

Diploma in
Permaculture
Designs 2 & 3.

**DESIGNS FOR A
COMMUNITY
GARDEN**

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OVERVIEW OF DESIGNS FOR A COMMUNITY GARDEN

Project and Design Aim and Objectives

There are two distinct but integrated and codependent parts of a community garden, the community and the garden and hence two main designs are presented together.

- By using a writing up format that combines the two designs, looks at methods, a case study and provides resources and links it is possible to add another yield from the project i.e. the production of a document that will help others starting Community Growing Spaces.

The designs

1. To develop and build the “**Invisible Structures**” i.e.
 - a) A community of gardeners with the means to work well together to plan and create joint visions.
 - b) The required outline paperwork for finances, health, safety and smooth running of the project.
2. To create the “**Visible Structure**” i.e.
 - a) A well designed community growing space.
 - b) A space where people of varied abilities, ages and outlooks can relax, play and socialise.
 - c) A garden that showcases a variety of gardening styles and techniques and promotes permaculture.
 - d) A garden that can support shared learning and educational activities such as workshops.
 - e) A habitat that also acts as a nature reserve.
 - f) A garden that is cultivated using ecologically sound and permaculture principles.
 - g) An edible landscape that is diverse and highly productive.
 - h) A garden with a definite sense of place for holding events as well as just enjoying the garden.

In achieving the above we would aim to benefit the local community by:

1. Improving health and well being
2. Fostering a sense of community.
3. Improving sustainability by producing local food.
4. Providing increased opportunity for social connectedness and inter-generational exchange.
5. Providing skills development and learning opportunities.
6. Providing a growing space for those with no garden and for those who cannot get an allotment

Project Outline

To:

- Urgently get a basic outline plan organised for the City Council so drainage, water supply and pathways can be installed.
- Get a community together and as much of the social and organisational (“Invisible Structure”) needs in place as possible.
- Provide some facilities and tools to start work/play.
- Form a vision of what people want from, and would like to see in the garden.
- Design the garden based on the vision, evolving ideas and circumstances that arise.
- Get some funding

- Implement the design and improve facilities, tools etc. over time.
- Evaluate and tweak to continue to improve the garden over time.
- Present the whole project in a way that it can become a resource for others creating Community Growing Spaces.

Design Outlines

1. Social and Organisational, Planning and Visioning (“Invisible Structures”).

- Create and source the required paperwork necessary for the project and for grant applications.
- Present outlines and methods for working as a community and community building.
- Provide information useful for the planning and visioning of Community Growing Spaces.

2. The Garden (“Visible Structures”).

Design a garden providing a diverse range of areas and styles which will be suitable as a community garden, public relaxation space, educational resource, food producing area and wildlife habitat. Incorporate into the design permaculture and wildlife boosting techniques which will be useful as educational examples. Areas include a forest garden, raised beds, herb spiral, hugelkultur bed, wildlife habitat boosters, wildflower areas, poly-tunnel and more. The design is based around the pattern of circles with overlapping circles and sectors included.

Accreditation and Complementary Criteria involved

These include:

- 1. Demonstrating Design Skills**
- 2. Applying permaculture to your work and projects**
- 3. Site Development**
- 4. Dissemination/Education**
- 5. Community Building**
- 6. Symmetry**

These are looked at in more detail in my [Assessment of these Designs](#).

Holmgren’s Domains Involved

- 1. Building**
- 2. Tools and Technology**
- 3. Education and Culture**
- 4. Health and Spiritual Wellbeing**
- 5. Land Tenure and Community Governance**
- 6. Land and Nature Stewardship.**

Permaculture Ethics and Principles Involved

These include:

- **Earth Care, People Care, Fair Shares.**
- **Observe and interact, Catch and store energy, Obtain a yield. Apply self-regulation and accept feedback, Use and value renewable resources and services, Produce no waste, Design from pattern to detail, Integrate rather than segregate, Use small and slow solutions, Use and value diversity, Use edges and value the marginal, Creatively use and respond to change.**

How these relate to the project is looked at in more detail [here](#).

Methods used.

Thinking tools for Invisible Structures -SWOC, Mind-maps, Principles and Ethics.

Thinking tools for Garden Design - PNI (Positives-Negatives-Interesting), Mind-maps, SWOC (Strengths-Weaknesses-Opportunities-Constraints)

Design Frameworks for Invisible Structures - OBREDI (Observe-Boundaries-Resources-Evaluate-Design-Implement)

Design Frameworks for Garden Design - OBREDIMET (Observe-Boundaries-Resources-Evaluate-Design-Implement-Maintain-Evaluate-Tweak), “Placemaking”, Incremental as the process continues.

Survey Techniques and Considerations for Invisible Structures - Capacity Survey.

Survey Techniques and Considerations for Garden Design - PFASTE (Plants, Fungi, Animals, Structures, Tools, Events). DAFOR(L) (Dominant, Abundant, Frequent, Occasional, Rare, (Local)).

Soil analyses (Jar, Feel, Ball, Ribbon and Coil tests, Soil Indicator plant species present, pH measurements). **Directional sectors** (Sun, Wind and Rain, Views, Neighbours). **Topographical sectors** (Slope), **Combination sectors** (microclimates). **Resources and Boundaries**, Gardeners’, Public and Nature’s requirements, Utilities, **Mapping, Zones, Networks.**

Analyses – Key functions, Needs and yields, Mind-maps, 4Ps

Results summary.

It is now four years since starting this project and we have a great garden with a wonderful community participating. We have formed networks with all sorts of people and have educated many people from outside the permaculture circle. Our blog <http://emptycommonarden.blogspot.co.uk/> and photographs tell the story.

Evaluation and Reflection

The project is a success in that we have a very popular community garden which people really like. Because the garden has a variety of styles of beds from flowers to forest garden to annual vegetable beds there is something for everyone. This is looked at in more detail in my [Assessment of these Designs](#). using the 4Ps (Process, Product, Personal, Peers)

Self- assessment

I started this project at about the same time as doing my Permaculture Design Certificate so things were fresh and busy and there was lots to learn. The project has made me really concentrate. I already knew a lot about gardening and ecology but this taught me about strategies of approach to design. I am now far more aware of the special requirements of communities and community gardens and in future this could well be useful for community designs.

This is looked at in more detail in my [Assessment of these Designs](#).

INTRODUCTION

There are two distinct but integrated and codependent parts of a community garden, the community and the garden. This project covers two designs, one for the community well-being (the Social and Organisational Design) and one for the garden.

The aims of the Social and Organisational design are to develop and build the “Invisible Structures” i.e.

- A community of gardeners with the means to work well together to plan and create joint visions.
- The required outline paperwork for finances, health, safety and smooth running of the project.

The aims of the garden design (“**Visible Structure**”) are to create:

- A well designed community growing space.
- A space where people of varied abilities, ages and outlooks can relax, play and socialise.
- A garden that showcases a variety of gardening styles and techniques and promotes permaculture.
- A garden that can support shared learning and educational activities such as workshops.
- A habitat that also acts as a nature reserve.
- A garden that is cultivated using ecologically sound and permaculture principles.
- An edible landscape that is diverse and highly productive.
- A garden with a definite sense of place for holding events as well as just enjoying the garden.

The land had been allotment land but was abandoned, for about 20 years, due to it being very boggy in areas, a bit shady in places and full of horsetail (*Equisetum arvense*). With the long waiting list for allotments there was pressure to try to bring it back into use for allotments but there was also pressure from the new housing development nearby to make a community orchard. I had offered to help the City Council with community growing spaces designs for free and so became involved before there was a recognised community to take it on.

Stages of the project.

1). Outline Garden Design- for Cambridge City Council. Because the money available for the project had to be used before the end of the financial year i.e. within a couple of months an outline garden design, in order to know where to place vital infrastructure, had to be created before any community had been gathered. This was because there were three main issues which had to be sorted out quickly. These were:

- Put in some drainage
- Put in pathways for disabled access
- Put in a water pipe and water trough.

This went against my ideal of having the community design the garden with the help and expertise of a designer. However, on analysing the strengths and weaknesses of the top-down and bottom-up approaches ([here](#)) and gaining experience in community gardens I have a far more balanced view and can see many positives in both ways of starting a garden.

2). The Social and Organisational Design - for the community.

3). The Garden Design - driven by the community for the community.

SOCIAL AND ORGANISATIONAL DESIGN

The social and organisational requirements, along with a well formed co-created vision and reasonable knowledge base, are invisible and are therefore less likely to have attention paid to them. However it is this, which Bill Mollison (1) refers to as the “invisible structure” which forms the glue which holds the whole Community Garden together. For this reason as much attention needs to be paid to the invisible structure as the visible structure during the creation of the Community Garden.

If the social and organisational “design” is in place then the community is prepared and in readiness for a collective vision to be formed. Then the site design can take place using a community that is likely to remain cohesive and have a good directional driving force. It will also have a good management and decision making process and an outline understanding of how to make a community-centred, sustainable growing place. This makes the design process likely to be more successful and fun. The final outcome is more likely to be about making a place that fits with the community and environment rather than just a “design” which is often looks-driven. Having the paper-work, policies and legal requirements in place (which is usually a requirement when getting funding for a project) means that funding can be applied for before work starts.

Figure 1. Social and Organisational Design Overview



Examples of Required Paperwork etc. can be found [here](#).

Community Building Strategies and Resources can be found [here](#).

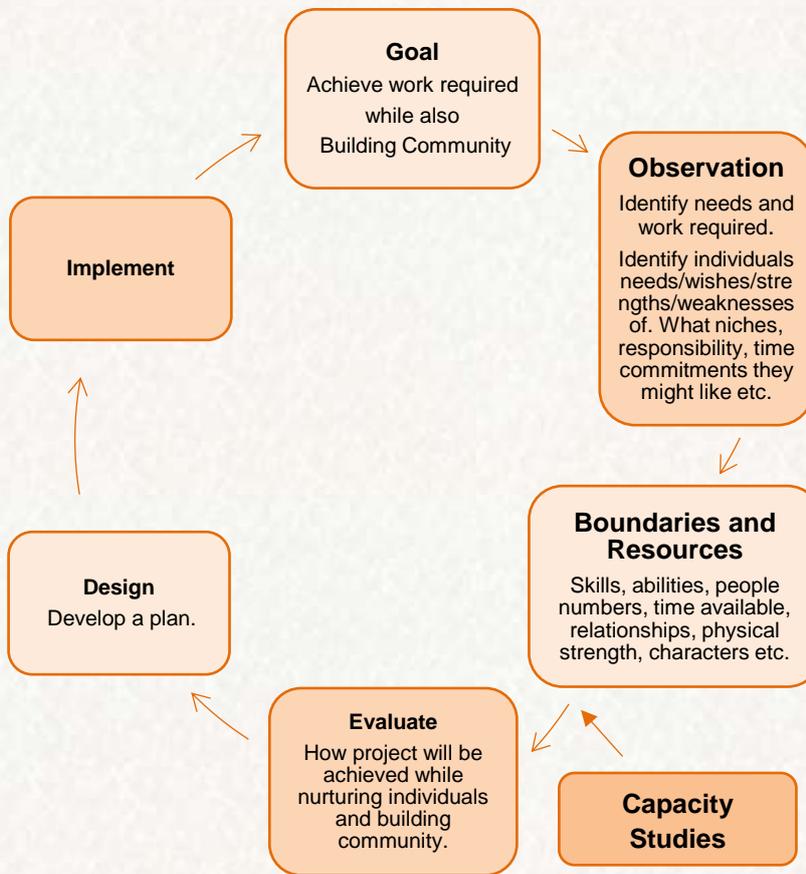
Planning and Co-creation of Vision Resources can be found [here](#).

In the case of our community garden we already had the land, weeds were taking over and there was antipathy towards the community garden from neighbouring allotment holders (who believed people couldn't work together to look after and harvest from a shared piece of land). As a result we didn't have much time for the Social and Organisational design and I believe this had adverse effects.

We were all over the place when the community got together. Trying to design a way to look after our people and build cohesion in the group was really difficult. I had just done my PDC a few months

earlier, had got Looby Macanmara's book "People and Permaculture" (2), which is great on caring

Figure 2. Design for Working as a Group



and designing for people, and everything was new. It was exciting to try out some of what I had learnt. During my research I had found a design system called "Succession Planning" which is about managing people in the work force. Having worked out a form of it for looking after the people as people rather than managing them as tools I realised it was in fact a form of OBREDI.

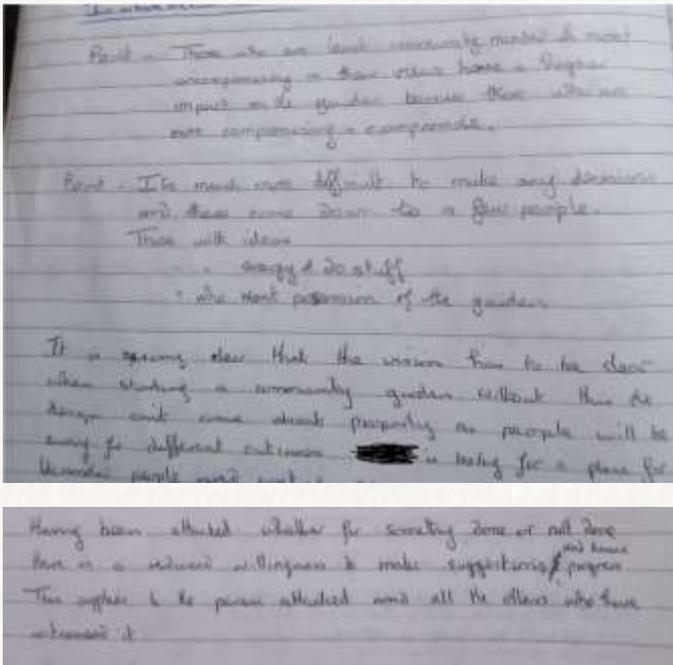
I decided that I would, privately, assess and try to look after our new community group using this and cycling quite fast on small sections of the overall project - which was too large with unclear areas of ownership to begin with. I found that I was alert to just how different people are and made a conscious effort to do a [Capacity Study](#)

as a part of the Boundaries and Resources section of my design framework. I felt a bit uncomfortable about this conscious analysis of people initially but I still "Capacity Study" new members and find it helps me observe and also interact. On top of that it helps me to look after their well-being as I understand them better and can look for win-win situations for them and the garden. Over time I have noticed that people generally like to be within their comfort zone and find a niche where they can take a little ownership but not too much responsibility, this way they feel they can positively contribute to the overall project without large amounts of commitment. Although, in our garden there is no pressure to come regularly or often a conscious effort has to be made to ensure people really believe this is true in order for them to feel comfortable.

