

Master Plan Committee (MPC) – 4/26/2021 Minutes

Participants: Mike Rush, Fred Haberecht, Tim Kemp, Shelly Carroll, Julia Innes, Kristi Buffington, Jessica Kramer, David Hansen, Tom Satterly, Nick Christensen, Tom Biedscheid, Mari Strombom, Dave Bradford, Cody Frye, Lynn Johnson, Alan Rudolph, Leslie Taylor, Seth Webb, Jan Nerger, Steve Cottingham, Seth Webb, Rick Pott, Kate Laughery, Dan Zimmerle

1. Mountain Campus – Gravel Quarry Exploration (Rick Pott & Seth Webb)

- a. MPC approved the Mountain Campus master plan in 2017 – a joint effort with Warner College of Natural Resources (WCNR), Housing & Dining Services (HDS), and Facilities Management (FM).
- b. David Hansen shares map in presentation and context:
 - i. Back-of-house utility and operations at the north end of Mountain Campus.
 - ii. Then progresses into area for conference services and events housing and facilities.
 - iii. Series of cabins and student housing in central area.
 - iv. Dining services and classroom facilities at the south end.
 - v. A lot of the upgrades to the master plan included: employee and student housing and dormitories; need for classroom expansions and updates; potential expansion to dining hall; waste water treatment facility.
- c. Many buildings have progressed based on this master plan.
 - i. Waste water treatment plant is under construction.
 - 1) Work delayed because Cameron Peak fire forced a closure. Trying to mobilize but still dealing with snow at Mountain Campus.
 - 2) Foundations are in for the waste water treatment plant.
 - 3) Intend for it to be finished and functional Spring 2022.
 - 4) The existing facility limited how many people could be on the campus and use it at one time. The new waste water treatment plant doubles the ability to increase users on campus.
 - ii. Research and Education Center
 - 1) Adjusted site location (#16) because a portion of an old lab facility was removed last year, which set up a nice site for this.
 - 2) Ready to start on this Spring 2021—waiting on snow.
 - 3) Functional by Spring/Summer 2022.
 - iii. Staff Housing Replacement
 - 1) Older original cabins to be replaced with modular cabin units.
 - 2) Series of cabins removed last year, setting up for redevelopment at south end.
 - 3) Foundation and utility work began this spring 2021.
 - 4) Functional by Fall 2021.
- d. Quarry site
 - i. Half a mile from the main gateway of Mountain Campus to the northeast there is a quarry site.
 - ii. Quarry site accessed from Larimer County Road 64E, the main road coming into Mountain Campus.
 - iii. Quarry site is split in half between federal property of the Forest Service and Board of Governors' property.

- iv. Site is approx. 2-acres. Used in the past, but unable to find records of development on how, when, or why this was established.
 - v. There is a gate that locks the quarry facility – access into quarry is restricted.
 - vi. Forest Service has removal limitations to what can be removed without permission.
 - vii. CSU has access for operations. Uses it as a holding yard for debris and other things. Not maintained. Operational dropping point by the Mountain Campus operations team when needed.
- e. Potential use of material if viable
- i. Larimer County approached university and intend to approach Forest Service about viability of working at quarry.
 - ii. Roads Dept. maintains 450 miles of gravel roads. Under long term contract to maintain other forest service roads around vicinity of Mountain Campus.
 - iii. Materials are hauled from Fort Collins to Mountain Campus. Substantial hauling costs. Transportation impacts through canyon to Mountain Campus.
 - iv. If could determine material was viable, Larimer County wants to enter into long term agreement with CSU and Forest Service.
- f. Potential Benefits to CSU if viable
- i. Educational opportunity for WCNR courses on reclamation of mineral resources
 - ii. No funding source currently to reclaim and restore ground that CSU owns. Could potentially have funding source for site reclamation/restorations when operations come to end.
 - iii. Promotes long term maintenance, access, and services for Mountain Campus, 63E and 44H.
 - iv. Opportunity to have access to materials we currently use.
 - v. Monetary compensation
- g. Potential Challenges for CSU if viable
- i. Long-term use of quarry site could potentially limit CSU operations use
 - ii. Consider optics
 - iii. Dust mitigation measures that may need to occur with an operation like this
- h. Current Proposal
- i. Perform sub-surface geotech survey to investigate if gravel operation is viable outcome on site. Asking for right of access to see what is viable.
- i. Suggested Motion: Approve Larimer County's request for right of access from CSU to perform a sub-surface geotechnical survey.
- j. Discussion
- i. Alan Rudolph asks, what is the environmental impact? Is the sub-surface geotechnical survey enough? Alan thinks its right to point to the perceptive lens of a LEED Platinum sustainable university associated with a gravel lot. Thinks we need to do environmental impact assessments.
 - 1) Rick Pott explains that the county is asking for geotechnical application to drill bore holes, typical of any construction project, to see what is in the sub-surface, and then holes are backfilled, so there is little impact. If it is determined that there are sufficient aggregate quantities to warrant further discussions, the county would go through a lengthy development process, including an environmental impact

