Community Garden Accessibility Guide

Community gardens beautify and revitalize neighborhoods by using vacant land for productive means, provide access to agricultural education, and allow for access to locally grown fresh fruits and vegetables. Additionally, gardening can serve as a therapeutic stress reliever for people of all abilities through therapeutic horticulture. This practice provides a creative and stimulating activity to enrich the physical, mental, and social aspects of our lives.[1]

Since gardening can benefit our physical, mental, and social wellbeing, it is important that people of all abilities are included in this enriching activity. By building accessible gardens, we can ensure that everyone in our community has the opportunity to benefit from garden participation.

The physical spaces we create can often, without intention, exclude members of the population. Through promoting the principles of Universal Design this guide is intended to offer gardeners assistance on how to make their gardens more accessible for people of all ages and abilities. Buffalo is unique in that it is composed of people from all backgrounds and walks of life. It is important that we capture this diversity in our gardening efforts by taking intentional steps to create environments of inclusion.

Table of Contents

Universal Design

Universal Design is the design of buildings, products or environments to make them accessible to all people, regardless of age, disability or other factors. The goal of universal design is not to target individuals with disabilities, but to create an environment that everyone can benefit from together.

The Center for Universal Design describes Seven Principles to keep in mind when designing an inclusive space.[2]

1. Equitable use: The design is useful to people with diverse abilities.

**2. Flexibility in use:** The design accommodates a wide range of individual preferences and abilities.

3. Simple and intuitive use: Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.

4. Perceptible information: The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.

5. Tolerance for error: The design minimizes hazards and adverse consequences of accidental or unintended actions.

6. Low physical effort: The design can be used effectively, comfortably, and with a minimum of fatigue.

7. Size and space for approach and use: Appropriate size and space is provided for approach, reach, manipulation, and use, regardless of the user's body size, posture, or mobility.
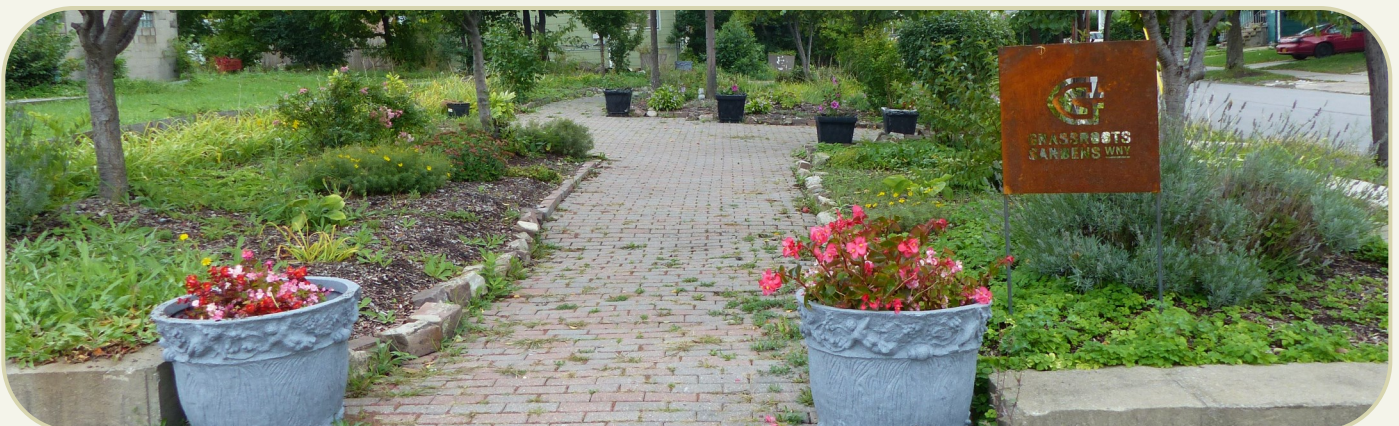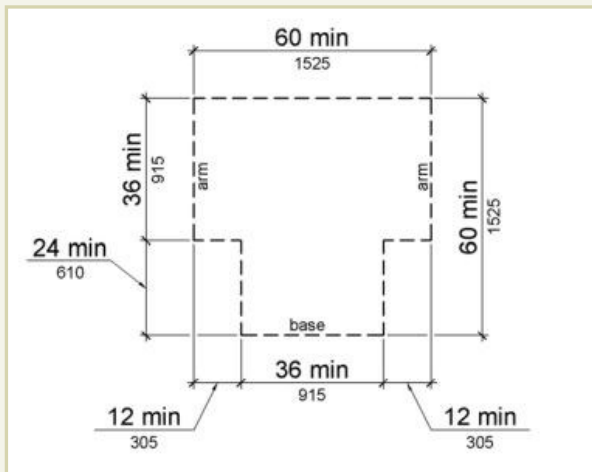
Accessible Pathways

