

Approved at the 5/4/2018 meeting
BOARD OF TRUSTEES OF THE COLORADO SCHOOL OF MINES
MINUTES OF THE BOARD MEETING
Friday, April 6, 2018
COLORADO SCHOOL OF MINES
1500 Illinois Street, Coors Boardroom

I. Trustee Breakfast – 8:00 a.m., Ballroom C, Student Center

Executive Session

8:00 a.m. Motion to move into executive session by Trustee Haddon; seconded by Trustee Truly. Motion approved 7-0.

The purpose of the Executive Session was to receive legal advice pursuant to §24-6-402 (3)(a)(II), C.R.S. and discuss promotion & tenure and personnel matters per §24-6-402(3)(b)(I) C.R.S.

9:00 a.m. Motion to adjourn executive session and move into regular session by Trustee McNeil; seconded by Trustee Salazar. Motion approved 7-0. The regular meeting called to order by Chairman Jorden.

Motion to approve Dr. Jeff Squier for the Board of Trustees' Outstanding Faculty Award winner by Trustee Haddon; seconded by Trustee McNeil. Motion approved 7-0.

BE IT RESOLVED that the Board of Trustees of the Colorado School of Mines award Dr. Jeff Squier the Board of Trustees' Outstanding Faculty Award.

II. Regular Meeting – Coors Boardroom, Guggenheim Hall

9:25 a.m. continuation of the regular meeting

Trustees present: Chairman Jorden, Trustee's Haddon, McNeil, Truly, Starzer, Salazar, Sanders, Swift and Hogue.

CSM executives and directors were also present including: President Johnson, EVP Volpi, Interim Provost Boyd, VP Fox, VP Han, VPGC Walker, VPRTT Tompkins, Dean's Moore, Kaufman and Graves, and Dr. Maxwell.

a. Oath of Office

Trustee Sanders gave a brief introduction of herself. Chairman Jorden administered the Oath of Office.

b. Consent Agenda

1. The minutes from the February 9, 2018 meeting submitted for approval.

Trustee McNeil motioned to approve; seconded by Trustee Truly. Motion approved 7-0.

c. Reports and Updates

Board Committee Reports Trustee Haddon reported that the Finance and Audit Committee (FAC) and the Investment Advisory Committee (IAC) have not met since February 1, 2018.

President's Report President Johnson reported that this is a busy time of year noting key events such as E-Days, Evening of Excellence, and that Trustee Haddon will read proclamation at Orecart pull next Friday. Dr. Johnson briefly updated the Board on travel the leadership team has been doing to further the Mines@150 strategic plan. He thanked the Trustees for being active and involved in Mines.

Research activities and Tech Transfer Report Dr. Tompkins reviewed the research activities and tech transfer report and provided information regarding current trends for research awards this year, noting that relative to last year Mines is doing well. There was a brief discussion regarding trends of Federal funding versus private funding. Dr. Tompkins noted that private industry research funding is shrinking and Federal funding growing, although the availability of Federal funding is not growing. She noted the growth is due to the efforts of the Mines faculty. Dr. Tompkins provided information on sources of Federal funding noting that much of it is from the National Science Foundation (NSF) and Department of Energy (DOE), and she would like to broaden the diversity of the funding sources. Dr. Tompkins observed that Mines' RPE investment is the biggest in the state. Dr. Maxwell noted that obtaining DOE funding been challenging and faculty are looking for better ways to streamline the process. There was a brief discussion regarding faculty sharing industry connections and contacts in order to leverage all connections, and to help ensure that industry funding keeps pace with Federal funding. Dr. Tompkins provided a brief snapshot of Mines' tech transfer statistics and trends noting Mines is showing a healthy trend in this area. She noted that the total active licenses at Mines is two to four times higher than what is typical at other universities. Trustee Haddon asked Dr. Tompkins to provide more information to the Board regarding tech transfer income stream to the institution. Dr. Tompkins noted that tech transfer is not about making money and is much more about building relationships. She will provide more information to the Board about the role of tech transfer. Dr. Tompkins asked the Board to let her know what they want to learn about in the future. She noted the importance of communication and the need to revamp the Research website. She provided information on the opportunities available for Mines. There was a brief discussion regarding the process for communication at Mines and, Dr. Tompkins noted the need to increase opportunities for chatting in a more coherent way. She reviewed Mines' research institutes and centers and, ways to communicate effectively what they are and their research focuses. She is currently reviewing business models and overarching thematic Institutes. There was a brief discussion regarding regional partnership opportunities with a very diverse array of partners. Trustee Salazar is interested in more information regarding multidisciplinary opportunities about Mines' collaborations and strategic alignment.

