

Greenhouse/Living Machine University of Idaho McCall Field Campus

Brandon VanTassell
Architecture 553

Group Site Plan



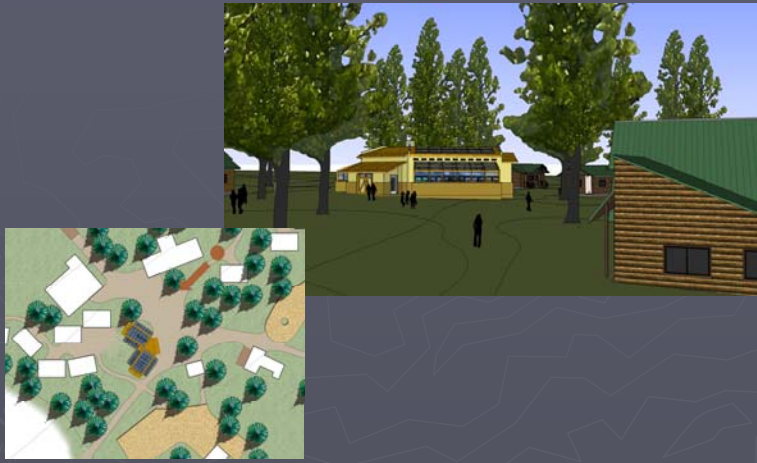
Components to site plan



Greenhouse / Living machine focus



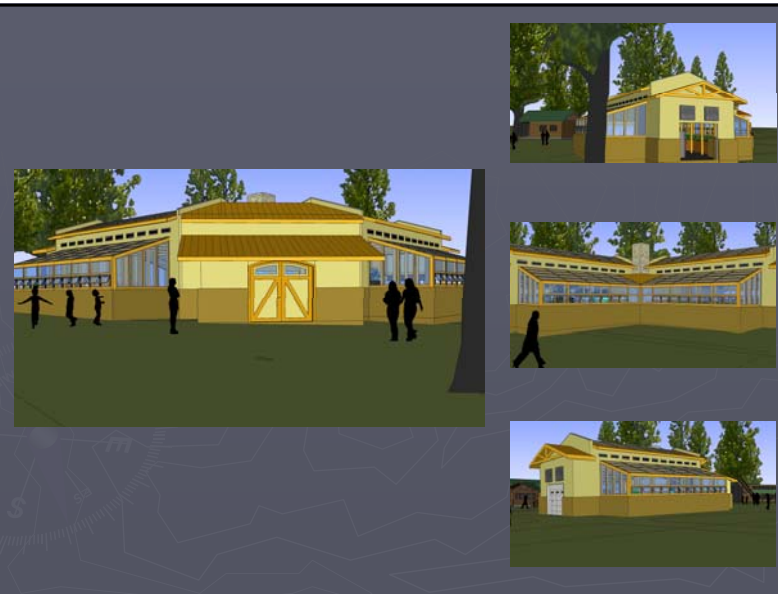
Views from Guest Cabins



Views from Main Path



Views from Guest Parking



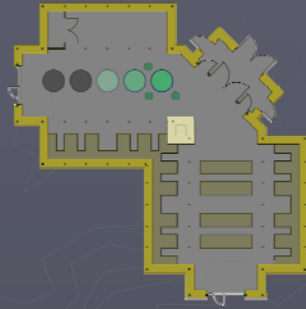
Plan

Greenhouse

- Grow to supplement
- Grow to raise money
- Grow to educate

Living Machine

- Learning tool
- Serve bath houses
- Icon



Circulation

All Paths in Yellow allows for 3'6" and greater access

Circulation can change for seasonal changes

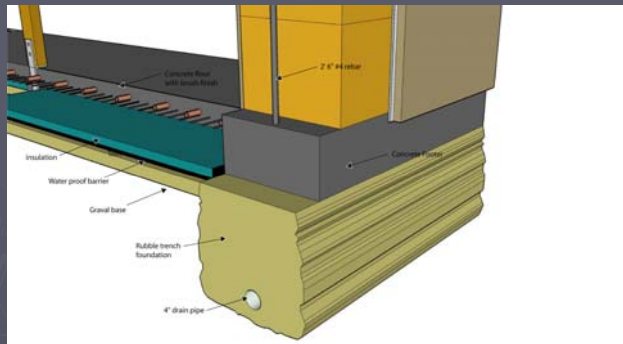
Garage doors have smaller pocket doors to allow staff access without having to open overhead door