Getting our policies, risk assessment and overall aims clearly defined, agreed upon and written up was urgent as we had to meet a deadline for a grant application which required these. I offered to tackle this as I had done a lot of risk assessment and protocol writing as part of my previous work.

We decided to meet at the garden on a Sunday morning to garden and have meetings then as and when necessary. This worked reasonably and we managed to follow our [meeting procedures](#) to some extent and managed to work together to produce a [Constitution](#). However, we were soon in the [Storming](#) phase of our group formation and arguments erupted which weren't easy to deal with. I was keeping a diary at the beginning (and wish I had done throughout) and made some notes on how I felt we were affected.

Figure 3. Excerpts from my diary during the group's "storming" phase



Knowing this storming was a common stage in group formation and having strategies for dealing with discord would have helped us all. I produced some [Group Work Guidelines](#) to try to help with group cohesion during this stage.

It became obvious that, even with a small group, meetings and consensus decision making took up valuable time which wasn't properly rewarded. Some people were effectively oppressed by others and consensus decisions could be vetoed by just one dissenter. Even with good meeting management this occurs. I was observing and reflecting on what was going on but didn't know how to resolve the matter. I was not confident enough to suggest we abandon meetings. A general antipathy towards

meetings arose because it was obvious that it was causing disharmony and not leading to a collective decision that represented what all those present felt was best. We just stopped having meetings and this worked, and 4 years later it still works well. We have a system of just chatting while gardening, I send out any ideas that arise for views and comment in a group email and we have a few comments back and forth but tend to all agree as there has been chatting going on. In addition, those who have the idea are more likely to take on the responsibility of getting it organised as it is something they are interested in seeing done. Bill Mollison talks about this subject in his Design Manual (Ch14.10) (1) and it appears we have come to his decisions through a natural process. I hadn't read that chapter at the time this process was occurring and was encouraged when I read it as I felt we really ought to be having meetings, that's what the books say to do. Interestingly, we had a group called the "Community Gardening Nomads" turn up one day; they just choose a garden and turn up on its community gardening day, do what work is asked of them and move on to another. Their reason for this strategy was because they wanted to garden and chat not get involved with impediments to this such as meetings and the internal politics that these promote, which was what had happened to the garden they were originally at. So beware of meetings, at the beginning when designing the garden they can be useful, if carefully managed, and can bring the people together, but (depending on the numbers and characters present) they can also take up precious time and destroy a community. Having been through the process I think it would be far more beneficial to have had some form of workshops on design rather than meetings.

Now there is a real pride within the group that we don't have meetings and that we are so good at supporting each other. We have become a guild that supports the garden. We sometimes have a list of what jobs need doing, people find their niches and choose tasks that suit, for example a team of 6 made the poly-tunnel one winter while others got on with gardening etc. A team of 3 have taken on the building of the compost toilet. My role in this is to find the materials and supply the tools and generally support and help out if things are getting slow or difficult. On a Sunday when we meet as a group many will ask what needs doing and get on with it. This is where my Capacity Study of people helps me to choose tasks that suit. There are a number who come and don't want any responsibility of

making decisions and just want to get on with gardening and chatting. Initially I found this surprising and a little disappointing but thinking about it, it makes sense - many people come to relax and socialise. There is a feeling of ownership of, and pride in, the garden but not possessiveness and I think this is perhaps the basis of its success as a community project.

When it comes to things like watering the poly-tunnel I put out an email every week and people volunteer, we don't have a rota because most people aren't living that close to the garden and people's commitments change from week to week. A rota might create a situation where people felt bad about defaulting or having to change days with others etc. However some people always choose the same day of the week as this suits them. It is rare that all days aren't covered with this system.

One of our participants was keen to do a blog and this has been great for community building. On a Sunday people take photos and put them on the group email along with a summary of what has been happening. These are then used by our blogger for the blog <http://emptycommongarden.blogspot.co.uk/> or occasionally someone will write an outline blog for her to incorporate. Both the blog and the group email are read by some members who rarely come to the garden but enjoy being a part of it. It celebrates our achievements and promotes a sense of belonging.

As we are a Transition Cambridge group, we give a two minute presentation at their AGM. This is done in the form of pictures rather than written and copies of the slides are put up in the garden so the public and participants can see what we have done over the year. This works well as a public relations exercise and as an evaluation and acknowledgement of everyone's efforts. Last year's annual review can be seen [here](#).

Looking back on our early days and how the garden runs now it is apparent that addressing the social and organisational needs is more difficult than the gardening. It is as important, if not more so, to a community garden's success than the gardening is.

It is easier to grow fruit and vegetables than a strong, happy community.



PLANNING AND CO-CREATIONAL VISIONING

Whatever the approach a community growing space will fail if the community doesn't take responsibility to build, unify and organise itself - and then take some action to create a happy inclusive garden with a sense of place. There is so much to be discussed and so many decisions to make during this visioning and planning, and then the design stages, that it is important to have a group of people who can work together well. Human nature at its best and worst may be displayed in a community group and often even just one person can alter positive dynamics, destroy a cohesive group and have negative effects on the outcomes. However there are times when the problem is the solution, one person who is constantly negative or obstructive can also be useful in highlighting other ways of seeing and approaching things.

When starting the garden there needs to be a shared goal with which covers things like:

Purpose - What are the contributions the garden can make.

Intangibles - Beautiful, Natural, Fun, Spiritual etc.

Accessibility - Paths etc., Surface types, Readable signs, Times of use, Ease of circulation etc.

Gardening Uses/activities - Propagation area, Tools storage, Water use/collection etc.

Other uses and activities - Event venue, Meeting place, training centre, Open days, Social, Art etc.

People - Local requirements (social centre, play, food growing, beauty, quiet relaxation), Neighbours views from/into, Noise, Privacy,

Ecological issues - Present life – Survey, Sustainability, Organic, Use of chemicals, Use of fossil fuels, Fires, Building material restrictions, Habitat creation/ protection, Surrounding environment etc.

Structures required - Meeting hut, shed, poly-tunnel, compost bins, compost toilet, bike racks, seating etc.

Mission - What specific things do we hope to accomplish? Running through a [Mission Questionnaire](#) can be a useful way to ensure everything has been discussed.

In order to make a case for the community garden over allotments I had written a [Mission and Vision](#) of what the garden would provide to present to the allotment group who were opposing its start-up. We also used it when applying for grants

It is good to have a list of things to think about when people are together. I made a [Mind-map for Community Growing Spaces Planning](#) which makes a good reference list, most of which will be discarded immediately. It should be looked at when in the garden so things are easier to visualise. The purpose of the mind-map is to open doors of thought. Doing a SWOC analysis or using Edward de Bono's [six thinking hats](#) on an issue as a group can also help concentrate on the issue and detract from the personal issues

This process should be fun and exciting, tea and cake in the garden is an ideal setting.

THE GARDEN DESIGN

This is a cyclical process of Ideas/Design/Ideas etc. but first it is necessary to know what you have. In this design the design framework OBREDIMET (Observe, Boundaries, Resources, Evaluate, Design, Implement, Maintain, Evaluate Tweak) was used. [Checklists and Tables of points to consider](#) were used for note taking. Mind-maps on things to consider for both [Community Gardens](#) and [Orchards](#) were used to promote thoughts and check everything required was being thought of.

Observation

Position

The community garden is situated within a green corridor (all coloured areas on map on right) which runs from Cambridge city centre to its outskirts. It has allotments, with many trees interspersed, to the north. On the western, eastern and southern sides are footpaths with brooks running along the far side of them. The southern side has a small woodland on the far side of the brook and the eastern and western sides have buildings on the far side of the brook. On the SW edge some mini allotments cut in to the space between the garden and the footpath. The area of the garden is about 0.27 acres.

Public's requirements

The [checklists and tables](#) prepared for general permaculture design use, were referred to throughout the process. This was to ensure that things were considered and nothing forgotten, help promote ideas and ensure that the community and their garden's needs are met

Climate and Sectors

Hardiness zone 8.

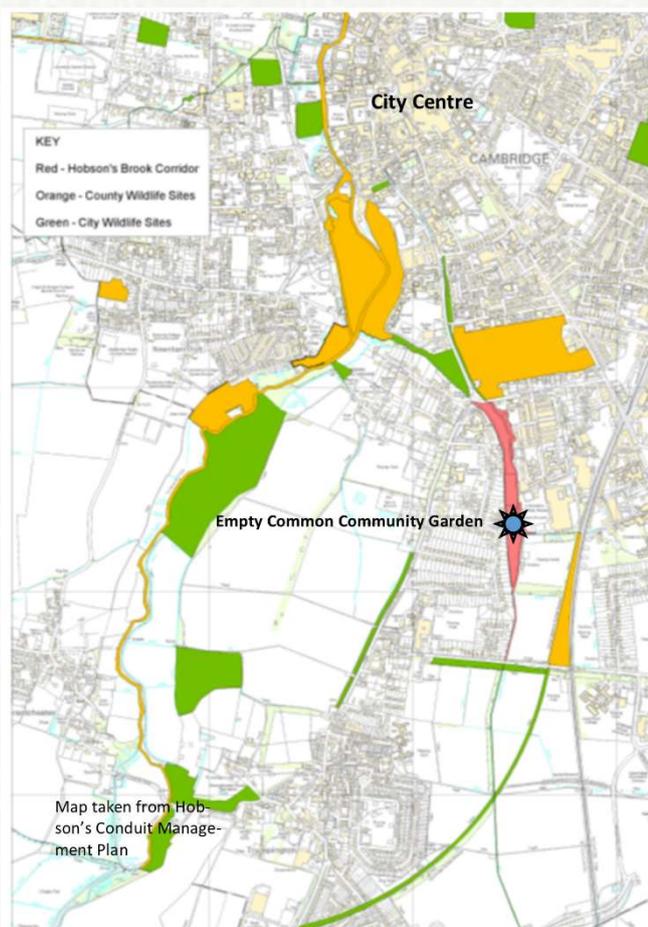
Wind: Dominant winds SW with N-NE cold winter winds. The Garden is well sheltered from wind in all directions. The most problematic winds may come from the NW where they could funnel between buildings.

Sun: Cambridge has slightly above average amounts of sun for the UK.

<https://www.currentresults.com/Weather/United-Kingdom/annual-sunshine.php>

Precipitation: According to Cambridge Botanic Gardens, which are virtually next door and keep good records "Cambridge is in the driest region of Britain and has a more continental climate than most of Britain. At the Botanic Garden, the 30-year average annual rainfall from 1970 to 2000 was

Figure 4. Wildlife corridor that Empty Common Community Garden is a part of.



just 557 mm. By comparison, the annual average received by RBG Kew was 629mm, Oxford Botanic Garden 646mm, and RBG Edinburgh 698mm”.

Topography: The site slopes very slightly from the eastern edge to the western edge.

Water: Although surrounded by water the City Council do not wish it to be used to water the garden, due to abstraction laws and the fact that it is a chalk stream which are nationally rare. There could be very wet conditions if the conduit on the east and brook on the west are overflowing.

From the plant community found and observation most areas (except the wooded areas) appear to be quite damp. Some areas were badly waterlogged. The trees and buildings to the SW are not going to cause a rain shadow.

Frost: This whole area may well be a frost pocket as it is surrounded by higher buildings and woodland and is in a slight dip so the air cannot flow away.

Utilities: There is no water storage on site, one water trough with mains supply will be installed by the City Council.

There are no overhead cables or electricity supply. The City Council know of no underground utilities.

Soil

Structure: When analysed, using the [jar sedimentation and soil texture pyramid and the texture, by feel, coil and ribbon test](#), the soil was deemed to be a sandy loam. However there was a significant difference in one waterlogged area where it was found to be a sandy clay loam. The pH varies from 5.4 to 6.5 with the low pH being where it has been waterlogged and anaerobic giving a greyer look to soil. The soil within the woodland was remarkably similar to that in the open, with little, if any, more organic matter. The soil is stony with a lot of flint chips in it. The bedrock is chalk, this can be seen in the bottom of Vicar’s Brook running alongside the garden at about 1.5 meters below the height of garden soil.

Cambridge Botanic Garden, just a quarter of a mile away, report that their soils are “silts and sands derived from the flood plain of the River Cam nearby. These soils are about 1 metre in depth and overlie a layer of chalk and flints. This soil is stony, light and free draining, and rapidly dries out after rain. The soil and soil water are alkaline in pH”.

Soil animals: Having been recently dug over and flattened by machinery with only fairly new growth coming through there were not many signs of life. A low population of smallish earthworms were found in all areas except for the waterlogged area. More worms were present in the NE corner near the hazel trees.

Main elements (PFASTE)

Plants: Unfortunately the land had been cleared before being

Figure 5. Empty Common Community Garden Winter 2013



allocated for a community garden. Plants that emerged during the early summer were [recorded](#) on the **DAFOR(L)** scale table in an attempt to gain a picture of how it was before clearing. Due to some things being slow to regrow or having been annuals or eradicated then this survey can only give part of the picture. Pioneer species will be more common than they were before the site was cleared and the use of a digger or similar will have cut up many roots and so increased the number of plants which are happy to grow from root cuttings.

The site was surveyed using quadrats (1m sq. made from string stretched around four pegs) covering all area types within the garden.

Points of note :

The comfrey was dominant in the area just to the north of the woodland but was completely absent except for another patch on the SW edge of the hazel copse.

The ivy and wood avens were abundant near to the wooded areas and dominant within it but not found elsewhere.

The ground elder and ground ivy were occasional in the woodland but none were found elsewhere.

Horsetail was dominant except where the comfrey grew and within the woodland.

The plant population indicates wet soil with pH on the acid side. This matches the soil analyses.

Fungi: No fruiting bodies found, some decaying deadwood around.

Animals: Only spiders, centipedes, millipedes and woodlice were found throughout garden where machinery had been and these were associated with bits of branch and debris which were lying on the surface or in areas next to the boundaries and where the diggers had left some plants. In the undisturbed wooded areas , an abundance of common woodland invertebrates (centipede, woodlouse, beetles, slugs and snails) were found living in the leaf litter.

Talking to allotment holders on adjoining sites the most obvious animals (or rather the animals most interesting to growers) observed are muntjac deer, squirrels, moles, rats, pheasant, wood pigeons and many other birds, slugs and snails.

From a study, for the management of the conduit, water voles have been recorded in the conduit nearby. Kingfisher are often seen along it and are thought to nest nearby. Tawny Owl are resident in the adjoining woodland, common toads and grass snakes are present. A pill box close to the garden has been converted into a bat roost and bats use the area for hunting.

Structures, Tools, Events: Nothing on site except some large sections of tree trunk.

Boundaries

Physical - The Garden is surrounded by footpath with water course on it's far side on three sides of the garden. There is a Hawthorn hedge along its NW boundary.

People - not many members, neighbouring allotment holders against the project and complaining vociferously to City Council.

