

The image features a graphic design on the left side with a green and blue background. The text is overlaid on this design. On the right side, there is a photograph of a vegetable garden harvest, including red-leafed lettuce, yellow corn cobs, and several red tomatoes on the vine.

Northwest YMCA
*Community
Garden*

*Communities Putting
Prevention to Work
Drachman Institute*

2011



THE DRACHMAN INSTITUTE

The Drachman Institute is a research and public service unit of the College of Architecture and Landscape Architecture at the University of Arizona, dedicated to the environmentally sensitive and resource-conscious development of neighborhoods and communities. The Drachman Institute dedicates its research and outreach activities to the proposition that housing is the building-block of neighborhoods, and neighborhoods are the building-blocks of communities.

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2011



CPPW

Communities Putting Prevention to Work (CPPW) is a national initiative of the Centers for Disease Control and Prevention (CDC).

The goal is to prevent or reduce the spread of obesity and related diseases by increasing opportunities for improved nutrition and active living. The method is implementation of policy, systems and environmental change. Pima County was one of 44 communities nationwide to receive funding for the CPPW grant, part of the American Recovery and Reinvestment Act of 2009.

CPPW is being developed and administered by the Pima County Health Department, in partnership with Activate Tucson, a coalition advocating healthy eating and active living.

Northwest YMCA

Pima County Community Center

Community Garden

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Introduction & Context

The website for the YMCA states that the organization has three main areas of focus: Youth Development, Healthy Living and Social Responsibility.

This project will look at a small piece of vacant land on the site of the Northwest YMCA at 7770 N. Shannon Road, Tucson, Arizona. The focus area has been selected as a site for a community garden.

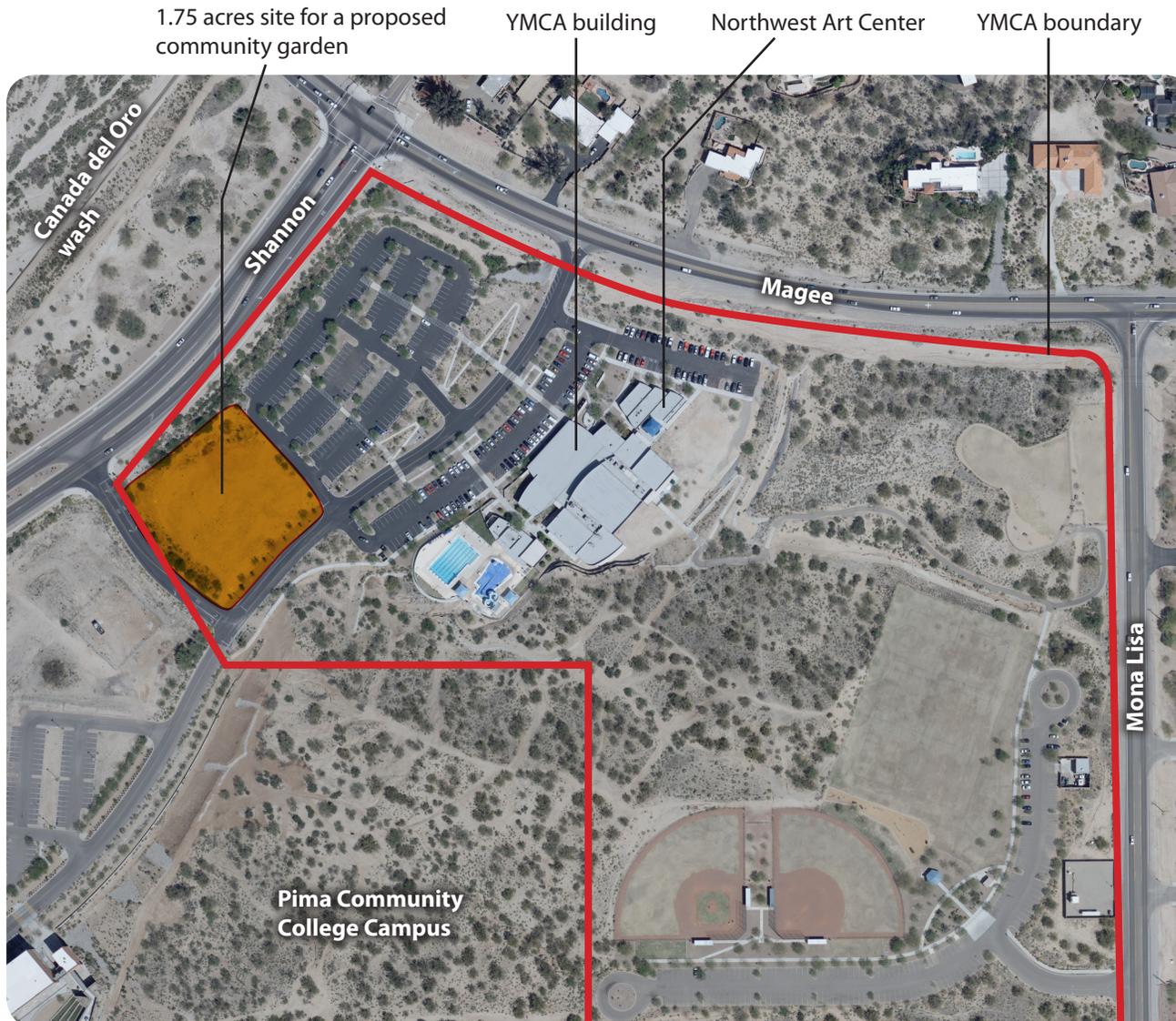
Northwest YMCA is in close proximity to residential developments on all sides. To the north are several golf courses and to the south, sharing an entrance, is Pima Community College Northwest Campus. Canada del Oro wash to the west offers a pedestrian path on its east side. A portion of the river park (between Thornydale and Magee) was recently renamed the Christina Taylor Green Memorial.



As the nation's leading nonprofit committed to helping people and communities to learn, grow and thrive, our contributions are both far-reaching and intimate—from influencing our nation's culture during times of profound social change to the individual support we provide an adult learning to read.

