

Master Plan Committee (MPC) – Minutes 10/24/2022

Location: Virtual on Microsoft Teams

Webpage: <https://www.fm.colostate.edu/mpc/>

Participants:

Emily Seems, Greg Harrison, Dave Bradford, Nick Christensen, Rob Long, Cody Frye, Brendan Hanlon, Santiago Di Pietro, Donna Reiser, Alan Rudolph, Mari Strombom, Gargi Duttgupta, Ashraf Fouad, David Hansen, Jessica Kramer, Mike Rush, Shelly Carroll, Julia Innes, Jillian Zucosky, Susanne Cordery, Tracey Abel, Aaron Fodge, Brian Grube, Devan Durand, Tamara Alexander, Dave Ryan

Absent:

Tom Biedscheid, Steve Cottingham, Jan Nerger, Tom Satterly, Blanche Hughes

1. MPC Mission, charge, and membership

- a. There is one singular master plan, last revised in 2014. It includes all of the CSU Northern Colorado Campuses and Properties: Main Campus, South Campus, Foothills Campus, Mountain Campus, Powerhouse Campus, University Center of Arts, Environmental Learning Center, ARDEC
 - i. Alan Rudolph asks in Teams chat, “What is the green boundary on this picture?”
 - ii. David Hansen responds in chat, “City of Ft Collins Urban growth boundary.”
- b. Master Plan is aspirational, strategic, and iterative, the update will be based on the academic master plan. The master plan connects all the pieces, enhances and fulfills CSU vision through the built environment.
 - i. Would like to develop stakeholder sub-committees from each college, department, and research for robust vision development.
 - 1) Mari Strombom comments in Teams chat, “I do think stakeholder is important as the academic master plan doesn't include the support areas outside of the colleges such as the Division of Student Affairs.”
- c. Charge: Adherence – engage and advise.
 - i. Role of Master Planning Committee is to set guardrails, then ensure we adhere to them.
- d. MPC Membership
 - i. Refer to the PowerPoint presentation for current voting members and ex-officio.
 - ii. Currently at 15 voting members. Future membership might change to realize the robust vision of the committee in the master plan update.
 - iii. MPC quorum is one more than half the voting members (or their designated representative) present to vote during a meeting
- e. Alan asks in Teams chat, “Are there by laws? Not clear to me what or how voting by the MPC is done or what it means regarding how decisions are finally made. I think this needs clarity.”
 - i. The committee doesn’t have bylaws (beyond the information posted on the web).
- f. Alan shares feedback: He’s been on MPC for a number of years and there have been iterations of how it proceeds, the process, who it reports to, and what the voting means. As a voting member it’s not clear to him what the process is or what the voting means. There have been decisions before us, such as solar at Foothills where a vote was taken, and he doesn’t know if it was a majority vote or needs to be unanimous. Not clear to him who the committee reports to.

- g. Julia Innes responds in Teams chat, “Alan - some of those questions may be explained here: <https://www.fm.colostate.edu/mpc>. The flowchart on this website will need to be updated now that Brendan is here, and new president comes - so not currently up to date.”
- h. Brendan Hanlon – This is an advisory committee to the role of VP for University Operations. He wants to make sure he understands what the committee expectations are on that, especially when there is a split decision. He wants to understand what the guidance is – what MPC is advising to Brendan, so he can advise the president and cabinet on decisions – and where the boundaries of advisory begin and end relative to his discretion or the president or cabinet’s discretion on significant issues. Wants to know what advisory means to everyone on MPC, so he is acting and taking these opinions into consideration and can demonstrate that in some shape or form, knowing we may not always agree, but respecting the advisory role of the committee.
- i. Alan Rudolph observes that sometimes he felt like things brought to the master plan committee, were done later in the process, not early enough in the process to get input upfront, but almost to say that we took it to the master plan committee because the decision has a lot of momentum behind it already. One dean’s representative – on important decisions that affect colleges – is not effective, so this should be considered for MPC. Deans sit on the verticals of significant resources and master planning activity. Deans have presented to the committee. Do we have the right voices to have the pre-planning input up front? Feels like not being asked for input, but toward middle or end of process being asked for blessings.
- j. Gargi Duttgupta says that’s why we want to talk about this with the committee. Every college’s input is critical because CSU is an academic institution. More than happy to have separate workshops for planning or changing structure of committee to have stakeholder engagement. Master planning is not just to check a box.
- k. Jessica Kramer writes in chat, “It would also help if some of the subarea campus "master plan" visioning committees actually met and discussed how they envision how their programs fit with a built environment.”
- l. Gargi Duttgupta – Understanding the role of the complementary master plans to the singular master plan – what are we trying to communicate and how we all fit together? What are the goals? What are we trying to achieve? Is the aspiration realistic or not?

