

Section 7 Site Layout

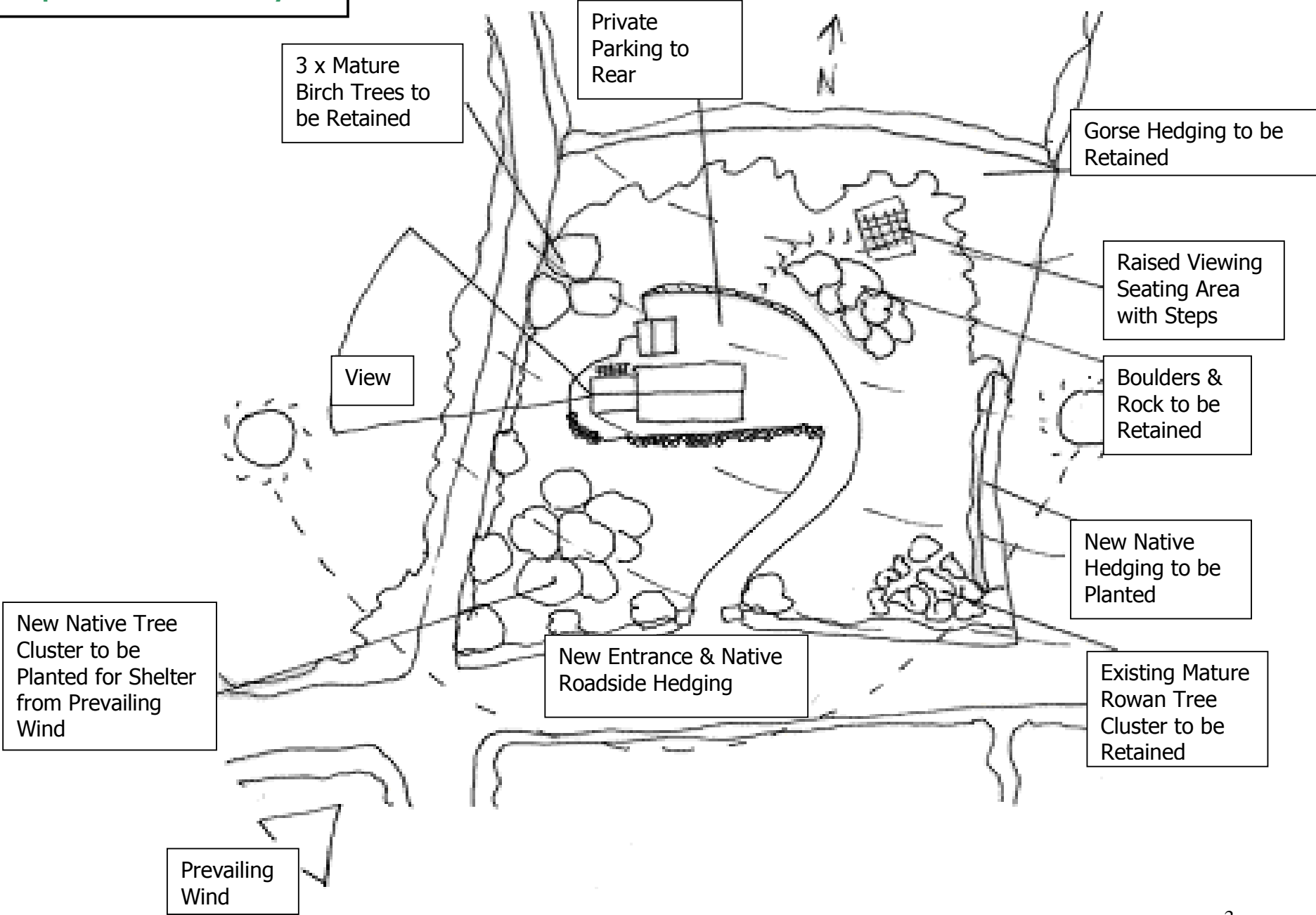
The layout of your site should be considered in conjunction with those principles contained within the site selection section as previously discussed, this section aims to expand on the principles discussed and address other considerations which can often be overlooked when initially laying out a site.

