University of Colorado
Boulder | Colorado Springs | Denver | Anschutz Medical Campus

University of Colorado Design Review Board
Meeting Notes

Date: Thursday, September 14, 2017
Time: 9:30 a.m. – 2:30 p.m.
Location: First Floor Conference Room, 1800 Grant Street, Denver

DRB members present: Don Brandes; Sarah Brown; Rick Epstein (for work session only, by phone); Victor Olgyay; Michael Winters; Cheri Gerou (ex officio); and Carolyn Fox, campus DRB member for the University of Colorado Colorado Springs campus ("UCCS"); Bill Haverly, campus DRB member for the University of Colorado Boulder campus ("CU Boulder"), and André Vite, AIA, campus DRB member for the Anschutz Medical Campus ("CU Anschutz").

Others in attendance not otherwise noted:
Linda Money, CU Real Estate Services, CU System employee / DRB note taker.

Mr. Brandes, Chair, determined a quorum and called the meeting of the Design Review Board to order at 9:40 a.m.

9:30 – 10:30 Work Session – Board Only

The Board met to briefly review administrative items with Ms. Gerou and to briefly discuss the items on the agenda prior to convening the public portion of the meeting.

10:30 - 11:30 Anschutz Medical Campus Cogeneration CUP Expansion - CU Anschutz

Architects: Bennett Wagner Grody, Architects, Denver, Colorado

Presenters: Matthew Bartels, Principal, Bennett Wagner Grody
Adam Balaban, Project Manager/Architect, Bennett Wagner Grody

CU Anschutz Campus Presenter:
André Vite, AIA, Campus Architect, Office of Institutional Planning, CU Anschutz Medical Campus

Others Present:
Erik Balsley, Senior Planner, CU Denver/CU Anschutz
Michelle Swanson, RMH Group Engineers
Linda Wagner, Principal, Bennett Wagner Grody
Jeff Elsner, RMH Group Engineers

Description: Pre-design presentation to discuss a proposed Anschutz Medical Campus Central Utility Plant (CUP) expansion project. The presentation will introduce the project team and outline the project's relationship to the 2012 Anschutz Medical Campus Facilities Master Plan, the proposed project site, and the results of a recent electric cogeneration study. Given future CU Anschutz and University of Colorado Hospital (UCH) projects, the CUP must be expanded to meet future steam needs. Prior to initiating an expansion, as directed by the 2012 plan, the campus completed a feasibility study that determined cogeneration of electricity and steam was possible. By generating electricity onsite, the cogeneration effort will provide the campus greater resiliency as it will now have the ability to always power the chillers that generate the chilled water that cools UCH, CHCO, and CU facilities. The unique infrastructure required to support this effort will be presented.

Presentation to the Board/Discussion:

All individuals present for the meeting introduced themselves after which Mr. Vite provided a brief description of the project and the history related to utility requirements of the CU Anschutz campus. Mr. Brandes reviewed the steps and expectations related to project approval through the Board.

Mr. Bartels, Mr. Balaban and other representatives from Bennett Wagner Grody and RMH Group presented preliminary aspects of the proposed CUP Cogeneration project including:

- Program plan including the addition (22,000 SF) to the existing CUP, preliminary budget ($66 million) and schedule, and jurisdictions potentially affected by or from which permitting may be necessary;
- Project goals including utility capacity, resiliency and redundancy, stewardship of campus resources, future growth, lowering or maintaining utility rates, reducing the carbon footprint and emissions, increasing system reliability, and project return on investment;
- Definition of cogeneration and a description of its proposed uses for the project;
- Comparison of the campus utility load requirements for electricity and steam compared to existing on-campus production;
- Site location on the southeast corner of Victor Place and East 19th Place adjacent to the existing CUP, description of the site neighborhood, existing utilities and potential connection options, and vehicular access;
- Master plan characteristics and guidelines related to the neighborhood and the site location, including building site, setbacks, height (building, stacks, and thresholds), materiality, transparency, and massing;
- Permitting and dispersion requirements and emissions; and
- Samples of inspirational examples of utility plant projects.

The Board requested additional detail regarding the budget which included the following approximations:

- Estimated budget of $66 million includes all construction and equipment costs and project contingencies;
- Building, $14 million - $15 million;
- Equipment, $25 million; and
- Gas compressor or new gas line requirements, $4 milllion; and
- Contingencies include approximately 6% escalation per year for 18 months on the building and 12 months on the equipment, 10% design contingency, and 5% overall project contingencies.

