level to be toughened. In areas of glazing within 300mm of any door all glazing below 1500mm is to be toughened.

First floor windows in living room and bedroom; should not be fitted with locking handles, unless they are above a ground floor extension/porch and there is ready access to another escape window on the same floor. The lowest part of the opening window must not be any lower than 800mm or any higher than 1100mm above floor level. The escape window must be a side or top hung hinged window with minimum dimensions 450mm wide x 750mm high, or with an opening area of 0.33m2 with minimum width of 450mm.

12.0 VENTILATION:
Provide min 8000mm² background ventilation and min 5% floor area rapid vent opening to habitable rooms, min 4000mm² background ventilation to kitchen and bathrooms on external walls.
All to comply with the Building Regulations 2010: Approved Document F
Habitable Rooms
As Table 5.2A Part F - Total equivalent ventilator area 35000mm².
To have one or more ventilation openings with a total area of at least 1/20th of the floor area of the room, and some part of the ventilation opening at least 1.75m above the floor level, eg, an opening windowis and one or more controllable and secure ventilation openings, located so as to avoid undue draughts, having a total area not less than 8000mm², e.g. trickle ventilatorls.
Bathrooms
One or more controllable and secure ventilation openings, located so as to avoid undue draughts, having a total area not less than 4000mm², e.g. trickle ventilatorls and mechanical extract ventilation capable of extracting at a rate not less than 15 litres per second which may be operated intermittently with a 15 minute overrun.
10mm gab below door to allow air transfer.
All WCs to be fitted with mechanical extract ventilation with a minimum rate of 6 litres per second with a 15 minute overrun.
Mechanical ventilation with a minimum extract rate of 30 litres per second (intermittent) to be fitted above hob in kitchen.
Pipes
All extract pipes to be wrapped in minimum 100mm insulation and installed to fall from the area served to the external air.

10.0 DRAINAGE:
Contractor designed - Above ground drainage to fully comply with Building Regulations Part H. Drawings show assumed routes. All to be confirmed on site with contractor to BCO's approval.
Foul Water Drainage
100mm internal diameter flexible jointed pipework laid to falls 1:40 minimum.
Drains passing under the building are to be encased in concrete not less than 100mm thick and having movement joints formed with compressible board at each socket or sleeve joint face.
Drains passing through walls to have PCC lintels over and to have 50mm space all round, openings masked both sides with rigid sheet material.
Drains passing through walls to be short length of pipe bedded in wall, joints formed within 150mm of either wallface with adjacent rocker pipes of maximum length 600mm with flexible joints.
Connecting to existing foul water drainage system.
Manholes
All to be in accordance with BS 8301:1985
150mm concrete bass Class B engineering brick sides of 102mm or 215mm if more than 900mm deep. Half round channels, benching, covers etc.
Steplrons to be provided if manhole is over 1m deep.
Internal manholes and gullies to be fitted with double seal and bolted down covers.
Surface Water Drainage
Half round gutters as shown to 65mm uPVC down pipes to back inlet trapped gulleys to 110mm uPVC drains to 900mm diameter soakaway sited min. 5m from building subject to percolation test and depth to LA requirement. External hard landscaping to be laid to falls to soft landscaped areas away from building. Top grate access, universal trapped gully outlets to yard areas or ACO type pre-formed channels with drain connections, to soakaways or combined surface and foul drainage system, to be confirmed prior to commencement.

13.0 PLUMBING
All to comply with BS 5572.

Wastes, 32mm dia: 1.7m maximum run or 40mm dia: 3m maximum run from basins and bidets.
40mm dia: 3m maximum run or 50mm dia: 4m maximum run from baths, showers, sinks.
Minimum 100mm dia: from wc pans.
75mm deep seal and/or anti-syphonic vented traps.
Ground floor fittings to connect to F/W drain via back inlet trapped gullies or connected to SVP if connection is greater than 450mm above drain invert.
All stub stacks to be fitted with patent air admittance valves, and to be above flood level of apparatus served.
SVP's to terminate at least 900mm above the level of roof windows/dormer if within 3m of the opening.
Provide access points at all changes in direction. Rodding points to be provided in discharge stacks to give access to any lengths of pipe which cannot be reached from any other part of the system. All pipes should be reasonably accessible for repair. Rodding points in stacks should be above the spillover level of appliances.

14.0 ARTIFICIAL LIGHTING AND ENERGY EFFICIENCY:
External lighting to be timer controlled with low energy fittings.
All electrical work is to be designed, installed, inspected and tested in accordance with BS 7671. These installation works are to be undertaken by a person registered with an electrical self certification scheme, or alternatively by a suitably qualified person, with a certificate of compliance produced by that person to building control upon completion of the works. Lighting scheme to be confirmed during fit out stage. Ensure 75% of all new fixed internal lighting achieves a lighting efficiency of 45 lumens per circuit watt. All electrical switches and socket outlets to be installed between 450mm and 1200mm from finished floor level.

18.0 HEATING
New combi boiler and heating system to ground floor flat. Heating systems Contractor designed, to fully comply with Building Regulations Part G.
TRV's to new radiators, or other space heating controls, to be provided.
New hot water cylinder in First Floor Flat
The hot water supply to any bath must incorporate a temperature limiter ensuring water delivered tot he bath does not exceed 48 Deg C.
The hot water storage and supply system installed is required to be commissioned in accordance with the procedures set out in the Domestic Heating Compliance Guide. Commissioning documentation will be required upon completion.