All main doors supplied with lever handles

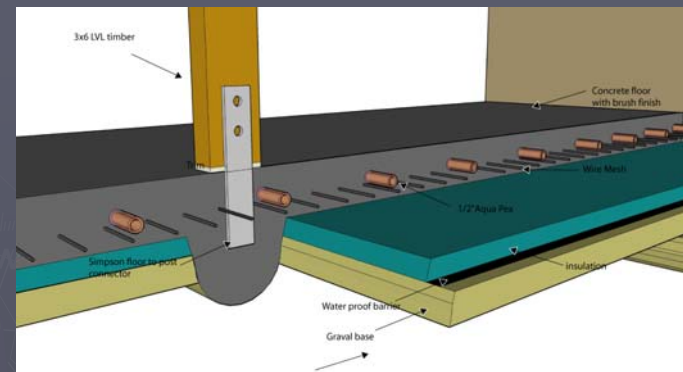
Planters 3'



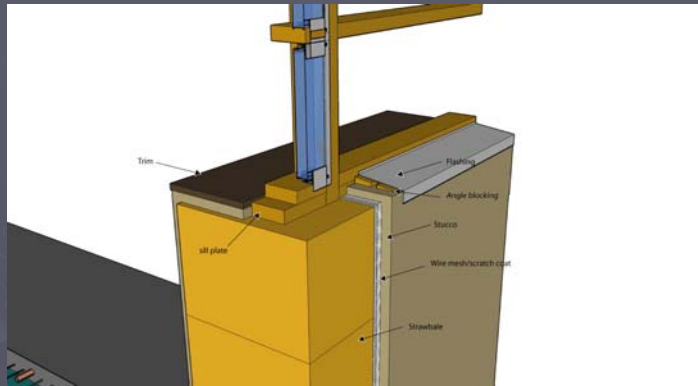
Foundation



Slab



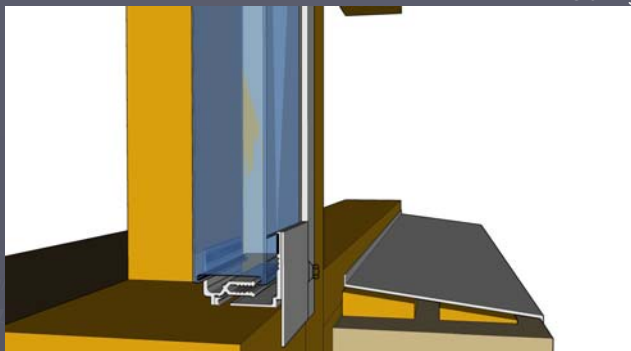
Wall



Framing diagram

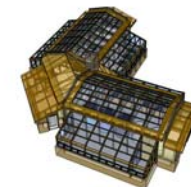


Glazing



KALWALL
CRYSTAL/CRYSTAL FLAT GLAZING
% LIGHT TRANSMISSION: 50%
U Value: .51
R Value: between 8 and 15
Translucent PV for melting the snow and to provide power for the planting lamps