Acoustical sound control, the desired enclosure for the cogeneration equipment, mitigation for potential turbine installations and ventilation, and mitigating vibration issues were also discussed.

The Board expressed appreciation for the analysis prepared and presented by the design team as part of the project introduction. At the conclusion of the presentation, the Board expressed the following comments and concerns:

- Going forward, the concept design submittal should further articulate the need for the project, the gap in the energy consumption vs. the energy production, the sense of urgency for the project, the short-, mid-, and long-term goals and objectives, and the desired outcomes;
- Additional information should be included regarding:
    - the cost benefit analysis in terms of reviewing possible alternatives and alternative scenarios, keeping priorities and future goals in mind while determining the project plan;
    - site, architectural, functional, and inspirational aspects of the story behind the program plan, and how this expresses itself in three dimensions; the context of this site within the campus, including the urban design, the architectural vernacular, and the expression of these things; and in particularly, whether there is a “story” that is worthy of being told to students and others regarding the purpose of the building;
    - a review of the regulatory requirements, including national, state, local and regional requirements, and what are the on-site, off-site, and long-term implications of these requirements; and
    - a summary of the program, critical paths, cost benefit analysis, and conceptual design to be achieved by the project;
- Regarding the environmental conditions inside the proposed building addition, the concept design should also include additional programmatic details specifically related to topics such as to what degree is the building addition an occupied space where it might benefit from daylighting, does it get any ventilation, to what degree might it require fresh air movement, are there any concerns related to heat or noise, etc., and how do these programmatic details influence the overall shaping or morphology of the structure and how might they affect the building envelope and articulation, etc.;
- The height of the stacks could present as a powerful element of the building addition as could the idea of transparency; however, the Board cautioned the design team to be careful of trendy solutions in terms of creating transparency, to include details regarding the transparency, and any potential costs related to the creation of such transparency;

- Determine if there might be a stepback or some method of articulating the mass regarding the 19th Street façade and the turbines so these don't feel massive and imposing but are more pedestrian friendly and urbanistic; and
- The simplicity of the design, the transparency, and the complexity of the interior could combine to become desirable and dynamic, but at the same time, the design team should consider reducing the massing and breaking down the scale of the façade to a pedestrian level, utilizing the materiality and rhythym of the building and maintaining a simple but elegant project.

Ms. Wagner responded to these comments by indicating that:

- As the engineering plans are developed, the environmental needs of the building addition can be defined and will be brought back to the Board in order to show how the concept design options will be reflective of these needs;
- While the design team will be looking at ways to create transparency, it must be done so within reason and with modulation; and
- The design team desired to create a friendly approach to the building and viewed it as more of a high tech project with some transparency rather than an unfriendly industrial box containing large equipment.

- Additionally, Mr. Olgyay reviewed a memo he distributed to the Board prior to the meeting related to the energy goals of the CU Anschutz Campus. He indicated that the Board understands the need for steam-produced energy. There remain, however, related concerns regarding resiliency, carbon dioxide emissions, the long-term future of getting the lowest cost energy for the campus, and that there are many energy-related issues that need to be explored independently of this CUP cogeneration project and they deserve to be reviewed. He suggested that distributed energy resources ("DER's") (such as demand side management, demand flexibility, energy storage, building efficiency, etc.) are increasingly common as a way of meeting campus energy concerns cost effectively. A significant benefit of considering DER's is that capital expense can be avoided, making them very cost effective. Adding the two proposed cogeneration machines will reduce dependence on utility purchased electricity; however, the campus is now greatly increasing it's dependence on utility-purchased natural gas for both heating and electricity, which is likely counter to the stated project goals of resiliency and redundancy, stewardship of campus resources, future growth, lowering or maintaining utility rates, reducing the carbon footprint and emissions, increasing system reliability, and project return on investment. This solution may not be beneficial in terms of cost and the overall energy security of the campus.

This proposed CUP cogeneration solution is addressing immediate concerns for the campus but may not be addressing other issues such as chilled water, for example. With the support of the Board, Mr. Olgyay indicated that an a seperate energy masterplan study exploring a broader set of solutions to meet the CU Anschutz campus energy goals should be undertaken. This may impact parts of the CUP cogeneration project (potentially reduce equipment costs), but the purpose of a comprehensive energy masterplan for CU Anschutz would be to independently look at how the campus can meet the energy and environmental goals of the campus most cost effectively. He noted that that this study is not within the scope of this project of the consultants currently working on this project.

Please Note: The submittal by CU Anschutz satisfied the submission requirements. It is understood that energy comments by the DRB that exceed the state standards of sustainability and the purview of the Design Review Board do not impact the acceptance and approval of the project.

