

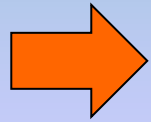
# DROUGHT TOLERANT



# LANDSCAPE DESIGN

Deva Luna    EarthCare Landscaping    408-871-2792

## First of a 4 part series



Drought Tolerant Landscape Design  
March 22, 2018

Drought Tolerant Plant Selection  
April 5, 2018

Drought Tolerant Landscape Installation  
April 19, 2018

Drought Tolerant Landscape Maintenance  
May 3, 2018

# Steps for Landscape Design

1. Goals
2. Budget
3. Site Analysis
4. Base Map
5. Conceptual Diagram
6. Select Plants

# Common mistakes

- The collector's garden (one of everything!)
- Overplanting
- Not enough contrast between plants
- Designing by flower color (needs "bones")
- Not creating conditions for the plants to thrive
- Mixing different hydrozones
- Not maintaining the garden

# Design Concepts

- The rule of odd numbers
- Massing
- Layering
- Repetition
- Contrast
- Function



Design & photo by Pete Veilleux

# Leaf texture contrast is important



GOOD CONTRAST



POOR CONTRAST

Drawn by Fran Adams



Design: Stephanie Curtis Photo: Deva Luna

**Texture, massing, repetition**



Design: Stephanie Morris Photo: Deva Luna

**Massing, repetition, layering**





**Textural contrast & massing**



## Structure & texture



Design: Sherri Osaka Photo: Deva Luna

# Structure



# Hydrozoning

Photo: Carol Bornstein



California Buckeye

**Try to create year-round interest**



# Spring



Douglas Iris & Alum Root

# Summer



Autumn Sage & Beach Aster



CA Fuchsia & Deer Grass

# Fall





# Winter textures

Cleveland Sage & Deer Grass

# BONES:

Hardscape that is attractive, bold and functional



# BONES:

## Contemporary retaining wall



Native Horsetail (keep contained!)

# BONES

can also be plants with good structure

Dr. Hurd Manzanita



# GUTS:

Outstanding and hard working perennials



Cedros Island Verbena & Poppies

# SKIN:

Ground covers that tie it all together visually



Green Supreme Manzanita & Pt. Sal Spreader Sage

# ACCENTS:

Focal points to draw the eye

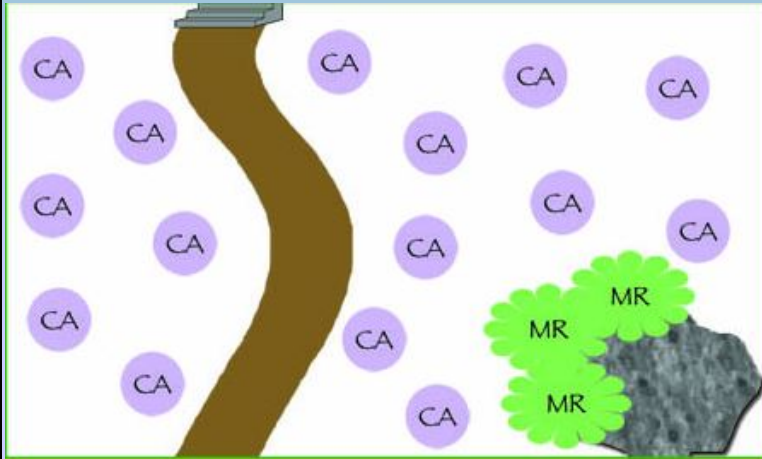


# What do you need for the design?

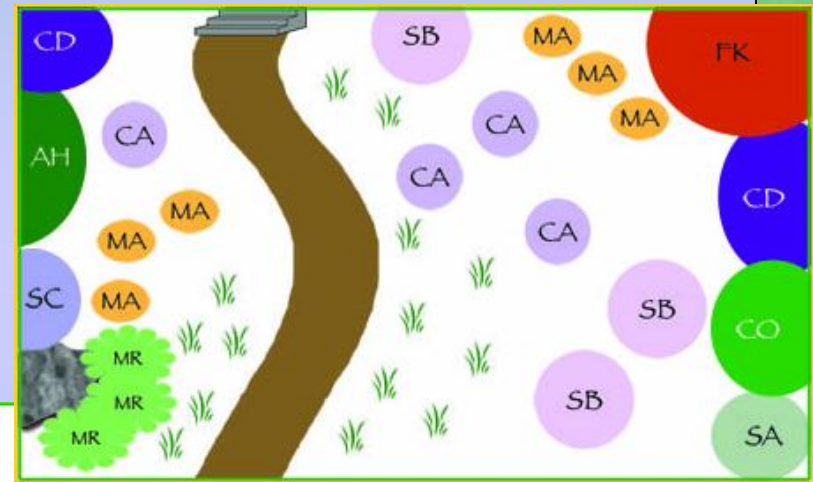
- Measuring tape(s)
- Ruler (but an architect's scale is easier)
- Large piece of paper (gridded is easier)
- Compass or another way to find north



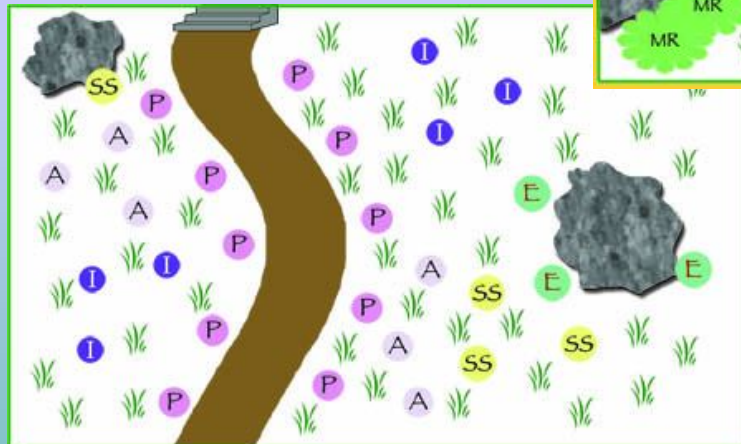
# Sample Designs from Yerba Buena Nursery



Ground covers & grasses



Meadow with ground cover & habitat shrubs



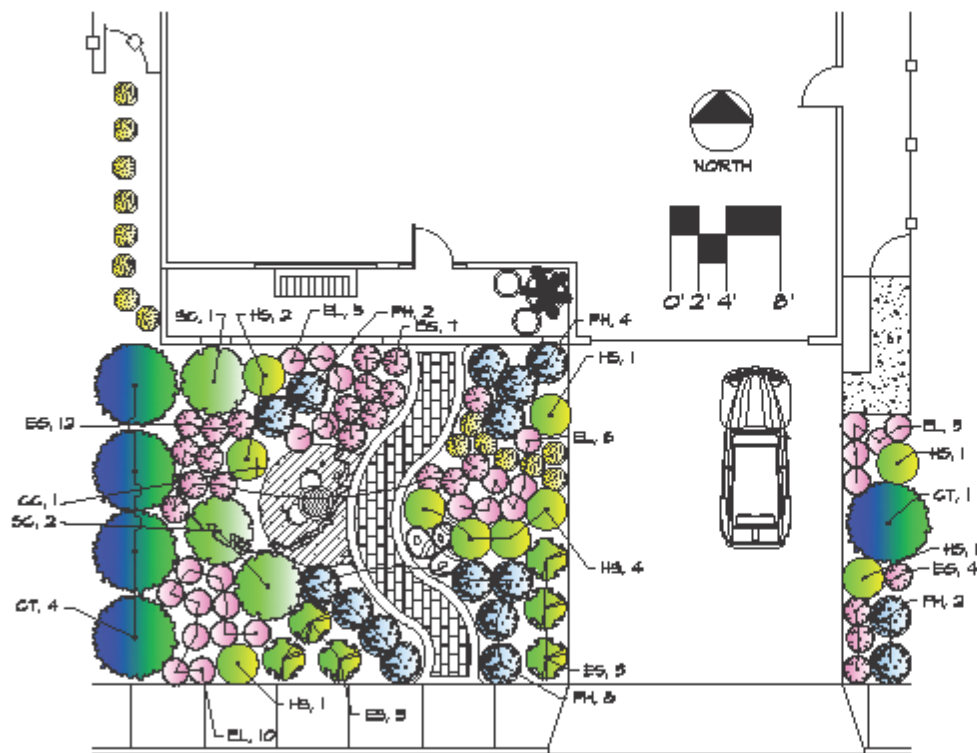
Meadow with small grasses & colorful perennials



GREEN GARDENS HEALTHY CREEKS

# Café Garden (Small, Sunny Yard)

Sustainable concept design for yards in Santa Clara Valley



- |                         |                                |                                    |
|-------------------------|--------------------------------|------------------------------------|
| Pervious pavers         | Used wooden or iron cafe table | Bench made from recycled plastic   |
| Existing concrete porch | Garden pots                    | Existing front door or garden gate |
| Concrete stepping stone | Group of boulders              |                                    |



Rosy Buckwheat  
*Erigeron grande* var. *rubescens*



California Fuchsia  
*Epilobium septentrionale*  
'Wayne's Silver'



Seaside Daisy  
*Erigeron glaucus* 'Wayne Roderick'



Beard Tongue  
*Penstemon heterophyllus*  
'Margarita Bop'



Cleveland Sage  
*Salvia clevelandii*



Sticky Monkeyflower  
*Mimulus aurantiacus*

### About the Concept Design Series

These designs are simple concepts to provide inspiration and ideas. Check with local nurseries, landscapers or other sustainable garden designers to help choose the best plants for your yard.

