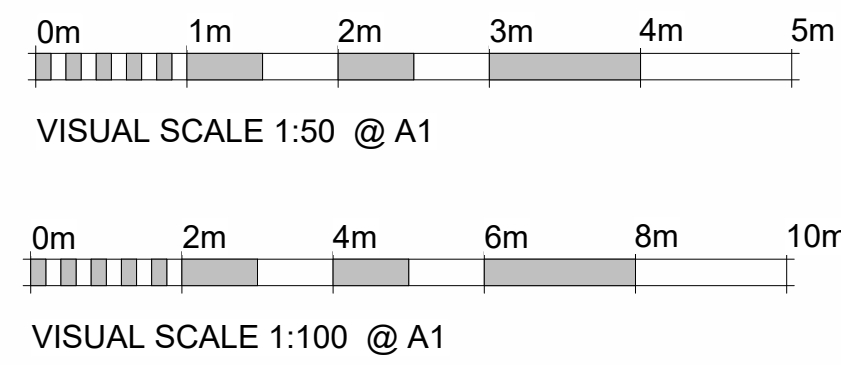
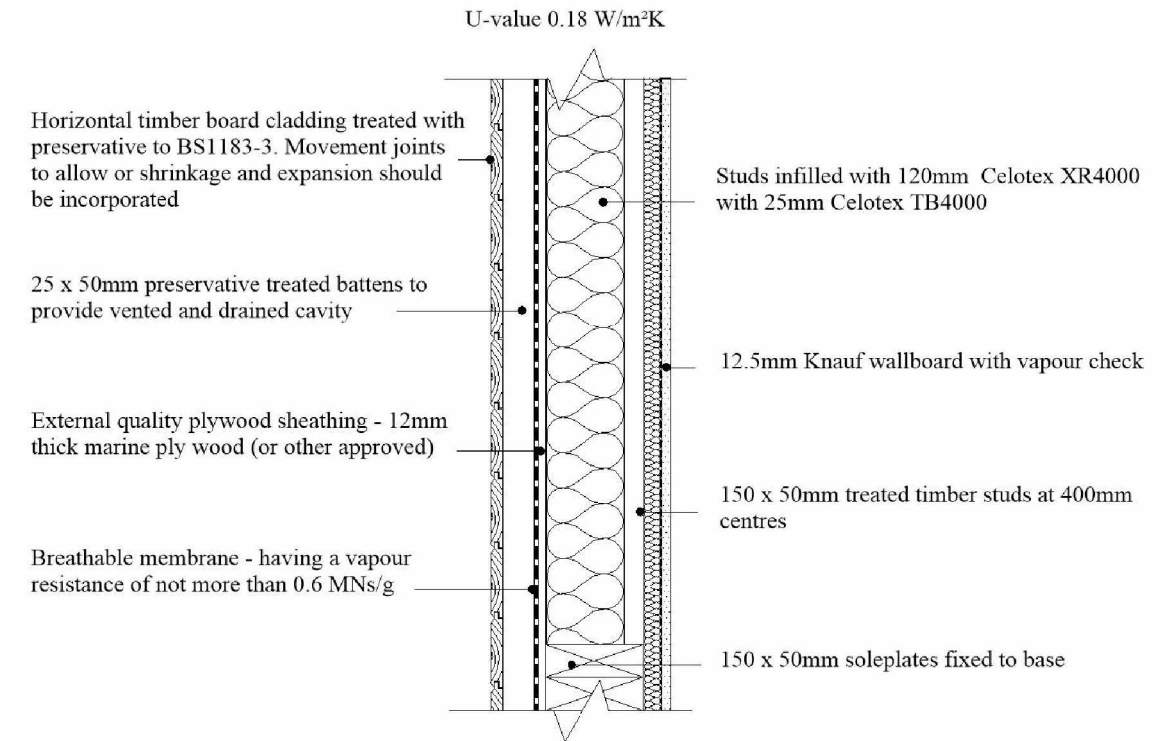


