

Various garden settings allow different design possibilities to include a water feature in the landscape. Design your water feature to fit your space and your lifestyle. During the initial planning phase, consider the following for your pond:



Function – Why you want a water feature? What are the most important characteristics? Do you want the sound and look of flowing water? Do you want the opportunity to grow aquatic plants? Do you like to see wildlife at the pond? Or do you have a fascination with raising and caring for fish? Although there are many similarities of fountains, water gardens and koi ponds, there are also some major differences: fountains provide the sight and sound of moving water. Gardens ponds have plants and fish. Koi ponds are designed to view koi fish. Make sure to design and construct the type of water feature that suits your purposes and meets your expectations.

Placement – Location and size are the two most important factors in planning a garden pond. For maximum enjoyment, place it in close proximity to your living space, near a patio or deck and preferably where you can view it from inside your home.

Most flowering aquatics require a minimum of 4 hours of direct sunlight for growth and blooming. Shady sites will work but plants tend not to grow well or bloom. Autumn leaf fall can be a major maintenance consideration in areas with lots of deciduous trees, so keeping the surface area smaller often makes good sense in a shaded area.

The size is also a consideration, remember the larger the pond the easier it is to take care of.

Drainage – Make sure the pond will not block or dam up existing drainage paths during heavy rains. Allow for overflow during heavy rains to get excess water away from the pond. Sometimes this requires grading a portion of the yard, creating berms to

divert run-off and possibly installing a perimeter drainage system to divert excess water away from the pond site.

Power Sources – National Electric Code requires that electrical outlets used for water features be GFCI protected and located 5-20' from the waters edge. Most pumps designed for water gardening come with a 15-20' cord. Extension cords are a “no-no”. Lighting, whether inside or outside the pond, provides safety and added aesthetics to the landscape. If lighting is a part of your initial plan, make sure the power source is adequate. Consider the need for a pond deicer, an additional pump, a UV light or other accessories.

Style and Materials – There are different types of ponds: formal, semi-formal or naturalistic. What suits your taste? What will blend best with the rest of your landscape? Choices for pond margins include wood, stone, brick and precast block. Wood margins require less space than masonry. If stone is your passion, plan on an 18” – 24” wide margin, and use large stable stones at access points. Be sure you plan to have at least one course of rock below the water level to hide and protect the liner.



Installing rock in a pond gives it a more natural look and gives more surface area for bacteria to grow. (Bacteria consume organic material such as algae and fish waste.) Bare-bottomed liner ponds will need to extra filtration to maintain a clear look. The ecosystem of a mature pond is easier to maintain due to the diversity of microscopic organisms which have developed over time.

Designing the Water Garden—Use 2-50' garden hoses or 2-50' extension cords to lay out the inside (water's edge) and outside (stone's edge) of the pond's perimeter. This will make about an 11' by 16' pond. Allow approximately 18 – 24” width for the stone margin, and avoid extreme curves and angles. It is difficult to make the liner conform to “L” shapes and tight inside curves. Stand back and take a look, view it from inside your living space, or the place(s) from which you will be viewing your pond the most. Make adjustments as needed. When you are satisfied with your design, mark the

stone margin with paint. Next, outline the marginal shelves and other areas at different excavation depths (e.g. footing for water falls). All shelf widths should be a minimum of 16" wide to accommodate aquatic pots.

Call "Dig Safe"

Before you dig make sure you check with your local utility companies to find out where your utility lines are. Dig the rough version first, then the finish shelves. Make sure you use a level to have the correct depths and that all is level. When using a liner the excavation is the form and shape. Make the excavation Count! Added time and careful attention will save you time in the long run. All depths are relative to the water level. Remove only the dirt necessary to conform to the plan. The floor and shelves should be level and smooth. Sides should be dug at a slight angle to accommodate rocks. Make sure you have removed all sharp objects (rocks, tree roots, ext.). Next, you will put in the underlayment and then the liner.



Be sure to adjust the form for hillside ponds and waterfalls.

Carefully set the liner in the hole, giving it lots of slack. Be sure it

laps evenly over the rock shelf all around. If you are installing rock in your pond you should do it now. Pull out the wrinkles on the bottom and make sure the liner fits snugly in all the corners. Use a sprayer to wash the rocks and pump the water out of the pond before filling with water.

Remember: Your liner serves 2 Functions:

1. It keeps the water in.
2. It keeps the rest of the world out.

As you lay your stone borders, always bring the liner slightly above the surrounding grade (overlap the liner about 12" all the way around). This prevents soil and other run-off from entering your pond.