

Physical Development Committee (PDC) – 11/20/2020

Location: Virtual on Microsoft Teams

Participants: Aaron Buckley, Carol Dollard, Tim Kemp, Beth Adams, Yolanda Bevill, Kristi Buffington, Steve Burn, Shelly Carroll, Sue Doe, Mike Ellis, David Bradford, Sue James, Tim Kemp, Jessica Kramer, Brittany Lesar, Doug Max, Paula Mills, Tonie Miyamoto, Nik Olsen, Miles Pojar, Mark Ritschard, Mike Rush, Tom Satterly, Terry Schlicting, Sophia Shepp, Kathy Sisneros, Jim Sites, Julia Innes, Fred Haberecht, Stacey Baumgarn

1) Annual Introduction / Review of Physical Development Committee and Membership

- a. We have two committees that talk about the growth, development, and experience of campus – PDC and Master Plan Committee (MPC). There are some overlapping responsibilities.
 - i. PDC is focused more on tactical aspects of campus experience and growth.
 - ii. MPC is focused more on strategic issues to master plan development and realization.
- b. *PDC mission* – The Physical Development Committee is a representative body of the University. The committee, in conjunction with the AVP of Facilities Management, acts as an advisory body to the University through the Vice President for University Operations. They are concerned with the physical development of the total environment of Colorado State University's campuses, where function, aesthetic quality, and physical character are intermixed to create a desirable and inspirational atmosphere for students and employees. This mission is accomplished through the development, revision, and application of the University's facilities master plan.
- c. *PDC Charge* – Act as an advisory body on the physical development of the total environment of Colorado State University's campuses by development, revision, and application of the University's facilities master plan. Specifically, the committee provides input on the following:
 - i. Architectural Control:
 1. Architectural Planning and Design
 2. Building Locations/Site Proposals
 3. Campus Circulation
 4. ADA Accessibility
 5. Landscape Planning and Design Review
 - ii. Program Planning
 - iii. Building Names (Other than Donor and Honorary)
 1. For example, it is within PDC domain to change a building name from Aspen Hall to Pine Hall. However, there is a specific naming committee outside of the PDC for buildings named after a person that we want to honor or a donor.
 - iv. Water Resource Management
 - v. Capital Construction Priorities
 - vi. Land Resources
 - vii. Facilities Standards
 1. Design, Construction, and Signage Standards
 - a) In the past two years PDC has approved inclusivity standards, including lactation rooms and reflection rooms.
 - viii. Master Plan
 - ix. Protection of Historic Properties
 - x. The University Public Art Committee (UPAC) is a sub-committee of the PDC

1. Generally, we give an annual update of UPAC activities. If there is a project that is complicated, UPAC comes to PDC. For example, PDC was instrumental in vetting the Black Lives Matter mural that was installed on campus in October 2020. Began that conversation in July 2020.
- d. *PDC Membership* – The membership of this committee brings together multiple areas of expertise for making sound recommendations. Each member of this committee will represent one of the following constituencies and will be responsible for reporting the activities of this committee to their particular constituency. Representatives to be designated by respective deans, vice-president or council vote.
- i. Chair, AVP of Facilities Management
 - ii. President’s Office representative
 - iii. Vice President for Diversity representative
 - iv. Vice President for Research & Information Technology representative
 - v. Vice President for Student Affairs representative
 - vi. Vice President for University Advancement representative
 - vii. Vice President for University Communications
 - viii. Provost/Academic Vice President representative
 - ix. College representatives (1 each)
 - x. Academic Computing and Networking Services representative
 - xi. Administrative Professional Council representative
 - xii. ASCSU representative
 - xiii. Athletics
 - xiv. Classified Personnel Council representative
 - xv. Facilities Management representative
 - xvi. Faculty Council representative
 - xvii. Office of General Counsel
 - xviii. University Advancement representative
 - xix. University Library representative
- e. *Ex Officio*
- i. Architect on staff at the University
 - ii. City of Fort Collins representative
 - iii. Landscape Architect on staff at the University
 - iv. Parking Management Director
 - v. Purchasing Director
 - vi. Risk & Public Safety Manager for University Communications
 - vii. Student Disabilities Center Director
 - viii. University Contracts Manager
 - ix. University Police Director

2) Viewing Inclusivity on PDC items

- a. As a committee, let’s critically review and consistently ask the following questions regarding Inclusivity, Diversity, and Equity when we are considering projects or reviewing agenda items. (These questions are from the Office of VPD.)
 - i. “When we are doing things, who benefits from how we do this?”
 - ii. “Who is not being served by how we do this?”

