

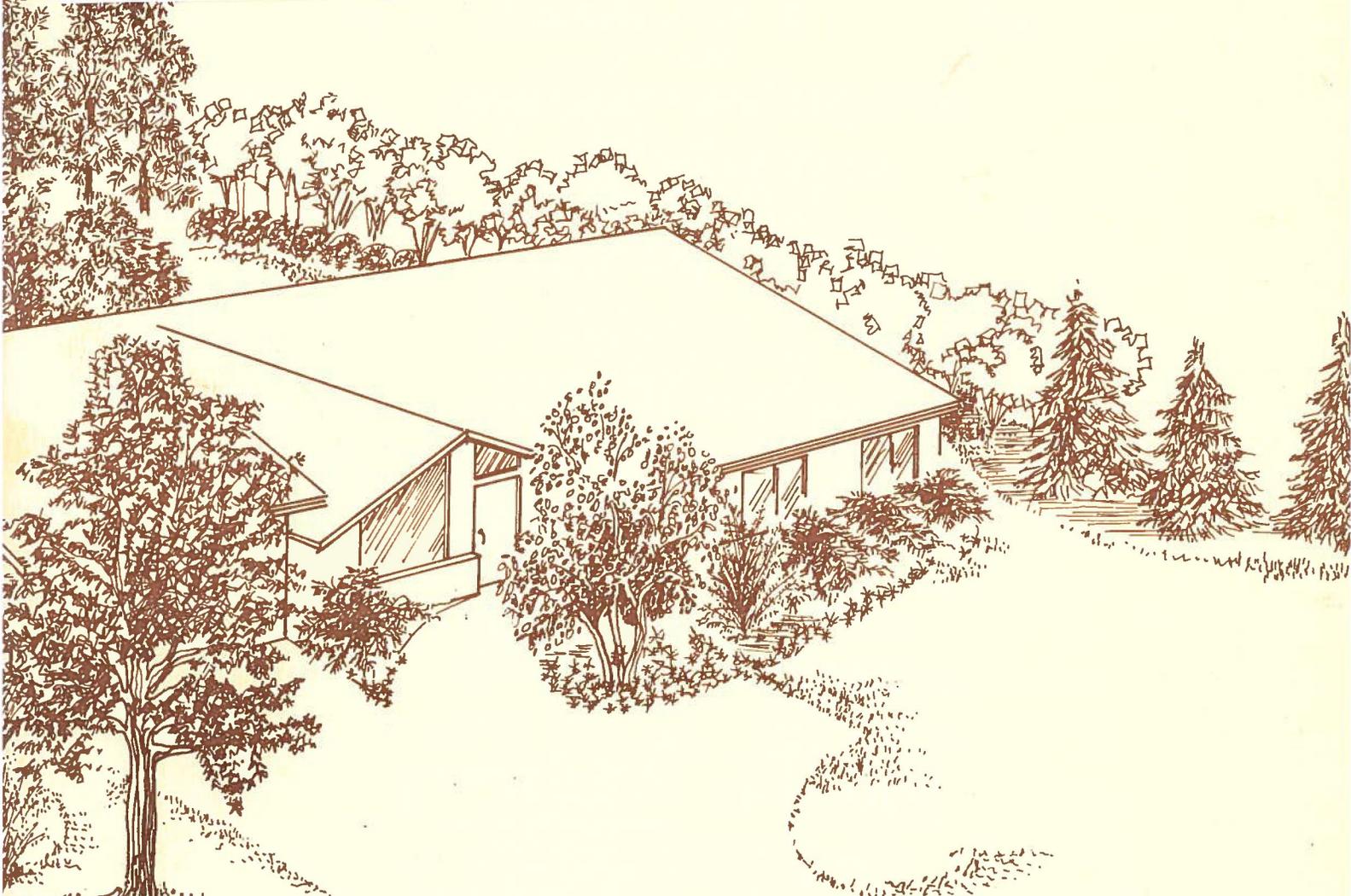
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Homescaping

**How To Make A New Landscape
Or Renovate An Old One**

Cooperative Extension Service
Colorado State University
Fort Collins



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" HOMESCAPING — HOW TO MAKE A NEW LANDSCAPE OR RENOVATE AN OLD ONE "

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Why Landscape?

The Homeowner's Dilemma: When you bought or built a home, you chose a house with adequate living areas, sleeping areas, and storage space to meet the needs of your family, but now you are faced with the planning and planting of the setting your home deserves. Surrounded by an attractive, useful planting, a home increases in value without adding to the taxable valuation. Too often the new homeowner surrounds the lot with a fence and an unrelated collection of trees and shrubs, not realizing that this approach demands as much money and effort as an orderly, well-designed landscape. In addition, at the time of resale, a property is drastically reduced in value as the result of improperly placed trees and shrubs.

Before You Begin:

The Critical Assessment: First, consider your lot as a cube of space, very much like a room. The ground is the floor, property lines are the walls. The ceiling is the canopy created by the sky, tree branches or structures such as a patio roof or eave overhang. Next, study the floor plan of your home, walking through each room noting the view from windows in relation to the outdoor area boundaries of each view. Finally, stroll outdoors to examine with a critical eye the house and lot and its orientation to seasonal wind and sun, good views and bad, the neighbor's windows, objectionable sound or odors, natural features such as a rock or gravelly outcropping, or a low bog area.

Consider also existing items such as entries, walks, drive, utility poles and wires, below and above-ground utilities such as the sewer line, utility meters, outdoor electrical outlets and water valves, window wells, and especially an existing or needed clothesline. Scrutinize the neighbors' properties as to the location of buildings and landscaping features that may affect, now or later, the sun or shade or beauty and balance of features you are planning.

Now that you have visually analyzed the site, you are ready to begin measurements for a rough sketch which will be the basis for a scale drawing of your property and its existing features.

LANDSCAPE STEP 1

Drawing The Plot Plan

Measurements: Using a yardstick or tape and a rough sketch of each of the features of your property, record each measurement correctly. "Stepping off" is not an accurate measurement, and you would be wise to measure accurately at the outset. (See Figure 1 for a typical rough sketch.)

If the side boundaries are not parallel, or if your home is not parallel to at least one boundary, enlist the aid of another person to hold a rake or broom handle upright on the property boundary as you sight along the house wall toward the handle; then measure the distance from the

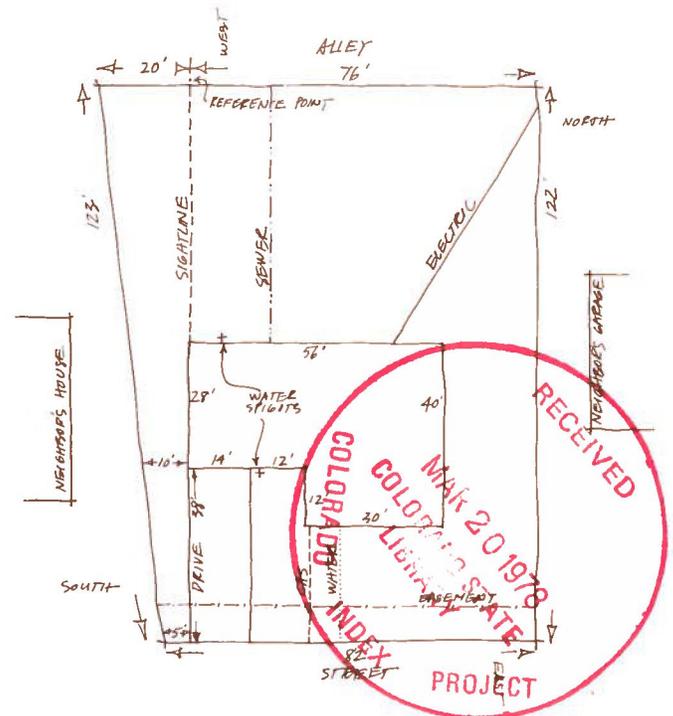


Figure 1. Typical rough sketch showing measurements and all features.

rake handle along the boundary line to the nearest corner boundary. This measurement is your reference point. (See Figure 2.)

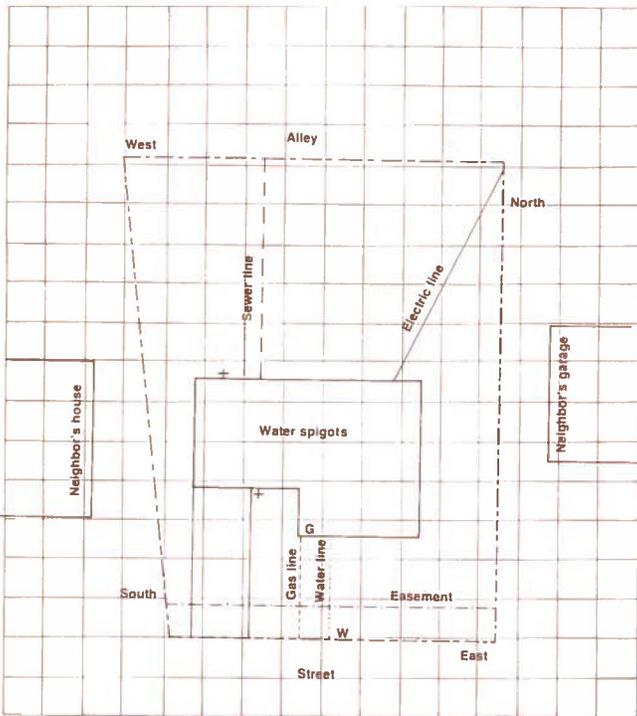


Figure 2. Completed plot plan.

Locate the house on the rough sketch by measuring in two directions from a corner point. (See Figure 1.) Measure the house along the foundation, but also measure the eave overhang as a note for future reference.

Using Graph Paper: Remove the graph paper that accompanies this publication and fasten it to a smooth table or drawing board by taping each corner down. It may help to visualize the plan if you place the paper on the table in the same relative direction as the lot you are drawing.

The graph paper is 11-by-17 inches and has ten lines to each inch in each direction. Using a scale of one square equals one foot or one inch equals ten feet, you can draw a plan up to 110 feet by 170 feet. If the lot is larger, you will need a larger sheet of graph paper, available at stationery and office supply stores.

Start the drawing with a line across and near the bottom of the graph paper to represent the curb line of the street. Continue drawing lightly the other boundary lines of the property. You can trace over them with dark, bold lines when the measurements check. Mark each boundary with the compass directions or indicate North with an arrow.

You may have a curved sidewalk, a circle drive, or a freeform patio. For a curved drive, the family car(s) should be driven over the area planned for a drive or over a similar area to determine the minimum turn radius of the car(s). To draw in a curved feature on your plan, locate three points along the curve. To transfer these to the site plan,

use the French curve from your kit to approximate the curved line. Rotate the French curve until some segment of the inner or outer edge touches all three points you marked on the plan. The curve between these points will be very close to the actual curve of the feature you are drawing.

If your property is within the boundaries of a city or town, you should be aware of all restrictions and easements. In most cities, the sidewalks are on city property with the homeowner's lot beginning somewhere inside the sidewalk line. You may wish to accurately locate and indicate with dotted line this front property line on the plan. Also, you may wish to avoid permanent plantings or construction in this area, since the city may remove them if necessary for street widening, sewer construction, or related projects.

Complete the plot plan by locating and labeling all existing features which will affect the design and development of your home grounds. Use dotted lines to indicate all utility features. The suggested design symbols are shown in Figure 3 to help you.

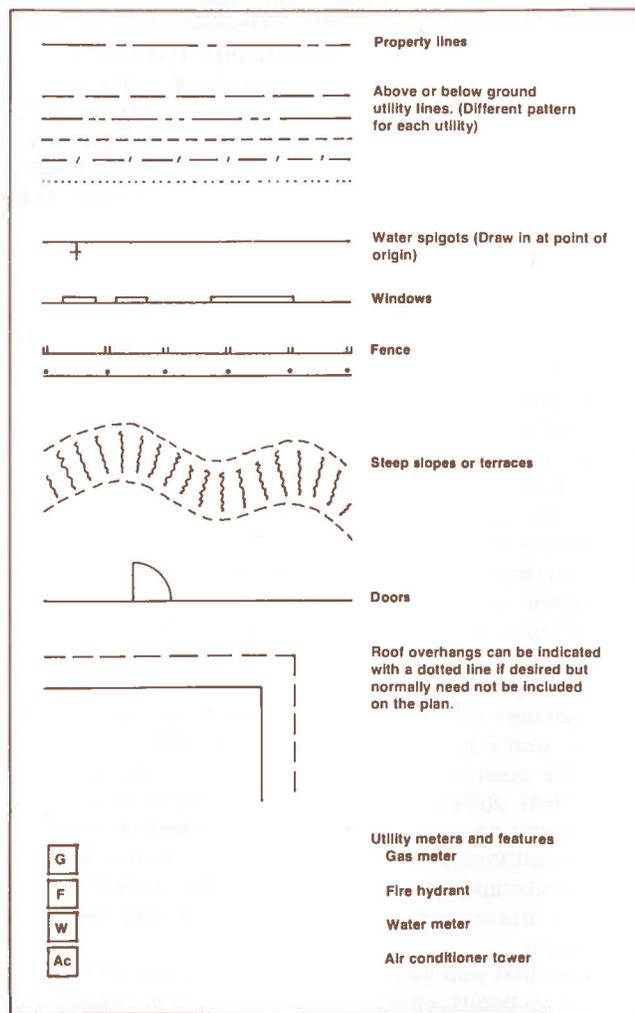


Figure 3. Design symbols.

LANDSCAPE STEP 2

Needs and Desires

The Long Range Plan: Balancing your wishes, wants, and must-haves calls for serious consideration. No two families have the same combination of needs and desires for their grounds. Each family must select the combination of uses that best suits its individual desires. The more carefully you think about and analyze the family needs and desires for landscape development, the more meaningful your final plan will be. Few families are able to accomplish all aspects of a plan at one time, but unless you list all of your ideas for consideration, no priorities can be assigned or choices made.

Even though you may not wish to install all the features of your landscape development immediately, PLAN NOW for everything you contemplate doing either in the near or distant future. Budgeting a landscape development over a period of years is common practice, but to achieve a unified appearance years hence, the total development must be planned in advance. Once the overall plan is agreed upon, it can be completed as time and funds allow.