# 10 sample plans / City of San Jose website

<http://www.sanjoseca.gov/index.aspx?NID=3734>

# What does professional landscape design cost?

- Typical landscape designer rates are around \$75-125/hr
- Landscape architects are higher (usually 10-12% of construction cost)
- Average front yard design costs range from \$1000 to \$2500
- Average backyard design costs range from \$2000 to \$4000

Professional Costs:

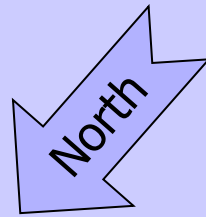
<http://www.earthcareland.com/what-we-do/installation.html>

# Example of Goals

- Low maintenance
- Save water
- Bird and pollinator habitat
- Path to back gate
- Screening neighbor's ugly shed
- Compatible with style of house & neighborhood
- Make entry more welcoming
- Landscape around an existing redwood tree

Then prioritize the list

# Begin by measuring

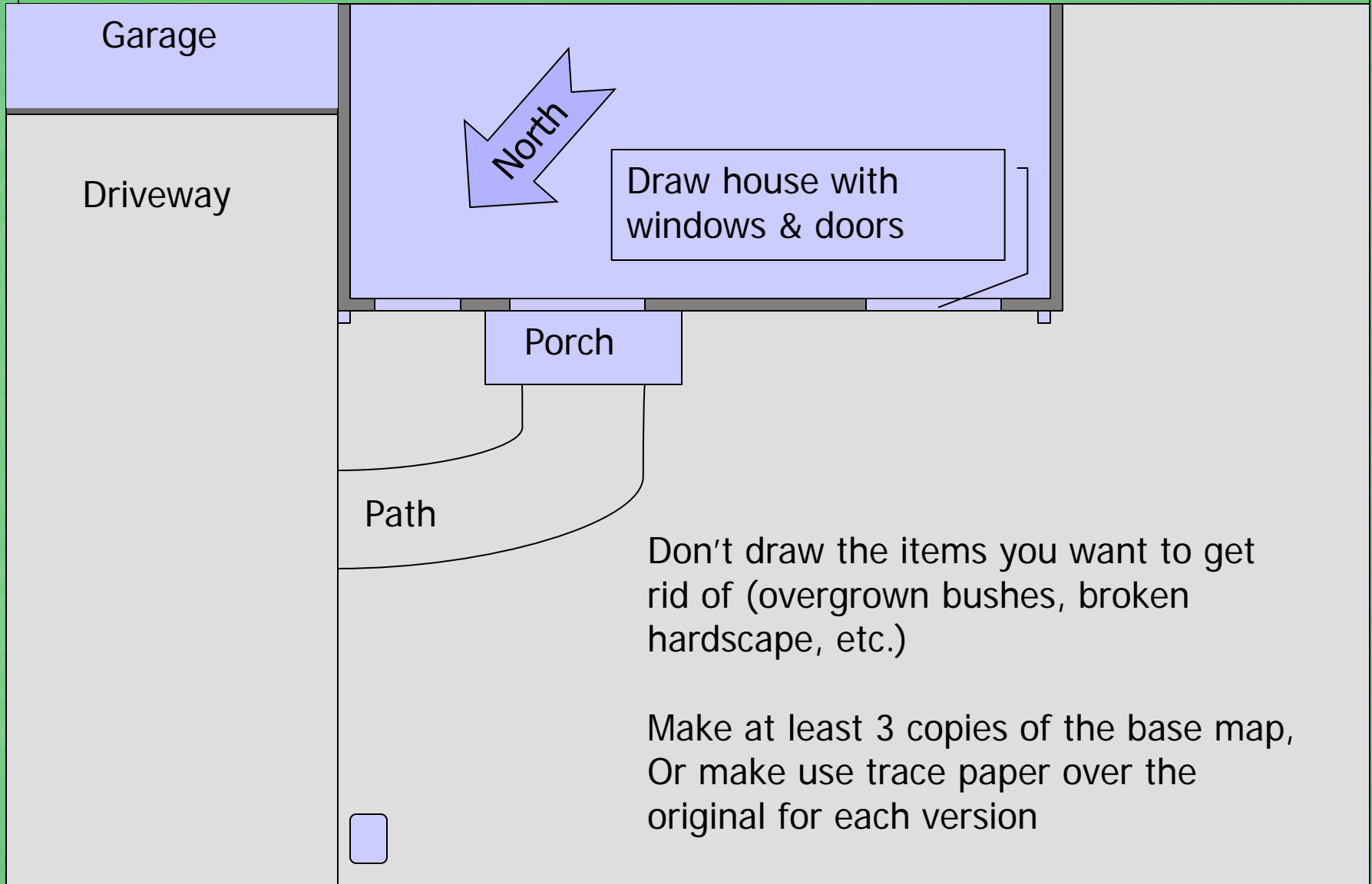


Start by measuring the whole area

Fit it on your page at  $1/8''$  or  $1/4''$  per foot

1. Site the house; show property lines
2. North arrow
3. Driveway and paths, hose bibbs, utilities, downspouts, fence and gates
4. Trees/shrubs that are staying

# Base Map Example



# Site Analysis

Sunset climate zone

Look for possible microclimates

Soil testing

Identify plants to remove (be critical here!)

Identify sun/shade patterns

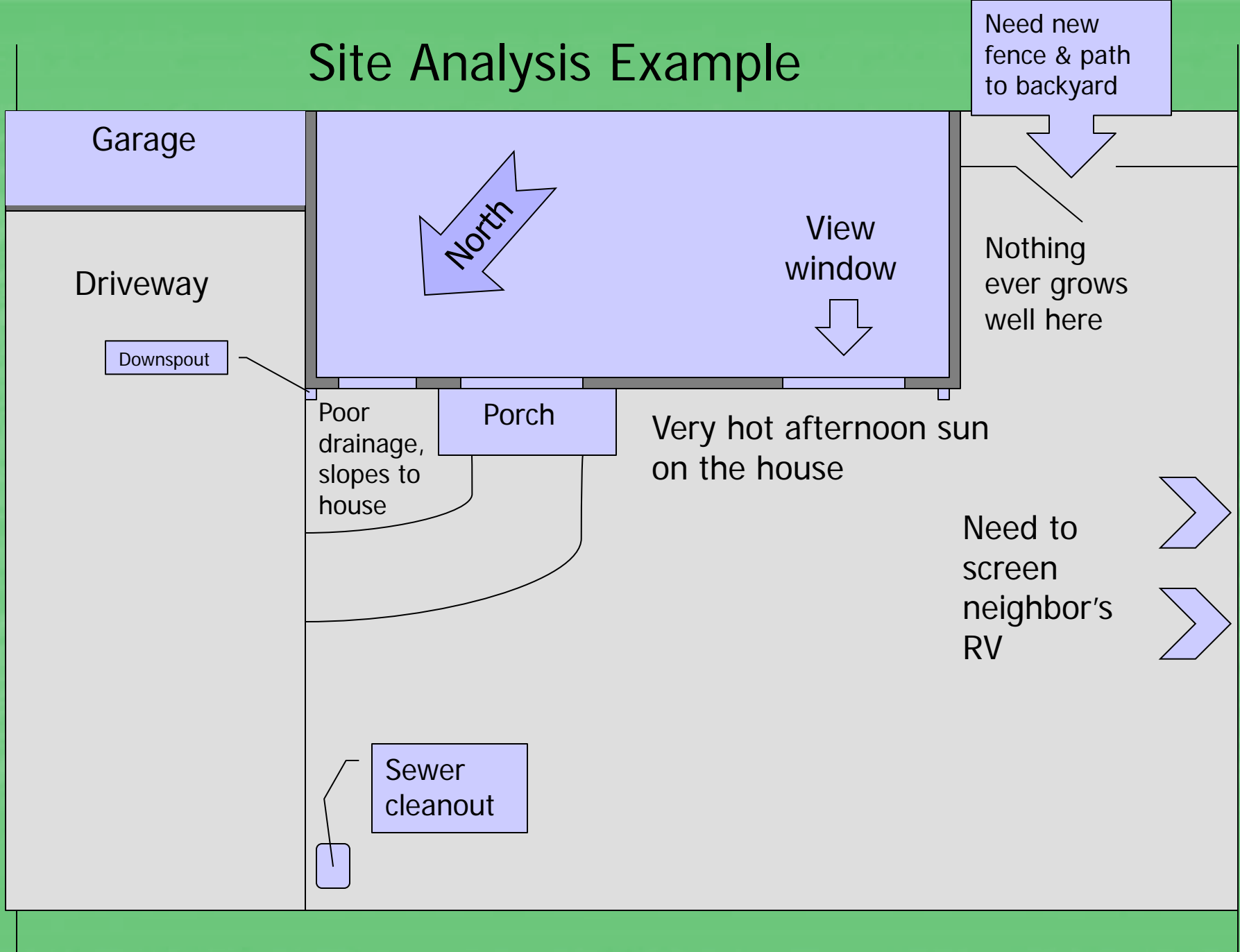
Important views of and from the house

Things you want to hide

Overhead wires, poles, trees (& neighbor's  
overhanging tree too)