Environmental conditions - The environmental conditions of the site act as a boundary to work within. For example only shade tolerant plants can be chosen for many areas and Cambridge has quite a dry climate.

Time - Time boundaries have been apparent from the beginning. It was necessary to get a basic outline plan done early to enable drainage and hardened surfaces to be put in to the City Council's works timetable. Volunteer time is also an important boundary on a project such as this.

Plants - Horsetail is a major boundary to consider when working out how to maintain the land. There are trees on the land which cannot be removed. Bramble, couch grass and dock roots chopped up and distributed around the site by machinery would delay progress.

Equipment - This is a real constraint with just a few tools scraped together from the recycling depot.

Money - This was an issue affecting what we could do in the short term. Over time there was likely to be some form of grant for development. Money raising would add further constraints on time.

Resources

Plants - There was some money offered from another project which bought some trees and shrubs.

Woodchips - Some local tree surgeons were happy to supply these.

Recycled stuff available - The City Council's recycle depot were happy to provide second-hand tools etc. Also available were skip contents (you should ask before taking things as it is illegal to just help yourself from skips), online recycling sites, charity shops, boot sales etc.

A van - I owned a van, this was a super-important resource at this time.

A shed - Old and small but free and somewhere to store things.

Tree trunks and branches - Some large sections of trunk and many dead branches were on site.

Advice and Support - A friend had recently started up another community garden and Transition Cambridge were helpful.

Enthusiasm - People and the City Council officer heading the project were enthusiastic

Initial work and materials - for basics i.e. drainage, disabled access, water trough and topsoil.

Knowledge - I am a trained Environmental Biologist and garden designer with experience. I also had a fair number of relevant books. In addition the a mind-map on [Community Growing Space Planning](#) I had also made two others one on [Designing Community Orchards](#) and one on [Designing Community Gardens](#) along with various other resources relating to [Surveying and Designing](#) to help me remember what to look at, consider and do.

Time - I was self-employed so could decide my own commitments and make time when necessary. One other participant was retired and was happy to devote time to the project.

Hope - the good probability of getting a grant of £2000

Evaluation

The site felt great, lovely and quiet and wild feeling, something we wanted to retain. There was quite a bit of shade but this was because of trees which added to the feel in many ways. For a site so close to the centre of town it felt remarkably secluded.

We felt that the potential was fantastic - as long as we could drain it adequately and control the horsetail problem.

Probably my greatest problem at this stage was my own confidence, there were some big and expensive decisions to make quickly and plenty of people around who were very ready to disapprove.

The [combined map](#) from the surveys for pH, light, soil waterlogging and sectors provided a good basic idea of the site and some of its possible limitations. The three things we had to address immediately were:

1. Put in some drainage,
2. Put in pathways for disabled access
3. Put in a water pipe and water trough.

Figure 6. Digger trying to dig slope to remove sunken dumper truck.



The combined map helped define where drainage should probably go. This partly affected where the wheelchair accessible beds and paths should go as it seemed sensible to put them over the hopefully well drained areas in case other areas remained wet. The position of the nearest existing water pipe decided which side of the garden the trough would go as we were choosing the quickest and cheapest options due to financial and time restrictions. The workmen were keen to put it as close to the track as possible. I knew it would have to go close to a path for wheelchair access but wanted it more central.

Plenty of discussion with the workmen who had many of their own ideas (on everything) gave me an idea of what they saw as feasible under the circumstances. Assessing how to make the pathways with a low ecological impact and cost would be necessary.

Using my mind-maps on community garden planning and community garden design helped with analysing what the key functions of the garden and community's needs and yields were likely to be.

With these boundaries in mind along with the other information about the site, prepared lists, mind-maps and tables (to make sure everything was considered) plus a base map of the area, it was time to sit and think and design.

Design

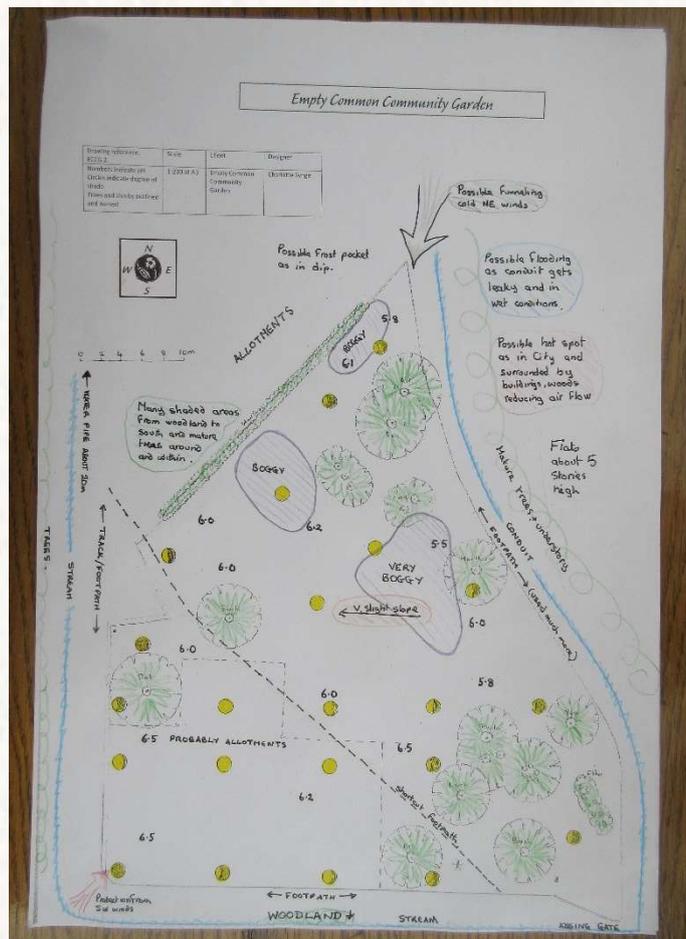
Design stage 1.

The first and most important thing was to get a fairly accurate outline design done so I could decide what to get done while I had workmen, diggers and dumpers, hard-core, topsoil and woodchips available.

Drainage - Using the base map with tracing paper over the top a vision (the workmen's and mine) of where the drainage would go was drawn. The workmen knew more about this aspect than me and so it was important to check that they were happy with it and then to mark the area out very clearly so they did what I wanted. I had already learnt that a man with a digger and a free land spirit can do exactly what he wants before you have had breakfast.

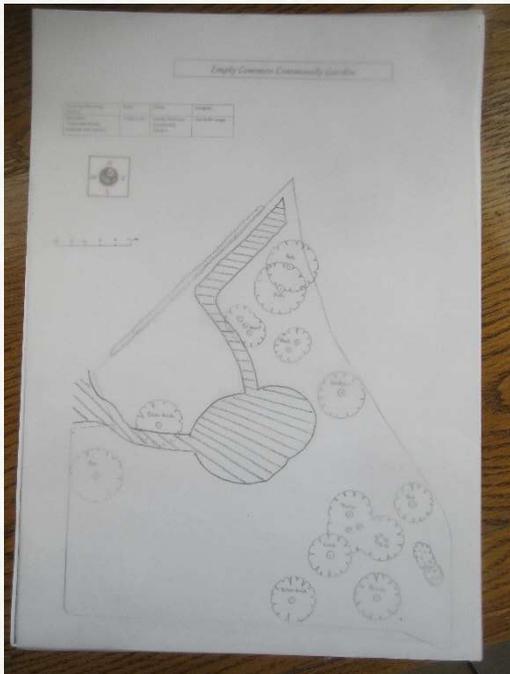
Water - The water trough was going to go as close to the water source as possible as far as the workmen were concerned and close to the centre as far as I was concerned. They only conceded a little on their stance.

[Figure 7. Plan of garden showing sectors, pH, light and waterlogged areas.](#)



Wheelchair accessible paths -This was the scariest and most controversial move. I decided that I didn't want anything that looked like a pathway in such a natural setting. We couldn't afford the time and money for anything special and the work was going to be rough and ready, if you couldn't do it with a digger and dumper- truck then it was unlikely to get done by the workmen and the community would have to deal with it. I decided to cover the whole of the central (and sunny area) and a path to the NE with landscape material, add a layer of hard-core and then woodchips. It looked a huge area on the plan. However, we could then build the wheelchair accessible raised beds on top of this so there would be hardened surfaces all around them and it would be much faster and easier than building paths. I had so many misgivings, mostly about the environmental impact. I assured myself that landscape material was not a huge amount of plastic

[Figure 8. Plan of garden showing area of hardened surface for wheelchair accessibility.](#)



part of a garden without considering where the other things like sheds, compost heaps, vegetable beds, poly-tunnel etc. might go.

Because I was alone doing this initial design and under severe time constraints I decided to concentrate on allowing for the possibility of as many different styles of gardening and areas as possible. This was in the hopes of eventually producing as diverse a garden as possible which would be most likely to provide for a diverse group of people and a diverse group of activities - which is what I envisioned the community garden would be about. I was also determined to try to create a sense of place.

Placemaking - [Placemaking design](#) aims to:

1. integrate diverse opinions into a cohesive vision.
2. translate that vision into a plan and program of uses
3. ensure the sustainable implementation of the plan.

[Figure 9. Garden plan showing drainage pipework.](#)



(and this was recycled), the hard-core was a waste product, the soil could still breathe beneath it, there would be raised beds above it etc. In some ways the worst impact turned out to be from the local people some who used it to park cars closer to their allotment and others who saw it as a waste of growing land. It was a lesson in symmetry - keep communicating with and listening to your neighbours. Once they realized it would have raised beds on it they calmed down a little.

A Hugelkultur bed - If there was time at the end of the other work I hoped to get one put in. It would involve a lot of soil shifting but the City Council officer who had put so much energy into the project was really keen on the idea as was the City Ranger who organised a volunteer team to make it.

Of course to make these major decisions I had to have an outline design of the garden in mind to justify my decisions to myself. It is impossible to design a major

It's eleven principles are very compatible with permaculture.

Table 1. Eleven Principles of Placemaking.

Underlying Ideas	Planning & Outreach Techniques	Translating Ideas into Action	Implementation
1.The Community is The Expert 2.Create a Place, Not a Design 3. Look for Partners 4.They Always Say "It Can't Be Done."	5.Have a Vision 6.You Can See a Lot Just By Observing	7.Form Supports Function, 8.Triangulate 9.Experiment: Lighter, Quicker, Cheaper	10.Money Is Not The Issue 11.You Are Never Finished
https://www.pps.org/wp-content/uploads/2016/10/Oct-2016-placemaking-booklet.pdf			

Zones - Analysing zones was difficult, would the storage shed be Zone 1. or the hardened central area for socialising or the annual vegetable plots? If you were a child it would probably be the hazel copse or the oak tree. As an older adult it might be the central area. As a younger participant it might be the annual vegetable plots. As no one was living there I decided that the networking was the more important factor to concentrate on in the design. The more actively used paths would in effect be Zone 1.

Networks and desire lines - There was already a shortcut right across the middle of the garden and I felt this would be an undesired line that would have to be designed out somehow. With it in situ the general public would use the garden as a shortcut dividing it into two and detracting from a sense of place.

I knew there would be well-used paths to the shed, composting area, possible poly-tunnel and water trough and that these would therefor constitute my Zone 1.

I also knew there would be strong networks between:

1. The shed, a potting area and poly-tunnel
2. The annual vegetable beds, water trough and compost bins.

It would therefore be good to group these where possible.

Patterns - The area for the garden and surrounding allotments are a very man made rectilinear network so to create a more natural feel a design of interlocking circles and sectors was chosen. A semi-circular Hugelkultur mound helps to emphasise the circular patterns and also provides some break to the flatness of the land.

Design stage 2.

Before I got involved with the design the City Council had cleared much of the land of scrub and removed some trees. When the community had its first meeting with the City Council in June the garden was at a stage where land had been cleared, some trees had been removed, all the drainage and hard surfacing had been done, a water trough had been installed and the hugelkultur bed had been made. I had also bought a selection of fruit trees and plants. All this had been rushed because of the City Council's self-imposed requirement that grants and other money be spent before the end of the financial year. My initial impression of the site, with footpaths on three sides and a path diagonally across the middle, was that it felt exposed and disjointed. I felt strongly that it would be necessary to try to make the garden feel more of an entity in its own right. I considered that the open edge to the NW could be partially screened to do this and hoped that the system to do this could be a forest garden using the fruit trees I had bought and fruit bushes as the main elements.

There were seven of us interested in getting the garden going at this stage and we had our work cut out to keep on top of the weeds, particularly the horsetail and the brambles which had rooted throughout the site. This was important to us as we needed to show the City Council that we were serious about the project to get the land that might otherwise be given over to allotments. We still didn't know how much of the land we were going to be able to have as a community garden, it started to look like we might only have the central area, hugelkultur bed and the NW edge. I was really anxious about this as I had designed the central area believing we would have, as a minimum, the whole of the area to the north of it and a little area to the south.

I didn't want to be a leader on this project, but more of an enabler, but I was aware that as a qualified gardener and garden designer my views would carry more weight than others. I emphasised that designers are there to implement what their client wants, not what they want, and that as a designer I was there to advise and enable not to promote my wishes.

I showed everyone the basic outline design I had imagined in order to explain my thinking behind the hardened areas. Interestingly everyone, but one, liked it and was happy to go with it as the outline and add things they fancied to it, or change things as we went along. There was a request for an archway and we thought that in the long term a meeting hut would be good. Someone wanted some more hazel for coppicing, we all wanted a poly-tunnel, we discussed the possibility of a pond in one of the boggy areas if it stayed boggy but in general there wasn't much change. The lone dissenter didn't come up with alternative plans or ideas but wanted a more fluid approach that evolved as people took over areas, for others this was too amorphous. It meant meetings would have to be held over every move that people made, quite likely after the event. We were already finding meetings difficult and time consuming and this process would be likely to create more tension as those with more time to create new beds to their own liking would have undue influence on the garden.

The fact that all but one were happy with the outline design was disconcerting to me at the time. I had envisaged that people would have lots of ideas of their own for the space and the design might completely change. I was concerned that the fact I was a designer might be undermining their confidence in their own ideas - I do believe it would be better if the designer was not also a participant. I questioned this and was told that they were just happy with what I had drawn and with the incorporation of their ideas it was fine. I was then concerned that they just weren't interested in the design and that this was a bad sign in that it meant they might not be that committed to the garden. In fact it turned out that people were happy with the design because it looked like it would work and they were happy that I could fill this designing and plan drawing niche so everyone could get on with the garden creation - which was what was really important to them. The design wasn't set in stone and

Figure 10. Outline vision of garden design enabling design of drainage and hardened surfaces.