The following check list indicates common uses many families have found desirable or necessary. Check the ones you are considering, and add any other specific uses your family suggests.

CHECK LIST

Check those that apply to your family's needs and desires.

- Place for trash cans
- Wood storage for fireplace

Clothesline:

- rectangular, feet²
- carousel, feet²
- Off-street parking for cars
- Parking space for trailer, boat, over-snow vehicle
- Drives, service walks
- Garage
- Carport
- Hobby and crafts shop
- Patio for:
 - barbecuing
 - relaxing
 - entertaining people
(number)
 - dancing

other (list)

Night Lighting:

- spot light for areas:

- low-voltage light for areas:

- Tiki torches for areas:

Family Activities such as:

- shuffleboard
- croquet
- basketball
- badminton
- horseshoes
- swings
- sandbox
- jungle gym
- playhouse
- other (list)

Garden for

- flowers
- vegetables
- fruits
- salad greens
- herbs
- other (list)

Specific plants desired (list)

Water Features:

- birdbath
- lily pool
- reflection pool or basin
- fountain or waterfall
- vegetable wash basin and spigot
- swimming pool
- other(list)

Garden Workshop Area:

- greenhouse
- coldframes
- potting bench
- tool storage
- compost bin
- root cellar

Pet Needs:

- doghouse
- dog run
- restrictive fence

other (list)

Is there need to provide for?

- milk delivery
- mail delivery
- grocery delivery
- concrete, fill dirt, heavy equipment delivery
- birdhouses
- birdfeeders

Are there any plants to which any member of the family is allergic? (List)

LANDSCAPE STEP 3

Matching Use Areas To Spaces Available

Tracing: To insure ease of reading, trace a new plan upon which to coordinate the desired features you and your family have decided upon. Place one sheet of tracing paper over your plot plan, and trace the following information only:

1. The street and property lines.
2. Outline of the house and all drives and walks.
3. Location of outstanding features such as major trees, walls or fences, and any prominent feature which cannot or you do not wish to be moved.
4. Direction of good and bad views. Use dotted lines.

Label the general area of room and outside entries of the house, but skip other labels on this sheet. They are labeled on your plot plan for ready reference if needed.

Sun and Wind: Indicate with arrows pointing toward the house the prevailing wind direction during summer and winter. Winter winds limit an area's use for outdoor activities, while summer breezes enhance an area's usefulness for outdoor activity.

Next indicate with additional arrows the direction of summer and winter sunrise and sunset. Your local weather station can be helpful in giving you this information.

The availability of sunlight at different seasons affects the usefulness of space in many ways. Outdoor activities as well as plant growth can be limited or expanded by the angle of the sun's rays or by the location of the shadow of a tree or building at different seasons. You have no doubt experienced a patio placed "in the teeth of a gale," or seen a rose planted in sunlight in March, but languishing in deep shade in June.

Since you are considering the usability of your yard for various purposes, it is important to relate these uses to the home. You have indicated the relative locations of the rooms within the house and the locations of all entrance doors. There is a direct relationship between the family

activities within the home and those in the out-of-doors . . . a principle known as close association.

Begin the use-analysis of your home by dividing it into three basic use areas, marking with dotted line on the plan. (Figure 4.)

1. Entrance Area: This area would include a front porch, entry hall or foyer. This is the transition zone where the public world beyond is introduced into the privacy of your home. Its purpose is to provide entry access and also to provide a feeling of welcome and warmth to all who enter. This by no means indicates that your front door must open wide to the viewing public. Your personal taste may lean toward a shaded entry or walled entry court, and designing an entry "indicator" will be discussed later. Privacy is one thing, but relegating guests to wandering aimlessly as they search for the front door is a doubtful measure of your hospitality.

It is well to note here that many cities restrict the use of privacy fences in the street access area of a home, but as the cost of land rises, we see fewer fence restrictions. We are approaching the time when the homeowner will no longer maintain a portion of his property for public viewing.

2. The Family Activities Area: This includes the living room, family room, and dining area where the family joins together in pleasurable group activities.

3. The Service Area: A person's home is truly his castle, but even castles have kitchens and laundries; therefore, part of a home landscape must be set aside as a service area. For the sake of convenience and appearance, it is a good practice to group all service features into a single area where they can be screened. Two or more service areas may be needed if convenience dictates. For example, wood storage may be more convenient near the door closest to the fireplace, while trash cans may fit easily in the garage near the kitchen entrance.

Label this sheet "Analysis Plan." You have completed a thorough analysis of your expensive piece of real estate, and are now ready to begin the more enjoyable search for the perfect plan to make the land useful and beautiful. A typical example of a completed analysis plan is shown in Figure 4.

LANDSCAPE STEP 4

Trial Design

A New Tracing: Place a clean sheet of tracing paper over the analysis plan you completed in Step 3. Trace the property lines, house, and existing prominent features onto the new tracing paper and label it "Trial Design Plan." Leave this new trial design plan taped down over the analysis plan. The outlines of your general use areas will show through, giving you some guidelines for specific arrangements. Begin now to use your list of wants to lightly sketch in trial designs of the features you have in mind. When you have several that have appeal, repeat the sketches on a separate piece of paper; cut them out and

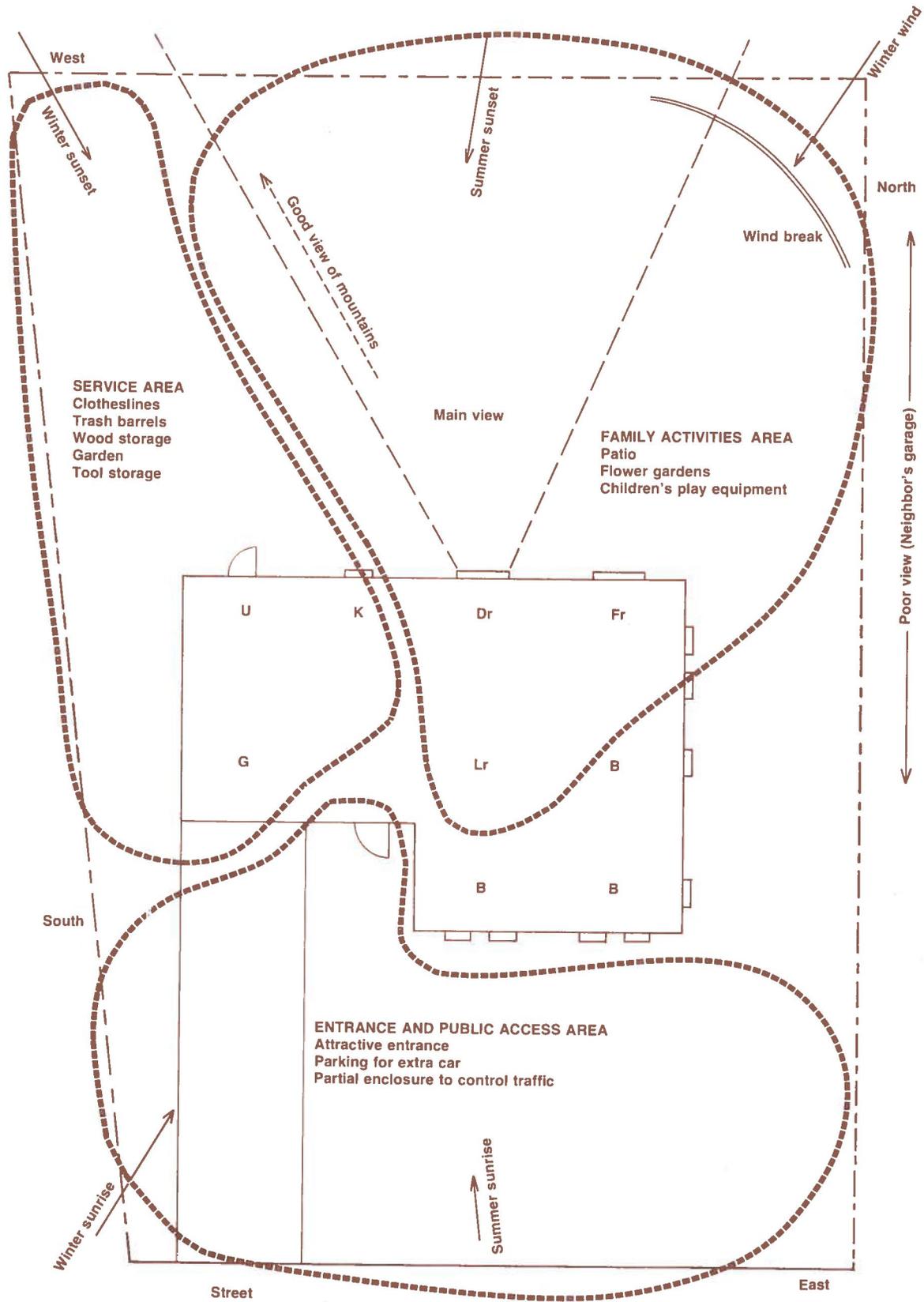


Figure 4. Completed analysis plan.

lay them on top of the trial design to see which arrangement best suits your needs.

Hard Surfaced Areas: Hard surface areas provide bold patterns and set the stage of a design. Walks and drives may already exist, but they can be changed, added to, or relocated.

Don't hesitate to provide ample hard-surfaced areas. They furnish safe, dry, comfortable footing, and cost less per square foot than any other portion of your yard. For example, concrete surfaces cost about 50 cents per square foot, require little or no maintenance, and over a ten-year period are less expensive than establishing and maintaining a lawn or shrub bed over the same area. This doesn't mean that vast areas of poured concrete are advocated in a landscape design, but the following basic principles should be considered when designing hard surfaced areas.

Walks: Unless a walk provides the easiest and shortest route between origin and destination, it will be ignored and foot traffic will follow another route. Some homeowners follow a wise practice of living in their home for a full season before locating walks. The walks are then laid in the identical areas where "beaten paths" have developed. However, you may not be inclined toward a season of mud and dust. Your front walk should connect the front entrance to the point where most people begin their journey to the entrance. Most visitors arrive by car and prefer to park in your driveway because it is dangerous to alight from a car that is parked next to a streetside curb; therefore, a walk leading to the street has little value in today's home landscape.

Entry walks should be comfortable to use. Consider providing a relatively smooth surface in a gentle curve or straight line. A width of four feet is wide enough for two persons to walk together, invites an easy approach and implies a warmth of welcome, while a walk only three feet wide limits traffic to single file.

Utility walks adjacent to the foundation and encircling the house are an unbeatable convenience for washing windows and for the passage of wheeled tools, as well as a protection for the foundation during periods of heavy rain or meltwater runoff. Placing a utility walk at the side boundary of the house eliminates narrow planting beds that are difficult to maintain. Since utility walks are normally used by only one person at a time, a three foot width is ample.

Driveways and Guest Parking: Entrance drives are used for many purposes other than passage from the garage to the street. If you expect parking in the entrance drive, you may want to consider expanding it at a right angle to provide at least two parking spaces, as well as a turn-around for family cars to safely enter the street. See Figure 5 for possible arrangements, plus the proper degrees of turn radius for the average size car. An easy way to determine the design of a turn-around is to back and turn your car on slightly loosened soil. The marks left by the tires serve as the pattern for the design of the turn-around.

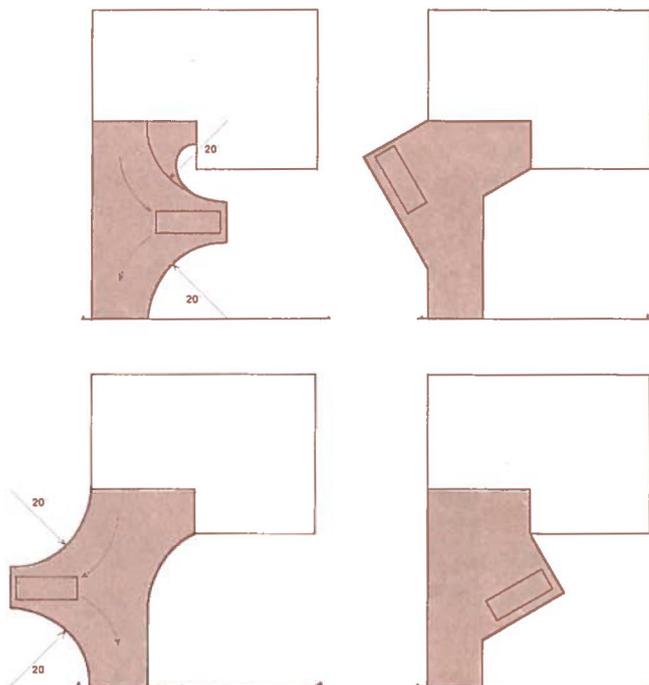


Figure 5. Guest parking designs.

Steps: Steps can be much more than a connection between two levels. Landscape designers learned centuries ago that steps could express the mood and tempo of a landscape. Their design can assure you of a safe passage, put you in a leisurely mood, make you hurry, or arouse your curiosity. To prove this, take every opportunity to study steps before making a final decision on design. Too often outdoor step design is left to the general contractor who uses design dimensions for indoor, rather than outdoor steps. The result is a set of steps that are too narrow and too steep. The riser and tread relationship literally makes or breaks the success of steps, for a poor design can be an ankle breaker. There are few rules that cannot be broken with satisfactory results EXCEPT this one:

Twice the riser plus the tread equals twenty-six inches. For example, if you want a four-inch riser, you will need an eighteen inch tread. A four-inch riser is a common dimension in out-of-doors steps, and it is generally accepted that if a four-inch change in grade occurs at any point, a four-inch riser and two treads placed flush with the ground at the two levels is a safer, easier to maintain design element than a sloping walkway or grassed slope. See Figure 6 for suggested step designs.

Patios: Patios are much more than the sitting-out place of the past. The vogue for outdoor activity has made a patio the setting for outdoor cooking, entertaining, dancing, amateur theatricals and games, sunbathing, and the pursuit of arts and crafts as well as their display. To be of serviceable size a patio should have from 80 to 120 square feet for each member of the family; or if the patio will be used most often for entertaining, allow a minimum of 20 square feet per person for the largest group anticipated.

