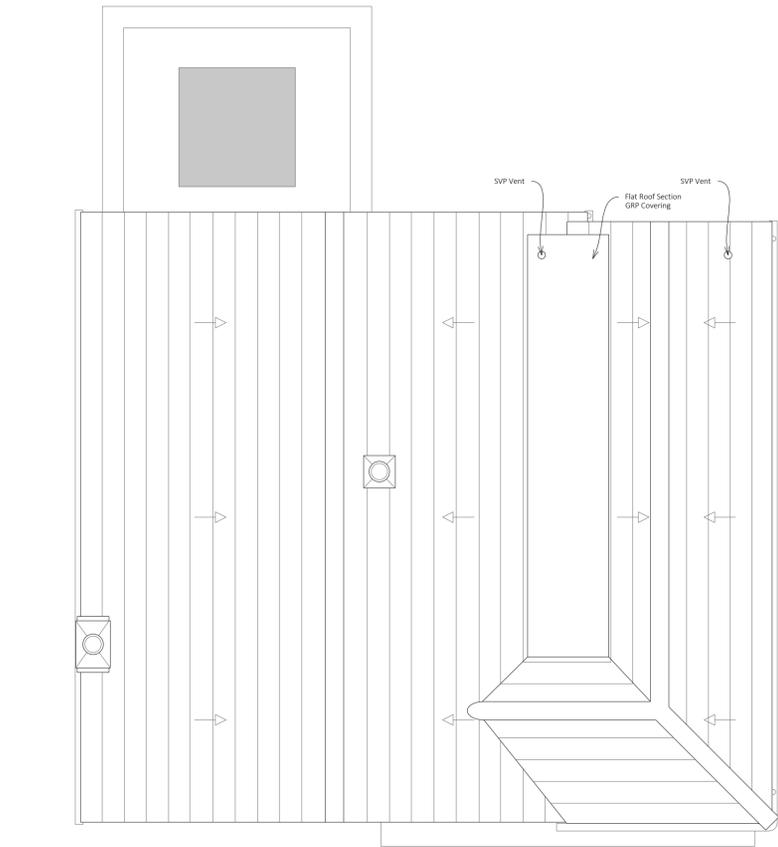
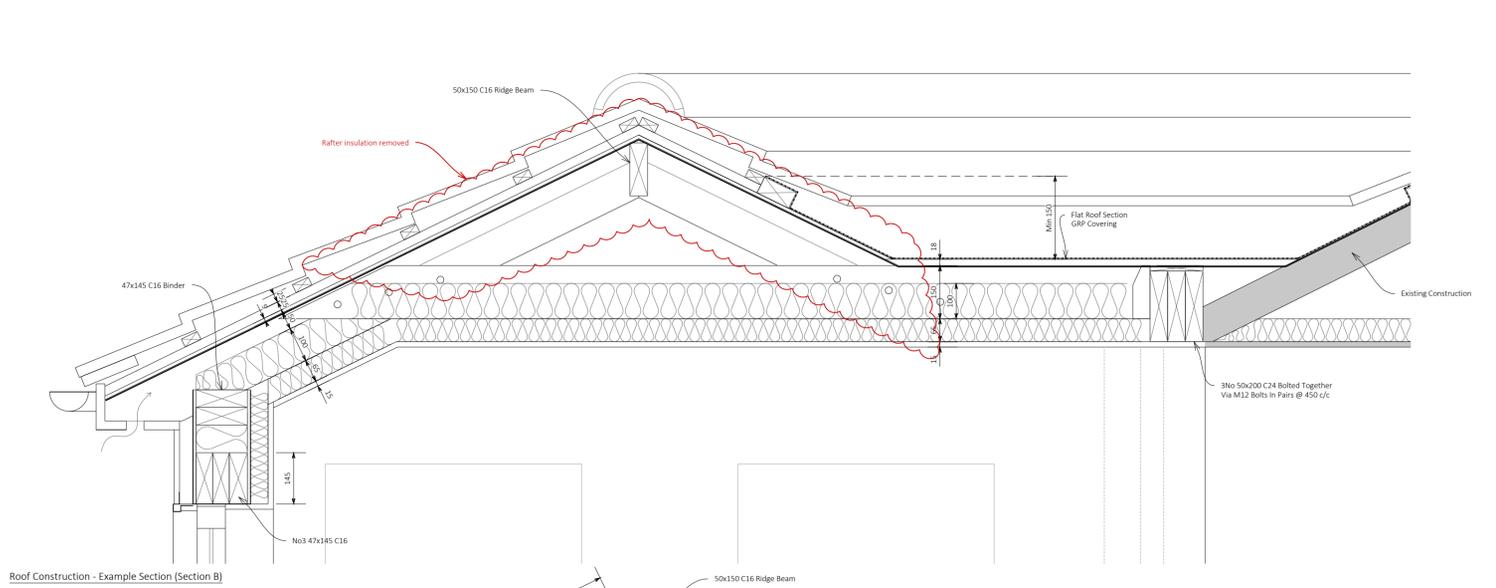