By using common sense and by drawing inspiration from traditional siting and design we in turn can design to link and integrate with the landscape in a sympathetic and sustainable manner.

Carrying out quick site and tree surveys of your chosen site will enable you to identify those features you can utilise and exploit, and allow you to plan for suitable areas within your site which can be further planted or developed to **lower the impact** of your home.

Recent and future projected increases in fuel and heating costs, both personal and environmental, have raised public awareness about the benefits of energy efficient design. Ultimately a little thought at layout stage can result in the development of a more comfortable and cost effective home which will prove cheaper to run in the long term as fuel prices continue to rise.

Simple Site & Tree Survey

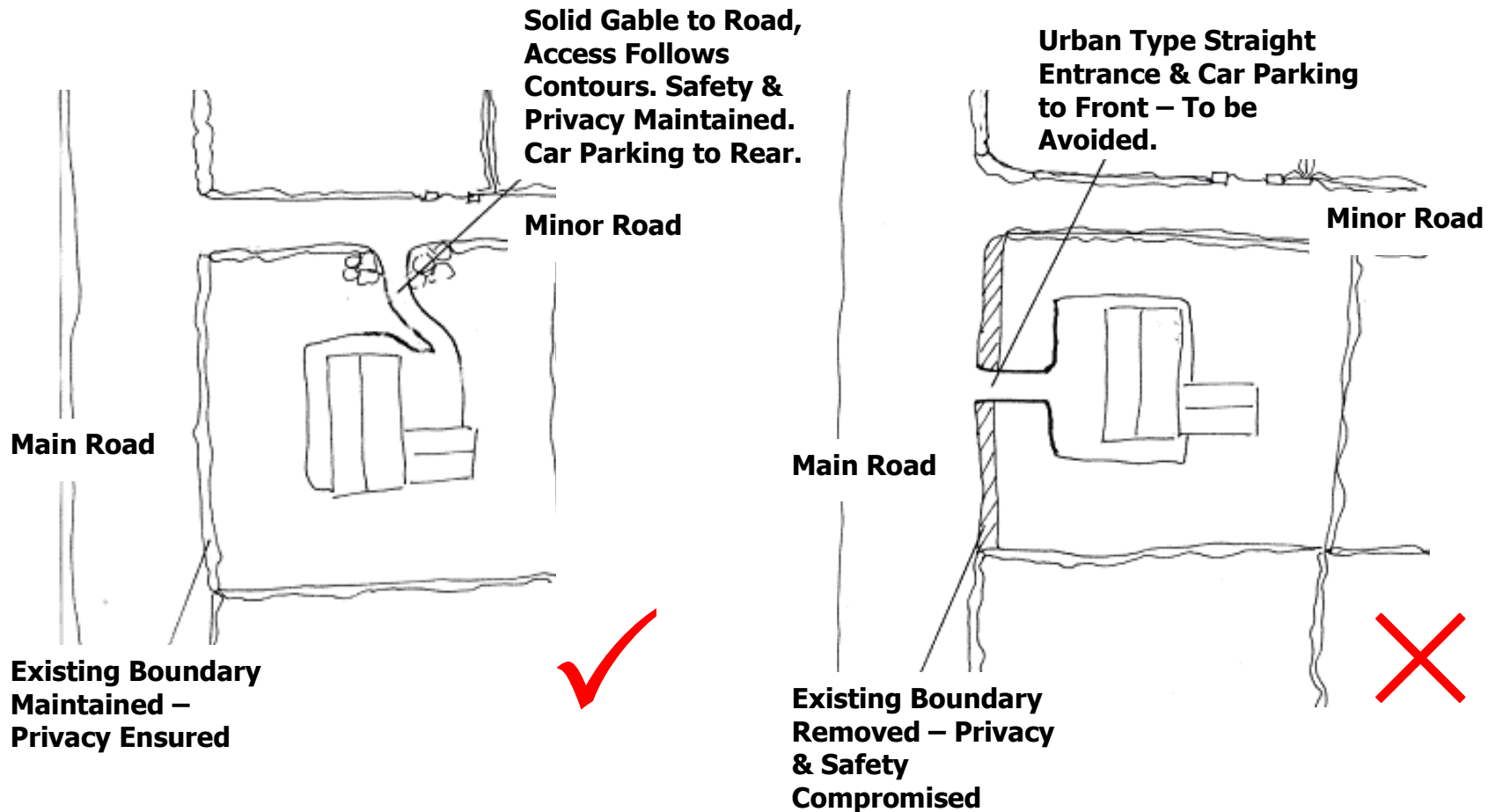


7.2 Site Services

The location of your house will be dictated by the site drainage, location of your septic tank/percolation area and the actual area required to accommodate them. Employing a qualified, independent person to carry out a site assessment will reduce possible time delays at application stage. This will indicate the site's suitability for foul drainage and inform you of any drainage works to be undertaken, it will also state the appropriate system to be employed.

Road access to your site will have to conform with those requirements set out in the County Development Plan and by the Area's Roads Engineer. Entrances should make provision for clear and unobstructed vision lines in both directions as viewed from the entrance. If possible take access off a minor road in preference to a main road.

Seeking advice and complying with requirements will reduce delays with your final application.



County Donegal Development Plan 2006-2012 (as varied)

Water provision is essential and can be provided through the Public Water Main or Group Water Scheme Systems. If water is not available in the area private wells, boreholes and even rainwater harvesting systems can be utilised in certain instances. Check for water availability with the Sanitary Services Engineer for the area if you are not sure.

When laying out your site you should ensure the availability of and provide for Electrical Power and Telecommunications connection, it is appropriate to lay connecting cables underground in order to reduce unsightly power cables transecting the site.

The provision and location of Receivers such as T.V. aerials or satellite dishes within your site should be carefully considered. It may prove difficult to receive coverage within the site; this may mean you will have to use remote aerials or raised structures. Care should be taken to ensure that such structures do not appear unsightly.