Implementation and Maintenance

Normally a schedule would be written up and followed in order but things in a community garden often work quite differently. We had a list of priorities but depending who was there, what their capabilities were and what people felt like doing, different jobs were chosen on the day. There was also a dependency on what materials became available and when We did however try to work out from well managed areas, getting one area completed before moving on to the next. We also had a loose framework of what to achieve over the season.

Before any money was available the urgent priorities were:

Summer

1. Get some plants in on the huglekultur mound.
2. Get some compost bins made and wheely bins organised for drowning the horsetail in before it was composted.
3. Put up the temporary, very old, shed
4. Get the central seating in
5. Get the small area just to the south of the central circle tidy, laid out as beds and a crop in if possible.
6. Keep the area to the north of the hardened area roughly cut so it looked a part of our garden.

Autumn

7. Get the three main areas that we knew were ours mulched and the disputed area if possible.
8. Get more compost bins made

We were given seedlings for the hugelkultur mound, pallets and wheely bins and an old shed We rolled the tree trunks that were on site into situ for our central seating area. My van became a most valued participant, transporting piles of cardboard, compost, woodchips, tools, sheds etc. Lots of cardboard and woodchip mulching went on in the two forest garden areas and around the oak tree. Unfortunately the horsetail grew straight through the cardboard/woodchip mulch and was happier than ever in the damp soil with no competition above ground. It threatened to defeat us, I researched this problem and devised a strategy for us to use to try to deal with it. Just doing this boosted our morale even if it might not work.

We had a big boost when we received a grant for £2000, our dreams of a poly-tunnel could be drawn in on the plan, we could buy materials and in some ways, most importantly a rechargeable electric lawn mower and solar panels to charge it. We wanted the central area at least and main paths to be short grass for wheelchair access and as a social area. We thought we could do it all with a hand mower but this proved over-ambitious - people were going to leave if we didn't find a less arduous means and we didn't want to use fossil fuels.

Our priorities after getting the funding:

Winter

1. Build the wheelchair accessible beds and fill them.
2. Lay claim to the disputed northern section by starting work on it.

Spring

3. Get a decent strong vandal proof shed up
4. Buy the rechargeable lawn mower.
7. Put up the solar panel for charging mower.
8. Then relax, take things as they come and enjoy the journey.

During the winter we had students from the local college (as part of the Prince's Trust) come and build the wheelchair accessible raised beds, using reclaimed wood and scaffold boards which had failed their safety tests. Corner posts were taken from trees in the city, which no longer needed their support.

There had been no resolution on who should get the area to the north of the hardened area so we decided just to take it, it had now been empty for over 6 months. Given that we were going to have extra people and a mountain of soil on site to fill the raised beds (which we did as part of the National "Big Dig" event) we thought the opportunity was too good to miss. We added lime to the soil to raise the pH (as part of our anti-horsetail strategy), we brought in lots of cardboard and laid it where the beds were going and put soil on top. Within a few hours the disputed land looked like the community garden's vegetable plots. We also filled all the raised beds and the place suddenly looked like a proper garden. Interestingly, no one complained or disputed our right to the land afterwards. I believe that by showing how much we could organise and get done people started to believe the project might work and stopped complaining to the City Council. Another benefit of all the work was that people began to want to join in. It felt like a turning point.

Spring is a good time to get a community garden up and running.

The acquisition and erection of a bullet proof shed was the next urgent priority on our agenda as we wanted to buy the lawn mower, before the grass took off, and that was going to be expensive and highly desirable for thieves. This shed was placed on good growing

Figure 14. Soil for raised beds and creation of new beds on disputed land.



Figure 13. Raised beds full and new beds marked out.



Figure 12. Vandal-proof shed goes up.



land (even though this land was close to the hedge) but it was a reasonable decision. We needed somewhere fairly hidden for the solar panel that was close to the rechargeable mower. With the

Figure 15. 2017, Our garden viewed from the top of the shed.



mower within and a green roof on the front half to screen the panel and, guttering to collect the shed was going to provide multiple yields anyway.

With the shed up and mower bought we relaxed into enjoying things for the summer. The following year (2015-16) we got the poly-tunnel up, made a herb spiral and took on 2 new areas of land. Now in 2017 we are close to having our compost toilet up and running, we have made a pond and

another public seating area and our next big project is to get some money together and build the meeting hut which would increase the garden's versatility. This is a big project and it is good to have time to think about it. We have been chatting away though and in general people like the idea of a hexagonal hut with each wall made from a different environmentally sound building material so it is also an educational resource.

Evaluation and Tweaking

We are constantly evaluating the garden and have changed a few ideas, but mostly we are adding things as we get more land and have time for new projects. My evaluation for this design can be seen [here](#).

It is becoming obvious that there is scope to do even more with the garden.

References

- (1) *Permaculture, A designers' Manual*. Bill Mollison. Tagari Publications. 2009
 - (2) *People and Permaculture*, Looby Macnamara. Permanent Publications 1998.
 - Incredible*, Pam Warhurst and Joanna Dobson. Matador 2014.
 - Creating a Forest Garden*, Martin Crawford. Green Books. 2010.
 - How to Make a Wildlife Garden*, Chris Baines. Frances Lincoln Ltd. 2000.
 - Designing and Maintaining your Edible Landscape Naturally*, Robert Kourik. Metamorphic Press, 1986
 - Permaculture Design, A Step by Step Guide*. Aranya, Permanent Publications 2012
 - A Handbook of Community Gardening*. Susan Naimark, Boston Urban Gardeners Inc. 1982
 - Community Gardening A PHS Handbook*. Ed Jane Carroll, Pennsylvania Horticultural Soc. 2010
 - Permaculture Design, A Step by Step Guide*. Aranya, Permanent Publications 2012
-

APPENDIX

Supporting documentation Social and Organisational Design

Table 2. Some comparisons of top-down/bottom-up approaches to creating Community Growing Places.

Strengths and Opportunities created with top-down approach	Strengths and Opportunities created with bottom-up approach
<ul style="list-style-type: none"> * Community can immediately start to form governance structures, policies etc. knowing what land they have and its attributes. * Start-up funding likely to be available immediately. * Professional designer should have provided a good design with lots of ideas incorporated for a wide range of people. * A Community Growing Place will have been created even if the community group breaks up. * Any opposition to the growing place will have been dealt with by officials rather than those who are using the garden. * Everyone who comes to join feels the same entitlement. * There is less likelihood of a feeling of personal possession, that may arise if a small core group organise it. * Enthusiasm and resilience to adversity is created by actually having the space visible and ready to use. 	<ul style="list-style-type: none"> * Governance structures, policies etc. can be dealt with before the garden requires attention. * More effort put in by community leads to more commitment. * Participatory and team-building processes can start before being faced with land that needs managing, e.g. creating the invisible systems such as management plans can create community cohesion. * Community discovers a joint outlook before the visible design process starts. * What the community feels it needs and wants can be assessed before the design process. * The community may be more likely to take ownership. * The history of the site will be better known and may help with designing in physical, cultural and historical ways. * Local resources are likely to be better known, especially recycled materials available. * Locals may integrate with their wider community in sourcing materials locally. * Social capital is gained. This is the capacity for individuals and groups to work cooperatively and successfully and make effective decisions. * May be cheaper
Weaknesses and Constraints with top-down approach	Weaknesses and Constraints with bottom-up approach
<ul style="list-style-type: none"> * Less initial feeling of community ownership. * Preparation time may be less. The growing place may need attending at the same time as governance and policy issues need to be sorted. * Community needs and wants may not be met by outside designer. * Less effort can lead to less commitment and team building. * Social capital is lost. This is the capacity for individuals and groups to work cooperatively and successfully and make effective decisions. * The approach may be less flexible and inventive. * It may be more visionary design driven than “placemaking” design for people and Nature. * There is often a short time limit to production. * Can be very expensive. 	<ul style="list-style-type: none"> * A lot of community time is required, some may have more than others and gain more influence. * Community can drift apart or not form as no gardening is taking place - seeing is believing. * Community may reach the “storming” stage of community building before any land or gardening possibility is available to tempt them to see it through. * If there is no support from a knowledgeable person the task can seem too daunting. * The more decisions and challenges the more chances of argument. * The design may be less good as no professional help given. * The design may be narrower as the community group members may be similar, they are often friends, with ideas that relate to what they want rather than the wider community. * The design is often less well thought through, ideas are often thought of and proposed during a meeting and then incorporated into the design without deep thought or analysis. A garden may end up with no cohesive structure and sense of place. * Those arriving later may feel less equal than those who started the growing place and did the design. * Those who started and did the design leave at some point and those coming in have a ready-made garden anyway.

Examples of Required Paperwork etc.

This information is made freely available in the interests of enabling others, in order to promote the best in people and their environment. No responsibility is taken for any mistakes within or misuse of

this information. The information is here to help people with the creation of their own invisible systems rather than to provide a set version.

[Constitution for a Community Garden outline](#)

[Health and Safety paperwork for a Community Garden outline](#)

[Risk Assessment \(general\) for a Community Garden outline](#)

[Risk Assessment for a Community Garden outline](#)

[Risk Assessment additional disease sheet for a Community Garden](#)

[Environmental Policy for a Community Garden outline](#)

[Equal Opportunities Policy for a Community Garden outline](#)

[Vulnerable Adult Policy for a Community Garden outline](#)

[Child Protection Policy for a Community Garden outline](#)

[Membership Acceptance Form for a Community Garden outline](#)

Community Building Strategies and Resources.

[Meetings Procedures for a Community Garden](#)

[Tips for successful meetings for a Community Garden](#)

Table 3. Capacity Study Example

Example Capacity Study	
Name	
Who they are?	What their interests are and favourite things to grow?
Retired lawyer	Equality for all.
Intelligent	Green issues
Good diplomat	Cycling
Physically strong	Likes potato growing and chard
Enthusiastic, high energy	Favourite vegs. Chard, tomatoes, cucumber, sweetcorn.
Likes joking	Dislikes. Radishes
Leaves ego at home.	
Has potentially useful contacts for money raising	

Where they fit best in the garden's creation and upkeep?	How much ability to act have they?
Building things Digging Clearing areas Compost moving	Can only come every second Sunday and sometimes during the week to help water. Could help with some paperwork, advertising etc.

A Well Recognised Group Dynamic - This might help you to make sense of what you might see happening in your group.

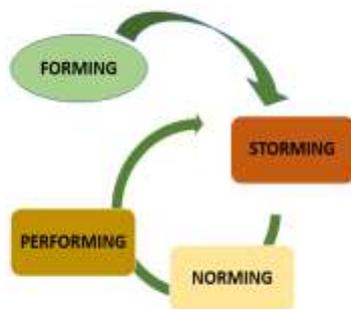
FORMING. At the beginning when a group forms people don't know each other well and are cautious and polite, conflict is avoided.

STORMING, This stage is where conflict and competition are at its greatest. This is because group members have an understanding of both the task and the group and have gained confidence. Generally the more dominant of the group members argue while less confrontational members have issues but remain quiet.

NORMING. This stage occurs once things become clearer, the tasks are identified and individuals adapt to the needs of the group, cohesion develops.

PERFORMING. This stage is when things really get done, people know what others. Capacities are and can work together as they focus on the task in hand.

Figure 16. Group dynamics cycle.



However, it doesn't stop there. It is argued that those who are a part of a group continue to seek a balance between accomplishing a task and their relationship building within the group. Sometimes the focus is on the task rather than the relationships a group tends to wobble between the Norming and Performing stage and this leaves them open to the Storming phase.

Bales, R. F. (1965) 'The equilibrium problem in small groups' in A. P. Hare, E. F. Borgatta and R. F. Bales (eds.) *Small Groups: Studies in social interaction*, New York: Knopf.

Table 4. Group Work Guidelines.

Empty Common Community Garden's Group Work Guidelines.



Respect each other's differences, perspectives, abilities, outlooks, needs and wants from the garden



Try not to label or box people.



Accept personal responsibility for meeting your own needs.



Try not to take possession of projects



Try not to make assumptions.



Give people equal opportunities to provide input.



Look at people's strengths.



Be willing to stretch yourself.



More time spent on the project does not equate to more right to influence decisions.



People will have very different levels of gardening knowledge. More knowledge does not equate to more right to influence decisions



Share with and care for others.

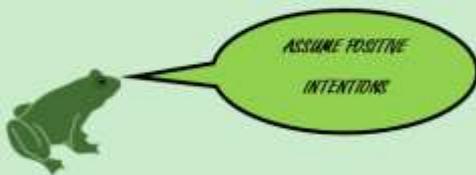
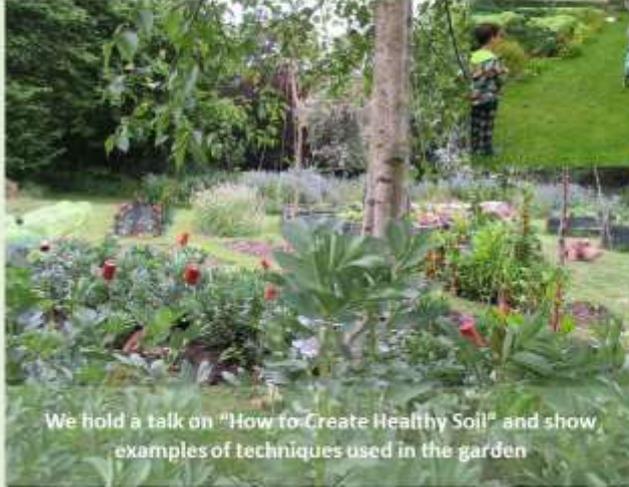


Figure 17. Annual Review to celebrate achievements.

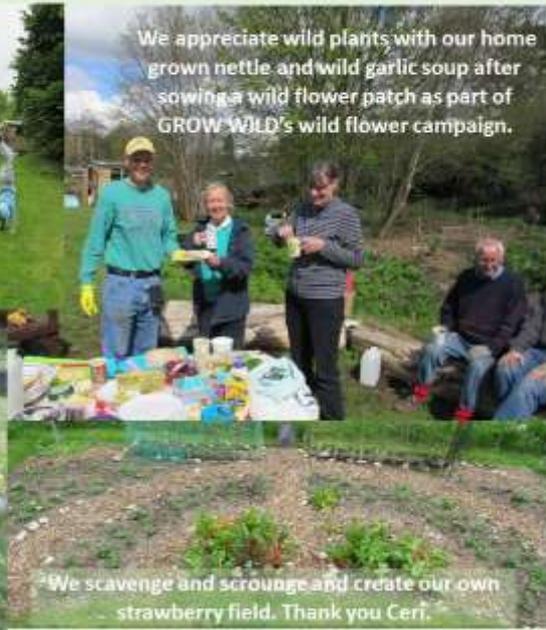




Empty Common Community Garden



We hold a talk on "How to Create Healthy Soil" and show examples of techniques used in the garden



We appreciate wild plants with our home grown nettle and wild garlic soup after sowing a wild flower patch as part of GROW WILD's wild flower campaign.

