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University of Colorado Design Review Board
and Research Park Design Review Board
Meeting Notes

Date:	Thursday, May 11, 2017
Time:	9:00 a.m. – 3:45 p.m.
Location:	Conference Rooms #502 & #503, 1800 Grant Street, Denver, Colorado

DRB members present: Don Brandes, Rick Epstein, Michael Winters, Teresa Osborne (ex officio), Carolyn Fox, campus DRB member for the University of Colorado Colorado Springs campus ("UCCS"), Andre Vite, AIA, campus DRB member for the University of Colorado Denver campus ("CU Denver"), and Bill Haverly, campus DRB member for the University of Colorado Boulder campus ("CU Boulder").

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 9:00 a.m., at which time the Board held a private work session as noted below.

9:00 – 10:00 Work Session – Board Only

The Board met in a private session to discuss the items on the agenda prior to convening the public portion of the meeting.

10:00 – 12:00 Indoor Practice Facility and Baseball Field – UCCS

Architect: DLR Group, Denver, Colorado

Presenters: Bob Binder, AIA, REFP, LEED AP, DLR Group
Brian Thomasen, PE, Director of Engineering, Colorado Region, NV5, Denver, Colorado, civil engineer (by phone)

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

Description: Schematic Design ("SD") Submission for an Indoor Practice Facility ("IPF") and a Baseball Field (BF") at the UCCS Campus

Presentation to the Board/Discussion:

Mr. Binder presented recent changes made to the SD submittal as a result of the SD workshop on the project held in April 2017. These changes included resolving the stairway and lower and upper plazas into the BF as had previously been discussed. The upper plaza now provides a view portal into the BF. Additionally, the locations for a future concessions building and a future restroom/ticketing/storage building at the BF were switched so that, when built, the concessions building will be to the left of the entryway and the restroom/ticketing/storage building will be to the right.

Changes to the IPF included minor adjustments made to the floor and site plans, including creating an entrance on the south side, wrapping the entry plaza around to the south end of the building and a few additional parking spaces near the entrance. Mr. Binder noted that the access road to the entrance of the IPF will be striped on one side in order to temporarily accommodate a pedestrian walkway as part of this access road until a permanent pedestrian path can be built. He also noted that Phase I would include seating for the BF for 250 people.

He reviewed a site plan representing the future additional elements planned for the site. These additions include but may not be limited to: the concessions building, the restroom/ticketing/ storage building, an expansion of the plaza and the addition of an elevator, an expansion of the BF bleachers and an area for seating in the outfield, additional batting cages, a batter's eye, canopies for the BF and the IPF, additional lighting, and trail connections to the IPF and to an existing trail to the north of the IPF.

Also reviewed were: the landscaping plan indicating that the hill surrounding the facilities would be restored back to its natural appearance with native seed once the grading and construction was completed; proposed fixtures and furnishings for the plaza areas; plans for privacy stringing in the chain link fences behind the portalets and behind the dugouts; and the design of the walls on the left side of the entry stairs to the BF along with the drop off area at the base of the stairway.

Mr. Binder briefly discussed the results of a skylighting/energy conservation analysis regarding installing daylighting/skylights in the IPF. Assuming the least expensive option for the skylights was included within the IPF construction at an estimated cost of $28,000, the estimated payback, based on the projected annual savings, would be approximately 28 years.

Regarding the civil engineering requirements for the project, Mr. Binder indicated that the civil engineering plans had not changed from the previous submissions. The Board discussed the overlot grading and drainage plans with the staff and Mr. Binder, and made the suggestions noted below.

Mr. Brandes read a number of comments and/or questions received from Mr. Olgyay regarding this agenda item as he was unable to participate in this meeting, after which the Board, staff and Mr. Binder discussed the matter of daylighting for the IPF.

Upon completion of the presentation to the Board, the Board shared the following comments and/or direction, which may need to be included in the forthcoming Design Development ("DD") submittal as appropriate:

Architecture:

- Investigate if the design of the shed at the BF could be rotated 90 degress and if the door could be installed on the longer side instead of on the end of the building which would help provide additional space for emergency and maintenance vehicle access.

Site and Landscape Architecture:

- Regarding the landscape planting plan, consider the following:
    - Until areas of native seed are established, the plantings may be subject to considerable damage from a flood event; also, some level of augmentation for watering, especially during the first season, may be necessary;
    - Consider requiring that a warranty or guarantee be provided by the General Contractor for an 80% coverage of the seeded areas at the completion of at least two growing seasons; and
    - If possible, and given the budget constraints, the DRB would favor planting deciduous and coniferous trees throughout the site to soften the extent of the overlot grading and native seeding.

