

Apex/Peak

The uppermost point of a truss.

Attic Truss/Room-in-The-Roof

A truss that forms the top storey of a dwelling, but allows the area to be habitable by leaving it free of internal web members. This will be compensated by larger timber sizes elsewhere.



Bargeboard

Board fitted to conceal roof timbers at gable end.

Battens

Small timber members spanning over trusses to support tiles, slates, etc.

Bearer

A member designed to distribute loads over a number of trusses.

Bearing

The part of a truss receiving structural support. This is usually a wallplate, but can be an internal wall etc.

Binder

A longitudinal member nailed to trusses to maintain correct spacing.

Birdsmouth

A notch into the underside of a rafter to allow a horizontal seating at the point of support. Usually with raised tie trusses.

Blocking

Short timbers fixed between chords to laterally brace them.

Bobtail

A truss formed by truncating a normal triangular truss.

Bottom Chord

See ceiling tie.

Bracing

This can be temporary, stability or wind bracing which are described under these headings.

Building Designer

The person responsible for the structural stability and integrity of the building as a whole.



Camber

An upward vertical displacement built into a truss in order to compensate for deflection which might be caused by the loadings.

Cantilever

The part of a structural member or truss which extends beyond its bearing.

Ceiling Tie

The lowest member of a truss, usually horizontal which carries the ceiling construction and water tank.

Chevron Bracing

Diagonal bracing nailed to the truss in the plane of the specified webs to add stability.

Chords

Refer to the Top and Bottom Chords that are respectively the rafter and ceiling tie.

Concentrated Load

A load applied at a point.



Dead Load

The load produced by the fabric of the building, always long term. (See design Loads).

Deflection

The deformation caused by the loads.

Design Loads

The loads for which the unit is designed. These consider the duration of the loads - long term, medium term, short term, and very short term.

Duo/Dual Pitched Truss

A truss with two rafters meeting at the apex, but not necessarily having the same pitch on both sides.



Eaves

The line where the rafter meets the wall.

Eaves Joint/Heel

The part of the truss where the rafter and the ceiling tie intersect. This is usually where the truss is supported.

Extended Rafter

See Raised Tie Trusses.



Fascia

Horizontal board fitted along the length of the building to the edge of the truss overhangs.

Fink Truss

The most common type of truss used for dwellings, It is duo-pitch, the rafters having the same pitch. The webs form a letter W.

Firring Piece

A tapered timber member used to give a fall to flat roof areas.

French Heel

An eaves joint where the rafter sits on the ceiling tie.



Gable End

The end walls which is parallel to the trusses and which extends upwards vertically to the rafters.

Gable Ladder

Components used to form an overhang at the gable end.

Girder Truss

A truss made up of two or more fixed together and designed to take exceptional loads, such as those imposed by other trusses fixed to it.



Heel

See eaves joint.

Hip Board

A member sloping from ridge to corner in a hip end construction.

Hip End

An alternative to a gable end where the end wall finishes at the same height as adjacent walls. The roof inclines from the end wall, usually (but not always) at the same pitch as the main trusses.

Hip Set

The trusses, girders and loose timbers required to form a hip end.

Horn/Nib

An extension of the ceiling tie of a truss (usually monos or bobtailed trusses), which is built into masonry a bearing.



Imposed Load

The load produced by occupancy and use including storage, inhabitants, movable partitions and snow, but not wind. Can be long, medium or short term.

Internal Member

See Web.

Intersection

The areas where roofs meet.



Jack Rafter

An infill rafter completing the roof surface in areas such as corners of hip ends or around chimneys.



Live Load

Term sometimes used for imposed loads.

Longitudinal Bracing

Component of stability bracing.

Loose Timber

Timber part of a truss but added to form the roof in areas where trusses cannot be used.



Mono-Pitched Truss

A truss in the form of a right-angled triangle with a sing rafter.



Nailplate

Metal plate having integral teeth punched from the plate material. It is used for joining timber in one plane with no overlap. It will have an agreement certificate and will be manufactured, usually, from galvanizes steel.

Nib

See Horn.