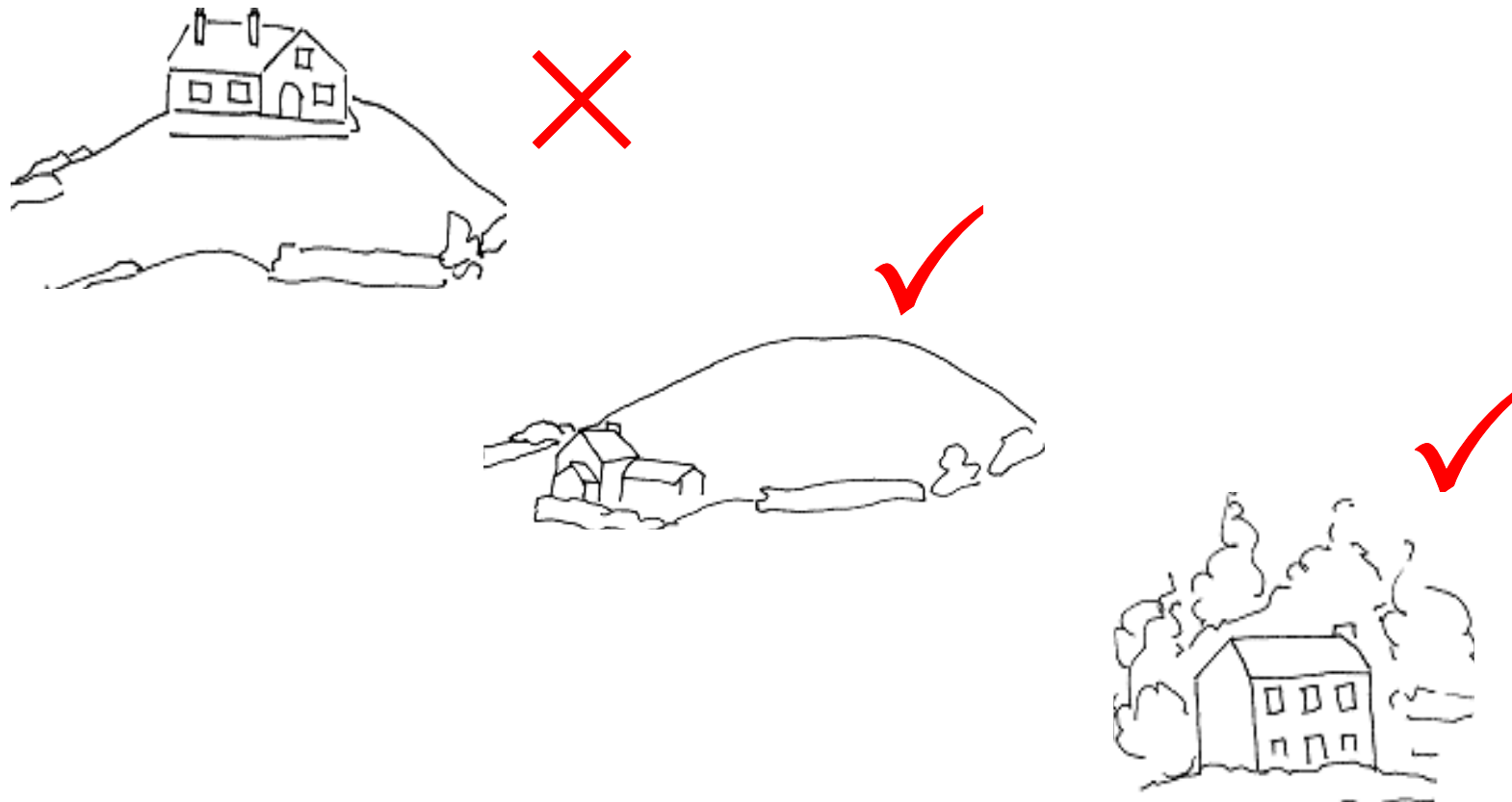
7.3 Orientation and Positioning

The orientation and way in which you position your house on site will determine the quality of your personal living environment. *Good site layout should successfully marry the conflicting issues relating to the orientation of your house on site, namely:*

7.3.1 Integration & Shelter

The best integrated houses are **Low Impact** developments and invariably take advantage of naturally occurring site conditions such as tucks, hollows or mature tree growth, this should be a major consideration when locating your house within your site and should be identified in your initial site and tree survey, these can then form part of your application layout drawings. Should it be necessary to remove planting, or if there is a lack of mature tree growth, replace/replant hedgerows and create shelterbelts. In order to utilise an established sheltered position you may wish to rotate your home on site.

As previously discussed, exposed houses suffer huge heat losses, a sheltered home will prove easier to heat and will retain heat more readily than a house which is exposed to prevailing weather conditions, resulting in lower fuel costs.



