M E M O R A N D U M

DATE: July 2011

TO: Communities and Schools

FROM: BlazeSports America

RE: Accessible Gardens Checklist[1]

The purpose of the Accessible Gardens Checklist (below) is to help communities review and evaluate significant components of technical provisions of building raised bed gardens to ensure accessibility for students with disabilities. The checklist has been compiled and modified to support the CPPW communities to develop a raised bed garden; therefore, the checklists provided present all relevant information to your school about not only the technical accessibility provisions, but also the development of a raised bed garden network at your school.

Importantly, the accessibility checklist is intended for consultative purposes. Schools and communities are encouraged to consult with a landscape architect or a professional gardener if needed. This technical resource is a compilation of guidance from different sources and intended to serve as a comprehensive form for communities to assess the issues and concerns relating to accessibility.

It is important to note that no official standard for accessible gardens exists. However, the comprehensive information provided in the attached checklist is significant and contains a wide range of recommended technical provisions for consideration. The checklist presents the minimum scoping and technical requirements for a proposed raised bed garden. Thus, the technical provisions may help your school to evaluate any barriers and variables stemming from the uniqueness of each area of schoolyard/garden area.

Perhaps most importantly, it is imperative to understand that every raised bed garden project is unique, thus all of the detailed steps and questions in the checklist may not be relevant to each project. Therefore, it is recommended that communities and schools adapt the checklist to your own needs. BlazeSports encourages communities to consult with people with disabilities in your community during the planning and design of gardens.

[1] A updated version of guidelines compiled and reviewed by BlazeSports America

Links to all relevant online references:

- California School Garden Network, 2010
  http://www.csgn.org/images/pdf/GFLBook.pdf

- Dowling Community Garden retrieved from:
  http://www.dowlingcommunitygarden.org/pages/projects.htm

- DIY Accessibility: Making An Accessible Garden retrieved from http://www.diy-accessibility.com/accessible-garden.html

Guidelines Checklist for Accessible Bed Gardens

Considerations	Barriers for Use of Accessible Gardens	Recommended Provisions for Accessible Gardens
☐ Location	Mobility is a major concern	☐ An accessible raised bed should be located closest to the school ☐ A raised bed shall be considered at least semi- permanent; thus, a patio area, with its flat, smooth surface, can be a good spot to build the bed, allowing easy access from your school to the garden ☐ The area along the bed frame's edge should be cleared so that wheelchair users, as well as walkers, can easily reach the bed** ****Note:** One may consider pulling up all the grass for several inches or even several feet out from the best of the bed. In addition, either leaving the ground bare or covering it with a material like finely crushed rock or pea stones shall be recommended
☐ Select raised bed type/styles		☐ **A-Frame Planter Stand:** the A-frame planter stand is a wonderful design for either an adult or a child with a physical disability** ****Note:** If you'll be sitting while gardening, the frame can be built low enough to allow a few inches' clearance over the knees so a wheelchair or other seat can be brought right up to the planting box ☐ **A Garden on Shelves:** a shelf garden is inexpensive and easy to put together, to rearrange, and to disassemble; a smaller version might be just right for putting a child's container garden within an accessible reach ☐ **Pole-and-Post Gardens:** known as a no-bend kind of gardening, these kind of special arrangements of plants are meant to be built at eye or waist level, both for looks and for ease in care

☐ Height	Height for wheelchair users is too high or too low	☐ 6"-12" high may suit for many gardeners including wheelchair users** ****Note:** A raised bed garden, at 6"-12" high, shall not be the absolute solution for every gardener with a physical disability ☐ A height of 18-30" may be required to accommodate all gardeners including people with disabilities
☐ Length or Depth	Length for wheelchair users is too high or too low	☐ A maximum length of 10" for a raised bed is recommended ☐ At least a 3-foot area for clearance around the beds is recommended ☐ At least a 5-foot area is required for turning space for two more beds ****Note:** The final measurement – depth – is determined by the raised bed's height
☐ Accessibility/Soil	Some raised beds may have very limited accessible features because they only raise the garden a few inches to a foot off the ground Soil may be out of reach from a seated or non-bending standing position	☐ The soil may have tapered sides to make the garden as accessible as possible while still maintaining the soil depth required for all types of growing (about 12") ☐ May require careful engineering and rugged construction ☐ Soil may be excavated 2" below ground level where pathway paving is to be installed and leveled
☐ Garden construction features	May have inadequate materials A soft and irregular surface such as crushed rock, cobblestone, flagstone, and river rock may prevent persons with a mobility problem from navigating Concrete, brick, and asphalt are expensive	☐ May need recycled composite decking (12' x 6" x 1"), 12 boards per bed ☐ Some unique materials such as geoblock may be a great recycled plastic material for wheelchair paving ☐ Packed soil is inexpensive for path ☐ Screenings, of ¼ size to dust, is a good and inexpensive material, as is decomposed granite of the same size
☐ Raised bed construction materials		☐ 24' slotted angle irons, 4 per bed, are recommended ☐ 2.5' metal corner braces are recommended ☐ 36" u-posts, 8 per bed, may be used ☐ 14 gauge galvanized wires may be used