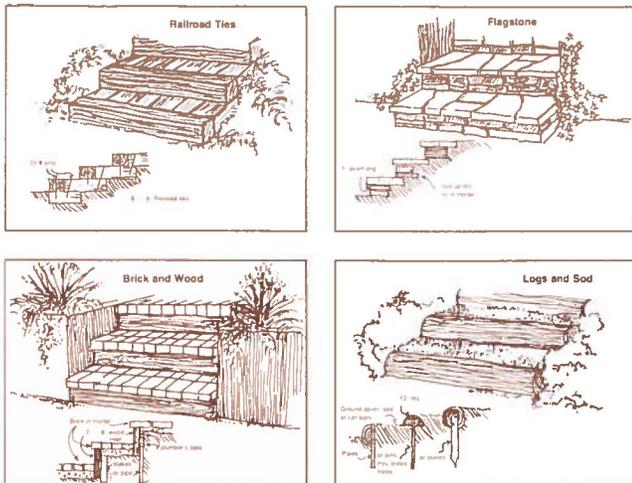


Figure 6. Example designs for steps.

Patios are most convenient and usable when they adjoin the living areas of your home (living room, dining room, family room). If a direct entrance does not exist between the indoor living area and the planned outdoor living area, you may want to consider replacing a window with a sliding glass door.

Shape your patio to complement the overall landscape design, using squares, rectangles, curves, or combinations of all to enhance the usability of the terrain or the view beyond. Several guidelines to good patio design are:

If your patio is angular, orient the widest part perpendicular (at a 90° angle) to the most interesting view.

Repetition of curves and angles reinforces a design. If your patio has a curved or angled edge, repeat the curve or angle in part of the lawn border.

Blend a patio and walk together whenever possible. A broad patio that narrows to become a walkway to another area is more attractive than an ample patio with a narrow walkway attached as an after-thought.

Estimate the patio size needed by your family and make several trial shapes which cover the correct square footage. Cut out trial shapes from a separate sheet of paper and fit them on your plan. The French curve and triangle from your kit will be useful. (Figure 7.)

Construction Materials: Patios and walks can be surfaced in many ways. Poured concrete is the most common material and often the most practical, but establishing a modular design with redwood strips eliminates glare, allows for the expansion and contraction of freeze and thaw to prevent cracking, and breaks up the overall visual monotony of this inexpensive and readily available material. Asphalt, flagstone, concrete block, or brick are also commonly used as surface materials for patios. Redwood or cedar decking is especially useful as a patio material over rough or steep terrain, providing a warm, durable, quiet surface that sheds rain and snow and requires little upkeep.

Patios do not have to be a solid expanse of constructed material. Openings can be left to accommodate shade

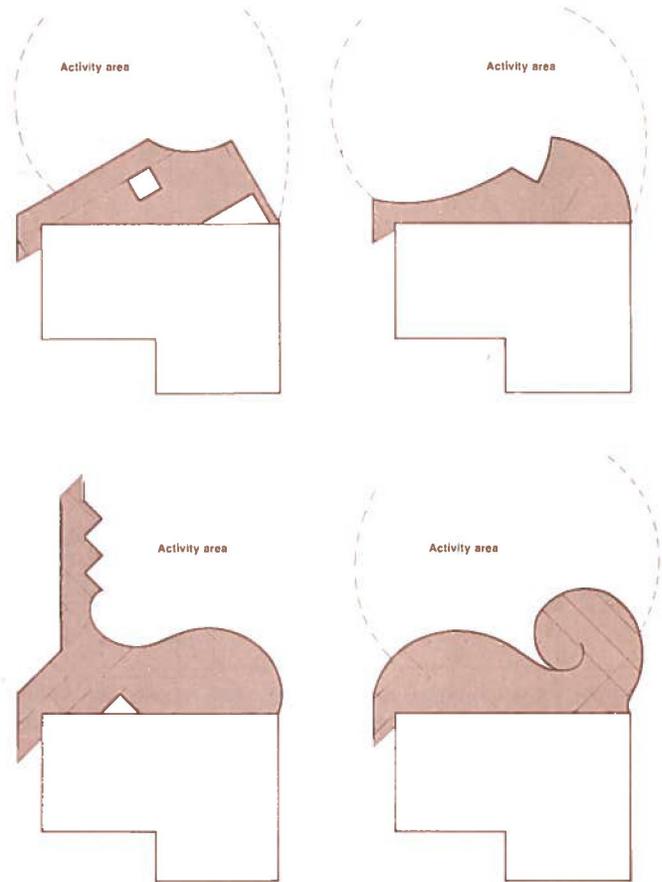


Figure 7. Patio design examples.

trees, flowers, sandbox, lily pool or recirculated stream, waterfall, or fountain. A firepit is also a functional as well as charming adjunct that can extend the usable season of the patio into the winter and early spring season.

Expanding and Continuing the Design

You are now ready to extend your design from the hard surfaced areas to other portions of the yard. Each use feature you identified in Step 2 requires a certain amount of space and some require regularly defined shapes as well. Occasionally, features have overlapping uses and can occupy the same space.

The following are space requirements for common use features. You can cut these shapes from paper and try them in various places in your plan. Use your 10 scale rule to measure sizes (Figure 8).

Utility Areas: Trash receptacles require a two-by-two foot space for each 30 gallon receptacle.

Clotheslines can be any length but lines should be one foot apart. Allow 50 feet of line for each member of the family if all clothes are dried outdoors. Clotheslines oriented perpendicular (at a 90° angle) to the prevailing wind direction prevent clothes from winding around the lines.

Parking space for the average automobile requires a minimum of 8-by-18 feet; a slightly larger space 10-by-20

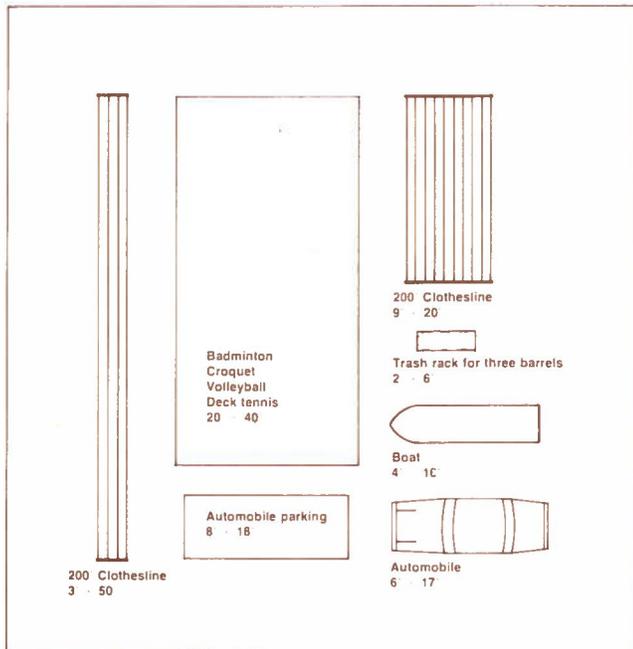


Figure 8. Scale outlines of auto, boat, trash barrels, etc. to be cut out and placed on trial plan for determining space requirements.

feet is desirable for heavier cars. Trailers and boats vary and will require measuring to learn exactly how much space they need.

Dog runs should be long enough to allow the dog exercise room, but may be as narrow as four to six feet wide. Dog runs are usually not too attractive and can be placed along a property line and screened from the living area, but it is well to screen a dog run from the neighbors also.

Sports Activities: Shuffleboard requires a 5-by-54 foot, smooth surface. This area can be rather easily developed by widening a straight walk.

Croquet, badminton, volleyball, and deck tennis all can be played on a 20-by-40-foot open lawn area. It is important that this area be free from overhead wires.

Horseshoes require two four by four foot boxes spaced 40 feet apart center to center.

Space For Plants: Clipped hedges will be about half as wide as high. A six-foot clipped hedge will be about three feet wide at the base; a four-foot clipped hedge, two feet wide at the base, etc.

Untrimmed hedges or screen plantings will be approximately two-thirds as wide as tall. A hedge of six-foot-high shrubs will be about four feet wide.

Fences will require a space only four-to-six inches wide. For this reason, you may prefer a fence to a hedge in crowded area (Figure 9).

Vegetable gardens can be any size or shape but must be located where there is five hours of full sun each day during the growing season.

Shrubs normally require a space about two-thirds as wide as the height the shrub will attain at maturity. Your

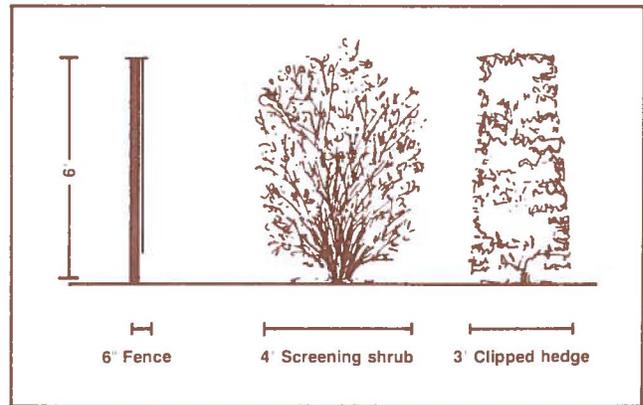


Figure 9. Comparison of space requirements for fence, clipped and unclipped hedge.

plant template gives approximate spaces required by shrubs of different heights.

Deciduous trees require little ground space. They can be pruned to begin branching at head height or higher.

Evergreen trees normally grow to the ground for many years. Use your plant template to approximate space requirements for evergreen trees.

It should be noted that enough space should be allowed between shrubs and trees to accommodate their root systems. A general rule of thumb is that the root system of a tree or shrub will occupy the same ground space as the unpruned crown or topgrowth of the plant at maturity.

Reserve your lawn spaces next. A common and often unnecessary tendency is to plant the entire yard to lawn and then place trees and shrubs here and there. The main purpose of the lawn is to provide a smooth carpet of green turf for outdoor activities and a setting for the shrubs, tree, and flower border. It is difficult and expensive to maintain a lawn where there is no need. Make a careful decision as to which areas of your yard need the green carpet of grass.

For ease of maintenance and maximum usefulness, lawn areas should not be obstructed by any plantings other than a tree to shade a specific area. Plant shrubs and flowers beyond the border of the lawn and eliminate tiresome edge trimming. A border strip of plastic, concrete, or metal edging can be placed at the edge of the lawn area to keep the grass contained and further reduce maintenance time.

Lawn and hard-surfaced areas should form the basic design of your yard. These areas are intended for walking, playing and other active uses. Shrubs, flowers, trees, and fences are important in your design, but they serve passive or supportive roles to the activity areas.

Continue making trial designs of lawn and hard-surfaced areas in your yard. A suitable design will rarely occur on your first attempt. You can use light paper to trace several plot plans for trial designs or draw additional plot plans on heavier paper using the ruler and triangle provided.

It is usually necessary to try a dozen or more tentative arrangements before you select the arrangement which best suits your needs. Think with your pencil! Try using

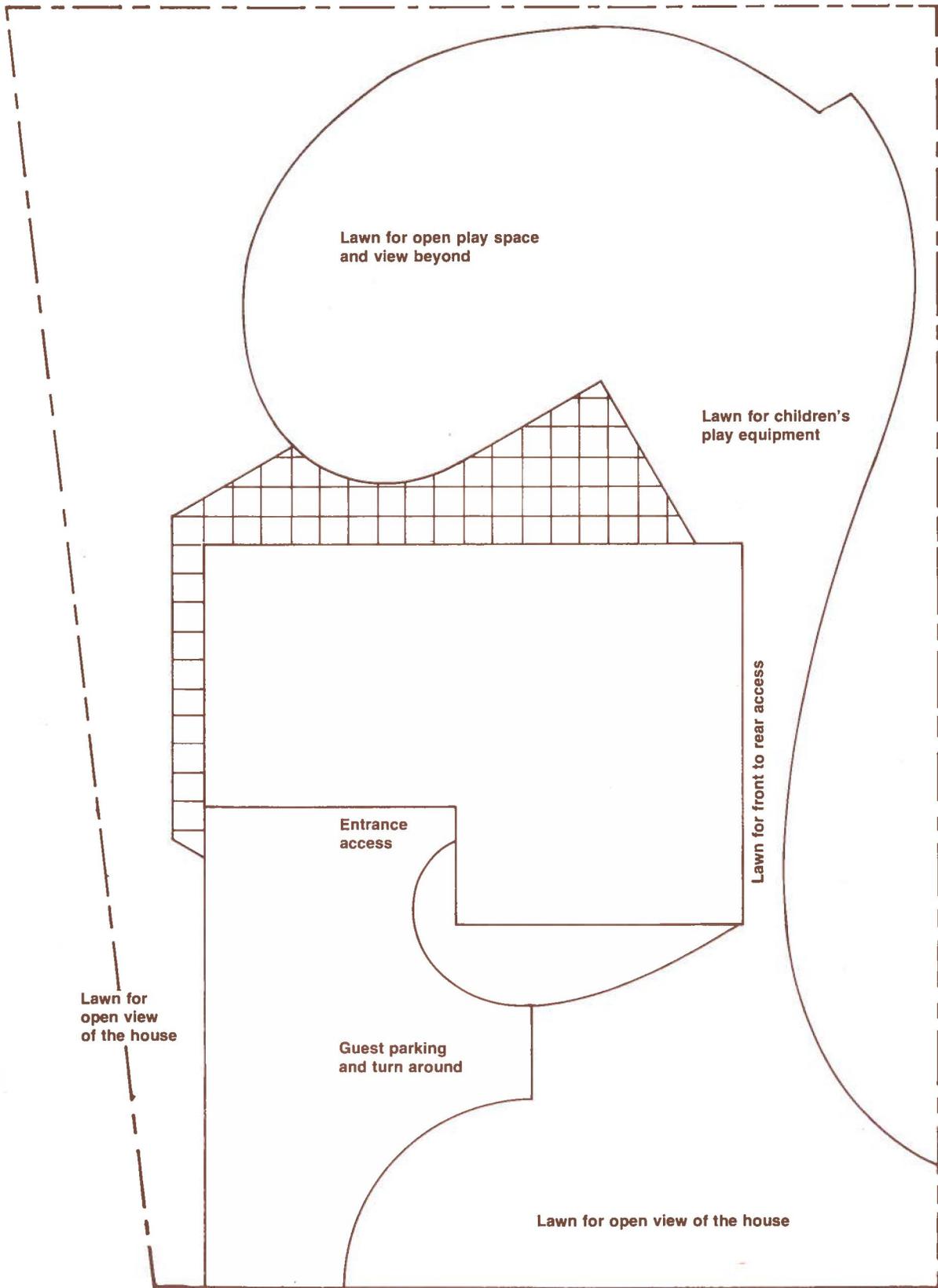


Figure 10. Typical trial design plan.

curved lines, angular lines, and combinations of the two. Visualize your family's activities in each arrangement you draw (Figure 10).