Logically traveled paths

# Site Analysis Example



Garage

Driveway

Downspout

North

View window

Porch

Poor drainage,  
slopes to house

Very hot afternoon sun  
on the house

Sewer  
cleanout

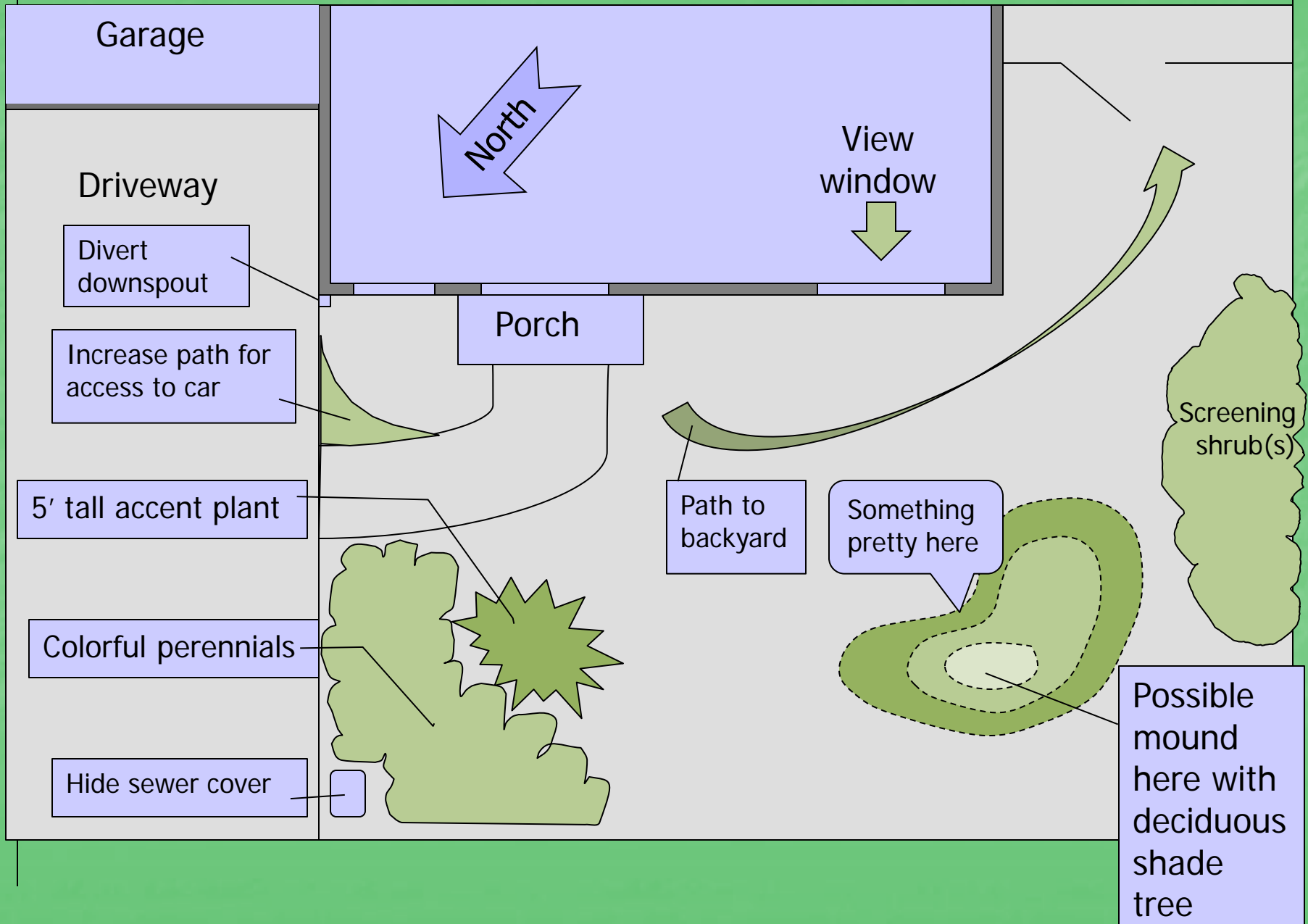
Need new  
fence & path  
to backyard

Nothing  
ever grows  
well here

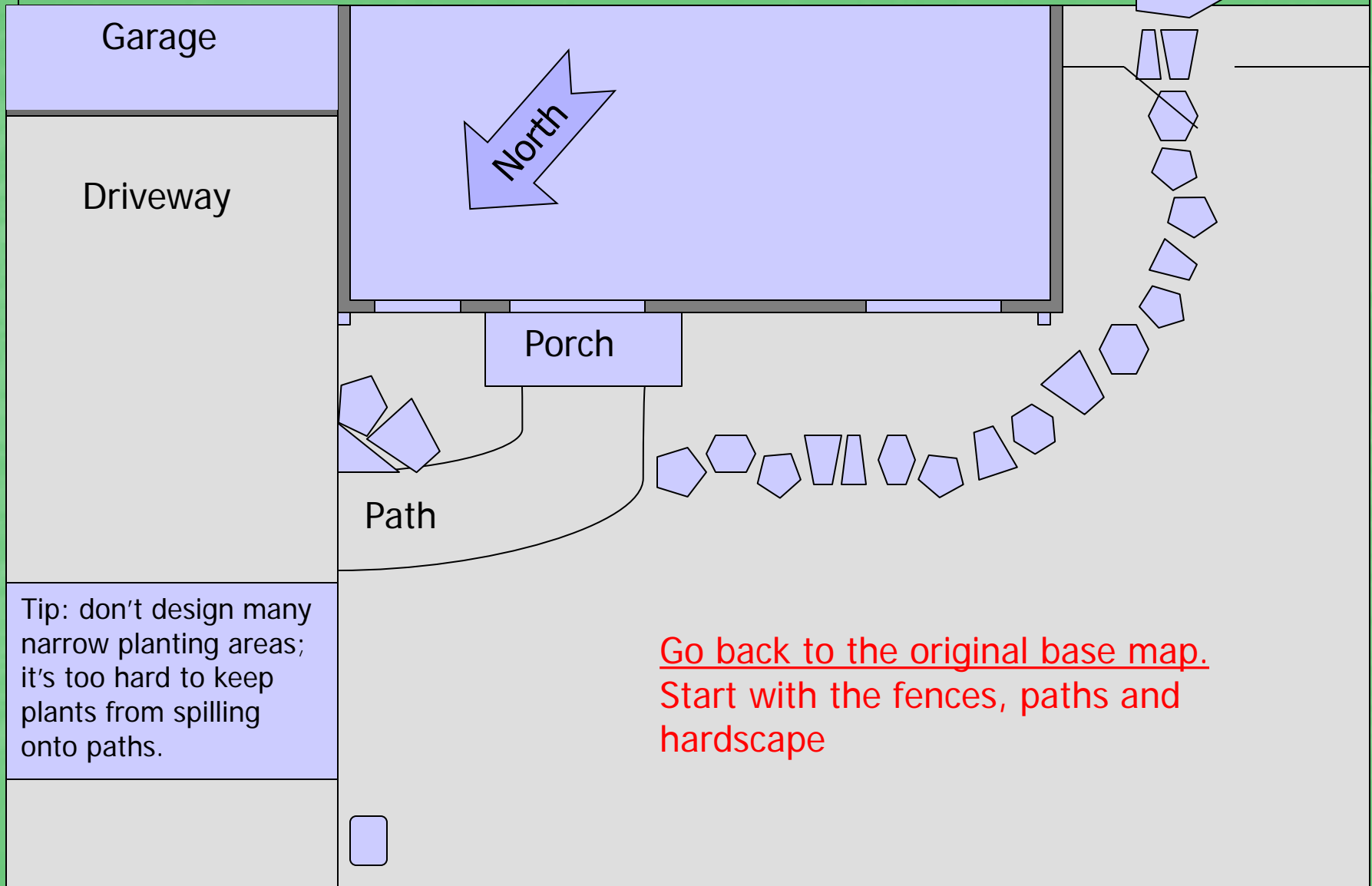
Need to  
screen  
neighbor's  
RV



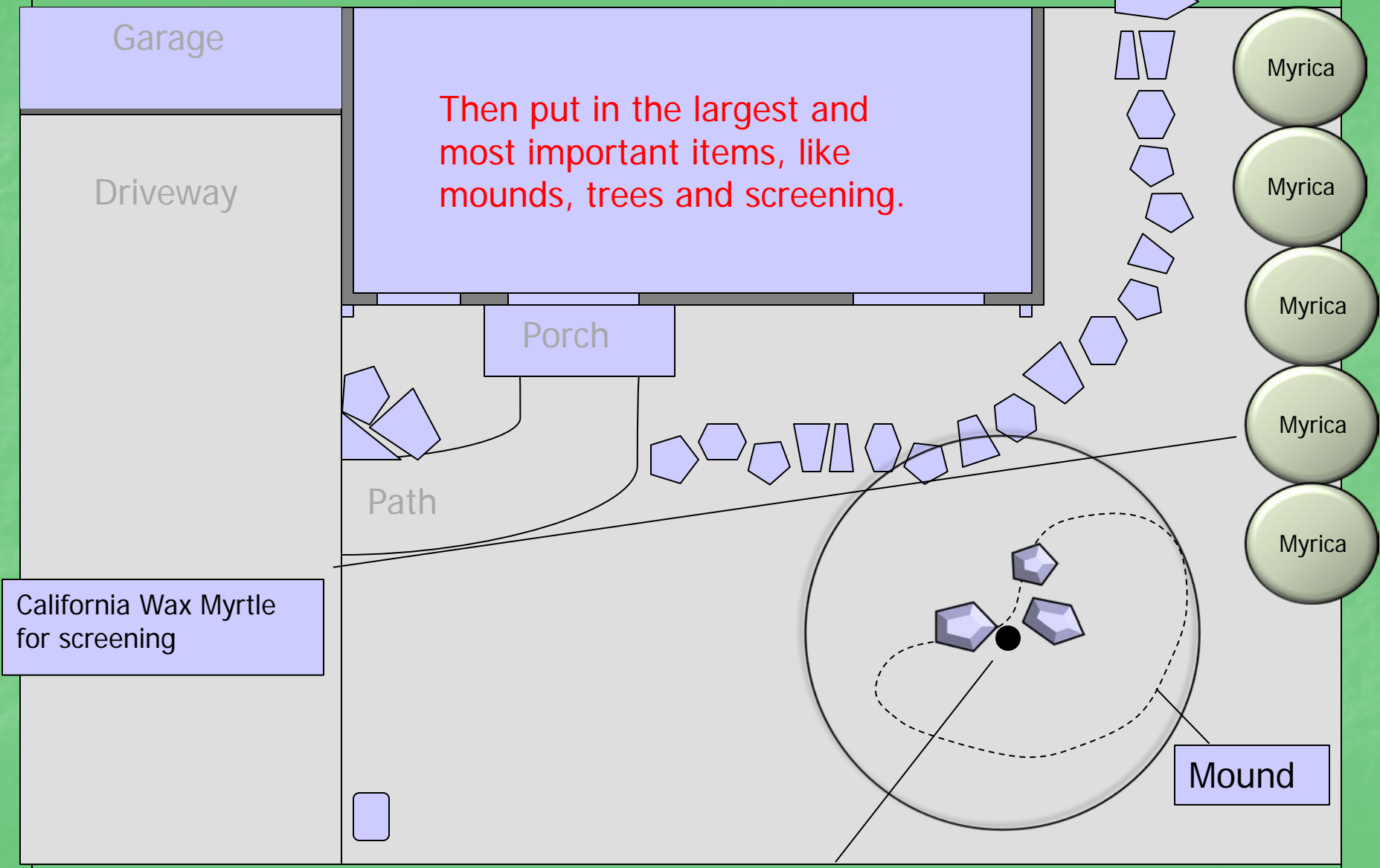