Focus Area

The space for the proposed community garden is a 1.75 acres lying on the west side of the site. The site is in a highly visible area with the access from Ajo passing by the proposed garden space. The majority of parking for the Y is just to the north of the site also contributing to its visibility. Pima County's Northwest Art Center is on the north end of the YMCA building.



Community Gardens

Community gardens serve many different functions. As the name implies they are places that bring individuals and groups together for a common purpose—to garden. Many gardens, however provide activities that extend beyond gardening food plants and ornamentals. These programmatic may include educational classes, and providing space for a variety of community events for people of all ages and abilities.

Over the years, much research has been devoted to studying the benefits of community gardening. In the book *Greening Cities, Growing Communities: Learning from Seattle's Urban Community Gardens* by Jeffrey Hou, Julie M. Johnson and Laura J. Johnson some of this research is cited. To summarize it has been found that community gardens provide refuge and therapy for those experiencing individual and/or social troubles. They make way for individual expression, community revitalization and allow people access to healthy, affordable food. Acquiring food locally has become an increasingly common ideal for many people wanting to reduce environmental impacts and costs of transportation. Many also want to experience the ecological processes that go into do it yourself food production.

As demonstration sites, community gardens can exhibit water harvesting techniques, creative material reuse and new gardening techniques. They can introduce people to native plants that create habitat for native animals such as birds and butterflies and how native plants can provide food and shelter for people as well.

A Community Garden in Tucson, AZ.



In Seattle, community gardens benefit from non-profit organizations that have evolved to serve gardeners by providing special events such as plant sales, education, workshops and outreach. The non-profit Lettuce Link gathers excess produce from gardeners plots and plots dedicated to their purpose which it distributes to low-income families.

Social and community activities to consider providing within the garden (many of which will support the YMCA's goals of youth development, healthy living and social responsibility) are:

- an annual food event
- seasonal gatherings
- fundraisers
- tours
- workshops
- potlucks
- volunteer workdays
- demonstrations
- free concerts and performances
- plant sales
- food product sales
- children's activities

Northwest YMCA Goals

The wide variety of people who visit the YMCA and the adjacent art center will add to the diversity of users. In addition the proximity of Pima Community College's west side campus provides opportunities to involve these students in a variety of ways.

An initial meeting with leaders of the Northwest YMCA determined some of the programmatic elements to be included in the design so that the diverse users would be accommodated. These were:

- dinner theater
- staged area
- lighting
- kitchen
- education rooms
- grilling area
- farmer's market space
- programs for seniors, teens and kids



Students learn the benefits of healthy eating in Berkeley, CA

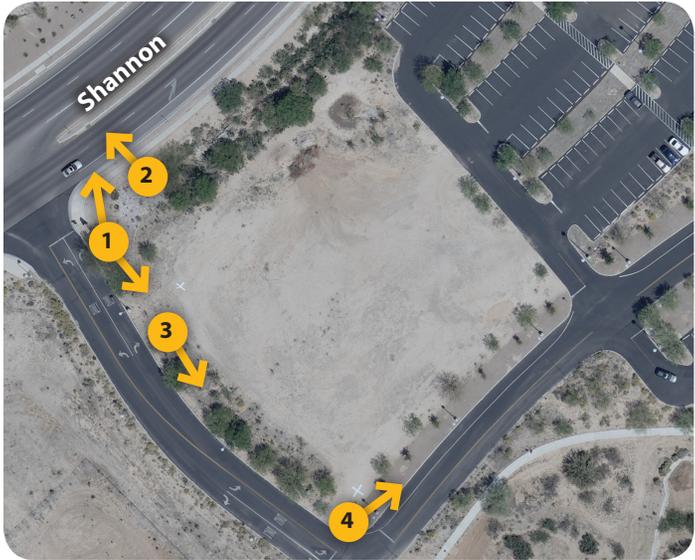
Site Analysis

Site Views

- 1 Below shows the site looking west at the intersection of the entry road and entrances to parking lots. The perimeter of the site is lined with regional trees in different stages of maturity. On the right of the image below is the parking lot where the majority of parking is. This is the highest point of the site.
- 2 This image is looking southeast towards Pima Community College. Several hills make for provide pleasant view to the east.
- 3 Looking into the site through several immature trees from the parking lot.
- 4 Reclaimed water source.







Site Views

- 1 Looking northeast into the site towards the YMCA, hills and Catalina mountains in the background. Here, along drainage channels vegetation is the densest.
- 2 This image is looking southeast towards Pima Community College. The topography changes dramatically on the east side of the site as can be seen.
- 3 A swale along the entry road channels water under Shannon.
- 4 Looking west across Shannon towards the newly installed Canyon del Oro Linear Park.





