

Porch Garden Permaculture Design

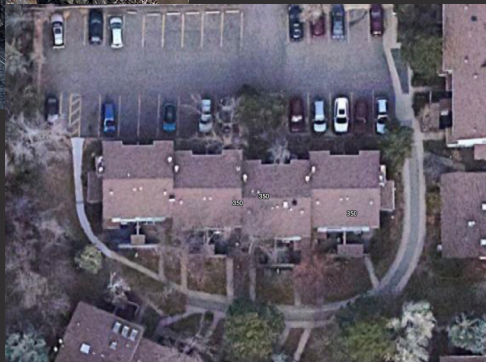
By Bay Burnham

Context

This project showcases plans for a permaculture design at an apartment complex in Boulder, Colorado. The USDA Zone for the plot is 6a. The soil has good drainage and is made up of urban soils, compost amendments, and a deep layer of pebbles. Lynx, rabbit, hummingbirds, blue jays, squirrels, and chipmunks are just some of the species that have been spotted at this site. The purpose of this design is to encourage regeneration of soil life and build space for wildlife.



These two photos depict birdseye images of the design site



@GoogleMaps



Photo for landscape context: Boulder Canyon

Concept

The goal of this permaculture project is to **improve wildlife habitat and soil life**. The Concept Diagram map (below) shows the different planting themes and where they are located within the plot. The Zone Map (right) is based on the proximity of human interaction to different areas of the site. For example, Zone 1 is located on the edge of a parking lot and experiences frequent human disturbances. Zone 4 is tucked near the apartment's entry staircase and experiences the least human interference. Zone 4 typically experiences the most wildlife. Zone 3 is further away from human disturbances than other zones. Despite this, Zone 3 still experiences little wildlife presence. This is most likely because it has low vegetative cover. Part of this permaculture design's plan is to transform Zone 3 into a thriving wildlife habitat area by creating enclosed space through dense plantings, or vegetative barriers.