We scavenge and scrounge and create our own strawberry field. Thank you Ceri.



Empty Common Community Garden.



Sheltering from a shower



Solitary bee home



Tree creeper box screwed up



Transition Cambridge Picnic

Wildlife habitat boosters are made. We promote wildlife gardening for Cambridge Wild Weekend. We take part in Butterfly Conservation's "Big Butterfly Count"



Bat box goes up



Hedgehog box in situ



Empty Common Community Garden

Gardening stops for cake, cider and a chat about collecting seeds.



Its only been up 2 months and a bee has started to use our observation bee home



Another side to our shed



60 corn cobs from our three sisters planting provide another excuse for a shared lunch



Your best harvest may be the pleasure you get from working with others.



Spare produce gift box



Plant a bat feast: grow! harvest! plant!

Wild About Gardens

CAMBRIDGE pumpkin festival

Sunday 30th October, 1-5pm

"A Garden for Life" - celebrating Bats and Pumpkins.

Join us for a special celebration with friends and family. We'll have a "bat feast" with a "bat" neighborhood and enjoy an amazing garden tour. - Empty Common Community Garden

We will also be celebrating the garden being 3.3 years old so come and celebrate with us.

Bring food and drink to share, BBQ and fire provided.

Weather permitting.



References

Links

Good on meetings <https://www.permaculture.co.uk/ebooks/designing-productive-meetings-events-how-increase-participation-enjoyment>

Good on Facilitation <https://www.permaculture.co.uk/ebooks/facilitators-handbook-permaculture>

Basic Group techniques <http://www.doc.govt.nz/get-involved/run-a-project/community-project-guidelines/basic-group-techniques/>

Resource pack https://www.farmgarden.org.uk/system/files/fcfcg_cgr_pack_england.pdf

http://www.takepart.org/contentControl/documentControl/12494_12470_how%20to%20set%20up%20a%20community%20group.pdf

Support groups <https://www.gov.uk/find-a-community-support-group-or-organisation>

Federation of City Farms and Community Gardens Resources and connections
<https://farmgarden.org.uk/>

Good Practice Guide for starting a community garden, Australian but good and relevant to UK.
https://communitygarden.org.au/wp-content/uploads/2010/06/Good_Practice_Guide_CG.pdf

Blog of Empty Common Community Garden <http://emptycommongarden.blogspot.co.uk/>

Books

People and Permaculture, Looby Macnamara. Permanent Publications 1998.

About Todmorden community creating an edible town, *Incredible*, Pam Warhurst and Joanna Dobson. Matador 2014.

Planning and Co-creation of Vision

Mission Questionnaire Considerations

Are there other mandates, e.g. it is organic, veganic, permaculture based?

1. Is the garden driven by some specific force that might affect its mission e.g. in commemoration of someone, a historic garden etc.
2. If any other organisations are involved with the garden do their missions have to be considered?
3. If there is outside funding do the funders dictate the mission at all?
4. Does the land owner dictate the mission in any way?
5. Does the influence on or from neighbours influence the mission?
6. Is there an educational mandate for the garden?
7. Is it for public events and how might this affect its mission?
8. Is its mission to provide food and if so who for, may they need to be considered?

Empty Common Community Garden's Mission and Vision

This was used when trying to persuade others that a community garden would be a good use of the land and when applying for a grant.

Empty Common Community Garden's Mission and Vision.

Empty Common Community Garden aims to benefit the local community by:

- ▲ Improving health and well being
- ▲ Fostering a sense of community.
- ▲ Improving sustainability.
- ▲ Providing increased opportunity for social connectedness and inter-generational exchange.
- ▲ Providing skills development and learning opportunities.
- ▲ Providing a growing space for those with no garden and for those who can't get an allotment .

We hope to be able to provide for those groups which can't or don't wish to take on an allotment for reasons such as:

- ▲ they can't lift heavy things or dig etc.
- ▲ they are disabled, in a wheelchair or infirm
- ▲ they are not settled long term
- ▲ free time is short or erratic, e.g. those with young children, people who work away from home.
- ▲ they are away for certain periods of the year
- ▲ they are not confident about growing produce
- ▲ they are looking for companionship
- ▲ they are interested in learning about sustainable gardening.

Notes on design.

This piece of land is not ideal for a growing space with about 70% of the soil in

shade, near trees and hedges or very boggy. These features have to a great extent dictated the design.

All points stated in "The Vision" for this piece of land are fulfilled in the design.

The vision

1. A well designed community growing space.
2. A space where people can relax, play and socialise.
3. A garden that showcases a variety of gardening styles and techniques that enthuses people.
4. A garden that can support shared learning and educational activities such as workshops.
5. A habitat that also acts as a nature reserve.
6. A garden that is cultivated using ecologically sound principles.
7. An edible landscape that is diverse and highly productive.

1) A well designed community growing space.

A beautiful, practical and welcoming garden designed to allow gardening experiences for a range of people of differing ages, abilities, and outlooks.

Features

Enough standard beds in which the community can grow annual vegetables are provided in order to allow a reasonable amount of annual produce to be grown. This would be especially important during the first few years when the work required on much of the rest of the site would be great and the produce very little as the perennial plantings take several years to become productive.

High raised beds on the hard surfaced central area so they can be used by those in wheelchairs and by the infirm. These high raised beds with straight sides could be made from recycled wood. Cambridge Wood Works, a Community Interest Company, can supply this wood and make such structures if required (<http://www.cambridgewoodworks.org.uk>).

Raised cloche covered beds along the Hawthorn hedge to the North of the site. This allows gardening in an otherwise hostile environment at the base of the hedge and gives space for hardening off plants from the poly-tunnel and raising seedlings for both planting out and selling to raise money for the garden as well as keeping an extra crop growing through winter.

A Hugelkultur bed (<http://www.richsoil.com/hugelkultur/>) which is on very boggy land. It is essentially a very raised bed with a central core of tree trunks and branches topped with turf, compost or manure and then soil. The woody core composts so fertilising the bed, it stops the central core from becoming anaerobic and it also acts like a sponge retaining the moisture within the bed. The turf and/or manure provides a nitrogen source to allow for the consumption of nitrogen that occurs at the beginning of the wood's composting process (before its own locked up nitrogen is released) and to provide nitrogen for the first year's crops.

Two areas for Forest Gardens (<http://www.agroforestry.co.uk>). A forest garden is a garden modelled on a natural woodland with layers of vegetation: trees, shrubs, and herbaceous plants. In general the soil is not dug and there are a diverse range of plants including, trees, shrubs, nitrogen fixers, dynamic accumulators and ground cover plants which help to make the garden self-tending whilst trapping carbon, increasing the organic matter and nutrients in the soil.

Woodland garden where it would be possible to introduce more wild foods and create a wildlife garden with habitat boosters (e.g. bird boxes, log piles, insect hotels, food plants etc.), native wild flowers and fungi.

Herb garden with raised south sloping bed and stones or brick to create thermal mass and a good micro-climate for many of the herbs.

There is also space allocated for a poly-tunnel, edible and pollinator flowers, bog garden, potage/ornamental vegetable garden, container gardening, informal beds and keyhole beds,

2) A space where people can relax, play and socialise.

The central seating area (with enough space nearby for larger gatherings), covered roundhouse and play/relaxation areas make the garden an ideal venue for community activities and socialising. A removable fire bowl will allow for camp fire while not encouraging uncontrolled use.

3) A garden that showcases a variety of gardening styles and techniques that enthuases people and can support shared learning and educational activities such as workshops..

There are many types and styles of growing space incorporating many techniques designed to improve plant growth and soil health. The variety of beds allows access to gardening for all ages and abilities. The central meeting area, roundhouse and compost urinal make the garden a comfortable place to be.

4) A garden that can support shared learning and educational activities such as workshops.

With such a garden the addition of a roundhouse where workshops could be held and children's activities could be undertaken would increase the versatility and beneficial attributes of the garden. It would provide a space for learning about nature and gardening but could also be used for art classes, meditation, tai chi, book clubs, woodcraft folk meetings, pre-school activities, home schooled children's meeting place etc.

5) A habitat that acts as a nature reserve.

With the surrounding woodland and brooks plus the bat hibernacula nearby the garden is ideally situated to successfully attract wildlife with the creation of artificial habitat boosters such as ponds, bogs, wood piles, leaf litter areas, nest boxes, local wild flower spaces etc. There are a variety of areas within the plan ideal for such habitat boosting. It already has a great deal of structure creating many micro-climates and habitats suitable for different organisms. The different types of garden bed and proposed management incorporated in the design should help to increase native wildlife diversity.

6) A garden that is cultivated using ecologically sound principles.

With the diverse nature of the land, proposed growing spaces and the suitability of the design for workshops it should be an ideal space to promote ecologically sound gardening.

There is a large area available for composting, making liquid fertilisers and biochar.

The shed would have a living roof to reduce rainwater runoff.

The shed and poly-tunnel would have gutters to enable the collection of rain water.

7) An edible landscape that is diverse and highly productive.

This garden has a large variety of areas for growing things. With the raised beds it can also have a variety of soil types too. A large proportion of the land is allocated as produce growing space, normally the wetter areas, shaded land and areas under trees wouldn't be used for growing produce but with forest gardens , Hugelkultur beds, man-

made micro-climates and the careful choice of plants this is feasible. The combination of forest gardens and standard vegetable beds is ideal as many plants in forest gardens are around during the "hungry gap" and the vegetables compliment the often stronger tasting plants from the forest garden. Along with some native wild food such as wild garlic, elder, blackberries, wild raspberries and many leafy plants the diversity and productivity of this garden could be much higher than would normally be found on land of this nature.

Other points on the design.

- The large hardened-surfaced central area was designed to hold high raised beds that would be wheelchair accessible, relatively well drained and hard wearing for the traffic of people and loaded wheelbarrows. Much of this area covers very boggy land. At the moment this area is covered in fine woodchip, in the future this surface will become grassy but remain hardened with relatively good drainage characteristics.
- The area for sheds/storage and compost urinal is under large trees so it doesn't take up reasonable growing land.
- The composting/ liquid fertiliser area is in the shade of trees and alongside the Hawthorn hedge where it would be difficult to grow a crop.
- The mulch/soil depot is in the shade of a tree and is very conveniently placed for vehicles to drop off mulch and soil etc. and to pick up any rubbish.
- There is a very boggy area where it is proposed to make a pond and bog garden. It would be advisable to watch whether this area dries out as a result of the new drainage system or not before making any unlined bog garden, if it does the land could be used for growing produce.
- Two areas, one at each access point, are provided for bicycle, pushchair etc. parking. The one at the South Eastern corner is under the trees and on poor growing land close to the railings where people can lock bikes to the railing. The one in the North Western corner on an already hard surfaced ground.
- No specific bonfire space has been provided. With space available to make rough compost piles and the possibility of taking green waste to be recycled bonfires may not be the most environmentally sound option. It would be better to use a charcoal making burner to convert woody materials to bio-char which is very good for the soil, results in delayed carbon dioxide emissions and is safer than a bonfire.

Planning and Co-creation of Vision Resources.

Mind-map of things to think about <http://www.verdantearth.co.uk/wp-content/uploads/Mindmap-community-growing-spaces-planning1.pdf>

Garden Design

Table 5. Plant Analyses DAFOR(L).

Relative Abundance in open areas (not including trees)	Species - Latin name/common name
Dominant	<i>Equisetum arvense</i> / Horsetail
Abundant	<i>Rubus fruticosus</i> / Blackberry, <i>Convolvulus sepium</i> / Hedge bindweed. <i>Chenopodium album</i> / Fat hen, <i>Stellaria media</i> / Chickweed
Frequent	<i>Agropyron repens</i> / Couch grass, <i>Rumex obtusifolius</i> / Dock, <i>Urtica dioica</i> / Stinging nettle, <i>Ranunculus repens</i> / Creeping buttercup,
Occasional	<i>Galium aparine</i> / Goose grass, <i>Taraxacum officinale</i> / Dandelion, <i>Symphytum uplandicum</i> / Russian comfrey,
Rare	<i>Armoracia rusticana</i> / Horseradish, <i>Potentilla anserina</i> / Silverweed, <i>Senecio vulgaris</i> / Groundsel,

Relative Abundance in areas associated with trees (not including trees)	Species - Latin name/common name
Dominant	<i>Rubus fruticosus</i> / Blackberry, <i>Geum urbanum</i> / Wood avens , <i>Hedera helix</i> / Ivy (L)
Abundant	<i>Galium aparine</i> / Goose grass, <i>Symphytum uplandicum</i> / Russian comfrey (L),
Frequent	<i>Equisetum arvense</i> / Horsetail. <i>Agropyron repens</i> / Couch grass, <i>Rumex obtusifolius</i> / Dock, <i>Urtica dioica</i> / Stinging nettle, <i>Geranium robertianum</i> / Herb Robert, <i>Carex pendula</i> / Pendulous sedge (L)
Occasional	<i>Taraxacum officinale</i> / Dandelion, <i>Ranunculus repens</i> / Creeping buttercup, <i>Aegopodium moschatellina</i> / Ground-elder (L), <i>Glechoma hederacea</i> / Ground-ivy (L).
Rare	<i>Chamerion angustifolium</i> / Rose bay willow-herb,

(L) Refers to a plant being found very locally within the whole site. Points of note: The comfrey was dominant in the area just to the north of the woodland. The ivy and wood avens were also abundant near to the woodland and dominant within it but not found elsewhere. The ground elder and ground ivy were occasional in the woodland but none were found elsewhere. Horsetail was dominant except where the comfrey grew and within the woodland.

The plant population indicates wet soil with pH on the acid side. This matches the soil analyses.

Photo album











Maps

Figure 18. Wildlife corridor that Empty Common Community Garden is a part of.