statement. Currently they see that it is an impacted area, and are wondering if it could be of benefit to the various parties without creating an additional burden in the area, as well as reducing their haul costs to tax payers. Dean Hayes is appraised, brought in with initial discussions from county. WCNR has no objections. Mountain Campus is roughly 1600-acre campus. Mostly the quarry site is a benign site with not a lot work going on there.

- ii. Fred Haberecht adds that we are bringing this topic to MPC less on the technical aspects and more on the optics.
- iii. Seth Webb, director of Mountain Campus, has mixed feelings about the optics perspective. By engaging in this possible relationship with the county we are able to help minimize the environmental impact of maintaining the road and what is required to haul all that material from distant locations. On the other hand, there would be a quarry operation half a mile from the Mountain Campus. It solves one environmental challenge while possibly creating another. Seth is intrigued by the benefits that may result from engaging in it.
 - 1) Mountain Campus has a close relationship with road crew that takes care of 64E. Reliant on the road being maintained. It's a critical need.
 - 2) They have indicated a willingness to operate at a time that is least disruptive to Mountain Campus's seasonal operations if this did move forward.
- iv. In regard to optics, Fred Haberecht believes that any go-ahead should be accompanied by a narrative that explains the intent and benefit.
 - 1) Stewardship of the environment in a broader and more holistic way, not just stewardship of our own property but stewardship of resources, the continued use of existing gravel quarry rather than exploring other areas that have not been disturbed. From a FM planning perspective: in favor of preceding to the next step, but it needs to be preceded with appropriate messaging to explain why.
- v. Steve Cottingham says he supports that message. Part of our mission is to educate. The road will be maintained and the gravel is going to come from somewhere. To say we don't want it to come from right next to the road seems privileged. There are tradeoffs.
- vi. Fred Haberecht agrees that we are beneficiaries of the resource.
- vii. Seth Webb adds that the reclamation component is intriguing at the end of the extraction period and how it ties into the undergraduate and graduate learning opportunities, leveraging the expertise of Warner College. Could include this long-term benefit in the messaging.
- viii. Alan Rudolph writes in Microsoft Teams chat, "Are there state permits needed if this project were to go forward? I would vote to see the environmental impact before committing the institution. It's a good application of one health economics and outcomes. Let's quantify the impacts as much as possible....my two cents."
- ix. Fred Haberecht agrees. Before approving, if practicable, the formal due diligence that Alan Rudolph is speaking of to know about the physical scale of the operation in horizontal outlay, amount of gravel extracted, years and months extracted, and note of reclamation plan.