Please Note:

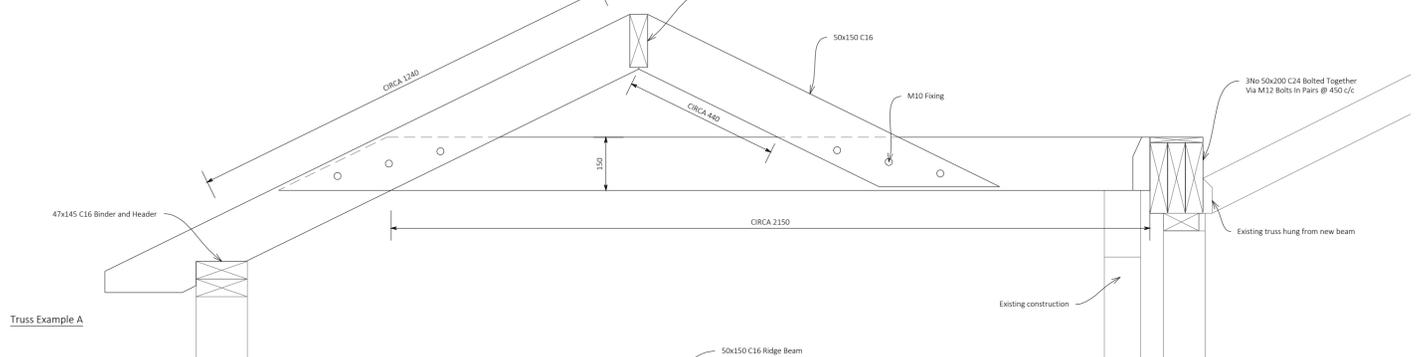
- Do not scale directly from these drawings.
- All dimensions should be checked on site by the contractor prior to the commencement of any works.
- Any discrepancy should be reported to CWL immediately.
- Contractors should carry out their own assessment before commencing any works.
- All works are to be carried out in accordance with relevant Approved Documents & British/Scottish Standard where applicable.
- CWL does not take any responsibility for information provided by third parties.