2. Complementary Master Plans

- a. Stormwater Management (Susanne Cordery)
 - i. Stormwater includes rain, runoff, and snowmelt.
 - ii. Why does it matter for the built environment? As we increase imperviousness, it affects the rate of runoff and affects water quality. Imperviousness does not just mean a building roof, but all of the associated that go with that: parking, trails, roads. Need to address quantity and quality. Each campus has its own rules for how to manage that.
 - iii. Main Campus
 - 1) Intergovernmental Agreement (IGA) with City of Fort Collins, a Municipal Separate Storm Sewer System (MS4) Permit from the state with requirements, and Floodplain Regulations
 - 2) CSU must detain (quantity) and treat (quality)
 - 3) Detention can be regional but must be logical
 - 4) Treatment can be regional and must be logical – can’t treat upstream.

- 5) Floodplain is CSU-managed and subject to State Regulations
 - 6) Stormwater Master Plan (complementary plan) is the floodplain model (includes floodplain, water running along ground surface, and water in pipes). These complementary plans adapt/evolve as things change. (For example, some pipes are undersized. A project may increase flow to series of pipes, but the pipes may already be undersized.)
- iv. Brendan Hanlon asks in chat, "For these images, are these considered 10, 20, 50-year events?"
- 1) Susanne Cordery responds – the images and video shown are less than 50-year events. Lake Street was a 15-year event.
 - 2) Brendan asks, what is the infrastructure calibrated to? If these are images of 15-year events, is all the infrastructure calibrated to 10, and that's why we're getting the back up?
 - 3) Susanne Cordery – It's a mix. There are pipes by the Lory Student Center that can only handle a 2-year event or less because they were put in during 1961, but pipes downstream can handle a larger event. There is a mixture of circumstances all over campus with various pipe sizes.
- v. South Campus Requirements
- 1) IGA with City, MS4 Permit, Floodplain Regulations
 - 2) CSU must detain (quantity) and treat (quality)
 - 3) Detention can be regional but must be logical
 - 4) Treatment can be regional and must be logical
 - 5) Floodplain is City and FEMA-managed
 - a) Spring Creek floodplain runs through South Campus
 - 6) Stormwater master plan exists, prepared in 2016 for South Campus.
 - a) Incorporated in projects like TMI and JFEH.
- vi. Foothills Campus
- 1) Subject to Larimer County stormwater regulations (detain 100-year event, release at historic 2-year event)
 - 2) Subject to State Animal Feeding Operations (AFO) requirements – retention rather than detention (water held, not released). Sized for 25-year, 24-hour event.
 - 3) Treatment is required by MS4 permit
 - 4) Stormwater Master Plan done in 2000. Then updates done for: Jud Harper Complex area and CSFS area
 - 5) Coordinate with County and City (West Vine basin and CIPO basin) – some projects need county approval, not city approval, but we do need to coordinate with both, so we aren't making changes to West Vine basin or CIPO basin assumptions.
 - 6) College Lake Dam inundation map
 - a) Mapped the inundation path that would occur in catastrophic failure, goes northeast and gets to Poudre River; know areas of concern and have emergency action plan.
 - b) High velocity and depth of water in dam breach event in this area, so it is considered very carefully before doing any development in the risk area immediately downstream area of the dam.