Node

Point on a truss where the members intersect.

Noggins

Timber pieces fitted together at right angles between the rafters and ceiling ties to form fixing points.



Overhang

The extension of a rafter or ceiling tie of a truss beyond its support or bearing.



Part Profile

See Bobtail.

Peak

See Apex.

Permissible Stresses

Design Stresses for grades of timber published in BS 5268: Pt 2: 1988.

Pitch

The angle of the rafter to the horizontal, measured in degrees.

Plate

See Nailplate.

Plate location/Position Tolerance

Acceptable deviation from the specified location for the plate on a truss. This is usually 5mm but can be specified greater.

Pole Plate

Timber used in cantilevered hips to support loose timbers.

Purlins

Timber members spanning over trusses to support cladding or between trusses to support loose timbers.



Quarter Point

The point on a rafter where the strut intersects in a Fink Truss.

Queen

Internal member (web) that connects the apex to a third point on a fink truss.



Rafter

The uppermost member of a truss that normally carries the roof covering.

Rafter Diagonal Bracing

Component of Stability Bracing.

Raised Tie Truss

A truss which is supported at a point on the rafter which is beyond the point where the rafter meets the ceiling tie.

Reducing Trusses

See valley Frames.

Remedial Detail

A modification produced by the Trussed Rafter Designer to overcome a problem with truss after its manufacture, or breakage on site.

Return Span

The span of a truss being supported by a girder.

Ridge

The line formed by the truss apexes.

Ridgeboard

Timber running along a ridge and sandwiched between loose rafters.

Room-In-The-Roof

See Attic Truss



Scab

Additional Timber fitted to the side of a truss to effect a local reinforcement, particularly in Raised Tie Trusses.

Setting-Out-Point

The point on a truss where the undersides of the rafters and ceiling tie meet.

Skew Nailing.

A Method of fixing trusses to the Wallplate by driving nails at an angle through the truss into the wallplate which is generally not recommended. (See Truss Clip).

Soffit

Board fixed underneath Eaves overhang along the length of the building to conceal timbers.

Span

Span over wallplates is the distance between the outside edges of the two supporting wallplates. This is usually the overall length of the ceiling tie.

Splice

A joint between two members in line using a nailplate.

Spreader Beam

See Bearer.

Stability Bracing

An arrangement of additional timbers fixed in the roof space to provide lateral support to the trusses.

Strap

Metal component designed to fix trusses and wallplates to walls.

Strut

Internal member connecting the third point and the quarter point on a fink truss.

Stub End

See Bobtail.



Temporary Bracing

An arrangement of diagonal loose timbers installed for safety during erection. Often incorporated with permanent stability bracing and wind bracing structures.

Third Point

Point on the ceiling tie where the internal webs meet in a fink truss.

Timber Stress Grading

The classification of timber into different structural qualities based on strength.

Top Chord

See Rafter.

Trada Quality Assurance Scheme

Quality control method in truss manufacture administered by the Timber Research and Development Association.

Trimmer

A piece of timber used to frame around openings.

Truss/Trussed Rafter.

A lightweight framework, generally but not always triangulated, placed at intervals of 600mm to support the roof. It is made from timber members of the same thickness, fastened together in one plane using nailplates or plywood gussets.

Truss Clip

A metal component designed to provide a safe structural connection of trusses to wallplates. Also to resist wind uplift and to remove the damage caused by skew nailing.

Truss Shoe

A metal component designed to provide a structural connection and support for a truss to a girder or beam.



Uniformly Distributed Load

A load that is uniformly spread over the full length of the member.



Valley Board

A member raking from incoming ridge to corner of the member.

Valley Frames/Set

Infill frames used to continue the roofline when roofs intersect.

Verge

The line where the trussed rafters meet the gable wall.



Wallplate

A timber member laid along the length of load-bearing walls to support the trusses.

Webs

Timber members that connect the rafters and the ceiling tie together forming triangular patterns that transmit the forces between them.

Wind Bracing

An arrangement of additional timbers, or other structural elements in the roof space, specially design to transmit wind forces to suitable load-bearing walls.



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