# Conceptual Diagram Example



# How you create the plan



# Trees & Screening: The Big Bones



Chitalpa, a deciduous shade tree to cool the house

# Trees & Screening: The Big Bones

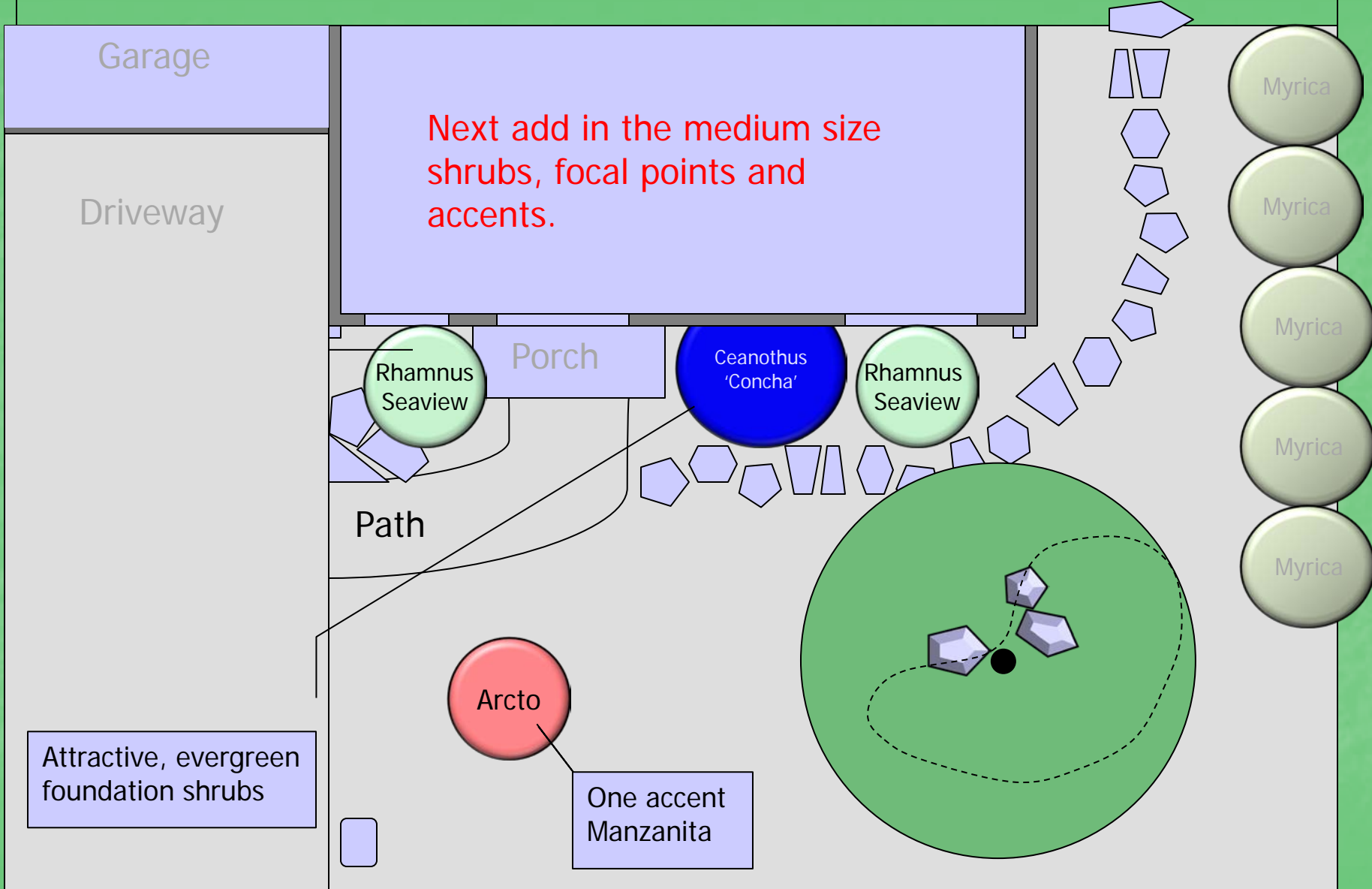


California Wax Myrtle for screening

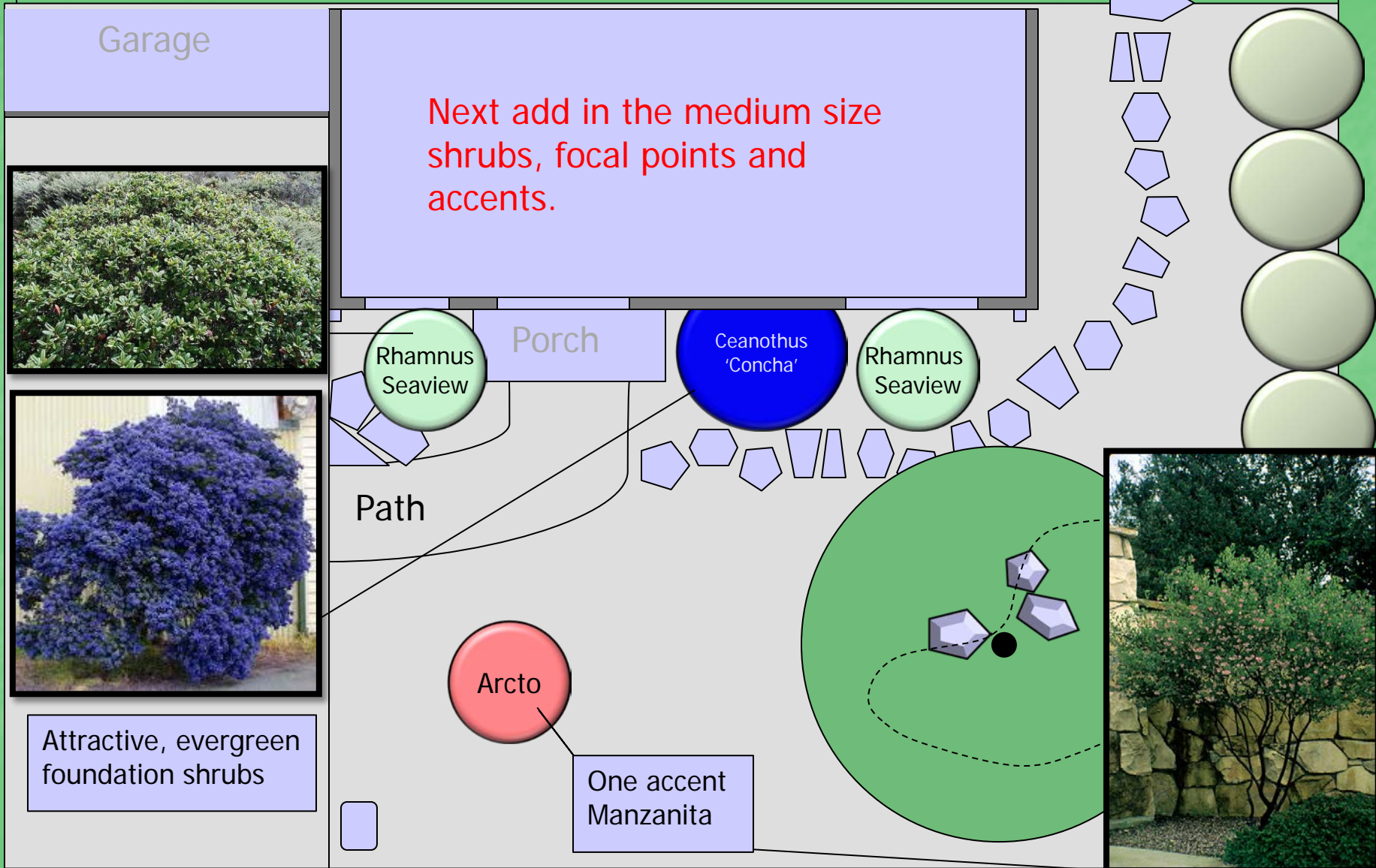


Chitalpa, a deciduous shade tree to cool the house

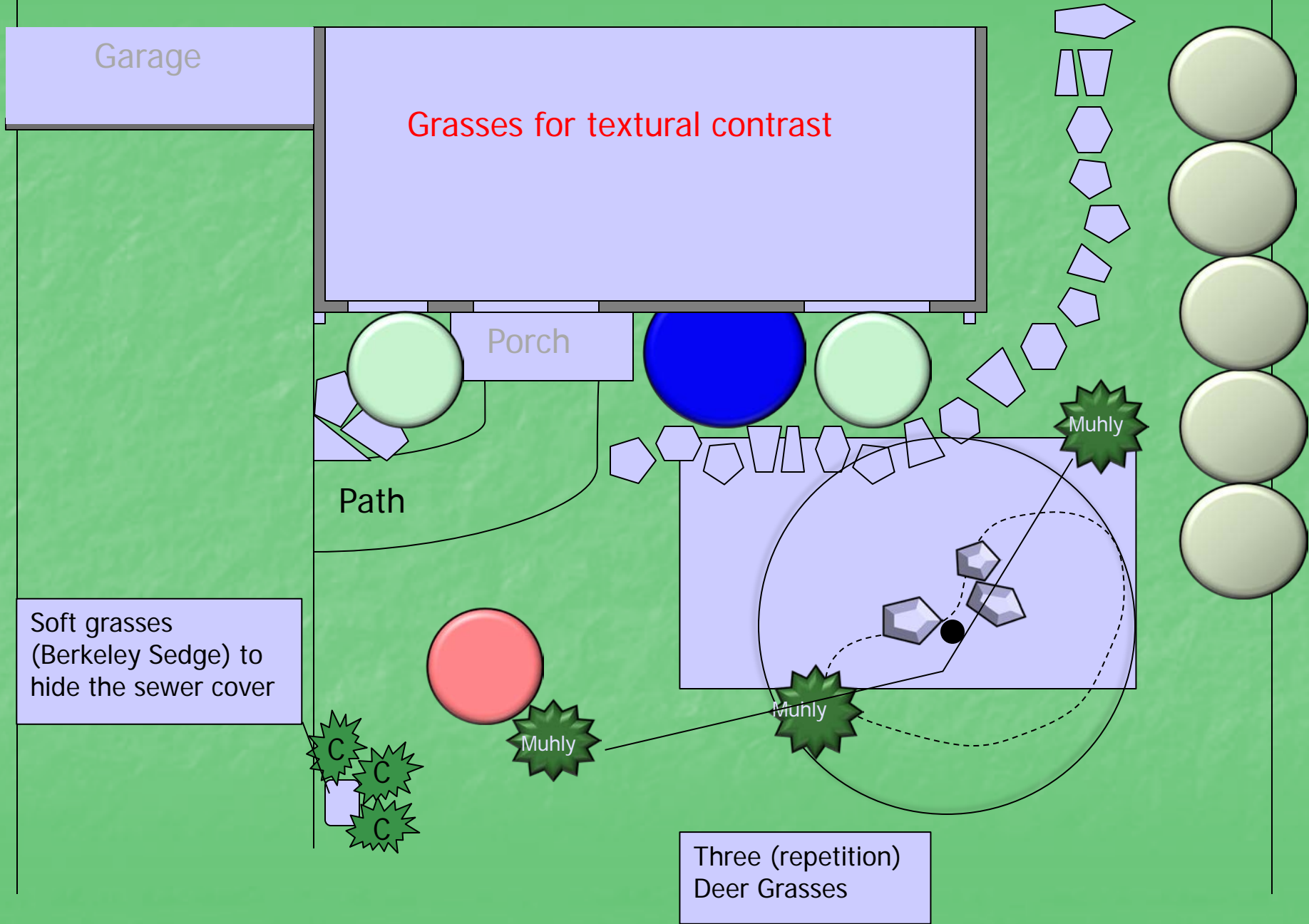
# Medium Size Shrubs: The Smaller Bones



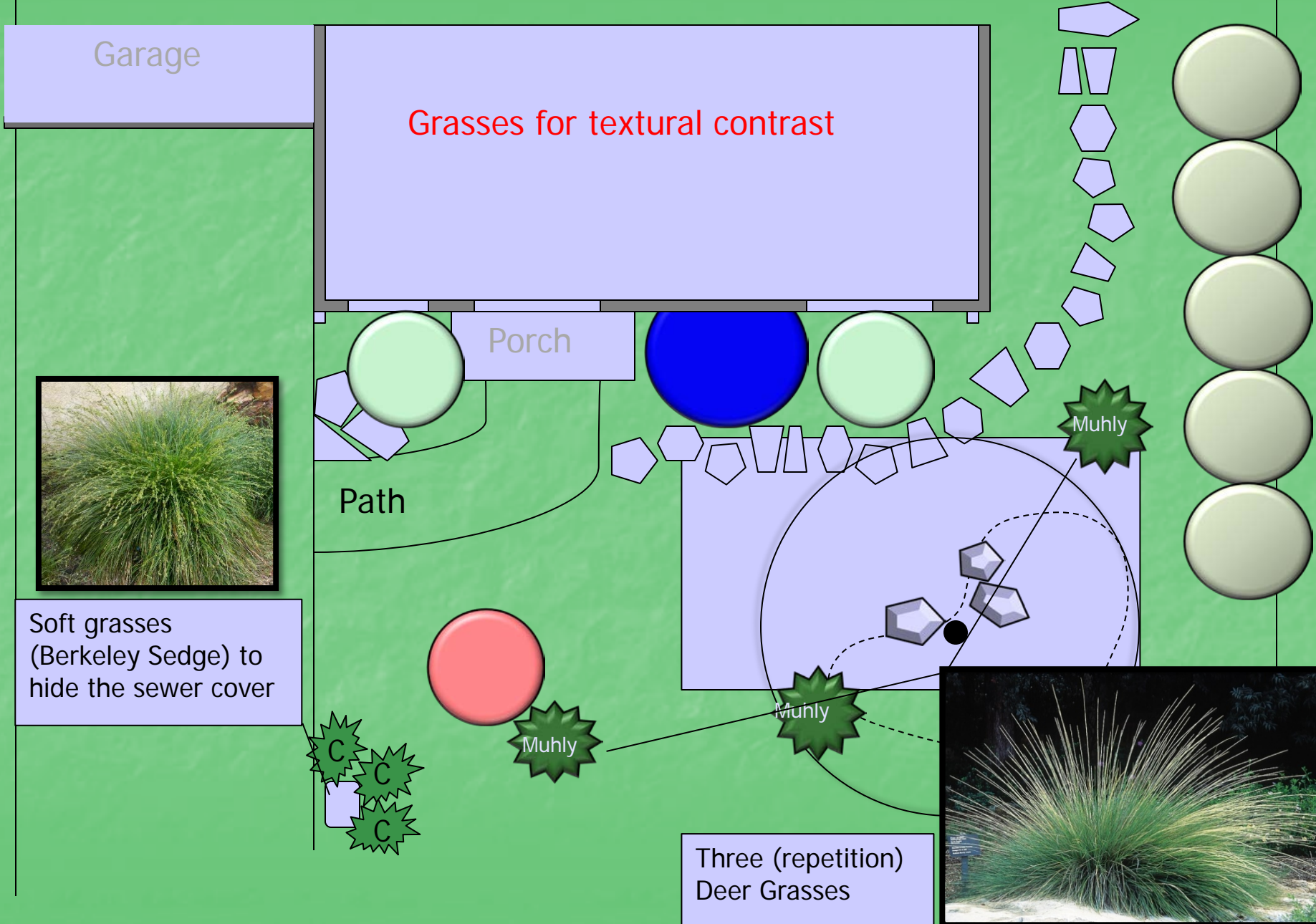