Circulation

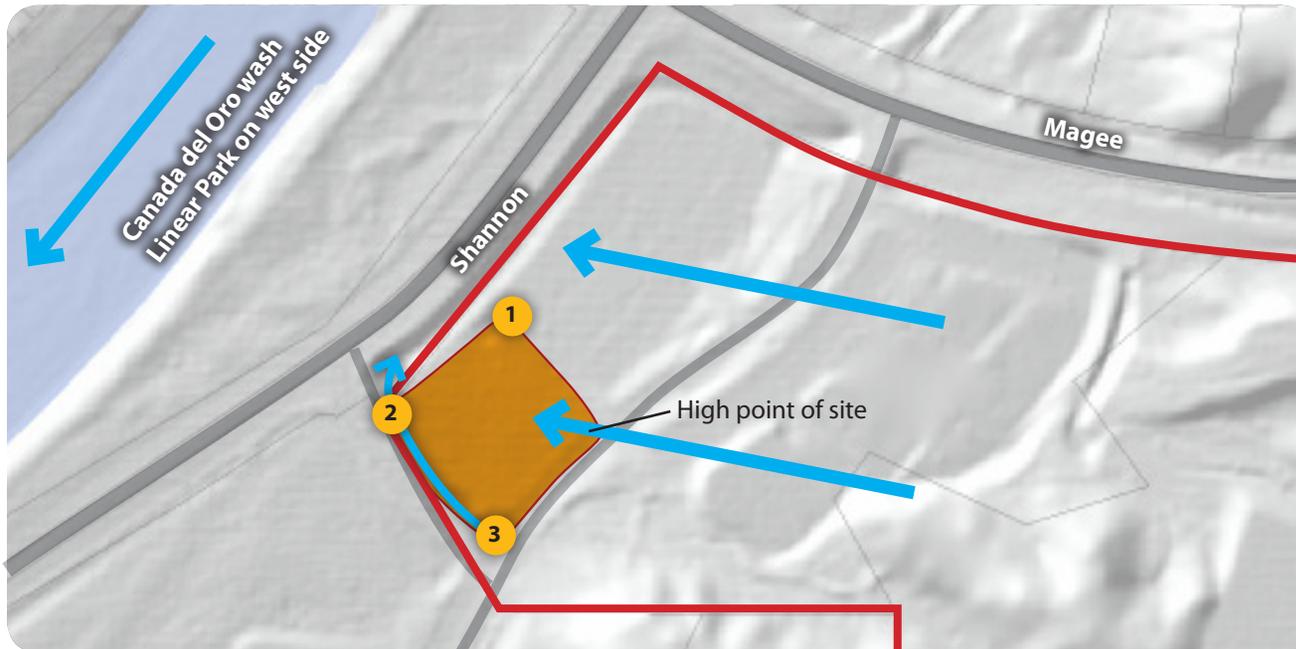
There are two vehicular entrances to the YMCA, one off of Magee, the other off Shannon. Once vehicles have turned into the site there is a larger lower parking lot to the west and a smaller parking lot to the east. There is an increase in elevation to this parking lot and the YMCA building.

Pedestrian circulation from the lower parking lot to the can be taken via a side walk and series of steps or a ramp. There are two designated routes from the lower parking lot to the Y. Pedestrian movement to and from Pima Community College follows an existing sidewalk on the east side of the interior street. The lower lot with more parking and the proximity to the proposed garden will attract many garden users. Users may also be traveling from the Y to the garden and should influence where entrances are located as should traffic from the college.



Hydrology

The direction of water moves in a general east to west direction. Several culverts on site that direct water may be routed into native vegetation and orchards. Since the site is relatively flat added swales and basins will be needed to direct water that will help with irrigation. Street runoff should also be harvested where possible.



A water seep in the northwest corner of the site may help irrigate trees and other vegetation.



Water runoff is directed from YMCA property under Shannon to the east.



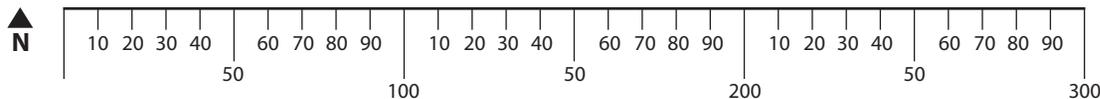
Two large culverts direct water that will eventually go under Shannon.



