

Inner Harbour Community Garden Collaborative Expansion Plan

Prepared by Stephen Caddy, Garden Supervisor 2017

Introduction

This plan goes over the cost and material requirement for starting a new community garden following the successful designs of the Inner Harbour Community Gardens. It describes what should be found at each garden location and what tools should be provided. Wherever possible, vendors that have been previously used have been provided. This plan can be taken for use at any garden location, but some information pertains only to the operation of gardens under the Inner Harbour Community Garden Collaborative due to previous vendors and our goals.

Contents

Introduction	1
Overview	3
Design	3
Blueprints.....	Error! Bookmark not defined.
Specifications	3
Materials	4
Material and cost breakdown.....	5
Planting.....	5
Additional	6
Compost.....	6
Pathway	6
Water	7
Tools.....	7
Signage	7
Other	Error! Bookmark not defined.
Inner Harbour Community Gardens Specifics.....	8
Summary	9
Event Planning.....	10

Overview

Each location of the inner harbor community garden collaborative currently has 2 raised beds. They are accompanied by compost bins, pathways, signage, and rain barrels.

For future expansion, it is possible to copy each site to match those existing, or make alterations to increase or decrease gardening space. While some things such as pathways and rain barrels are optional depending on the location, it is recommended to always have a compost bin and signage for each location. The city of Kingston requires that a minimum of 10% of your growing space be accessible however the goal of our project is to provide 100% accessibility. This said, where space permits, gardens built directly into the ground can be used to drastically reduce the costs and maximize gardening space.

It is important to note that with any approximate cost there is always the opportunity to find something cheaper or receive donations. This can have a large impact on the cost of any project.

Design

The raised beds used at the Inner Harbour Community locations are designed for accessibility. Each bed is 2' tall so wheelchair users and those with reduced mobility can easily access the garden. A width of 4' is optimal so that the garden can be reached from both sides. It is recommended that the beds have 4' spacing to allow for a pathway to be placed in between.

The length of the bed is determined by aesthetics, space, and budget requirements. The nature of this design allows for variation in length by multiples of 4' which corresponds to how the boards on the side of the garden are overlapped. Wide boards on the top allow for users to sit on them. The inside of the raised bed is covered with a less permeable geotextile membrane, and landscape fabric separates the gravel and the soil. Gravel fills the bottom 3 inches to improve drainage. The remainder is filled with soil.

Specifications

Structure

(Full Instructions are available upon request)



Materials

For lumber, cedar is recommended due to its rot resistance. Standard spruce, pine, and fir are cheap alternatives but have a much shorter lifespan.

To protect the wood, a heavier, less-permeable liner is used. However, separation between the gravel and soil should be done with a membrane that allows water to permeate easily.

A triple mix soil is ideal for gardening. It is best to mound the soil to account for settlement.

Material and cost breakdown

The following presents the material and cost breakdown for two standard 2-foot-high beds with dimensions of 4' by 16'. This can be used to estimate the implementation requirements of a new location.

Material	Quantity	Approximate Cost	Supplier
Garden Quality Soil	8 cubic yds.	\$320	Bayridge Landscaping
1" Gravel	2 cubic yd.	\$60	Bayridge Landscaping
Landscape Fabric	288 square ft.	\$30	RONA, Lilith from the Loving Spoonful
Lumber 2x4x8	3	\$10	RONA
Lumber 2x6x8	54	\$310	RONA
Lumber 2x6x10	6	\$50	RONA
2 1/2" Decking Screws	~400	\$20	RONA
		Total: \$800	

Planting

Once you have built your garden, the next step will be to populate your space. Plants can either be bought from seed or seedling which will depend on timing, type of plant, and availability.

If you are planting in an existing garden, consult the previous year's layout to determine your crop rotation possibilities. It is important to give a plant space, consult garden resources to determine the space required by each plant. Your garden will seem bare at the start but giving you plants space will allow them to grow larger and healthier.

When choosing what to plant you should have some common and unique crops to increase public food knowledge. Take care in organizing your plants to ensure each one gets optimal growing conditions. Plants can be acquired through donations, or bought at a store. If you can, try to get a discount on your plants in return for sponsorship at the gardens. Local gardeners and organization often have extra seedlings to donate.

The following presents the material and cost breakdown for two standard beds with dimensions of 4' by 16'. This can be used to estimate the planting requirements of a new location, or for a new season if no seeds were saved. We have estimated the number of plants at 50 per bed and the cost per seedling to be \$0.75.

Material	Quantity	Approximate Cost	Supplier
Seedlings	100	\$75	Quattrochi's, Canadian Tire, Donations

Additional

In addition to garden beds, you will require other implementations as well. Some of these are optional but it is recommended that you incorporate everything.

Compost

To supply your garden with nutrients, it is important to have a compost system. Compost can be added as needed during the season and should always be mixed in at the start of a growing season. Crop rotation can also help control nutrients.

It is recommended to have a 2 or 3 stage composting system. Raw material is added into one bin and after some time, a more complete product is transferred to the next bin until it is ready. Arrange the pallets vertically in a capital "E" shape and attach using screws. The last pallet can be cut in half to be placed on the front side of the bin.

The following presents the material and cost breakdown for a new location. 6 Pallets are used for a 2-bin system and 9 are needed for a 3-bin system.

Material	Quantity	Approximate Cost	Supplier
2 ½" Decking Screws	~50	\$5	RONA
Wood Shipping Pallets	6	Free	Free from local businesses
		Total: \$5	

Pathway

Pathways are optional but are necessary if you are aiming for a high degree of accessibility. The material must be wheelchair friendly. Stone dust compacts well into a relatively smooth surface and it is inexpensive. To allow for enough space, pathways should be 40-48" wide.