It is usually easier to concentrate on designing each of the three general use areas separately and then combine them into an over-all plan. As you try different designs, keep in mind the particular needs of the area. Some considerations for these areas follow:

Designing the Front Yard: The public area or front yard primarily provides easy access to the main entrance of your home. Since it also is the publicly viewed area of the home, it should present a pleasing appearance to those passing by. Front landscaping should therefore accomplish several goals:

1. It should provide a pleasing over-all view of the home.
2. It should focus attention on the front entrance.
3. It should provide pleasant, convenient access to the front entrance.

To accomplish these three goals, you will need to allocate some areas for trees, shrubs, and flowers (Figure 11). While drawing trial arrangements for your front yard, keep in mind the following sound design principles:

Keep shrubs and flowers near the house. They are "eye catchers" that attract the attention of the viewer. Since one basic goal for landscaping the front yard is to make the house more attractive, use these plants to focus attention on the house. Shrub beds and flower beds in the center of the lawn or near the street or on

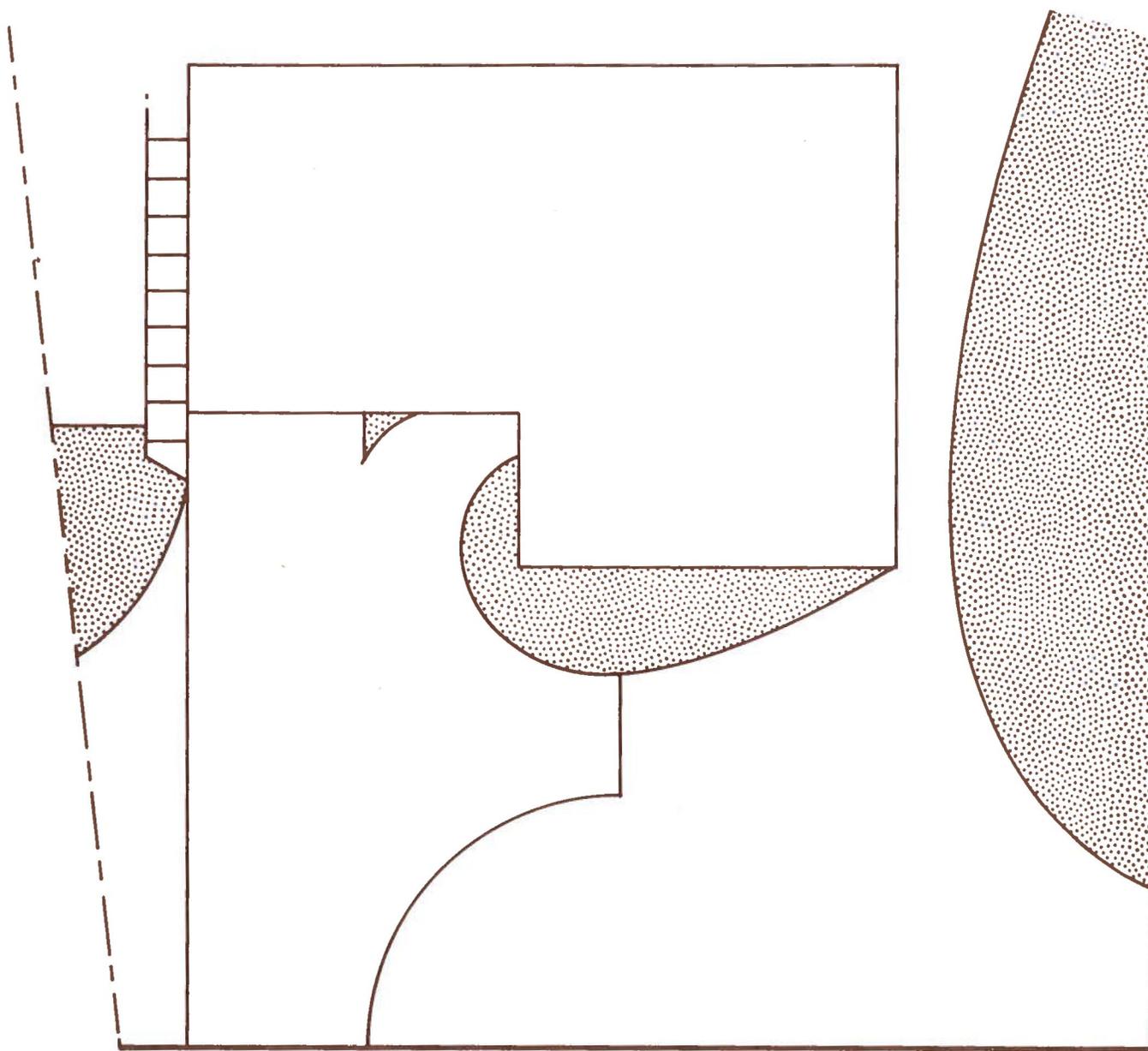


Figure 11. Design plan showing shaded areas for trees, shrubs, and flowers.

either side of the driveway draw attention away from the house and defeat their basic purposes.

Keep the center of the front yard for open lawn. Do not block the view of the house with large-growing evergreens. Small "Christmas trees" grow to be large, view-blocking trees. Tall plants are best kept to the sides of the yard where they will frame the house rather than block it. Tall growing deciduous trees can be trimmed high and may be used in front as they do not block the view beyond.

Designing the Family Activities Area: The family activities area has many uses and its basic purpose is to provide the space to accomplish as many of these as possible. You have already calculated the patio size and made a tentative design for it. Now you can arrange the other elements in the general use area.

In the public area or front yard you were concerned with the view of the house. In the back yard you are more concerned with the view from the house. You usually do not spend a great deal of time in the back yard looking at the house, but you will spend considerable time viewing the yard through the main viewing windows and the patio. (Refer to your view analysis in Step 3). From the house you do not see what is next to the foundation but you do see that portion of your yard beginning 10-to-20 feet away on toward the borders.

Continue making trial arrangements of your family activities area. Only you can arrange this area to best suit your needs, but again, there are a few basic principles which may help.

Keep the activity areas (patio and lawn) closely associated with each other and open to a free flow of traffic between. This allows for an overflow from one to the other.

Locate the activity areas toward the center allowing enough border space for screen or good view plantings.

Locate your most attractive elements in the main view area and the least attractive elements in least prominent areas.

Keep the lawn area unobstructed as much as possible. It should be open for play activities and provide an open vista for elements beyond.

Use bold, simple patterns whenever possible. A few straight or gently curving lines will be more attractive and easier to maintain than an intricate pattern (Figure 12).

Designing the Service Area: (Figure 13.) Since garbage cans, clotheslines, wood piles, and the like are not in the least attractive, plan a visual barrier between the service and the family activities areas. This visual barrier can be a clipped hedge, an untrimmed screen planting of shrubs, or a fence.

The basic purpose of the service area is to provide utility features needed by your family. More care in design now will pay off in more leisure time later on.

Convenience is the prime consideration. Locate service features where they are easy to use. Clotheslines should

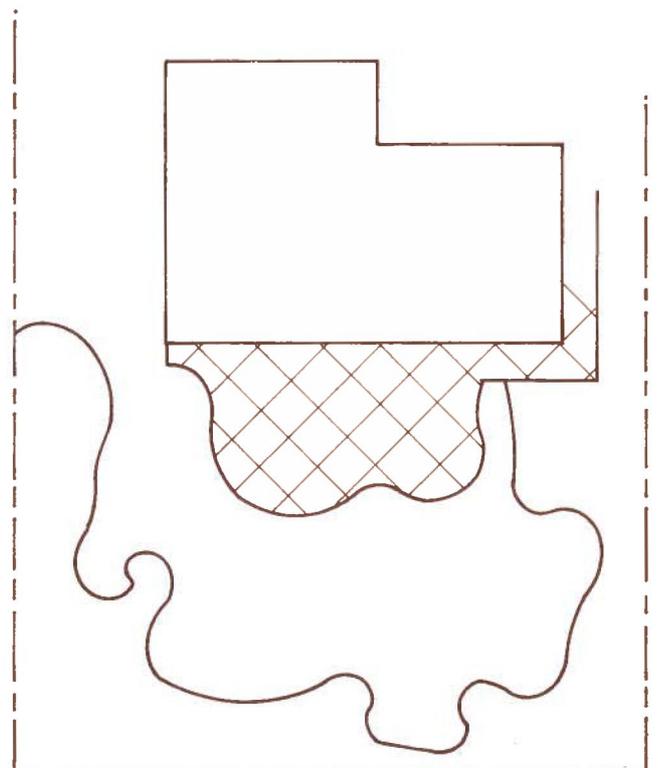
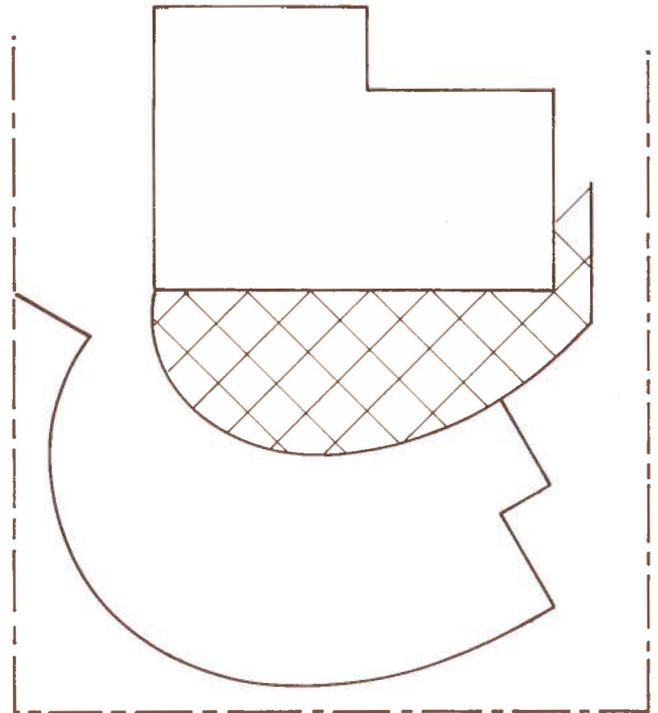


Figure 12. Comparison showing simple curves as opposed to intricate curves and angles.

LANDSCAPE STEP 5

Design Detail

In Step 4 you developed a pattern for your landscape using your family's needs as goals and the basic design principles as guidelines. Your trial design pattern outlines the active use areas of your yard and leaves spaces for specific uses. In Step 5 you will fill in the supportive elements — fixtures, fences, screens, plants — to better serve your family's needs and to reinforce the pattern you established.

Begin Step 5 by removing the trial design from the top of the site analysis plan. Place these two plans side-by-side on your table and fasten them down again with tape. You will want to refer to information on your analysis plan as you develop details on your trial design plan.

Consider first what fences, if any, you need to enhance the usage of the area you have planned. Do you need enclosure fences to control the movement of children or pets? Do you need screening fences to obscure an undesirable view? If you need fences, where will you need gates to direct the normal or desired flow of traffic?

You can build fences of many materials to serve a multitude of needs: (Figure 15).

Woven wire is the least expensive fence. It makes an effective enclosure for children and pets but tends to sag with use and is not overly attractive. This type fence is best used where it is screened from view by plantings.

Chain link is also a wire fence but is constructed to stay taut. While not particularly attractive, chain link fences are neat and usually do not detract from the view.

Board fences can be built with boards running horizontally or vertically, and they control not only traffic but also the movement of wind and effectively obscure an unwanted view.

Board-On-Board fences have boards alternating on opposite sides of the post. This construction retains the visual barrier effect of the solid fence, allows for limited air flow, and has the extra advantage of good looks on both sides.

Picket fences of metal or wood provide traffic control while restricting the view and dominating the scene. A picket fence can become an architectural feature if it matches the style and period of your home.

Rail fences control the traffic of large animals only. This type of fence is more a visual than a practical divider, but can become an attractive feature to help define a viewing area.

Masonry walls of brick, stone, or concrete block can make beautiful yard fences. Masonry construction is usually more expensive than wood or wire, but it may be desirable if it matches and extends the house construction or if it serves the dual purpose of a fence and a retaining wall that permits leveling a land area.

Berms are man-made mounds of earth used as a barrier to wind, sight, odor, or noise; or to create contour and interest in otherwise flat terrain. A berm combined with plantings of turf, deciduous and evergreen shrubs and

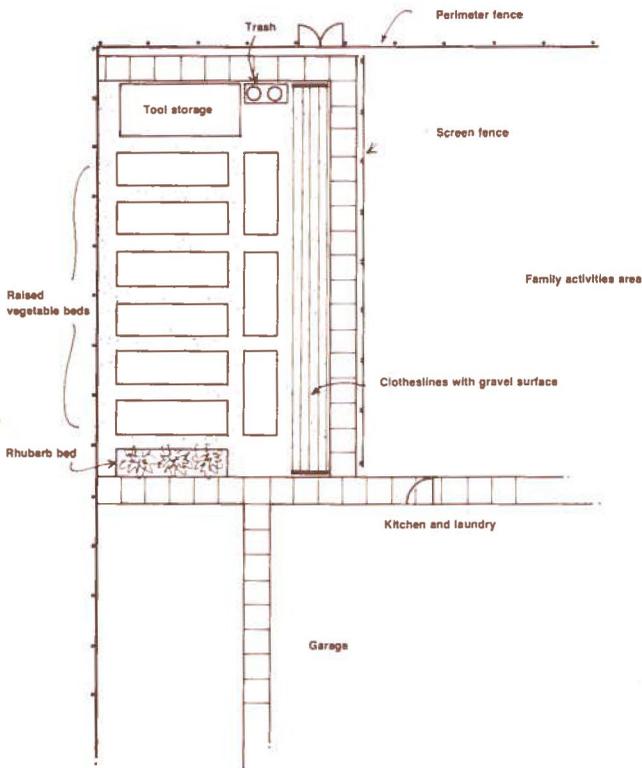


Figure 13. Service area showing vegetable garden layout.

be convenient to the laundry area of the home. Trash receptacles should be convenient to both the kitchen and the place where they are picked up for disposal.