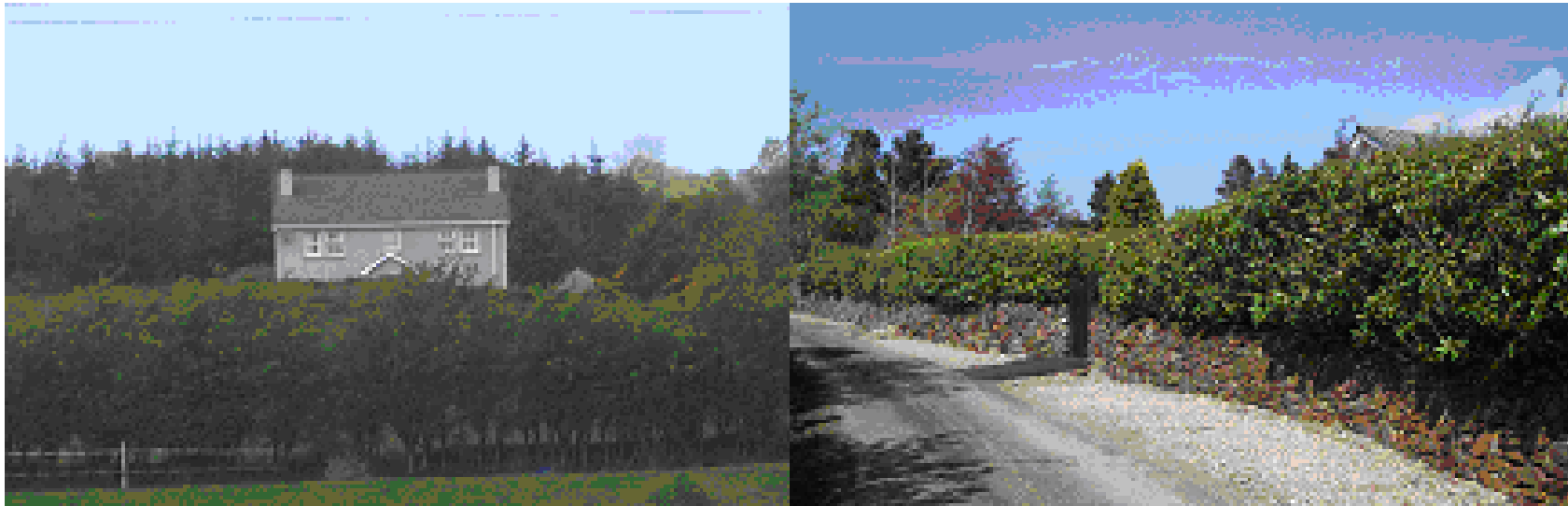
7.3.2 Views

Consider vantage points as viewed from your chosen sheltered position, aim to maximise views from those living areas you will utilise most, this will influence your final floor plan. Bear in mind that to maximize a view does not necessarily mean you have to orientate your home directly towards it, for example, in roadside sites glazing to gables can successfully capture views whilst a solid road facing elevation maintains privacy.