Inaccessible entryways and paths within the garden are often the first barrier preventing someone in the community from partaking in the garden. Creating walkways that are easily maneuverable can benefit everyone and make the gardening experience more pleasurable for all.

The location of an accessible path should originate from a nearby side walk or parking zone that has a curb cut installed.

Paths should be a minimum of 36" wide, however, paths 48" wide will allow two people to pass each other comfortably or walk alongside each other.

When planning for an accessible pathway, keep in mind the need for adequate turning space.

Circular turning space should be a minimum of 60" in diameter.

A T-shaped turning space should include a 60" squared space, with the arms and the base of the T being it least 36". The base should also be clear of all obstructions for it least 24".[3]

Changes in level on the garden pathway must not exceed 1/2", or else a ramp should be installed to traverse the obstacle.

Routes should not be steeper than a 5% grade, for every foot of vertical rise, there should be twenty feet of horizontal pathway.

Accessible Pathways (cont.)

In addition to planning for the dimensions of the garden pathway, accessible paths should be well marked and barrier free. Paved paths should be kept level, well drained, and have good traction. If paved paths are not possible, grass and dirt paths can be made more accessible by being regularly maintained. Grass should be kept short and dirt paths should be level and ditch free.

Slight texture changes, so as long as they are appropriate and safe, can be used to indicate different features in the garden. Raised edges will also serve as a cue for those members of the garden utilizing a cane.

Pathway Materials

Mats, tiles, or rolled walkways are good retrofit solutions to existing gardens. Level the surface prior to installing to ensure the mat or tile walkway stays in place.
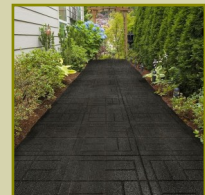

Plastic, open grid systems allow soil, grass, or other plants to fill in flush with the grid system creating a natural looking pathway. The open grid however can be penetrated by canes or other objects if not properly tamped down.[4]

Tamped soil, crushed stone or cinder pathways can achieve a natural looking, accessible path, but require proper installation and drainage to be a long term solution.
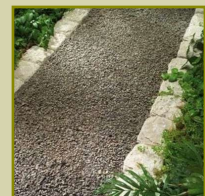
Paved surfaces such as concrete, asphalt, brick, or stone provide the most stable surface. These hard surface pavements tend to be the most expensive, yet most inclusive option.[4]
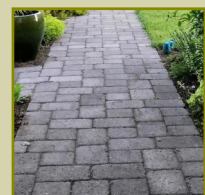
Accessible Planters

Raised beds and elevated table top planters are ideal structures for growing in, as they can be accessed for maintenance and harvesting by a diverse group of gardeners.

Raised Beds should be between 24" and 36" in height. If located against a wall or other obstruction, they should be no more than 30" wide. If the garden bed can be accessed from all sides, the width can be up to 48", which allows all points of the bed to be accessed from the exterior.

One full, unobstructed side of the raised bed should adjoin an accessible path.

A **forward approach (a)** to the raised bed should have a minimum of 48" in length, and 30" in width of cleared ground space.[3]