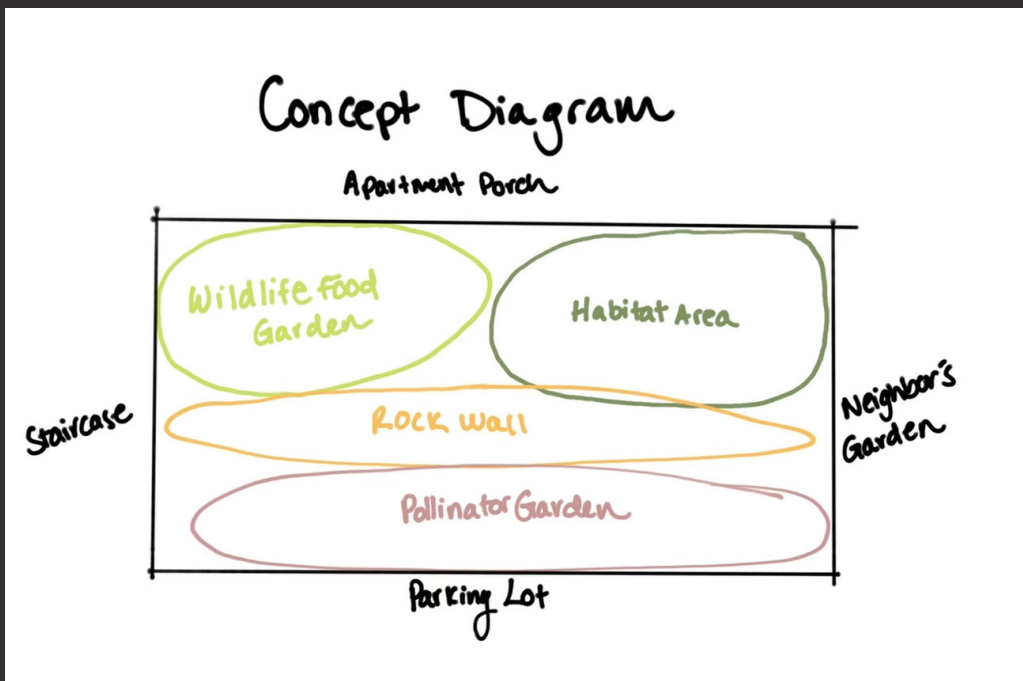
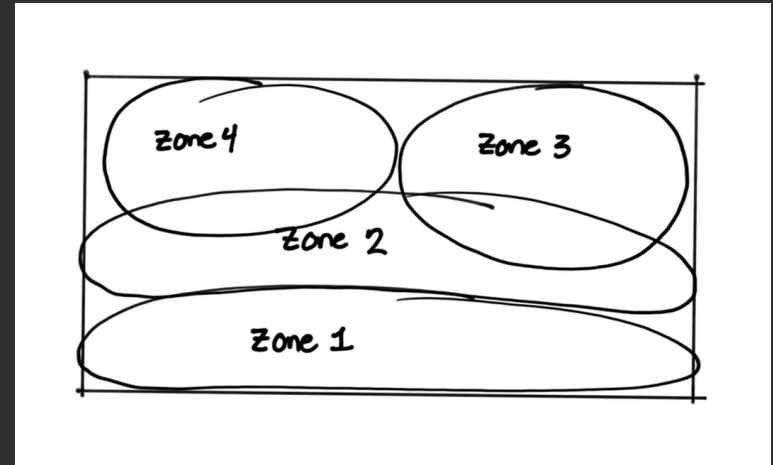
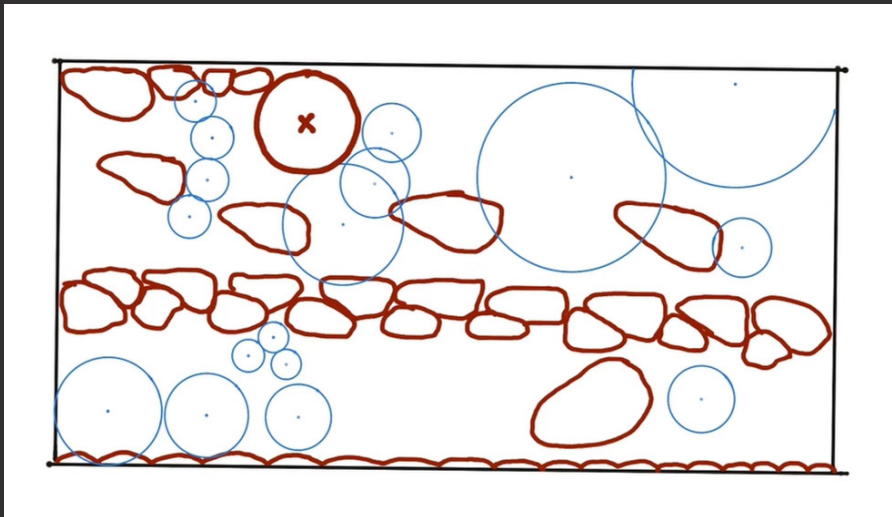


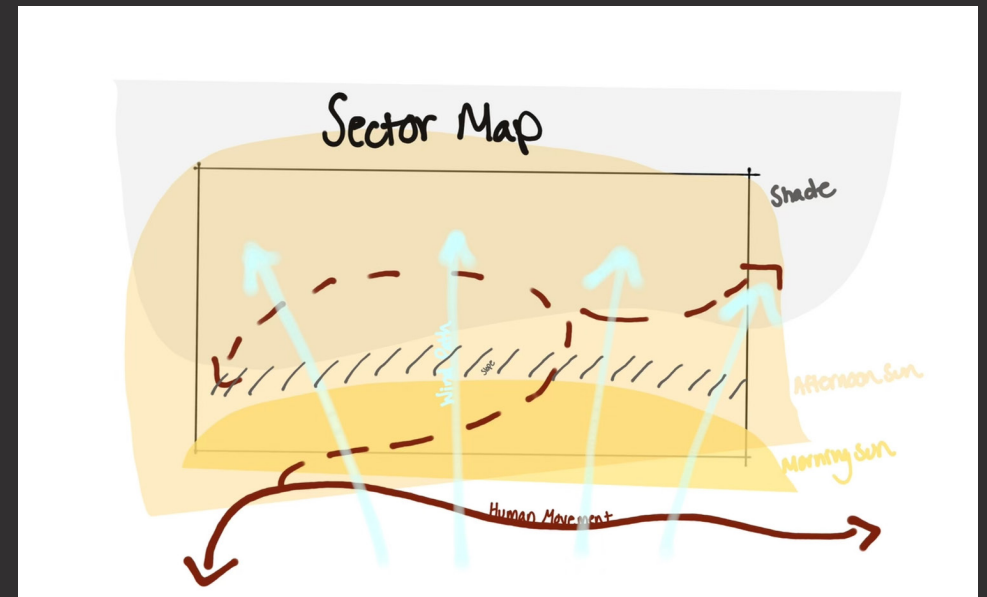
Photo shows the relation between cars and human disturbance to the site. For context, these entryway stairs are located on the lefthand side of the zone map (above).

