

# HOW TO CREATE GREEN LIVING SCREENS FOR PRIVACY AND OTHER FUNCTIONS

Living screens can enhance privacy, cover an unsightly garden area, and provide shade. They can mitigate noise and provide passive heating and cooling. They can offer habitat for bees, butterflies, hummingbirds, and other beneficial creatures who share your space. They can be used to create alluring "outdoor rooms" within your own garden. They can even serve as a food source.

Though it can be a challenge to find screening or hedging plants that can handle the hot dry climate and intense sun of central Texas, you do have many options for creating Living Screens, building Green Garden Walls, or establishing Separate Landscape Sections of your garden.

The conventional landscaper's approach to creating a residential hedge is to identify one evergreen shrub and plant it continuously in a straight line. Modern landscapers recognize the weakness of this type of planting. Besides being dull in appearance, it lacks healthy diversity. A single-species hedge creates an excellent opportunity for pests and plant disease: If one plant is diseased or pest-ridden, the problem will travel all the way down the hedge line.

In building your hedge, therefore, we suggest you either: 1) choose multiple varieties of one species; or 2) choose multiple species.

1) One species, multiple varieties: A dominant species such as roses is a good choice. The rose species offers a number of evergreen and drought-tolerant varieties, and gives a rich range of bloom color over a long period.

For your primary hedging element, try using hardy Old Garden Roses (defined by the American Rose Society as roses introduced before 1867). Use three to five varieties in a repetitive pattern. Over the past 30 years, several shrub roses have been bred from Old Garden Roses specifically for hedging purpose. Belinda's Dream, Grandma's Yellow, and Iceberg are three of the hardiest modern varieties. These three work well in combination with one another or mixed with other Old Garden Roses such as Nearly Wild, Eutin, Prosperity, and Ducher. A rose hedge offers diverse colors, various heights, and a dense evergreen screen that supports bee and butterfly habitat. The depth and dimension enhance visual interest while improving the effectiveness of the screen.

**2) Multiple species:** When planting for diversity, try to use a minimum of three plants of each species you choose, and no more than seven of each species. You might find it helpful to think in terms of *guilds* (groups of plants that grow well together). Here's one example of a healthy "Screen Guild":

- Tall Focal Point: 'Natchez' Crape Myrtle (1)
- Medium Blooming Shrubs or Ornamental Trees: Species Mallows (3)
- Small Evergreen Shrubs: *Salvia greggii* x (5)

The variety of species adds interest in the landscape across multiple seasons; gives fragrance to the garden; and creates bee, butterfly, and hummingbird habitat while providing a user-friendly solution for privacy.

For the best Green Living Screen, plan for a 4' to 6' wide space. You need to consider the heights of any existing cables, phone lines, or electrical infrastructure. Small plants will grow large, and it can be very costly to remove or even trim unwanted foliage from electrical wiring. The mature size of any Living Screen plants should be a primary determining factor in the height of the screen. Normal height for residential division is 6' to 8' which obscures most objects from the standard line-of-sight, but it might also be wise to check with any city regulations or subdivision covenants. Additional height may be needed for screening purposes as in the case of obscuring an old shed or building. The length of the screen should be determined by the length of the view to be blocked.

#### Medium Ornamental Shrubs and Trees

4-6' Almond Verbena 3-8' Aromatic Sumac 6-8' Brugmansia 4-6' Ceanothus 4-8' Desert Sumac 4-8' Dwarf Olive **3-4' Dwarf Pomegranate** 6-12' Elderberry 6-8' Ilex Steeds 6-8' Jojoba 8-10' Lady Palm 8-12' Lemon Bottlebrush 4-6' Madrone, Compacta 3-8' Manzanita 8-12' Mexican Buckeye 8-12' Mountain Mahogany 10-12 Orange Jassamine 10-12' Purple Hop Seed Bush 4-6' Rose Belinda's Dream 4-5' Rose Grandma's Yellow 2-4' Rose Iceberg 3-5' Rose Nearly Wild 12-15' Rusty Blackhaw Viburnum 4-6' (Ilex) Schilling's Dwarf 8-12' Silk Tassel 6-8' Sugar Bush Sumac 5-8' TX Ranger, Cenizo 4-6' Texas Croton 4-8' Dwarf Wax Myrtle