Faculty Senate Report Dr. Maxwell provided an overview of current Faculty Senate activity. He noted the success of the Faculty Distinguished Lecture event, and the increasing faculty senate engagement with campus. He noted that the campus climate survey is close to release. Dr. Maxwell reviewed the new events for engaging more faculty and staff, including coffee hours and happy hours. He briefly reviewed the degrees recently approved by the Board. He noted the Senate approved and interviewed a candidate for an administrative position to help with councils and to provide administrative support to the Faculty Senate.

d. Presentation and Discussion

Online education at Mines Dr. Boyd introduced Dr. Sam Spiegel, Director of the Trefny Innovative Instruction Center, to provide information on our online strategy. Dr. Spiegel provided an overview the strategic intent, noting multiple benefits to students and alumni, and building online learning skills for our residential students. Dr. Spiegel provided context to the national higher-education enrollment trends and expectations of modern universities. He noted the significant increase in online programs being offered at competitor institutions. Dr. Spiegel provided an overview of the significant undertaking involved in building the infrastructure to support online programs. He also noted that we must seek additional Higher Learning Commission (HLC) approval before we can offer any online degree programs. There was a broad discussion on the changes we will need to make to our admissions processes to support timely admissions to a robust online presence. Dr. Boyd clarified the distinct differences between graduate and undergraduate level admissions processes and the need to engage departments as to how best to centralize the admissions process for online degree programs. Dr. Spiegel responded to Trustees' questions regarding the possible issues with control of intellectual property associated with our online content. He noted two years ago the Faculty Handbook was changed to clarify some of those pieces and Legal is working with the Trefny Center to formalize notification of intellectual property expectations. Ms. Walker noted that historically we have not asserted ownership of instructional materials developed by faculty. For online materials that have been developed using institutional resources, however, Mines will retain license to use these materials in the event a faculty member leaves the Mines community. Dr. Spiegel also provided Trustees

an overview of the online course development and approval process. As part of this process, he reviewed the 5-week online course that all faculty engaged in online education must complete prior to teaching online. Dr. Spiegel provided information on the next steps, which included finalizing course implementation, training, and infrastructure changes. There was discussion regarding how the online courses will be paced, i.e., self-paced or instructor-paced. Further discussion addressed how Mines will analyze specific market needs, and how to market to, and recruit from these audiences. Dr. Spiegel noted the goal is to have our first programs officially available in Spring, 2019, after receipt of HLC approval.

Business process re-engineering-prioritized recommendations Ms. Volpi provided information on Mines' project to ensure that business processes are streamlined and productive. She provided an overview of the overall project context that included working with Sibson Consulting, who identified seven key areas of focus for quality and efficiency improvements. Ms. Volpi reviewed one of the seven focus areas, Shared Services, which would centralize certain administrative functions in order to alleviate administrative burdens on faculty. Ms. Volpi reviewed the high level recommendations of the remaining focus areas: policy; Sponsored Research; Human Resources; the Registrar's office; technology; and culture. Next steps include implementing the prioritized recommendations.