- x. Leslie Taylor writes in Microsoft Teams chat, “The point that it would reduce the impact of road maintenance through the canyon and on LC 64E is compelling, as is the opportunity for students to learn from the quarry.”
 - 1) Rick Pott adds that the county would be required to engage CSU and USFS in a sub-master plan including all applicable permits in a next phase.
 - 2) Alan Rudolph thinks that drilling operations in right of access like this could be disturbing to some wildlife populations. He is okay going forward to assess, but would like minimal environmental impact from WCNR.
 - 3) Rick Pott says we are currently in season of migration of deer and elk from low lands to high county. An item to discuss with the county and Natural Resources and Division of Wildlife; they can assist university in drafting agreement to ensure appropriate safeguards are in place, including mitigation for wildlife. Drilling operation would take about 2 days, small bore holes 4 inches in diameter on both CSU and forest service sides.
 - 4) Seth Webb asks in Microsoft Teams chat, “Is this geotech survey any different than what we've had done for the new WWTP?”
 - 5) Rick Pott writes in Microsoft Teams chat, “These are shallow borings 20-40' in depth and there will be 20-30 across the site. Typical const. projects require 6-10 geotech borings.”
- k. **ORIGINAL MOTION:** Lynn Johnson makes the motion to approve Larimer County’s request for the right of access from CSU to perform a sub-surface geotechnical survey. Before any further steps are taken, she would like this brought back to MPC to understand outcomes and make an assessment on whether to move forward with next steps.
 - 1) Through this process, Fred Haberecht asks if we need to inform the Systems Office that this is an exploration we are taking. He believes this is straight forward and a good sustainable practice and process, but the suggestion is due to the optics of it.
 - 2) **1st AMENDMENT TO MOTION:** Fred to write an email that says what we’re being asked to do, including some pros and cons. Send this email to Cara Neth. Explain what MPC has approved to go forward. Plan to do it by certain date unless there are concerns from Systems Office. Fred to send and CC: Lynn Johnson on email.
 - 3) Alan Rudolph objects to the motion. For the bore drilling, he would like to see an assessment on effects to wildlife or assurances that whatever decibels or frequencies are not harmful, or mitigation steps will be used. Alan needs assurances that we follow best practices and do no harm.
 - 4) Rick Pott recommends engaging WCNR as subject matter experts. They have managed the remote field research station for decades. They could help address this for the committee and could draft appropriate language to include in agreement for geotechnical exploration.
 - 5) Jan Nerger agrees with Alan Rudolph and seconds his amendment to the motion.
 - 6) Fred suggests that the motion is made contingent upon WCNR’s council on adhering to best practices for boring operations. We do boring operations on campus to construct buildings. There is no other approval process other than right of access. There is no other state, county, or federal regulation. Defer to WCNR and ask to comply to best practices defined in their guidance.

- 7) Alan agrees with this approach. Caution and proactiveness can only help with optics.
2nd AMENDMENT TO MOTION: Motion is contingent upon compliance with WCNR definition of best practices for drilling exploration.

I. Final Motion is to approve Larimer County's request for the right of access from CSU to perform a sub-surface geotechnical survey. Before further steps are taken, this will be brought back to MPC to understand outcomes and make an assessment on whether to move forward with next steps. Fred Haberecht will write an email to Cara Neth that says what CSU is being asked to do, including some pros and cons, explaining what MPC has approved to go forward. Will plan to do it by certain date unless there are concerns from the Systems Office. Fred will copy Lynn Johnson on the email. All of this is contingent upon recommendations of best practices for drilling exploration as informed by WCNR.

- 1) All are in favor of the final motion, none opposed.
- 2) Fred adds that FM will work with WCNR and HDS on messaging about why.

m. ***Follow up note:*** On Wednesday, April 28, 2021, per the contingency on the motion to approve the Larimer County request to perform a geological subsurface investigation at the existing gravel pit/quarry at the Mountain Campus, Seth Webb, Mountain Campus Director, solicited input from WCNR Dean John Hayes, Geosciences Department Head Rick Aster and FWCB Faculty and NR220 Academic Director Paul Doherty regarding "recommendations of best practices for drilling exploration as informed by WCNR." Email responses were received on 4/28 from Rick Aster and Paul Doherty expressing no concerns about negative geological or wildlife impacts from the survey.

2. METEC Facility on Foothills Campus – Land Use Renewal (Dan Zimmerle & Kate Laughery)

- a. Methane Emissions Technology Evaluation Center (METEC) Facility – location is adjacent to the Factory on Foothills Campus.
- b. METEC Facility has well pads that are fake. Plumb gas lines into the equipment to simulate gas leak behavior of a facility and to test leak detection solutions. Behavior of equipment is similar to what you would see in the field.
- c. How METEC began
 - i. Started as part of a larger Dept. of Energy program called MONITOR.
 - ii. \$4.5 million of ARPA-E funding established initial facility. Received approx. a half million dollars more for extensions and corrections.
 - iii. Approved in same footprint, but there is a change in how they access the facility (see notes below).
 - iv. Original project that funded the facility is complete. The agreement with Dept. of Energy is that METEC would be set up as a facility with long-term testing and access.
 - v. METEC has transitioned to self-funded program. Research dollars coming in from industries and government who fund the facility on day-to-day basis.
 - vi. 7 permanent full-time staff, 1 half time staff, as well as graduate and undergrad students (6-7 graduate students per day doing work at METEC).
- d. What METEC does
 - i. Test leak detection solutions
 - ii. Make field measurements
 - iii. Develop emissions simulation software

