Good practice guide to extending your home
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Good practice guide to extending your home

1. INTRODUCTION

1.1 The extension of homes to meet the changing needs of families is a proposal frequently submitted to the Council. Well designed and built extensions can add to the value of homes. Poorly designed and badly built additions will harm the appearance of the house and reduce its value. This Supplementary Planning Guidance aims to support Council policies concerned with the design of extensions (appendix one), and raise the standards of care and attention to detail in alterations to homes.

1.2 Extending your home is a big investment. To ensure you get the best possible extension for your needs, try to do the following things:

- Read this document
- Work out what your requirements are, not just now but in years to come. Think about how your family's needs made change.
- Look around your neighbourhood for extensions that you like. Talk to the owners about whom they employed and any problems they encountered.

1.3 This document applies to the commonly used methods of extending a house these include:

- Single Storey additions
- Two Storey additions
- Loft Conversions
- Porches
- Garages
- Conservatories

1.4 Alterations of these types may require planning permission. The Council’s Planning Officers will be pleased to advise on whether permission is required. If your home is a Listed Building or in a Conservation Area, additional controls apply and a special approval known as Listed Building Consent may be needed. If you’re in doubt as to whether this applies to you, contact the Development Control service at the Civic Centre.

1.5 You may also require Building Regulations Approval. Whereas Planning Permission deals with the appearance and location of the extension, Building Regulations Approval is concerned with safety and construction standards - ensuring your extension does not collapse on you or your neighbour.
2.1 Good design is not just a matter of personal taste. There are well-established principles which should be understood and observed. These principles can be divided into three categories:

2.2 **Effect on Neighbours:** This relates to the impact extensions have on homes close by, particularly in relation to privacy and access to light.

2.3 **Appearance:** This category is concerned with how the extension looks, and the contribution it makes to the house and surrounding area. The considerations are usually - scale, height, alignment (building line) and use of materials.

2.4 **Practical Considerations:** This is concerned with the environmental impact of the building, and with how to make the building flexible enough to meet your changing needs. Information given in this section is advice, your planning application won’t be judged on these issues.

3.1 **Effect on Neighbours**

3.1.1 Consider your neighbours when designing your extension. Care should be taken when building extensions hard up against a common boundary where this could lead to boundary disputes over overhanging eaves and guttering etc. The future need to access neighbouring property for maintenance purposes should be considered. Remember that you have a responsibility under the Party Wall Act to notify your neighbours before carrying out works close to a Party Wall.

3.1.2 Among the issues the Council will consider when dealing with your application include the effect it may have on your neighbour’s privacy, sunlight, daylight and outlook.

3.2 **Privacy**

3.2.1 People expect more privacy on the private garden sides of their homes. In urban areas some overlooking may be inevitable, however, every effort should be made to avoid overlooking of rear facing living room windows and garden ‘sitting out’ areas. This can be achieved through distance and design.
3.2.2 In order to maintain a reasonable level of privacy, 1st floor windows on extensions to the rear of houses should be at least 21 metres from the back of homes directly opposite. This distance can be reduced to around 12 metres at the nearest corner where the back of houses are arranged at more than 90 degrees to one another. If the site slopes, or if the upper floors of the extension contain living rooms, these distances may have to be greater to maintain privacy.

3.2.3 Other techniques may be used to avoid loss of privacy; if you intend to have a window that could overlook your neighbour’s garden or living room, you should incorporate an eye level fence or similar screen to maintain privacy. It is also important to avoid side-facing windows at ground floor level that overlook your neighbour’s garden.
3.3 Daylight, Sunlight and Visual Intrusion

3.3.1 Good levels of natural daylight (light available generally from the sky), and direct sunlight, make houses more attractive, pleasant and energy efficient.

3.3.2 The size and position of extensions will affect the amount of light available to both the extended house and neighbour’s homes. The impact of your extension on light levels in the living rooms, dining rooms and kitchens of yours and your neighbour’s home are important. Bedrooms should also be considered but are less vital.

3.3.3 The Council will assess the plans for your extension against a set of standards known as the ‘BRE Report Site Layout Planning for Daylight and Sunlight - A Guide to Good Practice 1991’. Proposals that do not conform are likely to be refused. A summary of the most important points can be found in appendix two. However, as a rough guide, extensions that cross both a horizontal and a vertical line drawn at 45° from the centre of a window will significantly affect the amount of light entering that window.

