Section B_Construction Team

DESIGN CRITERIA

Requirements	*Criteria*	*Justification*	*Success Criteria*
Form	1. Should let in lots of sunlight.	1. The greenhouse will be used in the winter where the days are short, so the plants need the most light they can get.	1. Glass walls facing the direction with most sunlight.
Function	1. Insulation 2. Ventilation 3. Water Collection and Filtration 4. Pests control 5. Solar power	1. Maintain warmer temperature during winter. 2. Maintain proper ventilation for plants. 3. Provide clean drinking water. 4. Minimize rats and mosquitoes. 5. Have access to electricity.	1. Insulating materials 2. Windows and heaters controlled by a thermostat 3. Water treatment system. 4. Screen, sealed walls 5. Solar panels
Structure	1. Maximum size : 15’ x 10’ of the full size greenhouse.	1. The structure cannot be too big as it will be difficult to deliver.	1. Follow the size specifications and make the greenhouse easy to take apart for delivery.
User-Centered	1. Should be big enough to grow food to feed around 50 people 2. Can be locked	1. This is how many people live in the reserve. 2. People might break in and steal stuff.	1. Make the greenhouse the maximum size possible 2. Lock on the door, use a clear plastic instead of

			glass as it is more difficult to break
Materials	1. Low cost 2. Durable 3. Insulation	1. 250 $ max 2. Could withstand different weathers/ seasons. 3. During winter, it could reach up to -30 C.	1. Affordable materials; make use of recycled materials 2. Protect the materials using waterproof coating. 3. Insulating materials.
Representations	1. 2D sketch of the structure, along with a list of materials. 2. 3D model made on Solidworks	Required by the project manager.	Include these requirements in the final portfolio.