

More Thoughts on Site Planning

by Gordon F. Tully

The requirements of access, sewage disposal and zoning, which we discussed in last month's column, can play a major role in determining a house's location on a particular site.

But there are other things to consider as well—sunlight, wind patterns, views and plants, followed by soils (ledge) and drainage, and ultimately how to get into the house. Each of these secondary elements deserves a close look before settling on a site plan.

Bringing in the Sun

Of all the secondary considerations, the sun typically dominates the designs that come out of our office. In many cases the goal is not so much to save energy, but to

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bring in as much light as possible in a climate that "hides" the sun much of the time and makes sunlight rooms a symbol of contentment in both winter and summer. If you save energy in the process—and you often do—so much the better.

Sun and natural light are powerful (and both helpful and harmful) elements in a house design. Good siting helps by facilitating the best use of the sun and by creating situations where good lighting enhances a design. The time to think of the sun is when you site the house.

A general guideline is not to give every room exactly the same kind of light. In one of the houses we designed, which was located on a lot set 45 degrees to the cardinal points of the compass, we arranged the living spaces in a sequence to follow the sun.

The breakfast room and kitchen were set in the southeast to catch the morning sun, the family room was located at the south corner to catch sun all day, the living room was placed at the southwest to capitalize on the afternoon sun, and the garage faced the street on the northwest corner to shield the house from the cold wind. For the one room that had to face the northeast and the street, we chose the dining room, since it was used mainly at night.

These considerations led directly to the basic floor plan, although there was a lot more work necessary to fit in the second-floor bedrooms.

Another example of creating a pleasant space by good site planning is a protected southerly corner, out of the wind, for eating outdoors in cool weather. A corner facing southeast will do the trick.

Wind Considerations

Learning all the details about a site's particular climate—where things freeze first, where fog forms, how the wind eddies—requires years of observation. Furthermore, a house built on a site will radically alter this "microclimate" in ways

that are very hard to predict.

Wind is the most important climate factor to consider. The effect of a house on wind patterns may be to protect pockets leeward (in the direction toward which the wind blows) or to draw winds down and cause eddies.

In a typical site near Boston, for example, you can count on cold winds from the northeast (often with heavy rain or snow); infrequent, warmer winds from the east and southeast that bring in rain and unsettled weather; the coldest and strongest winds from the northwest and west, which freeze everything on clear winter days or cool things off in hot weather; and cool, welcome breezes in the summer from the southwest.

In such a climate as this, it's desirable to protect the house from the north and northwest and open it to the south and east. That much said, it's hard to know exactly what constitutes protection. For example, solid fences are poor windbreaks, because strong eddies form directly behind them. But perforated screens or a line of trees work very well.

If you have control over the surroundings, it's possible to overcome the negative wind effects of a house with judicious planting. Trees planted upwind can become "windplanned" and serve to streamline the house, cutting down on leeward eddies. Windbreaks and filler planting can close gaps. A professional landscape architect can help a lot in this matter.

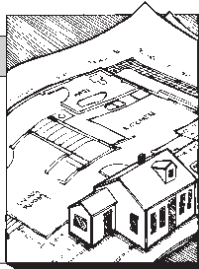
Wind seldom is a key issue in any of our designs, but we always consider it and try to locate places of protection in the detailed design of the house. And for reasons both of wind and sun, we try to place service elements, such as garages, to the northwest.

Other Climate Considerations

Serious gardeners will want to take a close look at the climatic details of a site before locating beds. A good text on landscape design or the help of a professional can show how gulleys can guide cold winds in certain directions. And it's relatively easy to develop shadow plans for the various seasons in order to find out how trees will shade a particular site.

Biting and stinging insects are a consideration in every New England site. Where they are severe, think twice about adding a deck or patio. It's foolish to focus a floor plan on indoor/outdoor living when the only time it's safe to venture outside is when it's too cold.

An outside corner facing southeast, as mentioned earlier, can create useful outdoor living space in the spring and fall, when it otherwise would be too cold outdoors without direct sun and complete



protection from the wind.