3.3.4 Whilst nobody has a right to keep the existing view from their home, the Council will consider the effect an extension may have on the outlook from a house. The emphasis here is not on preventing a change in outlook, but in avoiding undue intrusion to windows that make an important contribution to the amenities of the house.
3.3.5 Problems of overshadowing or visual intrusion are greatest when extensions are built close to boundary lines, for example extensions to the back of semi-detached or terraced houses. Usually, unacceptable overshadowing and visual intrusion is avoided if single storey rear extensions do not project more than 3.5 metres from the adjacent building along (or close to) the common boundary. Larger extensions may be allowed if they are further from the common boundary. Appendix 2 sets out standards in relation to overshadowing.

3.3.6 The height of the extension will also affect the amount of available light. Two storey rear extensions close to common boundaries may have to be restricted to 3 metres in depth or less in order to prevent unacceptable overshadowing and visual intrusion.

3.3.7 Differences in site levels and orientation will also influence the effect a new building has on daylight and sunlight and should be taken into account when designing the extension.

3.3.8 Some houses are mutually dependent on their access to sunlight with the neighbouring property. In these cases, the Council will not give undue weight to the amenities of neighbours where your neighbour has carried out works which prejudice their own amenity.

3.4 Appearance

3.4.1 Extensions and alterations to houses should respect the character and design of the original building. The extension should appear to ‘belong’ to the original building. In general, one modest extension will look better than a cluster of small ones around a house. It is also worth noting that some houses cannot reasonably be extended any more.

3.4.2 The position of an extension will influence the effect it has on the appearance of the building. By far the most common and practical type of extension is to the rear. Such extensions rarely have an impact on the street scene.

3.4.3 Side extensions present greater problems as they may have an impact on the street scene and on neighbours. However, single storey side extensions can often be added without difficulty. Two storey side extensions on the other hand can damage the character of an area by closing the gaps between buildings and creating a
‘terracing effect’. Such proposals need to be designed with care. Normally, the Council will look for the first floor of such extensions to be set back by 4 metres from the front of the house. This helps to ensure that the appearance of space between the houses is preserved in the street scene.

3.4.4 Side extensions to houses on corner plots pose special design problems, not least of which is maintaining visibility lines at the junction. Normally, they should be restricted to a single storey.

3.4.5 Extensions to the front of houses can be the most damaging and need very sensitive handling. In general front extensions are to be discouraged, especially where the symmetry of a group of houses or an important building line would be disrupted.

3.4.6 If you have a large roof space, utilising this to create extra living space can often be carried out without harming the character of the house.

3.4.7 The following advice illustrates some of the features that should be considered when designing an extension. Whilst useful, it cannot cover every eventuality and it is recommended that the services of an architect or experienced designer are employed at an early stage. Employing a professional will help to ensure you get the best quality result and will frequently speed up the process - a good submission will help the Council to reach a quicker decision. Crucially, involvement of an architect or surveyor can ensure proper supervision on site and control of costs.

3.4.8 The visual impact of extensions can be grouped into three categories:

- Overall shape and proportions
- Layout of doors and windows
- Materials and detailing
3.5 Overall Shape and Proportions

3.5.1 The shape and proportions of the extension should be in harmony with the house. Shape is heavily influenced by the type of roof chosen. Usually, the shape of the roof on the extension should be of a similar shape and style to the roof of the original building. Beware of complicated floor plans, they lead to odd roof shapes which can be difficult to match with the existing roof, visually unsatisfactory and technically difficult to build.

Note: The initial lower cost of installing a flat rather than a pitched roof is often offset by ongoing maintenance costs. Flat roofs can require re-covering within 20 years; whereas pitched roofs may have a considerably longer life span.
3.5.2 The new extension should not dominate in size. Setting the extension back from the original building by up to a metre can help to make it appear subordinate. If the house is relatively new and a precise match of materials can be made, an extension in line with the front of the house may look best providing the symmetry of the original design is not disrupted.

3.5.3 The size of dormer windows shouldn’t dominate the roof. Dormers will not suit every house design, but if being proposed they should be lower than the roofline and ideally set back so that some of the original roof is visible beneath them. Substantial alterations to the roof should be restricted to the rear of the house. Care should be taken to avoid problems of overlooking neighbouring gardens. Planning applications for ugly or over-dominant structures are most unlikely to be approved.