7.3.3 Privacy

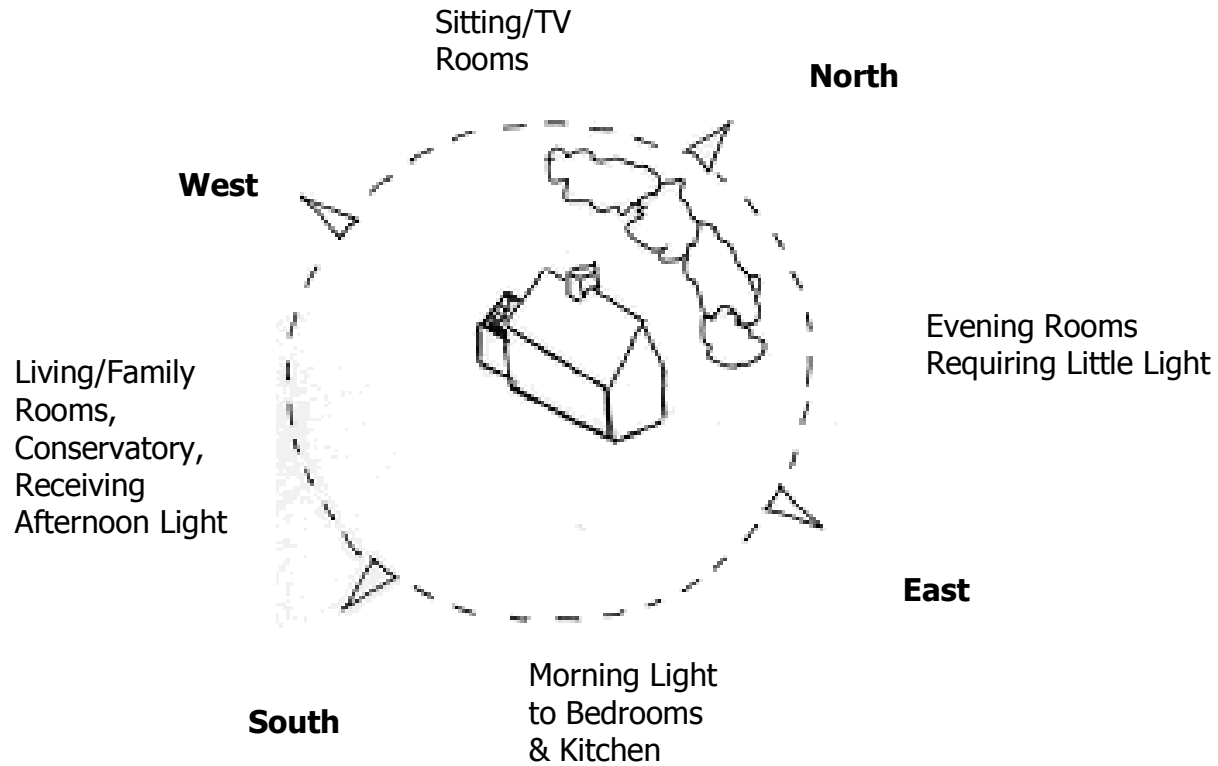
Privacy is an issue often overlooked at layout stage. Large Picture windows or glazed features are suburban in appearance and therefore not suitable in rural locations. With such features you may have to use blinds or screening to protect living space privacy, cutting down on the amount of natural sunlight entering your home. Aim always to screen your home from the road with planting or by taking advantage of existing landforms. You may wish to rotate your home on site to take advantage of natural screens or face a glazing free gable wall to the road.



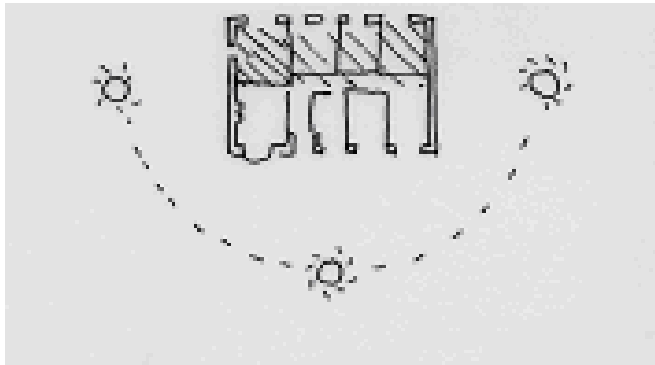
7.3.4 Solar Gain

Solar Gain is a term used to describe the energy gain to be had from taking advantage of our natural source of heat and light – the sun. A southerly orientation maximizes solar gain in winter yet limits summer overheating due to the high angle of the midday sun, the time of day when the sun is at its strongest.

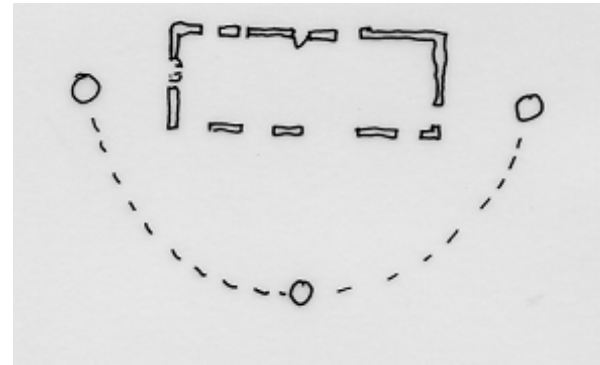
As a general rule glazing to the south facing elevation will harvest more sun energy whilst keeping north-facing windows small will reduce heat loss. Should the most frequently used living spaces in your home be organised in such a manner as to take full advantage of the daily sun path heating bills will be substantially reduced.