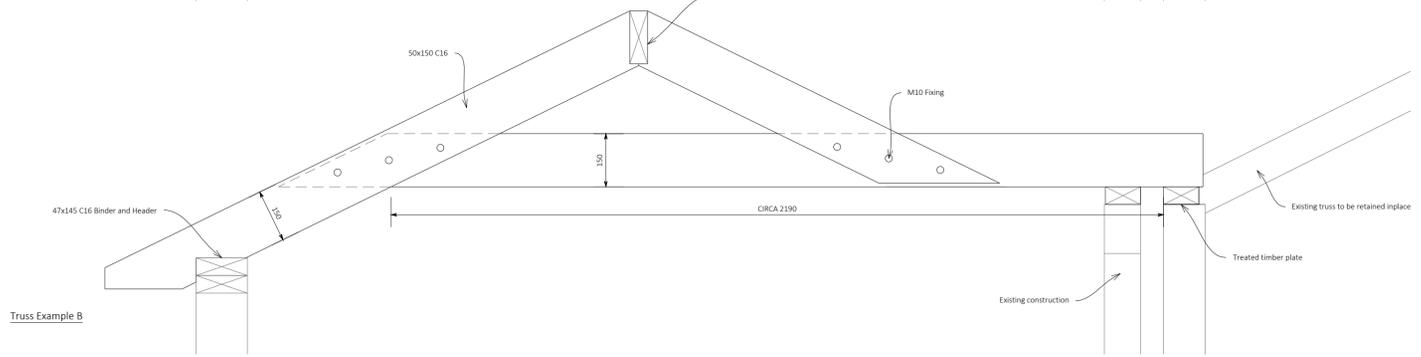
Roof Plan



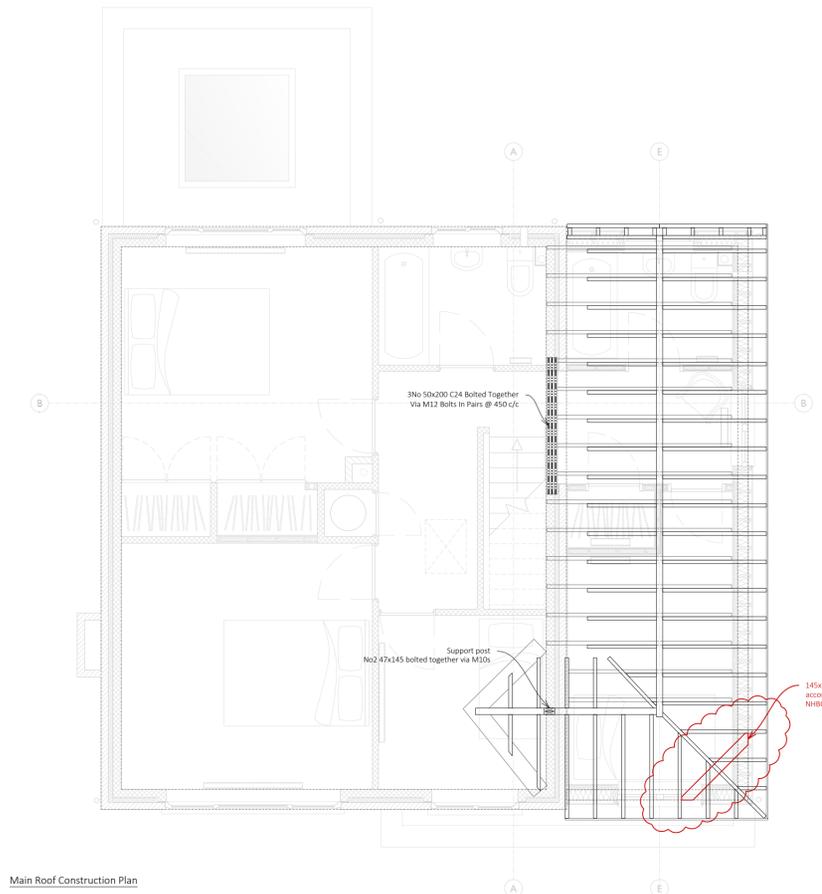
Roof Construction - Example Section (Section B)



Truss Example A



Truss Example B



Main Roof Construction Plan

Foundation & Floor Construction:

- Contractor to ensure internal finished floor levels match between existing and proposed.
- 75mm screed.
- 500 gauge DPM.
- 100mm Celotex GA4000 insulation.
- 1200 gauge DPM.
- 150mm concrete slab (Gen2 mix).
- 20mm binding sand.
- 150mm compacted hardcore.
- 50mm Celotex TB4000 insulation to bearing slab perimeter.
- 450mm in width concrete filled trench (Gen2 mix).
- Concrete Depth: 800mm in single storey areas, 1000mm in two storey areas.
- Brick/block bearing.
- Weathered/chamfered facing brick to top course.
- DPC.
- Treated C16 timber plate.

First Floor Construction:

- 18mm ply.
- 47x170 C16 joists @ 600mm centres.
- 100mm Celotex suspended between joists.
- 9mm OSB.
- 12.5mm Wallboard TEN plasterboard with skim.

First Floor Construction Over Garage Area:

- 18mm ply.
  - 47x170 C16 joists @ 600mm centres.
  - 100mm Celotex suspended between joists.
  - 9mm OSB.
  - 12.5mm fireline plasterboard.
  - 12.5mm Wallboard TEN plasterboard with skim.
- External wall construction:
- Marley Eternit 'Cedral Click' cladding system (vertical and horizontal), including ventilated cavity. (Installed in line with manufactures instructions, available at: [www.marleyeternit.co.uk/Resources/CAD-Details/Facades](http://www.marleyeternit.co.uk/Resources/CAD-Details/Facades))
  - Breather membrane.
  - 9mm Promat MAG THERBOARD (or similar) to provide min 30minute fire protection (external face).
  - 47x145mm C16 @ 400mm Centres.
  - 140mm Celotex TR4000.
  - 9mm Exterior Grade OSB (Internal face).
  - Vapour Control Layer.
  - 50x25mm Batten @ 300 Centres.
  - 50mm Celotex TB4000 Insulated Service Zone.
  - 12.5mm Wallboard Ten with skim (Class 0).

Internal wall construction:

- 12.5mm Wallboard Ten (each side).
- 9mm OSB (each side).
- 63x38 C15 timber studwork.
- 60mm Celotex insulation board.

Internal wall construction (between utility and garage):

- 12.5mm Wallboard Ten (each side).
- 9mm OSB (each side).
- 12.5 Fire line (gangare side).
- 145x45mm C16 studwork.
- 140mm Celotex TR4000.

Main Roof Construction:

- Tiles to match existing.
- 25x50mm batten and counter batten.
- Breathable roofing underlay.
- 15mm ply.
- 50x150 C16 Ridge Beam.
- 50x150 C16 rafters set at 400mm centres.
- 50mm ventilation gap.
- 100mm Celotex GA4000 between ceiling joists/ties.
- 65-12.5mm Celotex PU-065.
- Soffit vent to provide a minimum of 25000mm<sup>2</sup>/m run.
- 5mm air gap to be maintained over ridge beams.
- Ventilated ridge. Providing 5mm air gap.
- Ventilation in valley intersection is to be maintained by removing a 50mm strip of the 15mm OSB across the rafters in line with the valley 100mm above the intersection.
- Dragon tie detail in accordance with 7.2.7 of NHBC standards 2018 to hipped corner.
- Roof construction to comply with 7.2 of NHBC standards 2018 where not otherwise specified.