Plot Characteristic Maps

The Harscape vs. Vegetation Map (left) shows where hardscape (red) and vegetation (blue) are located in the site. In a landscape design, there should be a good balance between presence of hardscape and vegetation. This balance helps establish flow and, when implemented correctly, it can mimic themes observed in nature. In this particular design, it is also important to maintain balance between hardscapes and vegetation because wildlife use both for their habitats.



The Sector Map (right) shows how shade, afternoon and morning sunlight, wind, terrain, and human movement interact with the space. Considering these features is vital to a permaculture design because they inform how the space will be used and which plants will have the highest likelihood of survival in which areas of the plot.



Guilds

Wildlife Food Garden: Indian blanket, aromatic aster, Marguerite daisy, blackberry, Anise hyssop

Habitat Area: common bugloss, Harebell, rubber rabbitbrush, Muhly grass

Pollinator Garden: yarrow, beebalm, lavender, california poppy, hummingbird mint, Plains Yucca

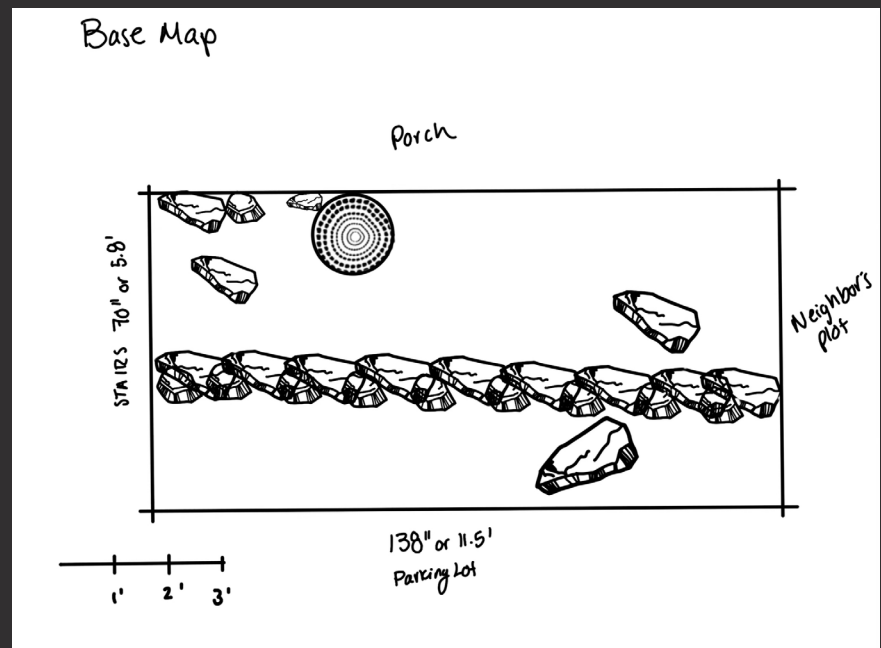
Because this plot is small, many of the guilds in this design include companion species that assist each other across guilds. Many plant's root systems grow deep and, in this smaller design, companion plants assist each other no matter if they are not technically within the same guild.