The Board indicated that this submittal satisfied the pre-design review for a new project. The information provided should include a more complete building space program, including interior environmental requirements (sound, light, thermal, ventilation, occupancy, etc.) for the proposed CUP addition. Being a pre-design, informational item only, no formal action was required by the Board at this time.

The Board noted that it is looking forward to working with the design team and to the concept design submittal, the next step of the review process. Preliminary schedules for obtaining the initial permits required for the project and for the concept design review were briefly discussed.

Upon completion of the first agenda item, the Board took a brief break for lunch.

12:00 - 1:30 **Micro-Masterplan for Baseball Field - UCCS**

Architects: DLR Group, Denver, Colorado

Presenters: JaDee Harsma, DLR GroupUCCS Campus
Presenters: Gary Reynolds, Assistant Vice Chancellor for Administration
Carolyn Fox, Executive Director, Construction & Planning, University Architect, UCCS Campus Planning & Facilities Management

Description: Design Development ("DD") Review and Approval of Micro Master Plan for the Baseball Field at the UCCS Campus

Presentation to the Board/Discussion:

All individuals present for the meeting introduced themselves, after which Mr. Reynolds provided a brief update regarding the Baseball Field ("BF"). He reported that the main branch utilities, including water, sewer, and electricity services, are in the process of being completed on the site. Although the initial funding for the BF and the Indoor Practice Facility ("IPF") did not include restroom facilities, the Regents of the university have decided that the installation of restrooms should occur with the initial construction phase rather than be completed in the future. As such, the construction of the restrooms has been divided into two phases, one to be constructed now and one to be constructed in the future. Mr. Reynolds noted that while funds are being raised for the construction of the current phase, the UCCS Campus has agreed to backstop any gap in the funding needed to complete phase 1 of the restrooms. As such, in addition to reviewing and approving a micro master plan for the BF, this submittal is to also reach an agreement on the location and basic design of the restroom facility so that the secondary utility lines required for the restrooms can be placed as needed before the main branch utility work for the BF is completed. He recognized that additional information regarding the BF and the IPF is still due to the Board. He noted that with of the addition of the restrooms at this time, staff has been primarily focused on the BF and these details.

Mr. Brandes reviewed the requirements of the conditional design development approval for the baseball field and the indoor practice facility heard by the Board on July 14, 2017. These requirements included the preparation of a Micro Master Plan ("MMP") for the BF showing all of the improvements which may be funded in the future and their specific locations. The Board also requested to review the final construction documents ("CDs") in order to review site and building details that were not apparent in the DD submittal.

Ms. Fox noted that a different member of the staff at DLR is working on the CDs and that an acceptable package has not yet been submitted to staff. She is hoping that these documents will be sent to the Board during the week after this meeting. The Board indicated that the CDs should include:

- Connections related to the top and bottom of the wall, including details regarding the gates and adjacent chain link fence;
- Seating;
- Location of bicycle racks;
- Site improvements and details; and
- Site fixtures and improvements.

Ms. Harsma reviewed the DD materials submitted to the Board including:

- A plan for phase I showing the elements of the BF currently under construction;
- An updated micro master plan for the full buildout of the BF which indicated optional phases of the restroom construction; and
- Additional details related to various options for the location, configuration, and two construction phases of the restroom construction and other improvements adjacent or near to these locations.

Staff briefly discussed a number of the future improvements shown on the MMP as submitted.

Regarding the micro master plan reflected on the second page of the submittal package, the Board requested that the MMP as submitted be modified and directed staff to:

- Focus on the preparation of the MMP for the BF;
- Include a legend for the MMP along with a list of the future improvements;
- Create a composite of all improvements included as part of Phase 1 of the BF currently under construction and all future improvements whether currently funded or not; and
- Keep in mind that the purpose of the MMP is to help facilitate the DRB review process by locating and describing future improvements to the BF as they are funded.

Ms. Fox indicated that although the labels on the MMP as submitted could be improved, the submittal included all of the future improvements proposed for the BF and that she would work with the consultant to make the modifications as requested.

Regarding the restroom location, the Board indicated that it agrees with the staff and favors the location and footprint shown in restroom option #1. However, it also noted that the plans submitted with this package are more concept-oriented and that the Board will need more

specific designs and additional detailed information before it can approve the restroom facilities. This additional information should include but should not be limited to:

- Building Elevations; and
- Detailed plans for a logical expansion from phase 1 into phase 2 which will ultimately include one larger men's room and one larger women's room.

