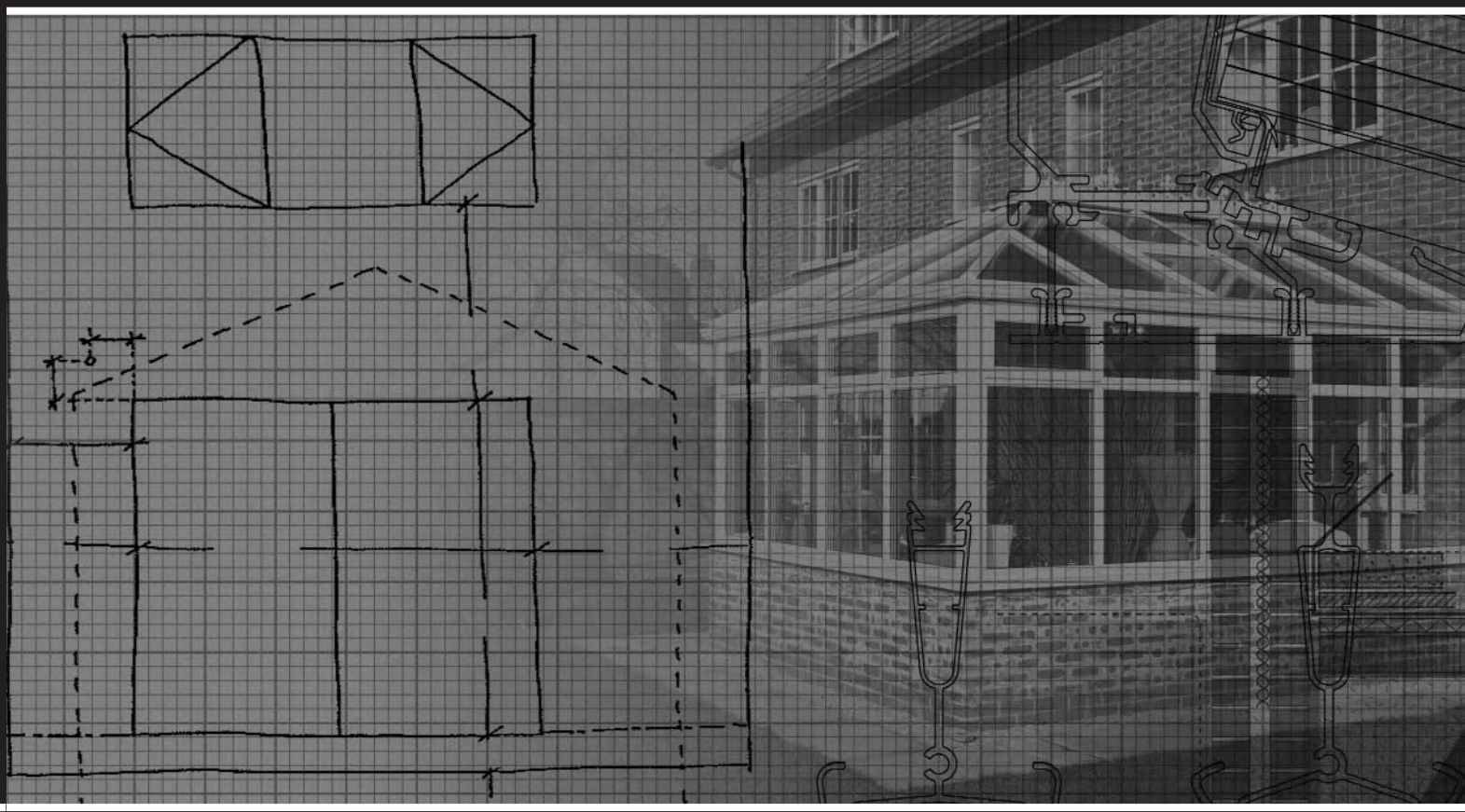
ultraframe



Surveyors Guide

Version: 9.0
Jan 07

world class conservatory systems

INTRODUCTION

This guide has been written for conservatory installers using Ultraframe roofing systems.

The aim of this guide is to:

A) Act as a training aid for newly appointed surveyors

B) Act as a reference guide for existing surveyors

The objectives of this guide are that all surveyors will be able to:

A) Professionally conduct an on-site survey

B) Design and draw all roofs, frames, cill and base details

C) Translate all dimensions taken into manufacturing sizes

D) Confirm all details are to the satisfaction of the customer

E) Demonstrate a knowledge of planning permission & building regulations

It is recognised that basework construction methods vary in different areas of the country and this guide may need to be adapted to suit your own on-site requirements.

This surveyors guide **must** be read in conjunction with the UK Structural Design Guide (Electronic Version).

Surveyors Training is available along with a wide variety of other courses. Contact the training co-ordinator on 01200 452398 to make a booking.

CONTENTS

Surveying the site

The Surveyor's Role: To confirm all details agreed between the salesperson and the houseowner which is a very responsible role. Great care and skill is needed to translate all the information agreed between the conservatory designer (salesperson) and the houseowner.
All contracts are subject to final survey and planning/building regulation approval (if needed) before any construction or manufacturing procedures take place.

STEP ONE - SITE VISIT

Agree a suitable time for the survey with the houseowner during "Day-light" hours.

You will need
A) A4 Graph paper and pen / pencil
B) A tape measure or telescopic ruler / measuring rod
C) A level (1200 mm preferably)
D) A digital angle meter
E) A straight edge (the longer the better)
F) A telescopic ladder / collapsible ladder
G) A camera ie. Polaroid / Digital

A laser level is recommended on larger projects.

STEP TWO - SITE ACCESS

BE OBSERVANT - BE AWARE - TAKE NOTE!

Be Observant - Is there access to the rear of the property? If a terrace row, is there access from a back street or will all goods, including wheelbarrow, have to be taken through the house? If a semi-detached, is there a path down the side? If there's a drive, is it wide enough? If there's a garage on the drive, is there a back door to take materials through and is it wide enough? Careful attention is required, we really don't want to lift materials over the garage roof or have to ask the next door neighbour to lift materials over their fence!

Be Aware - If when preparing the groundwork for the conservatory footings excavation is necessary, you may need a skip. Is there room to park a skip on the drive (be careful if it's tarmaced) or on the highway? If on the highway you will need permission from the local authority. If left overnight it will need to be lit.

Take Note - If mixing your own concrete or using an extension lead is there a socket to plug the mixer into? Is there a tap to add water to the mixer?

STEP THREE - INSPECTING THE EXISTING PROPERTY

Is there an existing patio area to dig up? Is there an existing structure to remove / demolish? Will existing garden walls or fences need to be moved? You may need a skip for any one of the above. Will existing flower beds or ornamental ponds be affected? Inform the customer and ask them to deal with them prior to commencement of groundwork.

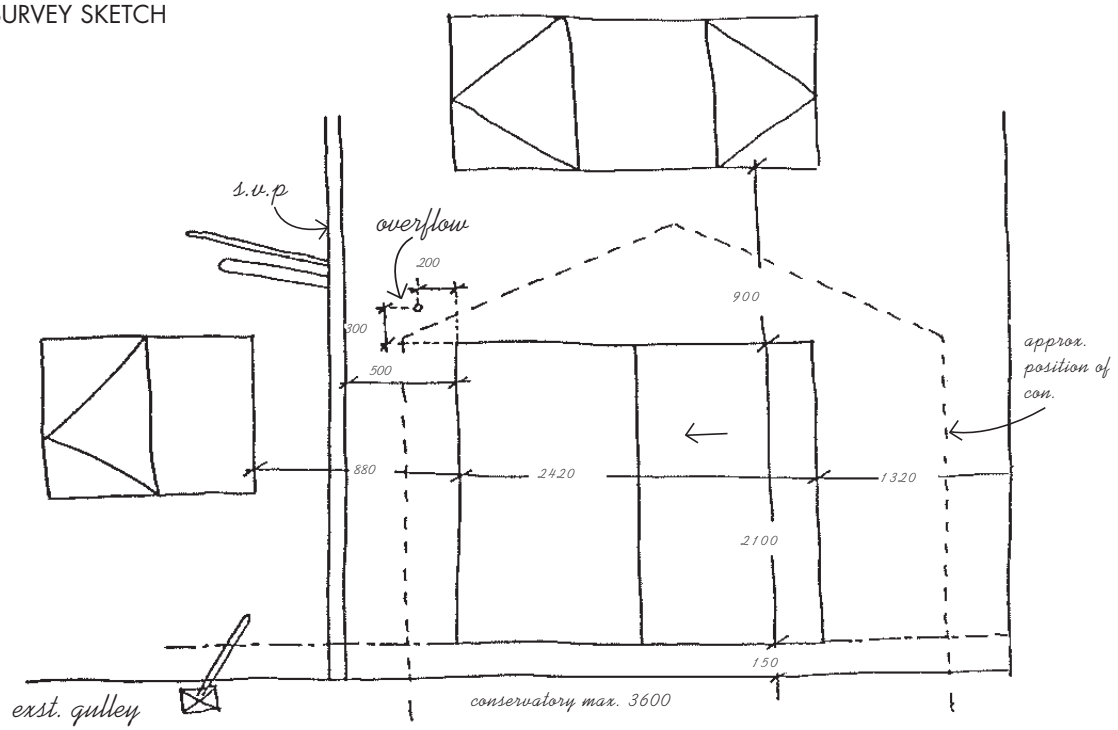
If pebbledashed or rendered, are there any "hair-line" cracks evident? Settlement cracks between bay windows? If there are, ensure you point them out to your customer and if need be, photograph them. If you don't the customer may hold you responsible after installation.

THE BEST WAY TO SURVEY

The best way to survey a property is to sketch out a plan and an elevation of the proposed site showing all existing windows, pipes, drains and other possible obstructions - (see below).

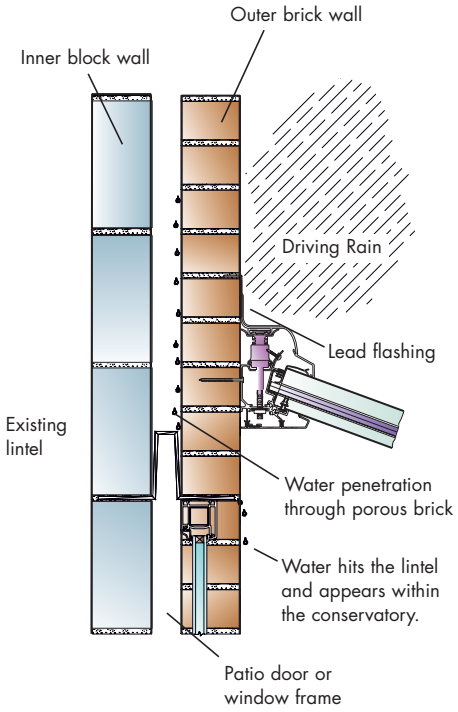
The dimensions between each feature should be indicated and the position of the proposed conservatory. If you are carrying out several surveys in a day and drawing the results up at a later time, it is a good idea to reinforce your survey sketch with a photograph of the site. A 'polaroid' or 'digital' camera is ideal for this purpose.

EXAMPLE SITE SURVEY SKETCH



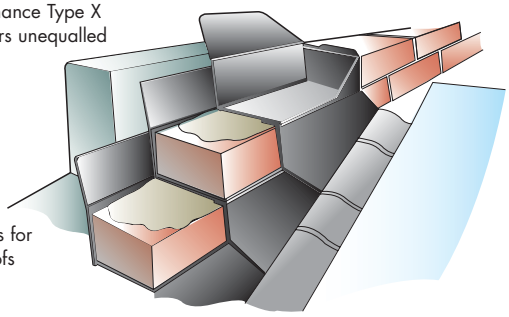
Take note of the brickwork type and condition. Is the brickwork still available? Does the customer want a matching dwarf wall? How old is the property? How many years weathering has the brickwork endured? Always offer a selection of brickwork to the customer and let them choose. Place the onus on the customer. It may not be possible to match the brick, often a contrast is the safest option. You may consider using squint bricks or stone quoins or bricks which are cut and bonded to form your angles.

WATER PENETRATION PROBLEM

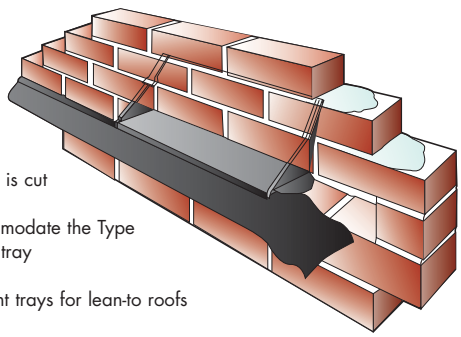


The bricks used in the construction of many modern homes are very porous. In any case all brickwork elevations are subject to water penetration. Therefore consider the installation of a cavity tray. This is often overlooked and is more difficult and expensive to install after the conservatory has been built. If the elevation on which the conservatory is to be built is exposed to the weather, a cavity tray must always be recommended to your customer. A cavity tray should always be considered when constructing a conservatory on a new house that is covered by the Ten Year NHBC (National House Building Council) Buildmark Guarantee. Any problem occurring from water ingress due to the lack of a cavity tray will not be covered by the NHBC Guarantee.

High performance Type X Cavitray offers unequalled benefits



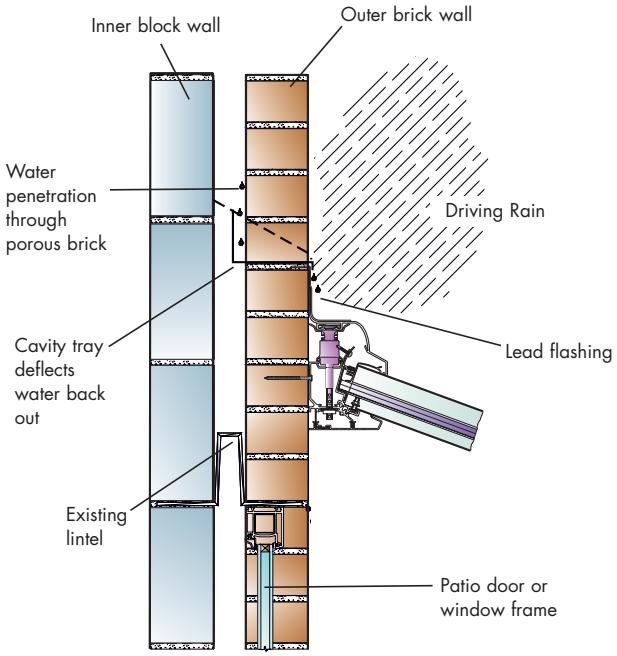
Stepped trays for Victorian Roofs



Only one course is cut out to accommodate the Type E Cavitray

Straight trays for lean-to roofs

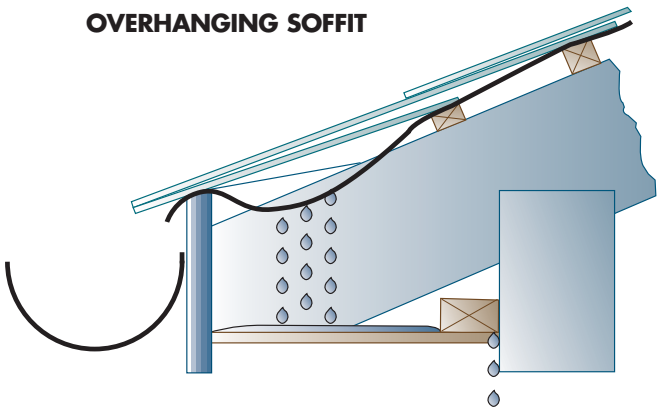
WATER PENETRATION SOLUTION



If for whatever reason a cavity tray cannot be installed, a minimum requirement would be a vertical soaker up off the roofline (75 - 150mm) then dressed back over with Code 4 lead, ground at least 25mm into the host wall. Lead should be treated with patination oil. If abuting a rendered or pebbledashed elevation it would be proactive to fully seal the elevation with a proprietary clear silicone based sealant prior to installing the conservatory, rather than reacting to a later problem of damp penetration.

If installing against a bungalow fascia the existing soffit may become a part of the conservatory. If the bungalow roofing felt laid above the soffit board in the area of the proposed conservatory deteriorates this may result in the felt sagging and water ingress may occur. See detail below. If this happens, you unfortunately inherit the problem. You should at survey lift the lower roof tiles and inspect the felt. If perished, this should be pointed out to your customer and give them the option of replacing the felt with either Monoflex, DPC or one of the many proprietory products available.