3.6 Layout of Doors and Windows

General rules include; continuing the pattern of openings from the original building, positioning openings to complement the balance created by the new extension and ensuring the proportions and style of the windows echo those of the main building. These ideas are most easily understood with reference to the diagrams.

3.6.1 Positioning

A pattern of openings similar to those on the original house will usually look best. If the extension has a narrow frontage, positioning the windows so they emphasise the central axis of the building will help to create balance. On two storey extensions, it’s important that the ground floor looks capable of supporting the floor above. Using oversized windows or positioning windows very close to the corners of the building can have the opposite effect.
3.6.2 Materials and Detailing

Choose materials for the exterior that make the extension seem as if it’s part of the house. The detailing will seldom look wrong if it is ‘borrowed’ from the original building. The use of different materials may completely undermine visual continuity.

Careful matching of materials is important. Many houses are built of bricks that are no longer available, take care to find a good match. Always look at more than one brick from a batch as colours may vary. It may be worth asking your builder to make up a sample panel to help. Reusing the tiles from where the new roof connection is made or using second hand tiles of a similar colour can help. If a precise match cannot be made, often the best solution is to break up the building by setting the extension back as described earlier.
Locate down pipes carefully. Rainwater pipes can cover unsightly junctions between the original house and the extension. Waste water pipes should be hidden from view from the street if possible. Prominent soil pipes may harm the appearance of your house, even to the extent of affecting its value.

Details such as string courses on the original building should be carried across to the extension if appropriate. Door and window openings should have all of the features of those on the original building. If ornamental lintels and sills are used on the main house they should be repeated - it’s important that they appear large enough to bear the load above. Most windows and doors on older houses will be recessed slightly and it will look best if this is repeated on the extension. Recessing windows also helps to protect the frames from damage by rainwater.

3.7 Garages and Porches

3.7.1 Adding a garage within the garden requires the same consideration to be paid to the effect on neighbours as any other extension. In addition, garages can present special problems, as they’re often utilitarian in appearance and add little to the street scene. For this reason, setting the garage well back behind the front of the house is often appropriate. If this is not possible and the garage must be positioned close to the front of the house, the design of the doors and the detailing of the opening must be given careful consideration and the garage should be built and designed from materials that match the house. A hardstanding of at least 5.5 metres long in front of the garage must be achieved to allow cars to be parked on the forecourt without overhanging the pavement. (If you don’t have a garage, the length of the hardstanding can be reduced to 4.5 metres.)

3.7.2 One of the greatest deterrents to the use of cycles is inconvenient storage at home. Make sure there’s sufficient space to easily accommodate cycles if you’re building a new garage.

3.7.3 Porches should be simple in design and modest in size. Generally alterations to the front of houses shouldn’t project by more than 1.5 metres. This distance may be less if the house is close to the pavement. Meter cupboards and bin storage areas if visible from the street should be accommodated unobtrusively whilst being easy to get to.
3.8 Other Planning Considerations

3.8.1 Garden and Car Parking Space

Garden space is an important amenity for the occupiers of the house. The space around homes also influences the character of the street. The Council will encourage proposals for extensions to be kept to a reasonable size relative to the space around the house in order that an adequate area of garden space is retained.

Similarly, the Council may resist proposals for extensions that result in the loss of off-street car parking space. Large extensions providing additional bedrooms may lead to a need for additional parking space. Check with Development Control if you think this may apply to you.

Some housing estates are designed with an ‘open plan’ character. Large extensions which close the gaps between buildings may detract from the open feel of the area. When considering applications in these situations the Council will aim to preserve the original character of the area.

3.8.2 Trees

The Council has a legal duty to protect trees. Many trees in the Town are protected by Tree Preservation Orders, Conservation Area legislation or other Planning Controls. Normally extensions within 6 metres of the mature canopy of protected trees will not be permitted. Prosecutions may be brought against people who have damaged protected trees. If you are in any doubt about the status of trees which may be affected by new building, check with the Council’s Development Control Service.