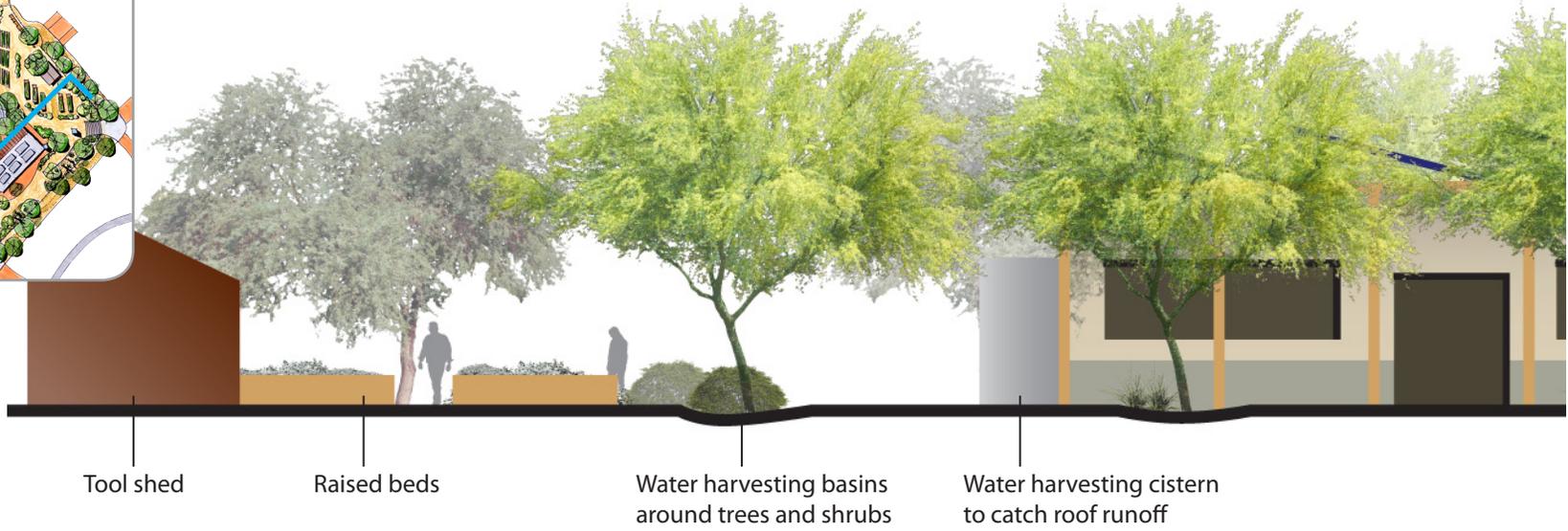
14 Northwest YMCA Community Garden

Design

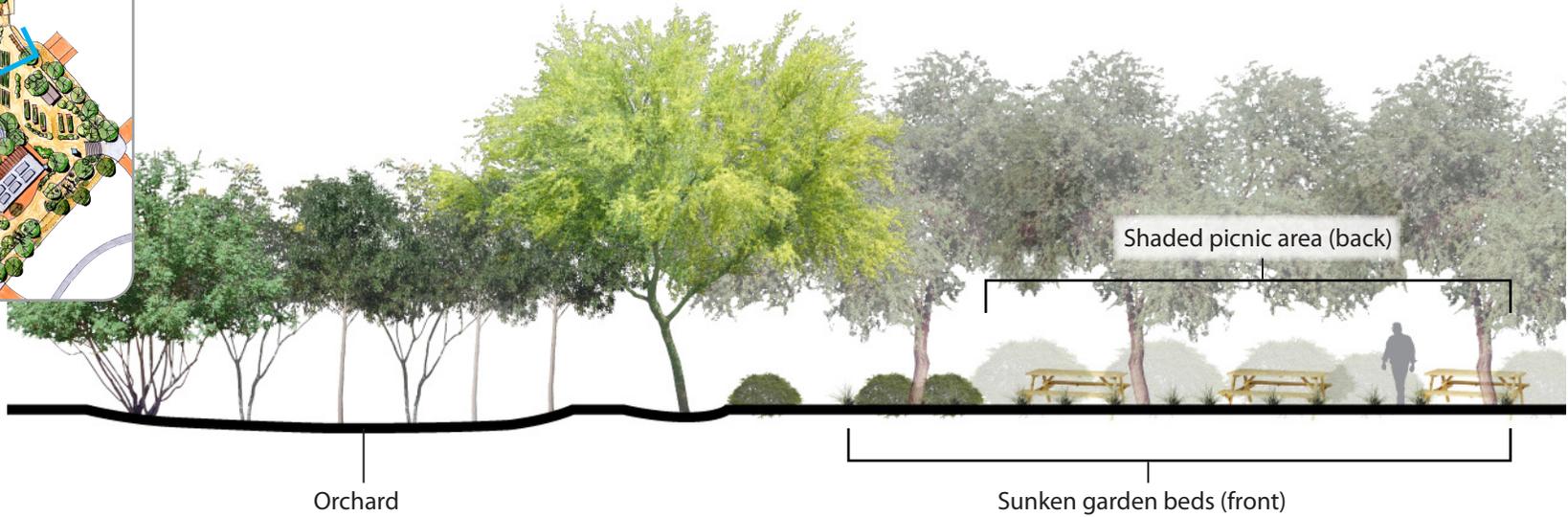
- 1 Entrance with entry sculpture and trellis
- 2 Wayfinding map of garden
- 3 Raised beds with seat/tool boxes on end for people with difficulties working at ground level
- 4 Tool shed with ramada, sink, faucet, compost bins and cistern
- 5 Entrance from parking lot with crosswalk and wayfinding map
- 6 Compost drop-off
- 7 Sunken garden beds. These are shown approximately 3' x 20' with 2' paths.
- 8 Sunken garden beds. Food bank beds that have volunteers tending?
- 9 Central gathering space (not yet designed) with space for seating and stage area
- 10 Curved trellis for gourd growing with seating
- 11 Patio with fire pit and/or outdoor oven and seating
- 12 Kitchen with porch, outdoor water fountain and rest rooms, solar panels on roof
- 13 Cistern
- 14 Entrance limited access—emergency
- 15 Cactus and succulent garden. Native food plants.
- 16 Wayfinding map and crosswalk
- 17 Desert tortoise habitat
- 18 Children's gardens
- 19 Children's tool shed with sink, faucet, compost and worm bins
- 20 Chicken coop
- 21 Pollinator gardens and sculpture garden. Pollinator plants scattered throughout garden.
- 22 Hoophouse for winter garden and seedling or more space for garden beds
- 23 Sidewalk next to existing swale (outside of fenced garden area)
- 24 Orchard
- 25 Shaded picnic area with native food trees and plants.
- 26 Existing swale (outside of fenced garden area)
- 27 Composting with pull-in for larger scale compost delivery
- 28 Paths to Pima Community College and YMCA
- 29 Pedestrian activated light to and from River Park

