

ZERO CARBON MASTERPLAN SUSTAINABILITY ASPIRATIONS



HEALTH & HAPPINESS

BIG IDEA CONNECTING WITH NATURE

1. Network of tempered environments & covered walkways along a central biophilic core to enable interactions in natural setting.
2. Truly external working spaces with power supply, wind breaks, solar-absorbing clay walls for passive heating.
3. Ultra low-toxic products to Living Building Challenge & WELL building standards.
4. Designed to be comfortable in 2070 predicted climate.
5. Seasonal sensory and aromatic planting.



EQUITY & LOCAL COMMUNITY

BIG IDEA ACCELERATOR FOR LOCAL BUSINESSES

1. Smaller co-working spaces as part of the hub to encourage smaller businesses and create vibrancy that they bring.
2. All materials used to be assessed for ethical sourcing, using systems such as the Declare and Just label.
3. Fully accessible throughout.
4. A campus that supports ethical businesses.



CULTURE & COMMUNITY

BIG IDEA CULTURAL HUB

1. Flexible performance space for shared community asset - seminars, TED Talks, local theatre etc.
2. Barrier free community between new campus and Hardwick.
3. Create club spaces & communal facilities to build bridges between tenants.
4. A college commons at the centre of the site to foster a sense of community.
5. A green caretaker/energy manager to supervise the sites carbon footprint.



LAND & NATURE

BIG IDEA CAMPUS WITHIN A FOREST

1. Forest designation through 30% tree canopy coverage across the site.
2. 'Micro' or 'Tiny Forests' to create self-sustaining forest cover.
3. Plants used to rejuvenate soil and fix key nutrients during and after construction (such as lupins).
4. Rain garden to provide diverse landscapes and create nature corridor across site.
5. Biodiverse planting throughout.



SUSTAINABLE WATER

BIG IDEA ZERO POTABLE WATER USE

1. Water use less than 5.5l/person/day
2. Greywater harvesting for toilet flushing and automated watering systems
3. Centralised rainwater harvesting
4. Water-free toilets
5. Extensive swale and pond system
6. SUD system designed to deal with future climate extreme weather events.



LOCAL & SUSTAINABLE FOOD

BIG IDEA CAMBRIDGE'S 1st MICHELAN STAR VEGAN RESTAURANT

1. Public restaurant in wetland setting
2. Allotments for the offices, on site restaurant/ cafes and wider community.
3. Communal picnic areas for eating together as a community and personal wellness.
4. 'Plug and play' facilities for pop-up food vendors/farmers market.
5. On site catering to be ethical suppliers & seasonal produce promoted.
6. Communal herb gardens for community to use.



TRAVEL + TRANSPORT

BIG IDEA A HUB FOR GREEN TRANSPORT

1. Cambridge & Oxford shuttle bus service - potential stop
2. Dedicated cycle route and central bike repair station for wider community
3. Covered, secure cycle storage for 30% of occupants, with 2% shower facilities.
4. Infrastructure for 100% Electric Vehicles (EVs) on site
5. Secure EV parking
6. Consolidate deliveries to site during occupation
7. Electric bike charging stations



MATERIALS & PRODUCTS

BIG IDEA LOW EMBODIED CARBON

1. phased with buildings constructed from biogenic and low embodied carbon materials.
2. Work with local SIP manufacturers to use Hempcrete panels with clay render.
3. Construction to use LCA EN 15978:2011 for all site, including infrastructure, to ensure that the site remain net zero.
4. Natural, sequestering materials to offset carbon intense materials.
5. Consideration of screw foundations and floating CLT raft to allow buildings to be dismantled/ moved at tenure end.



ZERO WASTE

BIG IDEA ZERO TO LANDFILL

1. Centralised food waste composting, to be reused on the allotments and gardens.
2. Bin stores designed with additional space for enhancing recycling facilities.
3. Componentised design to reduce construction waste.
4. Community hub to host repair clubs/classes for community.



ZERO CARBON ENERGY

BIG IDEA NET ZERO ENERGY

1. Energy quota for tenants based on annual on site energy production for each building.
2. Passivhaus certification, achieving LETI target of 55 kWh/m2a.
3. PV and biosolar roofs connected to centralised energy hub.
4. Centralised ambient loop heating system.
5. Centralised AHUs with high efficiency heat recovery, using demand-based controls (CO2 rate detection).