OVERHANGING SOFFIT



STEP 4 - THE HOUSE WALL

Conservatories should be designed from the roof down. However there are conditions that dictate starting from the basework working upward ie. constructing off existing basework, between fixed walls or the base position has to be there! This part of the survey is best conducted without the distraction of the customer present.

IS THE HOUSE WALL VERTICALLY PLUMB?

If the house wall leans forward: when the conservatory ridge butts to the house wall, the whole conservatory will be pushed forward of the basework, resulting in excessive overhang and incorrect angles. See diagram 'A'

DIAGRAM A

If the house wall leans backward - then the conservatory dimensions need taking from top of the Dwarf Wall and a suitable tapered packer inserted between frames and house wall. See diagram 'B'

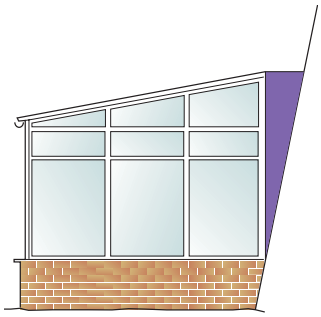


DIAGRAM B

If vertically plumb - A standard 90° corner post fixed to the rear of both side frames which abut the house wall is a good idea. For example, should you wish to bring a RWP down the frame as opposed to returning on 'The House Wall'. It is also very useful should you wish to plaster or dry-line the inner house wall.

Observe the elevation: Is the upper elevation rendered and lower elevation facing brick? Are there any projecting brick plinths or bell casts which may affect the design of the conservatory? Check the position of rain water pipes, cables, air bricks, extractors, soil vent pipes and, of course, existing window and door openings. Moving soil vent pipes can be very expensive and will require building regulation approval.

If moving an obstruction is not feasible, then it may be necessary to cater for the obstruction when designing the conservatory. Soil vent pipe flashing kits are readily available. These are designed to fit around the stack and seal to the roof line. Fan assisted balanced flues are also a particular problem and it is extremely important not to build too close to these as it may effect their efficiency and the safety of the householder. British Gas Services Ltd state: A minimum distance of 300mm clearance below or to the side of an openable window or other opening eg. air brick (maximum heat input up to 60 kw), 600mm for a natural draught flue. Advice should always be sought from a Corgi Registered Gas Installer prior to designing.

Note: The heat generated from a flue outlet can distort PVCu Cills etc. The fitting of a deflector would be advised.

STEP 5 - GROUND PREPARATION

Careful attention to groundwork preparation is essential. Depth of foundations are always dependent on local ground conditions. As a minimum requirement, foundations shall comply to BS 8004 (section 3: Shallow Foundations), and shall comply with any appropriate building regulations. In areas where harmful gases are a conern (eg Radon) expert guidance should be sought. If in any doubt contact your local authority Building Control Office.

Problems to the basework are, more often than not, hidden from sight. The obvious problems are gullies and manholes. It is not always possible to move an existing manhole due to its depth and run of the drainage system. The ideal solution is to raise the manhole to the height of the conservatory floor and fit a sealed (airtight) manhole cover which is suitable for internal use. These can be obtained with a tray top which will accept tiles or carpet to disguise the cover. (If a timber floor is to be fitted then a suitable hatch needs to be installed) Access to manholes is a legal requirement. Try to work out the position and direction of underground drainage pipes by following the run from the soil stack and other waste pipes to any manholes which are visible. If necessary lift the manhole cover to check the depth and direction of all the drainage. Flushing a coloured drain dye or milk may help if there is any doubt about this. Be aware that manholes are sometimes covered by the DIY or 'cowboy' patio builder. If an existing drain runs under the proposed conservatory it will have to be encased in pea gravel then concrete and possibly a lintel bridged over the drain if being crossed by a dwarf wall.

Note: Terraced houses with back yards need careful consideration. Beware of the public sewer running through each back yard. You will always need a: 'Building over sewer agreement'. Again, check with your local authority Building Control Office.

STEP 6 - CUSTOMER INVOLVEMENT

Once all the possible problems have been identified this is the best time to involve the customer. Discuss your findings with the customer and always "plot out" the proposed conservatory with the customer present. If necessary use stones or pegs to illustrate the size and shape of the conservatory. Always make sure that when discussing dimensions with the customer, you qualify the differences between the external base size and the internal floor area. Also confirm the height of the dwarf wall above finished floor level, if required.

Note: *When deciding on the dwarf wall height take into consideration the "lie of the land", generally, if the garden slopes downhill make the dwarf wall shorter. If the garden slopes uphill, maybe higher? When the customer is sitting down, can they comfortably see over the wall to the garden?*

A mistake made at this stage could be very costly to your company. A cost that may be incurred is rectification of the installation due to inaccurate information being supplied to the construction teams. This in turn may result in the customer retaining payment of the conservatory. This has an adverse effect on customer relations creating a lack of customer confidence and damage to the reputation of your company may ensue.

It is good practice to ask the homeowner to notify their insurance company that work is taking place at their home. Also once installed the insurance company need to be notified for them to assess the increased value and subsequent re-building costs.

CONSERVATORY SITE SURVEY CHECKLIST - SIDE 1

Photocopy this page for each survey and file for reference.

	YES / NO	COMMENTS
1) Is planning permission or building regulation approval needed? If yes, who will apply?		
2) Is there sufficient access to the proposed conservatory? Including height and width restrictions for delivery of material, concrete, frames, glass & welded cills etc?		
3) Will construction involve crossing any public or neighbours path, garden, wall or hedge?		
4) Are there any existing structures to demolish?		
5) Will you need a skip on site?		
6) Is there an existing patio or path to be removed?		
7) Is there an existing retaining wall - will this need re-constructing?		
8) Are there plants, bushes, fish-ponds in the way?		
9) Are there any other visible obstructions on the ground?		
10) Is the house wall sufficiently out of plumb to require any allowance in the design of the conservatory?		
11) Are there any projecting bell casts, soldier courses, key stones in the way?		
12) Are there any signs of settlement or hairline cracks in the house wall - have these been pointed out to the customer?		
13) Is there a soil vent pipe, RWP, extractor fan or gas flue in the way of the proposed conservatory?		
14) Are there any TV, satellite or telephone cables in the way?		
15) Are there any existing window or door openings to be moved, altered or bricked up?		
16) New openings to existing property will require new lintels which will require building regulation approval.		
17) Are there any existing window or door openings to be included within the newly proposed conservatory? **Very important if specifying a tie bar replacement kit. See Pg22.**		
18) Are there air bricks or head ventilators in the existing property which will be encompassed within the new conservatory?		
19) If yes to question 18, these must be transferred through the proposed conservatory.		
20) What is the existing external wall finish: Facing brick, stone, render or pebbledash?		
21) If facing brick, is a cavity tray required?		
22) Is there a height restriction above the proposed conservatory ie. a bedroom window?		
23) Is there enough room above the ridge flashing trim to lead flash?		

CONSERVATORY SITE SURVEY CHECKLIST - SIDE 2

Photocopy this page for each survey and file for reference.

	YES / NO	COMMENTS
24) If installing to a bungalow fascia, lift the front row of tiles and check the roofing felt over the projecting eaves.		
25) Will the conservatory roof fit below the bungalow soffit board?		
26) Will the conservatory roof fit to the bungalow fascia board?		
27) Is the fascia deep enough and in good enough condition?		
28) When installing a roof to the fascia is there enough room to re-fit the existing gutter?		
29) Will you need to install a vertical damp proof course where the side frames abut the house/bungalow wall?		
30) Is the conservatory rainwater to discharge into an existing gulley?		
31) Is a new gulley required (connected to the existing system or to a new soakaway)?		
32) Is there a sufficient number of rainwater outlets for the size of roof?		
33) Is there an existing gulley to move?		
34) Are there any existing underground drainage pipes to be moved?		
35) Are there any existing underground drainage pipes to be built over?		
36) Is there an existing manhole to be moved?		
37) Is there an existing manhole to be raised to the conservatory floor level then sealed with an airtight cover?		
38) Are there any pipes or cables to be catered for in the proposed conservatory?		
39) Is the proposed level of the conservatory floor the same level as the house floor level?		
40) Will the difference in house floor level and the proposed conservatory floor level require steps?		
41) Will the difference between the proposed conservatory floor level and the outside ground floor level need a landing, steps and handrail?		
42) Is a dwarf wall required - what height?		
43) Are there squint bricks or stone quoins required or will you cut and bond bricks?		
44) Are there any new openings required in the proposed basework for doors?		
45) Is the site sloping away requiring extra height to the basework?		
46) Is the site sloping towards the basework requiring excavation?		
47) Will a retaining wall be needed?		
48) Is a new path or patio area required?		
49) Check coursing and spacing of brickwork against existing - ie Imperial or Metric		
50) Has all the detail been discussed and agreed with the customer?		

Designing the base

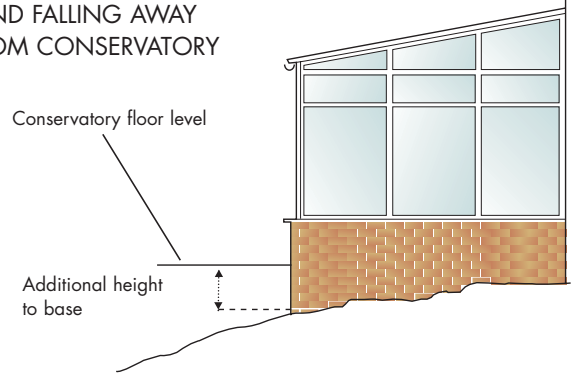
The difference between the house floor level and external ground level should be measured. Check also the position of the house damp proof course. If the conservatory finished floor is to be level with the house floor and this is more than 150mm above the external ground level, then steps will be needed.

Sloping sites can produce several possible problems. For instance, if the ground level is much lower than the proposed conservatory floor level, then it may not be feasible to install a solid floor in the conservatory due to the infil required. If a suspended floor is required this will add to the cost of the basework. If french doors or a single door open out and the land falls away, you will need to build a landing/platform (generally the width of the door(s) and the depth of the opening door, ie. 900mm + 400mm = 1300mm deep) for the customer to safely step out onto before walking down steps. Should the steps be higher than 600mm you will need to produce a hand-rail / balustrades. Approximately one step is required for every 150mm increment in height. This work should always conform to building regulations. Depending on which way the site is sloping, it could require additional height to the conservatory base wall.

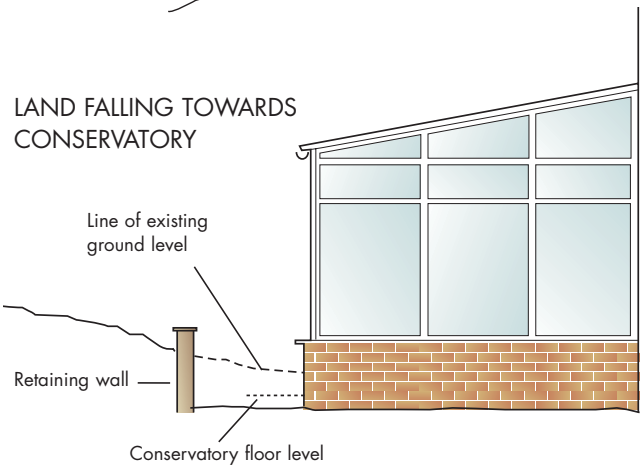
Class B engieering bricks or similar should be used up to DPC level with concrete commons or concrete blocks being used underground and stepped if necessary. Alternatively, it may require part of the site to be excavated and a retaining wall built before the conservatory will fit.

It is advisable to start with the external base dimensions when designing the conservatory, as these are usually the largest dimensions on plan. (Except for the footings underground.)

LAND FALLING AWAY FROM CONSERVATORY



LAND FALLING TOWARDS CONSERVATORY



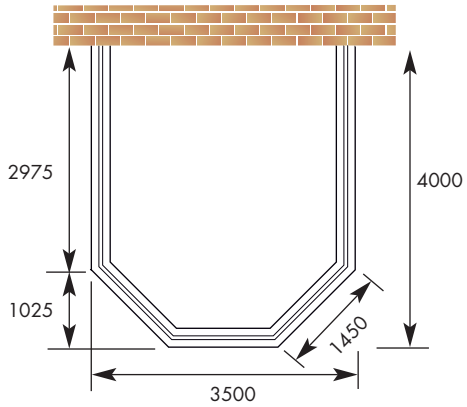
SETTING OUT TIPS

1. Example Base Plan

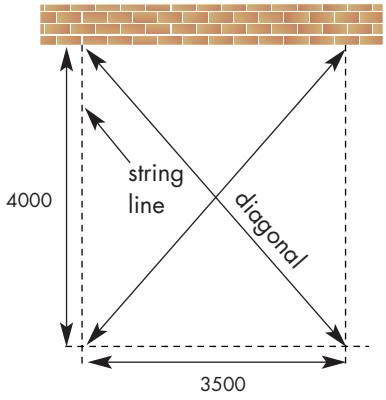
When building to a base plan as shown, to achieve accuracy of angles when setting out the base some people use templates or build to the welded cill.

Welded cills are flimsy and not the most accurate method. Follow these steps for the best results, using the formulas below.

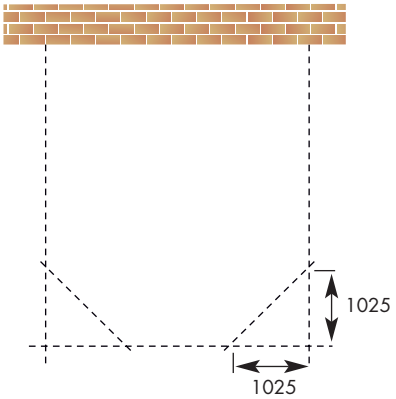
Facet size	=	3500 ÷ 2.4142	=	1450
Bay projection	=	1450 ÷ 1.4142	=	1025
Long side	=	4000 - 1025	=	2975



2. Set string lines for the external face of the brick to the overall width and projection. Check diagonals for being square.



3. Measure back equally from each corner 1025mm as shown and set two more string lines. This will result in equal facets and 135˚ angles each time.



DWARF WALL

Most customers prefer a dwarf wall rather than the window frames of the conservatory sitting down to floor level. One disadvantage of a dwarf wall over full frames is that it reduces the internal floor area of the conservatory. This may be a consideration if the overall external size of the conservatory is restricted.

Another alternative is to "dry line" the inner wall, (which avoids a 'wet trade' and allows easy access to run electric cables or heating pipe work) this will also increase the inner floor area. However, the majority prefer a double skin dwarf wall to full height frames. The dwarf wall creates an impression of the conservatory being a part of the original house. Also the dwarf wall offers the advantage of an internal window cill or if high enough, a window seat.

The height of the dwarf wall needs to be carefully considered. This is usually expressed as a height above the floor level of the conservatory. The most popular heights are 450mm or 600mm. When discussing the height ensure you measure from DPC or conservatory floor level upwards, not from the outside ground level.

Where a dwarf wall abuts the host wall, a vertical DPC should be installed from the horizontal DPC in a vertical line (on the centre line of the abuting window/door frame) to the intersection of the roof line Code 4 leading/cavity tray.

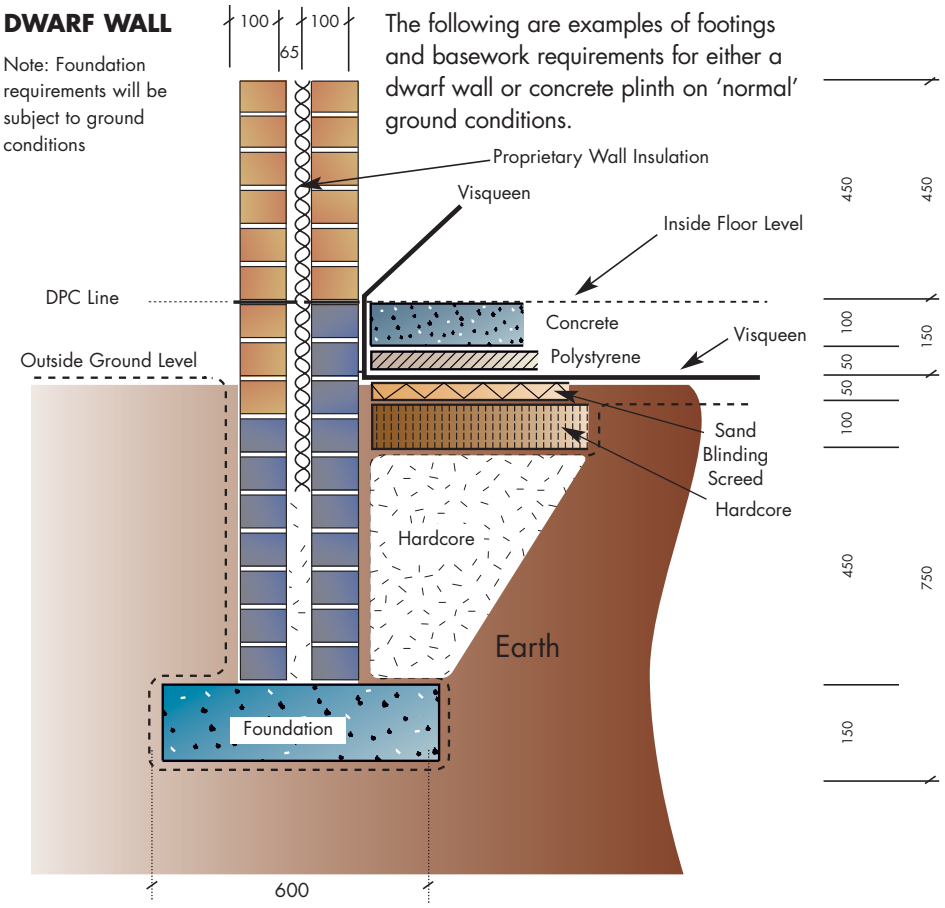
Take note: does the garden fall away, then the wall height would be better at 450mm high, so that the customer when sat down can see over the wall into the garden. If the land is level then perhaps 600mm high. If sloping uphill then maybe higher? Also ensure you match the coursing to correspond with the original house. On modern property the coursing is usually in increments of 75mm. On older properties imperial sized bricks may have been used, these may be difficult or impossible to obtain and the modern metric equivalent may not course in.