		☐ Galvanized deck screws may be used
☐ Mobility: Paths and Ramps (Ground surface)	Mobility may be extremely challenging The pathway may be too long or too short	☐ The width of the ramp or path may vary depending on the user, so the services of a contractor or landscape architect may be recommended ☐ The width of three feet may be considered a minimum for one-way traffic involving a wheelchair or walker, or for transporting a wheelbarrow ☐ A four-foot width shall allow a wheelchair user to make a 90-degree turn without reversing ☐ A five-foot width shall allow a wheelchair user to make a complete 180-degree turn ☐ Laying out the walkway in a curved design rather than with sharp angles shall make it easier to use ☐ Having edge guides shall protect wheelchairs, crutches, and canes from going off the side of the path
☐ Tools/Weeds	Standard garden tools are too short, too long or too heavy Weeds may prevent the wheelchair user from navigating along the edge	☐ May consider light weight tools with large handles for better grip, particularly if students with disabilities have limited strength; wheelchair users shall find long-handled tools more convenient to use
☐ Slope	Slopes may be demanding for the wheelchair user	☐ The gradient should be 1:20 or less; i.e., for every 20' of walkway, the path arises no more than 1'. ☐ The gradient of 5% may need to be consulted with a landscape architect specialized in accessibility design because it may still be too steep for some wheelchair users ☐ The grade of slope may be no more than 3% (1:33.33); in this way, most wheelchair users shall have no obstacle(s) negotiating ☐ If dealing with very steep slopes, the services of a contractor or landscape architect shall be required

SOURCE*: *Adapted from* Accessible Gardening for People with Physical Disabilities: A Guide to Methods, Tools, and Plants / California School Garden Network: Creating and Sustaining Your School Garden ***Conditional Exceptions:* Apply on a case-by-case; where full applicability is not possible because of the limitations and constraints included in the conditional exceptions; and, maximum extent feasible.

Guidelines Checklist for Raised Bed Garden Planning

Action Steps	Details of Creating and Maintaining a School Garden
Step 1	**Seeking Administrative Approval** ☐ Gain the support of your school's administrators. ☐ Develop an outline of your vision. ☐ Include the ways you think the garden will benefit your students and the community. ☐ Convince your school's administrators of your ideas for how you can incorporate the garden into the standards-based curriculum as a hands-on interdisciplinary teaching tool.
Step 2	**Creating a support network** ☐ Enlist other teachers, school staff, students, parents, and community volunteers to serve on a garden planning and advisory team. ☐ Begin building your network by conducting a brainstorming session with potential supporters. ☐ Spread the word by presenting the project idea at a faculty, school board, or PTO meeting and inviting people to join the brainstorming session. ☐ Notify other community members of the upcoming session by hanging posters, sending out a newsletter, or placing announcement through local newspapers, radio, or television. ☐ Create a group of people who will work well together and invest the time, energy, and patience to accomplish their goals
Step 3	**Identifying goals and linking the garden to your curriculum** ☐ Ensure that your goal must tie in with your current curriculum – the garden is a tool to help you accomplish your learning