Ground covering for service areas may be lawn, but the yard maintenance can be reduced by hardsurfacing the service area. Gravel is an inexpensive and serviceable ground cover. Sheets of black plastic laid on a bed of sand and topped with gravel will prevent weeds from growing through the gravel surface.

In many cases, it may be desirable to combine some service features with family living features to conserve space and reduce costs. Examples are combination carport and covered patio; portable clothesline to be set up on the patio; service walk used as a shuffleboard court; flat topped tool storage bin which doubles as a serving table for the patio.

Completing Trial Design

By now you have drawn a number of experimental designs for each of the three general use areas. Select the one of each area which seems to best serve the needs and desires of your family and transfer these patterns to your trial design plan.

You may need to make minor adjustments in the individual sketches to fit them together into the overall plan. When you have integrated all three sketches into the trial design plan, you have established a basic overall pattern for your landscape development (Figure 14).

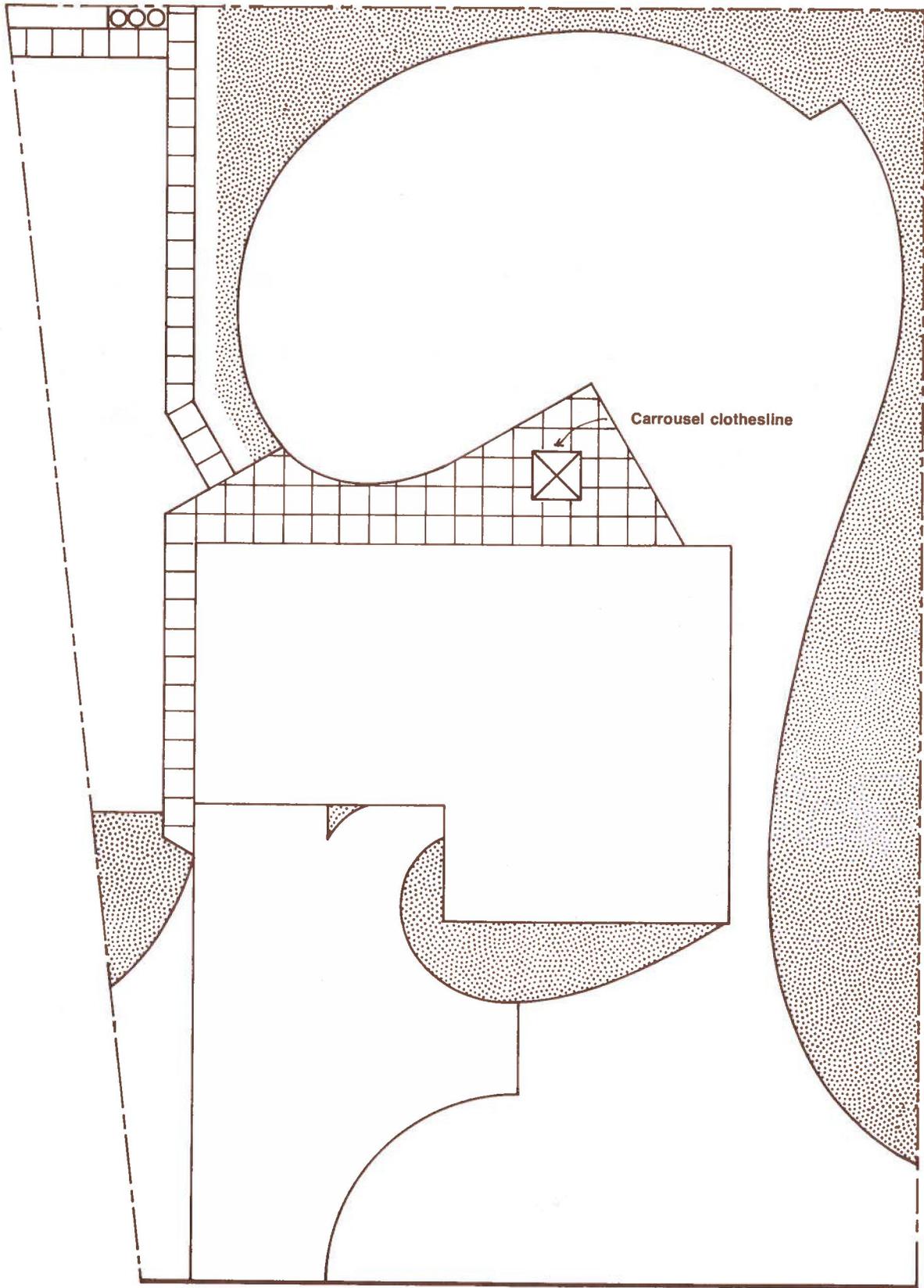


Figure 14. Trial design plan showing lawn areas, planting areas, and hard surfaced areas.

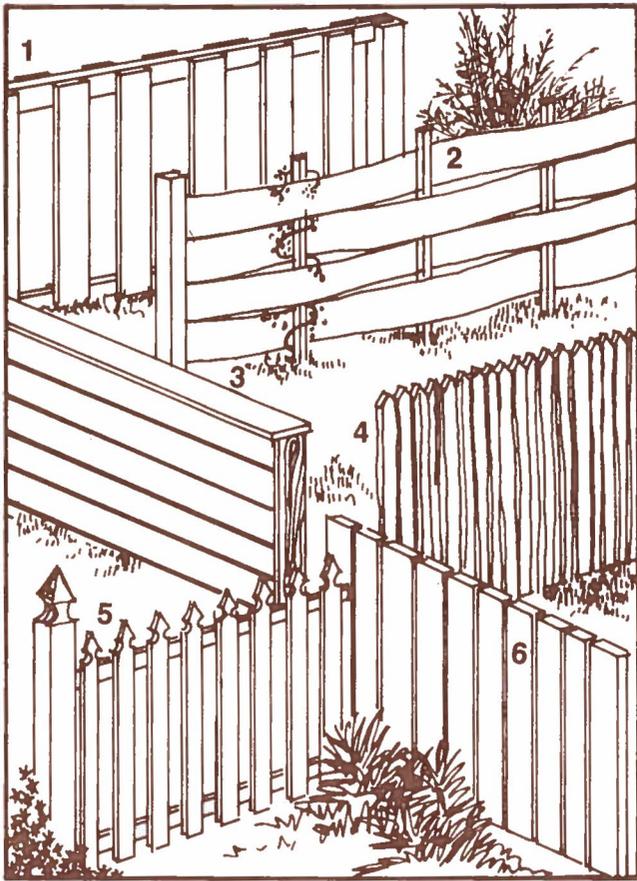


Figure 15. Fence examples.

trees can present a more satisfactory and yet more natural appearing barrier than any other. (Figure 16.)

Use of the area largely determines the type of barriers you may want to consider. More than one type may be desirable in different areas. There is much truth to the old adage "good fences make good neighbors." Locate the needed barriers on your trial design plan now, but consider the following factors before you make a final choice:

Cost — It is more expensive to construct fences and walls than to plant hedges and screen plantings.

Maintenance — Clipped hedges take the most work to maintain. Informal screen plantings and painted fences require about equal maintenance time. Unpainted stake fences require the least maintenance.

Available space — Hedges, screen plantings and berms require considerable space. Clipped hedges require a space one-half as wide as the hedge grows tall. Screen plantings require a minimum space two-thirds as wide as tall. If you plant a double row of screen plants they require one and one half to two times the height of the plantings. Fences or walls require only six to twelve inches of width, depending upon type and construction. **Berms** can be as high or as wide as the size of the property will permit. One cubic yard of soil will cover 27 square feet 12 inches deep. This means that a considerable amount of earth must be

hauled to the site, mounded and compacted to create a natural appearing berm. The soil from a basement excavation is an excellent source of material for a berm, but it must be remembered that this soil is sub-soil and relatively infertile. Boulders encountered while excavating the basement can be incorporated into the berm and seated into the mound in groups so as to resemble a natural outcropping.

Time — Fences, walls and berms provide immediate barriers but hedges and screen plantings normally take two to four years to grow to maturity.

Wind Control — Both fences and screen plantings control wind to a degree. Such a barrier reduces wind velocity in an area two to three times the barrier's height on the lee side. Normally, a five to eight foot barrier will not provide as much protection from prevailing winter winds as might be desired. You may want a taller screen to protect the activities area and even the house from winter winds. Refer to your site analysis plan for prevailing wind information. Windbreak plantings should be evergreens (pines, spruce, fir, or juniper) to provide maximum winter protection.

Fences and visual barriers normally border the family activities area of the yard. See Figure 17 to locate needed fences and gates. You may wish to extend these border plantings around the service area and/or along the side boundaries to the front yard.

Consider, too, whether or not you wish to extend shrub borders into the public area. There are both advantages and disadvantages to partially enclosing the public area. The presence or absence of this type of planting in your community or neighborhood may guide your choice.

Advantages of border plantings in the front yard include better control of traffic flow on the walks, a feeling of semi-privacy in the area, and the possibility of a windbreak.

Disadvantages include restricting the approach view of the house, a possible driving hazard when entering the street, and the collection of wind blown refuse from the street.

Locate and draw on your plan your border, screen, and windbreak barriers. Use the landscape template included in your kit to indicate accurate space requirements. Indicate the nature and height of the desired barrier but if you are uncertain, do not at this point define the specific plant or construction detail. (Examples: clipped hedge, four feet; tall shrubs, eight feet; pine tree; medium shrub, four feet; or wooden fence, five feet.) (See Figure 18.)

You now have on your trial design a basic pattern established by your lawn and hard-surfaced areas and a border defined by the fences, windbreaks, and screen plantings. Into the remaining space, between the active use areas and the borders, fit any other features desired by your family. Check the list compiled in Step 2.

Be sure to allow ample space for each feature. If you are planning for future construction, define this space with dotted lines on the plan and reserve it.

Draw in the service features.

Define the garden areas. Locate flower garden space within the main view area. Vegetable or salad gardens can



Figure 16. Berm, showing undulations, rock outcropping, deciduous and evergreen trees and shrubs plus busy street beyond.

be in either the general utility area or family activities area. Small fruits, such as gooseberry or currants, may be used as border plants. Tree fruits can be part of or added to a screen planting. Perennial vegetables such as rhubarb and asparagus, are good plants for a border between a garden area and lawn as they are both edible and ornamental.

When you have defined all areas for your various needs, you will have vacant spaces. Rather than filling these spaces with flowers or lawn, which are difficult to maintain in small areas, consider a facedown planting of small shrubs and ground covers of low growing perennials or woody plants to add the spark of colorful bloom or seasonal interest to set off the taller growing trees or shrubs. Indicate these filler areas on your trial design plan by cross hatching the space. (Example 19.)

You have now completed your basic landscape design and are ready to develop a planting plan.

LANDSCAPE STEP 6

Landscape Planting Plan

You have completed the most difficult phases of your landscape design, and have only to add the final details and identify the specific plants and constructed features and fixtures needed to accomplish your goals.

Begin the planting plan by placing a clean sheet of tracing paper over the trial design and taping it to the table. Trace onto the planting plan the final pattern arrived at on your trial design plan. This includes hard surfaced areas,

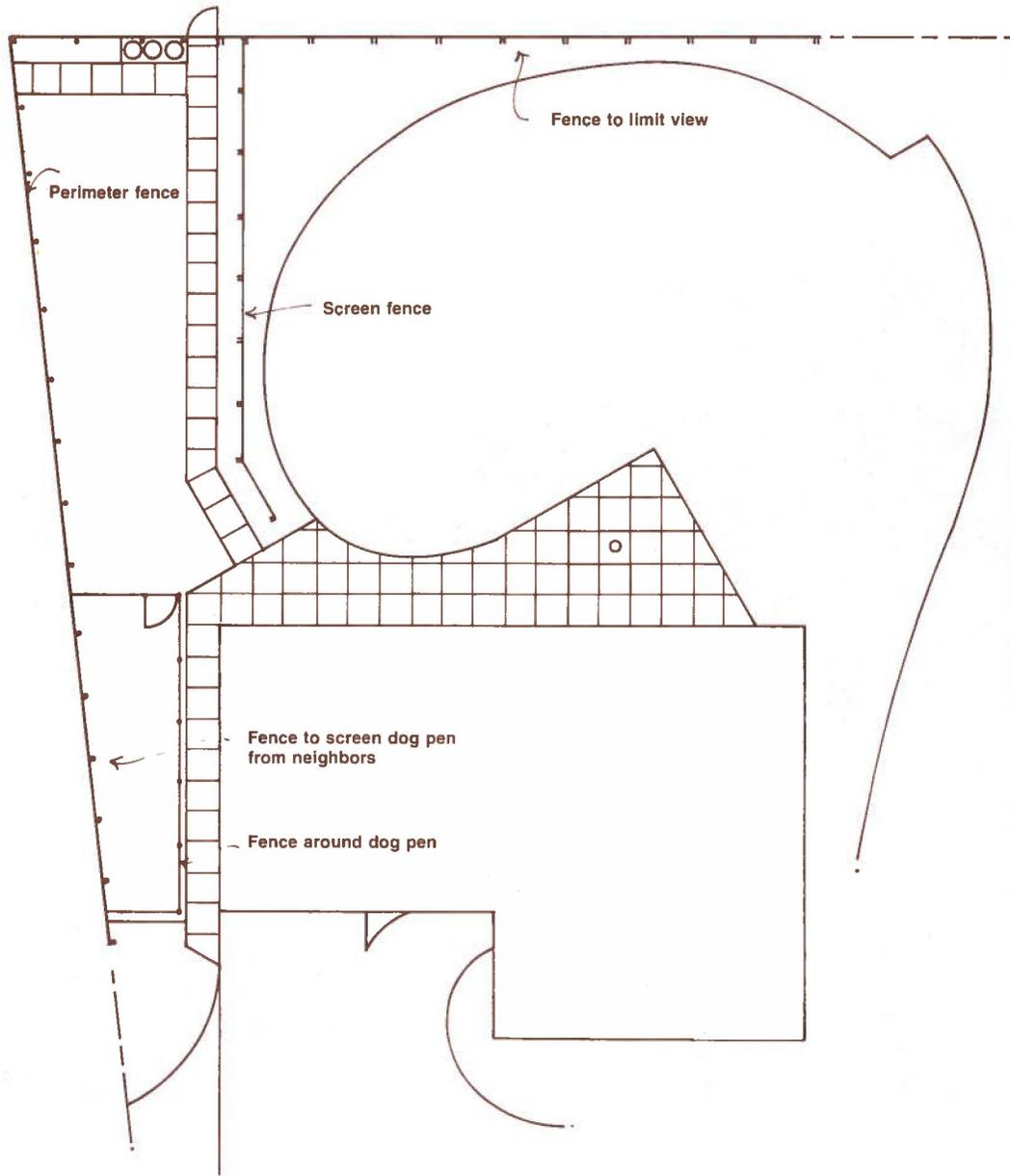


Figure 17. Trial design showing perimeter fence, screen fence, gates.

the pattern of lawn and planting areas, fences, and other support features.

