University of Colorado
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University of Colorado
Design Review Board
Minutes of the Meeting of May 15, 2012

The University Design Review Board met on Tuesday, May 15, 2012, on 1800 Grant Street, Denver - 6th floor, Denver Conference Room.

DRB members present were: Lois Brink, John Prosser, Candy Roberts, Jerry Seracuse, Victor Olgyay, and Teresa Osborne (ex officio).

CU-Boulder staff present were: Tom Goodhew, Facilities Planning; Paul Leef, Campus Architect; Richelle Reilly, Campus Landscape Architect; and Philip Simpson, Director of Facilities Planning.

Boulder Student Project – Net Zero Energy Demonstration Cabin

Students present for the discussion were Anna Nord, Aaron Travers, Ryan Kean, Janna Ferguson, Molly Goodman, Jimena Zamora, RJ Salaver, Ryan Wakat, Kyle Wong, and Rob Pyatt, Professor of Architecture.

Also present was Steve Seibold, Business Manager for the CU Mountain Research Center.

Students gave a detailed presentation of the 900 sq. ft. faculty cabin designed to accommodate passive and active strategies for a net zero energy goal in an alpine setting. Included were history, climate study results, photos, existing conditions, plan(s), and section(s).

Victor Olgyay:

- Congratulated the students on their hard work and dedication to this project.
- Asked students about the existing utility infrastructure and how the students planned on tying into the existing water system; suggested considering the possibility of utilizing the rainwater collected from the roof.
- Noted that students should expand their design idea(s) and consider how this “Net Zero” concept can be used throughout the entire mountain campus.
- Suggested the students consider using SIPs to reduce the amount of energy loss and consider a new system to heat the water for a structure of this size.
- Commended them on the use of double beams versus single but worried about the potential for energy loss.

Lois Brink:

- Suggested raising the finished floor elevation (FFE) of the building to minimize water damage and drainage issues.
- Seconded Olgyay on the use of a cistern type structure to utilize the storm water.
- Suggested the design team consider the use of local materials including beetle kill timber.
- Recommended redesigning the deck structure in a series of terraces.

Candy Roberts:

- Explained how the Board typically functions and makes decisions.
- Asked students to explain, in detail, how the design functions and what unique qualities they possess.
- Seconded Brink's comment on raising the finished floor elevation (FFE) to minimize water damage and drainage issues.

Jerry Seracuse:

- Complimented the students on the dedication from the initial design ideas to the design/build.
- Inquired about the feasibility of the building design.

John Prosser:

- Commended the students on the project and suggested the students look at precedents conducted by the U.S. Forest Service; specifically dealing with design styles, feasibility, and wildfire concerns.
- Agreed with Brink and Roberts that raising the finished floor elevation (FFE) would reduce the possibility of water damage and drainage issues.
- Suggested covering the deck and entry entirely, relocating the staircase due to functionality, and considering redesigning the shape and function of the deck.
- Recommended taking a step back and considering the six different life zones present.

No formal approvals were made. The Board thanked the design team for their progress on this project.

University of Colorado Colorado Springs – Summit Village Expansion

University of Colorado Colorado Springs staff present was: Carolyn Fox, University Architect; Gary Reynolds, Executive Director; Jeff Davis, Executive Director of Operations.

Individuals present for the discussion were Rob Reis, Hanbury Evans Wright Vlattas + Company; Melinda Whitten, H&L Architects; Lou Galletta, Project Manager H&L Architects; Josh Marceah, Group 14; Kent Freed, Lead Landscape Architect H&L.

Rob Reis:

- Noted construction materials have been selected to maximize efficiency and minimize heat/cool loss.
- Selected a lighter color of roofing material for aesthetic quality and functionality.
- Indicated that reducing the window size has a negative effect in the form of solar gain.
- The facade materials were modeled and noted that changing both the size and type of material used has very little effect on performance of the overall "envelope."
- Noted the changes in architecture dealing with cost specifically; the entry to the Copper Building, located on the circle, developed a one-story canopy incorporating the simple

architectural elements found throughout the campus. On Echo Plaza, they have pulled out the center bay and created a terrace to combat the typography.
- Selected a new material for the concrete stucco on the building(s); a darker earth tone to what exists.
- Described in detail the types of joints and seams that will be present on the exterior stucco walls, the intent of the lighting material, and location chosen.

Melinda Whitten:
- Talked about the advances in the design. Specifically, the feasibility of the retention pond. Soil surveys that were done at the checkpoint(s) indicate it would be better to use loose riprap at the bottom and a quarried stonewall at the top due to the expansion, erosion, and diffusion qualities.
- Adjustments were made to the "rain garden" designed as bio-retention ponds; curves were softened and the choice was made to use a concrete retaining wall structure for the community gathering area.
- Touched briefly on the native plant palate that will be used in the arroyo, bio-retention area, spine/terrace, and the native grass planting area.

Candy Roberts:
- Asked for lighting, building and wall sections, roof and mechanical room layout plans, and color palate examples for roof material before any decisions can be made about moving forward with the design development phase.
- Inquired about the type of down lighting that will be used and suggested strategically implementing site lighting throughout to maximize the experience for the user.

Lois Brink:
- Inquired about the purpose of the seat and wing walls located in front of the "Copper" Building.
- Expressed specific concerns about the storm water drainage system and the need for two drains, instead of one on Copper.
- Suggested the possibility of pulling the drainage to the surface.
- Suggested selecting a bigger evergreen tree for the space.
- Recommended critically thinking about the layout and function of the entrance to Echo Plaza to maximize use.

Victor Olgyay:
- Asked about studies that were done on the performance of the material (glass/aluminum windows) selected based on ventilation and casement types.
- Asked about LEED points for lighting, safety, and how they are balancing interior/exterior requirements.
- Inquired about the ventilation system chosen; its quality and feasibility.
- Consider:
  - Revising drainage to eliminate all underground piping.
  - Domestic hot water heat recovery system.
  - Conduct energy study showing end use breakdown and parametric for insulation.
  - Glazing study – fiberglass vs. aluminum and various heat gain coefficients.
  - Techniques to eliminating the chiller "coolarado" evaporation, thermal storage.
  - Redesign roof – better integration of solar.
  - Economizer/night flush cooling.
  - Investigating natural ventilation strategies.

John Prosser:

- Asked for clarification on the type of seams/joints that will be used.
- Expressed concern about the below grade drainage structure used to feed the rain garden; possibility of plugging, freeze/thaw, and difficulty of construction.
- In talking specifically to landscape furnishings, he recommended rotating the bench 90 degrees on Echo Plaza to promote ease of circulation.
- Suggested stair tower windows are too large for this climate and light quality present.
- Suggested the composition and complexity of the stucco are too much; it visually and physically weighs down the building and may not convey as intended.
- Recommended implementing shed or hip tile roofs at each end of the building south wing projections to introduce softer terminations and color to the facades from internal and external viewpoints.
- Recommended relocating the trash and recyclable enclosure father south – next to the stair exit sidewalk
- Suggested they might gable the ceilings above the outdoor classroom for better acoustics, space definition, and volume proportions.

Jerry Seracuse:

- Asked for clarification on what type of precast concrete, chipboard, signage, and insulation would be incorporated in the design; why is strategic placement important?

All motioned to approve design development *with conditions* (revise drainage; domestic hot water heat recovery system; conduct energy study; glazing study; eliminate chiller “coolarado” evaporation; redesign roof; economizer/night flush cooling; natural ventilation strategies; - see above).

The Board thanked the design team for their progress on this project and asked that they send supporting documentation for review after correction(s) have been made.