

## **Food Security and Learning in the CU Landscape—A grant to the Environmental Improvement Initiative**

September 8, 2005

1. We are PhD students in the Design and Planning program, and are part of the Children, Youth and Environment Center for Research and Design. Professor Willem van Vliet is the director.

The Children, Youth and Environments Center for Research and Design (CYE) works with the design professions and allied disciplines to contribute to the health, safety and welfare of children and youth. The Center undertakes and supports interdisciplinary activities in research, teaching and community outreach that connect the worlds of research, policy and practice, while recognizing young people's capacity for meaningful participation in the processes that shape their lives. It focuses in particular on children and youth in environments of disadvantage and those with special needs. We students who volunteer for the various programs are volunteers in our capacity as students.

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Contact for CYE Center: Professor Willem Van Vliet, [Willem@spot.colorado.edu](mailto:Willem@spot.colorado.edu), Office: 303-492-5015

2. The funds from this grant would be used to directly address the timely issues of food security, nutritional health, and the ecological and social integrity of our food system by further enhancing a unique and attractive outdoor learning space on campus. Access to fresh and healthy food is an issue of public health and social justice within Boulder, and in cities around the world. This issue is particularly important for growing children who need the nutrients to build healthy bodies and minds for a robust and successful future. Currently, in this county alone, there are thousands of individuals and families who don't receive proper nutrition for a variety of reasons, many having to do with the structure of our food system. Moreover, the rising costs of fossil fuels are likely to bring food security concerns to the forefront in our communities because fossil fuels are used in most aspects of commercial food production from tractors to fertilizers to shipping the food to market over long distances.

Our project will expand and enhance the food garden begun this past spring by CU students under the sponsorship of CYE. This garden is located behind the Environmental Design building and has been the subject of two front page news articles in the last two weeks due to the beauty of its vegetables and flowers and the intention behind the project. The food raised goes to a family in need and to

the volunteer students in Design and Planning and Environmental Sciences who are doing the work of building, planting and caring for the garden.

We wish to expand the physical aspects of the current garden with the input of design students in Architecture and Landscape architecture. Enhancements would increase growing capacity, make gardening activities more effective, as well as improving the opportunities for the space to be used educationally and socially.

We will invite students from Nutrition and Education and any other students who are interested in a Learning Landscape for their research work to join us. We will especially solicit the interest and efforts of international students (The international student office is in the Environmental Design Building.) International student involvement will create an opportunity for cross-cultural exchange and give everyone the chance to learn about vegetables from a variety of countries and learn how to plant them and prepare them for eating. We have already extended an invitation to teachers and students from University Hill Elementary to have walking field trips to the garden.

The average food item on U. S. grocery store shelves travels between 1200 and 1500 miles depending on whose statistics one reads. With the cost of transportation rising dramatically it is important to look at the way communities are designed and children are educated to incorporate food growing back onto school grounds and design community gardens into neighborhoods. When people can walk to their garden plot to plant inexpensive seeds and harvest the results in good food and good health we are several steps closer to sustainable communities.

To best achieve our goals we need:

- a. A shade arbor 15 ft by 10 feet so that classes can meet by the garden out of the heat of sun.
- b. Tool boxes built like benches with lockable lids to sit on to admire the garden, have class discussions and store the garden tools
- c. One more garden bed, 18 ft. x 4ft.
- d. A tumbler composter
- e. More tools so more gardeners can be involved
- f. Plant starts and seeds
- g. Educational signage to state the garden's purposes and to describe its ecological, social and health benefits.
- h. A drip irrigation system on a timer for all of the existing garden plots and the new one to conserve water and make garden maintenance efficient.

4. Project Scope: Funds needed: \$4360.

5. Timeline as follows:

- Installation of new garden bed and planting of over-winter plants (bulbs): fall 2005
- Design time for shade arbor and educational signage: late fall 2005, early winter 2006 (Designs submitted to Facilities Management for approval.)
- Building of shade arbor and remainder of planting: Early spring, 2006

Facilities Management approved the first part of the project last spring. It is assumed they would approve its extension in the same location.

If we receive this grant we will request professors in Architecture and Landscape Architecture to challenge their students to create designs suitable for the arbor and benches and solicit students to build the chosen design. We anticipate that a team of 8 builders would be adequate for the job. Gardeners will come from all of the departments listed where students are interested in collaborating on the project. A team of 6 to 10 students could do this effectively. Ian Bates, a PhD student in Design and Planning who coordinated the project in the spring and summer of 2005, will continue throughout the next year to ensure continuity.

5. Project Budget at end of application
6. It will help reduce carbon emissions by education. If more people start growing their own food as a result of this project there will be less emissions on grocery store trips, shipping of food and commercial fertilizers used. Of course, the green plants will use up some of the CO<sub>2</sub> in campus air as they do their photosynthesis. The garden also adds to creating a healthy campus by modeling a good health practice of gardening for exercise and eating fresh vegetables. We compost our waste on the site. If we install a tumbler composter, students can throw in their lunch residue like fruit peels, bread crusts, etc. to add to the mix.

We will contact the Center for Resource Conservation to get recycled materials from the Resource 2000 site to do the building of this project as long as they have suitable materials for us.

7. It is clear from the newspaper articles (attached with the application) on the first stage of the garden that people see the value of a garden on campus. Whenever someone is out working in the garden passer-bys stop to chat and share stories of their childhood gardens. This interchange builds community on campus. Research in environmental psychology shows that gardens make people feel happy and peaceful. We reconnect with the earth when we garden which relieves stress, making for a healthier campus community. Even collecting the stories people tell the gardeners would make for a fascinating research project in the way gardens evoke both memory and sharing of gardening information.
8. Gardens save the gardeners money on food and medical bills, so the students involved will save money. We will be making a contribution to the broader community by our donations of food to people in need. The public good will generated may, in time, save CU money, but this projects' strength does not come from saving money for the university, rather it comes from building a

healthy university where people share labor and food and give to the community at large.

9. The arbor will provide a permanent outdoor classroom for meetings or classes in fair weather, a place to sit for private reflection. The growing of food can be continued by any and all students interested in this through a variety of academic departments who may wish to do research connected with gardening. If people lose interest over time in growing food (Unlikely due to rising fuel costs affecting food costs) the raised beds can be planted decoratively in perennial native plants by the students to create a pocket of natural habitat on campus. In that way they will benefit local bird, butterfly and insect populations. (The garden currently includes one bed of native plants.)

**Budget:**

Shade arbor materials and plants	\$2000.
Four Tool boxes built like benches	\$1200
Wood for raised garden bed, 18 ft. x 4ft.	\$ 14 0.
A tumbler composter	\$170.
Garden forks, shovels, trowels	\$200.
Plant starts and seeds	\$100.
Drip irrigation system on timer	\$100.
Organic top soil and mulch	\$150.
<u>Permanent Educational signage</u>	<u>\$300.</u>
Total	\$4360.00