Locating major shade trees: Using the template from your kit, draw and cut out tree and shrub shapes to try in various locations. Decide where in your yard you want shade during the summer and at what time of day shade will be most appreciated. Place shade trees where their shadows will shade the desired area at the desired time.

For example, if you have a large window facing east and find the summer sun causes the room to warm up excessively by 10 a.m., you can block the early penetration of the sun's rays with a properly placed tree. Locate this tree near a line extending 10 degrees north of east from the

window. Since the desired pattern of shade is from a low angle (30 to 60 degrees above the horizon), place the tree 20 to 30 feet from the window. If the tree is too close to the house, the sun will shine under the canopy of branches and penetrate the window. By 10 a.m. the sun is high enough above the horizon (over 60 degrees) for the roof overhand to protect the window.

You may want shade for a patio on the west side of your house. If you use the patio most between 5 and 7 p.m., you need a tree west of the patio to shade it at this time. A tree next to or in the center of the patio provides shade from mid-morning to mid-afternoon but as the sun moves toward the horizon, it shines below the canopy of the tree to the patio. By 5 p.m. the sun's rays are coming from a 45

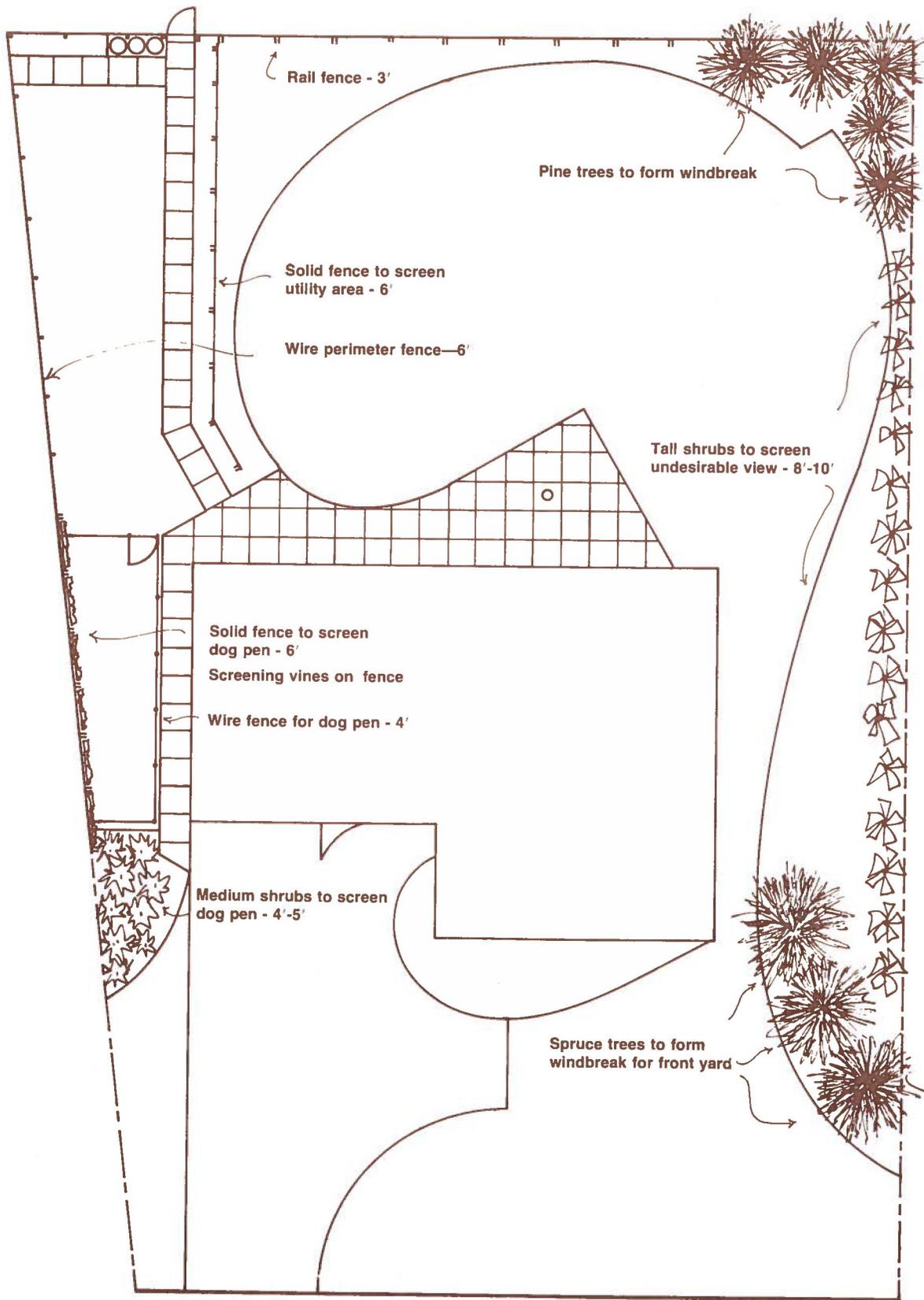


Figure 18. Trial design showing needed screens and windbreaks in planting areas.

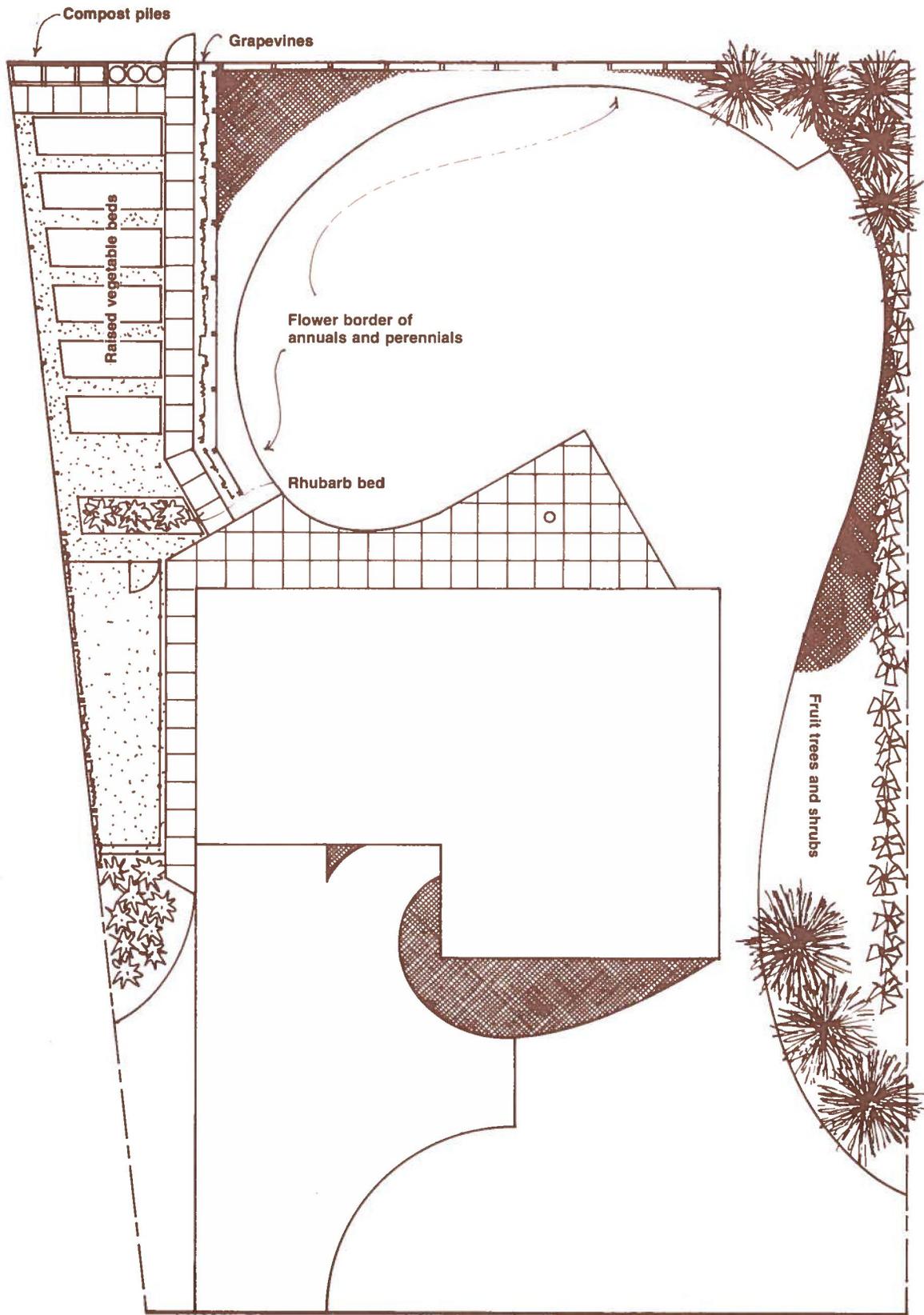


Figure 19. Completed trial design plan.

degree angle and by 7 p.m. from a 30 degree angle to the western horizon. For shade at this time, the tree must be 10 to 12 feet west of the patio.

From these two examples, you can see that to locate shade trees requires visualizing two things: the shape of the grown tree and the position of the sun. Use the combination of these factors to locate shade trees where they will best serve your purposes (Figure 20).

Shade trees grow to sizeable proportions. A mature tree such as honeylocust, oak, ash, or maple may have a 40- to 50-foot crown. Therefore, locating the tree a few feet one direction or another will not materially affect the overall shade pattern. When the ideal spot is located, a slight shift in location to conform to your landscape plan will not affect the basic shade pattern.

Caution! Be careful not to create problems with trees. Do not plant a tall growing tree beneath power lines. The main power service lines must be kept free from trees to prevent damage to both the trees and the electric service lines. The low voltage wires or cable running from your home to the transformer can pass through trees without harm, but the high voltage lines along the easement must be clear at all times.

There are many varieties of trees, each of which has a characteristic size and shape. Choose trees for your yard which conform to the spaces you have for them. (See Figure 21 for typical sizes and shapes of trees.)

As you plan for shade trees, refer to your plot plan for the location of underground utilities. Tree roots will not harm properly constructed gas, water, or sewer lines. Tree roots will invade cracked and leaking sewer lines, but cannot invade a properly caulked one. However, most underground service lines eventually need repair. If you plant trees directly over utility lines, it may be necessary at some future date to destroy the trees in order to dig up a service line. It is wise to keep trees at least four feet from any underground utility line.

As you locate trees on the planting plan, be careful not to overplant. A common tendency is to plan too many. Have a useful purpose for each tree, and if there is no sound reason for adding one, leave it out. As you trace trees with the template, mark the centers with dots or X's and number the trees consecutively. List the numbers on a separate sheet of paper, and next to each number write the specific variety you plan to use or the purpose you wish the tree to serve. This is a Planting Key (Figure 22).

Guidelines For Plant Choices: You may not be familiar enough with plants to select exact species, but if you determine the size and character wanted, you can get advice and specific species from the sources list on page 21. As you use the templates to draw individual plants, number each plant and identify it on the Planting Key by name or by a description of the effect you want (Figures 22, 23).

Foundation Plantings for the Front Area: Several basic considerations to guide you in the choice and arrangement of plants are:

1. Use a mixture of evergreen and deciduous plants near the foundation. The evergreens are valuable for year-round good looks, but the addition of deciduous shrubs adds the seasonal color and change of texture that makes each plant complement the other.

2. Take care not to crowd plants. There is no necessity to hide the foundation or any other part of the house. A few attractive shrubs placed to accent the home and soften the lines are sufficient. The remainder of the foundation planting bed can be covered with low ground covers or with an ornamental surface such as gravel, river cobbles, wood chips, or bark.

3. Use plants which do not grow too large. The object is not to hide the house but to complement it. **A good general rule:** A plant at maturity should not exceed two-thirds of the height to the eaves at the lowest point of the roof. Use taller plants on the outside and lower plants toward the entry.

4. If your entry faces an unsightly view or a street that carries heavy traffic, you may prefer a walled entry court or a heavy privacy planting. To enhance and indicate the entry, there are many possibilities, some of which are: a. A broad path leading to the door, no matter how secluded, is an unmistakable entry indicator. b. A small section of clipped hedge at the outside of a walled entry lowers the visual height of the wall, as well as guides the guest to the entry. c. Large, styled house numbers can be spot-lighted at night from a light source concealed in shrubbery. d. Garden features which attract the eye include plants with outstanding color, form, or texture. Weathered wood, large stones, or sculpture are useful if blended with shrubs to fit the style and period of the architecture.

5. If your house has a long horizontal roofline in front, it may be desirable to visually break the dominant line by placing a small deciduous tree near the house. This will divide the roofline into smaller segments and reduce its dominance. A small tree can also frame the entrance area. If a flowering tree is chosen, a non-fruiting variety such as Bechtel Crab will cause less irritation. As you draw the individual plants in the front yard area, number each plant and identify it on the Planting Key.

Plantings for Service and Activity Areas: To locate the plants and supportive features needed in each of these areas to make them more useful and attractive, begin by working from the edge of the lawn or patio outward to the property line. If low maintenance is a prime objective, you may wish to start by outlining the border with a mowing strip. This is a strip of concrete, brick, metal, or wood set flush with the soil to prevent the lawn from growing into the bordering areas and to provide a neat lawn edge that does not require hand trimming.

