

Testudine Terrascaping

Elliott Bartels

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Project Statement

Aimed at joining the Tucson Herpetological Society and Desert Museum’s Breeding program for Desert Tortoises, this project was developed to transform a normal bland backyard into a thriving habitat for captive raised tortoises. The Desert Tortoise, *Gopherus agassizii*, is a vulnerable species throughout its range in the southern United States. In the state of Arizona captive breeding programs sanctioned by the Arizona Game and Fish Department were created to assist with the transfer of unwanted or surplus captive desert tortoises to trained private residences.

The goal of this project is to make the backyard a tortoise sanctuary by adding natural vegetation and breaking up the gravel lot that the yard currently consists of. The project site is 45 feet by 45 feet, meeting the requirements of the Desert Tortoise Adoption Program’s checklist of necessary qualifications. Several plants including palo verdes already shade the yard in addition to shrubs that have been neglected over the years. Removing the formal plantings and making the yard more natural is one of the main goals for the project highlighted below.

Goal 1: Create a more natural backyard and remove formal plantings

Objectives: Provide a natural habitat setting consisting of food plants and shade plants favored by the tortoises

Associated Activities: Eating, shelter, views, digging, basking, cooling

Elements: Remove old plants that are tightly pruned and toxic and replace with patches of natural plants found in the tortoise’s range. Create rock shelters and soaking pools for the tortoise to mimic natural habitat.

Goal 2: Screen backyard from unsightly neighbors

Objectives: Add plants that will block unsightly views of close neighbors on each side and provide protection to the tortoises.

Associated Activities: Views, sounds from neighbors, protection, shelter

Elements: Tall screening plants, hide back wall, provide shade and shelter plants for tortoises

Site Context

Located in the lower Oro Valley, the site is a residential single level ranch house within a tightly packed neighborhood. The backyards are separated by a five foot fence that surrounds the project site on all four sides. The backyard is 45 ft x 45ft and is connected by a sliding glass door to the kitchen. The site has a southern exposure, making it essential to provide shade providing plants to protect the desert tortoises from the harsh direct sun. Formal plantings and sparse areas were replaced with more natural ones. An irrigation system already present will make adding plants easy to the site. The brick patio space was kept to allow for the enjoyment of the proposed natural space and interaction with the tortoises. *Road names and location omitted for privacy.