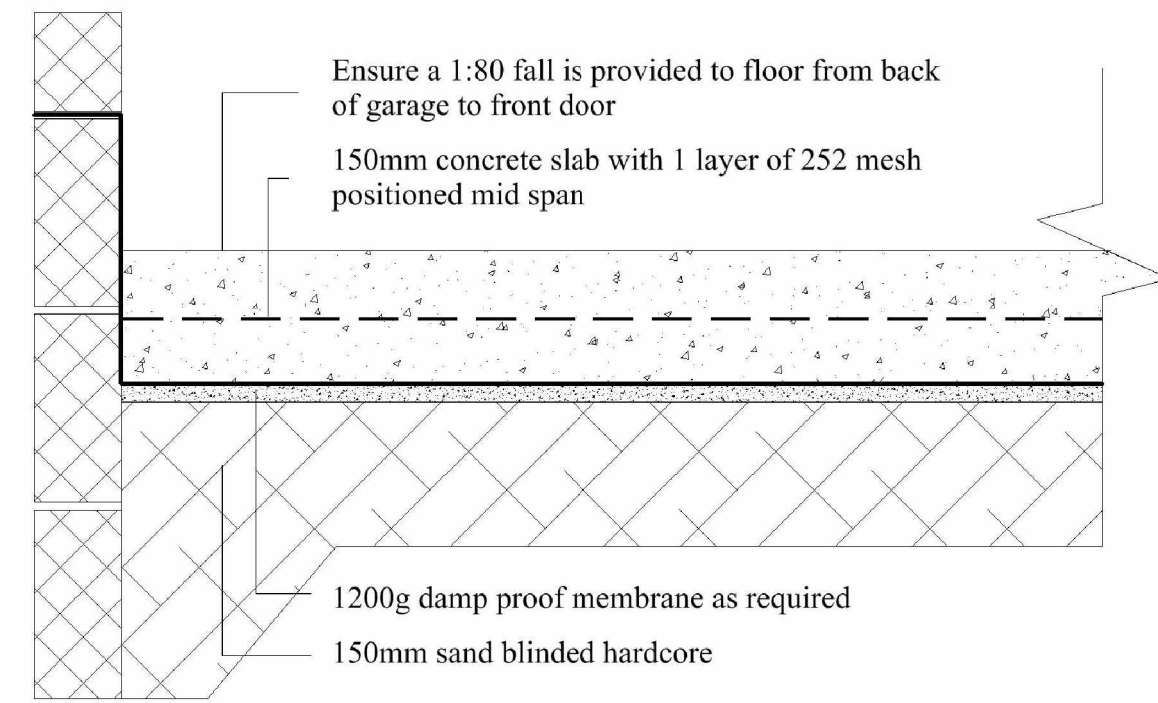


A1

TIMBER FRAME WALL WITH TIMBER CLADDING



SOLID GARAGE FLOOR



PLEASE NOTE
A Building Regulations application is not required for garages which are:
• Detached single storey
• Containing no sleeping accommodation
• Not exceeding floor area of 30m²
• Constructed substantially of non-combustible material i.e. masonry walls and a tiles roof.
• If the garage is constructed of combustible material it must be positioned at least one metre from the boundary, road or building
Planning approval may be necessary for a garage.
DEMOLITION
Measures to be put in place during and offer the demolition to ensure the protection of the public, public amenities and adjoining properties.
Such measures to include:
• The shoring of adjoining buildings.
• The control of dust and noise generation.
• The weatherproofing of any parts of adjoining buildings which are left exposed by the demolition.
• The repairing and making good any damage to any adjacent building effected by the demolition.
• The removal of material or rubbish resulting from the clearance and demolition of the site.
• The disconnection, sealing or removal of any drain or sewer, as required.
• The making good of any disturbed ground.
• Any arrangements necessary for the disconnection off all services (e.g. gas, water, electricity).