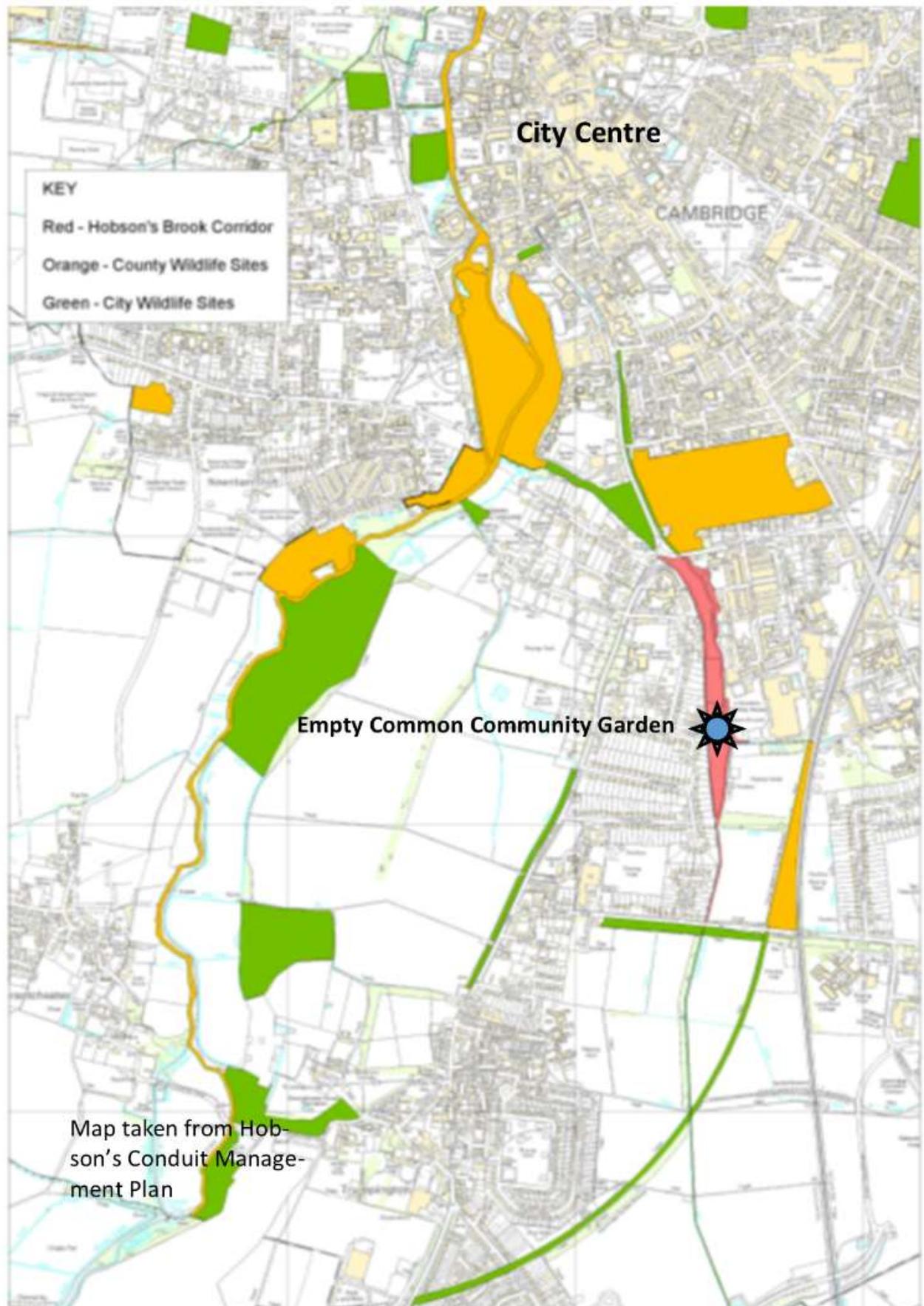


Figure 19. Plan of garden showing sectors, pH, light and waterlogged areas.

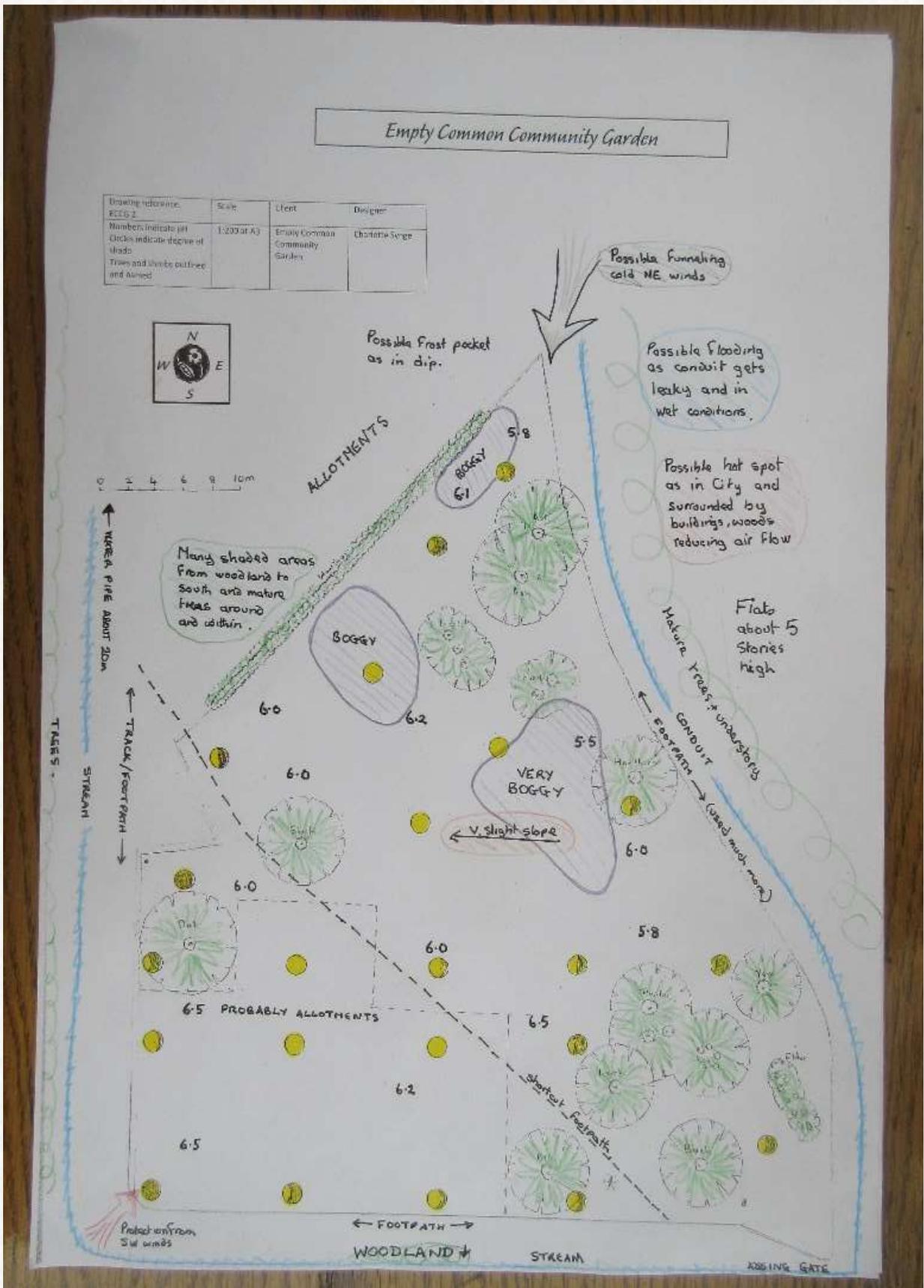


Figure 20. Plan of garden showing area of hardened surface for wheelchair accessibility.

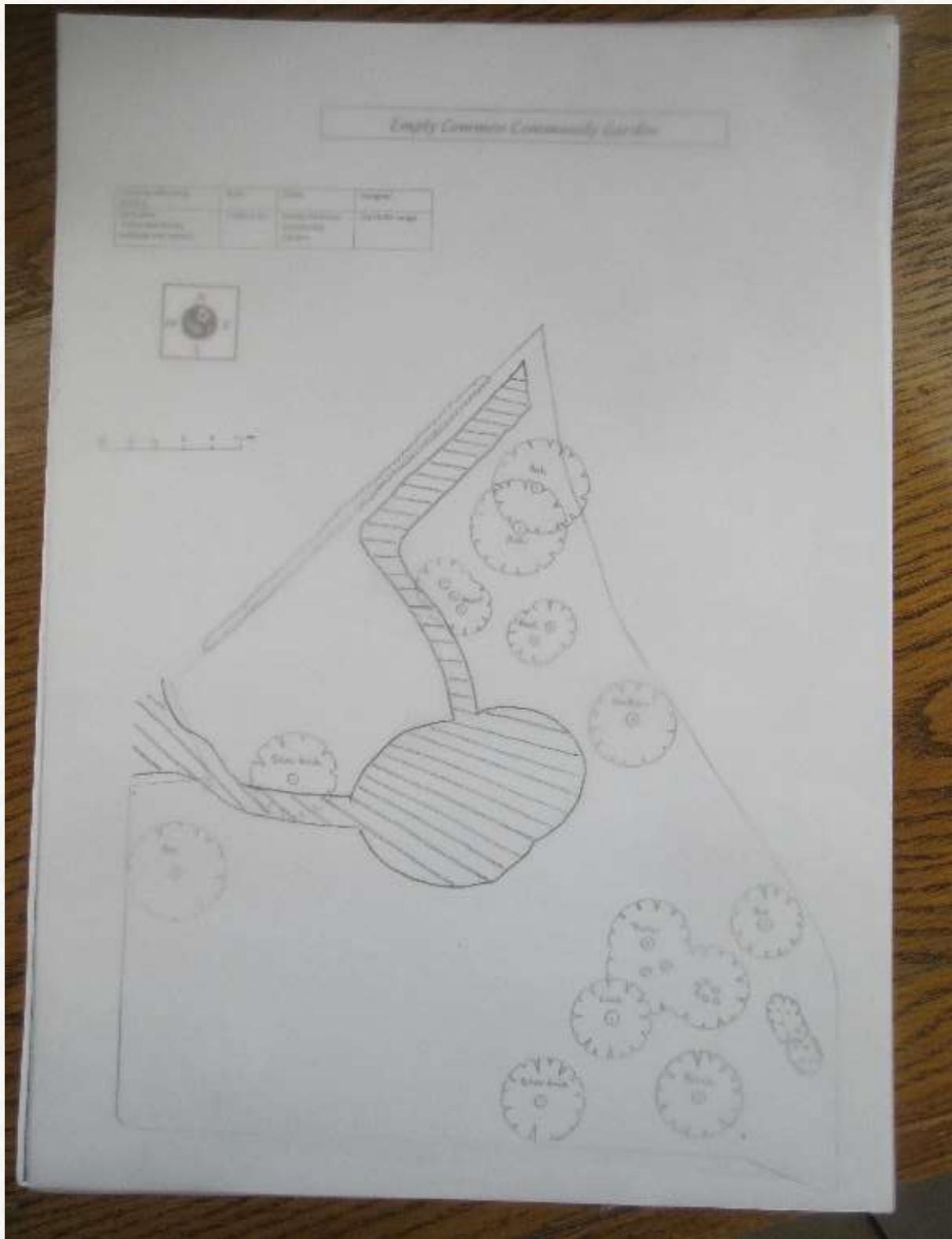


Figure 21. Garden plan showing drainage pipework.

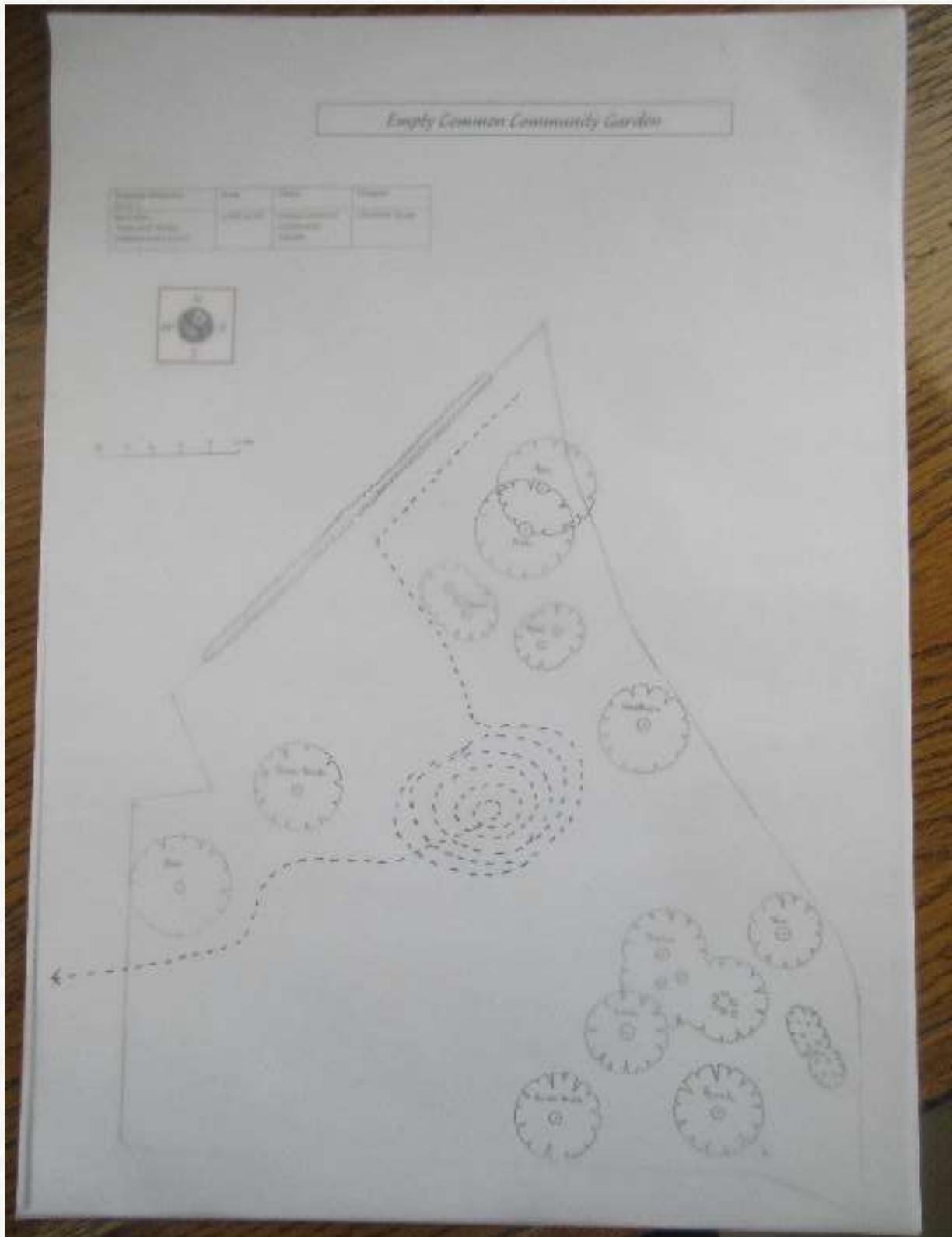


Figure 22. Outline vision of garden design enabling design of drainage and hardened surfaces.