- vii. Animal Feeding Operation (AFO) Stormwater Planning
 - 1) Regulatory boundary encompassing equine areas based on number of animals and whether vegetation grows year-round. If it doesn't grow year-round then it is included in the AFO boundary.
 - 2) This is dirty water that needs to be put in retention ponds (shown in blue on PowerPoint presentation), different from storm water that we collect and have to release.
- viii. Colorado State Forest Service Stormwater Detention – Foothills Campus
 - 1) North part of campus, West of Overland Trail near La Porte. There's a plan for a detention pond in this area, which benefits the City, County, and partly CSU. It provides capture of the stormwater upstream of downstream development. Have had lots of meetings and reviews with City. Future plans of this area need to be cognizant of the future plans for this detention pond.
- ix. Jud Harper and area stormwater master plan – encompasses areas to east. Hired a consulting firm to look at the existing conditions, took a lot of modeling. Looked at the proposed conditions and run the model to see what we need to do. Findings were:
 - 1) 24" diameter pipe required at south boundary before next building is completed.
 - 2) Central Detention Pond northeast of Temple Grandin is very important for stormwater detention.
 - 3) AFO Ponds and south detention ponds must be surveyed and excavated to their former grades.
 - 4) Alan Rudolph reminds people that this area is a high consequence, biosafety level III pathogen area. As we learned from COVID, we know that pathogens show up in wastewater. They wrestle with building high containment facilities – whether we can include affluent capture. It's a very expensive aspect of building high containment facilities. Many cases we cannot afford it, not regulated to have it, but the future within 10, 20, 30 years there will be more regulations on water quality, and this part of campus has the most severe consequences if that water quality gets out of hand for the surrounding area. This is a very significant area of concern for environmental release; this area has special needs regarding containing whatever is in the buildings to stay in the buildings.
- x. Takeaways – there are different complementary plans and different jurisdictions that apply to different areas.
 - 1) Stormwater is important in planning stage and design of every project
 - 2) Stormwater plans, floodplains and constraints exist
 - 3) Certain authorities have jurisdiction (CSU, State, County, FEMA)
 - 4) *See CSU Construction Standards, Part IV Regulatory Requirements.*
- xi. Discussion
 - 1) Alan Rudolph asks in chat, "What about CDC, USDA and USGS facilities on Foothills. Where are their plans integrated? NOAA?"
 - 2) David writes in chat, "Facilities Management brought the CSFS stormwater detention plan to this committee in May of 2021. The city believe it is about a 10 year schedule to realize the implementation of the pond." An example: with USDA at the National Wildlife Research Center, FM employees provided comment to the

team that is considering a building there, to make sure it falls within county and university standards, since it is Board of Governor's property. And provided insight into how they need to deal with detention and treatment of water. In the meantime, there is an intermediary plan for that site until the CSFS detention pond is constructed.

- 3) Susanne Cordery – Stormwater doesn't understand boundaries and we do take a holistic viewpoint and don't circumscribe out pieces.
- 4) Alan Rudolph – we have buildings that we lease back to USDA on South Campus. But for the CDC facility, is it on our land and we lease that land to them for that building? He asks because CDC and USDA have their own budgets to deal with for their facilities management and that could be useful in the context of a larger plan to access some of their federal resources to deal with their facilities.
- 5) Susanne Cordery – Yes, CDC is on our land, and the CDC complex is not incorporated into this latest reiteration of the stormwater model. Yes, if there is proposed development in that area, it would need to be studied in terms of stormwater.
- 6) David Hansen – The language of the lease agreements typically stipulate that they have to follow CSU's guidance on these endeavors, helping us manage it for Foothills Campus.
- 7) Gargi Duttgupta adds that master planning has lots of standards and technical details to consider as we progress with future plans. This committee is important and master planning should not just be checking off boxes.

b. What role does energy play in the master plan? (Carol Dollard)

- i. Utilities in general are all important to the master plan. Buildings are connected to life support: water, sewer, gas, steam, hot water, etc. You can't have a world class university with a crumbling infrastructure. Think about how we will run the building, not just how to build it.
- ii. Energy comes back to carbon emissions and the university's greenhouse footprint.
 - 1) FY22 - 179,400 Metric Tons of CO₂e, numbers are ticking down in general.
 - 2) We talk about fleet, recycling, and compost a lot – important optics for the university, but when talking about carbon, solid waste is less than 1 percent of our footprint, and fleet is only 2%.
- iii. Why buildings are important
 - 1) Energy is more than 75% of our footprint. Energy goes to buildings! How we build, operate, and maintain buildings is critical to GHG footprint of the University.
 - 2) The grid is greener. Shifting from natural gas to electricity will have huge carbon (and air quality) implications. Must build /modify our buildings to be less dependent on natural gas.
 - 3) Building decisions are long term – will stay with us for decades.
- iv. CSU goals: 100% renewable electricity by 2030, carbon neutral by 2040.
- v. Legislation / policy / regulations
 - 1) Not everything is a voluntary goal. Working in regulations. There's a lot of retrofitting that will need to be done to meet standards – maybe as many as 40 to meet it.