- iii. “Who have we not considered in our process of putting this together?”
 - iv. “What do we need to do to create an inclusive culture?”
 - v. “What barriers exist for others that we can remove?”
- b. Discussion
- i. Thumbs up in Teams chat from Mark Ritschard, Tonie Miyamoto, Nik Olsen, and Tim Kemp.
 - ii. Sue James (the new Vice Provost for faculty affairs, replacing Dan Bush) thinks it is great, and that we should have a Diversity, Equity, Inclusivity, and Justice lens on everything we do. Asking these questions is a good way to keep the focus.
 - iii. Kathy Sisneros wrote in Teams chat that she thinks this is great and she is curious where student input is pulled from.
 - 1. Most directly it comes from ASCSU membership and participation on this committee.
 - a) Sophia Shepp – ASCSU rep (Director of Environmental Affairs)
 - b) Miles Pojar – ASCSU rep (Deputy Director of Environmental Affairs)
 - c) Sophia and Miles say they are thinking of how to reach out to students and incorporate their feedback. Agree these are important questions to ask and having student involvement is important.
 - 2. There have been examples of specific outreach to ASCSU beyond the PDC, such as with the item of the controversial student repark with the stadium starting in 2017, as well as safety taskforce recommendations for infrastructure, education, enforcement, and policy to make a safer campus.
 - iv. Kathy Sisneros writes in Teams chat about inviting Fred or Jessica to President’s Multicultural Student Advisory Committee (PMSAC) meeting. The students represent the student diversity programs and service units, adult learners and veteran services, international students, ASCSU, student athletes – great to engage them with these topics.
 - 1. **Action Item (Kathy/Jessica):** Invite Jessica/Fred in the spring to give an update of projects/items from PDC, MPC, and other FM-led university committees (Safety Taskforce, Arboretum Committee, Pollinator Friendly Campus Committee, UPAC). If they would like more regular involvement, find ways to coordinate.
 - 2. Tonie Miyamoto writes in Teams chat that she likes the idea of taking these to PMSAC.

3) Cellular Upgrade at the Atmospheric Simulation Lab

- a. We have come to the PDC before for rooftop cellular facilities on campus bldgs. and about micro-towers on campus. To date, PDC has not discussed cell facilities on Foothills Campus.
 - i. Procedurally we need to bring all new cell tower installations and upgrades through the PDC. The need is generated, in part, by a recent county requirement for a formal approval process by the land owner for new cell facilities or upgrades in the county.
 - 1. This would apply to Foothills Campus. It would not apply to Main Campus.
- b. Today’s topic up for approval is an upgrade of equipment on an existing tower.
 - i. Location at La Porte Ave. adjacent to Christman Field area. The equipment will be removed and replaced as part of the upgrade, and the request is made by T-Mobile.

- ii. Mark Ritschard expresses concerns. The tower was a federally funded research project that is long defunct. The tower was not intended to be a permanent structure. The base is not in good shape. The corner of the bldg. where the base sits is a place where rodents visit. Likes the idea of the upgrade, but suggests T-Mobile build their own tower, so this tower can be disassembled. Concern that it isn't safe for the occupants long-term to have the tower there.
- c. Critical Considerations:
 - i. Is the existing structure sound enough to support the new equipment? Yes
 - 1. Fred Haberecht adds that a few years ago Steve Kellums did a structural analysis that said, for this application, it is structurally sound, but Mark Ritschard has reservations about this, so we will need to investigate further.
 - ii. Is there any visual change with this upgrade? No
 - iii. Is any research impacted by the upgrade? No
 - 1. There is no future research anticipated and no current research.
 - iv. What does the future use hold for the structure? Unknown – Suggest limiting agreement to a 10-year lease vs 20+ years or more given this.
 - 1. We anticipate there could be redevelopment and that the tower may not exist 10 years from now. We share the general concern to not make a commitment with facilities that may not be there long term.
 - v. Other considerations to consider in this discussion: There are dead spots for cell service on Foothills Campus. It is an accommodation for a lease for T-Mobile to upgrade their apparatus, but it is also a benefit to employees on Foothills Campus for better service.
- d. Discussion
 - i. Jim Sites comments that Physics shares similar concerns that Mark brought up, esp. with the interface of the tower with the bldg. Doesn't think there is any long-term impact on research, but there will be short-term impact of being notified of what's going on. There is also a visual impact of how the tower looks.
 - ii. Mark Ritschard says it has an impact on research in the sense that the base of the tower takes up quite a bit of space inside the building. They would like to remove the tower to create higher bay space for research.
 - 1. The base of the tower ends in what used to be a fan unit. The fan unit had louvers that went to the outside. The tower doesn't go into the ground, it hangs at the bottom. That part of the bldg. never properly sealed, so mice come into the bldg. Old electronics are attached to the tower. Could consider separately removing those. For Mark, the tower is not the best use of space for research purposes. Would rather see the tower taken down. Allow T-Mobile to attach an exterior tower near bldg. rather than being impacted by the space that is taken up on the inside of the building.
 - iii. Sue James – asks if we checked in with the Foothills master planning committee and their timeline. Will this tower help carriers other than T-Mobile? Seems strange to give T-Mobile preference.
 - 1. These are exclusive installations for a specific carrier.
 - 2. From a master planning standpoint, we are working with VPR on that planning. 10-year window will work with the redevelopment.