Ms. Gerou clarified that the deliverables due to the Board include:

- A modification to the MMP (changes to page 2 of the submittal as noted above) should be sent to the Board by September 22, 2017;
- Additional details on the site detailing of the project to be prepared with and including the CDs, including material finishes, joinery, details regarding entryway at the top of the stairs, etc., should be sent to the Board as soon as they are available, hopefully by the end of September at the latest; and
- Details of the restroom facility, including the specific layout, connectivity, materiality, etc., should be submitted at some point in the future, hopefully for the Board meeting in November 2017.

The Board indicated that no formal action would be taken at this time and that formal action can be taken at the Board meeting in October 2017, if needed and if possible. If the timing of the project demands action more quickly, a special meeting for this purpose could be scheduled.

1:30 – 2:30 **Muenzinger Air Intake Exterior Structure Improvements – CU Boulder**

Engineers: Martin and Martin, Lakewood, Colorado, structural engineers

CU Boulder Campus
Presenters: Bill Haverly, Campus Architect and Director of Planning, Design and Construction
Jennie Freeman, Campus Landscape Specialist, Facilities Planning

Description: Introduction meeting – This project addresses the exterior structure of the Muenzinger air intake near the intersection of 18th and Colorado where a temporary structure currently prevents adjacent vehicular fumes from entering the air intake. CU Boulder would like to remove the temporary structure and replace it with a permanent structure.

Presentation to the Board/Discussion:

Ms. Freeman began the presentation by reviewing a brief history of the temporary structure being replaced at the Muenzinger Psychology Building ("Muenzinger"), the area immediately surrounding the structure, the location of the structure compared to the larger area of the CU Boulder campus, the character of improvements located adjacent to the site location, pedestrian and traffic flows, existing utility lines, and the existing conditions of the air intake currently being protected by the temporary structure.

Ms. Freeman then noted that members of the Facilities Planning team participated in a competition to create a design for the permanent structure, and she reviewed each of the designs submitted for the competition.

The final design reviewed was created by Ms. Freeman, which was the winning design. Ms. Freeman reviewed the details of her design including:

- Retaining the original purpose of the temporary structure;
- The installation of a curved seat wall;
- Planting beds;
- A location for temporary signage; and
- Options for materiality.

Currently, a budget for the design work exists, but there is no budget or funding available for the construction of the permanent structure. If a source of funding can be determined, construction would preferably occur during the summer 2018 when there are fewer student on campus.

The Board discussed with Ms. Freeman and Mr. Haverly the need for the permanent structure, the elements of the air intake, and the elements of the proposed permanent structure. They shared the following comments:

- It would be helpful to see multiple options regarding 1) the wall in terms of whether it is curved or is linear in design and 2) the materiality and whether or not the structure should be built out of sandstone or precast concrete so it has the appearance of a solid wall or is built using a lighter-weight substance such as glass or metal;
- Regardless of the design, the structure should tie into and maintain the existing horizontal and vertical datum lines, design rhythm, and fenestration of the Muenzinger Building;
- Continue to minimize the massing of the wall by using vertical and horizontal breaks as proposed;
- Consider adding a horizontal break along the bottom edge of the wall below the seat and a cap along the top of the wall;
- Consider moving the protective metal grate from the ground level to the top of the wall to reduce the amount of debris;
- Consider that the materiality of various sections of the wall may naturally encourage or discourages flyers and whether or not this is a desired feature of the wall; and
- Keep in mind the following features and functions of the structure while working on the next level of design:
    - The wall needs to protect the air intake;
    - It should be determined whether this should be a functional area where people may gather and whether it should have seating, signage, lighting, plants, etc.; and
    - Consider the architectural component, how the structure relates to the building and designing it so it does not appear as an appendage.

It was noted that no formal action by the Board was required for this matter and that it will be brought back before the Board for additional review and approval at a later date. Mr. Haverly expressed a desire for an expedited process due to the simplicity of the project.

Mr. Haverly also discussed other matters regarding CU Boulder Facilities Planning including:

- A potential request by the College of Engineering to move forward with an addition to the recently-approved Aerospace Engineering School now in the construction phase on East Campus;
- A possible change in the proposed addition to the Leeds School of Business regarding creating a physical connection to the College of Engineering; and
- An update regarding the Boulder Creek Crossing at 23rd Avenue and new requirements from FEMA concerning the crossing which will be addressed when this matter is brought back before the Board at a future date.

There being no further business, the public meeting of the Design Review Board was adjourned at 2:35 p.m.