- 2) Air quality in front range is tanking badly – downgraded to severe this month.
 - a) Transportation is significant part of the problem but is difficult to regulate.
 - b) Instead, there are regulations around stationary combustion (boilers and buildings). Alternatives to burning gas need to be considered.
 - vi. Total Cost of Ownership – Building Lifetime
 - 1) The decisions we make when building facilities decides the cost because over the life of a building, the vast majority of costs will be utilities, operations, maintenance, replacement cost, refurbishment, etc.
 - vii. Parting thoughts
 - 1) Take long-term view, optimize life cycle and design buildings with 100-year lens.
 - 2) Net zero or “net zero ready” new buildings and major remodels
 - a) Require all projects meet or exceed new performance targets by state
 - b) No new combustion in buildings
 - c) All practical roofs are designed for solar
 - d) Envelope and building commissioning to ensure performance matches design
 - viii. Discussion
 - 1) Alan Rudolph asks in chat, “Do we have an accurate assessment of building space usage? Hybrid and remote work obviously has shifted this assessment and will influence strategy here”
 - 2) Greg Harrison asks in chat, “Does working remotely have any measurable impact?”
 - a) Alan Rudolph adds in chat, “Dramatic effects. I have whole units gone remote. The building on Howes is half empty. Howes is a good building to assess. It’s half empty.”
 - b) Carol Dollard responds – It would if buildings were smaller. People work remotely, but we don’t change our buildings. We learned during COVID that buildings are terrible at operating empty. No matter if there are 3 or 300 people, we have to often run the whole building. Buildings are not designed with zones. Need to think about this when designing new buildings. Can we design hot-desking or hoteling?
 - c) Gargi Duttgupta comments – That is why space utilization and benchmarking studies as to what is the best standard practice in type of usage is something we should be looking at as we get into master planning.
 - 3) Greg Harrison asks in chat, “Can we confirm that our electricity sources are green/non-fossil? Reporters will ask.”
 - a) Installing more and more green. The grid is getting greener, but there’s a lot of devil in the details. City is committed about making their mix greener. We also need to discuss how much coal we put up with in the region.
- c. [Transportation Demand Mngmnt. Plan Update for Campus Master Plan \(Aaron Fodge\)](#)
 - i. Transportation demand management is the use of strategies to inform and encourage travelers to maximize the efficiency of a transportation system leading to improved mobility, reduced congestion, and lower vehicle emissions.
 - ii. CSU Transportation planning done through 5 strategies:
 - 1) Improve infrastructure connectivity and circulation

- 2) Improve permeability of walkways, bikeways, & transit – remove big barriers on campus
 - 3) Improve multimodal safety
 - 4) Prioritize the movement of people – system efficiency
 - 5) Support interconnectivity between modes
- iii. Overview of TDM Planning Effort
- 1) Hired Kimley-Horn through On-Call Engineering Contract
 - 2) \$172,000 Planning Effort
 - 3) Parking & Transportation Services (PTS) received \$60,000 Grant from CDOT to Deliver TDM Plan (shared with the State)
 - 4) Target Completion – June 2023
- iv. Data-driven planning
- 1) Sources: Parking demand, transit ridership, bike counters, crash data, household (travelshed)
 - 2) University driven estimates: Enrollment, beds (on-campus housing), land-use trade-offs, goal by mode of transportation
 - 3) Other data:
 - a) Pitkin Street Low-Stress Bike Corridor
 - b) Cordon study looks at turning movements at specific intersection on campus to understand year over years changes of how travel patterns shift
 - c) CSU UNC employee and student address locations – for regional transit route
- v. CSU FY21 Greenhouse Gas Inventory
- 1) Commuting 4% during pandemic FY21
 - 2) Commuting 11% in FY 22
 - 3) Other transportation factors: fleet and air travel
- vi. Infrastructure – circulation and connectivity at the heart of our system
- 1) Designing for circulation changed over the years.
 - 2) Most academic bldgs. are on the east side of campus.
 - 3) Understand travel behaviors of students, employees, and visitors.
- vii. Preserve streetscapes to serve all modes of transportation (sidewalk, bike lanes, vehicles lanes) – do not want building to restrict permeability, connectivity, or circulation
- viii. Campus permeability
- 1) Federally funded transit center in heart of campus; majority of routes come to campus, making our campus more permeable.
 - 2) Max runs through east side of campus – frequent service, connecting north to south of city.
 - 3) Low stress bike network cuts through CSU campus in three places. Friendly to ride to and through.
 - 4) Engineering underpasses and at grade crossings to make it safer to get onto campuses
 - 5) Equity – anything that requires a trip away from your building if the building doesn't accommodate it.