3. Will the Sim Lab be there in 20 years? We hope there is a better facility by then.
- iv. Fred Haberecht thinks that based on this discussion, the structural integrity and technical issue needs to be further vetted.
 1. Fred adds that there is a big need for Foothills Campus to have greater cell availability. There have been a lot of complaints about voids in coverage in the past year. Foothills Campus will be dependent on good cell service from a safety standpoint, among other considerations.
 2. Jim Sites points out that the question is not if better cell service is needed, but if this is the right solution.
- v. Who benefits from how we do this?
 1. Fred Haberecht says there is a benefit in service, but a loss of physical space by research activity within the building.
- vi. Who is not being served by how we do this?
 1. Jessica Kramer says it is only allowing people expanded coverage through the one carrier.
- vii. Who have we not considered in the process?
 1. We went to College of Engineering for comments, but didn't drive down deep enough and we need to expand the circle of who we think this affects.
- viii. Mike Rush echoes Mark and Jim, questioning the structural integrity of the existing tower. The next question may be to try to identify funding associated with deconstruction of the tower or if there is no funding available to take the tower down, then as long it is structurally sound for the intended lease.
 1. Mark Ritschard says that it is still in the long-term best interest of the university to construct their own tower or construct it on the roof. As soon as T-Mobile upgrades the tower, then we are stuck for that commitment. Agrees it would be helpful to talk to some of the researchers in the building.
- ix. Beth Adams writes in Teams chat, "Isn't the CSU corporate plan option for cell service through Verizon as well?"
 1. The cell towers on campus are an accommodation to the campus community and there is no corporate preference to carriers. Verizon is our service, but doesn't apply to cell towers in all cases. However, all carriers are represented on main campus.
- x. Nik Olsen writes in Teams chat, "When Verizon built a tower at Turnberry and County Club Rd a few years back, they had to reduce the height based on neighborhood feedback and they reduced the usage to Verizon signals only." AND "I agree with Mark on long-term unintended consequences that those who use the building would have to contend with."
- xi. Stacey asks in Teams chat, "Is there a necessary height desired by T-Mobile? Is there an alternate rooftop that we might offer in exchange?"
 1. It's at about the maximum height that the county would allow.
 2. Don't know if the rooftop alternative would offer the same functionality.
 - a) **Action item (Fred):** Follow up on this question with T-Mobile.
- xii. Carol Dollard adds in Teams chat, "40 years ago I was part of a student team that hung solar panels on that vertical wind tunnel tower. It was obsolete then."

- xiii. Shelly Carroll asks in Teams chat, “What happens if we don't renew the lease--will they be back asking for approval to construct a tower somewhere nearby?”
 - 1. If they do want to construct a tower nearby, Fred agrees it needs to come through the PDC.

e. Motion

- i. Jim Sites moves that the committee request additional information about the consequences of upgrading the tower, in place of asking T-Mobile to look at building a different tower, and at the university cost of removing the current tower. Mark Ritschard amends the motion to include the current occupants of the bldg. from both Physics and the College of Engineering in the conversation.
 - 1. Sue James seconds the motion.
 - 2. Raised virtual hands for the motions.
 - 3. No reservations shared to this motion.
- ii. **Action Item (Julia/Fred):** Engage T-Mobile through CSURF. Julia to work with Mark in scheduling a mtg. with relevant participants. Include Remodel and Construction Services representative Steve Kellums, Fred Haberecht, and the representatives from Physics and Engineering. Schedule for December.