Also note the vertical gap between the bricks. Are they tightly bonded, say 5mm. Does the customer want the dwarf wall base to match the house or built to standard width joints. When abuting the dwarf wall to the host wall a proprietary stainless steel wall connector should be used.

DWARF WALL

Note: Foundation requirements will be subject to ground conditions

The following are examples of footings and basework requirements for either a dwarf wall or concrete plinth on 'normal' ground conditions.



Facing Brick

Concrete Common Block

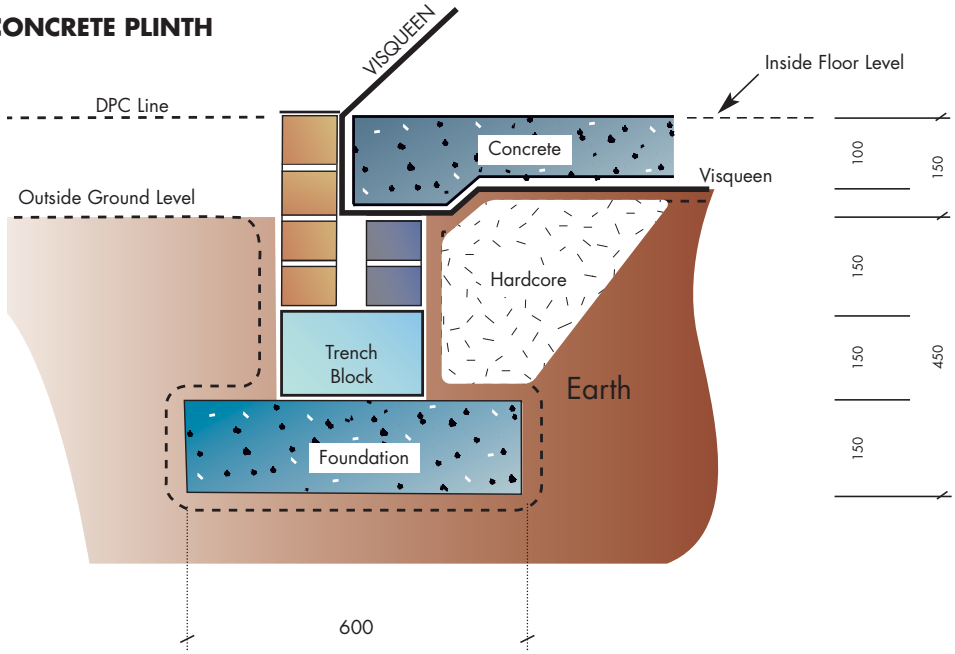
D.P.C. Damp Proof Course - Line

G.L. Ground Level - Line

MIX GUIDELINES

Concrete 1 (cement) 2 (gritsand) 4 (20mm clean chip stone)
Brick mortar 1 (cement) 4 (building sand)
Stone mortar 1 (cement) 1 (lime) 4 (building sand)

CONCRETE PLINTH



Facing Brick

Concrete Common Block

D.P.C. Damp Proof Course - Line

G.L. Ground Level - Line

Positioning of doors

Many customers request the position of the doors in the conservatory as example A (below) with the doors in one of the front bay facets.

Example A will create a problem for the builder if the conservatory is sitting on a dwarf wall. The corners of the brickwork in the position of the door opening have to be calculated to suit the relevant frame and cornerpost system being used. Having this 'break' in the ring of brickwork also weakens the structure. Sending out a welded PVCu cill to act as a template for the bricklayer is not recommended for the following reasons:

A) A welded cill in one piece is usually too large to transport
B) It is too flexible
C) It may be damaged
D) With doors in the centre, the cill would be in two halves

A 100mm wide blockboard template which mirrors the outside face of the outer skin of brickwork, identical to the front facets only and returned 450mm down each side leg, then fully braced, is both cheap to manufacture and easily stored for further use.

It is far easier and cost effective to construct the door opening to be as near as possible to the door exit from the house wherever possible (as in example B, below).

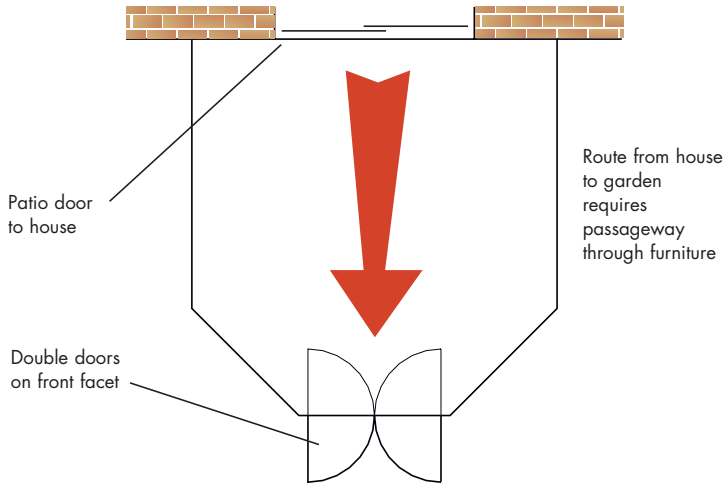
Practically, the customer benefits too, having a much larger area in which to arrange their furniture layout. Example 'A' always requires a direct passageway, generally through the middle of the conservatory to the garden.

Single doors and patio doors should always be considered. Single doors tend to be more reliable than french doors, especially if the conservatory door becomes the main route into the garden (they are much easier to toe and heel). They are also a logical choice for very small conservatories with a limited floor space.

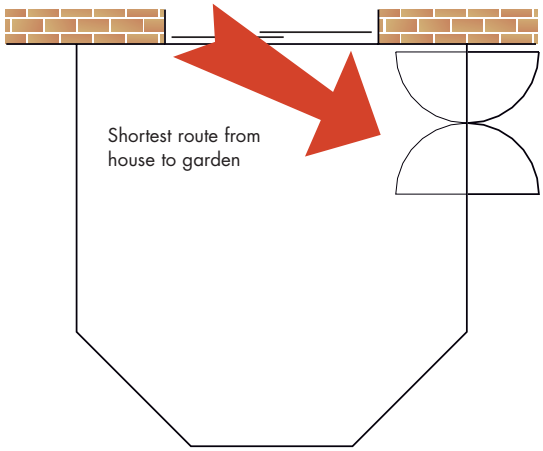
Patio doors take up no space as they slide across themselves. Patio doors are probably not as suitable as a single or french door if they become the main thoroughfare from house to garden.

If the proposed conservatory needs a path or patio area constructing, then a useful tip when butting flags up to a dwarf wall, allow a 150mm gap and infil the gap with chippings to act as a soakaway for cill water run-off .

EXAMPLE A



EXAMPLE B

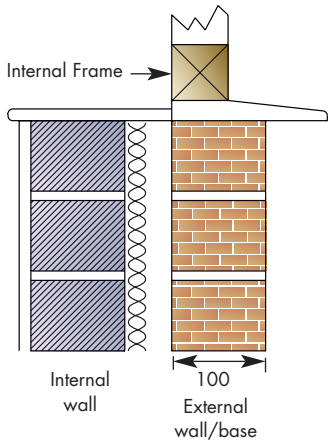


Designing the Frames

The internal frame dimensions (including corner post or baypole) can be calculated from the external base dimensions using the deductions in the table below.

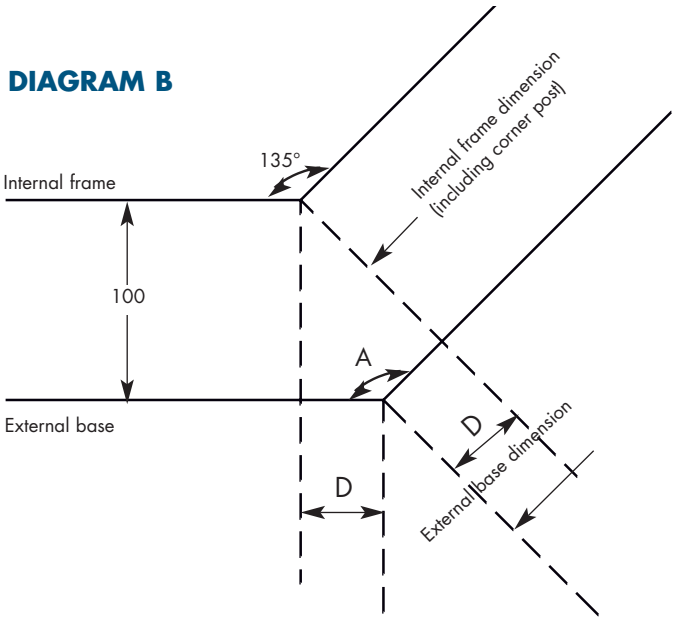
It is important to note that these deductions depend on the frames being positioned on the brickwork as shown in the diagram A ie: the internal face of the frames are in line with the internal face of the outer leaf of brickwork (100mm in from the outer face).

DIAGRAM A

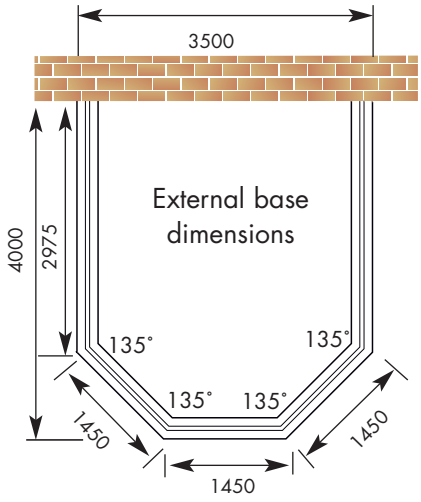


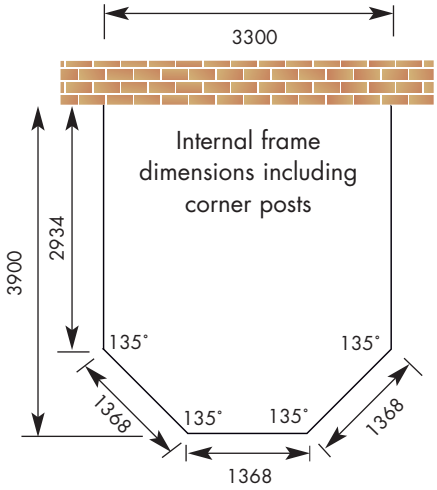
From the external base dimension the above deduction D is taken depending on the corner angle A to arrive at the internal frame dimension (see diagram B).

DIAGRAM B



Example below shows the frame sizes calculated from the external base sizes (41mm deduction from each corner). Remember this is the internal frame line. To calculate the actual frame sizes you will have to deduct for corner posts or baypole, whichever you are specifying.





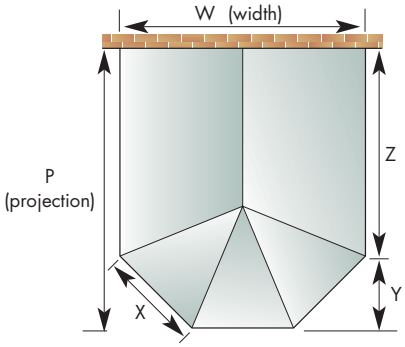
CORNER DEDUCTION - EXTERNAL BASE TO INTERNAL FRAME

ANGLE A	DEDUCT D	ANGLE A	DEDUCT D	ANGLE A	DEDUCT D	ANGLE A	DEDUCT D
90	100	113	66	136	40	159	18
91	98	114	65	137	39	160	18
92	97	115	64	138	38	161	17
93	95	116	62	139	37	162	16
94	93	117	61	140	36	163	15
95	92	118	60	141	35	164	14
96	90	119	59	142	34	165	13
97	88	120	58	143	33	166	12
98	87	121	57	144	32	167	11
99	85	122	55	145	31	168	10
100	84	123	54	146	31	169	10
101	82	124	53	147	30	170	9
102	81	125	52	148	29	171	8
103	79	126	51	149	28	172	7
104	78	127	50	150	27	173	6
105	77	128	49	151	26	174	5
106	75	129	48	152	25	175	4
107	74	130	47	153	24	176	3
108	73	131	46	154	23	177	3
109	71	132	44	155	22	178	2
110	70	133	43	156	21	179	1
111	69	134	42	157	20	180	0
112	67	135	41	158	19		

After determining the overall external width and projection of the conservatory, the following formulae may be used to calculate the internal facet sizes:-

3 FACET VICTORIAN

X = W ÷ 2.4142
Y = X ÷ 1.4142
Z = P - Y
(assuming equal facets and all angles 135°)



5 FACET VICTORIAN

X = W ÷ 3.733
Y = W ÷ 2.734
Z = P - Y
(assuming equal facets and all angles 150°)

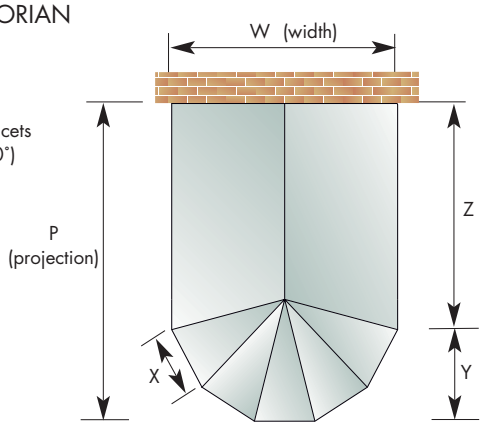
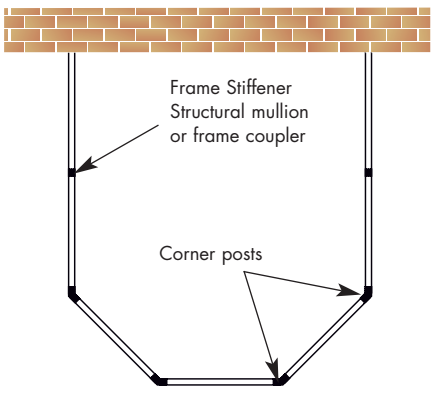
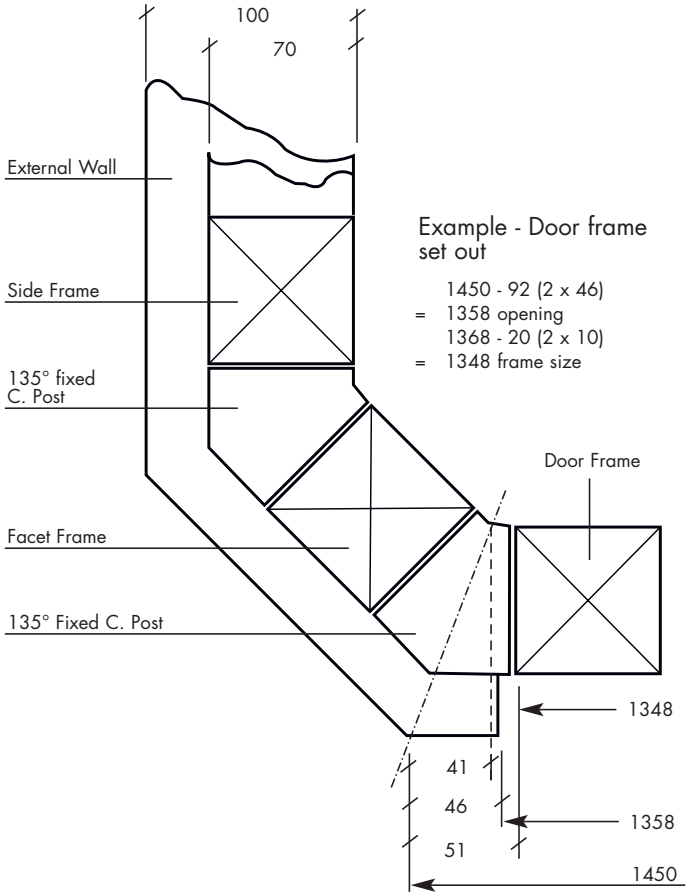


Diagram A illustrates internal frame sizes required when ordering Ultraframe Victorian roof

DIAGRAM A





Example - Door frame set out

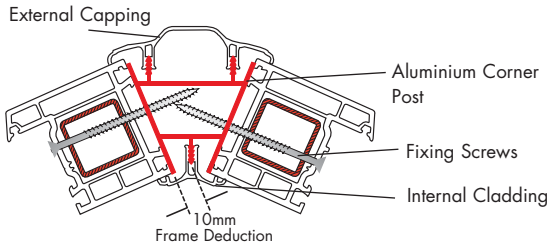
1450 - 92 (2 x 46)
= 1358 opening
1368 - 20 (2 x 10)
= 1348 frame size

Example:

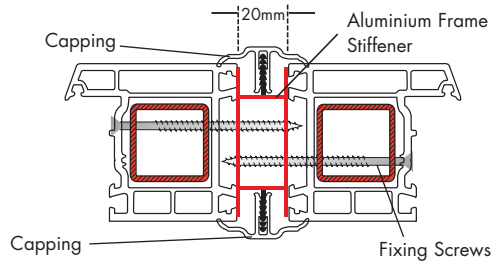
External Base Facet Size = 1450mm
External Base Front Facet Return = 46mm
External Base Front Facet Opening Width 1358mm
Door Actual Size = External Facet Size 1450 - 82 (2x41) = 1368mm
1368 - 20 (2 x 10 Cornerpost Deduction) = 1348mm.