Consultation with the Health and Safety Executive, and Fire Authority should be sought if burning structures or materials on site.
If the demolition is more than 50m³ in volume a formal notice of demolition is to be given to building control at least six weeks before any demolition work starts, in accordance with The Building Act 1984: Sections 80-83.
Consultation to be undertaken with the occupiers of adjacent buildings where applicable and a Party Wall agreement put in place. A planning application to demolish to be made where required.
All demolition work to comply with the Construction (Design and Management) Regulations 1994 and a Health and Safety plan is to be provided by the principal contractor.

SITE INVESTIGATION
A survey of the site is to be carried out by a suitably qualified person including an initial ground investigation, a desk study and a walk over survey. A copy of all reports and surveys to be sent to building control for approval before works commence on site.
Any asbestos, contaminated soil or lead paint found on the site is to be removed by a specialist. Asbestos is to be dealt with in accordance with the Control of Asbestos Regulations 2006.

SITE PREPARATION
Ground to be prepared for new works by removing all unsuitable material, vegetable matter and tree or shrub roots to a suitable depth to prevent future growth. Seal up, cap off, disconnect and remove existing redundant services as necessary. Reasonable precautions must also be taken to avoid danger to health and safety caused by contaminants and ground gases e.g. landfill gases, radon, vapours etc on or in the ground covered, or to be covered by the building.

BEAMS
Supply and install all structural elements such as beams, roof structure, floor structure, bearings, and padstones in accordance with the Structural Engineer's calculations and details. New steel beams to be encased in 12.5mm Gyproc Fireline board with staggered joints. Gyproc FireCase or painted in Nullfire S or similar intumescent paint to provide 1/2 hour fire resistance as agreed with Building Control. All fire protection to be installed as detailed by specialist manufacturer.

STRAPPING FOR PITCHED ROOF
Gable walls should be strapped to roofs at 2m centres. All external walls running parallel to roof rafters to be restrained at roof level using 1000mm x 30mm x 5mm galvanised mild steel horizontal straps or other approved to BSEN 845-1 built into walls at max 2000mm centres and to be taken across minimum 3 rafters and screw fixed. Provide solid noggins between rafters at strap positions. All wall plates to be 100 x 50mm fixed to inner skin of cavity wall using 30mm x 5mm x 1000mm galvanised metal straps or other approved to BSEN 845-1 at maximum 2m centres.

FLAT ROOF RESTRAINT
100m x 50mm C16 grade timber wall plates to be strapped to walls with 1000mm x 30mm x 5mm galvanised mild steel straps at maximum 2.0m centres fixed to internal wall faces.

STRIP FOUNDATION
Provide 225mm x 600mm concrete foundation, concrete mix to conform to BS EN 206-1 and BS 8500-2. All foundations to be a minimum of 1000mm below ground level, exact depth to be agreed on site with Building Control Officer to suit site conditions. All constructed in accordance with 2004 Building Regulations A1/2 and BS 8004 Code of Practice for Foundations. Ensure foundations are constructed below invert level of any adjacent drains. Base of foundations supporting internal walls to be min 600mm below ground level. Sulphate resistant cement to be used if required. Please note that should any adverse soil conditions be found or any major tree roots in excavations, the Building Control Officer is to be contacted and the advice of a structural engineer should be sought.

SOLID GARAGE FLOOR
Solid garage floor to consist of 150mm consolidated well-rammed hardcore, blinded with 50mm sand blinding. Provide 150mm ST2 or Gen1 ground bearing slab thickened 300mm at garage entrance. concrete mix to conform to BS EN 1992-1-1:2004 with 1 layer of 252 steel mesh positioned mid span. Slab to be laid over a 1200 gauge polythene DPM as required. DPM to be lapped in with DPC in walls. Ensure a 1:80 fall is provide to floor from back of garage to front garage door.

