

# TRU SUSTAINABILITY GRANT FUND PROJECT HELP

## **PROJECT HELP (1. PINES, 2.EMISSIONS, 3. GARDEN WALLS)** [WWW.YOUTUBE.COM](http://WWW.YOUTUBE.COM) HORTICULTURE GARDEN WALLS PROJECT HELP

Presented by Cameron Lindsay

Feb 15<sup>th</sup> 20015

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Project Help has dropped two components of its proposal due to the high number of other applicants applying for the grant funding. Project Pines and Project Emissions will not be included in this document and we will try to complete these projects through our capital planning budget in the near future.

### **PROJECT DESCRIPTION: {Garden Walls}**

The Facilities Services Grounds Department is looking for up to \$90,000 in funding to replace the failing, toxic retaining walls in the horticulture gardens on campus. This will be a joint venture 50/50 as part of the funding will be through TRU Capitol Planning Budget \$45,000 and TRU Sustainability Grant Fund if awarded \$45,000. The walls as you can see from the video footage are in disrepair mostly due to their age which are constructed out of railway ties that have been protected with creosote, a toxic chemical that is not environmentally friendly. Over the past 28 years this chemical has continuously leached into the water shed, which has negative implications to human, animal, and plant life. It is time for TRU to make a positive environmental change to enhance the garden by removing these harmful ties. This will require some expertise in retaining wall construction as there are two staircases that require some intricate work. Due to the nature of the site, the product we have chosen to use in replace of the ties is block. It will be a more sustainable site in the future. Upon completion these walls need to be safe and maintenance free for all user groups. It is important that these walls are built in a timely fashion, and at a specific time of year so it does interrupt any garden functions or events. The right contractor is a key component to insure our educational needs and design requirements are met.

### **Social, Ecological, Economic benefits to TRU:**

The garden has many social aspects as it brings many groups together. It is listed in the top 10 places to be married in British Columbia as quoted by “jasonbeattie.net photographer” [www.huffingtonpost.ca/2014/04/25/best-wedding-venues-bc-vancouver\\_n\\_5112704.html](http://www.huffingtonpost.ca/2014/04/25/best-wedding-venues-bc-vancouver_n_5112704.html)

Approximately fifty weddings and fifteen garden tours are booked each season by TRU Friends of the Garden. TRU Faculty and Staff hold BBQ's as well as retirement parties in the garden. This area is very popular among the TRU community. Departments that use the garden include, Natural Resource Science, Nursing, Respiratory Tech, Arts, and CUPE. Tourists from all over the world whom stay at the residence also enjoy the beauty of the garden. Horticulture students use this garden for educational purposes such as plant identification. The Arts department uses the garden for drawing and sketching purposes. Photographers are often seen taking family portraits as well as pictures of the plant material. Celebrations of life and convocation receptions are held here at TRU through the elegance of this garden. This high visible garden wall will have major social impacts to thousands of visitors each year. The safety and the aesthetics of this garden are important to all user groups.

**Ecological Impact:** By providing a clean water shed, and a safe ecosystem significant progress may be made in sustaining all types of life. This will allow TRU to be recognized as a healthy sustainable institution. More information about toxic Creosote @ [www.atsdr.cdc.gov](http://www.atsdr.cdc.gov).

**Economic:** The economy will be impacted as TRU will be providing work opportunities to the citizens of Kamloops. TRU Horticulture, and Marketing Departments may use this garden for marketing purposes. Facilities Services will have decreased in maintenance costs. The benchmark can only improve on top of the existing revenue. An example of one revenue source is weddings. Wedding parties pay up to \$800 for facility use and \$150.00 of this money is directly put back into the garden. New plant material share purchased and a gardener is employed for the summer season with this fund. TRU Friends of the Garden creates revenues by hosting plant sales every year which also helps fund this effort.

### **People and Partnerships:**

Facilities Services and Environmental Sustainability are TRU's two main funding partners. We have partnered with Ray Visser from LA West & Associates to establish a design for the garden wall. Visser has been designing most of TRU's landscape for the past 30 years. He was also a former instructor for the Horticulture Department teaching landscape design. Visser and I will oversee the project to insure proper contract obligations are met. The horticulture instructors Earnest Phillips and Kevin Scollon, will involve their students in an onsite learning lab. Both gentlemen have over 30 years' experience in the horticulture industry. The contractor of choice will be chosen based on experience, cost, and the ability to use this project as an educational experience. This component must be outlined into the bidding process. The Instructors will be responsible to schedule students into the lab for participation marks. The student's will be able to learn the many steps involved in the wall building process. This will be technical hands on experience for the students. Other partners

such as Friends of the Garden, and local Kamloops business will supply the products required to build the walls. I, Cameron Lindsay; Grounds Supervisor of TRU facilities services will be responsible for overseeing the project as mentioned above. I have 30 years of construction experience building over 600 brick/block projects.

**Performance Measurements:**

- Reduce leaching of creosote into the water shed
- Invaluable field work experience for Horticulture Students learning the technical aspects of wall construction
- Reduce wall repairs
- A safe healthy work place
- Healthier environment
- Educational purposes

**Level of Impact:**

Staff Involvement:

- Faculty and staff are able to offer invaluable work experience to Students.
- Support staff and contractor are able to pass knowledge down to new students.
- Providing a safe healthy venue to the TRU community as well as visitors to Kamloops.
- The TRU marketing team is able to use the garden as a tool to attract new students.
- A positive initiative for the office of Environmental Sustainability in support of cleaning up an environmental concern.
- TRU Omega will create awareness through the newspaper.
- TRU Bridges Magazine will also help bring awareness to the TRU Community. The Horticulture Program will be acknowledged along with the Grounds Crew.