Door Set Out: as shown on page 8 (example A)
Base Plan: as shown on page 9
Internal Frame: as shown on page 9

CORNER POST TO SUIT 135° & 150° (Ultraframe)



FRAME STIFFENER (Ultraframe)



Designing the Ultraframe Roof

This is where all conservatory designs should begin, from the roof down, top to bottom. There are occasions when either the conservatory is being built on an existing base or the base has to be in a particular position, otherwise design from the top down. The roof should be treated as a separate structure, although Ultraframe and its fabricators have to be flexible in that they can (in most cases) design the roof bar spacings to line through with the mullions in the conservatory wall frames - for aesthetic reasons the customer may expect this. How often has the PVCu cill been fabricated to suit the already built base (even when the base angles are inaccurate) then frames are manufactured to suit the cill then the roof fabricated to suit the frames? Wherever possible the roof design dictates the frame sizes, which decides the cill size, which determines the base size.

There are three conservatory roofing systems available from Ultraframe (UK) Ltd:-

1. *Classic System*
   Suitable for any shape or size of conservatory including Victorians, Edwardians, Lean-to, P-shape and combination of these styles.
2. *Ultralite 500 PVC*
   Suitable only for lean-to conservatories. Especially suited for extremely low pitch applications such as bungalow installations (guaranteed down to 2½° pitch). Standard pack sizes but cut on site if necessary.
3. *Elevation and Elevation Plus*
   Modern low pitch polycarbonate 'Click-lock' system. Fully bespoke or 'Roof-in-a-box'. Elevation Plus is a lean-to with hipped ends with roof pitch of 5° and hipped ends at 28½°.
4. *Uzone*
   Edwardian or 3 facet Victorian up to 4 x 4m at a set pitch of 22½°.

THE CLASSIC SYSTEM

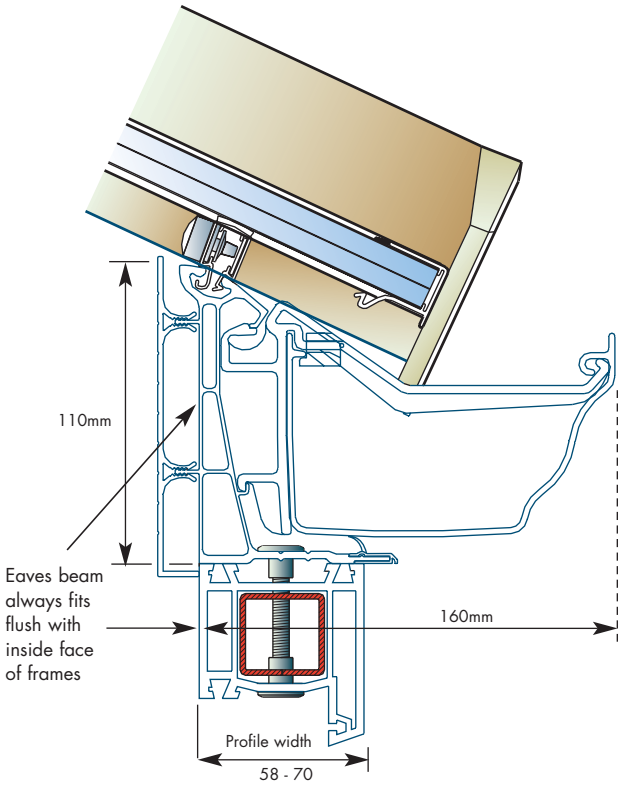
The following sections illustrate options and dimensional information for the surveyor. For snow and wind loads applicable to particular locations please refer to 'The UK Structural Design Guide' (Electronic version) available from Ultraframe.

EAVES BEAM - MULTI - STANDARD

When specifying the Classic roof, the dimensions required are internal frame dimensions from point to point including any corner posts, bay-pole, structural mullions or jointing couplers that may have been used between the frames.

DIAGRAM B

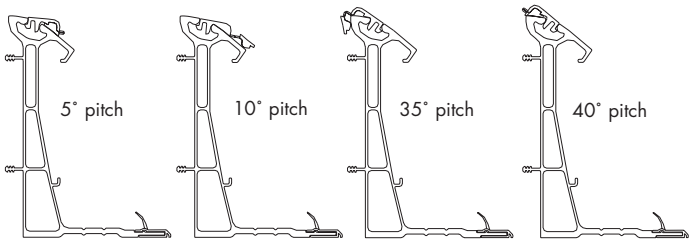
multi eaves beam dimensions



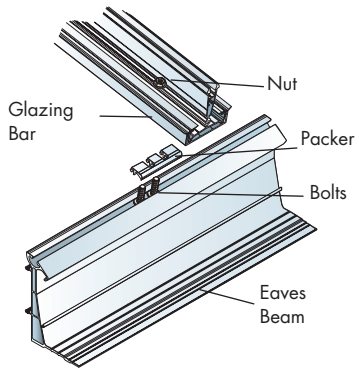
Variable pitch from 15-35°. For greater or lower pitches use glazing bar packers. (See diagram C)

DIAGRAM C

Glazing bar packers (to suit 5°, 10°, 35° and 40°)



Slide fixing bolts into position along the eaves beam captive bolt slot. Locate packer over bolts and position to suit required pitch (see sections above). Drop glazing bar onto bolts and fix down.



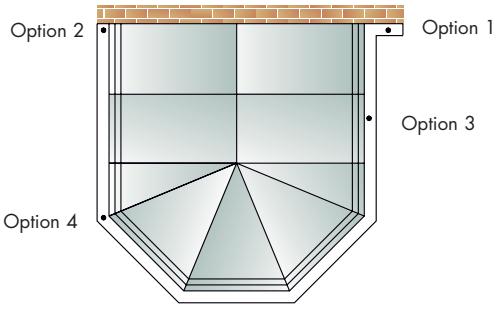
GUTTER OUTLET

Option 1) On survey check that the salesperson has agreed with the customer where they wish the conservatory roof to discharge from and drain to before designing the frames. Available L/H or R/H is the standard option supplied unless any other option is specified. The rainwater pipe is dropped down the house wall, kept clear of any opening vents in the side of the conservatory. LH is MS0001 - RH is MS0002.

Option 2) L/H is MRSA001 - R/H is MRSA002 keeps the rainwater pipe tight into the corner. However, consideration should be made for packing the frames away from the wall so that the pipe is clear of the glass line or opening vents.

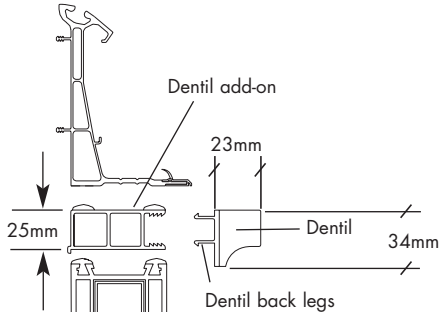
Option 3) MRIA001 running outlet can be used in any position. However, consideration should be made for the rainwater pipe (65mm wide) when designing the frames to keep it clear of the glass line or opening vents.

Option 4) Drill and fix outlet. Can be fixed in any position - requires only 40mm outlet pipe - MGO001. Recommended only as a last resort as limited outlet can easily be blocked by debris, leaves etc.



DENTIL MOULDING - OPTIONAL

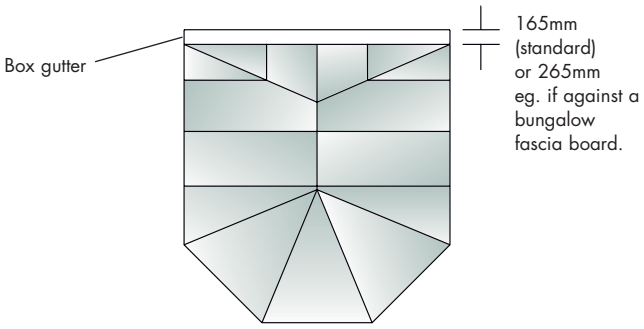
When specifying dentil moulding, allow 25mm for the dentil add-on section. Alternatively the dentil can be supplied without the back legs and add-on section if your frame is deep enough to accommodate the dentil fitted directly (with adhesive).



BOX GUTTER

When specifying a box gutter this is indicated on the roof plan as diagram A).

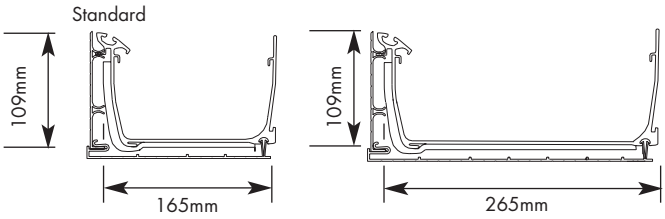
DIAGRAM A



The standard box gutter is 165mm wide (for use when collecting from a single roof). The 265mm wide boxgutter is used to give extra capacity when collecting from two roofs eg. bungalow situations etc.

Special box gutters such as 'L' shape, 'U' shape, raised back or elevated are available to order. Large box gutters may have a mechanical joint to aid transportation as diagram C). It is advisable to support such box gutters under the joint with a gallows bracket, pole (ie. a corner post) or brick pier. Always indicate the preferred position of joint so that any bracket does not foul with patio doors or windows.

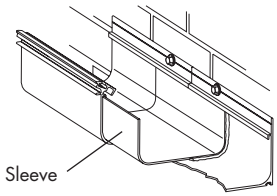
EXTRUDED BOXGUTTERS



Insulation supplied with box gutter

DIAGRAM C

JOINTING SLEEVE



BOX GUTTER SITUATION TO AVOID (IF POSSIBLE)

Diagram D) shows the dwarf wall built off the corner of a projecting part of the building. The resulting roof requires a special "raised back" 'L' shape box gutter. This is more expensive, takes longer to install and is unsightly.

DIAGRAM D

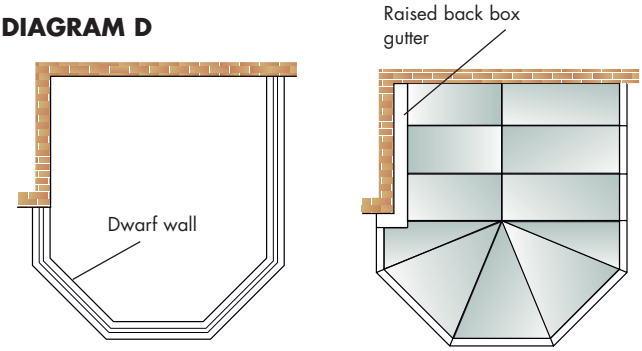
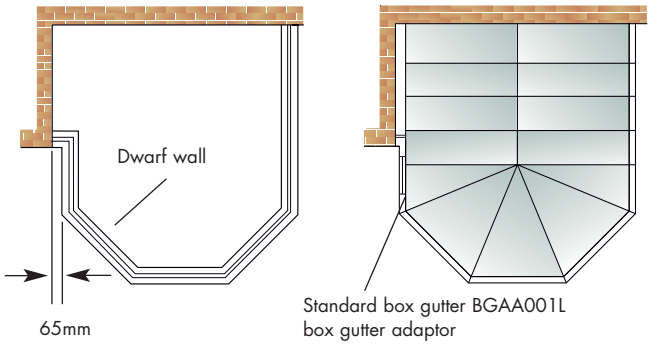
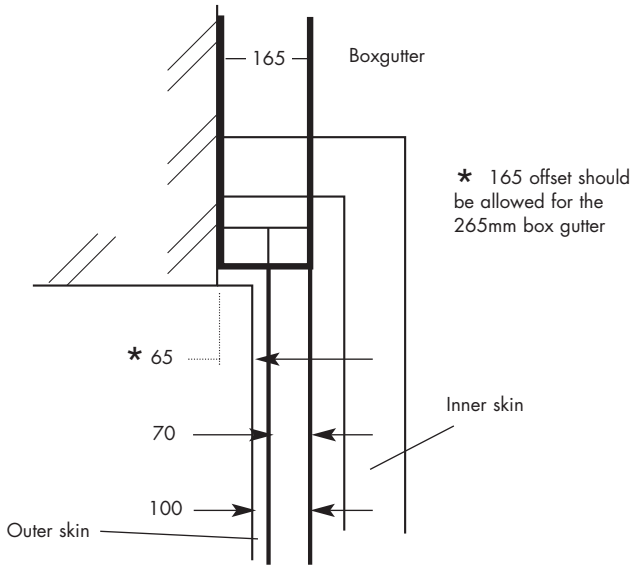


Diagram E) shows a more cost effective way for this situation which requires a standard box gutter.

DIAGRAM E



The box gutter is connected to the standard guttering around the conservatory with a box gutter adaptor. There is a range of 14 adaptors with or without outlets. Box gutters are available with an outlet welded into the box gutter itself. This option should be clearly indicated on the roof plan with the exact position of the outlet required.



Building a 65mm offset into the dwarf wall allows a standard 165mm box gutter to be used. When the conservatory comes off the projecting building at 135°, an offset is still used but the dimension on the face brickwork changes to 123mm. (See diagram F) If 150° the offset is 108mm (See diagram G)

DIAGRAM F

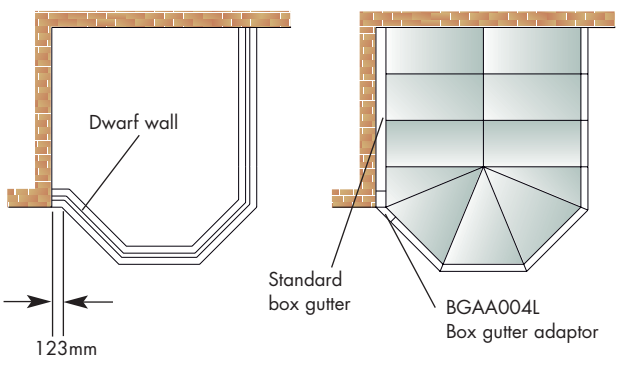
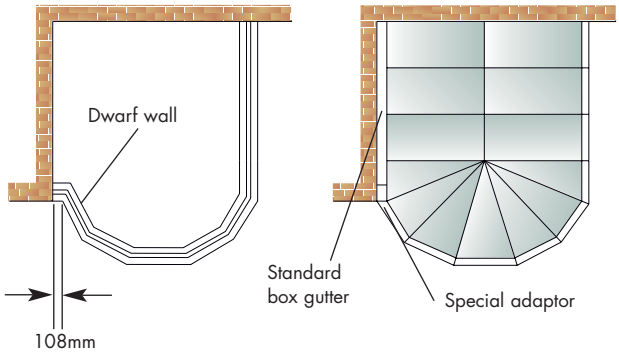
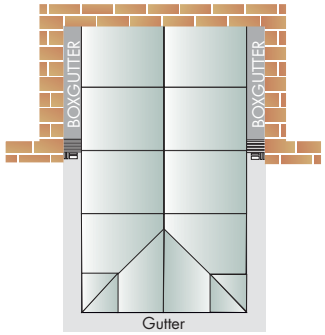


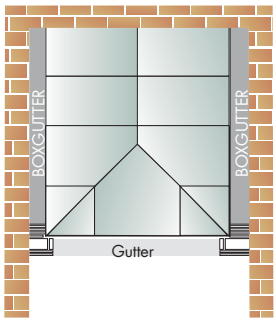
DIAGRAM G



Boxgutter Adaptor set out details: viewed looking to the proposed conservatory.

