Oregon State UNIVERSITY | Cascades

Sustainability Advisory Group Work Session #1

Full Notes – Thursday, December 3, 2015 – 9:00 a.m. – GRC

Definitions of sustainability

- Building systems
- Social equity
- Present with an eye to the future
- Living systems
- Holistic systems approach to decision making
- Long term decision making – everything interrelates and eye has to be set on the long term
- Responsible & regenerative
- Water and energy conservation
- Sustainable opportunities at home – replicability
- Public leadership and example – OSU-C sets a trend for development in the region
- Net zero energy and water
- Incubator and catalyst – OSU-C has an opportunity to set an example for more to happen around sustainability
- Reduce/minimize carbon footprint
- Reuse of waste water
- Net positive impact on waste, water, energy, societal impact; positive presence in the community
- Sustainable system is one that can withstand future change
- Meet needs of future generations without taking away from current generation

Questions to answer

- Update on the 10 acre building – how do they score? Next step: Committee to review 10 acre campus scorecard
- Review OSU-C CECAC Housing, Transportation, Neighborhood Livability task force recommendations that impact sustainability
- Educate community of what has happened with regards to sustainability – ML – plan sustainability vision "press conference" – advisory group (Bend 2030/OSU-C/Enviro Center open house on sustainability) – should we put out an rfp for community communications?
- How does curriculum meet with campus design?

Emerging trends in sustainability

- Millennials may become second class citizens due to high debt burden – how do we change the financial impact on students?
    - Is tuition debt an investment – will corporations pay for tuition?
    - Will living lab help promote this concept with corporations?
- Innovative funding models to build the campus
    - University to seek support from corporation and community to open up investment opportunities
- Net zero costs to implement – stability of funding sources; broadening funding sources –
    - Conservation funding paradigm – crowd funding, sea change to fund perceived sustainable products
- Recognition of social science integrated with technical development
- How do we sustain a no-growth economy?
- Prepare for major change events that we cannot identify
- Capitalize on millennial desire to preserve and manage environment – e.g. transportation, etc.
- Community integration is a sustainable requirement
    - University positioned to be the center of the community – hub by embracing all sustainable values for the future
- District scale design as a concept; system-wide impacts for the community can be achieved by things like
    - Ecodistricts
    - UGB opportunity area code and district design
    - Soft boundaries – different boundaries for different parts of the project; flow mapping of energy, water; how does breakfast arrive to the campus and how is it used?
- Political realities…
    - University district – over 3-4 stories becomes a political concern – education to policy and decision makers
    - Waste water treatment
    - Rapidly flashing beacons – pedestrian safety crossing
- Constituent / stakeholder demand – attract students because of the “brand” – brand sustainability
- Skills students will need
    - Collaboration skills
    - Information management
    - Comfortable with being nimble
    - Critical thinking
    - Communication skills – get, process, analyze, disseminate
- Need help from the community to make things happen/connectivity beyond the campus
    - Paths built by parks service
    - Buses

  - City plows roadways and parking lots rather than bike lanes
  - No mgmt. of sidewalks
- Resource recovery
- Local market development – buy local, local resources, etc.
- Valuing pollution in consumption – impact of enviro impact in the product; full/total cost
- Campus sensitivity, acknowledgement, embracing of social equity – who gets to go there? Wealthy or hardworking? Who will we attract? Future leaders? Root cause for violence around social access
- Re-thinking the word community; obligations we have to each other – embrace safety and equity
- Growing awareness and focus on climate change
- Self-sufficiency – buy one thing and make it three – look back at folks of previous generations; makers
- Influence of a makers district; entrepreneurial young people; join small companies rather than big corporations – catalyst for entrepreneurial spirit.

Net zero – Steps to take

- Set a high bar – net positive
- Being bold will set an attitude
- Energy
  - EUI energy use index goal – 0 or net positive (should we be 110% - beginning to be widely accepted concept)
  - Resilient in the event in of disruptions in the grid
    - Powerwall
  - Energy lab – bio-mass, solar, collaboration for forest health
  - Bio-mass utility plant onsite or offsite or should we consider other sources
  - Power purchase agreement to sell extra back to grid or PPP for utility plant
  - 100% energy is renewable energy
- Process or practice – technologies are coming on line now that may / don't tie to specific technologies – or outcome
- Plan between the city, campus and parks for walkways and routes to the campus – e.g. extension of the Galveston plan; agreement for maintenance with the city
- Connection to eastside for reasons of social equity; and other communities
- Water and waste water; storm water
  - Buildings that could be used for experimentation with grey or black water; e.g. building purple pipe – being ready for net zero water
  - On-site treatment – experiment and demonstrate – code compliant composting toilets
  - Food waste
  - Net zero water – only the water is falling on the site

  - Nutrient recovery; public health protection – contamination concern
  - Sub-metering of buildings
  - Low impact development for storm water
- Monitoring and feedback loops of consumption of energy or water
- Set baseline of monitoring of demo landfill, energy budget based on the resources available to the site e.g. solar capacity, water baseline, pumice mine
- What's the scope of net zero – onsite and offsite living students?
- Secure "buy-in" from community, government, city, funders – inclusive approach – "This is Bend's Vision" and pare it with the smart goals – community engagement plan
- Value proposition for sustainability; build value of sustainability into the university's value statement – raise the operating budget vs. capital budget connection; most efficient campus; scale up the benefits to the district level – vision within
- Entrepreneurial and innovative