One section of your lawn border will fall within the main viewing area. To develop your principle view within this area, you should literally "make a scene" which you will find enjoyable. It may be a border of annual or perennial flowers; an arrangement of interesting trees and shrubs; a piece of sculpture, driftwood, or stone with supportive

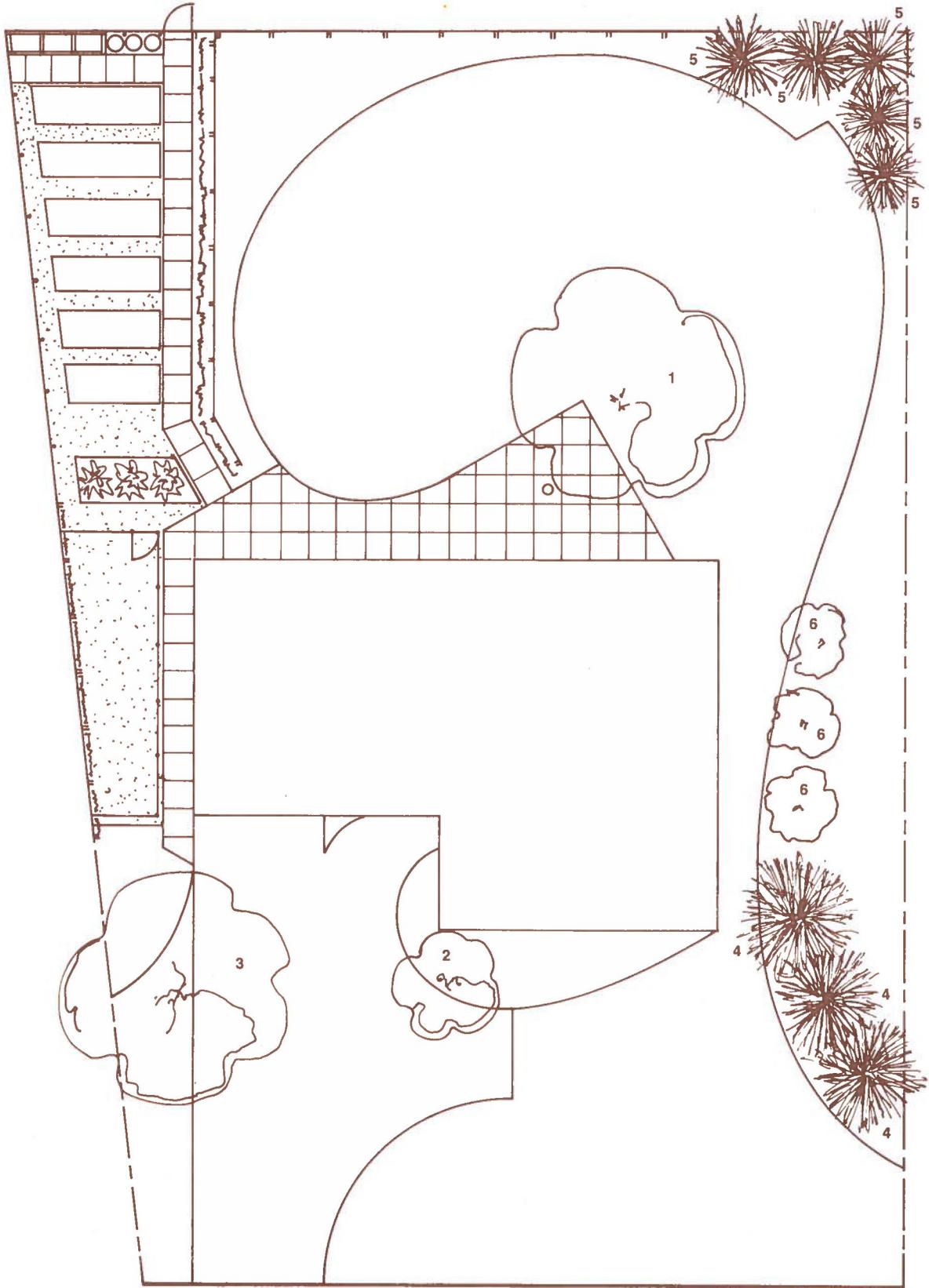


Figure 20. Planting plan.



Figure 21. Typical sizes and shapes of well-known species of trees.

plants; a bird bath or lily pool with appropriate supportive plants.

If the available space is more than six feet deep, you may wish to use two or three rows of plants beginning with low bushy shrubs next to the lawn edge and using progressively taller shrubs or trees behind. This builds a panoramic view which can add much interest to the living area.

As you complete the details of your plan, keep the following sound principles of landscape design in mind:

1. Use enough plants, fences, and other landscape features to contribute to the desired uses of your home grounds, but do not over design it. Ask yourself, "What useful purpose does this plant or feature serve?" If you have a ready answer, add the feature; if you don't, leave it out!
2. You have given particular attention to the height and width of a shrub or tree that is needed, but care should be taken also in choosing texture and color of foliage and bloom. A plant with small or finely-cut foliage will appear to be farther away from a viewing point than one with coarse or broad foliage. The colors red and orange give a feeling of warmth as well as an appearance of being closer to the viewing point. The grays and blues bestow the cool, calming effect of distance. A purple color, however, appears from the viewing point as a black hole in a landscape.
3. There are no set rules you must follow when choosing plants except those dictated by soil, water, exposure

and hardiness conditions. The final decisions of what to use and how to use it depends upon your needs and your good judgment. You are the most qualified architect for your landscape.

Finding Help In Choosing Plants: If you are not familiar with the plant materials of your area, there are numerous sources of assistance which will prevent you from making the mistake of planting a non-hardy plant, or one that cannot withstand the soil or exposure of the particular situation in your yard. In addition, certain insect species or plant diseases in a localized area may make the choice of a particular plant unwise, and it is best to explore all local sources of information to avoid making a costly mistake.

County extension agents are knowledgeable of the plants of the area and keep up-to-date records on infestations of pests and diseases. Many extension agents can provide plant lists that include native plants that are suitable for the home landscape as well as non-natives that succeed in the area. The bulletins and informational sheets from the horticulture and agriculture departments of the land grant university, as well as the U.S. Department of Agriculture are available through your local county extension office or by writing **Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.**

Nurserymen and neighbors are also valuable sources of information, as are local parks, botanic gardens, and arboreta. Libraries can offer extensive information from books and magazines. Local garden clubs often provide a

valuable community service through scheduled tours of their gardens, during which members are on hand to give advice about the culture of plants.

When you have added the final plants and features to the plan, you have completed a landscape design. Label this drawing "Homescape."

Congratulations! You have an accurate plan that, when executed, will become a valuable asset and lead to a more enjoyable quality of life for you and your family.

LANDSCAPE STEP 7

Using Landscape Plans

Now you are ready to begin making your homescape plan a reality. Construction may require some careful scheduling, for few homeowners can afford either the time or total expense of developing a complete plan in one season. List the goals for this season and future seasons in the order that you plan to accomplish them.

Keep the following in mind to prevent costly duplication of efforts as you begin the work:

1. Make necessary grade changes first. Destroying and replanting areas where the grades should have been changed initially is a wasteful and heartbreaking procedure.
2. Try to finish hard-surfaced areas before planting lawns and shrubs. Tractors, concrete trucks, rollers, and other heavy equipment are difficult to use in a confined area without damaging lawns and shrubs.
3. Mature shade trees are the single, most valuable item in a home planting. They should be among the first plants installed, preferably the first season.
4. Lawn is another high priority item. A home is almost unlivable until soil is covered to reduce blowing dust or mud depending upon the current weather. Plant the lawn as soon as all grade changes are made and all construction requiring heavy equipment is completed.
5. Do not rush the planting of lawns, shrubs, or trees to the point of neglecting proper soil preparation. Incorporation of organic matter or mineral elements as recommended by a reliable soil test is the best insurance that plants will survive and will require minimum care after planting.
6. Your landscape plans have been carefully designed and accurately drawn. Follow the plan faithfully even though it appears at times that you are planting plants too far apart and too far from buildings. Remember you planned for size at the maturity of each individual plant. The plantings will look somewhat thin at first, but this will change as the seasons pass.
7. If you have difficulty laying out the patterns of the design on your lot, reverse the process you learned when drawing the plot plan. Transfer measurements from the plan to the yard by measuring from two known reference points and mark this point with a small stake. Straight lines can be marked with a string stretched between the stakes. Curved lines can be marked with a

garden hose curved to touch three or more staked points.

8. When planting trees and shrubs, stake the center point where the plant will stand. Dig the hole around this stake to properly locate plants.

Your landscape plans are drawn on tracing paper which is fragile and easily torn. You can have copies made on heavy paper for a few cents each. Print copying machines are often found in architect's offices or where drafting equipment is sold. It is a good idea to have one or two "work prints" made to use out-of-doors so as to preserve the original drawing.

When your homescape is completed, you will have created a "picture" that increases in value as the years pass. Your home depreciates like a piece of machinery, but its setting and surroundings give it the timeless beauty and quality that can more than offset the depreciating value of the structure itself. Better still, you and your family have placed your personal signature on the land — a gratifying and exhilarating experience.

PLANTING KEY

1. Thornless, Seedless Honeylocust
2. Clump Birch
3. Hackberry
4. Ponderosa Pine (3)
5. Austrian Pine (5)
6. Dwarf Apple Trees (3)
7. Lilac Hedge
8. Potentilla
9. Winged Euonymus
10. Beauty Bush
11. Ginnala Maple
12. Dwarf Arctic Bluewillow
13. Savin Juniper
14. Pfitzer Juniper
15. Medium size shrub (possibly Redtwig Dogwood)
16. Alpine Currant (3)
17. Tamariskifolia Juniper (3)
18. Zabel Honeysuckle
19. Bittersweet Vines
20. Very tall shrub (possibly Highbush Cranberry)
21. Ground cover (Euonymus coloratus)
22. Non-fruiting, flowering tree (possibly Redbud)
23. Raised vegetable beds
24. Annual and perennial flowers
25. Peonies
26. Rhubarb or Asparagus (or both?)
27. Grapes (5)

Figure 22. Planting key for Figure 23.

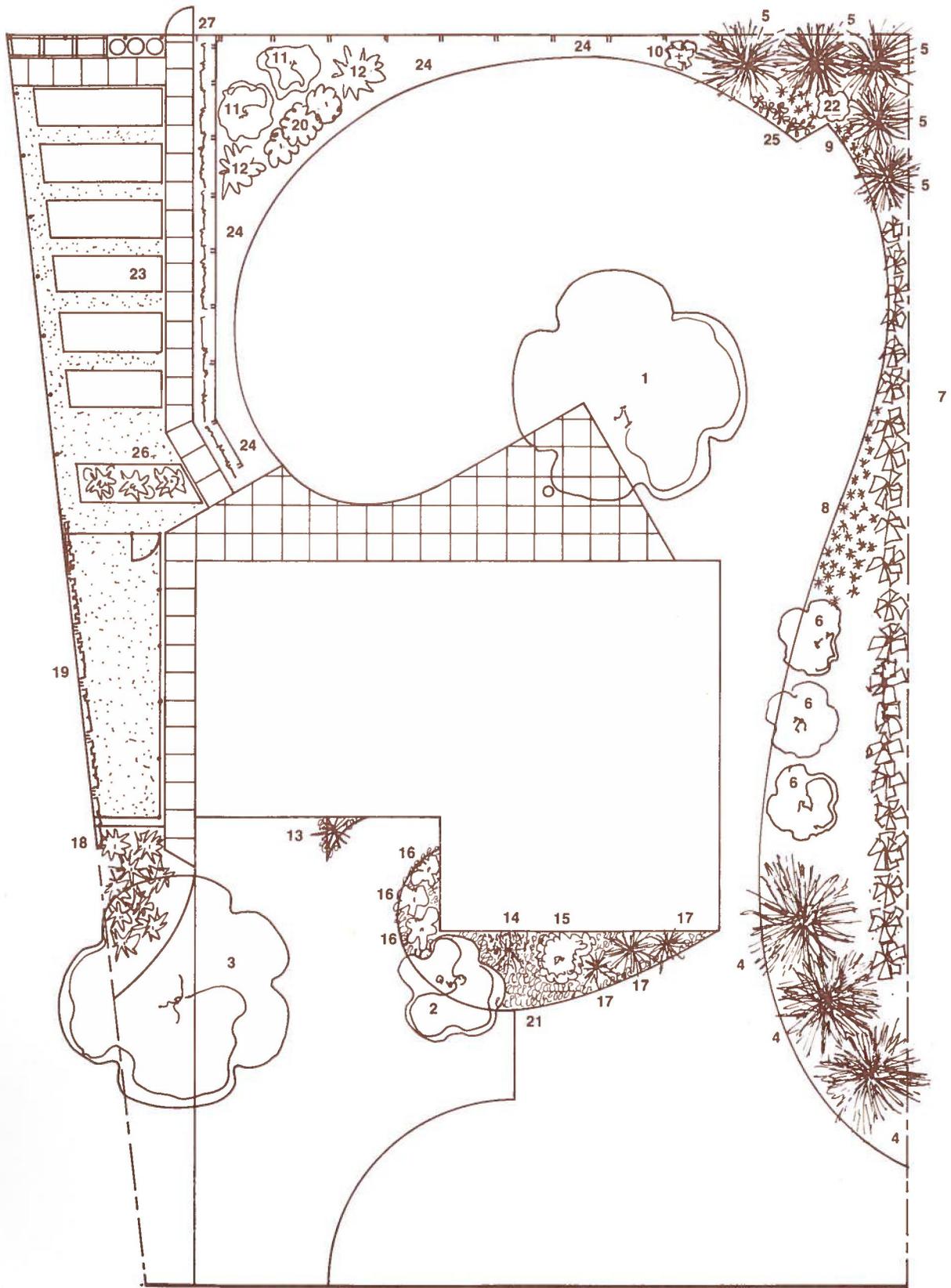
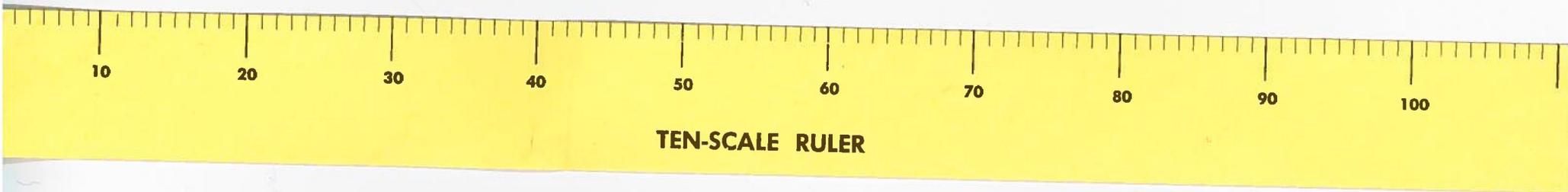


Figure 23. Completed Homescape Plan.