4) Solar Locations

- a. This item came to the PDC at a previous date and the guidance was to go forth; PDC liked the idea of solar on campus. Today we are sharing the specific locations.
 - i. Carol Dollard shares that when she came to the PDC before issuing the RFP, there were 35 possible sites that we shared.
 - 1. Partnering with Namaste Solar. (That’s the vendor who installed last solar on campus in 2015. We’ve working with them before.)
 - 2. Learned in RFP process we couldn’t afford all 35 spots.
- b. General information
 - i. 22 sites – mostly rooftop, but also 2 parking lot canopies & one ground mount at ARDEC
 - ii. Total rating 7.45 MW – would more than double the 6.8 MW on campus that it has taken us 11 years to acquire.
 - iii. Annual energy output > 10 million kWh/year (~6% of the electricity use of all CSU campuses)
 - iv. Two sites proposed for ARDEC would make that campus 95% renewable electricity (on an annual basis)
 - 1. Ground mount on northside of road
 - 2. Rooftop on southside of road
 - v. Construction expected to be completed by Dec 2022 (~2 years to finish)
 - vi. 2 parking canopies are Westfall lot & Research Blvd lot
 - vii. Canopies over parking lots are a lot more expensive, down to 2 parking lots out of 6-8.
 - viii. Draft final pkg – Westfall and Research Blvd, ground mount at ARDEC. Remainder are all rooftops.
- c. The selected solar locations are color coded (on the PowerPoint slides) to bldg. or parking lot.
 - i. The primary factor in choosing these locations was roof age. All buildings selected were new bldgs. or had a new roof installed recently. (We can’t put solar on a roof due for a

- roof replacement because it is too expensive to take solar off, replace the roof, and then put the solar back on.)
- ii. The secondary criterion was how much solar we can put on a roof. There is a certain amount of fixed cost for a solar developer to work on a roof. If it can be divided by a bigger system, it makes the project less expensive, so we primarily ended up with parking canopies, ground mounts, and large roofs in the final draft pkg.
- d. Solar already exists on 18 sites across all CSU campuses.
- i. Western and Eastern Colorado research centers recently got solar in their remodels.
 - ii. 6 sites on main campus and south campus (Rec Center, a couple of residence halls, VTH, Engineering, UCA).
 - iii. Cost comparison: \$5/watt about 11 years ago vs. price of solar now is approx. \$1.5/watt.
 - iv. The efficiency of mainstream panels is proven and have been around for a long time; there is only incremental improvement—slightly more efficient and slightly higher wattage than 10 years ago,
- e. On South Campus
- i. The Research Blvd. lot will be the largest system on campus once it is built, other than the solar at Christman Field; it will be over a megawatt of shading canopies on cars.
 - ii. One bldg. was not on list originally because it wasn't built at the time., but is now on the list – the Equine Hospital. There will be as much solar on Equine Hospital as on Rec Center.
- f. ARDEC
- i. 95% of energy will be picked up with these installations.
 - ii. Small ground mount solar by Co-Bank Center will cover all loads on the northside of the road with exception of irrigation pumps.
 - iii. Electrical system is different on southside of road, so will put solar on roof of the shop. It will have great visibility and people on I-25 will be able to see the solar.
- g. Discussion
- i. Mark Ritschard comments that the ARDEC solar visibility reminded him of Ivanpah solar electric generating system off I-15, south to LA. It is so bright it is distracting to drivers. He wonders if the visible ARDEC solar will shine in the eyes of drivers when on I-25.
 - 1. Carol responds that this question came up when they were building the solar plan on Foothills Campus. The best study to reference is the solar that went in at DIA; they were worried about reflections and public safety. The pilots said solar panels are a non-issue. Don't anticipate this will be an issue for the solar panels, more than a fleeting reflection. Should not be like the solar power towers.
 - ii. Jim Sites comments that many solar panels will be on roofs and not too visible, but some solar will be visible, so there is opportunity for education. He recommends talking about the overall impact of PV on the university.
 - 1. Carol adds they are working on how to message it. Not sure how they will present the information yet, but it is in their plans. Thanks also to Martha Coleman for the sustainability layer on CSU online maps.
 - 2. Jim suggests some interpretive signage for people walking by.

3. Carol references a small sign for a solar flower by the Rec Center. It pointed out it was a small piece of a bigger initiative on campus. That's what example Jim was thinking of!
 4. Fred adds that it will be useful to identify and interpret all the sustainability efforts on campus, including geothermal, water quality, solar outlay – an opportunity to interpret how we're making campus a more robust learning landscape
 5. There is an opportunity to use the ARDEC site as a teaching opportunity around the compatibility of agriculture and energy, so we should consider signage in this location.
- h. Carol's presentation includes site plans. There are tax incentives for solar that are stepping down after this year. The project will cost 4% less if we can approve it and the vendor can be under contract and make purchases before the end of the year.
 - i. Tonie Miyamoto motions to approve the solar proposal as presented.
 - i. Mark Ritschard seconds the motion.
 - ii. Motion is approved by participants.
 - iii. No dissent.