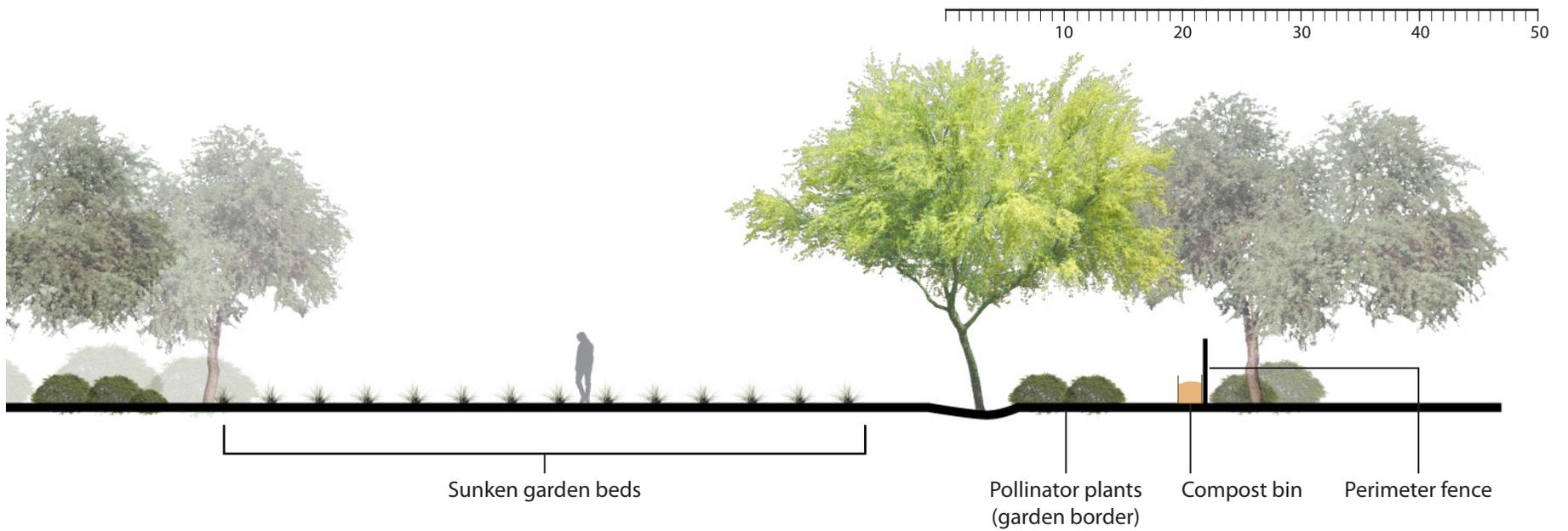
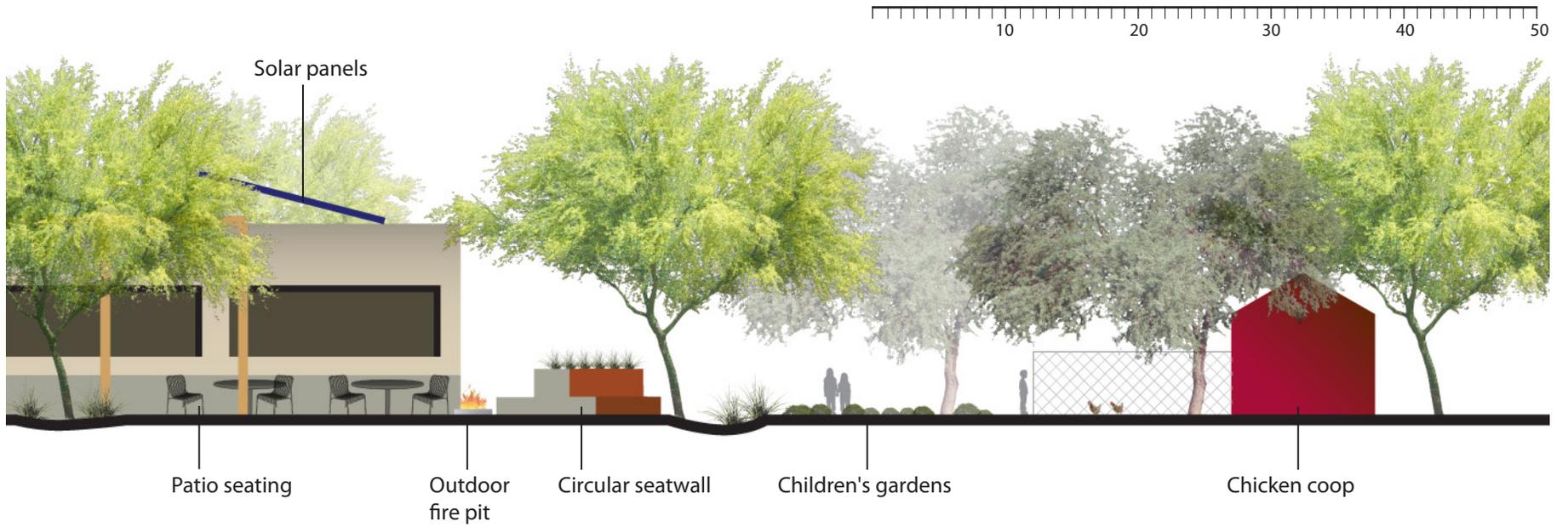


Section A



Section B





Design Inspiration

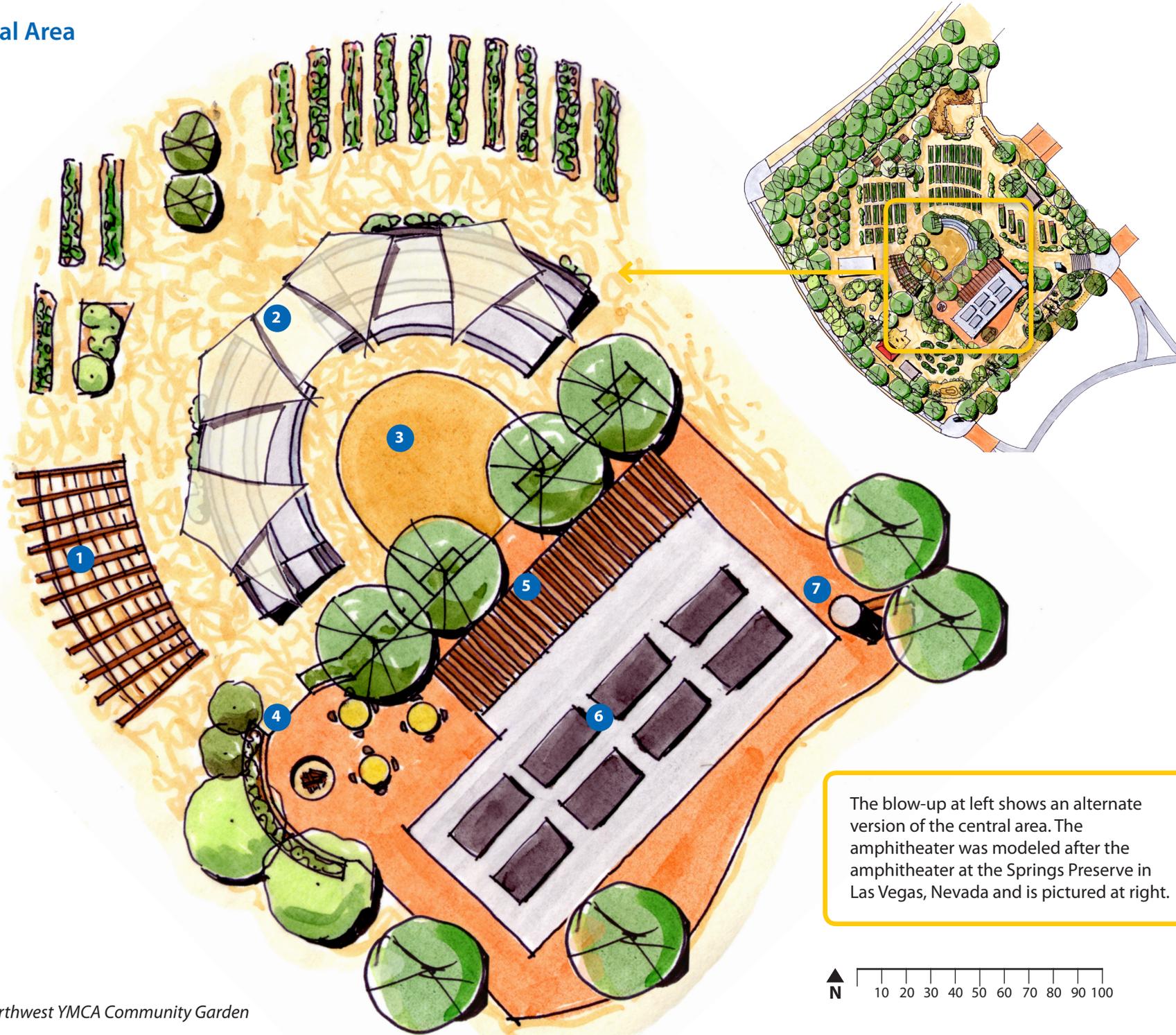
The images on this page are character images and reference for the community garden.