- Regarding grading and drainage plans, consider the following:
    - Please note and reflect in the Phase 1 improvement plans, smaller interceptor drainage areas to collect and direct site drainage to prevent sheet flow over newly seeded areas;
    - If not included within Phase 1 improvements, the Micro Master Plan ("MMP") for the IPF and BF should include details regarding grading for pathways, steps, and/or an accompanying overlook(s) leading from the ADA path to the IPF;
    - Ensure that the grading, drainage, and thickened asphalt edges of the access road to the IPF are sufficient; and
    - Include a cross section of the roadway leading to the IPF within the DD submission.

- Determine if the width between the inside edge of the decomposed granite walk and outside edges of the IPF building, especially where there are access points, could be increased slightly in order to minimize the risk of collision for pedestrians.

- Consider modifying the grading plan to increase and modify the location and design of the retaining walls on the west side of the stairway leading to the BF to accommodate the future addition of the elevator.

- Evaluate the lighting plan for Phase 1 improvements for the base of the lower plaza at the BF; the stairs and the ADA pathway leading to the BF; and the IPF entrances and other important exterior elements.

- Evaluate the amount of bicycle parking proposed for Phase 1 and determine if it can be increased.

- Investigate whether a stepped retaining wall on the north and east sides of the lower BF plaza could be built in lieu of the proposed retaining wall to create a seat wall and provide some pedestrian seating until other benches and site furnishings can be added in future phases.

Regarding Sustainability and Energy Efficiency:

- Review the calculations reflected in the skylighting analysis:
    - The payback, as noted, would likely be improved if an insulation value higher than R19 as is currently proposed were used;
        - doing so could be cost neutral if mechanical equipment could be downsized;
    - The calculations used in the analysis appear to be heat loss calculations which do not consider the solar heat gain from the skylights;
        - the skylights would contribute to reduced heating needs and increased thermal comfort in the winter;
    - Windows on the south side of the IPF would lower heating loads; and
    - The analysis should include the target operating temperature for times of use.

- The return on investment is only one way to look at the addition of skylights in the IPF and that the quality of the space inside the facility should also be considered.

- Determine if an additional rollup garage door on the west side of the IPF can be added and if the windows that had formerly been proposed on the south side can be reinserted in order to improve natural ventilation.

Responses from staff or the design team related to the comments made by the Board during the discussion portion of the meeting included:

- Concerning the proposed lighting plan, staff indicated that the photometric study is in process and that the results of such study have not yet been received.

- Staff responded that due to the component nature of the bicycle parking fixtures, adding additional bike parking could easily be accommodated in the future as needed.

- Staff noted that the crosswalk at the parking area at the south end of the IPF building was not required by code and could be eliminated.

- Regarding the skylighting analysis, Mr. Binder indicated that the R19 insulation value was the standard value provided by the manufacturer and that the heat gain from the skylights had been included within the skylighting analysis.

- Additionally, Mr. Reynolds responded that he believed the hours when the IPF would be used the most would not include hours during the day when the skylights would be most helpful but rather would include evenings from October through March when the students utilizing the IPF were finished with classes and the teams were practicing. He indicated that he would investigate this understanding further with the athletics department.

- Regarding the possibility of adding a rollup door and windows to the IPF, staff indicated that the windows had been removed but that they will review the potential costs associated with adding a rollup door and will also review the locations of the four doors included within the existing floor plan.

Mr. Epstein moved for approval of the SD submittal for the IPF and the BF with the comments as stated during the discussion and noted above. Additionally, although not a requirement of approval, based on the quality of space over the long term and the inability to add this element in the future, the Board strongly encouraged the incorporation of daylighting into the IPF facility. Mr. Winters seconded the motion which unanimously passed.

The Board also suggested that staff consider locating other fabric athletic facilities in the area in order to view in person how the use of insulated fabric with and without daylighting may have impacted the feel and quality of the facility.

Moving forward, the Board suggested that a Micro Master Plan (MMP) be prepared for the project area, noting and illustrating the full buildout in a concept-level format for DRB review and approval. The MMP would clearly illustrate Phase 1 improvements and note all future architectural, site, landscape and engineering improvements. It would be helpful to note the relative hierarchy of future improvements and the phasing structure. With an IPF/BF Micro Master Plan in place and approved by the DRB, future improvements could be reviewed by the DRB beginning at the Schematic Design level.

The Board also suggested that, when possible, staff may want to consider developing an illustrative site plan, 3D renderings, etc., with cross sections of what full buildout for the project will look like and what the campus wants to achieve so that it can be used as a tool to enable the public to envision the ultimate goal for the project and to assist in fundraising.

Staff indicated that it anticipated coming back to the Board with a DD submittal over the summer in 2017. The MMP may be submitted at the same time, but it may be submitted at a later date.

