

- 1 External solar shades / internal light shelves let in winter sun during heating season, block summer sun during cooling season
- 2 Fans to aid in natural ventilation during swing season
- 3 Make sparkling water and filter tap water to cut down on bottle use
- 4 Skylights are a great way to naturally illuminate interior spaces and offer seasonal cooling
- 5 Living Wall Biofilter - air is pulled across roots of plants where microbes breakdown VOC and indoor air contaminants. air is then pumped back into dining space. Plants can be edible - salad greens, herbs and the like. Plants are watered and fertilized with drip irrigation from fish tanks. combination is called aquaponics

- 6 Tilapia and Perch are best species for tank aquaculture. Floating rafts can be used to grow veggies and salad greens
- 7 Specify low-flow fixtures and aerators including low-flow pre-rinse spray valves. Saves both water and energy due to reduced hot water consumption
- 8 Dishwasher and sink have drain heat exchangers that recover heat and loop through hot water tank (not shown well)
- 9 Solar hot water collector - much faster return than solar PV, especially with hot water use for dishes etc.
- 10 LED lights for surface lighting (CFL for general) connected to photosensors that dim lights when ambient light levels are high ("daylight harvesting")

- 11 Heat captured from kitchen exhaust filtered (for grease and particulates) then run through Energy Recovery Ventilator to condition Outside Air brought in by HVAC. Exhaust then sent into rooftop hoophouse / green house to capture rest of heat.
- 12 Fryer oil can be collected and turned into bio-diesel on-site to power either vehicles or oil furnace (not shown)
- 13 Drains get filtered for grease and food and go to greywater tank - pumped to roof hoophouse veggies or fish tank
- 14 LED's in cold applications like the walk-in cooler
- 15 Reclaimed or Salvaged materials add life and mood to any space. Polished concrete floors for low maintenance and good looks

- 16 Greenhouse (or hoop-house) self-watering planters... there could be chickens for eggs and meat, rabbits for meat, beehives for honey, goats for milk and cheese (why not, they do it Europe), veggies and herbs... you can collect the chicken poop solids for generating methane to feed gas stove or power vehicles
- 17 Ice machines are huge energy hogs and let's be real--who really needs ice in their water?
- 18 Composting is a no-brainer. Some scraps can go to rooftop chickens, the rest gets turned into soil. Biobin is a good solution for this scale operation: zero-smell. Huge worm bin set-up might be great too--chickens can eat the worms out of soil
- 19 Rainwater tank collects from roof could supply dishwasher, washing, fishtank, rooftop irrigation