Student Involvement:

- The students will gain practical knowledge with the onsite lab. Site preparation, design, engineering principles, and staircase construction will be taught. This experience will help students in their careers following graduation.

Other Partners:

- TRU will be hiring professional services to Kamloops business which intern is good for the local economy.

- Buying local products creates employment.
- TRU departments are given an opportunity to reach common goals.

### **Linkage to campus planning or other activities:**

#### Environmental Sustainability Policy BRD 23-0:

“The University has a significant role to play in preserving the local and global environments. TRU seeks to be the University of Choice for Students concerned about environmental sustainability and to be recognized for its leadership and stewardship in responding to environmental challenges.”

This policy will assist members of the University community to understand and fulfill their responsibilities with respect to environmental sustainability.

#### II. Purpose: Pgs. 2.

1. 2. 3. 4.

#### III. Principles: Pgs. 2. 3.

1. Leadership in Sustainable Operations b. d.
3. Leadership in community Sustainability a. b.
4. Leadership in Managing Environmental Risks: b. c.

#### Master Plan:

#### TRU Strategic Priorities 2014-2019:

Mission Statement Pg. 1.

Traditional Foundations Pg. 1.

#### 5 Priorities for 5 Years:

1. Increase Student Success.
5. Increasing Sustainability.

#### Academic:

##### Academic Foundations:

1. Inquiry-Based and Creative Learning.

#### 4. Flexible Learning Options.

Statement of Purpose: Under Academic Foundations

Sustainability Action Plan:

The Human Environment:

1. Encourage environmental awareness and participatory planning among TRU community members.

The Natural Environment: Goals

1. Provide stewardship for on-campus and local natural areas.
2. Minimize the environmental impacts of TRU's landscape while maintain current aesthetic values.

#### Project Feasibility:

Our proposed project strives to secure funding from TRU Facilities Services and the office of Environmental Sustainability. If funding is granted the rest of the project will fall easily into place. In order for this project to take place a contractor must be committed to the project. Enclosed on page 7 is a quote in place of the budget template. This quote allows the client to see the contractor's costs. In review of this quote I feel we can save money if we do some of the items in house and maybe change the wall at one end.

If funding is not available this calendar year, it has been suggested to fund the project for two consecutive years. This would be a viable option as we are flexible to make this project a reality. If this happens we could buy some of the needed materials this year and store it on campus.

#### Planning:

The project has several planning procedures that need to be followed by the TRU policy. Design, Secure Funding, Tender, Award, Construction start & completion dates must be planned.

- Design: A design for the wall is completed by LA West and Associates. A copy of the plan has been sent to the office of Environmental Sustainability for your viewing. You should have received a copy by email from James Gordon.
- Secure Funding: Funding is still in process.
- Tender: Due to the cost of these walls TRU policy requires this contract to go for tender. Three proper quotes from three different contractors must be submitted. Contractors bidding on this project will need to do a observatory walk for proper quoting purposes.

- Award: Award bid to suitable contractor.
- Construction: Start and completion dates will be provided. Construction will commence at the beginning of October to ensure the garden can be used for annual functions. This time frame also works best for Staff and Students as quoted by the Instructors.

I look forward to bringing Project Help to the TRU Horticulture students in an educational, collaborative experience, for all partners involved.

I have a full scale copy of the proposed garden walls for your viewing in the office of Environmental Sustainability.

We would like to invite the Grant Fund Panel to come and see the wall first hand. A visual visit to the garden in early spring will give you a better glance of our project. This can be arranged at your earliest convenience by contacting [clindsay@tru.ca](mailto:clindsay@tru.ca) or local 5472.

Staff and students at house 10 appreciate the opportunity to apply for this funding in order to help rebuild the walls in the Horticulture Gardens.

I would like to thank my video producer Jennee Lindsay TRU Nursing Student and Editor Melissa Sheets TRU Business Student for shooting the project Help video.

**Quote:****L.A. West***Associates (Kamloops) Inc.*

Landscape Architecture Environmental

Planning

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**ESTIMATE OF  
PROBABLE COSTS  
DATE: JAN. 29, 2015****PROJECT: HORTICULTURE GARDEN RETAINING WALL  
RENOVATIONS CLIENT: TRU  
LANDSCAPING (BASED ON DWG. L-1-L-2)**

<b>ITEMS</b>	<b>QUANTITY</b>	<b>UNIT</b>	<b>UNIT COST</b>	<b>ESTIMATED COST</b>
Rough grading and site prep	135	m2	\$5.00	\$675.00
Topsoil	32	m3	\$75.00	\$2,400.00
Turf grass restoration	100	m2	\$18.00	\$1,800.00
Paving stone	25	m2	\$190.00	\$4,750.00
Re & re paving stone	25	m2	\$130.00	\$3,250.00
Removal & disposal of ex. AB stairs	1	l.s.	\$3,000.00	\$3,000.00
Removal & disposal of timber wall	1	l.s.	\$10,000.00	\$10,000.00
Removal & disposal of boulder wall	1	l.s.	\$1,000.00	\$1,000.00
Gravel areas restoration	22	m2	\$55.00	\$1,210.00
Allan block retaining wall	65	m2	\$400.00	\$26,000.00
Allan block stairs	35	m2	\$400.00	\$14,000.00
Steel pipe handrailing	10	m	\$500.00	\$5,000.00
Conc. curb	5	m	\$100.00	\$500.00
Black plastic edging	26	m	\$20.00	\$520.00
Irrigation system restoration	1	ea.	\$4,000	\$4,000.00
Finish grading	135	m2	\$2.50	\$337.50
<b>Subtotal:</b>				<b>\$78,105.00</b>
Engineering & contingency (15%)	1		\$11,820	<b>\$11,820.00</b>
<b>Estimated Total:</b>				<b>\$89,925.00</b>