# Medium Size Shrubs: The Smaller Bones



# Medium Size Shrubs: The Smaller Bones

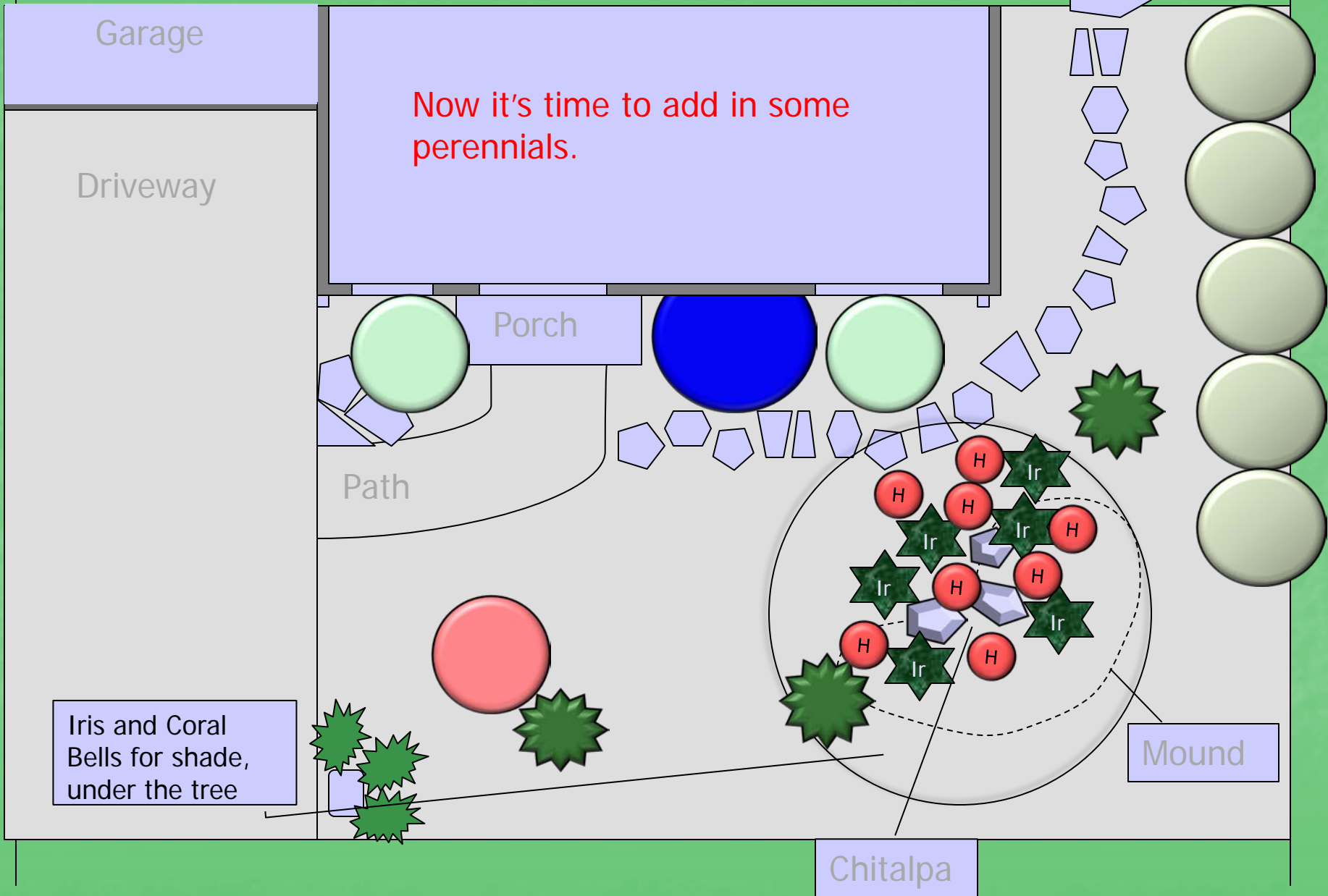


# Medium Size Shrubs: The Smaller Bones





# Perennials: The Guts



Now it's time to add in some perennials.

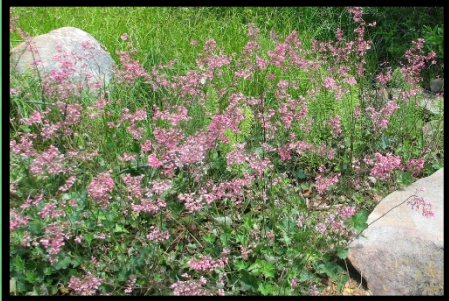
Iris and Coral Bells for shade, under the tree

Mound

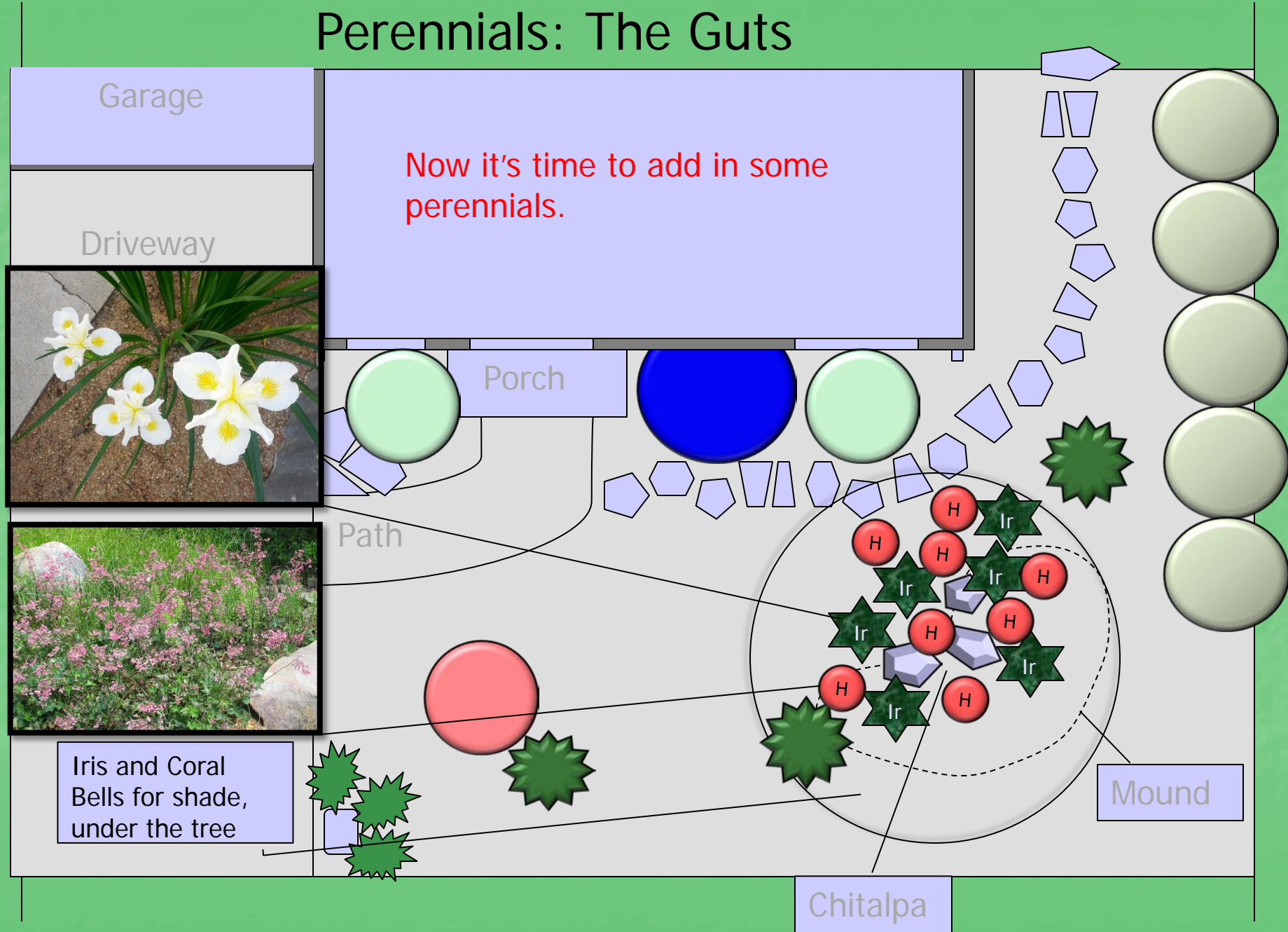
Chitalpa

# Perennials: The Guts

Now it's time to add in some perennials.