Trees contribute a great deal to the quality and character of streets. Every effort should be made to avoid threatening trees by new building work and to ensure that the trees are protected during the construction process. It’s important to accurately plot the location of trees when planning the site layout. Threats to trees on building sites include damaging roots during foundation and drainage run excavation works, causing the soil to become compacted, lowering or raising soil levels around the tree or the spillage of toxic materials such as diesel. Contact the Council if you need advice about protecting trees close to building works. If the loss of a tree is unavoidable a replacement should be planted in another location. Care should be taken to avoid planting trees too close to buildings as they may damage foundations as they grow.
4 Practical Considerations

4.1 Issues such as space heating and water use are principally dealt with under the Building Regulations. Whilst the Council won’t consider the following issues as part of a planning application, energy efficiency considerations have been included in this document so that they may be considered by you at the beginning of the building process. It is often too late to make changes to the design by the time the Building Control authorities are approached, (although the Council’s Building Control officers will be pleased to offer advice at the Planning Stage). The following principles and ideas are offered as advice. Applying them can lead to warmer, safer homes that are cheaper to run and cause less damage to the environment.

4.3 Energy Efficiency

4.3.1 Buildings in the UK use around half of the nations energy and are responsible for around half of the CO$_2$ ‘greenhouse gas’ pollution. Much can be done at little or no extra cost to minimise that impact new buildings have on the environment. Energy efficiency is especially important for extensions because any rooms outside the original building envelope tend to be more difficult (and expensive) to heat.

4.3.2 The energy efficiency of buildings is governed by two factors:

- Minimising heat loss through high levels of insulation; and,
- Maximising heat gain from sunlight (Solar Gain).

4.3.3 Insulation

It is worth remembering that the Building Regulations Standards on insulation levels are minimum standards. Insulating the building to higher standards will lead to greater benefits of warmer rooms and reduced heating bills.

The benefits of insulating the roof space, cavity walls and installing double-glazing are well known. It is also worth considering insulating the floor and supplementing the cavity wall insulation with internal wall insulation when designing the new building. Additional insulation such as this will reduce heating bills and help rooms to warm up quickly. The Council’s Building Control officers will be pleased to advise on the best way to do this. In general, 200mm of loft insulation and around 75mm of cavity wall insulation are recommended.
Remember that high insulation levels can lead to condensation problems. Either ‘warm roof’ construction or a ventilated roof space can overcome this risk.

4.3.4 Solar Gain

If the extension will receive direct sunlight (i.e. faces within 30° of south), designing it to make good use of that ‘free’ energy will reduce heating bills. The most important principle is to ensure windows on the southern side of the building cover a greater area than those on the north side. The height of windows usually has a greater impact on the amount of sunlight a room will receive than their width.

Arranging the internal layout of the extension so that living rooms and main bedrooms are on the southerly side of the building will further help to reduce heating bills. Care must still be taken to avoid problems of overlooking and to produce an attractive design.

Heating large extensions can over-stretch the existing heating system. If you are considering upgrading your heating system fitting a condensing boiler will generally be more efficient. Fitting thermostatic radiator valves will also help to keep heating cost low.

4.4 Building Materials

4.4.1 Using appropriate high quality reclaimed building materials can not only save resources but may allow a closer match to be made with the materials of the original house. Take care to ensure they’re fit for the purpose.

4.4.2 The Council recommends that the use of tropical hardwood is avoided. A good range of soft and hardwood is now available from sustainably managed forests in the UK and Europe, check the source of the wood from the supplier. The use of UPVC as an alternative to wooden door and window frames is not recommended. The production process has raised concerns among environmentalists and, contrary to manufacturers claims, the material is neither maintenance free nor a deterrent to forced entry.

4.4.3 Some insulation materials contain chemicals that are harmful to the environment (such as CFC’s). However, it is now possible to buy more environmentally benign insulation materials based on man made mineral fibres or recycled paper. Again, check with the supplier to ensure you don’t buy environmentally harmful products.
4.5 Water

4.5.1 Water conservation is an important issue in the region. Incorporating water butts within the design of new extensions can help to reduce the amount of water used in the garden or for washing cars. Selecting appliances that make efficient use of water such as low flush WCs will also help. If ground conditions permit, the use of soakaways which allow surface water to filter naturally back into the ground is recommended.

4.6 Other Factors

4.6.1 The Council has published guidance on housing design which is accessible to disabled people (Accessible General Housing - December 1997). Following it will make the rooms more accessible to disabled people living in or visiting your home, and the extra circulation space can make life easier for able-bodied people. If your extension involves relaying the driveway, try to make it wide enough for a wheelchair user. Side extensions often encroach on passages to back gardens - if you’re planning a side extension, try to leave the side passage wide enough for wheelchairs.