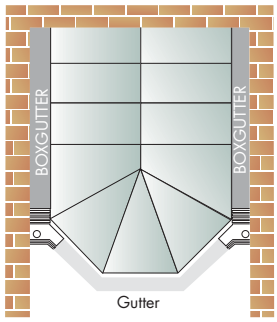


BGAA001L BGAA001R



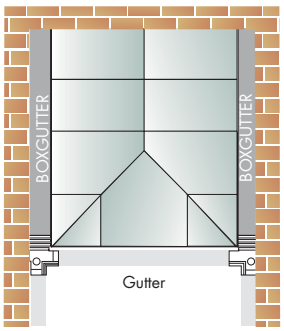
BGAA002L (no outlet) BGAA003L (outlet)

BGAA002R (no outlet) BGAA003R (outlet)



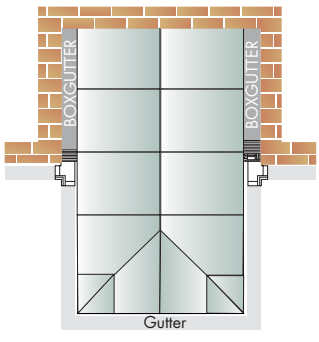
BGAA004L (with optional outlet)

BGAA004R (with optional outlet)

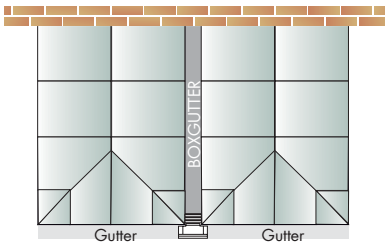


BGAA005L (with optional outlet)

BGAA005R (with optional outlet)



BGAA007L BGAA007R

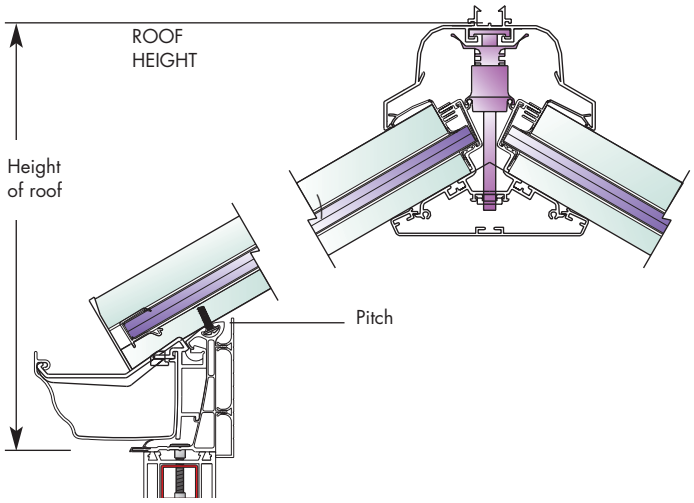


Special adaptor

RIDGE

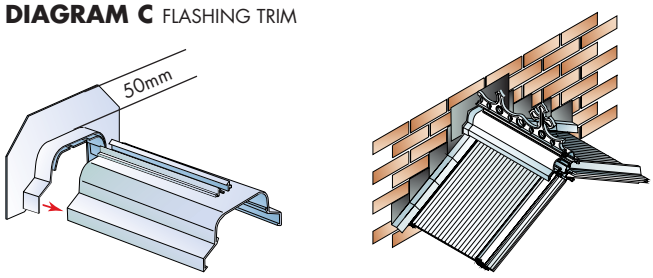
When a roof height is specified on an Ultraframe quotation or confirmation, this is measured from the underside of the eaves beam (top of your window frames) to the top of the ridge capping (excluding crests and flashing trim) as diagram B). Unless otherwise stated, the standard roof pitch is 25˚. However, Victorian roofs can be manufactured from 15˚ to 40˚ in 5˚ increments if required.

DIAGRAM B



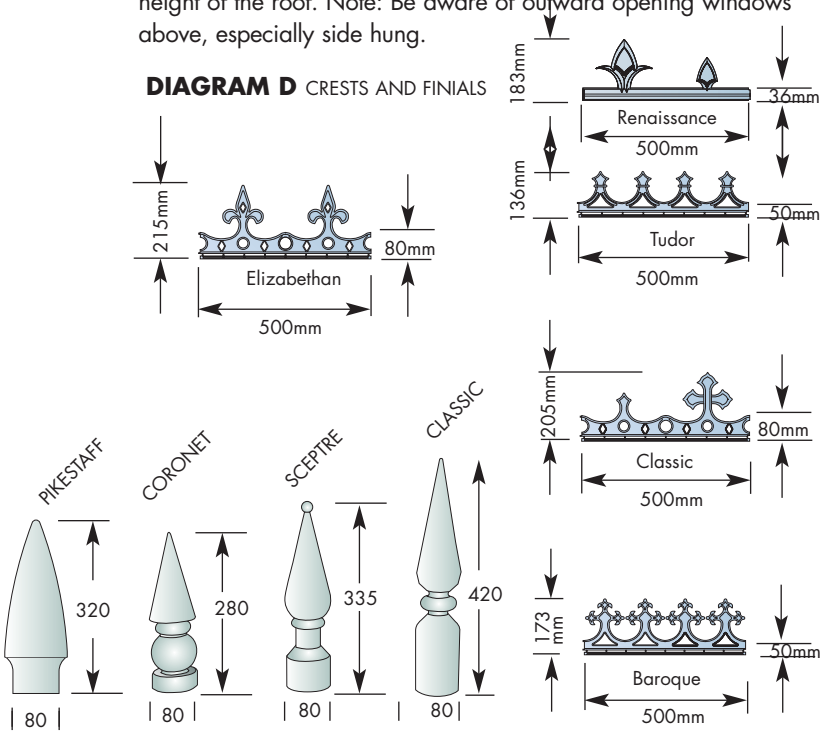
When calculating a roof height where a height restriction exists, allow 50mm for the flashing trim (diagram C) and sufficient room for the flashing itself, 100mm min.

DIAGRAM C FLASHING TRIM



The crestings and finials are higher than the flashing trim (see diagram D), but this is not normally critical when considering the height of the roof. Note: Be aware of outward opening windows above, especially side hung.

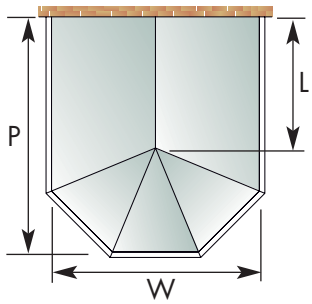
DIAGRAM D CRESTS AND FINIALS



RIDGE LENGTH CALCULATIONS

When a ridge length is specified this is measured from the end of the ridge nearest the wall to the finial point, or from finial point to finial point in the case of a double ended ridge.
It is not normally necessary to state the ridge length when ordering a complete roof as Ultraframe will calculate this. It is Ultraframe's policy to make the ridge length so that the pitch of the roof is equal on all facets wherever possible as in diagram E).

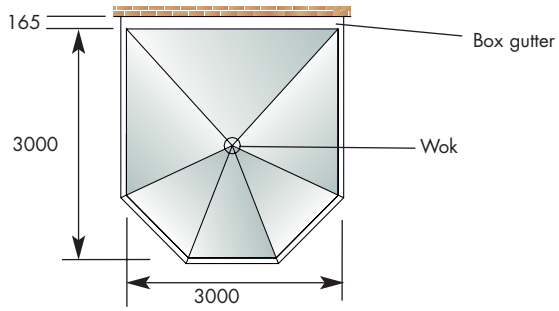
DIAGRAM E



$L = P - \frac{1}{2}W$

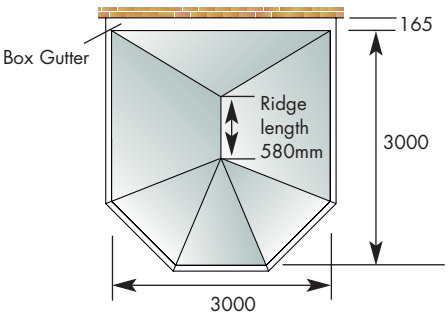
In the case of a double ended ridge as in diagram F) the theoretical ridge length may be zero or even a negative number. This is when normally a 'wok' would be used instead of a ridge. However, if a ridge is preferred this should be specified.

DIAGRAM F



RIDGE LENGTH = ZERO

DIAGRAM G



The ideal minimum double ended ridge is 580mm (this allows one complete length of cresting between the finials). It should be noted that when a ridge is made longer than its theoretical length, then the pitch will be greater on one or both of the radius ends than on the sides, as per diagram G).

IN LINE RIDGE TO HALF RIDGE SETTING OUT

DIAGRAM A

When surveying/setting out for this on a similar style of conservatory the following detail should be considered where the ridge joins the half ridge.

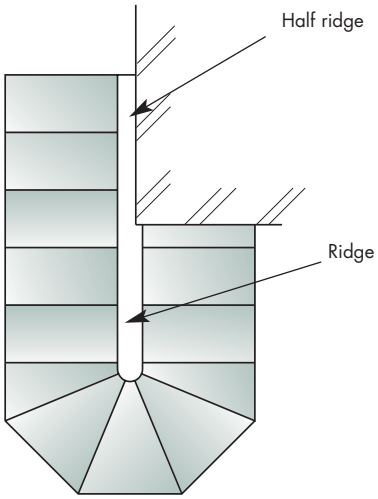
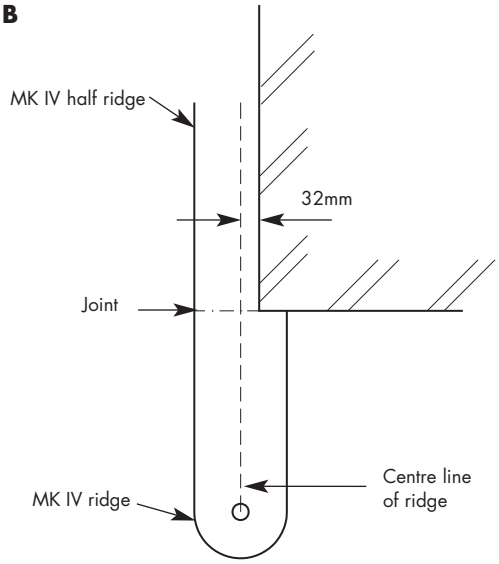
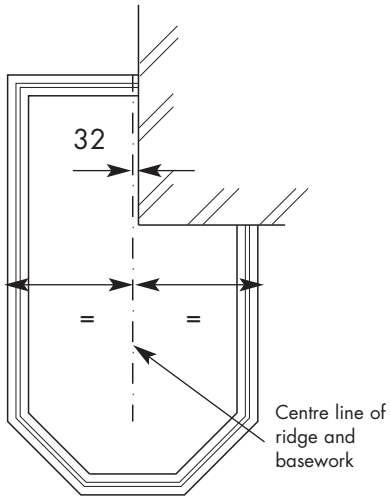


DIAGRAM B

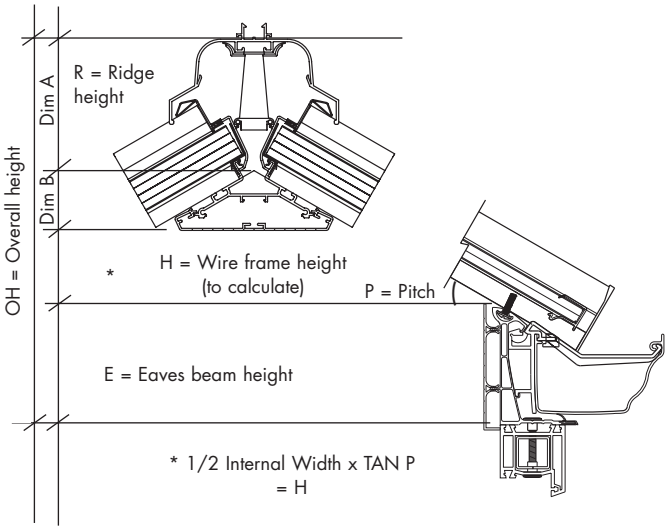


In order for the internal claddings and external cappings to line up, the centre line of the main ridge should be 32mm off the corner of the building (diagram B). Therefore, when setting out the base and dwarf walls, this offset should be included in the base dimensions (diagram C).

DIAGRAM C

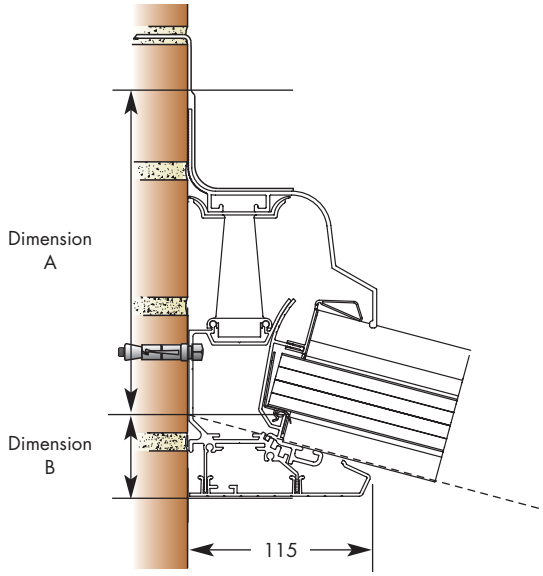


RIDGE HEIGHT CALCULATION



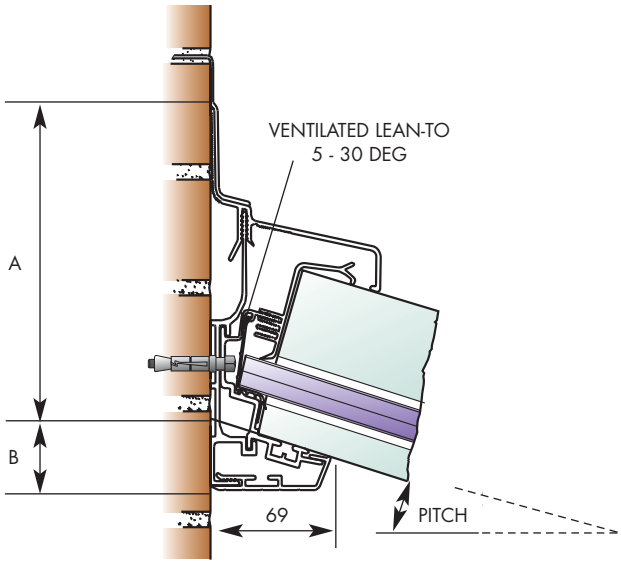
R = Ridge Height		E = Eaves Height	Dimension B
	7 Series		
P= Pitch			
15°	154	109	44
20°	148	109	48
25°	142	109	56
30°	136	110	61
35°	130	110	71
40°	124	110	81

HALF RIDGE HEIGHT CALCULATION



P= Pitch	Dimension A	Dimension B
5°	219	32
10°	209	41
15°	200	51
20°	190	60
25°	181	69
30°	171	79

LEAN-TO WALLPLATE CALCULATION



P= Pitch	Dimension A	Dimension B
5°	168	25
10°	161	32
15°	156	35
20°	153	41
25°	150	47
30°	145	54

VALLEY

Where the valley meets the eaves beam, the angle between the eaves beam sections should be 90° as shown in diagram A). The situation as shown in diagram B) should be avoided especially with glass roofs:-

DIAGRAM A)

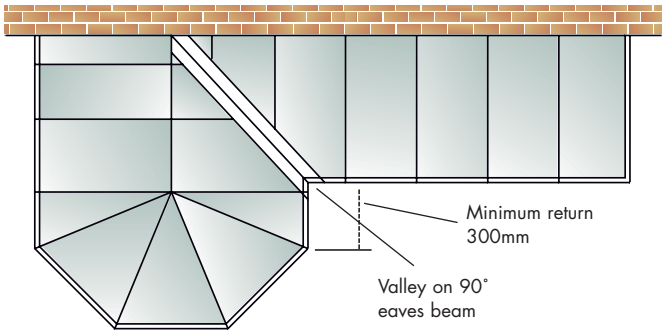
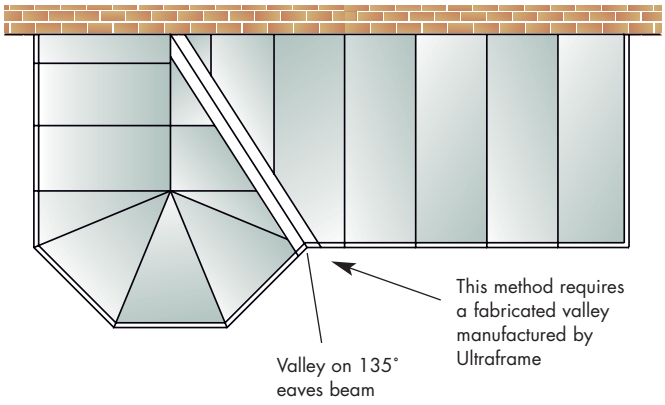


DIAGRAM B) AVOID IF POSSIBLE

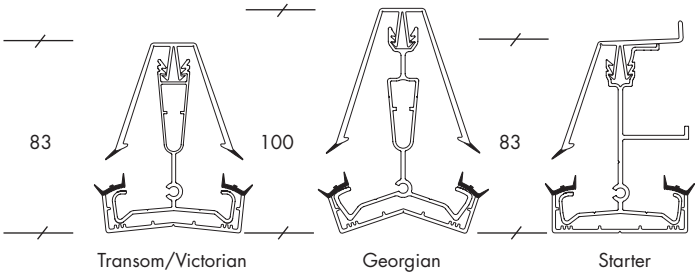


For information on maximum valley spans please use the UK Structural Design Guide (electronic version).

