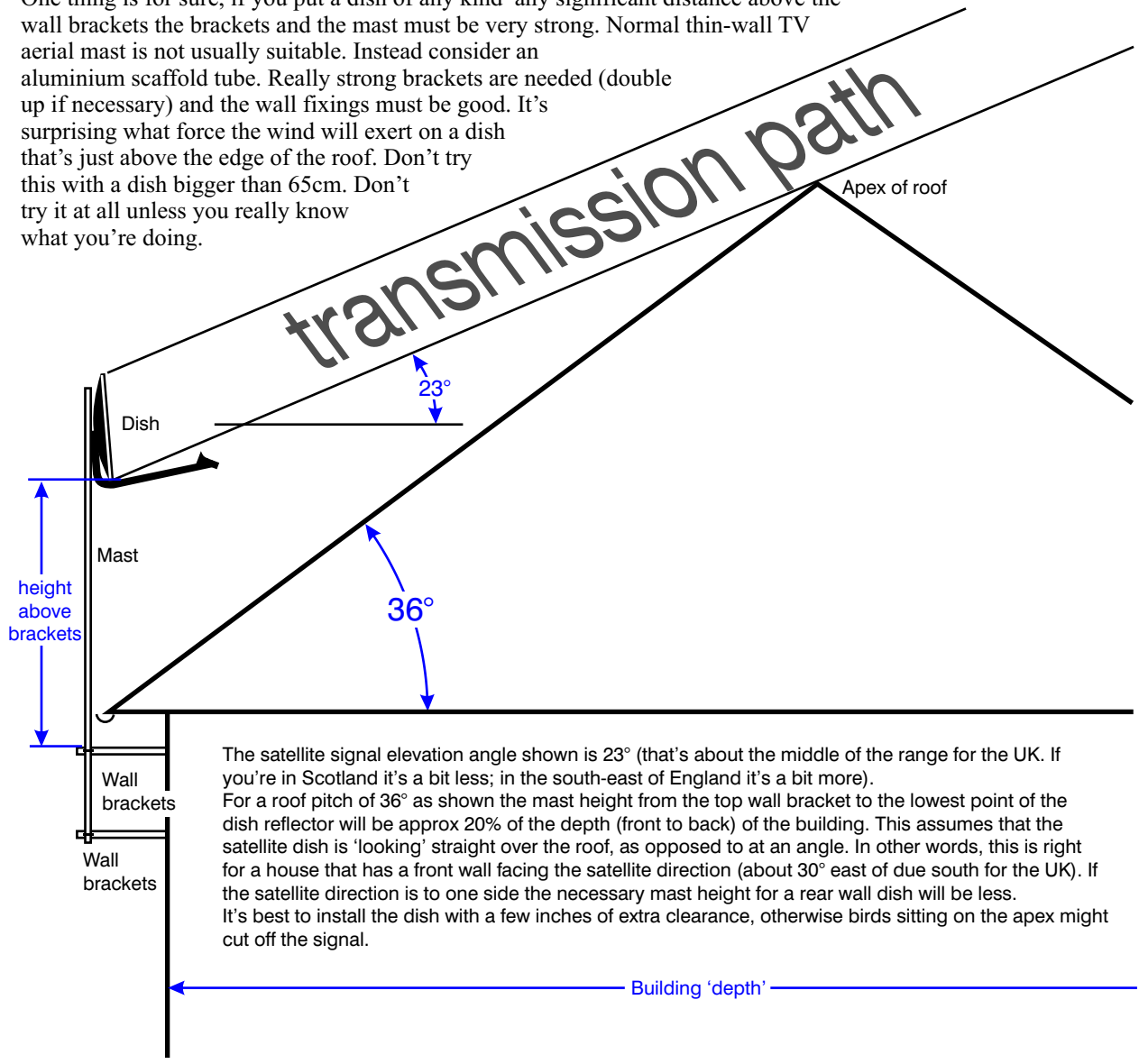


## If the dish has to go on the back of the house on a north-west facing wall, how long will the mast need to be?

This diagram lets you work out the approximate mast height necessary for the signals to clear the roof. The mast height is related to the 'depth' of the building.

One thing is for sure, if you put a dish of any kind any significant distance above the wall brackets the brackets and the mast must be very strong. Normal thin-wall TV aerial mast is not usually suitable. Instead consider an aluminium scaffold tube. Really strong brackets are needed (double up if necessary) and the wall fixings must be good. It's surprising what force the wind will exert on a dish that's just above the edge of the roof. Don't try this with a dish bigger than 65cm. Don't try it at all unless you really know what you're doing.



The satellite signal elevation angle shown is 23° (that's about the middle of the range for the UK. If you're in Scotland it's a bit less; in the south-east of England it's a bit more). For a roof pitch of 36° as shown the mast height from the top wall bracket to the lowest point of the dish reflector will be approx 20% of the depth (front to back) of the building. This assumes that the satellite dish is 'looking' straight over the roof, as opposed to at an angle. In other words, this is right for a house that has a front wall facing the satellite direction (about 30° east of due south for the UK). If the satellite direction is to one side the necessary mast height for a rear wall dish will be less. It's best to install the dish with a few inches of extra clearance, otherwise birds sitting on the apex might cut off the signal.