Narrow Plan houses receive sun energy all day, however wider plan houses will contain dark corridors and rooms which will be blocked from light at certain parts of the day (See Section 9, House Design). It is estimated that 30% savings on your annual energy usage can be achieved if your home is orientated within fifteen degrees of south.



**Wide
Plan -
Areas
In
Shade**



**Narrow
Plan -
Receives
Sun All
Day**

Savings will be increased if the house is sheltered and well insulated. Exposed, unsheltered and poorly insulated houses suffer from huge heat losses, even the best-orientated house will not profit from solar gain if not well insulated and sheltered, as any heat harvested will simply escape again once temperatures fall.

Further use of solar energy can be made through the installation of solar panels, for more on this see Section 11, Environmentally Sensitive Design.

Remember

It is not appropriate to increase glazed areas too dramatically in Donegal, large windows admit more sunshine leading to overheating in summer, while simultaneously allowing more heat to be lost during winter, at night and on cold or overcast days.

Large-scale glazing is not always aesthetically acceptable within a rural context; it is particularly unacceptable within road facing or prominent sites. Always present a solid elevation to roadside or visible elevations, ensure that glazing is well screened either by existing landforms or mature tree cover.

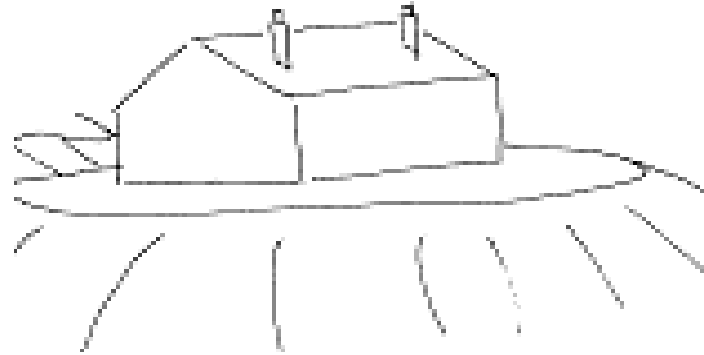
Deciduous trees militate against overheating in summer by providing shade yet allow for maximum solar gain in winter when the leaf canopy is bare.



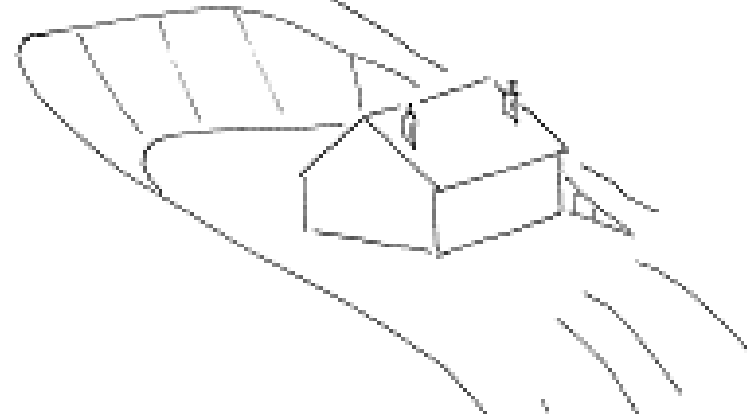
7.3.5 Slope and Contours

New development often does not pay regard to site slopes and naturally occurring landforms either “digging out/cutting” or “under building/filling” to create a platform on which to “sit” the dwelling. This is exacerbated by the use of **Deep Plan** designs, (See Section 9, House Design). In effect this results in the imposing of a house designed for a flat site onto a slope, resulting in a **High Impact Development**. Such developments impose permanent scars on rural landscapes and often can be seen over long distances; cumulatively they will detract from an area’s attractiveness.

