Appendix 2: Applicant's Proposal

1) How the facility operates.

Cannabis flowers are the primary product.

Cannabis is a dioecious plant, meaning that there are male and female plants. The pollen from males is used to produce seeds, but generally for medicinal or recreational purposes.

Most people focus on the female plant. The female flower tops in particular are the production item in question.

For a female plant to produce flowers the plant is grown vegetatively for a period of time, generally 10 days to several months. Once the females are the desired size as determined by the grower they are induced into a flowering light cycle.

This requires a change in the number of hours of light the plant receives. When the light cycle is "turned down" to 12 hours of light and 12 hours of darkness then the flowering stage of the plants life begins. For the female plants to become mature enough to be harvested requires generally 6-10 weeks of the flowering light cycle. Typically indoor growers will have 3-5 harvests in a calendar year.

The female plants are either started from seed or small plants, generally referred to as clones. Clones and seeds are available from existing health Canada approved producers or via online.

Once you have your female plant stock then generally a "Mothers room" is built to provide a growing area for the mothers. The mother plants require a different light cycle than the flowering plants. Typically this vegetative light cycle is between 18-24 hours of light per day. This light cycle will keep the females growing vegetatively indefinitely. These mother plants then are grown until they are big enough that smaller plants referred to as clones can be cut from them. As an example a female that is allowed to grow for a month or two will become big enough that dozens of small cutting/clones can be cut off the mother. Those cuttings are then placed in a propagation tray and after approximately 14 days they will have grown roots and will be able to become new plants.

Typically the complete cycle of how the grow room operates.

Then as mother plans are grown, clones are cut from the mother/s and then the clones are placed into the flowering room to complete the lifecycle and render the flower product.

The mothers always stay in their designated area under the 18-24 hours of light and continuously provide the clones that get rotated into the flowering room.

2) Water consumption

At full capacity the proposed micro cultivation license would use approximately 130 - 150 gallons per day. To put it into relevant terms this level of water consumption is less than what two typical North American adults use per day.

I have a well on my property that has been tested and approved as having clean potable water.

I also have a 3000 gallon cistern that I can have water delivered by South Island water.

3) Disposal of waste water

Typically in the "mothers" room or the area where Vegetative growth happens there is very little waste water. The plants receive some fertilizer inputs but there is little waste or run off water/fertilizer in this stage. Typically less than 5/gal per day.

In the flowering room there can be more waste fertilizer. The amount of waste water is largely dependent on the style of growing. In some cases there are techniques and practices where there is little to no waste water/fertilizer. Some organic cultivation techniques achieve this low/no waste water. In the case of my own personal cultivation practice there is typically 5-15 gallons of waste water every time there is a fertilization in the flowering room. Typically fertilization happens every second to third day. I use a mixture of peat moss and perlite as my growing medium. This is what is known as an inert media as it has almost no means of supporting plant life on its own without some kind of amendments to it. I use a combination of organic and salt based fertilizers as my inputs into my growing

media. Typically the amount of fertilizers per fertilization is only enough to sustain the plants for a few days then more inputs are required. This makes fertilizer efficiency fairly high. Waste water can be stored for reuse or disposed of to ground.

4) Chemical products used.

Some of the fertilizers I use are salt based water soluble. Historically I have been producing medical marijuana and have been selective about using only inputs that are high quality, and contain minimal or no trace heavy metals.

Health Canada allows for some fungicides and pesticides.

I may be required to take the BC pesticide certification course as part of the Health Canada requirements. My practice uses good preventative measures in the vegetative stage so that no pesticides or fungicides are used in the flowering cycle. In the vegetative cycle a weekly regiment of vegetable based oil is used as a pest preventative foliar spray. No commercial fungicides or pesticides are used.

The air in the grow spaces is filtered with carbon filters that are set up as “scrubbers”.

The air in the room is filtered thru the scrubbers on a continuous basis to remove any smells, dust, pollen etc.

Similarly the air being vented out of the grow rooms is also filtered thru a carbon filter as it exists.

This practice eliminates any odors from being detectable outside or to neighbours.

5) Waste disposal

There isn’t very much waste disposal.

Used soil (the peat moss and perlite mix, also known as soilless mix) could be recycled and used again, composted or sent to landfill.

The parts of the plant that don’t get used could be sent to landfill, composted or burned. This includes green compost as plants are pruned back during their growing cycle and the dried stalks after harvest.

6) Workers/staff

You outlined that the premise of the home based business is that the residents and 2-3 workers are what make up the work force. This would be in keeping with how I foresee the micro cultivation operation working. Myself and 1-2 part time employees on a day to day basis.

At harvest time more help is required to cut and manicure all the plants into the finished product.

Hand trimming is performed at this stage and this is one of the distinctions between a micro or craft product and a product produced by the larger licensed producers. Hand trimming is required to maintain the highest level of product.

During harvest time typically an addition 5-6 people are employed to assist with the trimming and harvest. This would also include the transplanting that takes place to start another cycle of flowering plants. The addition 5-6 people are required for 5-8 days approximately every 10 weeks.

Health Canada’s micro cultivation license requires that all employees and myself undergo a security clearance check.

7) Security measures

As specified by Health Canada there needs to be a physical barrier (fence) around the property or production site. As my property is already fenced and gated I should meet this criteria.

The production facility and the surrounding property will all be under video surveillance as well.

This isn’t innately required by Health Canada but it’s important to me and fosters a greater security.

I am currently using Nest Cams and Canary cameras. Both of these security camera manufacturers provide cameras that will send push notifications to my phone if there is detected motion within the camera frame. I have a nest camera subscription that stores all motion video clips in the cloud for a 10 day period. Both camera types can provide real time video and audio feed to my phone at any time. The Canary cams also have a built in siren that can be activated remotely from my phone.

I currently have 10 nest cams that provide surveillance on all sides of the property. I have an additional 3 Canary cams in various locations too. I also have an additional 4 motion sensors that will provide push notifications to my phone if motion is detected.

There will be at least two highly secure doors to get into the production area and these will both be monitored by cameras.