- ix. Multi-Modal Safety
 - 1) Education: CSU Moves – online training program for incoming students
 - 2) Engagement events: Rams Ride Right, PTS and PD guiding commuters on how to correctly use infrastructure on campus.
 - 3) President’s Vision Zero Taskforce – traffic related deaths are unacceptable. Crashes occur and have a reason for their occurrence. They are not accidents, but something to be studied and improved upon.
- x. People vs Auto Throughput – increase throughput efficiency of number of people using infrastructure provided and reduce vehicular emissions
 - 1) Example from West Elizabeth Bus Rapid Transit (BRT) Corridor – designing for transit stations on the corridor, as well as bikeways to go behind the transit station to provide safe space, same for bikes.
 - 2) City responding with residential parking permit programs restricting ability to park around campus for free, a tool they are trying to use to shift transportation behavior.
- xi. Interconnectivity – provide an environment where people can transfer seamlessly from different modes for transportation
 - 1) Example of West Elizabeth Corridor – Foothills Transit Center
 - a) BRT transfers to Foothills Campus shuttle, to bikeshare, to car share
- xii. CSU is a strong partner with the City of Fort Collins, the regional North Front Range Metropolitan Planning Organization (NFRMPO), and CDOT.
- xiii. Discussion / Questions
 - 1) Santiago Di Pietro asks in chat, “Any plan specifically for the parking garage on Lake St and Center Avenue? Its capacity is limited for the current demand.”
 - 2) Aaron responds - Some strategies for addressing a garage at capacity would be:
 - a) To site additional parking – this is a land use decision and a trade off (are we going to build something else on a particular property at the university? PTS has sited garage program plans at multiple locations in previous planning effort, and this plan will look at parking supply and demand.
 - b) Offer wayfinding so people go to where available parking is located.
 - 3) Santiago Di Pietro adds - Over the last few years, the garage is getting worse. The trend is clear. Seen usage go up. When planning, need to think about that aspect. Richardson Design Center was built, and a parking lot was taken, and that may be one factor that is contributing to it. Surprised that there aren’t that many accidents in the garage.
 - 4) Gargi Duttgupta – every time we build a building, it has certain impacts to cost and people. Is parking the only possible method in the future to use? What do we need to do? Important to think what the plan is for all these different elements. In 2014 we had 27,000-28,000 enrolled students. The plan was built for projection of 35,000 students. We have built a lot of buildings in the last ten years and enrollment is under 28,000 today. Philosophy of how we build spaces has changed, but there is a long-term impact in the environment. None of these happen in a vacuum. Engagement is critical for this committee for us to think holistically and strategically about all these pieces.

3. Update on Ongoing Projects (Tracey Abel)

- a. In our RFPs we follow the high-performance certification program for the state. We didn't used to do full commission, but now commission a building for the entire year after. Helps us track energy use and get it performing to the model we anticipated early on in project. These were improvements in the last four years and will come out in new projects.
- b. Softball/soccer project
 - i. Total Budget: \$10.7 M
 - ii. General Contractor: A/P Mountain States
 - iii. Design Firm: DLR Group
 - iv. Schedule:
 - 1) Softball under construction complete Jan 2023
 - 2) Soccer construction start Jan 2023 complete Spring 2023
 - v. Details
 - 1) Upgrade complex to NCAA standard competition fields
 - 2) Field lighting (for night games)
 - 3) Teams Building with restroom for home team and one for visitors (building for game days and practice game film review) ~1000 sq ft
 - 4) New seating for 250 people @ each venue
 - 5) New press box with filming platform on top
 - 6) New irrigation system for complex
 - 7) Electrical infrastructure upgrades
- c. Lory Student Center (LSC) Phase III
 - i. The building has a silver-grey color, keeping with additions on south end of the theater.
 - ii. Giving Adult Learner and Veteran Services (ALVS) interior space 3 times what they currently have.
 - iii. Total development \$30M
 - 1) ALVS \$10.3M
 - 2) LSC \$19.7M
 - iv. Renovated space: 86,718 sq ft
 - v. Additional space: 6400 sq ft
 - vi. Construction started: May 2022
 - vii. Expected completion date: May 2023

If there are any follow up questions for the presenters, please let us know. Send questions to Gargi.