15.0 SMOKE DETECTION
FIRE DETECTION AND FIRE ALARM SYSTEM TO BE IN ACCORDANCE WITH BS5839-6:2004 - GRADE D - CATEGORY LD3 STANDARD. SYSTEM TO BE MAINS OPERATED IN ACCORDANCE WITH BS5446-1: 2000 OR BS5446-2:2003

Do Not Scale. All dimensions and conditions are to be checked on site prior to preparing drawings or commencing any work.
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Our Reference : RJ-77 — THERM ENERGY LTD
Re. : 2 No. Conversions, 118 High Street, Shoreham - Thermal Calculations (Part L) — TEL : 01903 884557

Construction and Insulation

Element	U-VALUE (W/m²K)
Exposed Wall (New cavity) 102.5mm facing brick outer leaf + 50mm residual cavity + 50mm Celotex CG5000 insulation + 100mm Celcon Standard 3.6N block inner leaf + 12.5mm plasterboard on dabs internal finish.	0.24
Exposed Wall (New terrace walls) Rendered onto 100mm Celcon Standard 3.6N block inner leaf + 50mm residual cavity + 50mm Celotex CG5000 insulation + 100mm Celcon Standard 3.6N block inner leaf + 12.5mm plasterboard on dabs internal finish.	0.22
Exposed Wall (lining to existing living room wall) Existing brick outer leaf + 50mm residual cavity + 50mm Celotex CG5000 insulation + 100mm Celcon Standard 3.6N block inner leaf + 12.5mm plasterboard on dabs internal finish.	0.23
Exposed Wall (lining to existing bedroom wall) Existing brick outer leaf + 50mm residual cavity + 9mm plywood + 100mm Celotex FR5000 insulation + 25mm air gap + 12.5mm plasterboard on dabs internal finish.	0.23
Exposed Wall (office area) 100mm mineral wool insulation (between timber studs) + 12.5mm plasterboard internal finish. ***subject to building control approval as falls outside the guidelines set in Part L1B***	0.44
Existing Walls FLOOR LEVEL 225-300mm existing brick/block walls + 12.5mm plasterboard internal finish. ***subject to building control approval as falls outside the guidelines set in Part L1B***	DELOTEX PL4060 TO BE DIRECT FIXED (DOT & DAB) TO INTERNAL FACE OF EXTERNAL WALLS AT FIRST 0.29 ~~0.72~~
Roof (sloping ceilings - ventilated) Tiles on battens + membrane/roofing felt + 50mm ventilated air gap (between rafters) + 100mm Celotex GA4000 insulation (between rafters) + 45mm Celotex TB4000 insulation (under rafters) + 12.5mm plasterboard internal finish.	0.17
Roof (warm flat roof) 130mm Celotex XR4000 insulation + 12.5mm plasterboard finish	0.18
Roof (Existing roof) 270mm mineral wool insulation quilt (100mm between joists + 170mm cross-laid over joists)	0.16
Existing Ground Floor Solid concrete slab existing flooring plus 50mm screed ***subject to building control approval as falls outside the guidelines set in Part L1B***	0.96
New Ground Floor 60mm sand and cement screed + 65mm Celotex GA4000 insulation + solid concrete flooring.	0.25
New Windows/Doors/Roof Glazing PVCu or timber frame double-glazed + 16mm cavity (air or argon gas fill) + low-E soft coat glass, to achieve a U-value of 1.6W/m²K, or Window Energy Rating Band C.	1.60

Heating & Ventilation

Main Heating System
Conventional (mains) gas-fired central heating with radiators. Condensing combi- boiler for ground floor flat.
Electric boiler with radiators for first floor flat.

Water Heating
From gas combi boiler - Ground floor flat.
Central heating boiler + Hot water cylinder - First floor flat.

Heating Controls
Programmer + room thermostat (or flow switch or boiler energy manager) + boiler interlock + thermostatic radiator valves (TRVs).

Ventilation
System 1 - Background ventilators & intermittent extract fans, or passive stack ventilation (system 1 or 2 in Approved Document F1, 2010).

Other

Lighting
75% Low-energy light fittings in accordance with Part L1.

Electricity Tariff
Standard Tariff

Common Areas
Common areas to be unheated

Floor-Ceiling Heights
Ground Floor = 2400mm (average). 1st floor 2600, (near inc floor zone).

Air Tightness
Part L1B - air pressure test not required.

date	revision	
10.01.14	C	Revision for Building Regulations Approval
10.02.14	D	Revision for Building Regulations Approval
20.02.14	E	Revisions for Building Regulations Approval
14.08.14	F	Revisions to drainage layout

ADUR & WORTHING PLANNING SERVICES
PLAN AWDM/1710/14
DATE VALID 19 JAN 2015

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project:	Works to 118 High St Shoreham to create 2 flats and separate office
location:	118 High Street Shoreham West Sussex BN43 5DB
client:	James Ball
drawing:	Plans Proposed
scale:	1:50
page:	A1
drawn:	CH
checked:	CH
date:	26/09/13
drawing number:	139(21)001
revision:	F