TIMBER FRAME WALL
To achieve minimum U Value of 0.18 W/m²K
Timber cladding fixed to 25 x 38mm preservative-treated battens (provide counter battens to ensure vented and drained cavity if required) fixed to breathable membrane (having a vapour resistance of not more than 0.6 MNs/g) and 12mm thick WBP external quality plywood sheathing (or other approved). Ply fixed to treated timber frame studs constructed using: 150mm x 50mm head & sole plates and vertical studs (with noggins) at 400mm c/cs or to s/engineer's details & calculations. Insulation to be 120mm Celotex XR4000 between studs with 25mm Celotex TB4000 over. Provide vcl and 12.5mm plasterboard over internal face of insulation. Finish with 3mm skim coat of finishing plaster. All junctions to have water tight construction, seal all perimeter joints with tape internally and with silicon sealant externally.
Walls within 1m of the boundary to be lined externally with 12.5mm Supalux and 12.5mm Gyproc Fireline board internally to achieve 1/2 hour fire resistance from both sides and timber cladding to be treated with Fire Retardant Coating for Timber (ESVFR & QVFR) or similar paint system to achieve class 0 and 1 EU SBI/S1/d0.

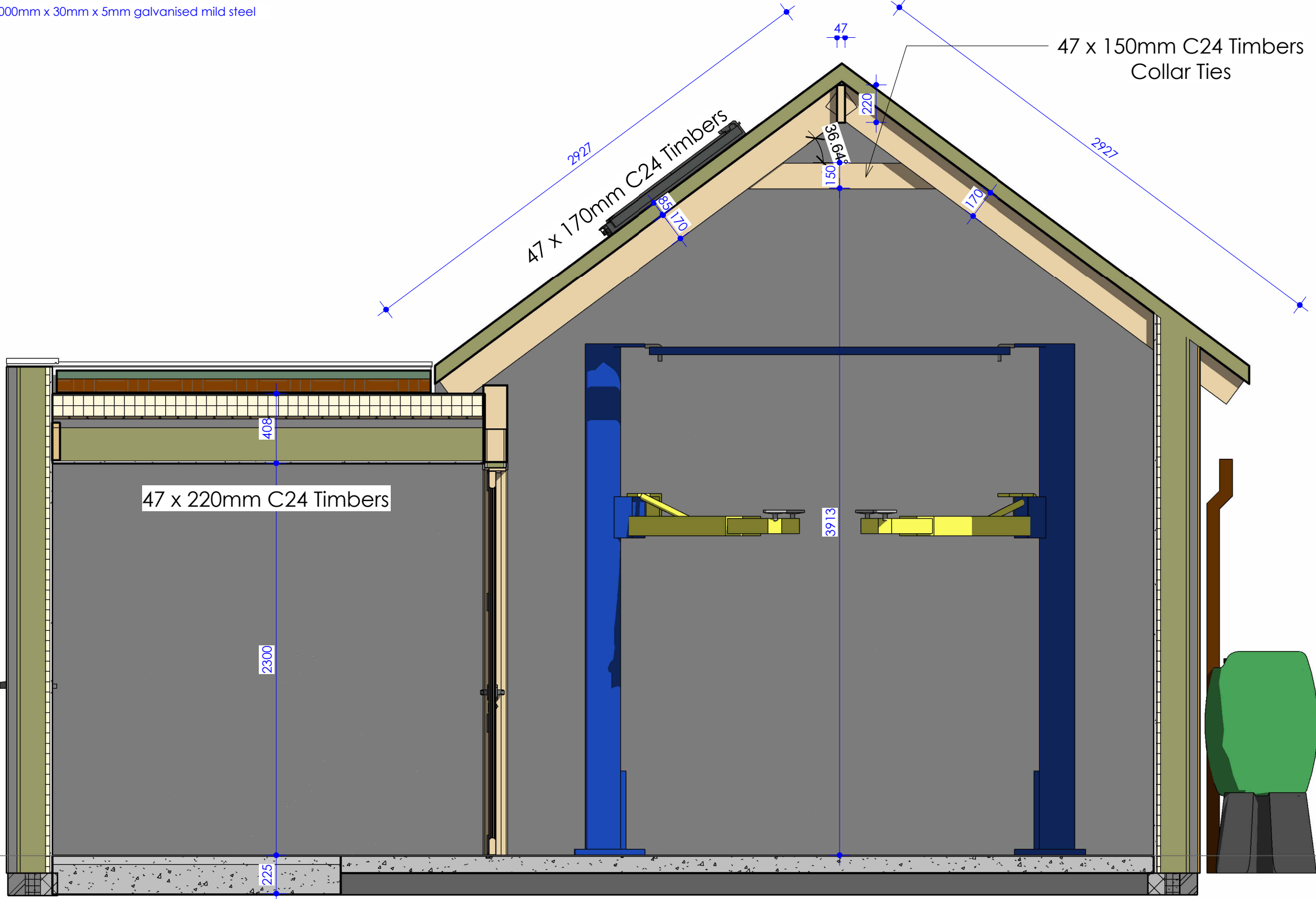
EXTERNAL SURFACE WATER DRAINAGE
Drainage of paving areas to be carried out in accordance with BS 6367:1983 and Approved Document H.
Hard surfaces around the building should be provided with a proprietary non-slip permeable surface laid to manufacturer's details and in compliance with BS EN 1338.
Concrete paving blocks. Requirements and test methods, to allow adequate drainage.
or provided with a non slip surface and cross fall of 1:40 – 1:60 draining away from the building (for a minimum of 500mm) to a suitable soakaway.
Paths, driveways and other narrow areas of paving should be free draining away from any buildings to a pervious area such as grasslands or to a suitable soakaway.