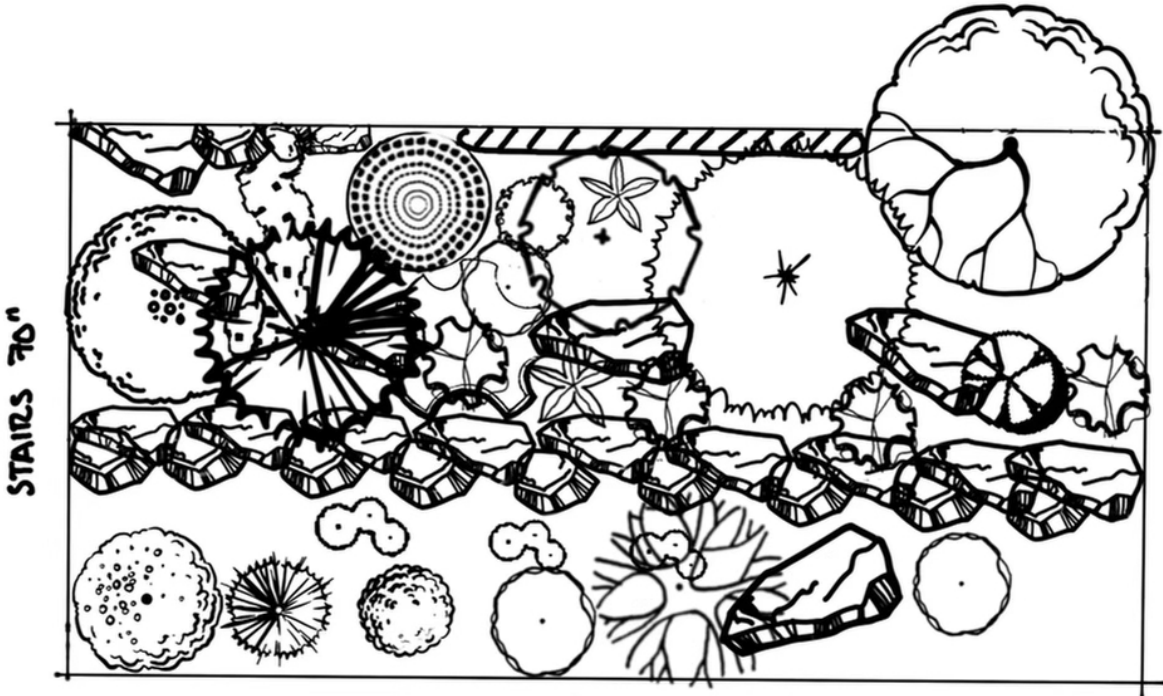
Rubber rabbitbrush



Hummingbird mint

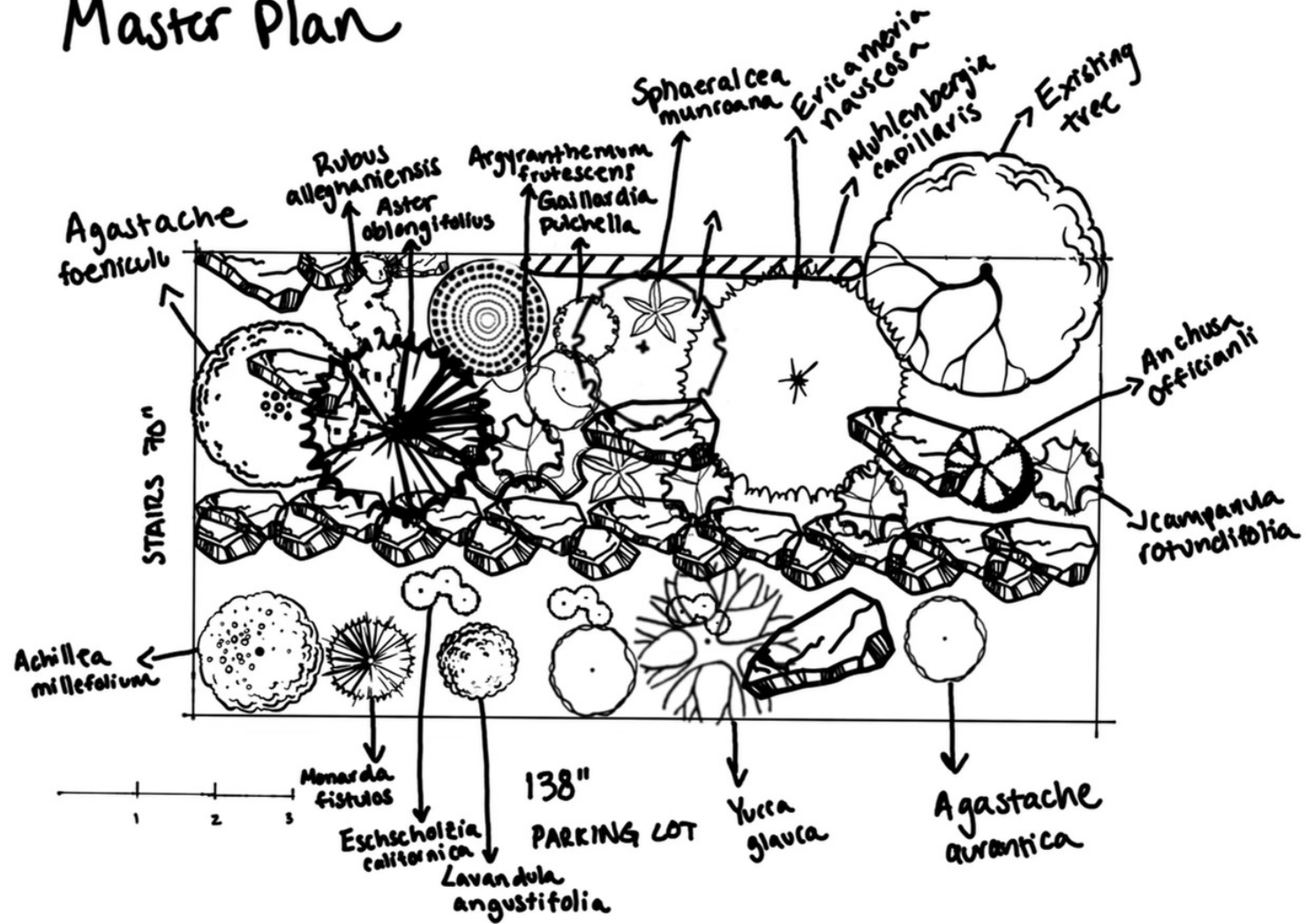


Master Plan



138"
PARKING LOT

Master Plan



Final Permaculture Design



The design (above) follows the Master Plan map included in this document. It showcases what the plot would look like if plantings were successful. This design is driven by the theme of mimicing nature--having plant species overlap each other, using prexisting growth to inform zones and planting ideas, and following the path of sunlight to determine where plants are planted.

Planting Plan

Herbaceous Perennials

- AM yarrow/ *Achillea millefolium*
- MF beebalm/ *Monarda fistulosa*
- LA lavender/ *Lavandula angustifolia*
- EC california poppy/ *Eschscholzia californica*
- AA hummingbird mint/ *Agastche aurantiaca*
- GP Indian blanket/ *Gaillardia pulchella*
- AO common bugloss/ *Anchusa officinalis*
- RA blackberry/ *Rubus alleghaniensis*
- AF Marguerite daisy/ *Argyranthemum frutescens*
- SM Munro's globemallow/ *Sphaeralcea munroana*
- AF Anise hyssop/ *Agastache foeniculum*
- AB Aromatic aster/ *Aster oblongifolius*
- CR Harebell/ *Campanula rotundifolia*
- YG Plains Yucca/ *Yucca glauca*
- MC Muhly grass/ *Muhlenbergia capillaris*

Grasses

Shrubs & Subshrubs

- EN rubber rabbitbrush/ *Ericameria nauseosa*



These images represent stages of implementing the permaculture design.