- 1 Newly dug garden beds are sunken to retain moisture. They are 20' x 3' and filled with compost and soil.
- 2 Unique and fun tool shed with solar shade structure
- 3 Chicken coop with rainwater harvesting cistern
- 4 Desert tortoise habitat and signage
- 5 Tortoise habitat (under construction) and native plant materials. Cactus may be purchased for a discount through the Tucson Cactus and Succulent Society. They also give out educational grants.
- 6 Shaded outdoor classroom
- 7 Trellis. Seating may be added along one side and vines to grow up for shading.



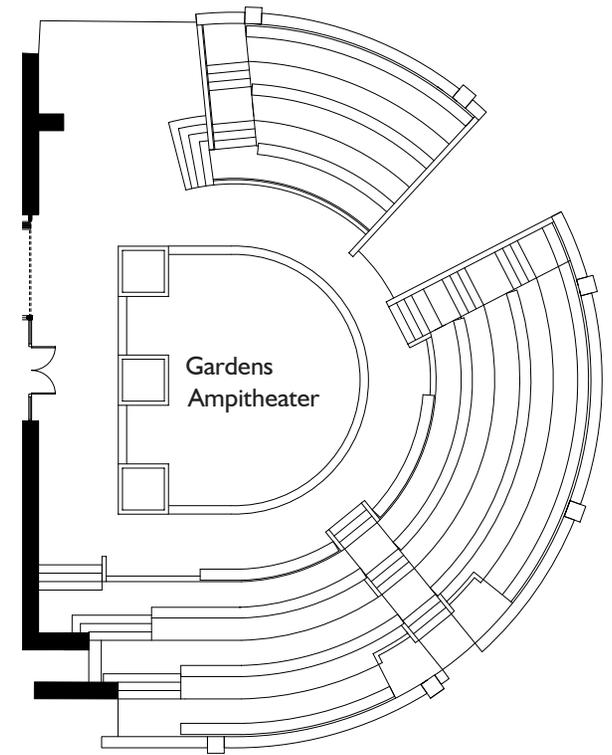


Central Area



The blow-up at left shows an alternate version of the central area. The amphitheater was modeled after the amphitheater at the Springs Preserve in Las Vegas, Nevada and is pictured at right.

- 1 Trellis for gourd growing. Also functions as shaded seating
- 2 Raised amphitheater seating. Approximately 90 person capacity. Tensile shade structure covers seating area.
- 3 Performance space. Permeable concrete or pavers. Storage space is available under stairs for table and chairs, garden equipment, etc.
- 4 Fire pit and dining. Possible outdoor grill area.
- 5 Covered porch
- 6 Kitchen with solar panels on roof
- 7 Water harvesting cistern