Upon completion of the first agenda item, the Board adjourned for lunch.

12:30 - 2:00 **CU Denver Master Plan – CU Denver**

Architects: SmithGroupJJR, Ann Arbor, Michigan
Paulien & Associates, Inc., Denver, Colorado
Brailsford & Dunlavey, Chicago, Illinois

CU Denver Campus Presenters:
Michael Del Giudice, Chief Planning Officer, CU Denver
Cary Weatherford, Associate Director, Institutional Planning, CU Denver

Others Present:
André Vite, AIA, Campus Architect, Office of Institutional Planning, CU Denver

Description: This last of three presentations to the Board will involve a presentation of the final draft of the ten-year master plan for CU Denver and is an informational item only.

Presentation to the Board/Discussion:

Mr. Weatherford provided an update regarding the current status of the CU Denver Master Plan ("Master Plan"). He noted that the pedestrian bridge proposal discussed in earlier meetings with the Board will not be placed on the ballot for inclusion with the general obligation bonds for a public vote in November 2017 or shown as an element of the Master Plan. The $3 million proposal for roadway at grade improvements in the area of the Speer Boulevard and Lawrence Street intersection may still be included within the general obligation bonds.

He reviewed the primary drivers behind the Master Plan update, including academics and research, student life, and a connection to the city of Denver. He noted that Chancellor Horrell, the CU Denver chancellor, was very interested in the idea of placemaking within the CU Denver campus. Headcount for on-campus students is currently approximately 12,000 to 13,000, with a target goal of increasing this number to approximately 18,000 on-campus students by 2025.

Also reviewed is the existing use of current CU Denver space of approximately 783,420 assignable square feet and the anticipated need for assignable space within the next ten years. The demand for student housing by the year 2025 was also analyzed.

Options for various campus capital improvement and space utilization scenarios and potential shifts toward Speer Boulevard and Downtown were also discussed. The Master Plan now includes a plan for Phase I over the next five years, Phase II for years six through 10, beyond ten years, and other potential capital projects to ultimately reach a point of future buildout.

The next steps for the Master Plan process include presentations to the AHEC board in May 2017, to the Board of Regents Capital Construction Subcommittee in August 2017, and to the Board of Regents in September 2017.

This agenda item was for information only and required no action by the Board.

The meeting of the Design Review Board was adjourned and the public portion of the Research Park Design Review Board meeting was called to order at 2:12 p.m.

2:15 - 3:45 **Aerospace Engineering Sciences ("AES") Building – CU Boulder**

Architects: Hord Coplan Macht, Inc., Denver, Colorado, architects
RATIO Architects, Denver, Colorado
PLOT Project, LLC, Denver, Colorado, landscape architects,

Presenters: Chris Boardman, Principal, RATIO Architects
David Shaffer, RATIO Architects
Kent Freed, Principal, PLOT Landscape Architecture
Ro-Tien Liang, Architect, Hord Coplan Macht, Inc.

CU Boulder Campus Presenters:
Bill Haverly, Campus Architect and Director of Planning, Design and Construction
Wayne Northcutt, Architect – Facilities Planner
Richelle Reilly, Landscape Architect, Facilities Planning

Others Present:

Taylor Roberts, Energy Engineer, Group 14, PE

Description: Design Development Submission for New Aerospace Engineering Sciences Building ("AES") on East Campus

Presentation to the Board/Discussion:

Individuals present for the meeting introduced themselves, after which Mr. Northcutt provided a brief update regarding recent activity related to the project development since the workshop meeting with the Board in April 2017.

Mr. Boardman further elaborated on the recent changes made to the AES Building project based upon the results of the workshop meeting, including exploring using precast materials; review of the front entry and the detailing of the handrail and the canopy; the overall lighting plan; building signage; the loading dock area in terms of plant materials, the shape of the wall and the materiality of the wall. Additionally, the design team reviewed the Porous Landscape Detention (PLD) design from a risk management perspective and the glazing on the north and west stair towers.

Mr. Freed reviewed an alternate scope for the site and landscaping plan and fine tuning of the grading plan and topographic site study and the addition of a new rain garden.

He also reviewed a few proposed and/or optional changes made to the hardscape, the PLD, the planting plan, sections and detail illustrations, and perspective illustrations for the north and south sides, some made as a result of discussions with the University's risk management staff. The Board discussed these changes related to a redesign of the benches and visual treatment along the sides of the PLDs on the north. The Board also discussed potential solutions using gaps which might help eliminate the need for skate stops in the walkways and on/along the edges of the benches.

Mr. Freed presented a number of suggestions regarding possible options for signage, and staff indicated that, overall, signage on Main Campus, East Campus, and at Williams Village has been designed so that the signage is consistent and that additional work on the design will be needed in order to meet the signage requirements.