Surveying and Designing Resources (Community Gardens and Orchards)

Table 6. LAND SURVEY, SOFT LANDSCAPE/NATURAL INFLUENCES - CHECKLIST

<u>LAND SURVEY, SOFT LANDSCAPE/NATURAL INFLUENCES - CHECKLIST</u>
● ZONES
● DESIRE LINES
● NETWORKS
● TOPOGRAPHICAL SECTORS , SLOPE, ORIENTATION, FLOODING
● DIRECTIONAL SECTORS , WIND, SUN, VIEWS, WANTED/NOT WANTED. NOISE, NEIGHBOURS
● COMBINED SECTORS , RAIN SHADOWS, MICROCLIMATES EG. SUN TRAPS, FROST POCKETS, SHADED, DAMP/DRY, FUNNELING, SEASONAL CHANGES, OBSTRUCTION HEIGHTS AND ANGLES.
● WATER , COLLECTION, QUANTITY, STORAGE, IRRIGATION, REQUIREMENT
● SOIL , PH, DRAINAGE, DEPTH, TYPE, ORGANIC CONTENT
● SITE GROUND PROBLEMS , PLANT ROOTS, OLD TREE STUMPS UNDER GROUND, BAD SOIL
● FACTORS OUTSIDE LAND AFFECTING DESIGN (NEIGHBOUR'S TREES, HEDGES, BUILDINGS, SOCIAL BEHAVIOUR, WILDLIFE ETC.)
● POSITIONS OF PLANTS , THEIR SPECIES, SIZE AND CONDITION
● WILDLIFE HABITATS ALREADY APPARENT, POTENTIAL
● SPECIAL THINGS MATURE TREES, UNCOMMON/UNUSUAL/ HIGHLY PRODUCTIVE/ SPECIAL PLANTS, PONDS, BANKS,
● EXISTING POSITIVE PLANTINGS PERSPECTIVE BALANCE AND UNITY OF PLANTS
● PRESENT EASE OF MAINTA, NENCE
● SAFETY ISSUES , WATER, DYING TREES, POISONOUS PLANTS, CLIMBING TREES
● REUSABLE PLANT LIST, FIXED AND MOVEABLE
● NOISY AND QUIET AREAS , DISTURBANCE, REDUCTION.
● PHOTOGRAPHS TAKEN ,
● SIGHT LINES, ANGLES, DISTANCES TAKEN
● HEIGHTS AND DISTANCES , TREES, OF TALL FEATURES
● LAW ISSUES , TREE PRESERVATION ORDER. ROAD VIEW OBSTRUCTION, BOUNDARY CREEP. OF HEDGES ETC. CREATION OF WORK FOR NEIGHBOURS EG. REPLACING BOUNDARY FENCE WITH HEDGE. LIGHT/ VIEW/ACCESS OBSTRUCTION

Table 7. LAND SURVEY, HARD LANDSCAPE CHECKLIST

<u>LAND SURVEY, HARD LANDSCAPE CHECKLIST</u>
● AGE AND STYLE OF SURROUNDING BUILDINGS, HOUSE ETC.
● BUILDING COLOUR AND MATERIAL
● WHERE IS LAND GENERALLY VIEWED FROM E.G.WHEN INDOORS
● POSSIBLE FUTURE BUILDING PLANS ATTACHED OR NOT TO BUILDINGS, HOUSE
● ASPECT OF LAND, BUILDINGS, GARDEN
● ACCESS REQUIRED AND AVAILABLE
● MATERIALS AND COLOUR OF ADJACENT WALLS, FENCES, BUILDINGS ETC.
● CONDITION OF ADJACENT WALLS, FENCES, BUILDINGS ETC.
● HEIGHT AND THICKNESS OF ADJACENT WALLS, FENCES, BUILDINGS ETC.
● MATERIALS AND COLOUR OF ROADS, TRACKS, PATHS, PATIOS, PAVING ETC.
● MATERIALS, COLOUR AND STYLE OF CONTAINERS, EDGING, POTS ETC.
● MATERIALS, COLOUR, STYLE AND POSITION OF PRESENT FOCAL POINTS, MOVABLE Y/N
● OVERHEAD CABLES, STAYS, TELEGRAPH POLES ETC.
● FACTORS OUTSIDE LAND AFFECTING DESIGN, OVERLOOKING WINDOWS, SHADE FROM NEIGHBOUR'S BUILDINGS/SHED/HOUSE ETC.
● UTILITARIAN STRUCTURES AND EQUIPMENT, BINS, OIL TANK, LOG PILE, WASHING LINE, SHED, COMPOST BINS, TROUGHS, WATER BUTTS, HOSE REELS,
● PLAY AND ENTERTAINMENT STRUCTURES /STORAGE, HOBBY EQUIPMENT STORAGE, BBQ, TRAMPOLINE, EATING AREA, BIRD TABLE, BIRD BATH, PERGOLA, BENCH, SUMMERHOUSE ETC.
● LAND STRUCTURES AND THEIR + & -'s, STEPS, PONDS, RAISED BEDS, SWALES, BERMS, STREAMS, TRELLISES, TERRACES, PATHS, PATIOS, ARCHES, ETC.
● ELECTRICITY, POSITION, AVAILABILITY, REQUIREMENTS, FITTINGS, FUTURE, LIGHTING, TO SHED/ WORKSHOP, MUSIC, PUMPS, ORNAMENTAL, ACCESS, TASK ETC.
● WATER, POSITION, AVAILABILITY, REQUIREMENTS, FITTINGS, FUTURE, BUTTS, IRRIGATION, DRAINAGE, ETC.
● SITE PROBLEMS, UNDERGROUND CABLES AND PIPES, FOUNDATIONS, CESS PITS, OLD PATHS GEOTHERMAL PUMP, OIL OR GAS TANK PIPES ETC.
● PERSPECTIVE, BALANCE AND UNITY + & -'s OF WHAT'S PRESENT, PROBLEMS AND POSSIBILITIES.

- EASE OF MAINTENANCE, PRESENT, REQUIREMENTS FOR FUTURE.
- SAFETY ISSUES, OLD FENCING, ELECTRICITY, PONDS, FIRE SITES, SURROUNDINGS ETC.
- REUSABLE MATERIALS ON SITE.
- PHOTOGRAPHS TAKEN, POSITION WITHIN LAND, ASPECT, REASON FOR TAKING ETC.
- PHOTOGRAPHS FOR PERSPECTIVE DRAWING NEW DESIGN OVER EG. WHERE TREE MAY BE NEXT TO POND TREE CAN JUST BE DRAWN OVER A PHOTOCOPY OF PHOTO
- LIGHTING - EFFECTIVE FOR PURPOSE AFTER DARK.

Table 8. CLIENT'S NON-HORTICULTURAL REQUIREMENTS

CLIENT'S NON-HORTICULTURAL REQUIREMENTS					
FEATURE	YES	POS	CONS	NO	COMMENT
Lifestyle, time available to garden, times of year away, physical strength/stamina etc.					
BBQ, Cob oven, fire pit, bonfire/biochar site					
Eating table area					
Entertaining area					
Sunbathing area					
Shady relax area					
Private area					
Hammock, garden bench, swing seat area					
Sport					
Child play area					
Hobby space					
Specific wildlife areas or features.					
Small features, statues, art, water sundial, bird table/bath containers/pots etc.					
Large features, pond, arches, terraces, steps, shelters etc.					
Access, tracks, paths, gates, steps, stepping stones etc.					
Lighting, electricity,					
Water catchment, water points, water butts, reservoirs, rain catchment, rain gardens, dams, chinampa, irrigation channels, swales					
Outbuildings, shelters, poly tunnel. Living structures					
Compost, liquid manure, worms, mycorrhizal farming areas, mulch storage.					
Wood piles, saw horse, biomass etc.					
Vehicle space, access, storage.					

Table 9. CLIENT'S HORTICULTURAL REQUIREMENTS

<u>CLIENT'S HORTICULTURAL REQUIREMENTS</u>					
FEATURE	YES	POSS	CONS	NO	COMMENTS
Herbs, Spices					
Soft fruit					
Fruit trees					
Vegetables, perennial, annual, poly-culture, herbaceous.					
Nuts					
Trees					
Shrubs, bushes					
Area types, e.g. Forest gardens, hugelkultur mounds, raised, herb gardens/spiral, Key-hole, key-line, terrace, meadow, woodland, rain garden, shrubbery, orchard, Ornamental veg, Vertical garden					
Surface requirements. Ground cover plants, lawns,					
Boundaries, edges, hedges, fences etc.					
Soil builders					
Other produce, e.g. Bamboo canes, string soap basketry materials, teas, cut flowers, dried flowers, medicines,					
Favourite plants					
Least favourite plants					
Essential plants/ areas to keep					
Essential plants/ areas to remove					
Biomass requirement					
Wildlife plants					
Sensory plants					
Water requirements of plant?					

Table 10. CLIENT'S LIVESTOCK/WILDLIFE REQUIREMENTS

<u>CLIENT'S LIVESTOCK/WILDLIFE REQUIREMENTS</u>					
ANIMAL	Y E S	P O S S	C O N S	N O	COMMENTS
BEES					

POLLINATORS					
WILDLIFE					
FOWL					
GOATS					
SHEEP					
AQUATIC, FISH					
PETS					
OTHERS					
FUTURE POSSIBILITIES					

References

Links

Mind-map Community Growing Spaces <http://www.verdantearth.co.uk/wp-content/uploads/Mindmap-community-growing-spaces-design.pdf>

Mind-map Orchards <http://www.verdantearth.co.uk/wp-content/uploads/Mindmap-community-growing-spaces-design.pdf>

Soil testing techniques

https://www.permaculture.org.uk/sites/default/files/page/document/permaculture_research_soil_test_hb_v.2.1_0.pdf

What is “Placemaking” Design https://www.pps.org/reference/what_is_placemaking/

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Books

Permaculture Design, A Step by Step Guide. Aranya. Permanent Publications 2012

Permaculture A Designers’ Manual, Bill Mollison. Tagari 1979

Teaming with Microbes - The Organic Gardener’s Guide to the Soil Food Web, Lowenfels, Jeff & Lewis, Wayne. Timber Press 2010

ASSESSMENT OF THESE DESIGNS

Evaluation of Social and Organisational Design

4 Ps Analysis

Process:

The straight forward work with writing policies etc. was fine. Trying to work out how to build the community was more difficult and was in many ways beyond my control. The Capacity Study idea has been useful for me, making me proactive about looking at other people's abilities and needs. Having researched and learnt a lot from watching people during this project I would be more aware going into the next one which hopefully means I would be better at it.

Product:

The way the community works together now is great, The garden is a very happy and relaxed place to be. Perhaps this is just due to having a good group of people but I think there is more to it than that. I think a relaxed, caring and non-possessive approach by some spreads to others. There is a lot of cooperation and no competition as there are no privately owned areas. Cambridge has a very transitory and diverse population which means the garden is really useful for social integration. We also have a wide age range at the garden and there are a lot of intergenerational connections made. Cambridge also has a problem with lack of integration between people linked to the university and others. This garden is good for helping integration of "town and gown". We have made many links with other community groups and gardens which improves the overall green network in Cambridge. We do quite a lot of educational open days and at these there is always something explaining permaculture and wildlife gardening and this dissemination is an important part of the garden for me. Everyone has a different way of doing things and with a very multi-cultural group there is a lot of symmetry as we copy and learn from each other. We share our produce between ourselves but also give excess away in a produce box on the footpath so provide for others as well. I am extremely happy with the community.

We could do with more participants who know about gardening and more people to help with the enabling side of things. I take the main responsibility and it would be good to have two or three of us working together on this for stability (**Multiple elements for every important function**). That is probably the next aim for me as far as the social organisation is concerned.

Personal - I was happy with my efforts in that I don't think I could have put more effort into it, but I could of course have been better at what I did. Communication was generally good between us and a real closeness has developed. I could always do with improving ways to discuss difficult things, I find it much easier to write but this isn't always the best way. I did a lot of research on working with people so the whole thing was a steep learning curve.

Peers - I believe people are very happy with things. I sent out an email asking for views as I was going to a meeting on what makes community groups work. It was only a few hours before the meeting but I received five replies. This was obviously from a self-selected group and going out on the group email for all to see.

Email correspondence.

I am going to a transition meeting tonight about what make a healthy group. I thought your views about the garden on the following before tonight would be helpful.

Sorry sorry for the very very late notice. c

What's working well?

What could be strengthened?

What isn't working and needs to change?

What are our strengths?

What are our successes?

What are our failures?

What have we learned from the community garden that would help other groups?

I find it hard to put my finger on what makes things work and am probably unaware of what isn't working for people.

Thanks for any input. c

Reply 1.

1. What's working well?

Coordination is loose, not too many rules, opportunities for individuals to contribute without time impositions or guilt trips (some charities do that)

2. What could be strengthened?

Not sure here but if you need something, perhaps: we believe that there is always space for improvement but for us supporting the volunteers is equally important.

3. What isn't working and needs to change?

Not sure again... maybe some growing experience that did not work... tomatoes and blight? Getting a good watering rota?

4. What are our strengths?

Being open and inclusive of all abilities, ages and backgrounds

5. What are our successes?

Here you show the picture of the wasteland and one of all the outbuildings we have now

6. What are our failures?

I do not think we failed, but one consideration is that Cambridge is a transitory city and it's sad to say goodbye to good members.

What have we learned from the community garden that would help other groups?

That allowing people room to develop their own thing results in 0 quarrels or disputes

Reply 2.

A couple of things that work well for our group I think are:

'light touch management and guidance' - folk who don't know what to do are guided well by a number of people with experience; but if someone has their own idea of what they want to do, it is respected.

An appropriate amount of communication/ photos/ ideas being swapped.

Little pressure on others to be constantly present and working...'help out if you can and if you want'

...and some people are very sharing and set a warm tone to the group.

Reply 3.

What's working well? People attending and working in their own time and pace. (I'm in the process, for example, of returning after a long break...)

What could be strengthened? Integration with other like initiatives.

What isn't working and needs to change? The need, as always, for more labour.

What are our strengths? A sense of working together, cooperation and shared produce.

What are our successes? Three plus years of breaking, literally, new ground.

What are our failures? Not many but see above..

What have we learned from the community garden that would help other groups? A good deal if we are prepared to work, in a collective style, together with others...

Reply 4.

The imaginative and flexible leadership you offer - plus amazing know-how to learn from - and a relaxed and pressure free environment - and of course a beautiful spot to be in!

It's great that it feels ok to miss a session and that no one's going to get antsy if something goes a little bit wrong...

Don't think anything needs to be changed!

Reply 5.

We seem to share the work and what Charlotte does really well is to make respect for nature and fun the first priority.

I believe everyone gets to express themselves with tasks and plantings they enjoy and share in the harvest without hard and fast rules which makes this group work well together and feel appreciated for their efforts.

I wish that we could attract more children with parents as this seems to be a great way teach a bit of permaculture to at least two generations at once.

The adults work well with the children so that friendships can form regardless of age which is a wonderful and invigorating lesson for all.