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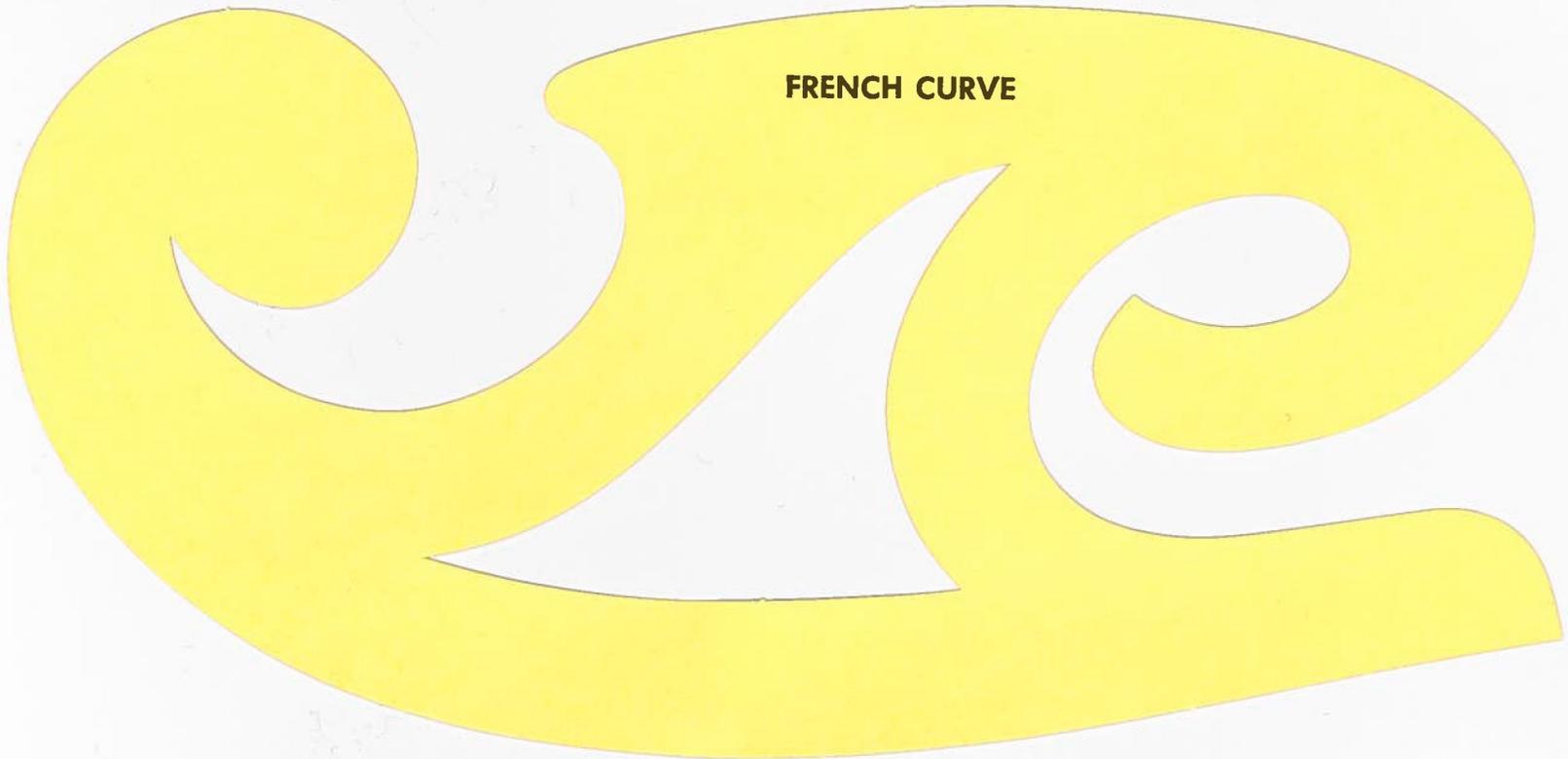
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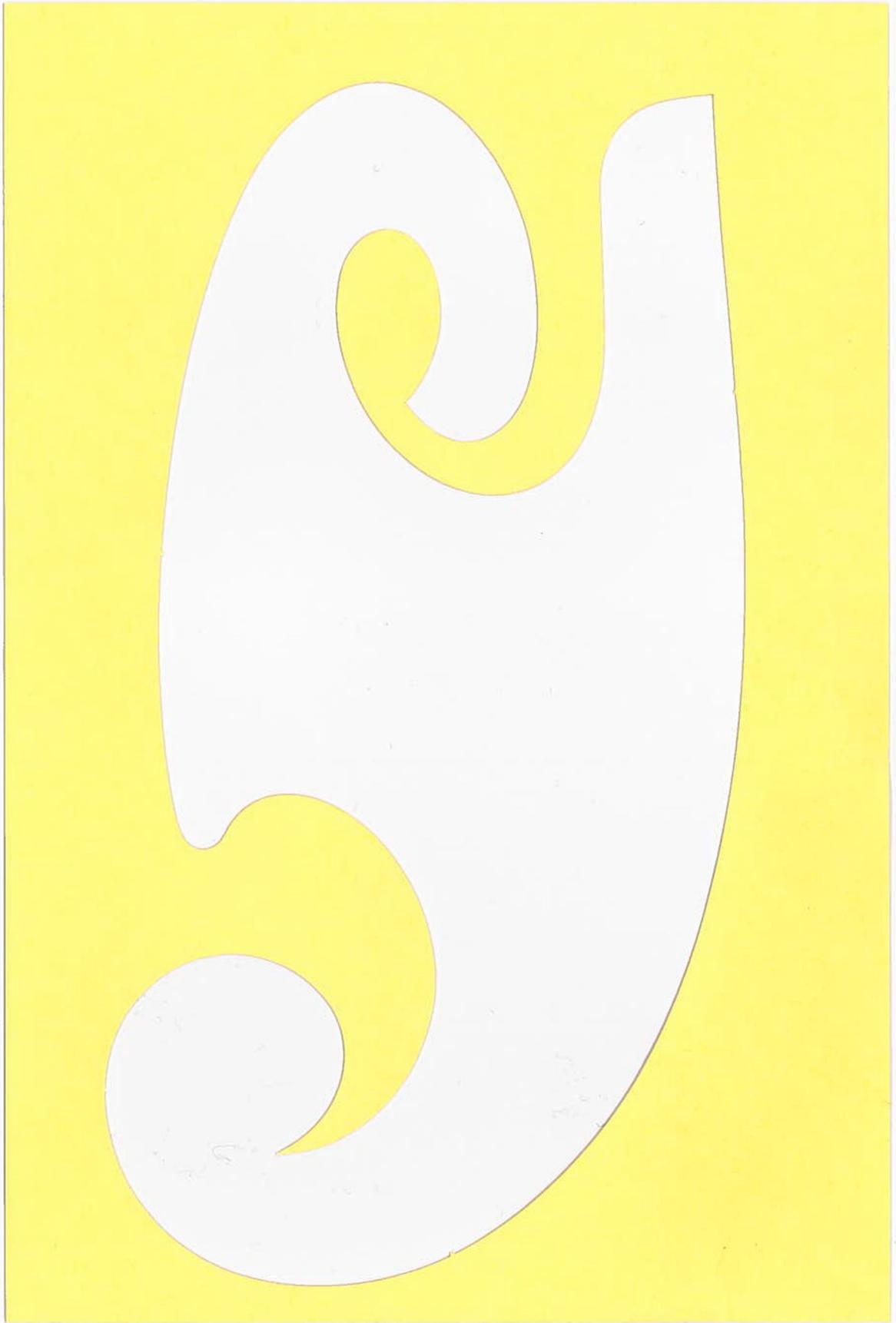
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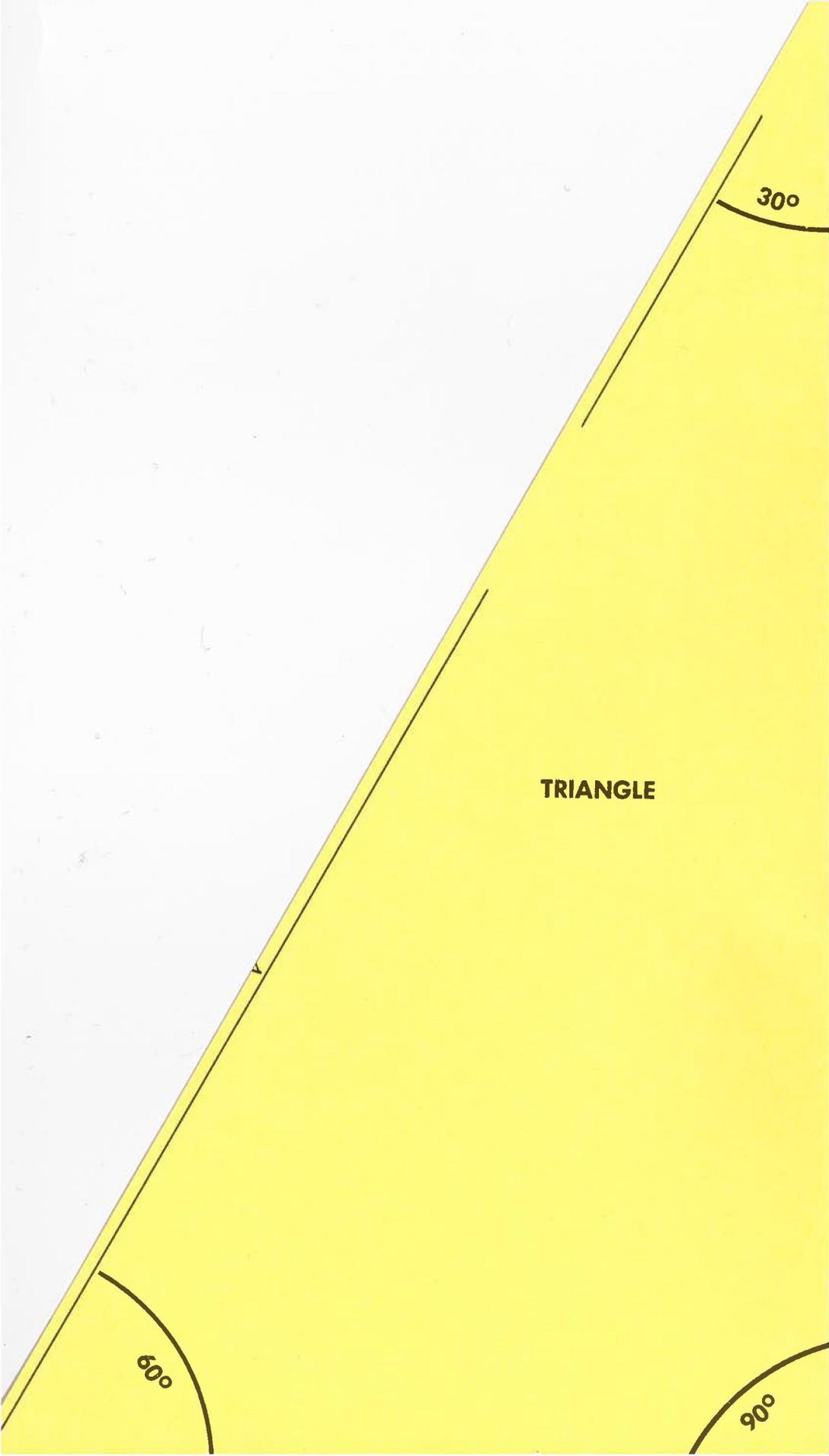
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TEN-SCALE RULER

FRENCH CURVE







TRIANGLE

30°

60°

90°

LANDSCAPE SYMBOL TEMPLATE



Extra Large
Shrub
8'



Large
Shrub
7'



Medium
Shrub
5'



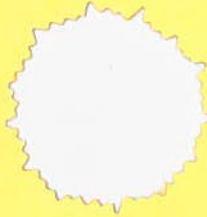
Small
Shrub
3'



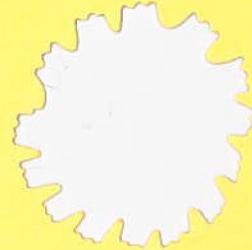
Creeping
Juniper
4'



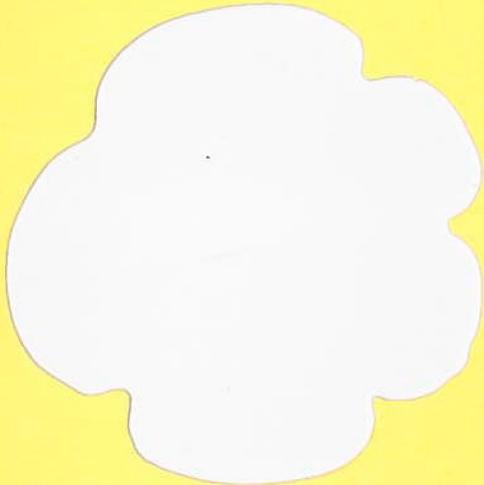
Spreading
Juniper
6'



Upright
Juniper
10'



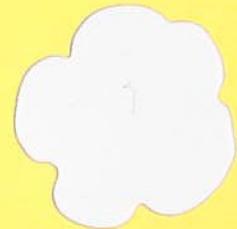
Pine or
Spruce
12'



Major
Shade Tree
25'



Medium
Tree
18'



Flowering
Tree
12'



Fence Posts 8' apart



Trimmed Hedge 3' wide



Untrimmed Hedge 6' wide

Use as template to trace desired items onto landscape plan. Plan all figures on the scale of 1"=10'.