Debt capacity Ms. Volpi provided information on Mines' debt capacity, which is an assessment of the amount of debt that Mines can have without jeopardizing the future financial plans and viability. She noted that there are multiple elements in determining debt capacity: credit rating (currently rating Aa3/A+); debt service (currently at \$18 m); and certain ratios. Mines has a healthy, diverse way to pay debt with the majority of the debt being paid for by housing and dining revenues, and the general fund paying the least amount. Ms. Volpi reviewed the balance sheet past and pro forma noting that Mines' credit ratings have improved, in large part, due to improved financial results, and, specifically, an increase in unrestricted net assets and our revenue increase from enrollment growth.. Ms. Volpi reviewed the non-GAAP operating activity pro forma and the significant assumptions. Dr. Boyd provided information on what is causing the softening graduate enrollment the last four years, noting the decline can be attributed to the lower international applicants and accepts, as well as the growth areas in professional degrees and STEM programs that Mines does not currently have.

Ms. Volpi reviewed the reserves Mines currently has in place, noting that Mines has a reasonable amount of funds in place to weather a short-term financial storm. There was discussion regarding the impact on Mines' credit rating, as well as speculation as to how interest rates will move. Ms. Volpi noted Mine' credit rating could be reduced one notch with an increase in debt of \$90 m.

The Board requested an update on the USGS collaboration. Ms. Volpi noted that we are working to develop a vision that articulates what challenges Mines is trying to solve with the partnership. Ms. Volpi discussed the legislative strategy noting Congressman Perlmutter was instrumental on getting USGS back to the cooperative agreement which is currently being drafted.

The Board asked if there was any feedback on the Mines Park housing rate issue. Dr. Fox provided an update, noting a communication has gone out to impacted students, and they have expressed appreciation for the institution's concession. There was brief discussion regarding the housing issue in general.

Day Care Ms. Volpi provided an update on the study that was done to assess the feasibility of a Mines-supported daycare center on or close to campus. From that study, it was determined that Mines could support a center for 60 children. The Phase two study engaged the campus through town halls and surveys, analyzing the pros and cons of having daycare on or near Campus. There was a brief discussion about the potential impacts for employees and graduate students. The study indicated that a center could enhance recruitment, retention, and morale. Ms. Volpi noted that the University would need to subsidize any center that was put in place and that Mines would rent or build the facility. Even though rates charged to users would be market rates, the financial position of the daycare center would require Mines to subsidize the operations. The

campus community is passionate about this issue and sees the benefit of having day care close to campus. There was a brief discussion regarding a possible collaboration with NREL. Ms. Volpi provided information on who the daycare would serve, noting it would serve students, faculty and staff and could enroll approximately 60-100 children. There was brief discussion regarding affordability and possible scholarships. She noted that the decision to proceed would be made before May, followed by a planning effort.

Property purchase Ms. Volpi provided information on a possible property purchase located at 1607 Washington Avenue. The property is a ranch style house that was a dental office for many years. Mines has entered into a non-binding agreement and is performing due diligence. Ms. Volpi wanted to inform the Board of the opportunity and notes she will bring back before the Board with further information at a subsequent meeting.

Public Private Development transaction Ms. Volpi provided an update on the development property located at 1750 Jackson Street. She reviewed the proposed residence hall and noted Mines would break even year one. She provided information on the current transactional process and noted that the letter of intent as well as a term sheet have been signed. Ms. Volpi provided information on the timeline and the opening of the residence hall, which would be June 2020. Ms. Volpi provided an update of the neighborhood meeting that was held on March 15, noting that some neighbors were concerned with growth and parking. Ms. Volpi provided an overview of the next steps: negotiating and finalizing transactional documents with the private owner/developer; and obtaining all state approvals. She noted that the City of Golden planning commission met recently and, while Mines is not subject to their approvals, the commission approved of the development of this property for the residence hall 7-0. Chairman Jordan reminded the Trustees that he sits on a Board with Confluence developer Tim Walsh however, has no financial ties with Mr. Walsh. Ms. Volpi reviewed the rendering of the property and there was discussion regarding interest rates.