Views

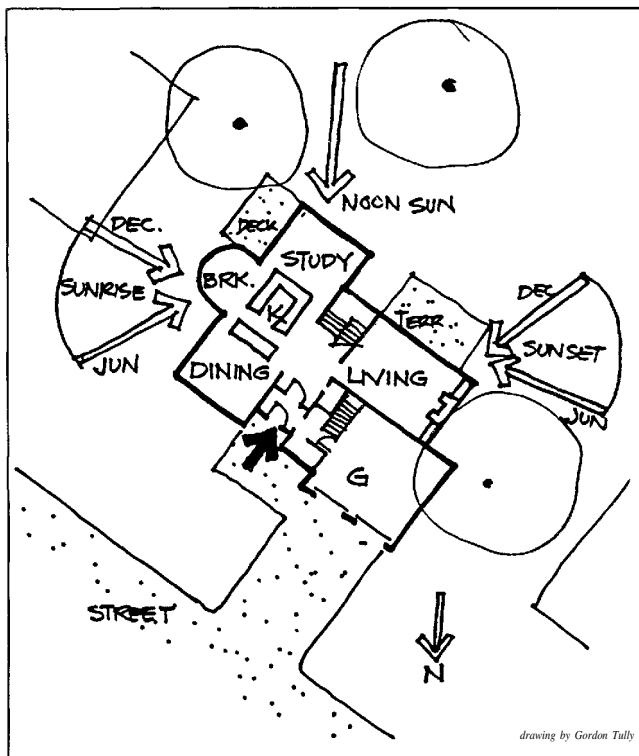
Many sites have a view of *something* worthwhile. When there is only a bit of a

situated among panoramic views force you to make an effort or go outside to catch the sights.

Capturing and using the view is a classic design problem. Views should be played with—linked to the use of the rooms in the house, and related to the house's form and decoration. Views are to a good designer as color is to a painter: Good painters do not throw buckets of color at their viewers in the hope of impressing them.

Trees and Plants

Many people have trouble sorting out the value of existing plants and trees. Early in the project, get a professional opinion (or two) from someone familiar with local flora, climate and plant diseases.



view or the view is partially obscured, every effort should be made to give key rooms access to it—even if it means adding a roof deck or pergola. By contrast, those spectacular ocean and mountain views we all admire require constraint.

The classic view problem is the elevated west panorama. Along with the view comes the low-angle afternoon sun—during the hottest part of the day. If it is a view of the sea, the problem is compounded by the ferocious glare off the

Find out which plants are exceptionally valuable and which can be dispensed with.

On the typical New England site—cut-over land scattered with spindly trees of little worth that have grown back—extensive cutting and replanting is the best course of action.

It's astonishing how much destruction must take place to build a house—but also how the trees we preserve so carefully near a new house are killed by the inevitable

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water.

It's a big mistake to plaster the west wall with glass; the curtains will have to be closed just when the view is most interesting, and the windows will be uncomfortable and expensive to heat in the winter. Combined with occasional high windows or sliding glass doors, normal-height windows (with a 30-inch sill and a seven- or eight-foot head) are more than adequate to take in any view. Save the big glass walls for ski lodges.

Another mistake made with broad views is lining up every room in the house on the side of the view. As with children and mates, you need to get away from views on occasion. My favorite houses

changes in water level or the cutting of roots. It can be painful to cut down a tree (especially if you have to do in a fine specimen, such as the huge beech on the small lot where one of our houses now stands), but a professional can provide some perspective and help you make the right decision.

Soils, Ledge and Drainage

As part of the research involved in designing a septic system, a civil engineer usually can define the soil and drainage on a particular site. In most cases, a house is sited based on other considerations, then it is provided with proper foundations and drains to cope with the local soil

and water conditions.

Sometimes ledge, unsuitable soil or excess water can render the chosen house location unworkable. Although the average civil engineer can handle most cases, the advice of a soils specialist is desirable—and in the most difficult cases, essential—if problems arise.

Don't attempt the impossible—such as trying to keep the water out of a basement located below the water table. While waterproofing commonly is used in underground commercial structures, such techniques are costly and difficult to do right.

The Front Door

Finally, let's consider what I call the "New England Front Door Problem." Many houses prominently feature a formal, symmetrical entrance even though it is never used—everyone goes in the back way.

The message again is to use the entry as an element in a coherent design. Think through the situations that occur at the front door. Who uses it? When? Where can the junk that accumulates at the door be stored out of the way? How should the entry relate to the other rooms in the house?

If you give some serious thought to these questions, you may discover that the entry takes on a surprising form.

In most of our designs, there is one important entry that is visually compelling and easily identified. We usually link the entry hall with the garage and/or basement through a storage room or mudroom. Sometimes the site forces other solutions, and the plan must be adjusted accordingly.

The entry is a key element in any floor plan, and it naturally leads to the topic of next month's column—developing a good floor plan. There's much more to be said about site planning, of course—particularly urban site planning—so I'll return to the subject in a later column. ■

Gordon F. Tully is president of Tully & Ingersoll/Massdesign Architects in Cambridge, Mass.