One failure was the wildflowers were replanted in small marked rows today. Just because you fail does not mean you do not try again and again as every year has changes in weather that make all the difference.

We need to encourage people to pick and take beans as it seems for the last two years we have grown many beans that simply went to seed. So perhaps sending some sort of "Green Giant Alert" stating that a particularly plentiful vegetable is ready and should be picked and consumed!

All in all it is a wonderful wonderful community garden that we have been proud to be members of.

Evaluation of Garden Design

4 Ps Analysis

Process - The design process was fairly straight forward and rewarding. A lot of thinking and some scary decision making but that is part of the learning process. At the beginning it was a little difficult because the workmen had their ideas and, I think because I was a volunteer rather than a paid designer, they didn't feel my requests needed to be taken seriously. The shortage of time and money also meant that design was a secondary consideration.

I believe that having the outline design proved to be really beneficial for the community. People were daunted by, and lost as to where to start on, the big blank area. It was difficult to envisage what could be done on it. At least being able to mark off and mulch some predetermined areas led to a sense of achievement and control and started to show how a structure could be achieved. Having the hugelkultur mound already was good as it meant we could start planting immediately and get a harvest that season.

For me the design stage was more difficult as I didn't know how much of the land we might finally get. If I was doing it again I would have been more insistent on knowing 100% that we had the land we finally took before doing the design. That caused me a lot of worry after the central area had been made.

Product - The Garden has a great sense of place and works very well for growing things and as a social centre. We have been encouraging the public to use it and it is now used for events and as a public park, people stop to picnic and in the night the youngsters come to socialise (they appreciate being welcomed in to use the space and now don't leave any sign that they have been). A pre-school gardens during the week and more and more people ask to use it.

It is a diverse garden with many distinct areas. We have space to process all our waste on site so produce no waste. The three rays of annual vegetable beds work well for simple crop rotation (stacking in time). The forest gardens help to enclose the space and retain a wild feel. The hazel copsis makes a lovely shady area in summer. I love the oak tree which the children climb. Our coloured willow hedge looks great in winter. The thing I'm happiest with though are the things that can't be seen, the drainage which is doing a good job and the hardened surface for the paths and central area. This really works and no one knows it's there. The landscape material doesn't seem to have stopped the soil life, moles come through, there are worms and the grass grows well so I assume the woodchips have created a good basis for new soil above the landscape material. We seem to be beating the horsetail with the better drainage, addition of wood ash to increase the pH and a lot of taking the tops and sporing heads off. The mower has been fantastic for keeping the place looking very cared for which has been great for the public's perception of us, permaculture and community gardening. Although we haven't fitted the solar panel yet I charge it on my boat from solar panels.

I've been most disappointed with the forest gardens, the trees are growing nicely but the other things are not producing well and it has been difficult to get the ground cover in the large one going.

Because many of the plants look like weeds it is difficult for inexperienced gardeners to weed. Maybe I am being too impatient.

The fact that the garden has allotments within it now that we have taken on two new areas mean it has become a bit disjointed and neglected allotments take away from the overall sense of place.

Personal - I have put a huge amount of effort into this project but it is getting easier all the time. I enjoy enabling others so it is a project which suits my nature. I could probably have delegated more so others felt more responsible for the garden.

Peers - All the feedback is very positive and people often say they like the design even though they don't know I was mainly responsible. Local people have really enjoyed watching the place come together over the years. The allotment people who tried to stop the garden project have apologised to us and the City Council, they are impressed and are now running the allotments in a more communal way with central composting and sharing of excess produce. People using it for events love it. Here is a video of one event held at the garden

<https://www.youtube.com/watch?v=zh404HH8QSY>

How this Project fits with Permaculture's Ethics and Principles.

Earth care, People care, Fair shares. The care of people by helping them to create gardens that care for others, the earth and wildlife is central to this project. At the community garden, we garden organically, looking after the soil, compost, mulching, growing green manures. We encourage wildlife into the garden by planting companion and wildlife friendly plants and wild flower areas, making habitat boosters such as creating ponds, building solitary bee, insect homes bird, hedgehog and bat boxes (use and value diversity.) We share spare produce, We share the space with other groups and run events. We teach our participants what we are doing and why, and encourage them to use good practices in their own homes and gardens. Almost all the materials and tools we use are recycled, second-hand or natural materials from the site. The community using the garden is diverse with old and young, those with learning difficulties or mental health problems, people from all cultures and we do our best to encourage integration.

Observe and Interact. This occurred initially when creating a CG and also with subsequent research, by talking to others and from the literature. It is also continuous as I learn more about CGs by being a part of one and addressing the opportunities and challenges. We are constantly observing and interacting with each other, our plants, wildlife, soil and compost.

Catch and Store Energy. This write up will hopefully be a store of energy that others can gain from. The garden does what gardens do - catch sunlight and convert it into plants/food. It traps carbon and stores it in the soil and plants too.

Obtain a Yield. I have learnt so much doing this so I have gained that yield in addition to others. The community has gained in many ways and of course we have our fruit, vegetables and flowers as a yield.

Apply Self-regulation and Accept Feedback. This is constant when working with people and the natural environment. It has also been constant when assessing what to do regarding the design, building and maintenance of the garden and looking after community.

Use and value renewable resources and services. In a garden this is generally easy, we collect lots of manure from the horses close by, woodchips and comfrey to improve the soil along with our

composted weeds. We have willow and hazel on site for poles etc. and some for basketry in the future. We also catch sun to power our lawn mower.

Produce no Waste. The energy spent on my learning should reduce time wasted for myself and others in the future if I share things. We produce no waste from the garden,. It also reduces the potential time waste when I was starting a CG because that time has been put to multiple uses.

Design from Pattern to Detail. The overall shape of the garden design was a central area with different environments surrounding it. The details came down to what those areas would be, how they would interact and how we would move from one to the other. Within each area there were the close details of how plants interact in the forest gardens so their relative positions needed to be carefully considered. Under the oak tree detail design involves which plants will cope with most shade. With the shed we added detail to the design with a green roof on the front and space for solar panels behind and so on. Designing from pattern to detail makes it easier to look at the bigger picture first and to divide things into manageable chunks.

Integrate. This project write-up integrates the various things I have learnt about starting up a community garden in order to make a useful whole. It also integrates well with what I already know, helping me to be better at the projects I work on. The community aspect is all about integration. Our networks with other groups is also helping with integration.

Use Small Slow Solutions. This project is taking more of my time in the short term, but it should increase the speed that others can travel or at least make it easier. The project will hopefully continue to grow slowly as I learn more, collaborate with others and improve and update the resource. At first everything was going too fast, now we think of solutions and see what turns up that will help us. It is more flexible and interesting this way.

Use and Value Diversity. This project uses other people’s information from diverse backgrounds. Our gardeners are very diverse. We have a diverse range of plants, wildlife and environments on site.

Use edges and Value the Marginal. Much of the information and knowledge that I have used is from marginal areas such as permaculture and “Placemaking” design systems. It also aims to help those on the margins as does the garden.

Creatively use and respond to change. As I get older and change mentally and physically I find I am better at analyses and written work than I was and that I have less physical strength and stamina. Doing this design may help in the future with more work relating to designing for the community and so allow me to drop some physical work.

Assessment of Individual Designs for Feedback Table.

DIPLOMA in APPLIED PERMACULTURE DESIGN System 5.2

ASSESSMENT of INDIVIDUAL DESIGN for FEEDBACK

Effective from Oct 1st 2013

Table 11. Assessment of the designs.

Diploma Apprentice’s name:	Charlotte Syngé
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Date first registered for Diploma:	26th January 2015
Date of this feedback:	
Name of Personal Tutor:	Aranya Austin
Name of Assessment Tutor:	
Project Title:	Designs for a Community Garden
Date Started:	2013
Date Completed:	2016 and ongoing
Implemented:	Yes
Design Number	2 & 3 of 10

**ACCREDITATION CRITERION: 1. Demonstrating design skills
(Section C3 in the Guide to Accreditation Criteria)**

	What's gone well?	What could have been done differently?
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Accurate and appropriate use of an intentional design process.	Yes. There were many intentional design processes used including some which are not commonly used as a part of permaculture design.	I'm sure there are other design frameworks and thinking tools that I could have used.
Use of permaculture ethics, principles and theory is appropriate to the situation.	Yes. There are so many permaculture principles and ethics which are a natural part of creating a community garden. See Permaculture Principles and Ethics Involved . Permaculture approach strategies were used throughout, for example: we focused on positives and opportunities, tried to work out from well managed areas, created and encouraged diversity, used edge effects, considered relative locations and used community power and cooperation while discouraging competition. We also created win-win situations, stacked within spaces and there was a lot of symmetry - communicating and listening to each other during the process.	
Use of a variety of tools which suit the needs of the client and the situation.	Yes. Thinking tools used and also many mind-maps, tables etc. created to help the community.	I believe that any design discussions for community growing spaces might be better if managed in the form of a workshop by a qualified designer rather than having meetings.
Design is intelligible, coherent and effective (i.e. it met the needs of the client).	<p>Yes. The initial outline design was really for the City Council and the layout was to enable me to design where drainage and hard surfacing should go.</p> <p>This was successful and everything was completed successfully in the short time-frame we had.</p> <p>The more detailed design has been implemented without any problems.</p>	If there had been a choice I would have done the designing as at least one workshop with the community - followed by me thinking and assessing and doing a carefully thought about final plan that included the communities wishes.
Documentation for and presentation of the design is	Yes. The plans are clearly drawn with appropriate scale drawn in and	I sometimes wonder if a computer assisted

appropriate for clients & third parties.	relevant information clear. The written information is presented in a clear and organised manner.	design presentation would be better but part of me objects to the avoidance of the human touch.
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ACCREDITATION CRITERION: 2b. Applying permaculture to your work and projects

(Section C2 in the Guide to Accreditation Criteria)

	What's gone well?	What could have been done differently?
Administration and organisational design	I think that most of this has gone well, It was much more time consuming and difficult than I thought it would be.	I have noticed far more resources which would have helped have appeared in the last few years, since I did the work. I think Australia is ahead of us in this area and I should have done more research specifically from there.
Community Development Planning	The project as a whole has created a community with an active social network between participants and between other groups such as other community gardens and orchards, Transition Cambridge, the Woodcraft Folk, the local pre-school, etc.	I don't think I would do anything differently , we already do a lot and might suffer from burnout.
Site Development	An area of wasteland is now a fantastic resource, It is used as a community space for growing fruit, vegetables and flowers. It is a demonstration wildlife garden, It acts as a public park. It is a venue for events.	
Dissemination /Education	The site is now used for educational purposes. We do: the RSPB bird count. The butterfly count, Cambridge Sustainable Food Pumpkin festival, The Big Dig, Cambridge Wildlife events, A local Bioblitz, We also have a pre-school	I would have insisted on more land at the beginning if I had known how well it was going to work.

<p>Personal Development and Inner Transition</p> <p>Symmetry</p>	<p>using the garden for growing things. The Woodcraft Folk are going to be using the space as a meeting site and Transition Cambridge use it as well.</p> <p>It has been good for me, I feel that I've created something really positive. It is good for our members some are old and say they would be lonely without it, we have some people with mental problems. One man says it stops him from going back to being an alcoholic.</p> <p>The project has promoted symmetry we are often swapping plants, seeds etc. with other gardeners and permaculture enthusiasts. I give talks at the garden and we host green events. See Pivotal Cop20 Festival of Change” where I gave a talk on soil and permaculture https://www.youtube.com/watch?v=zh404HH8QSY</p> <p>I have also given other talks there on permaculture and on soil,.</p>	<p>Nothing, it seems to have taken on a life of its own.</p>
<p>Clear explanation of how the solution was developed using design process and Permaculture theory. The solutions are relevant and appropriate to the activity and content areas.</p>	<p>The Social and Organisational design was a really difficult one for me, I felt I should be using Looby Macnamara’s web design but I couldn’t work out how; perhaps I should have done more research on this. The design process for the garden seemed quite straight forward to me. Assessing what was required from the garden and community and then following the OBREDIMET framework made it relatively easy. There were no hills, serious, wind funnels, avoidable frost pockets etc. to deal with so this simplified things for me.</p> <p>I have worked within nature to a great extent and have created a diverse space which will hopefully increase its attraction to all sorts and so increase stability in the community as well as the environment. The problem with the boggy land certainly became the solution as the need to put in</p>	

	<p>drainage meant we had the equipment and workmen on site and could keep them an extra couple of days to do all the path making. I am pretty sure that I wouldn't have got them to do it unless they were already involved with the project. There has been a lot of work put into the garden but not a huge amount of materials. The returns will far outweigh the inputs in so very many ways. The community has formed a guild, we have such a diverse range of capabilities and ways of working, we certainly work better together than apart.</p> <p>In my life I was putting a lot of energy into shouting NO, going to demonstrations, writing letters etc. I was becoming very negative and decided to do something more positive . I believe that the energy I have put into this project has effected change and it has been good for me to say YES we can do this, although I still believe it is important to shout NO.</p>	
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ACCREDITATION CRITERION: 3. Learning from and developing your permaculture practice

(Section C5 in the Guide to Accreditation Criteria)

	What's gone well?	What could have been done differently?
Evaluation of the effectiveness of your design work on this project.	<p>It appears to be a very effective space for a variety of uses. People love it, so I suppose it is also well designed in more ways than just being a practical space. The survey replies and the Youtube video taken at the Festival of Change confirm my feelings along with the general busyness of the space.</p> <p>https://www.youtube.com/watch?v=zh404HH8QSY</p>	

<p>Reflection on use of design tools and processes, and use of Permaculture theory and practice.</p>	<p>I like the use of design frameworks, thinking tools, and the principles and various permaculture sayings/tips. At first I didn't like them at all. When everything was new to me they seemed a bit wishy-washy but now I can see that they are good, pragmatic advice.</p>	<p>With the community garden not having an obvious central zone to work out from I found it more difficult to think in a logical way about where to place things. I'm sure I have more to learn here and more research on this would have been good.</p>
<p>How the design shows that your competence and skills in practice and learning is progressing.</p>	<p>This was the first pair of designs I did after my PDC and it has been a steep learning curve. My Action Learning Pathway project was brilliant for teaching me the theory as I used it to try to consolidate what I had learnt on the PDC and all that I was learning from my own research. For putting theory into practice these designs really threw me in at the deep end.</p>	<p>I wouldn't have tackled the Social and Organisational design if I had known how hard it would be and how much work and learning it involved. It slowed up my work on other projects in the garden but it is just as important, if not more so than the physical design.</p>

Comments about project format, general or specific issues

Any other comments?

Conclusions

How ready is this design for presentation?

What are the apprentice's next steps?	
The highlight of this design for me was....	