	objectives, not an added task for your workload. ☐ Begin your team's goal-setting meeting by sharing information about required academic standards, then brainstorm ways to accomplish these learning objectives through garden lessons. ☐ Engage students, teachers, and community members by informing them about your plans to develop a school raised bed garden and educating them about its benefits. ☐ Create a summary document and distribute it to all participants. ☐ Share your plans with other teachers, administrators, and community members.
Step 4	**Designing the garden** ☐ Bring together committed partners and stakeholders in the form of a working group to facilitate garden development and design. ☐ Ensure that the garden design should be practical, functional, accessible, and fun. ☐ Involve your students and garden team in the process. ☐ Identify available resources that will help facilitate raised bed garden development and universal design.
Step 5	**Identifying supply needs and funding needs** ☐ Make a list of materials and supplies needed before you begin searching for financial support and donations. ☐ Estimate the costs for the entire project and prepare a realistic budget. ☐ Include expenses for the site development and improvement, operation, curriculum, and miscellaneous items.
Step 6	**Obtaining supplies and funds** ☐ Think of your funding search as an opportunity to provide additional community members a chance to participate in an extraordinary and powerful youth program. ☐ Do not search for funds until you complete the preliminary planning and design steps.

	☐ Determine whether or not your school or school district has internal supply funds to help with your program. ☐ Look for additional local resources within your community. ☐ Expand your search to regional, state, and national opportunities. ☐ Use a combination of three strategies – donations, grants, and fundraising projects – to secure the funds needed to begin and maintain your garden program.
Step 7	**Planting the garden** ☐ Measure and stake each planting area (use a string from stake to stake to better delineate the garden bed), then loosen the existing soil with a spading fork and add soil, compost, or both until the bed is 8 to 12 inches high. ☐ Rake the surface smooth to create a flat-topped bed, which increases water retention and decreases soil erosion. ☐ Create raised bed frames using rot-resistant wood, such as cedar or redwood, or other materials, such as recycled plastic boards, bricks, rocks, or cement blocks in order to create permanent, well-defined raised beds. ☐ Consider installing landscaping fabric to suppress weeds from growing up in your bed and/or gopher wire as a barrier when installing framed raised beds. ☐ Avoid pressure-treated lumber as it has been treated with toxic chemicals; instead, fill beds with soil or a mixture of soil and compost.
Step 8	**Maintaining the garden** ☐ Need to maintain the garden through regular activities such as watering, thinning, weeding, fertilizing, mulching, composting, and monitoring. ***Watering*** ☐ Do not automatically assume that you need to water wilted plants, because they may also wilt when there is ample or excessive water. ☐ Apply the spray to the base of the plant and avoid excessive moisture on the leaves.

	Thinning ☐ Instruct your students to indentify the healthiest seedlings and remove the others ☐ Cut the tops off the unwanted seedlings, after which the roots will eventually decompose. ***Weeding*** ☐ Should remove all weeds because they will compete for space, light, and water with your intended crops. ☐ Ensure that weeding does not become an overwhelming job, encourage students to monitor the garden continuously and remove weeds when they are small. ***Mulching*** ☐ Use a number of different materials as much, including shredded wood, leaves, and straw. ☐ Choose mulch according to your plant's needs, mulch availability, and visual preferences. ***Fertilizing*** ☐ Check with school administrators to see if there are any restrictions on the type fertilizer your class may use in the garden. ☐ Ensure that you need to constantly monitor nutrient levels and provide additional fertilizers. ***Composting*** ☐ Check the California School Garden Network (CSGN) website at www.csgn.org for more information on creating a compost pile or contact your local Cooperative Extension Service office. ***Harvesting*** ☐ Consult with a professional gardener for ideas on ways to harvest root crops if needed. ☐ Check different sources of harvesting a variety of vegetables and crops. ☐ Create a plan for harvesting and distributing products.
Step 9	**Sustaining the garden** ☐ Match lessons and activities with your curricular goals, adopt good outdoor classroom

	management techniques, create measurements for success, and document all your efforts. ☐ Maintain the approval of your administrators. ☐ Attract additional garden team members and volunteers. ☐ Find new sources of financial and material support. ☐ Review a list of goals for the garden and develop a method to determine whether your efforts are meeting them. ☐ Consult with expert school district personnel and local researchers for ideas on ways to measure the benefits of the school garden. ☐ Continue to inspire excitement in your students, their parents, other teachers, administrators, volunteers, and the community.

SOURCE: *Adapted from California School Garden Network (2010). *Creating and Sustaining Your School Garden.*