PITCHED ROOF
Pitch 22-45° (Imposed load max 0.75 kN/m² - dead load max 0.75 kN/m²)
Timber roof structures to be designed by an Engineer in accordance with NHBC Technical Requirement R5 Structural Design. Calculations to be based on BS EN 1995-1-1. Suitable roofing tiles on 25 x 38mm tanalised sw treated battens on rafters felt supported on 47 x 150mm grade C24 rafters at max 400mm centres max span 3.47m. Rafters supported on 100 x 50mm sw wall plates.
Construct ceiling using sw joists at 400mm centres, finished internally with 12.5mm plasterboard and min 3mm thistle multi-finish plaster as required.
Restraint strapping - 100mm x 50mm wall plate strapped down to walls. Ceiling joists and rafters to be strapped to walls and gable walls, straps built into cavity, across at least 3 timbers with noggins. All straps to be 1000 x 30 x 5mm galvanized straps or other approved to BSEN 845-1 at 2m centres.
THIS IS A GENERAL GUIDE BASED ON NORMAL LOADING CONDITIONS FOUND IN DOMESTIC CONSTRUCTION. IT IS YOUR RESPONSIBILITY TO ASSESS YOUR DESIGN TO ASCERTAIN WHETHER ENGINEER'S DETAILS/CALCULATIONS ARE REQUIRED. PLEASE REFER TO THE TRADA DOCUMENT – SPAN TABLES FOR SOLID TIMBER MEMBERS IN FLOORS, CEILINGS AND ROOFS FOR DWELLINGS' OR ASK YOUR BUILDING CONTROL OFFICER FOR ADVICE.

FLAT ROOF
(Imposed load max 1.0 kN/m² - dead load max 0.75 kN/m²)
Flat roof to be single ply membrane roofing providing aa fire rating for surface spread of flame with a current BBA or WIMLAS Certificate and laid to specialist specification. Single ply membrane to be fixed to 22mm exterior quality plywood decking or similar approved on sw firings to minimum 1 in 80 fall on sw treated 47 x 195mm C24 flat roof joists at 400mm c/cs max span 4.51m or as Structural Engineer's details and calculations. Underside of joists to have 12.5mm fall backed plasterboard and skim as required. Provide restraint to flat roof by fixing of 30 x 5 x 1000mm ms galvanised lateral restraint straps at maximum 2000mm centres fixed to 100 x 50mm wall plates and anchored to wall.
THIS IS A GENERAL GUIDE BASED ON NORMAL LOADING CONDITIONS FOUND IN DOMESTIC CONSTRUCTION. IT IS YOUR RESPONSIBILITY TO ASSESS YOUR DESIGN TO ASCERTAIN WHETHER ENGINEER'S DETAILS/CALCULATIONS ARE REQUIRED. PLEASE REFER TO THE TRADA DOCUMENT – SPAN TABLES FOR SOLID TIMBER MEMBERS IN FLOORS, CEILINGS AND ROOFS FOR DWELLINGS' OR ASK YOUR BUILDING CONTROL OFFICER FOR ADVICE.