Under Building - Filling



Digging Out – Cutting



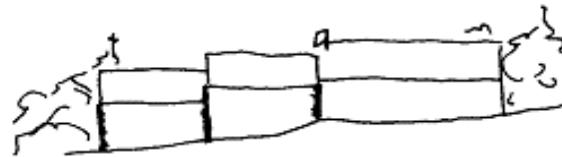
Such Houses

- Are **High Impact**
- Do not integrate satisfactorily
- Appear prominent and alien in a countryside context
- Appear to be dropped onto the site and not linked to it
- Prove difficult to landscape or soften
- Prove expensive due to site works necessary
- Cause long term land slippage
- Create water drainage flows and associated problems
- Cause weathering to exterior house finishes
- Reduce heat/energy efficiency
- Create poor living environments for occupiers

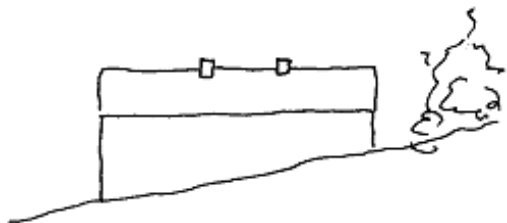
Material excavated during the digging of foundations etc. can be utilized in order to **Lower Impact** through the creation of mounds, landscaped garden areas or grading within the site. Slopes should be soiled and planted with grasses, shrubs or heathers; this will reduce the appearance of scarring. Root systems anchor soil, preventing ground slippage, and act as a soak to any associated surface water run-off.



**Narrow Plan
Easily
Accommodated
On Slope**



**Stepped To
Accommodate Slope**



**Runs With
Slope**



Split Level

It is not necessary to impose a scar on the landscape in order to create artificial "flat site" conditions on a naturally occurring slope. By simply altering house design or floor levels to run with or along the slope a new house can be accommodated without the use of large scale invasive building up or excavation.

If your preferred house design cannot be accommodated within a certain site and you are unwilling to adapt your plans then seek an alternative naturally flat site.

It is an objective of the Council to actively discourage any practice that results in the permanent and irreversible scarring of the landscape.



7.3.6 Living and Working Spaces

Providing for working and living spaces at layout stage will ensure less disruption at later stages and an improved living environment. Spaces to plan for are

- **Car Turning and Parking**
- **Fuel Storage**
- **Clothes Drying**
- **Work, Storage and Tools**
- **Refuse and Recycling**
- **Recreation**

- The location of such areas should be carefully chosen so as not to impact detrimentally on your home.
- They should be located in less visible portions of the site, on road facing sites this will be to the rear.
- Cars should be parked away from the front of your home and adequate space for turning should be provided.
- All working, fuel storage and utility areas should be well screened with fencing and/or planting.
- Any ancillary structures e.g. domestic garages should be finished in the same materials as your home and should not block light entering your living spaces.
- Traditionally outbuildings were often constructed at right angles to gables, this allowed for shelter and ease of access, this could provide an appropriate precedent for newly constructed garages.
- Outdoor spaces within your site which can be used for recreation, e.g. children's play areas, should be located and developed to provide the privacy and safety to enjoy them, planting will provide shelter for outdoor sitting areas etc.

Integrated garages and carports increase the bulk of dwellings, are suburban in nature and are not suitable in rural locations. The Council strongly discourages the inclusion of same.

Site Selection & Site Layout

Final Checklist

| | | | |
|--|---|------------------------------|---|
| Local Services & Facilities | ✓ | Parking & Turning | ✓ |
| Integration | ✓ | Fuel Storage | ✓ |
| Shelter | ✓ | Clothes Drying | ✓ |
| Sun | ✓ | Storage & Work | ✓ |
| Access | ✓ | Recreation | ✓ |
| Drainage | ✓ | Safety | ✓ |
| Water & Services | ✓ | Privacy | ✓ |