Combination of Structure



Ventilation

Bi-Directional Fan

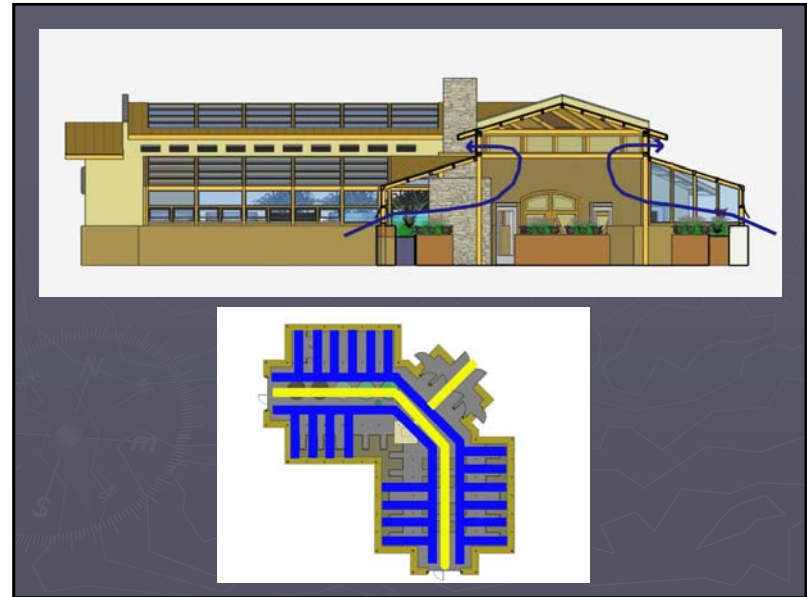
Operable Windows

Operable Vents

Ceiling Air Return

Large Openings

Vestibule



Heating



Finnish Fireplace
Heat air intake
Burn hot Fire
Multiple loop chimney

Winter: provide movable night curtains

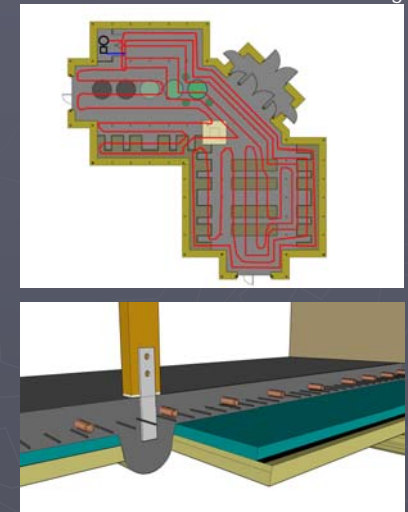
Radiant Floor Heating

Closed system

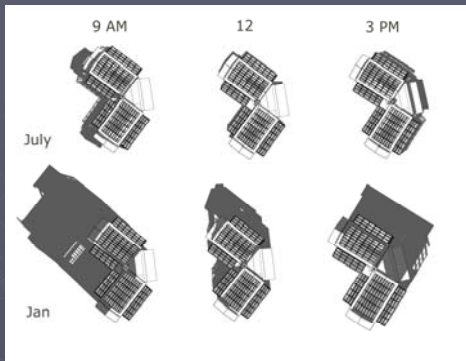
Munchkin High EF Mini Boiler

50 gal pressure tank

Included to supplement Finnish fireplace



Lighting

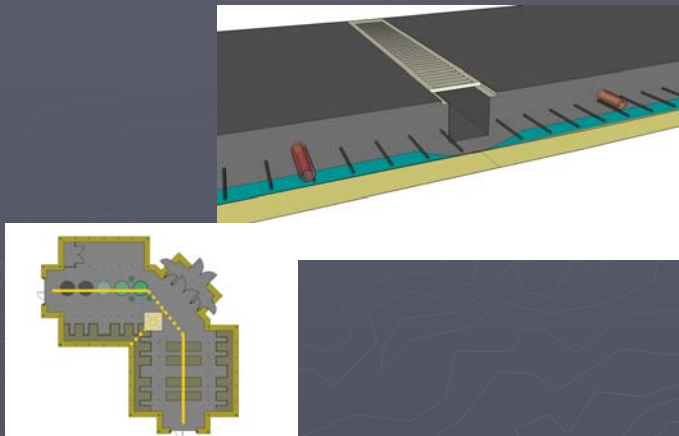


Supplement in Winter Months
High Output Fluorescents 48-inch bulb : 5,000 lumens per 54 watt,

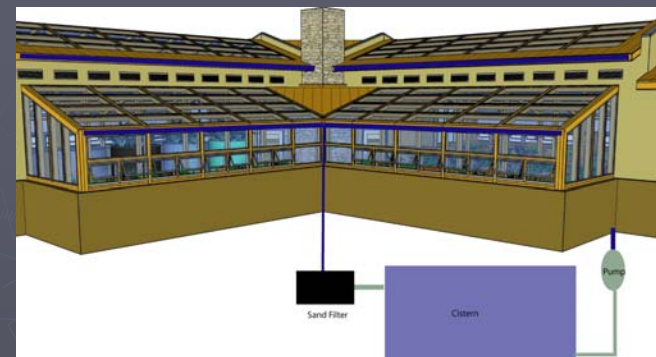
Living Machine



Drainage



Water



Materials/Carbon Debt

<u>Material</u>	<u>Carbon Debt</u>	<u>Cost of Material</u>	<u>Longevity</u>
Rubble	Low	Low	High
Concrete	Medium	High	High
Rebar	High	Low	High
LVL	Medium	High	Medium
Straw Bail	Low	Low	Medium
Stucco	Medium	Medium	Medium
Kalwall	High	High	High
OSB	Medium	Medium	Medium
Flashing	High	Low	High
Mixed lumber	Medium	Medium	Medium
Metal Connectors	High	Medium	High
Mixed wire mesh	High	Medium	High

CONCLUSION

The structure can serve as an integral part of the McCall Field Campus. First as an icon or Branding for the campus. Second an educational tool for the community and those who visit the campus. The overall program would serve the McCall Field Campus and help further the ideas and agendas therein.



Questions