GLAZING BARS

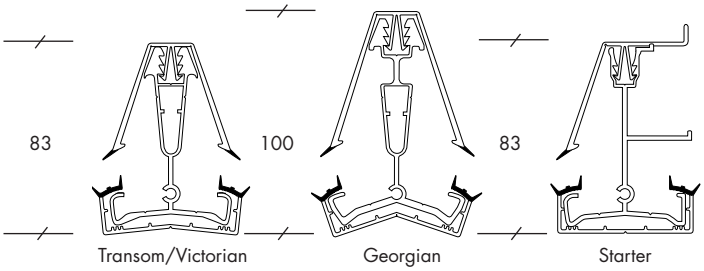
There is a choice of 2 glazing bars - 7 light and 7 standard. 7 standard is available with inserts for additional strength or with bolsters for additional performance. When ordering a complete roof, it is not necessary to state the glazing bar, as Ultraframe will select the appropriate bar for the roof in question. However, if required, further information on glazing bar spans can be found in the UK Structural Design Guide (electronic version).

7 SERIES LIGHT BAR



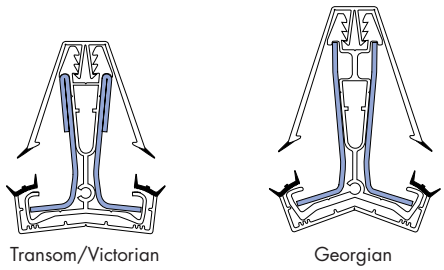
Note: add 5mm for chambered top capping heights.

7 SERIES BAR



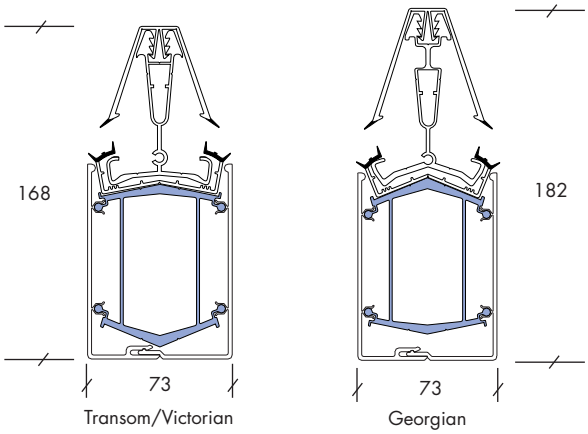
Note: add 5mm for chambered top capping heights.

7 SERIES+REINFORCING BAR



Note: add 5mm for chambered top capping heights.

7 SERIES+BOLSTER BAR



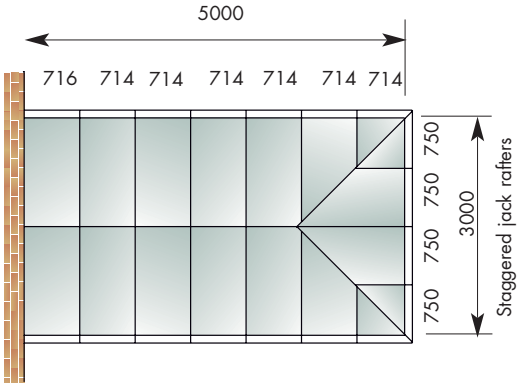
Note: add 5mm for chambered top capping heights.

GLAZING BAR SPACING

When ordering the roof, it is not necessary to state the exact glazing bar spacing unless you are attempting to line up the glazing bars with the mullions of the frames below.

When considering the glazing bar spacings, Ultraframe will attempt to space the bars equally wherever possible. It is generally accepted that equal spacings look aesthetically better even when the bars may not line up with the frames below.

DIAGRAM A



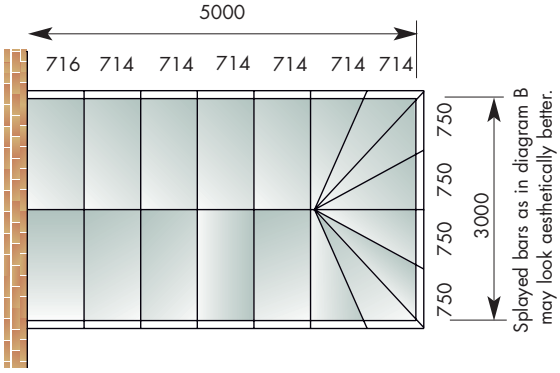
GLAZING OPTIONS

Another consideration when designing the glazing bar layout is Jack Rafters verses Splayed Bars. Sometimes the overall dimensions of the roof will create the need for staggered jack rafters as in diagram A). Splayed glazing bars (as in Diagram B) may be preferred to staggered jack rafters

The Classic system will accommodate different glazing materials, ie: polycarbonate or double glazed units and different glazing thicknesses of 24, 25 and 35mm. It is important to state which material and which thickness is to be used.

When ordering a roof unglazed, it is important to state whether unglazed for polycarbonate or unglazed for glass, as different glazing bars will be required for each situation.

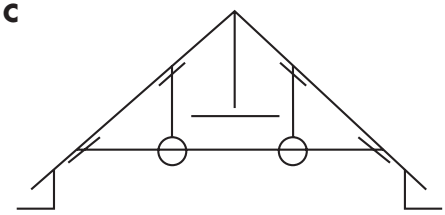
DIAGRAM B



TIE BAR

When ordering a complete roof, Ultraframe will determine when a tie bar is required from a structural point of view. However, sometimes customers request a tie bar from an aesthetics point of view. If this is the case, please state on the order. If required, further information on tie bar requirements can be found in the UK Structural Design Guide (Electronic version). Where the tie bar and ceiling fan or Ridgeflow unit clash use two vertical drop rods. See Diagram 'C'.

DIAGRAM C



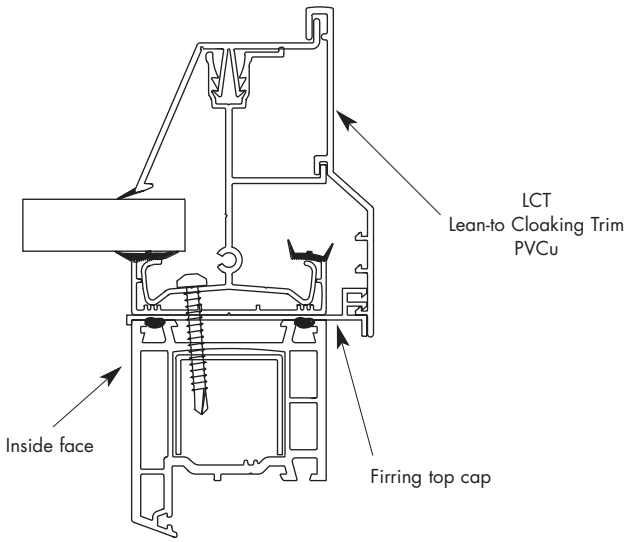
GABLE FRAME

Historically, when choosing a gable style conservatory roof, the front gable window frame sat directly onto the door frames. This was always a problem in that the doors below when "slammed to" created frame wobble above, which in turn affected the roof.

The introduction of the gable support beam creates a lintel between the frames which increases the stuctural and lateral stability substantially.

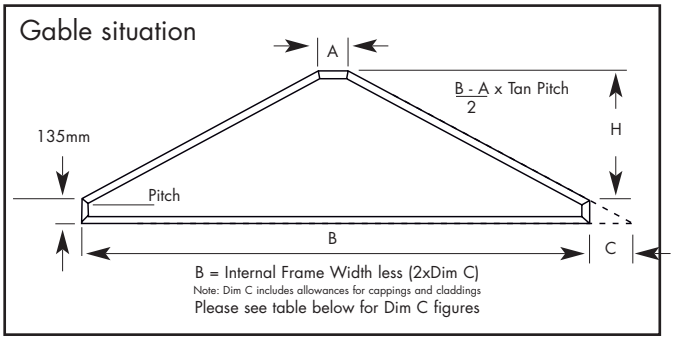
With a gable front conservatory the aluminium ridge body is cut to sit on top of the gable frame (supplied by you) so that the ridge body and external ridge capping finish flush with the external face of the frame. The internal ridge undercladding finishes flush with the internal face of the gable frame. (See illus and dimensions opposite) to allow you to fabricate your gable frame prior to receiving your classic roof.

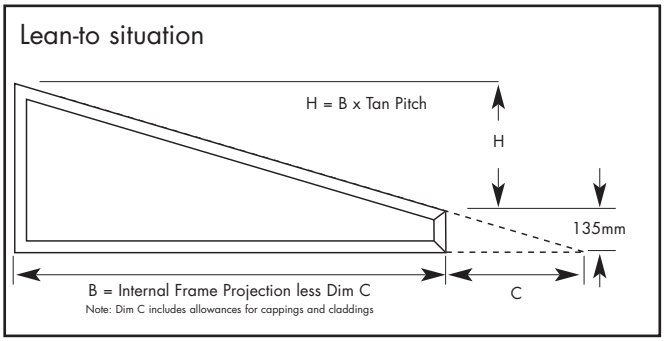
With a gable frame situation the end glazing bar (starter bar) fits directly onto the frame as shown below.



Note: The firring top cap must be installed on top of the gable frame prior to fixing to the starter bar

CALCULATING THE GABLE WINDOW FRAME SIZE





15° Ridg Body

Pitch	Dim A (mm)
15.0	191
15.9	187

30° Ridg Body

Pitch	Dim A (mm)
26.0	188
27.0	181
28.0	175
29.0	169
30.0	163
30.9	161

20° Ridg Body

Pitch	Dim A (mm)
16.0	215
17.0	205
18.0	195
19.0	187
20.0	179
20.9	176

35° Ridg Body

Pitch	Dim A (mm)
31.0	193
32.0	187
33.0	181
34.0	175
35.0	170
35.9	168

25° Ridg Body

Pitch	Dim A (mm)
21.0	189
22.0	181
23.0	174
24.0	168
25.0	162
25.9	160

40° Ridg Body

Pitch	Dim A (mm)
36.0	195
37.0	189
38.0	183
39.0	177
40.0	172
40.9	170

Dim C

Lean to (min 10° max 30°) GABLE (min 15° max 40°)

Pitch(°)	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Dim C	786	713	652	600	556	517	483	453	426	402	381	361	343	327	311	297

Pitch(°)	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Dim C	284	272	261	250	240	231	222	214	206	198	191	184	178	172	166

COLOUR OPTIONS

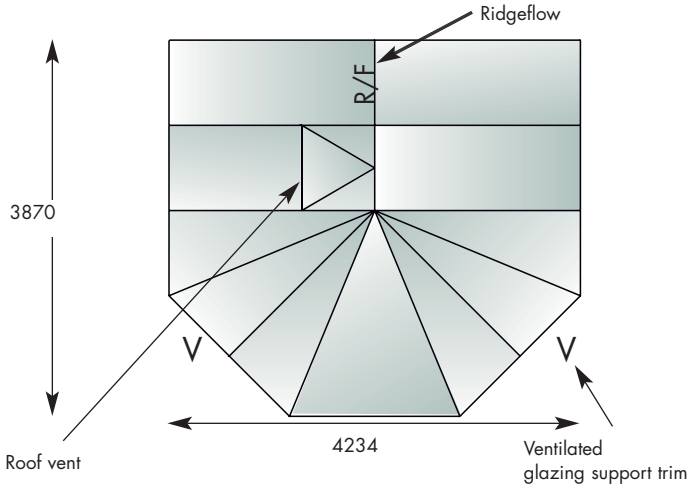
Classic roof

Standard white	Mahogany W/G
Deeplas blue white	Light Oak W/G
	Rosewood W/G

NOTE: Mahogany, Rosewood and Light Oak is not available throughout the component range. When specifying a roof, some of the components may be brown.

EXTRAS

A number of optional extras are available with the Classic roof eg: fans, roof vents, Ridgeflow and the ventilated glazing support trim. For further information on these items, see the information sheet available from Ultraframe on each of these products. When ordering a complete roof, indicate the position of these items as shown.



TIE BAR REPLACEMENT KIT (TBRK)

The introduction of the TBRK opens up new opportunities. Larger span conservatories that traditionally required tie bars to support the finial point may no longer be required. This innovation allows choice which was unavailable previously.

IMPORTANT: The option of using TBRK is very much dependent on the suitability of the host wall.

On survey you must carefully inspect the condition of the house wall. Earlier in this guide you were asked to inspect the wall for hairline cracks etc. For TRBK to be successful on installation, the house wall must not show any signs of settlement, disturbance or flaking. It must be solid. For example TBRK will not be suitable against ship-lap cladding or vertical hanging tiled walls. Tie bars would have to be used in these circumstances.

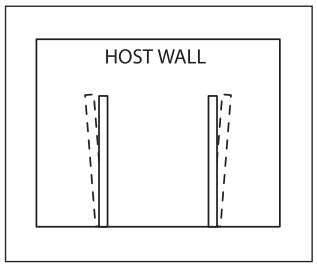
If the ridge of the conservatory strikes the house wall and is within 500mm of a window or door opening, then a tie bar should be used at the finial point.

If tie bars cannot be used and you need to use TBRK, then consult Ultraframe for further advice.

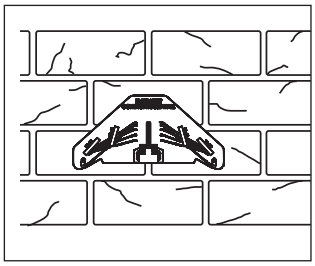
The condition and method of construction are key to a successful installation.

IMPORTANT: The use of TBRK will always be subject to final survey. Refer to the TBRK installation guide for recommended host wall fixings.

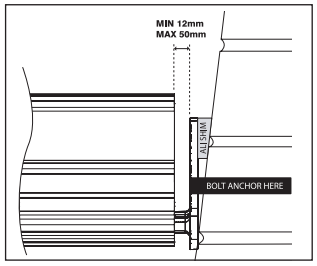
FOR A SUCCESSFUL INSTALLATION OF TBRK ALWAYS



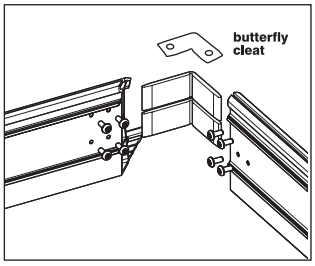
Ensure alignment of side frames
All frames MUST be installed plumb – any frames that are not will result in the ridge end dropping and the TBRK not working effectively.



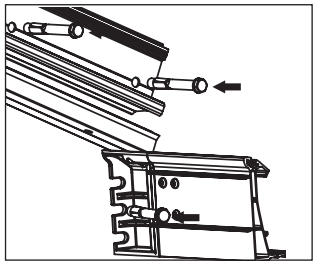
Check the condition, strength and type of host/contact wall
The TBRK MUST be installed against a sound wall e.g. of masonry construction and not shiplap boarding. Sleeve anchors are provided which cover most site installations. For hollow bricks or blocks resin bonded anchor bolts MUST be used (not supplied).