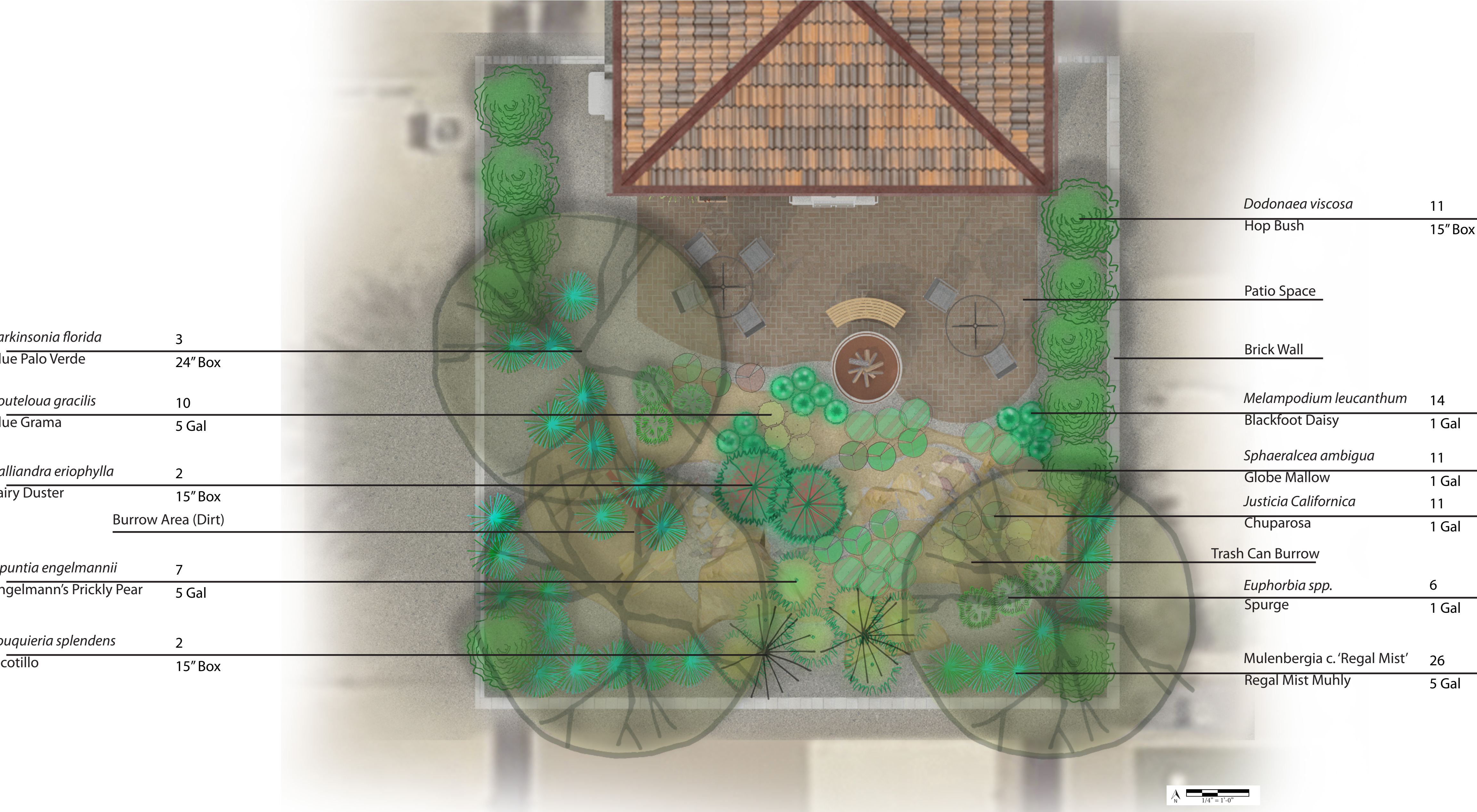


Desert Tortoise Plants and Habitat

Providing native plants to make the captive tortoises feel at home and be healthy as possible is necessary in a captive environment. Tortoises feed on a wide variety of plants ranging from leafy vegetation, grasses, and cacti. Providing an assortment for the tortoises is necessary to allow choice and dietary needs for all ages. Grasses are high in fiber and are very important for proper digestion for adult tortoises. Burrows can be created to provide shade and shelter by burying trash cans or constructing a natural den from cinder blocks. Small depressions can be used to create micro basins to catch water during rain storms and provide soaking areas for the tortoises. Only one tortoise is available per household interested in joining the program.



Sources:
Native Plants for Desert Tortoises - Tucson Herpetological Society - <https://tucsonherpsociety.org/wp-content/uploads/2013/07/NatPlantDesTort108.pdf>
Plants for Desert Tortoises - <http://www.desertsurvivors.org/plants-for-desert-tortoises.html>



- Overview of the entire backyard, the patio already present is preserved to blend the natural area with the outside entertaining space. The area to the very south that contains a sunny patch is home to the ocotillo and prickly pear cacti. The tortoise can choose to bask in the open sunny middle during the cooler days before retiring back to its burrow for hibernation in the winter.
- The western corner features a constructed burrow from bricks and dirt that the tortoise can use to hide from the heat of the afternoon. Small rocky depressions are used to gather water during the rainy months and act as micro basins.
- The eastern side of the enclosure also contains a burrow constructed from a half buried trashcan. This method is suggested by the Sonoran Desert Museum as it is an inexpensive way of providing shelter to the tortoise. Blackfoot daisies, chuparosa, and globe mallow provide color to the garden and serve as great food plants for the tortoise.
- Hopbush shrubs help to screen the walls around the perimeter of the yard and block unsightly views of neighbor’s yards. The dryer cacti garden in the center is surrounded by palo verdes along the sides to provide shade to the majority of yard.