A **parallel approach (b)** to the raised bed should have a minimum of 30" in length, and 48" in width of cleared ground space.[3]
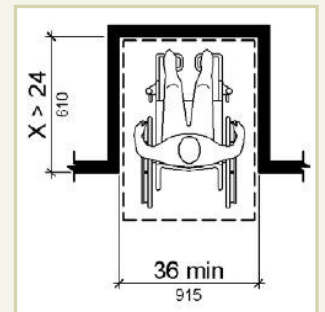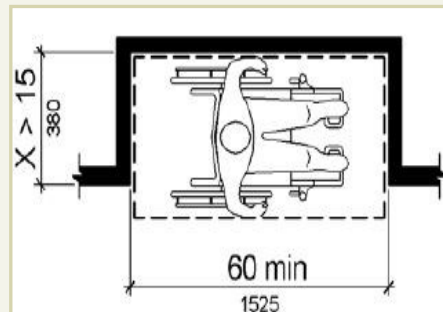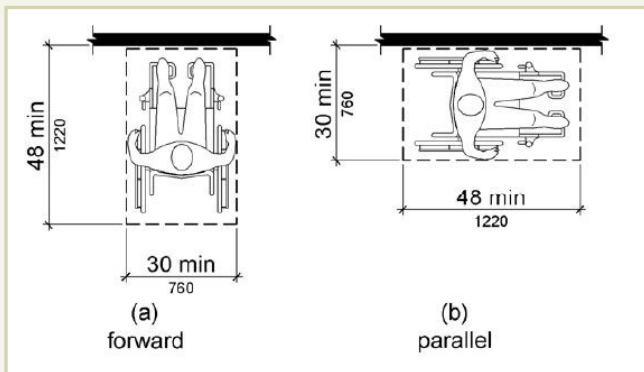
If the raised beds are arranged in such a way where an alcove is created (see above), additional maneuvering clearance should be provided.

A **parallel approach** to the raised bed requires a minimum of 60" of width where the depth of the alcove exceeds 15".[3]

A **forward approach** to the raised bed requires a minimum of 36" of width where the depth of the alcove exceeds 24".[3]

Accessible Planters (cont.)

Elevated tabletop planters enable a wide variety of users to engage in gardening activities. The height and clear space under the gardening bed allows better access for wheelchair users, while also remaining reachable for standing children or those with limited mobility.

When planning to incorporate table top planters in the garden, keep in mind that soil depth will be less than traditional raised beds, usually between 8" and 12". If the table top bed is only accessible from one side, it should be no more than 24" wide.


Knee clearance underneath the planter should be between 9" and 27", with a maximum depth of 25".
Width should be 30" minimum.
Minimum depth should be 11" deep at a height of 9", and 8" deep at a height of 27". [3]

Toe clearance underneath the planter should be between the ground and 9" high.
Width should be 30" minimum.
Minimum cleared toe space from the edge of the planter should be between 17" and 25". [3]
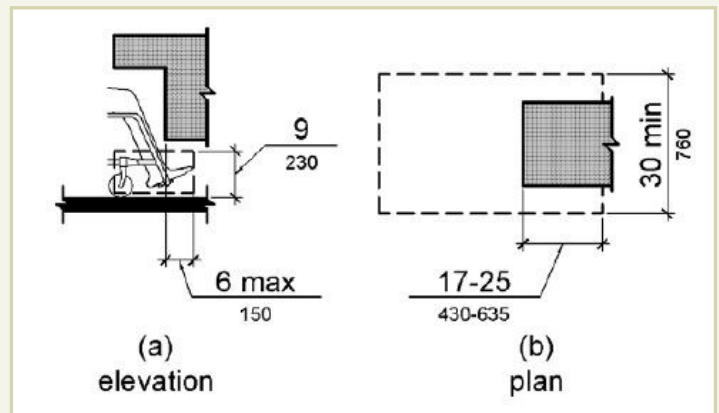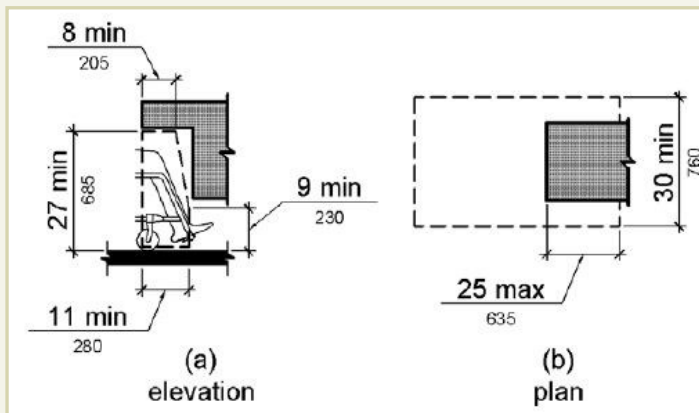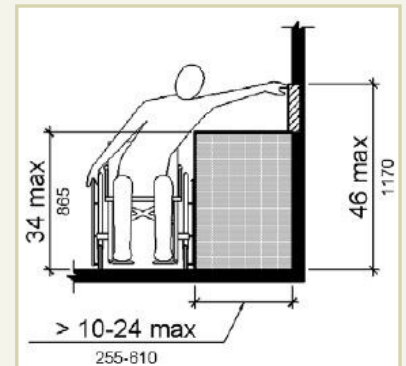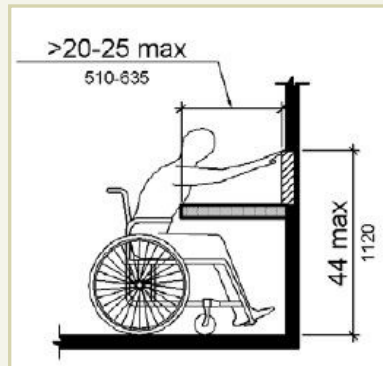
Vertical Gardening