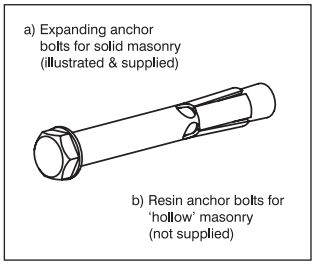
Correctly set the ridge
Ensure the ridge body sits on to the compression plate If necessary use aluminium shims if the ridge compression plate requires packing behind. Ensure the ridge is level, prop it until all bars are installed. If necessary over compensate and lift the finial end of the ridge 10mm above level.



Fit all cleats and straps
Ensure all cleats and straps are fitted as instructed, making sure there are no open joints.



Fit 3 eaves to wall fixings
The eaves MUST be fastened to the host wall using 3 sleeve anchors – one through the aluminium eaves end moulding and two through the reinforced end of the starter bars.



Use the fixings provided
Use correct fixings, as instructed. All relevant fixings MUST be used

The Ultralite 500 PVC Roof

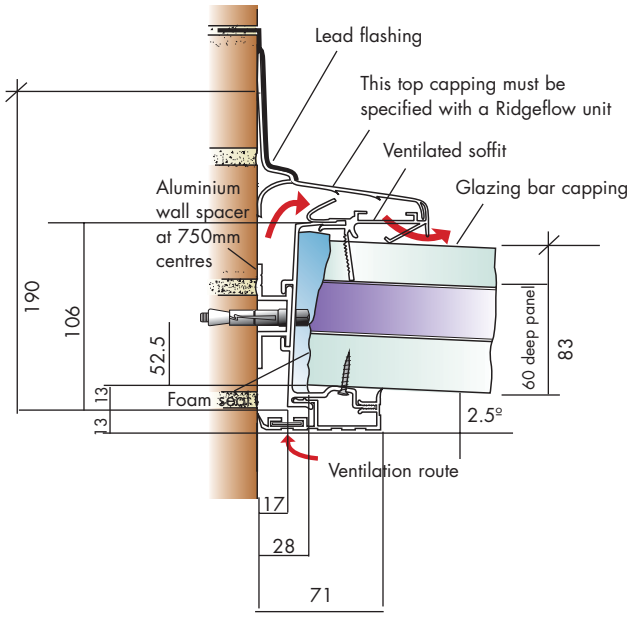
The Ultralite 500 PVC roof is supplied in standard pack lengths. Each pack contains two panels and covers approximately 1.0m in width. The roof can easily be cut down in width or projection on site if required. However, designing the conservatory to the "set out" dimensions in the tables will make maximum use of the stock panel sizes, reduce waste and reduce installation time.

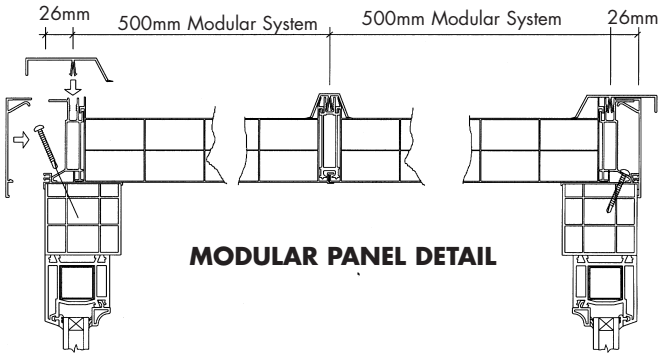
When ordering an Ultralite 500 PVC roof, please state **external frame sizes**.

The roof is delivered with the appropriate number of panel packs, wall channel pack, starter bar pack and intermediate bar pack.

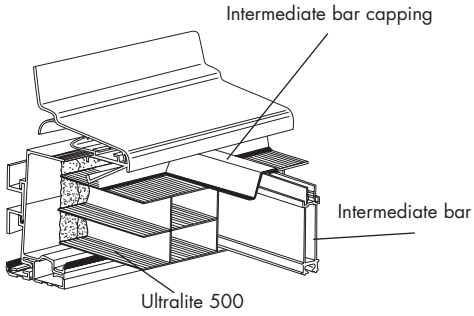
If cutting panels to width (see non-modular detail) the timber fillets are not supplied.

WALL CHANNEL

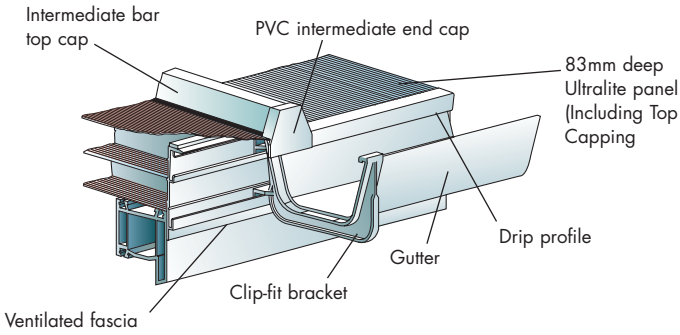


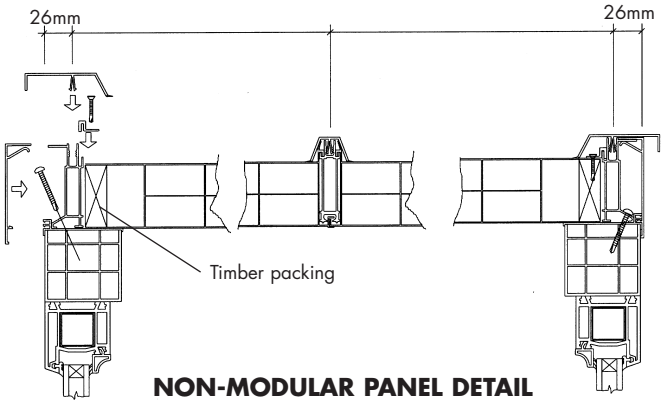


MODULAR PANEL DETAIL

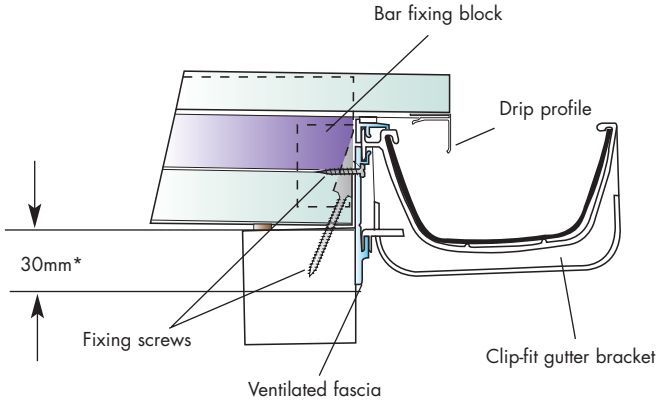


FASCIA & GUTTER





NON-MODULAR PANEL DETAIL



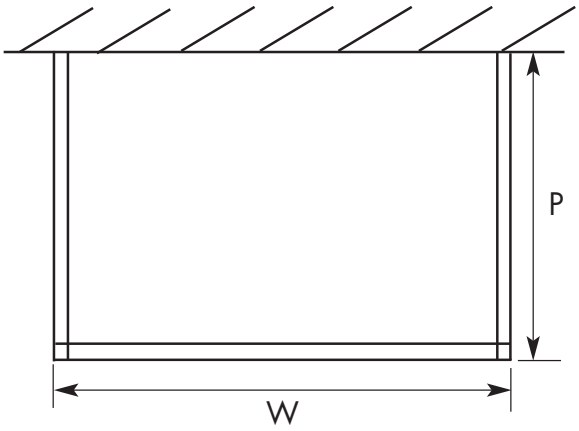
Note: Ultralite 500 PVC roof above French doors.
Advice from your systems supplier should be sought to ensure adequate structural stability along the head of french doors prior to installing the roof.

* Watch for open out windows directly below the guttering

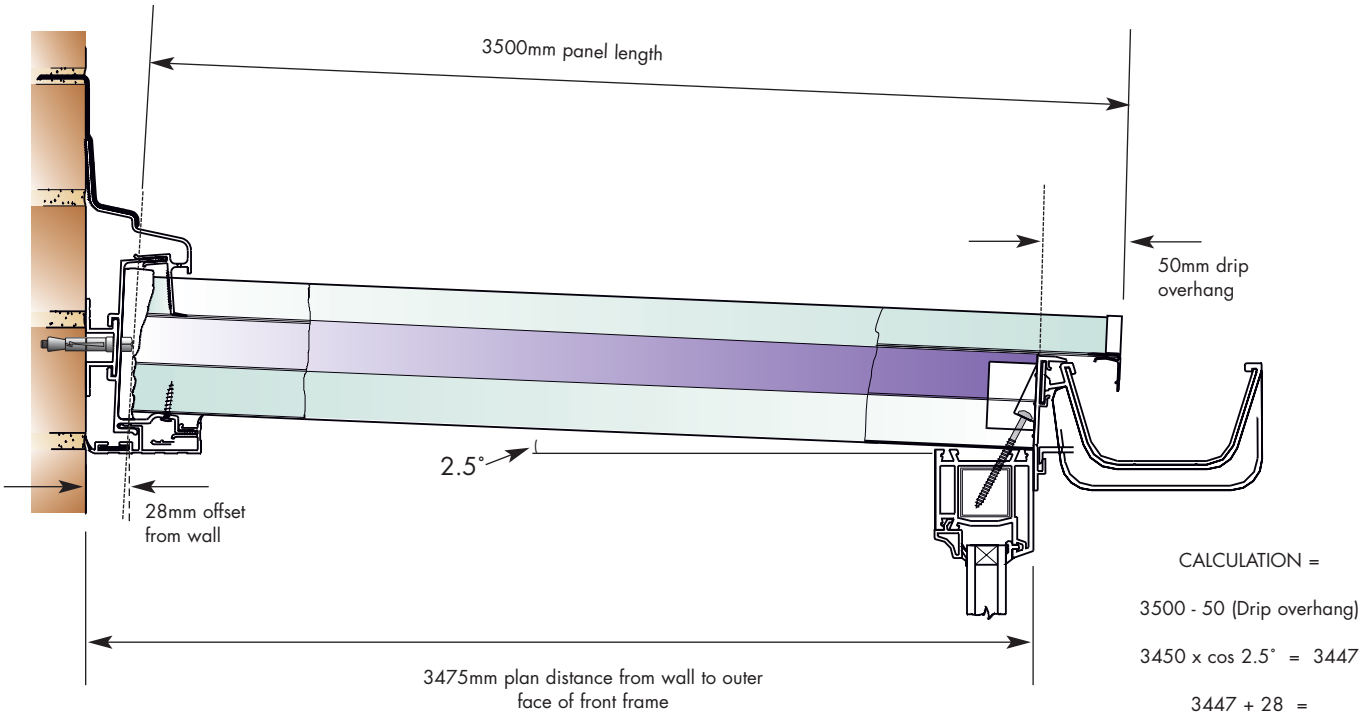
ULTRALITE 500 PVC SETTING OUT DETAIL

FOR CALCULATION OF EXTERNAL CONSERVATORY FRAME PROJECTION	
Length of panel	Overall projection external frame mm
2.0m	= 1976mm
2.5m	= 2476mm
3.0m	= 2975mm
3.5m	= 3475mm
4.0m	= 3974mm
5.0m	= 4973mm
6.0m	= 5972mm

Please note:
The above figures are based on a 2.5˚ pitch.



FOR CALCULATION OF EXTERNAL CONSERVATORY FRONT FRAME WIDTHS SEE CHART BELOW	
Number of Ultralite 500 PVC Panels	Overall Front Frame Width mm
2 (1 pack)	1052
3	1552
4 (2 packs)	2052
5	2552
6 (3 packs)	3052
7	3552
8 (4 packs)	4052
9	4552
10 (5 packs)	5052
11	5552
12 (6 packs)	6052
13	6552
14 (7 packs)	7052
15	7552
16 (8 packs)	8052
17	8552
18 (9 packs)	9052
19	9552
20 (10 packs)	10052



CALCULATION =

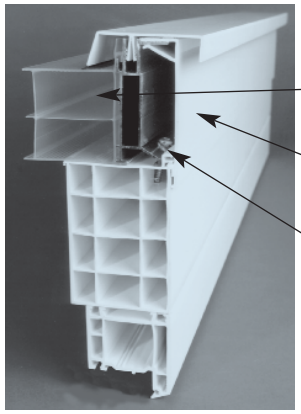
3500 - 50 (Drip overhang)

3450 x cos 2.5˚ = 3447

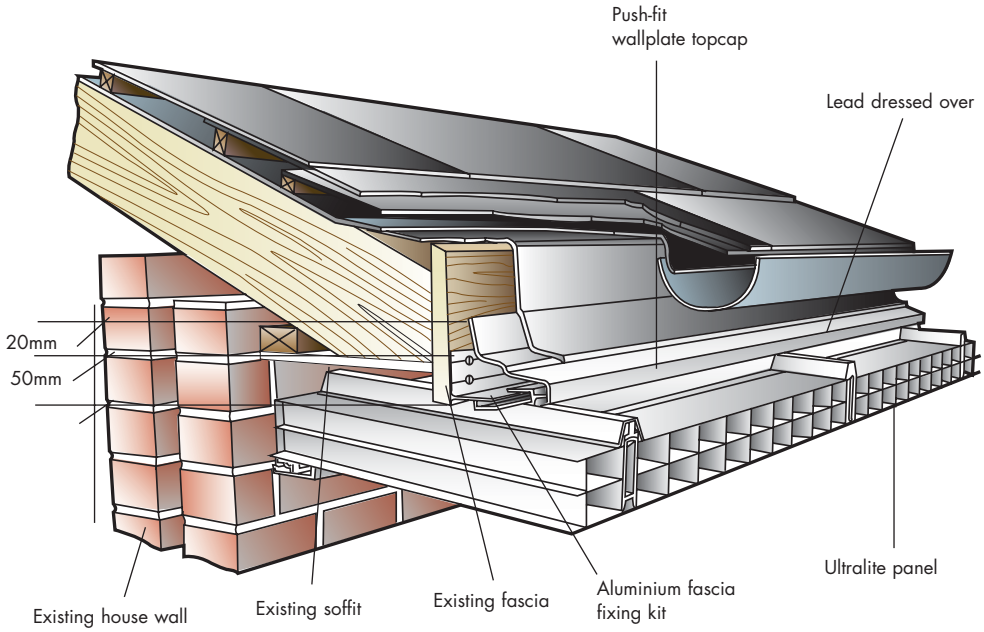
3447 + 28 =
3475 plan dimension

PVC-U FIRRING

- Available 3m & 4m long.
- One pitch only 2.5°.
- One width only 70mm suits all frame widths (always fit flush with outside of frame as shown).
- Eliminates the need for raked side frames.
- Allows for 20mm tolerance on conservatory width.

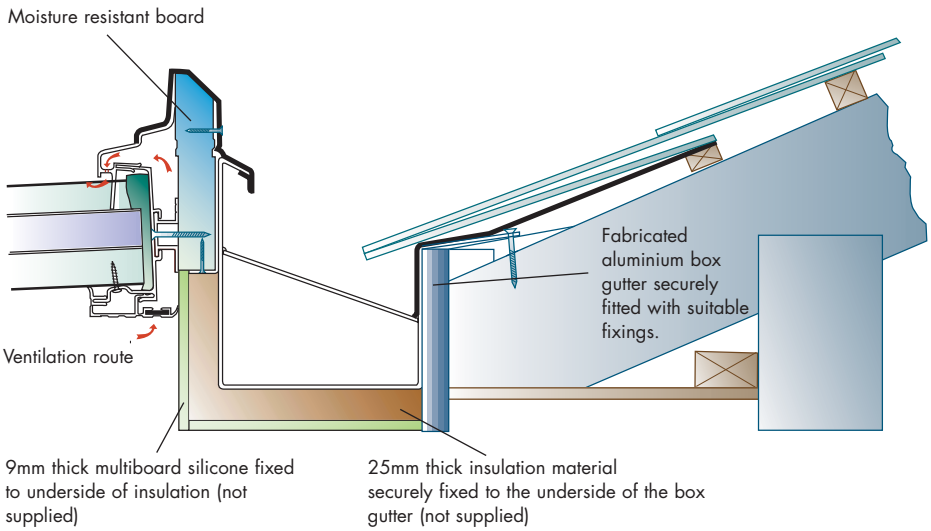


FASCIA FIXING KIT



Use the fascia fixing kit when the wall channel is tight under a soffit and the top capping will not fit.