The following is for a pathway approximately 25' long. Note: It is recommended to rent a plate compactor and educate yourself on path construction to complete this project.

Material	Quantity	Approximate Cost	Supplier
Stone Dust	1 cubic yd.	\$30	Bayridge Landscaping
Landscaping Fabric	25' on a 40" roll	\$10	RONA
		Total: \$40	

Water

Some locations have access to water provided from a hose. If water from a nearby building is not an option, rain barrels work very well in supplying water to the gardens. They reduce your impact on the environment by reducing the amount of water you use from the grid. Rain Barrels also allow gardeners to be more hands on. Rain Barrels can be ordered from Utilities Kingston for free if they are intended for use at community gardens.

Tools

Each garden should have a variety of tools available to the community. Most tools will be used for standard maintenance. Some tools are needed for harvesting. Other tools such as a scale to weigh produce have already been acquired for the Inner Harbour Community Collaborative. The need for the tools listed below entirely depends on what is grown and who is available to help tend the gardens.

The following presents the tools and cost breakdown of a new location. It is important to note that some tools you will need are not listed since they are only needed for garden construction. These include a plate compactor, mitre saw, cordless drills, wheel barrows, and measuring tapes.

Materials	Quantity	Approximate Cost	Supplier
Garden Trowels	2	\$20	RONA
Watering Can	2	\$20	RONA
Spading Fork	1	\$30	RONA
Garden Spade	1	\$30	RONA
Scissors/Pruners	3	\$20	Staples
Garden Stakes	10	\$5	RONA
Plant Cages	10	\$15	RONA
Garden Trellis	2	\$10	RONA
Sisal or Jute Twine	1	\$5	RONA
Spray Bottle	1	\$2	Dollar Store
		Total: \$137	

Signage

For the community to be able to use the gardens, appropriate signage is crucial. There should be a sign with the garden name, as well as signs for sponsors and donors. It is important for there to be a bulletin board to inform the community about the gardens. It is helpful to include contact information, gardening instructions, calendars, notice boards, events, and a list of chores on you bulletin board, a chalk board allows for everybody to leave comments and check of tasks as they are completed.

Signs can be made very simply with reclaimed Pallet wood. A craft day can be organized to provide families with the opportunity to get involved and to decorate

and paint the signs. Chalkboard paint on smooth plywood makes an appropriate surface to write on.

The following presents the material and cost breakdown of a new location. Before purchasing new equipment determine if the collaborative already owns something, for example, spare sheets of plywood, and painting supplies might already be in inventory.

Materials	Quantity	Approximate Cost	Supplier
Plywood	1/3	\$25	RONA
Chalkboard Paint	1 small can	\$20	RONA
Painting supplies	Variable	\$15	Dollar Store
Reclaimed Pallet wood	Variable	Free	Free from local businesses
Chalkboard Chalk	1 Pack	\$2	Dollar Store
Hardware	Variable	\$8	RONA
		Total: \$70	

Inner Harbour Community Gardens Specifics

All our landscaping materials are from Bayridge landscaping. They offer reduced prices and free trucking costs due to our status as a community garden. They have been very generous in their contribution. To order material, speak with Brad Kruz, mention who we are as well as the name of the previous garden supervisor Stephen Caddy.

Lumber and construction materials can be purchased at RONA. Town Homes Kingston has an account with them which provides material at contractor rates.

Seedlings can be purchased at discount from Quattrochi's. Donations from Ila Cuddy and others helped to stock our gardens for 2017.

Rain Barrels were obtained from Kingston Utilities for free.

Pathways use material from Bayridge landscaping. Through The United Way, there is the opportunity to receive volunteers as long as they are given instruction. Pathway construction can also be scheduled as a community volunteer event

Signage was made using reclaimed pallet wood. At each site, we have the garden name, a bulletin board, compost instructions, and sponsorship signs.

Initial tools were provided by locations with a few additionally having to be purchase.

Compost Bins currently follow a 2-step process however it is recommended to have 3.

Summary

The total estimated cost of establishing a new garden in the same manner as previous locations can be seen below.

Material	Quantity	Approximate Cost
Garden Quality Soil	8 cubic yds.	\$320
1" Gravel	2 cubic yd.	\$60
Landscape Fabric	288 square ft.	\$30
Lumber 2x4x8	3	\$10
Lumber 2x6x8	54	\$310
Lumber 2x6x10	6	\$50
2 ½" Decking Screws	~400	\$20
Seedlings	100	\$75
2 ½" Decking Screws	~50	\$5
Wood Shipping Pallets	6	Free
Stone Dust	1 cubic yd.	\$30
Landscaping Fabric	25' on a 40" roll	\$10
Garden Trowels	2	\$20
Watering Can	2	\$20
Spading Fork	1	\$30
Garden Spade	1	\$30
Scissors/Pruners	3	\$20
Garden Stakes	10	\$5
Plant Cages	10	\$15
Garden Trellis	2	\$10
Sisal or Jute Twine	1	\$5
Spray Bottle	1	\$2
Plywood	1/3	\$25
Chalkboard Paint	1 small can	\$20
Painting supplies	Variable	\$15
Reclaimed Pallet wood	Variable	Free
Chalkboard Chalk	1 Pack	\$2
Hardware	Variable	\$8
		Total: ~ \$1127

Event Planning

Any major event that takes place in the garden can be turned into an event. The garden build day is an opportunity to not only build the gardens but to also generate community interest. A list of event specifics that have worked well at existing sites are written below.

- Live music
- Free Barbeque
- Free Cake
- Water
- Gloves
- Plenty of tools (ask volunteers to bring their own, and be on standby to rent)
- Prepared Instruction Packages
- Banners from sponsors
- Local businesses donate employee time
- Pre-fabricated side panels
- Distribute surveys to volunteers