Vertical gardens are an excellent growing technique for both maximizing garden space and increasing accessibility in the garden. These alternatives to traditional ground planters add unique features while also allowing them to be accessible to a larger portion of the community.

Growing containers, trays, or baskets can be installed on unused fences, or walls, or by building a custom made structure.
For front seated access, the container should be no more than 44" high and 25" deep.[3]
For a parallel approach to the vertical garden, the bottom of the container should be no more than 34" high, and 24" maximum depth.[3]

Training plants to grow vertically in existing raised beds will make maintenance and harvesting easier for younger gardeners or those with limited mobility. Many varieties of plants grow best when supported by a trellis, making this option ideal to incorporate into any garden. Trellises, scaffolding, or cages should be located within 20" of the edge of the raised bed to keep them accessible to all gardeners.

Sensory Gardening

A sensory garden is a garden that is specifically designed to stimulate the senses for people with sensory processing disorders. Fortunately, most gardens are sensory gardens because they naturally tend to engage your sense of hearing, sight, smell, touch, and even taste. With a small amount of planning, the garden can become an appealing place for all visitors.

Sight Stimulation: Plant bright, colorful, or unique looking plants that are strategically placed for maximum contrast. Garden features that combine sight with sound can stimulate interest and improve attention span.[5]

Taste Stimulation: Provide signage that encourages visitors to taste a variety of plants that are both safe and ready to harvest.

Smell Stimulation: Certain plants give off stronger and more pleasurable scents than others. Consider planting fragrant flowers to heighten the use of both sight and smell or herbs that activate smell through the use of touch.

Touch Stimulation: Use plants with an array of different textures, weight, or shapes that encourage participants to touch and interact with.

Hearing Stimulation: Consider using plants that create a unique sound when rustled by the wind such as long grasses or plants with large leaves. Selecting plants that attract desirable garden critters such as bees and hummingbirds can also boost the hearing stimulation that occurs in your garden. Objects that are not plants can be used to heighten the hearing stimulation in your garden. These objects could include wind chimes or fountains.

Garden Facilities

Water Access

It is important that water can be accessed and utilized by all members of the garden. Make sure to locate it least one water source along an accessible route. Since water can be heavy to move, smaller containers should be available to transport water from its source to the plants. If there is a hose present, be sure that it is stored at an accessible height of no more than 40" from the ground and does not block an accessible route.

Shade and Seating

A shaded rest area, ideally with seating, should be provided for gardeners to rest, hydrate, and keep cool during the warm summer months. Benches or chairs should be stable and have a smooth, level seating area, between 16" and 24" in height.[4]

Tool Access

Tools for the garden should be stored together along an accessible path. A variety of sizes of lightweight gardening tools will ensure they can be used by both children and adults.

References

1. American Horticultural Therapy Association, https://www.ahta.org
2. The Center for Universal Design, https://projects.ncsu.edu/ncsu/design/cud/
3. 2010 ADA Standards for Accessible Design https://www.ada.gov/2010ADAstandards_index.htm
4. Forsyth Community Gardens http://forsythcommunitygardening.com/documents/ NRPA_AccessibleGardens.pdf
5. Barrier-Free Community Gardening http://community-gardens.ca

GRASSROOTS GARDENS WNY

grassrootsgardens.org