ULTRALITE BOX GUTTER



The Ultralite box gutter offers even more headroom for extremely low eaves fixing situations. These box gutters are individually manufactured for each specific installation. See box gutter ordering information.

Note: When connecting Marley Classic Guttering via in-line box gutter adaptor(s) to an Ultralite box gutter, then the Marley screw-on gutter bracket will require packing-off the fascia board by 20mm.

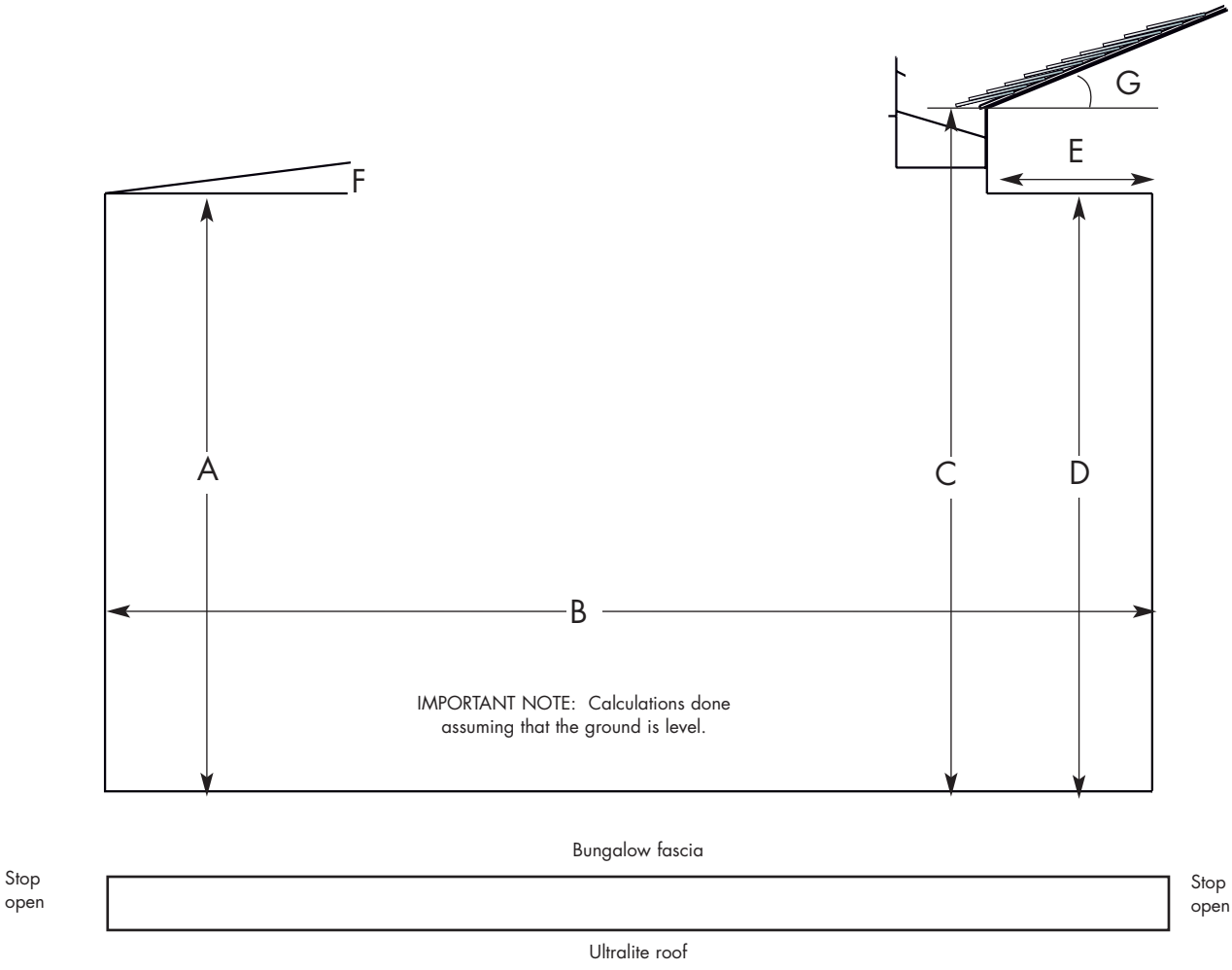
ULTRALITE 500 PVC BOX GUTTER ORDERING INFORMATION

In order for us to provide a fabricated box gutter to suit your needs, it is necessary to forward the following information :-

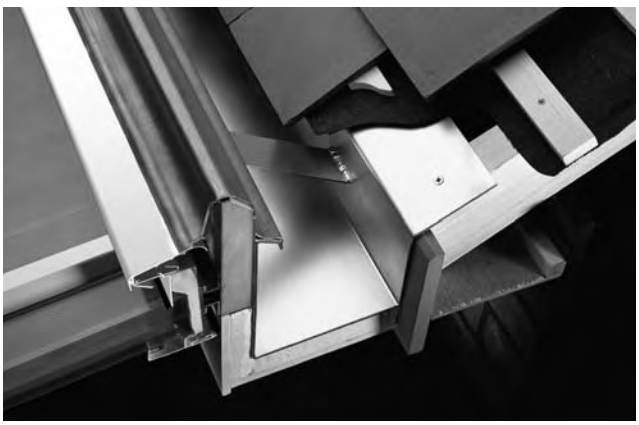
A) Front frame height (from finished floor level)
B) Front frame projection (to outside face)
C) Height at top of box gutter once fitted at fascia
D) Height to underside of soffit
E) Projection of soffit to outer face of fascia
F) Pitch required (from 2.5° to 10°)
G) Pitch of bungalow roof (if wing version selected)

The box gutter takes the place of the existing house gutter. It can be supplied with a running outlet welded into the box gutter or the open end of the box gutter can be connected using a box gutter adaptor from the Classic system to a length of four litre (classic) gutter to continue along the remaining length of bungalow fascia. If continuing along the bungalow fascia the existing gutter brackets will need packing off to allow correct alignment.

If you require a welded in running outlet, please indicate dimensions from centre line of outlet to edge of box gutter.



Indicate box gutter detail on above sketch, ie. length etc.



Planning Permission and Building Regulations

DEPARTMENT OF THE ENVIRONMENT AND THE WELSH OFFICE

These two are often confused and the following notes are intended for guidance only, and are general requirements for all areas. Please consult the relevant local authority for any specific requirements for the area concerned. (Advice should always be sought before proceeding.)

DEFINITION OF A CONSERVATORY

According to the Department of the Environment, a conservatory is defined as "A single storey part of a building that has not less than three quarters of its roof area made of translucent material, and not less than fifty percent of its wall area made of glass." (Reg. B. App E & Reg. LI.I.42)

PLANNING PERMISSION

This is the decision as to whether or not you can build a particular structure in a particular place, and is concerned with the visual impact and size of the structure and not the structural integrity of the construction.

Parliament has given the main responsibility for planning to local authorities. If you have any queries about a particular conservatory, the first thing to do is to ask the planning department of your local council. They will usually give you advice but if you want to obtain a formal ruling, you can apply, on payment of a fee, for a "Lawful Development Certificate" by writing to the council with details of the work you want to carry out.

TAKE CARE! If you build something which needs planning permission without obtaining permission first, you may be forced to put things right later, which could prove troublesome and costly. You might even have to remove an unauthorised building.

If you live in a conservation area, a national park, an area of outstanding natural beauty or the Norfolk or Suffolk Broads or if your house is a listed building, you will need to apply for planning permission.

YOUR COUNCIL'S POWERS TO WITHDRAW PERMITTED DEVELOPMENT RIGHTS

Permitted development rights may be withdrawn by issuing an article 4 direction. (Article 4 directions are made when the character of an area of acknowledged importance would be threatened). They are most common in conservation areas.

You need to apply for planning permission to extend or add to your house in the following circumstances.

1) Your house is a listed building
   Grade 1
   Grade 2
2) You want to build a conservatory which would be nearer to any highway than the nearest part of the "original house" unless there would be at least 20 metres between your house (as extended) and the highway. The term "highway" includes all public roads, footpaths, bridleways and byways.
3) More than half the area of land around the "original house" would be covered by additions of other buildings. The term "original house" means the house as it was first built or as it stood on 1st July 1948 (if it was built before that date) although you may not have built an extension to the house, a previous owner may have done so.
4) The conservatory is higher than the highest part of the roof of the "original house".
5) Any part of the conservatory is more than 4 metres high and is within 2 metres of the boundary of your property. You should measure the height of buildings from the ground level immediately next to it. If the ground is uneven, you should measure from the highest part of the surface.
6) Terraced house (including an end of terrace house) or any house in a conservation area, national park, an area of outstanding natural beauty or the Broads - the volume of the "original house" would be increased by more than 10% or 50 cubic metres (whichever is the greater).
7) Any other kind of house outside those mentioned the volume of the "original house" would be increased by more than 15% or 70 cubic metres (whichever is the greater).
8) In any case, the volume of the 'original house" would be increased by more than 115 cubic metres. Volume is calculated from external measurements. In the following circumstances, the volume of other buildings which belong to your house (such as a garage or shed) will count against the volume allowances. In some cases, this can include buildings which were built at the same time as the house or existed on 1st July 1948.
9) If a conservatory to your house comes within 5 metres of another building belonging to your house, the volume of the building (eg. garage or shed) counts against the allowance for additions and extensions.
10) Any building which has been added to your property and which is more than 10 cubic metres in volume and which is within 5 metres of your house is treated as an extension of the house and so reduces the allowance for further extensions without planning permission.
11) If you live in a conservation area, a national park, an area of outstanding natural beauty or the Broads, all additional buildings which are more than 10 cubic metres in volume, wherever they are in relation to the house, are treated as extensions of the house and reduce the allowance for further extensions.

If any of these cases apply the volume of the building concerned will be deducted from your volume limit for extensions and additions to your house. For example, if your volume limit is 50 cubic metres and a building of 15 cubic metres in volume is treated as an extension to the house, then your volume limit for extensions would be reduced to 35 cubic metres.

Again you would need to apply for planning permission if:

PORCHES

1) Porch would have a ground area (measured externally) of more than 3 sq. mtrs.

2) Would be higher than 3 mtrs above ground level.
3) Would be less than 2 mtrs away from the boundary of a dwellinghouse with a highway (which includes all public roads, footpaths, bridleways and byways).

FENCES WALLS & GATES

1) Your house is a listed building
2) Would be over 1 mtr high and next to a highway used for vehicles; or over 2 mtrs high elsewhere.

COVENANTS

Covenants or other restrictions in the title to your property or conditions in the lease may require you to get someone else's agreement before carrying out some kinds of work to your property. This may be the case even if you do not need to apply for planning permission. New housing estates are a prime example. Consult the developer prior to commencement, as in some cases a small fee may be charged.

RESTRICTED COVENANT RIGHTS

Restricted development rights imposed by the builder of the site may be in place. Permission from the builder will be needed.

RIGHT OF LIGHT

If planning permission is required, the local authority can limit the projection of the conservatory in situations where an adjoining or nearby property exists. In such situations each property is taken on its individual merits.

The following method may be used as a guide to calculate the maximum permitted projection of conservatory:
Draw a line 45 degrees from the centre of the nearest window of a habitable room in the adjoining property. Where this line dissects the side or dividing wall of the conservatory is the maximum depth to which the conservatory can be built.
In all cases it is worth contacting the planning department of your local council for their advice.

BUILDING REGULATIONS

A conservatory is normally exempt from any building regulations (since 1985) provided it meets the following requirements.

1) The conservatory is solely for domestic purposes
2) The conservatory is built at ground floor level
3) The conservatory contains no sleeping accommodation
4) The roof and walls are glazed with translucent or transparent materials (ie roof 75% walls 50%)
5) The floor area is less than 30m^2 (internal floor)
6) The construction of the conservatory does not affect the existing drainage system.
7) The conservatory must be separated from the existing property by a wall, glazed screen or exterior grade door.
8) The glazing in the conservatory meets the requirements for safety glazing in critical locations to either:-
   a) break in a way unlikely to cause injury
   b) resist impact without breaking
   c) be shielded or protected from impact

In practice this will mean using toughened or laminated glass (shielding must protect both the inside and the outside of the glass) in critical locations in internal and external walls.

If any part of a pane falls within the shaded zone the whole pane must be toughened or laminated glass (ie. glazing to which this requirement of the building regulations applies is in panes numbered 2, 4, 5, 6, 7, 8, 11. (see sketch - below)

Note: a) You may require approval for any associated structural works to the house that you intend to carry out. ie. re-linteling
b) It is advisable to ensure that a conservatory is not constructed so that it restricts ladder access to means of escape windows on upper floors.

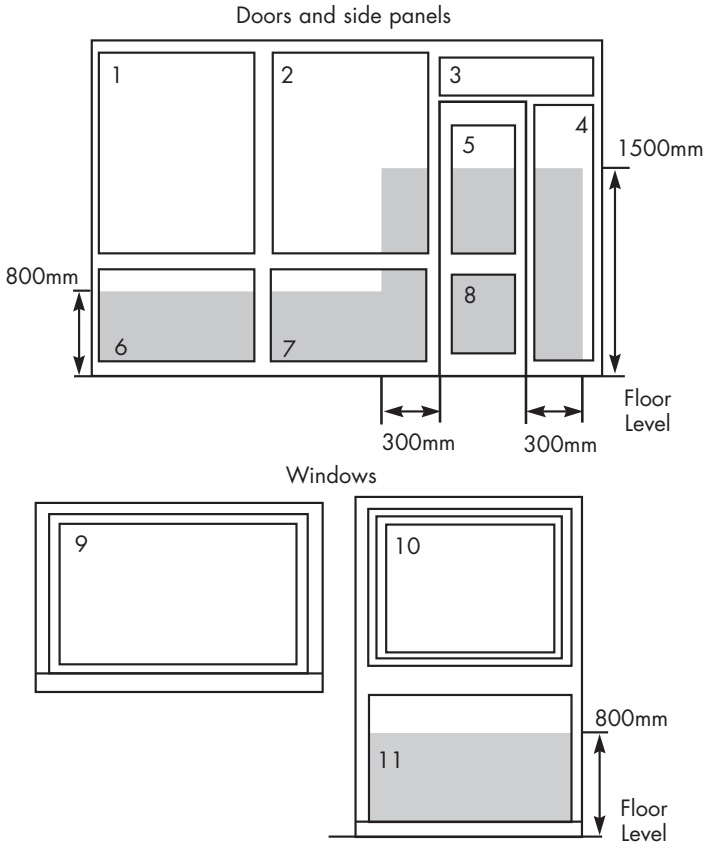
Building Regulations, Approved Document B Fire Safety, applies to conservatories which are not exempt from the regulations. Any part of the conservatory which is within one metre of the boundary must be constructed of materials of limited combustibility. The Building Control Department of the local council will give advice on these matters.

VENTILATION

(i) Where a proposed conservatory with timber suspended floor would encompass air bricks positioned beneath the timber suspended floor of the dwelling, then these must be ducted through the base work to the outside face of the conservatory wall.

(ii) Where a proposed conservatory would encompass a property, which would have built-in slot ventilators to the head of the windows or doors, then provision within the conservatory design must be considered to accommodate the transfer of ventilation.

(iii) Where a proposed conservatory would encompass a ventilated soffit (overhanging eaves) the inclusion of a ventilated eaves tray (supplied by 'Roofline' companies) should be used.



PARTYWALL ACT 1996

The Party Wall Act 1996 has effect from 1st July 1997 throughout England & Wales. If you intend to carry out building work which involves:

A) Work on an existing wall shared with a neighbouring property
B) Building on the boundary with a neighbouring property
C) Excavating near a neighbouring building

Definitions: A wall is a Party Wall if:

A) It stands astride the boundary of land belonging to two (or more) different owners.
B) It belongs totally to one owner, but is used by two (or more) owners to separate their buildings. Where one person has built the wall in the first place, and another has butted their building up against it without constructing their own wall, only the part of the wall that does the separating is "Party".

NOTICES

A building owner intending to carry out work covered by the Act must give notice in writing of the intended works to all the relevant adjoining owners.

DISPUTE PROCEDURES

The Act envisages that in most cases, there will be agreement about the proposed works between the relevant owners. This agreement must be in writing. A surveyor may be called upon to draw up an "Award". If they do not agree upon one surveyor, they must each make an appointment. The two surveyors thus appointed select a third surveyor. Surveyors appointed under the dispute procedures must act impartially, taking into account the interests of both owners.

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