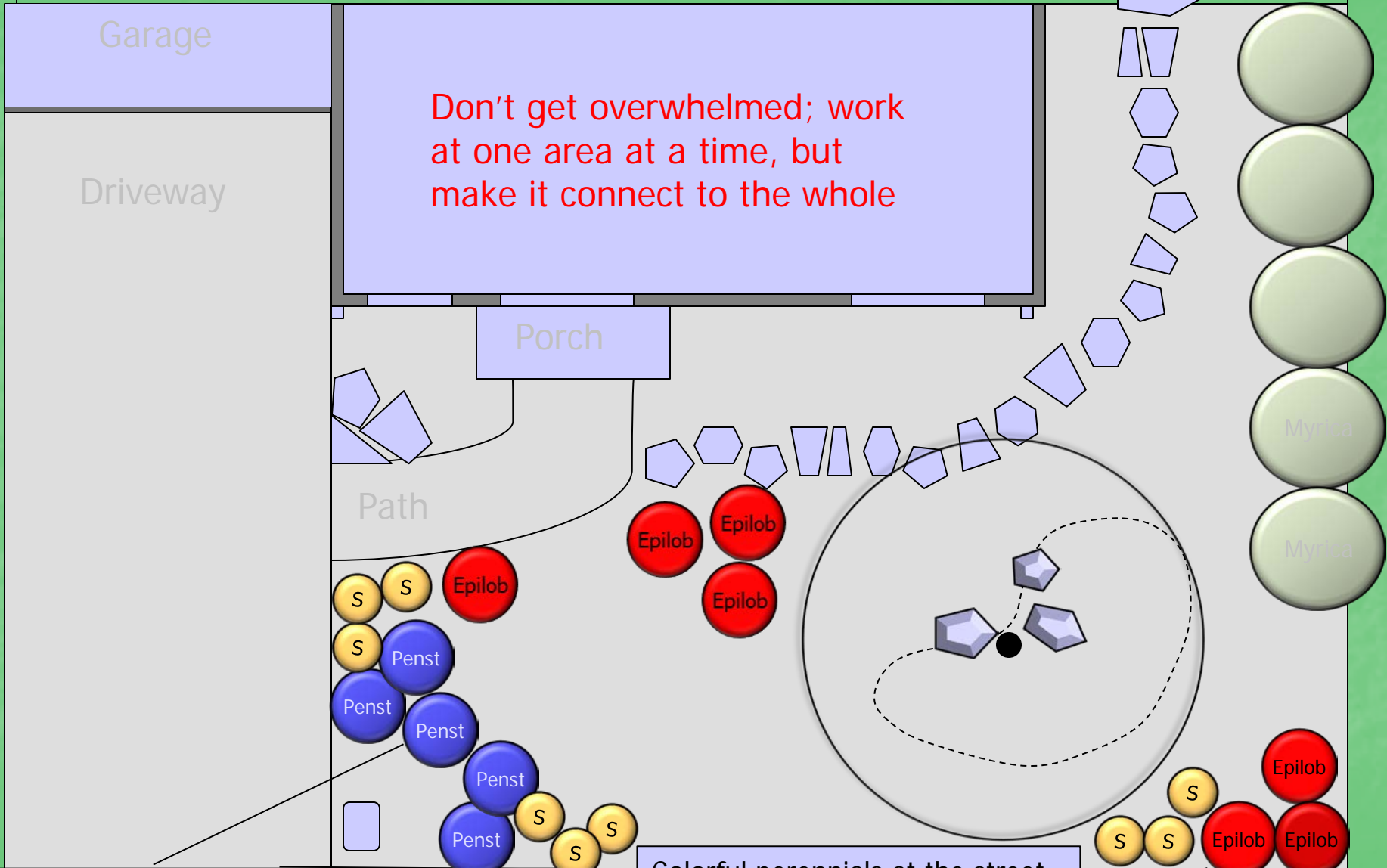


Iris and Coral Bells for shade, under the tree



# Keep infilling

Don't get overwhelmed; work at one area at a time, but make it connect to the whole



Sulfur Buckwheat, Calif Fuchsia and Foothill Penstemon perform in hot, dry areas.

Colorful perennials at the street  
Tip: Keep plants low near walkways

# Keep infilling

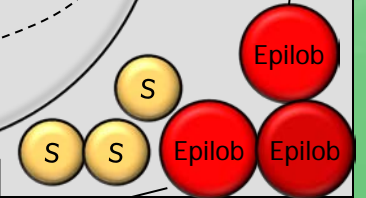
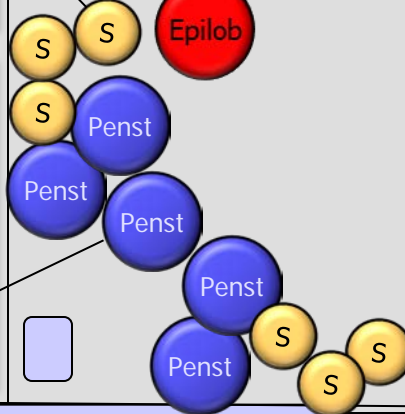
Don't get overwhelmed; work at one area at a time, but make it connect to the whole

Garage

Driveway

Porch

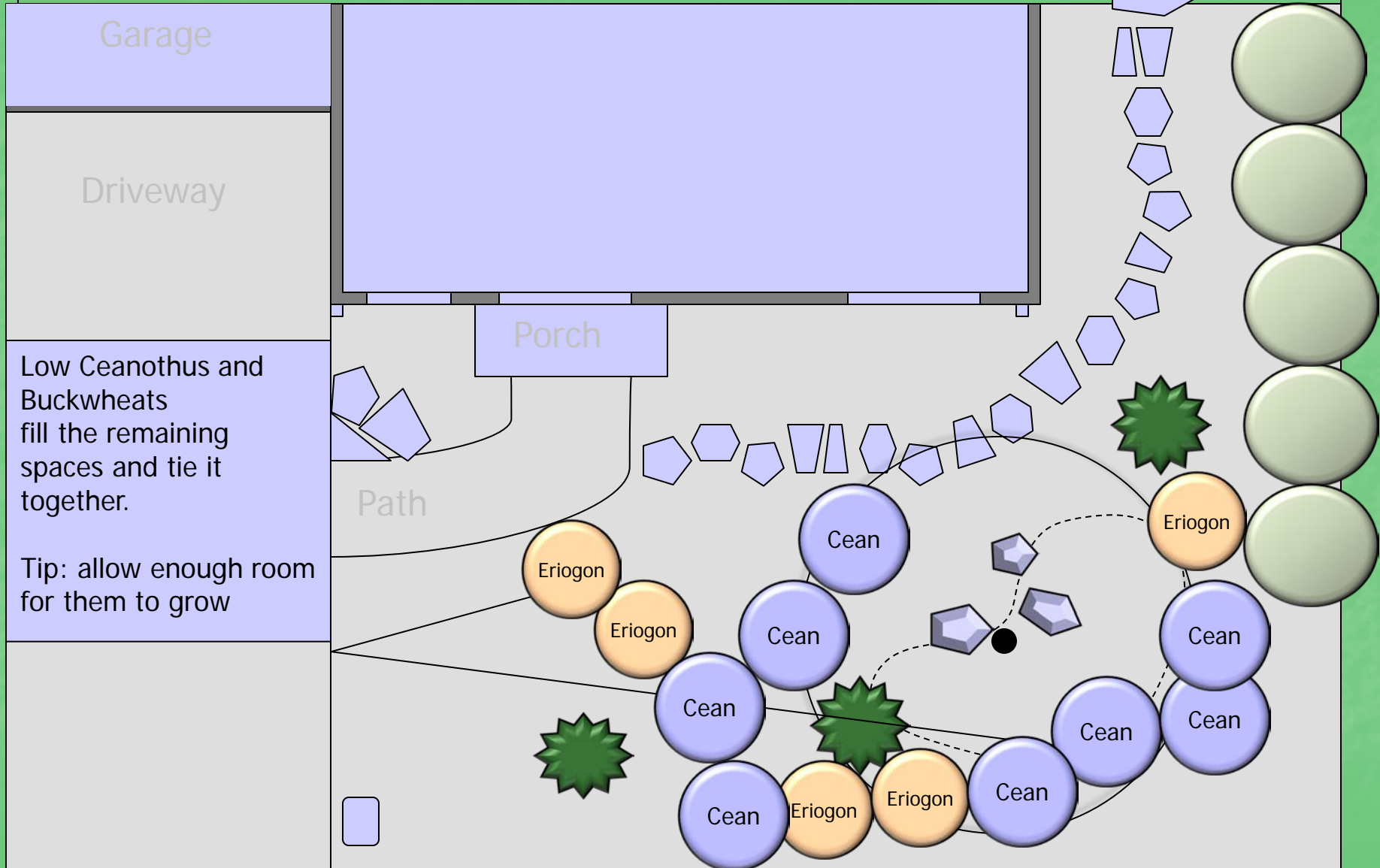
Path



Colorful perennials at the street  
Tip: Keep plants low near walkways

Sulfur Buckwheat, Calif Fuchsia and Foothill Penstemon perform in hot, dry areas.