- e. Research and Testing Facility
 - i. The Factory is to the right (north) of the PowerPoint slide and PFA test facility is to the left (south).
 - ii. The image shows what was on the build out plan that was approved in 2016 by MPC with some minor additions.
 - 1) Set of 6 mock oil and gas pads, ranging from small 10x10-meter well pads to medium-sized pads on northside of site.
 - 2) Underground pipelines buried at shallow depth.
 - 3) Pipeline test bed.
 - 4) Release points that allow simulation of leak detection and repair of right of ways that crisscross the site.
- f. General Capabilities
 - i. The only facility like this in the world to the best of their knowledge.
 - ii. Teams come from Europe, Canada, and other locations in the world.
 - iii. METEC provides a degree of realism.
- g. Using METEC
 - i. Ad-hoc testing
 - 1) Uniform charge rate for everyone.
 - ii. Protocol testing over various programs
 - 1) Example: from Jan. 31 to June 30, 100% booked. Will continuously test every day that the weather permits for most of the year.
 - iii. Membership Advisory Board
 - 1) 1-2 new members every month
 - 2) About half of the funding helps maintain site. The other half goes to ad hoc test days that people pre-buy if they are a fully member.
- h. Testing Portfolio
 - i. 40 solutions tested to date
- i. METEC Research Impact
 - i. Funding comes from industry advisory board
 - ii. Funding sometimes comes from Dept of Energy
 - iii. Match funding from industry: Shell, BP, Chevron, Exxon Mobile, and smaller companies
 - iv. Funding from services provided for testing data collection
- j. METEC research collaborations
 - i. Students come from range of programs
 - ii. Interactions with other universities
 - iii. METEC – high visibility program, well recognized
- k. Stakeholder Input
 - i. When contacted, received positive responses or no response from internal CSU stakeholders.
- l. Questions
 - i. Alan Rudolph asks, what types of student engagement opportunities have occurred and are emerging?
 - 1) Maintenance activities – undergrad students mow the grass and maintain the site

- 2) 4-5 engineering students help with site development and operations: basic tasks to more complex experimental work
 - 3) Grad students from Mechanical Engineering and Systems doing experimental work
 - 4) Students from Computer Sciences working on software
 - 5) METEC also hosts grad students or post docs from a couple of universities, such as Texas-Arlington
- ii. Lynn Johnson asks, in the presentation there was mention of a commitment to this site/capabilities of the site—and with the extension of the five years, what is the implication of being able to maintain this commitment to Dept. of Energy if this wasn't approved and what alternative sites do you have?
- 1) Very expensive to relocate or rework the site. There are a couple of billion dollars of investment in the site.
 - 2) There are 3 federal agencies funding METEC in the last 12 months, including the Dept. of Energy (approx. \$2.5 million dollars, Pipeline Hazardous Materials Safety Administration (approx. \$1 million) and EPA (a few \$10Ks) – there is a lot of momentum with federal agencies on current site.
 - 3) Lynn Johnson asks if there are any issues with use of this property from master planning perspective?
 - a) Fred Haberecht answers that this is an appropriate use in the current context when looking to develop more research clusters and campus bases off LaPorte and Rampart Road. This is a better intensive land use off Vine Drive.
 - b) Fred doesn't recommend it as permanent fixture on Foothills Campus. (There is also a bison holding pen that has similar type of 5-year land use agreement.) May come back to extend in the future if the research for METEC keeps going. There are also some benefits to METEC's proximity to the drone center.
- m. Site Modification – projected to be completed June 2021
- 1) METEC Team will fund improvement of the access road off Vine Drive.
 - 2) They were asked to modify the entrance so that they can primarily enter off Vine.
 - a) Still need to use LaPorte occasionally for service access of big trucks, can't make the turn through the Factory.
 - b) Upgrade the road that comes past the Factory, into METEC from north side. Will share entrance off Vine with the Factory. The specific construction would start at the edge of the parking lot of the Factory and would extend to METEC.
 - c) Fred Haberecht says this is a request of FM based on activities in Christman Field area.
 - 3) Fred Haberecht finishes by sharing that FM asked METEC to show it is a viable project for the university and from a space planning standpoint to show it is the highest best use for this piece of land. Asked them to do internal outreach to make sure this research has been a good neighbor. Kate Laughery and Fred Haberecht also reached out to the county to see if there were any external approval process needs from the county; they have not heard back, but don't believe there will be any. Applicant has done everything asked and gone above and beyond
 - 4) Second approval needed through the university: Will need to go to the Space Committee for approval.

- 5) **MOTION:** Lynn Johnson motions to approve the use of this land for another 5 years with the updated access points indicated in the presentation on Vine Drive. Laporte access will be limited based on need.
 - a) Passed unanimously – none opposed.