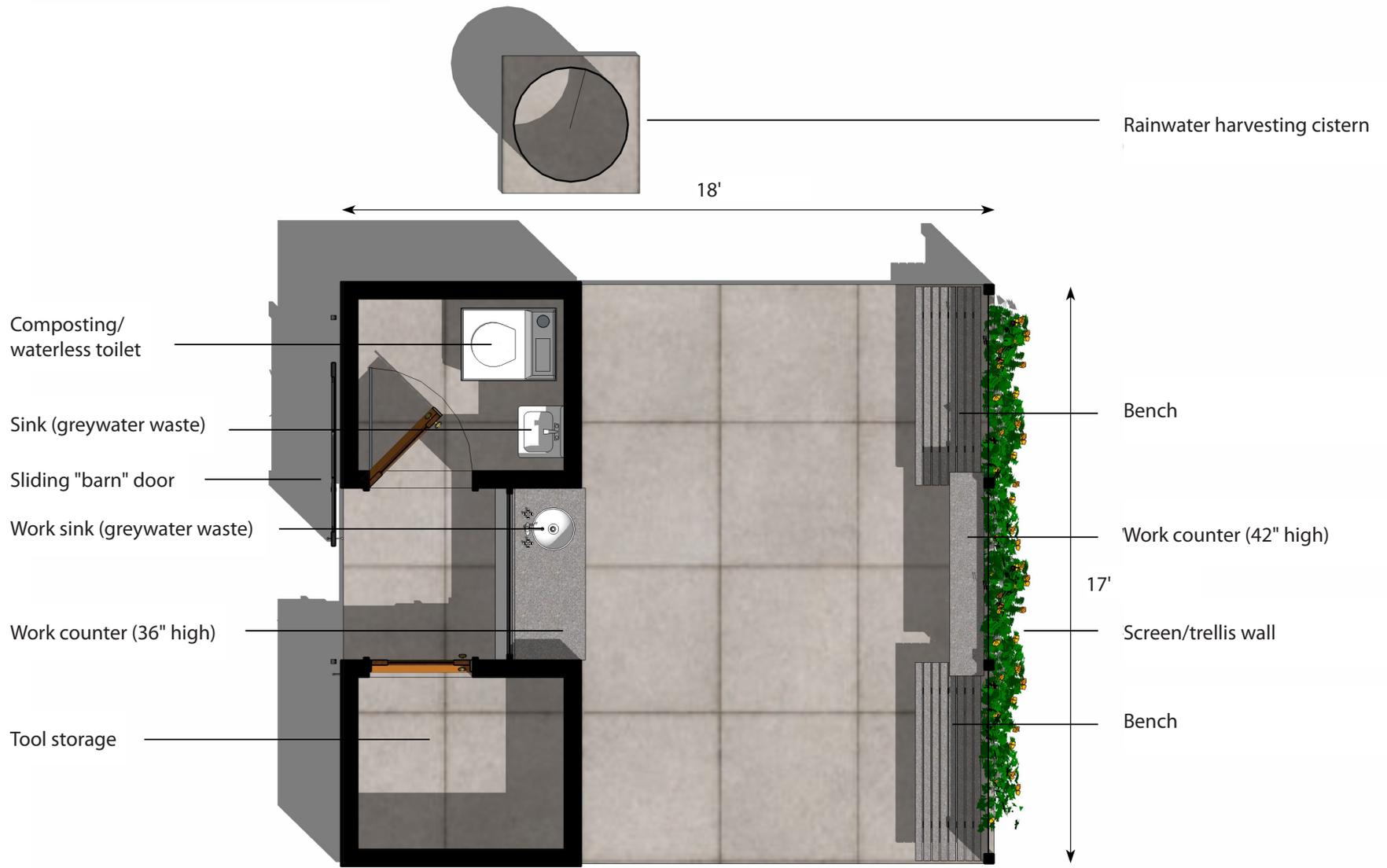


Satelite Tool Shed

The Satelite Tool Shed features a composting toilet, sink, work station/counter, water harvesting and shade in addition to space for tool storage. In the children's area this design may be made more playful by painting the water harvesting cistern.

The open space can act as a classroom, outdoor office. The shed has a metal roof and is protected on the west by the solid adobe or rammed-earth walls and a planter screen on the east. The tool shed and toilet room are lit with clerestory ambient light eliminating the need for electrical wiring.







Kid's Area

Children should have space where they can garden and play at their own pace. The spaces in this area may be used as outdoor classrooms.

- 1 Desert tortoise habitat
- 2 Children's gardens
- 3 Children's tool shed with sink, faucet, compost and worm bins
- 4 Chicken coop

Manzo Elementary school has both a desert tortoise habitat and chicken coop. The students are involved in building, planting cultivating and harvesting. Many guests are invited to share their knowledge about desert ecology. Manzo is available for tours and can be reached at 520-225-1900.



The tortoise habitat at Manzo Elementary school in Tucson , AZ.

Sculpture Garden

The sculpture garden combines nature and art and pieces within the garden may be permanent or on a rotating schedule. The Art Center, adjacent to the YMCA may help develop the site and involve seniors and children in creating signs and art.

This space may be used for parties and events. The Monumental Sculpture Garden in Tubac and the Jewish Community Center Garden in Tucson are gardens to visit for inspiration.



Sculpture garden in Tubac (left).
Sculpture with native desert vegetation (below).



Kitchen

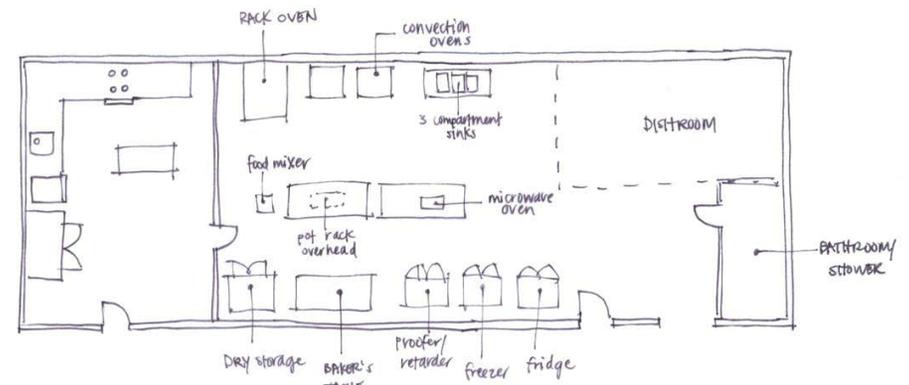
The kitchen on site provides the opportunity for people to come together to share and learn cooking skills, healthy eating practices and to meet new friends. New recipes may be learned using foods that are harvested in the garden beds on site.

This may be a place for fund raising events, and to cater events held on site. Classes may be available for the public and Pima Community College students. Chefs and other food professionals from the community may be invited in for demonstrations.

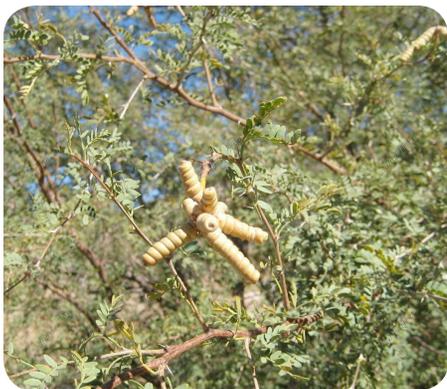
Surplus produce from the gardens may be stored here and donated to the Community Food Bank or other kitchen.



This building rendered by the Drachman Institute, shows how water may be harvested from the roof. The two black tanks on the roof are solar water heaters. Consider adding solar panels to the roof.