Updates to the service area on the west side of the building were reviewed and included an updated design for the cover/screen wall surrounding the service bay and an updated planting plan.

An updated lighting plan for the entire site was also discussed. The design team is still reviewing integrated lighting solutions for the benches on the north side, and they are also making minor adjustments or additions to the lighting in the field on the north side.

Regarding updates to the building itself, Mr. Boardman noted that the floorplans have not changed since the workshop in April. He reported that the fins and other elements on the building have changed from limestone to precast. He also reviewed the current west elevation noting that the number of vertical window elements has been reduced in the office from six windows to three windows in an attempt to reduce the glazing on the west side of the building. With this change, every office in the building has the same window treatment, which is a single

office window. Additionally, the windows in the student lounge space had previously been floor to ceiling but have now been brought up to the same sill height which matched every other window in the building other than the main entry windows.

The Board reviewed updated 3D and section illustrations including, but not limited to, the canopy above the entryway on the south side and the windows and balconies above the entryway. The Board agreed with a proposed change in the color of the metal elements on the windows in the entryway to the dark gray color used on other metal elements in the building.

Mr. Brandes read a number of comments and/or questions received from Mr. Olgyay regarding this agenda item as he was unable to participate in this meeting, after which the Board, staff and the design team discussed the comments and questions as appropriate. A summary of Mr. Olgyay's comments have been included below.

- The frit glazing on the west facing windows will be most effective if it is made up of small lines rather than wide lines;
- The aluminum sunshades will be more effective if the lower shades are more opaque/solid and the upper shades are perforated as the lower shades will act as a reflector to bounce sunlight deep into the indoor space and the upper shades would allow, at an especially high angle over 50 degrees, sunlight to reach the lower reflective surface in the summer when the interior is likely to get the least amount of daylight;
- Using a slightly reflective finish such as Kynar or something similar on the sunshades will leave more heat outside and bounce cooler, high efficacy light into the building; and
- Consider using shaped exhaust stacks in order to take advantage of the strong prevailing winds, and consider using an adjustable exhaust system that automatically adjusts CFM and compensates for weather and exterior airflow.

The design team responded to Mr. Olgyay's comments by indicating:

- The frit is only on the west facing fenestration only;
- The building will have a reflective finish on the sunshades;
- The exhaust stacks are not currently shaped; and the exhaust system specified in the plans does adjust CFM;
- The current estimated EUI is 67, although this number should ultimately be reduced.

Mr. Boardman reviewed details regarding the use of precast concrete materials for the elements formerly defined as limestone and the detailed design of the fins on the building. Two kinds of precast systems are available, the lightest (weight-wise) and least expensive one of which is a prestressed panel and allows the precast element to be installed similar to rain screen, allows for a finished surface, and allows for the panels to be shaped.

Throughout the presentation, the Board made the following suggestions and/or comments:

- Consider exploring simple, block lettering on the brick wall to the left of the south side entry way for signage on the building, keeping it subtle and understated, in context with the building, not drawing attention away from the building;

- Investigate further signage and wayfinding with staff;

- Review the ground elevation in the service bay area on the west side of the building to ensure the proposed plans are sufficient and possible concerning a potential drop in the area toward the curb;

- Regarding additional lights to the field on the north side of the building, consider lower level lighting such as bench lights and/or step lights. The proposed plaza lights for the grove area on the south side may also need to be investigated;

- Board preferences included:
    - The precast option that provided the smoothest surface; and
    - Regarding the stair tower, replacing the lower windows with a solid wall going all the way to the ground as it allowed the tower to be a stronger element.

- Consider breaking down the vertical height of the ACM fascia panels on the canopy on the north side into two horizontal panes with the upper pane thinner in width than the lower pane and protruding out from the lower pane like a small roof edge, maintaining the same overall width of the fascia panels as presented; and

- Investigate using steel only for the columns on the north side rather than wrap them with stone enclosures.

The Board expressed its appreciation to the entire design team and staff and its congratulations for a successful design. The results of the group's efforts have created a building and site development that will reflect well on the University and should reflect well on each of the firms associated with the project. It has met or exceeded everyone's expectations. The creative energy brought to the project has resulted in a unique building that speaks to and of CU and which will be a signature building for the campus and which could bring CU to a new place architecturally. Mr. Northcutt indicated that the project has also exceeded the AES department's expectations as well.

Mr. Epstein moved for approval of the Design Development submittal for the AES Building including the Board's comments as noted above. Mr. Winters seconded the motion which unanimously passed.

There being no further business, the public meeting of the Research Park Design Review Board was adjourned at 3:40 p.m.