4.6.2 Some houses are designed to make use of windows as a means of escape in the event of a fire. Think about how the extension may affect emergency escape routes.

4.6.3 Extensions often involve a new front or back door. The fitting of locks to a recognised standard can enhance the security of your home. Appendix three sets out the standards recommended by Suffolk Constabulary.

5 Conclusion

5.1 The advice given in this document is intended to act as a ‘signpost’ to issues that should be considered when carrying out new building works, and to offer some solutions. You may have others. It is not an exhaustive list and cannot cover every eventuality. However, by applying the spirit of the advice, homeowners in Ipswich may successfully meet their needs for extra space whilst protecting the character of the Town and reducing the impact on the environment. If there are any aspects of this document about which you would like more information, Planning Officers at the Council will be pleased to help.
Appendix 1

Relevant Local Plan Policy

BE8 Extensions to residential buildings will be permitted providing they:

(a) are well designed and in harmony with the character and appearance of the original building and its surroundings;

(b) do not lead to the creation of a terracing effect of detached or semi-detached properties in the street;

(c) do not lead to undue overlooking of neighbouring properties;

(d) would not have an overbearing effect on the outlook of neighbouring properties, or lead to an unreasonable loss of their natural daylight or sunlight enjoyment; and

(e) do not lead to an unacceptable reduction in garden area or off-street car parking space.
The following information is taken from the BRE Site Layout Planning for Daylight and Sunlight Good Practice Guide (1991). The Council will use these standards to judge the impact new extensions may have on surrounding buildings in terms of daylight, sunlight and overshadowing.

Living rooms, dining rooms and kitchens are important when considering the impact of extensions on existing buildings. Bedrooms should also be analysed although they are less important.

Daylight

The access to diffuse daylight in neighbouring properties may be affected if any part of a new extension measured in a vertical section, perpendicular to a main window wall of the neighbouring house crosses a line drawn at 25° from the centre of the lowest window. This will be the case if either:

- the vertical sky component measured at the centre of an existing main window is less than 27%, and less than 0.8 times its former value; or
- the area of the working plane in a room which can receive direct sunlight is reduced to less than 0.8 times its former value

The 45 Degree Approach

This method can be used to assess the diffuse skylight impact on the house next door where extensions adjoin the front or rear of a house. It applies only where the nearest side of an extension is perpendicular to the window and is not valid for windows which directly face the extension or for buildings opposite. In this method a significant amount of light is likely to be blocked if the centre of the window lies within 45° lines on both plan and elevation.
Appendix 2
Sunlight and Daylight
Good Practice

Sunlight

If a living room of an existing house has a main window facing within 90° of due south, and any part of a new extension subtends an angle of more than 25% to the horizontal, measured from the centre of the window in a vertical section perpendicular to the window, then the sun lighting of the existing dwelling may be adversely affected. This will be the case if a point at the centre of the window, in the plane of the inner window wall receives in the year less than one quarter of annual probable sunlight hours including at least 5% of annual probable sunlight hours between 21 September and 21 March, and less than 0.8 times its former sunlight hours during either period.

Shadows

No more than two fifths and preferably no more than a quarter of any garden or amenity area should be prevented by buildings from receiving any sun at all on 21 March. If as a result of new development, an existing garden or amenity area does not meet these guidelines, and the area which can receive some sun on 21 March is less than 0.8 times its former value, then the loss of sunlight is likely to be noticeable.
Suffolk Constabulary recommends the following security standards:

**Front Door**
- Rim Latch one third from top.
- Mortice/sash lock to BS 3621 one third from bottom (avoiding any rail joints).
- Doorchain.
- Door viewer.

**Back Door**
- Mortice sash lock to BS 3621.
- Key operated Mortice bolt, top and bottom.

**Sliding Patio Doors**
- Anti lift device fitted.
- Two key operated patio door locks to be fitted at the top and bottom of the meeting style of the inner leaf.

**French Windows**
- Morticed rebate sash lock to BS 3621.
- Two key operated Mortice bolts to be fitted to each door top and bottom (avoiding any joints).

**Windows**
- Key operated locks to all windows on the ground floor and those that are accessible from roofed areas or downpipes.