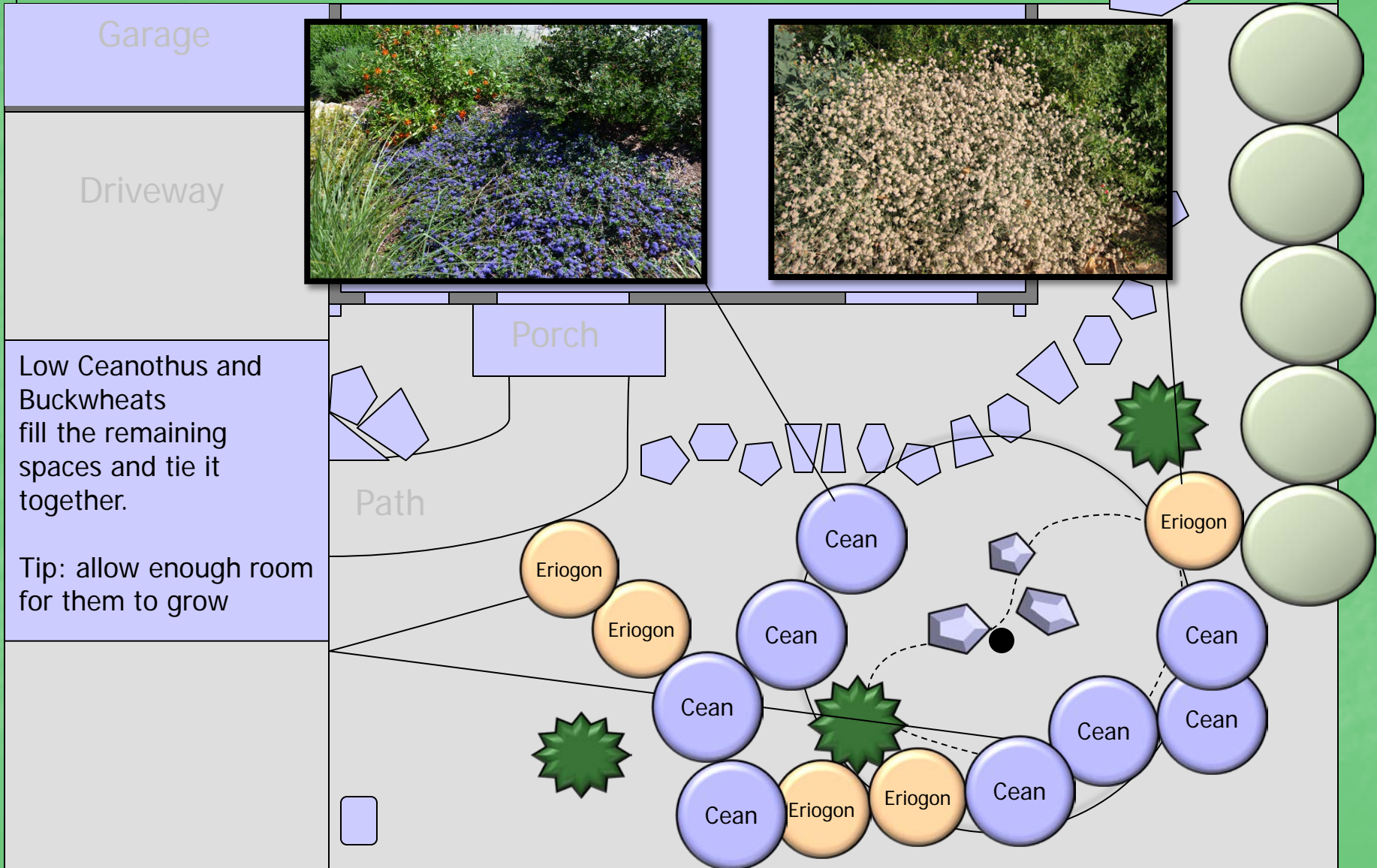
# Groundcovers: The Skin



Low Ceanothus and Buckwheats fill the remaining spaces and tie it together.

Tip: allow enough room for them to grow

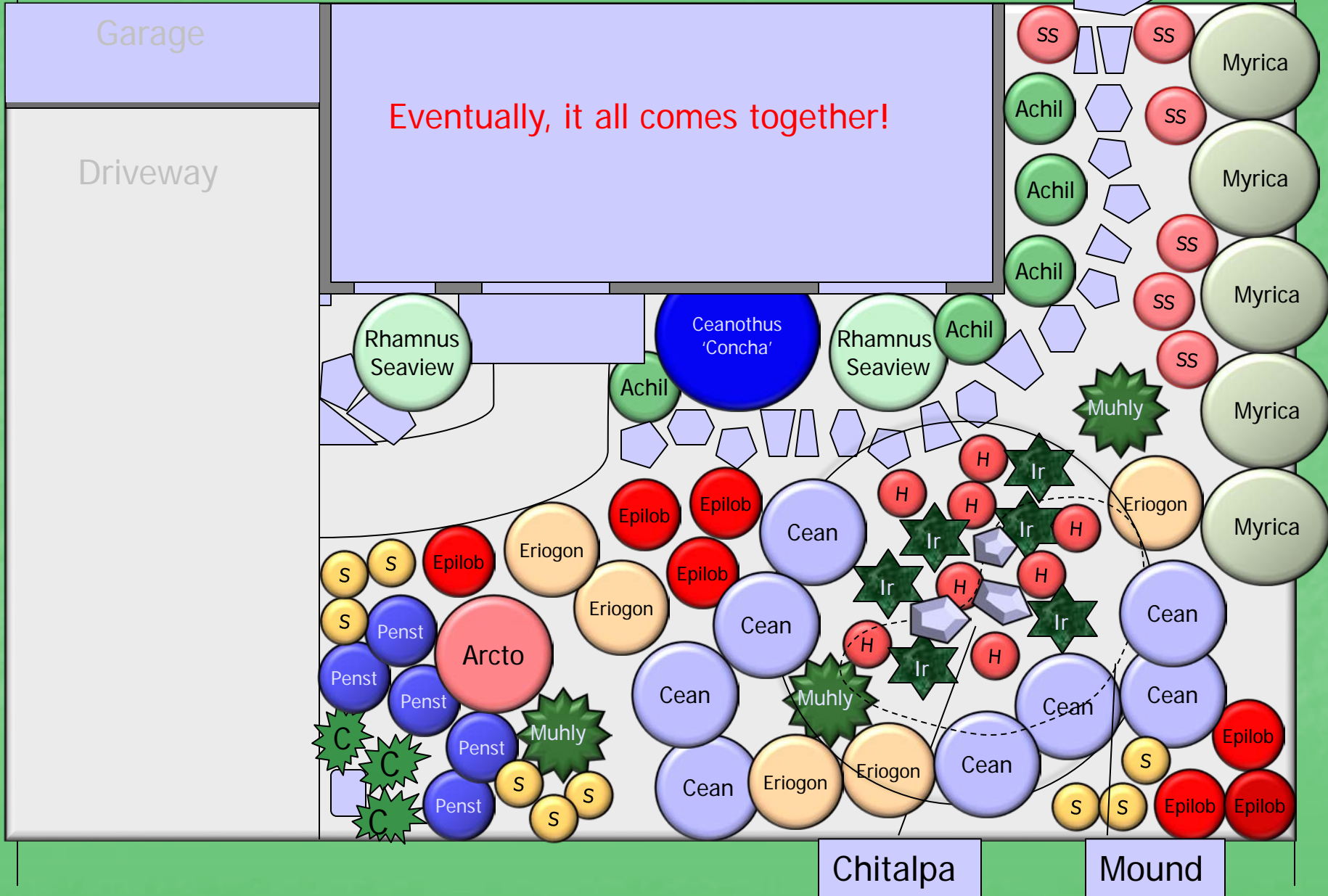
# Groundcovers: The Skin



# Planting Plan (for ordering)

<i>Botanical Name</i>	<i>Common Name</i>	<i>Plant Type</i>
1 x Chitalpa tashkentensis	Chitalpa	Tree
1 Arctostaphylos 'Louis Edmonds'	Manzanita	Specimen Shrub
1 Ceanothus 'Concha'	California Lilac	Specimen Shrub
5 Myrica californica	Wax Myrtle	Screening
2 Rhamnus 'Seaview'	Dwarf Coffeeberry	Foundation Shrub
5 Penstemon 'Margarita BOP'	Foothill Penstemon	Perennial
7 Epilobium 'Select Mattole'	California Fuchsia	Perennial
8 Ceanothus 'Centennial'	California Lilac	Ground Cover
5 Achillea millefolium	Yarrow	Perennial
3 Muhlenbergia rigens	Deer Grass	Architectural Grass
6 Salvia spathacea	Hummingbird Sage	Perennial
5 Eriogonum 'Warriner Lytle'	California Buckwheat	Ground Cover
6 Iris 'Canyon Snow'	Pacific Coast Iris	Accent Perennial
7 Heuchera 'Wendy'	Coral Bells	Perennial
9 Eriogonum 'Shasta Sulfur'	Sulfur Buckwheat	Perennial
3 Carex tumulicola	Berkeley Sedge	Clumping Grass

# Planting Plan Example





# How to work with a professional and still save money

1. Make a list of goals/desires
2. Take pictures of landscapes you like
3. Create an accurate plot map in 1/4" or 1/8" scale
4. Analyse your sun/shade patterns
5. Make a list of plants you like
6. Use a hose and chalk to determine shapes of hardscapes and write down square footages
7. Go to a building supply w/measurements to help establish materials and budget
  - Then bring in a consulting designer to help you pull the elements together.

# HELP WITH HYDROZONING!

[www.waterwonk.us](http://www.waterwonk.us)

## California plant database search tool

Choose city ► Plant search ► My plant list

1

A plant's water needs vary with the climate region where it will live. Choose a city and the tool will place your search in the correct WUCOLS climate region.

2

Proceed to the plant search page, and search to your heart's content. There are 12 different search criteria you could specify, or just bring up the entire regional list, or the full list showing all plants and all 6 regions. You will be presented with the WUCOLS water-use value for each plant.

3

Create a list of plants for your project. This list can be printed or downloaded to your favorite spreadsheet program. We will save your plant lists for you in our database.

- You may have one courtesy plant list for each region. To access your existing plant list for any given region, you must first choose a city in that region, and then go to the plant search page. Your list may be accessed from the "Plant Search" page.
- In order for you to create plant lists, you must register for the site. Signing up is free, quick, and easy to do.