## **Species Guide**

#### **Medium and Tall Trees**

8-12' Arizona Cypress 12-15' Basjoo Banana 8-16' Carolina Buckthorn 15-25' Carolina Cherry Laurel 15-20' Holly Leaf Cherry 15-25' Holly/Ilex opaca 15-25' Ilex Nellie R. Stevens 10-15' Mexican Elderberry 20-30' Madrone 20-30' Natchez Crape Myrtle 20-40' Olive 8-20' Pomegranate 20-30' Robinia 20+' Rose Lady Banks 9-15' Rosewood 20-30' Santa Rosa Plum 12-25' Silverbell 15-20' Strawberry Guava 10-20' Sweet Viburnum 12-20' Tea Olive 6-20' Texas Mountain Laurel 15-20' Texas Wild Olive 15-30' Texas Persimmon 10-25' Texas Pistachio 10-20' Texas Redbud 15-30' Yaupon/ Ilex vomitoria 12-25' Wax Myrtle 16-22' Wild Cherry

#### **Evergreen Shrubs**

2-4' Agave Hybrids 3-5' Barbados Cherry 2-5' Blueberry - Lemonade 2-3' Cenizo, Silverleaf 2-4' Creosote Bush 2-3' Desert Spoon, Sotol 2-4' Desert Yaupon 3-4' Doghobble 2-3' False Red Yucca 2-3' False Yellow Yucca 2-4' Gardenia Frost-Proof or Veitchii 2'x3' Ilex Soft Touch 2-5' Kangaroo Paw 1-3' Manfreda Hybrids 3-4' Manzanita 2-4' Mexican Oregano 1-4' Rose Miniatures 3-4' Salvia Greggii 2-3' Thicket Wax Myrtle 2-4' Yucca Hybrids

#### **Green Living Barriers for Full Sun**

Ideally a Green Living Barrier for Full Sun requires a minimum of 6 hours of full sun. The timing does vary with the time of year, but it is best to always plant for the hottest, longest days of Texas August. Several landscaping techniques can easily be utilized to assist and reinforce the Full Sun Living Barrier Design in the residential landscape.

Too often, this need is solved with planting native cactus in a wide stretch and then ignoring it. Minimal interest is added by placing a boulder or two. The result is a barrier, but an unfriendly and harsh barrier. Granted, this solution limits the need for yearly maintenance that involves weeding, trimming, and removal of diseased material. But we can improve on it by introducing more diversity. Diverse plant material is always the best solution for a long-lived, attractive, and healthy planting of any kind.

A Green Living Barrier can be created from multiple species that are hardy, drought-tolerant and well-adapted to Texas climate. Fortunately, there are multiple species and newly developed hybrids that can be planted. Diversity can also be created through careful selection of **Specialty Arid Plants** such as Agave, Manfreda, Hesperaloe and Yucca. Too often this solution creates a thorny and unfriendly barrier, but with careful selection of species, it can also be a hardy, drought-tolerant and attractive Living Screen. Many of these new selections have highly attractive variegation, unique colors, and 'softer' leaves with minimal or no thorns or spikes. This is particularly true in the new agaves, manfredas, and multiple yuccas. Several of these yucca resemble grasses more than the traditional vision of spiny native yucca.

A positive solution for the environment, as well as appearance, is to select **Multiple Species** and use multiple members of that species in a natural design that copies nature. Another solution is utilize the advantages of **Berm-Planting**. Creating a berm can be a easy solution for clay soils. It can add as much as 4' of height to any design and enhances drainage for such Specialty Arid Plants. The berm can be sited over the hottest, sunniest portion of the full-sun dry-area planting, which is normally the western end if the barrier runs east to west. If the barrier runs north-south, position the berm on the western side.

Another technique is to **Interplant Deciduous and Evergreen** plants. Taller, deciduous and blooming shrubs such as mallows, almond verbena, and sumac can be positioned in the center of the hedge and evergreen shrubs such as *salvia greggii* and Mexican oregano placed in front of the taller specimens to obscure the bases of the deciduous shrubs. The same inter-planting concept can be used to create a larger-scaled hedge by "upsizing" the selected species. For instance, substitute taller, deciduous blooming shrubs with taller, ornamental trees such as Redbud, Buckeye, or Desert Willow. Continuing the "upgrade concept," place evergreen shrubs such as Dwarf Wax Myrtle or Dog Hobble at the base.