The Board asked for an update on the parking garage. Ms. Volpi noted that excavation would start in the Fall after the demolition of the existing buildings at the site.

e. Action Items

Approval of Sabbatical requests Dr. Boyd provided the background on the 19 faculty members seeking approval for sabbaticals this year, noting that this number is up from last year, but within the normal range we would expect. He noted that approximately one-half of the requests are full year sabbaticals, meaning that the faculty involved have successfully raised half of their salaries from external sources.. He mentioned that 12 of the 19 sabbaticals involve visits to other institutions to work with colleagues and collaborators on research projects. Dr. Boyd reported that in the last three years Mines has had approximately 50 faculty from other institutions on campus doing collaborative research with our faculty. Dr. Boyd recommended that the sabbatical requests for the 19 faculty members be approved by the Board. Trustee Haddon mentioned that Dr. Hugh Miller is the new president of Mining Engineers. In addition, Dr. Boyd noted Dr. Ken Osgood received the Harvard faculty fellowship, and will be writing a book on the CIA. Dr. Boyd briefly reviewed the process for sabbaticals.

Motion to approve the three new degree programs by Trustee Salazar; seconded by Trustee Haddon. Approved 7-0.

BE IT RESOLVED that the Board of Trustees of the Colorado School of Mines approved the following for sabbaticals for the term(s) indicated.

College of Applied Science and Engineering (CASE)

<i>Agarwal, Sumit</i>	<i>CBE</i>	<i>Academic Year 2018-19</i>
<i>Anderson, Corby</i>	<i>MME</i>	<i>Fall 2018</i>
<i>Carr, Lincoln</i>	<i>PH</i>	<i>Spring 2019</i>

Eberhart, Mark	CH	Spring 2019
Packard, Corinne	MME	Fall 2018
Squier, Jeff	PH	Spring 2019
Toberer, Eric	PH	Spring 2019
Wolden, Colin	CBE	Academic Year 2018-19

College of Engineering and Computational Sciences (CECS)

Bach, Joel	ME	Fall 2018
Griffiths, D.V.	CEE	Academic Year 2018-19
Haupt, Randy	EE	Academic Year 2018-19
Hoff, Bill	CS	Academic Year 2018-19
Pankavich,	AMS	Spring 2019
Silverman, Anne	ME	Academic Year 2018-19
Smith, Jessica	EDS	Academic Year 2018-19
Zhang, Ray	ME	Fall 2018

College of Earth Resource Sciences and Engineering (CERSE)

Leydens, Jon	HASS	Spring 2019
Miller, Hugh	MN	Split Year - S 2019 - F 2019
Osgood, Ken	HASS	Academic Year 2018-19

Approval of Emeritus faculty _____ Dr. Boyd presented a single Emeritus Faculty recommendation to the Board, that of David Wood, associate professor of Physics. He provided an overview of the faculty member and his accomplishments. He also provided the Trustees an overview of the requirements for, and benefits of Emeritus status, noting that it is primarily an honorary title for years of service to Mines.

Motion to approve by Trustee Haddon; seconded by Trustee McNeil. Approved 7-0.

BE IT RESOLVED that the Board of Trustees of the Colorado School of Mines approved the following for Emeritus status effective on their retirement dates.

Emeritus

Dr. David Wood – Emeritus Associate Professor – Physics

Approval of Promotion and Tenure _____ Dr. Boyd requested approval of the recommendations for faculty promotion and tenure applications, as presented to the Board in executive session at the breakfast.

Motion to approve by McNeil; seconded by Trustee Salazar. Approved 7-0.