Flat Roof Section (main roof):

- GRP covering system lapped under tiles by min 150mm vertically.
- 180mm exterior grade ply.
- 47x145 C16 ceiling joist/ties.
- 100mm Celotex GA4000 between ceiling joist/ties.
- 65-12.5mm Celotex PU-065.

Single Storey Flat Roof Construction:

- Antracite Grey RAL 7016 Aluminium Coping (300mm, contractor to confirm).
- GRP covering system, lapped up under coping.
- 10mm exterior grade ply.
- breather membrane.
- 11mm OSB.
- Furring.
- 50x225 C16 joists.
- 150mm Celotex suspended between joists.
- 12.5mm Wallboard TEN plasterboard with skim.

Windows:

- Windows to match client specification. Contractor to confirm style.
- Bedrooms windows to provide suitable for means of escape. Glazing openings of at least 450mm x 750mm not more than 1100mm above floor level.
- Windows and skylight to achieve 1.0W/m<sup>2</sup> or better.
- New windows and skylight are to provide adequate ventilation via 2500mm<sup>2</sup> trickle vents where more than x1 are present, or 5000mm<sup>2</sup> where only x1 are specified.
- New windows to conform to approved document 4.
- Glazing to comply with BS6399 and/or BS 6180.

Sky Light:

- 1.5m x 1.5m Flushglaze Rooflight (or similar).
- Providing a U Value of 1.6W/m<sup>2</sup>K or better.
- Available from: [www.rooflights.com/product/rooflights/flushglaze-fixed-rooflight](http://www.rooflights.com/product/rooflights/flushglaze-fixed-rooflight).
- Technical details and install guide available from: [www.rooflights.com](http://www.rooflights.com).

Waste Water:

- All new drainage to be in compliance with approved document H.
- Soil stacks and waste runs to be vented in compliance with Approved Document H.
- Drainage diagram is for location guidance only. Contractor to ensure compliance.
- Soil pipes to be of 110mm black uPVC where above ground and suitable 110mm uPVC where below ground.
- Soil pipe junctions of more than 45degrees are to incorporate rodding points where any lengths of pipe cannot be reached from any other part of the system.
- New/retrofit soil pipes and waste water runs to connect to existing drainage system.
- Below ground pipe work to provide a minimum 150mm cover of gen2 mix concrete, bedded on a 5-10mm graded aggregate.
- Contractor to ensure pipe work provides a minimum fall of 1:80.
- Sink, bath and shower wastes to be fitted with suitable traps and anti siphon precautions where necessary in compliance with approved document H Section 1.

Rainwater:

- Surface water to drain in to existing system where practical/possible.
- New down pipes to connect to existing soak-ways.
- New down pipes to be of 60mm black plastic.
- New guttering to be of 110x75mm black plastic.
- Contractor to confirm requirement of additional soak-away.
- Above ground pipe work is to be of ABS 40mm solvent weld type. Installed in accordance with approved document part H. White internally, black externally.
- All new drainage to comply with approved document H where not otherwise specified.

Heating:

- New radiators to be connected to the existing system.
- New radiators to be fitted with thermostatic radiator valves.

Electrical Installation:

- All electrical works to be carried out in compliance with Part P.
- All electrical works to be designed, carried and tested out by a registered electrician.
- 75%min of new lighting to be of low energy/energy efficient type.

Means of warning and escaping:

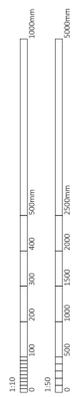
- Mains powered interlinked smoke detectors with battery backup to be provided in both hall and landing areas in accordance with BS5839-6 & BS5446-1/2.
- Bedrooms to be provided with windows of a minimum of 450x750mm and no more than 1100mm above floor level.

Ventilation:

- In accordance with regulation 42 of the Building Regulations 2010 the person carrying out the work shall for the purpose of ensuring compliance must:
  - ensure that testing of the mechanical ventilation air flow rate is carried out in accordance with a procedure approved by the secretary of state, and
  - give notice of the testing to the local authority.
- (i) the notice as referred to in (b) above is to be given to the local authority not later than 5 days after the final test is carried out.

Structural Elements:

- Contractor to confirm all structural elements prior to procurement and construction.



Revision:

A - Initial Drawing - 12/07/2018  
 B - Building Control Amends - 08/08/2018  
 C - Building Control Amends - 27/09/2018



Project Details:

Drawing No: 920-2/53/08/C  
 Drawing Title: ROOF PLAN  
 Scale: 1:10/50 @R50 A1  
 Date: 27/09/2018  
 Checked: SS