*What is WUCOLS?*

### Water Use Classifications of Landscape Species

*Water Use Classifications of Landscape Species (WUCOLS) provides a guide to estimating irrigation water needs of landscape plantings in each of 6 distinct California climate regions. WUCOLS was developed by the University of California Cooperative Extension in cooperation with landscape professionals and funded by the California Department of Water Resources.*



Click pdf icon to view or download WUCOLS IV plant list. Learn more about WUCOLS [here](#)



Get started



## Choose City to identify WUCOLS REGION

[Show instructions](#)

**Find city in WUCOLS REGION** **Go to  
Plant Search**

	1 North Central Coastal ▾	
	2 Central Valley ▾	
	3 South Coastal ▾	
	4 South Inland Valley ▾	
	5 High and Intermediate Desert ▾	
	6 Low Desert ▾	

**Or find by city name** **Find city**

Begins with  

# Search for a category

## *Example: very low water ground covers*

### Plant Search

North Central Coastal, CA

WUCOLS Region 1

[Choose new city](#)

[Save to PDF](#)

Botanical name begins with

Find

Common name begins with

Find

#### Plant Type

- Ba Bamboo
- Bu Bulb
- G Grass
- Gc Groundcover
- P Perennial
- California Native
- Pm Palm
- S Shrub
- Su Succulent
- T Tree
- V Vine

#### Water use

- Very Low
- Low
- Moderate
- High
- Unknown
- Not appropriate for this region
- Reduced Summer Water [What's this?](#)

[Go to WUCOLS list for all 6 regions](#)

All plants for this region

Find

## Plant Search

North Central Coastal, CA

WUCOLS Region 1

[Choose new city](#)

[Save to PDF](#)

Botanical name begins with

Common name begins with

---

**Plant Type**

Ba Bamboo     Pm Palm

Bu Bulb     S Shrub

G Grass     Su Succulent

Gc Groundcover     T Tree

P Perennial     V Vine

---

California Native

**Water use**

Very Low

Low

Moderate

High

Unknown

Not appropriate for this region

---


Reduced Summer Water [What's this?](#)

---

[Go to WUCOLS list for all 6 regions](#) All plants for this region

 New Search

 California Native





 Reduced Summer Water

### Search Results

7 plants:

Type-Groundcover

Water use-Very low

Type	Botanical Name	Common Name	Water Use	Flickr Photos	Select for My List
Gc S	Acacia redolens 	prostrate acacia	Very Low	<a href="#">See it</a>	<input type="checkbox"/> 
Gc S	Adenostoma fasciculatum 	chamise	Very Low	<a href="#">See it</a>	<input type="checkbox"/>
Gc S	Artemisia spp. (shrubby)	sagebrush	Very Low	<a href="#">See it</a>	<input type="checkbox"/>
Gc S	Atriplex CA native species 	saltbush	Very Low	<a href="#">See it</a>	<input type="checkbox"/>
Gc S	Atriplex semibaccata 	Australian saltbush	Very Low	<a href="#">See it</a>	<input type="checkbox"/>
Gc	Iva hayesiana  	poverty weed	Very Low	<a href="#">See it</a>	<input type="checkbox"/>
Gc P	Teucrium cossonii	Majorcan germander	Very Low	<a href="#">See it</a>	<input type="checkbox"/>

**Results for "Very Low Groundcover"**  
**Click on "See it" for a picture!**

# *Teucrium cossoni* - Majorcan Germander



# Search for a plant and find out its water requirement

## Plant Search

North Central Coastal, CA

WUCOLS Region 1

[Choose new city](#)

[Save to PDF](#)

Botanical name begins with

Find

Common name begins with

Find

### Plant Type

- Ba Bamboo
- Bu Bulb
- G Grass
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### Water use

- Very Low
- Low
- Moderate
- High
- Unknown
- Not appropriate for this region
- Reduced Summer Water [What's this?](#)

Find


[Go to WUCOLS list for all 6 regions](#)

All plants for this region

Find

 [New Search](#)

 [California Native](#)

 [Reduced Summer Water](#)

[Go to list](#)

## Search Results

1 plants:

common name

begins with "Japanese Maple"

Type

T

Botanical Name

Acer palmatum

Common Name

Japanese maple

Water Use

Moderate

Flickr Photos

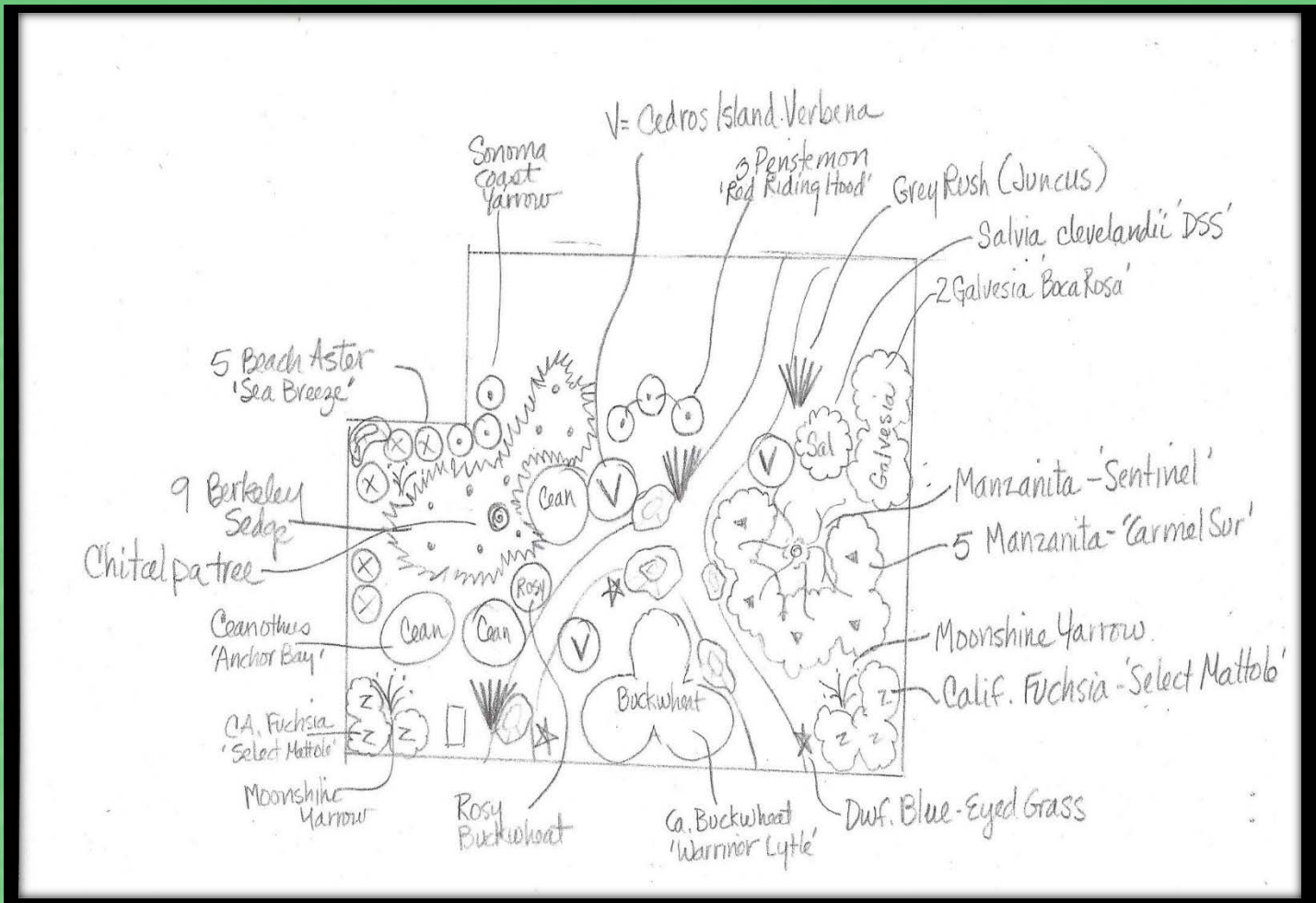
[See it](#)

Select for My List

[Add](#)

***Some examples of  
simple front yard installations***

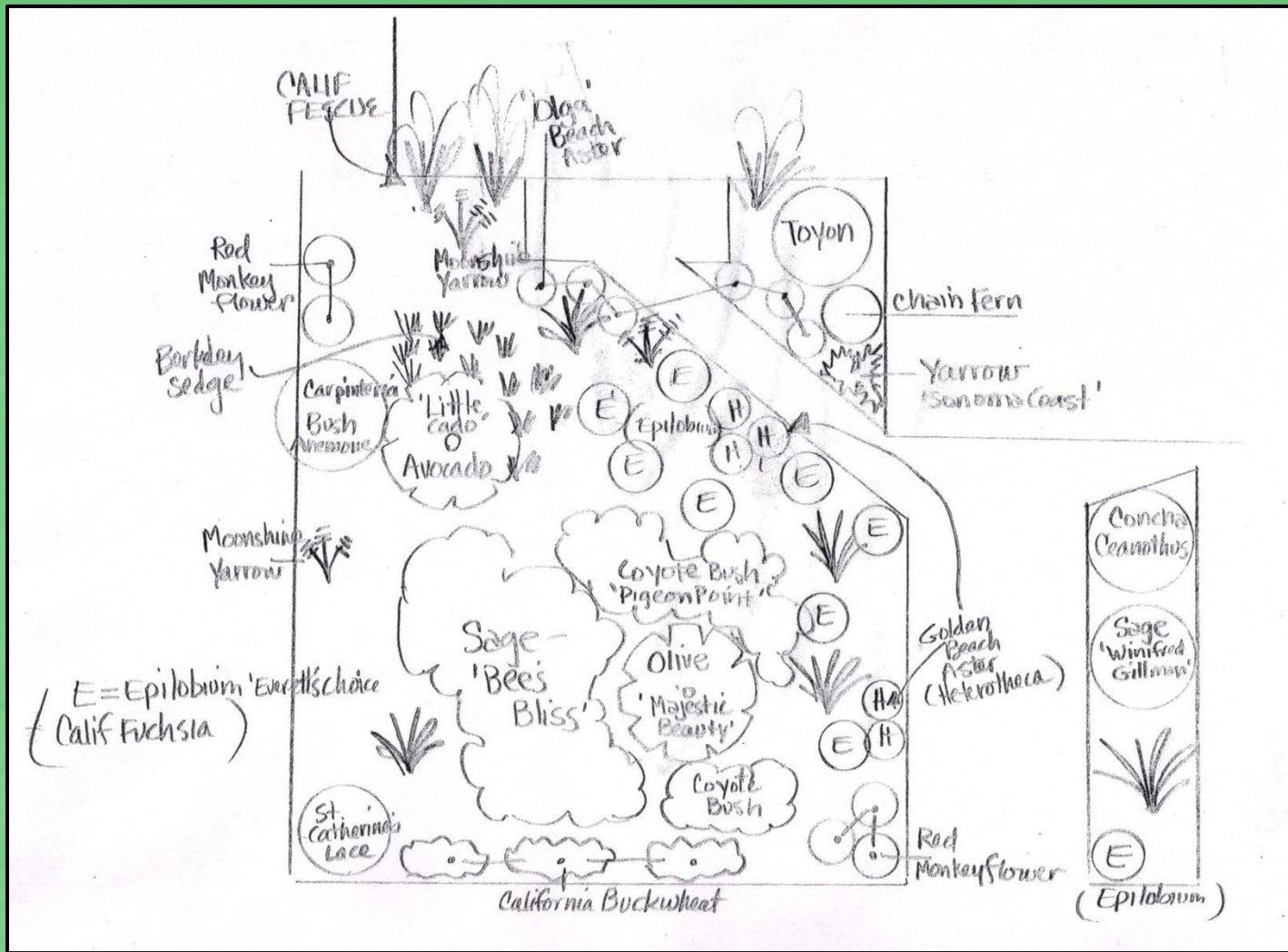




# Design Sketch with Dry Creek



**Installed Front Yard**



# Design Sketch with Olive Tree



**Newly planted Oct. '09**



**Two years after planting**



START WITH

**THE END**

IN MIND