## **Green Living Screens for Noise Abatement**

Planting a **Living Screen** for Noise Abatement is defined as planting a combination of plants that can absorb noise or greatly reduce it. Most noise begins at the street level, but planting a long row of green will do little to impact on street noise. Several landscape elements added to the design can enhance the noise absorption level. For instance, the addition of a 3' to 4' tall **Berm** or a 40% **Slope** can reflect the noise backward or deflect it upward. Other features such as retaining walls, 3' solid fencing features or large boulders placed into a natural "slope" design can assist in the deflection of pavement noise. The closer these features are placed to the street or noise, the better.

Research indicates that even the densest green barrier will only minimize sound, but not eradicate it. A solution may be to consider **Noise Competition** not elimination. The installation of bubbling fountains, pools, waterfalls and small, rippling streams can not only soothe the senses, but minimize city noise. Landscapers recommend a comprehensive plan that includes combination of both plant material and distracting competition. One landscaper gives each of his clients a large wind chime when noise abatement is a landscape issue.

Green Living Screens should be **evergreen**, **moderate-growing**, and plants that develop **dense foliage**. When possible, a double planting of evergreen material of 6' tall mature size or better can reduce street noise by as much as 40%. If a chain link or other open design of fencing is installed, consider planting on both sides of the fencing material. As the plants grow, they will engulf the fencing material. This not only serves to abate noise but can be used to deflect wind as well. These solutions are all long-term ones and require the plants sufficient age to mature.

The choice of plant materials in noise abatement is important. The plants should be evergreen in nature and capable of producing dense growth. Ideally, the solution is a Living Screen that grows up--not out and grows at a moderate rate to maturity. Avoid plants that seem to constantly need trimming and maintenance. As important in the selection is the use of drought-tolerant materials. High water bills fall into the category of "High-Maintenance." Consider planting such plants as Evergreen *Ilex vomitoria* or Laurels in a zigzag pattern. Staggering the plants encourages a denser growth. Branches can grow wider and overlap the branches from other plants.

#### **Green Solutions for Passive Heating**

**Planting for Passive Heating** is most often defined as selecting and installing plants that work with the sun to assist in heating a residence in the winter and conversely, cooling a building during the heat of summer. The plants or combination of plants must extend 3' to 5' higher than the house and must be planted 8 to 12' from the home. The plants must be deciduous during the winter months to allow the sun to warm walls. The plants also need to provide dense shade during the heat of summer. Often this goal can be accomplished with native and hardy species such as Honey Locust, Soapberry, Vitex and tall-growing Crape Myrtles. These are also relatively fast-growing species. An inter-planting of medium to smaller shrubs can be evergreen or not and will not impact on the effectiveness of the passive heating solution. Good choices for appropriate evergreen shrubbery includes Thicket Wax Myrtle, medium to smaller shrub roses, and dense native grasses.

# **Chain Screening for Vines**

Chain Screening was designed as a simple, quick and economical solution to visually block open spaces. More often it is called the "Two-Foot Fence" design. Three levels of chain are key-bolted onto 4x4' posts at 6-8' intervals. Vines are planted every 3-4' and placed to 'catch' the chain and use it as a support. Often smaller or medium-sized shrubs are placed in a staggered line 12-18" in front or on either side of the planted vine sites. This design element can quickly create a living fence, or depending upon the plants, a living barrier without the installation of a traditional fence. It is also an excellent choice for covering conventional chain-link fencing.

The following plant selections were made based on the following: viability and hardiness in Central Texas; adaptability to sun and/or partial shade; evergreen foliage; long blooming period; fragrance; and fast growth when a seeping or soaking drip water system is used to establish the plants.

4-6' Chocolate Vine
12-15' Coral Honeysuckle
30-40' Coral Vine
70' Crossvine
12-30' Evergreen Wisteria
10-12' Pink Jasmine
6' Purple Passionflower (Non-evergreen, but excellent intermix)
20-30' Red Passionflower (Non-evergreen, but excellent intermix)
10-12' Rose Prairie Clb
4-6' Rose, Louise Phillippe, Miniature Clb
20-30' Rose, Red Cascade, Miniature Clb
20-30' Rose, White Lady Banks, Miniature Bloom
6-12' Variegated Bower Vine
6-10' White Bower Vine

We recommend inter-planting of Choisya, Manzanita or Old Garden Roses (Nearly Wild, Eutin, Prosperity, Old Blush) or Modern Screen Roses (Grandma's Yellow, Belinda's Dream, or Iceberg) to shade vine roots.

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