FIXED EXTERNAL LIGHTING
External light fittings to be fitted as calculated in the DER and in compliance with the Domestic Building Services Compliance Guide.
Light fitting to be either:
a. lamp capacity not greater than 100 lamp-watts per light fitting and provided with automatic movement detecting devices (PIR) and automatic daylight sensors ensuring lights shut off automatically when not required.
Or
b. lamp efficacy greater than 45 lumens per circuit-watt; fitted with manual controls and automatic day/light cut-off sensors so that lights switch off when daylight is sufficient.

RAINWATER DRAINAGE
Rainwater goods to be new 110mm UPVC half round gutters taken and connected into 68mm dia UPVC downpipes. Rainwater taken to new soakaway, situated a min distance of 5.0m away from any building, via 110mm dia UPVC pipes surrounded in 150mm granular fill. Soakaway to be min of 1 cubic metre capacity (or to depth to Local Authorities approval) with suitable granular fill with geotextile surround to prevent migration of fines. If necessary carry out a porosity test to determine design and depth of soakaway.



1 Sectional View
1 : 25

1 Single Power Socket	FIRE Fire Alarm Panel	Distribution Board
2 Double Power Socket	SS Shaver Socket	Smoke Detector
C Cooker Point	SP Speaker Point	H Heat Detector
Unswitched Fused Spur	TV TV Aerial Point	C Carbon Monoxide Detector
External Power Socket	FB Floor Box	⊗ Extract fan
Telephone Point	FS-2 Floor Socket	⊙ Underfloor heating control
D Cat 6 Data Point	Ⓟ Passive Extract	
⌂ Extract Vent	Ⓜ Mechanical Extract	

Wall Structure Key:

	— Cavity Wall: Render
	— Cavity Wall: Face Brick
	— Block Work: 100mm
	— Studwork Wall: 75mm
	— Metal Frame: 70mm
	— Solid Brick Wall: 215mm
	— Solid Block Wall: 215mm
	— Structural Opening
	— Walls Removed

Please note:
All drawings are for the purposes of planning only unless marked for construction.

All builders to site measure to confirm measurements.

Report all discrepancies to the person named below, do not proceed without instruction.

BRO take no responsibility should any drawing/s unless specified are used for building purposes and measurements aren't checked on site.

All drawings remain the property of BRO Architecture

Drainage Key

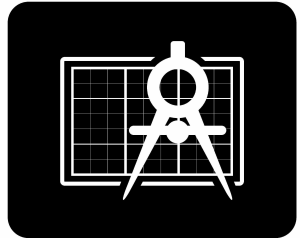
S	Storm Drainage
MH	Manhole
FD	Foul Drainage
SVP	Soil Vent Pipe
GP	Gulley Pot
RWP	Rainwater Pipe
AD	ACO Drain

Ducting Colour & Use

Red	Electric cable
Yellow	Gas Pipe
Blue	Water pipes
Green	Data/Comms
Grey	BT
Purple	Security - Cameras
Orange	Garden Lighting non Security

DRAWING NUMBER

B1-0



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DESIGNING YOUR DREAMS

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CLIENT

Rhys Thomas

SITE ADDRESS

18 Bronywawr Pontardawe
SA8 4JY

PROJECT NAME

Proposed Detached Garage

DRAWING NAME

Proposed Sectional View

DATE

12/19/21

REV

DRAWN BY
SH

SCALE (@ A1)
1 : 25

CHECKED BY
Client

PROJECT NUMBER
SH/BRO/100423-RT