A simple floorplan for a commercial kitchen by UA architecture student Alison Furuto.



screwbean mesquite



yellow bells



deergrass

Plant Materials

The plant list below consists of mostly native plants. Native plants are well adapted to Sonoran desert conditions of extreme heat and low precipitation. In addition the use of native plants will serve as habitat for native birds, lizards and other wildlife.

All plants will need irrigation after being planted (except for some of the cactus) though many will be able to survive on Tucson's natural rainwater and can be weened off irrigation after several years. It is important that a maintenance plan be put in place to monitor and care for plants to ensure their survival.

The following list is meant to serve as a guide and can be modified as needed. It does not include plants for garden beds. See Desert Survivor's plant list for additional plant choices.

http://www.desertsurvivors.org/Nursery/Plant_DB/PlantList.html

Trees

sweet acacia *Acacia farnesiana*
canyon hackberry *Celtis reticulata*
desert willow *Chilopsis linearis*
desert ironwood *Olneya tesota*
blue palo verde *Parkinsonia florida*
velvet mesquite *Prosopis juliflora*
screwbean mesquite *Prosopis pubescens*

Large Shrubs

fourwing saltbrush *Atriplex canescens*
hopbush *Dodonea angustifolia*
creosote *Larrea tridentata*
wolfberry *Lycium sp.*
jojoba *Simmondsia chinensis*
yellow bells *Tecoma stans*
graythorn *Zizyphus obtusifolia*

Grasses

sideoats grama *Bouteloua curtipendula*
bull grass *Muhlenbergia emersleyi*
deer grass *Muhlenbergia rigens*
alkali sacaton *Sporobolus airoides*

Fruit Trees (other than citrus)

carob *Ceratonia siliqua*
fig *Ficus carica*
tree of life *Moringa oleifera*
nopal *Opuntia ficus-indica*
peach *Prunus persica*
pomegranate *Punica granatum*
Chinese date *Zizyphus jujuba*

Medium and Small shrubs

triangle leaf bursage *Abrosia deltoidea*
fairy duster *Calliandra eriophylla*
bush dalea *Dalea pulchra*
turpentine bush *Ericameria laricifolia*
brittlebush *Encelia farinosa*
desert senna *Senna covesii*
globe mallow *Sphaeralcea ambigua*

Pollinator Gardens

Choose a variety of plants to provide nectar, pollen and larval food sources for pollinators who may visit the gardens. Leaf litter and areas of dead wood may provide habitat for insects.

mallows *Abutilon spp.*, *Spharalcea spp.*

oreganillo *Aloysia wrightii*

milkweeds *Asclepias spp.*

desert honeysuckle *Anisacanthus thurberi*

saltbush *Atriplex spp.*

fairydusters *Calliandra californica*, *Calliandra eriophylla*

daleas *Dalea spp.*

brittlebush *Encelia farinosa*

butterfly mist *Eupatorium greggii*

chuparosa *Justicia californica*

Parry's penstemon *Penstemon parryi*

Cactus and Succulents*

golden-flowered agave *Agave chrysantha*

Parry's agave *Agave Parryi*

shindagger *Agave schottii*

saguaro *Carnegiea gigantea*

staghorn cholla *Cylindropuntia versicolor*

desert spoon *Dasylyrion wheeleri*

hedgehog cactus *Echinocereus fasciculatus*

fishhook barrel *Ferocactus wislizeni*

ocotillo *Fouquieria splendens*

Engelmann prickly pear *Opuntia engelmannii*

purple prickly pear *Opuntia santa rita*

beargrass *Nolina microcarpa*

banana yucca *Yucca baccata*

soaptree yucca *Yucca elata*



oreganillo



Parry's penstemon

Safety Through Design

Natural Surveillance

This idea stresses the use of features that increases the visibility through the site—proper placement of view corridors, lighting and landscaping. One activity area should have clear view of another activity area.

Natural Access Control

Elements like hedges, screens, doors, and gates help create the perception of risk to offenders.

Territorial Reinforcement

Elements that help distinguish the domain between public and private are signs of ownership to potential offenders.

Maintenance

A critical practice that includes landscape maintenance and aesthetic to preserve quality of habitation and ownership. Graffiti should be quickly cleaned however frequent it happens.



Santa Rita prickly pear

Resources

Community Food Bank of Southern Arizona

(520) 622-0525

<http://communityfoodbank.com/>

Community Gardens of Tucson

(520) 795-8823

<http://www.communitygardensoftucson.org>

Desert Tortoise Adoption Program (SDM)

(520) 883-2702

<http://www.desertmuseum.org/programs/tap.php>

Desert Survivors Plant Nursery

(520) 791-9309

<http://www.desertsurvivors.org/Nursery.html>

The Edible Schoolyard Project

<http://edibleschoolyard.org/berkeley/>

Manzo Elementary School

(520) 225-1900

<http://edweb.tusd1.org/Manzo/>

Native Seed/SEARCH

(520) 622-5561

<http://www.nativeseeds.org/>

Rainwater Harvesting for Drylands and Beyond

by Brad Lancaster

<http://www.harvestingrainwater.com/>

Southwestern gardening information from the University of Arizona

<http://www.ag.arizona.edu/gardening/>

Shade Industries

(602) 258-2248

<http://www.shadeindustries.com/>

Sunspaces and Solar Greenhouses

<http://www.builditsolar.com/Projects/Sunspace/sunspaces.htm#Greenhouse%20Plans>

Tucson Arts Brigade

(520) 791-9359

<http://www.tucsonartsbrigade.org/murals.html>

Tucson Botanical Gardens

(520) 326-9686

<http://www.tucsonbotanical.org/>

Tucson Cactus and Succulent Society

(520) 256-2447

<http://www.tucsoncactus.org/>

Tucson Organic Gardeners

(520) 670-9158

<http://www.tucsonorganicgardeners.org/>

Watershed Management Group

(520) 396-3266

<http://watershedmg.org/>

Zenhens

<http://zenhens.net/>



Building a cold house at Mesilla Valley Community of Hope in Las Cruces, NM.