BE IT RESOLVED that the Board of Trustees of the Colorado School of Mines approved the following recommendations of promotion and/or tenure:

Tenure-Line Faculty: Tenure

Soutir Bandopadhyay (Applied Mathematics and Statistics): recommend tenure

Geoff Brennecka (Metallurgical and Materials Engineering): recommend tenure and promotion to Associate Professor

Moises Carreon (Chemical and Biological Engineering): recommend tenure

Emmanuel De Moor (Metallurgical and Materials Engineering): recommend tenure and promotion to Associate Professor
Shiling Pei (Civil and Environmental Engineering): recommend tenure and promotion to Associate Professor
Jenifer Shafer (Chemistry): recommend tenure and promotion to Associate Professor
Alexis Sitchler (Geology and Geological Engineering): recommend tenure and promotion to Associate Professor
Kathleen Smits (Civil and Environmental Engineering): recommend tenure and promotion to Associate Professor
Aaron Stebner (Mechanical Engineering): recommend tenure and promotion to Associate Professor
Brian Trewyn (Chemistry): recommend tenure and promotion to Associate Professor
Hua Wang (Computer Science): recommend tenure and promotion to Associate Professor
Chuan Yue (Computer Science): recommend tenure and promotion to Associate Professor

Tenure at Hire

Douglas Nychka (Applied Mathematics and Statistics): recommend tenure at the level of Professor

Tenure-Line Faculty: Promotion

Sumit Agarwal (Chemical and Biological Engineering): recommend promotion to Professor
Hussein Amery (Humanities, Arts, and Social Sciences): recommend promotion to Professor
Junko Munakata Marr (Civil and Environmental Engineering): recommend promotion to Professor
Paul Sava (Geophysics): recommend promotion to Professor
Amadeu Sum (Chemical and Biological Engineering): recommend promotion to Professor

Library Faculty: Promotion

Ye Li (Library): recommend promotion to Librarian

Teaching Faculty: Promotion

Stephanie Claussen (Electrical Engineering): recommend promotion to Teaching Professor
Cortney Holles (Humanities, Arts, and Social Sciences): recommend promotion to Teaching Professor
Jason Ganley (Chemical and Biological Engineering): recommend promotion to Teaching Professor
Tracy Gardner (Chemical and Biological Engineering): recommend promotion to Teaching Professor
Melanie Brandt (Humanities, Arts, and Social Sciences): recommend promotion to Teaching Associate Professor
Olivia Burgess (Humanities, Arts, and Social Sciences): recommend promotion to Teaching Associate Professor
Jeffery Holley (Civil and Environmental Engineering): recommend promotion to Teaching Associate Professor
Josh Ramey (Chemical and Biological Engineering): recommend promotion to Teaching Associate Professor
Seth Tucker (Humanities, Arts, and Social Sciences): recommend promotion to Teaching Associate Professor

Approval of Indemnification Agreement _____ Dr. Boyd requested the Board approve an institutional indemnification agreement required for students participating in a NASA competition. Dr. Boyd introduced Dr. John Persichetti who provided a brief overview of the competition and the benefits to Mines students in participating in the NASA competition. Dr. Boyd noted that NASA's funding from congress stipulates that all participants must sign the indemnification agreement in order to participate. There is no flexibility allowing Mines to remove this language from the NASA agreement. Ms. Walker addressed possible liability risks related to signing the agreement, noting that per Board policy, Mines must seek the Trustees' approval to allow the institution to enter into such an indemnification agreement. There was an internal risk assessment and subsequent follow-up with the internal risk manager. Assistant Counsel, Ms. Molly Markley, assisted with review of the agreement and the evaluation of institutional risk. There was a brief discussion regarding benefits and risks.

Motion to approve by McNeil; seconded by Trustee Truly. Approved 7-0.

BE IT RESOLVED that the Board of Trustees of the Colorado School of Mines approves of Mines contracting to indemnify the federal government and Bradley University in the 2018/2019 3D-Printed Habitat Challenge On-

Site Habitat Competition Team Agreement, and authorizes the President or his appropriate delegee to execute this Agreement.

f. Regular Written Reports

Undergraduate Admissions Ms. Boyd reported on the admissions event on campus today. She noted there are 200 additional commits and May 1 is the deadline for admitted students to commit. Ms. Boyd commented on the shift in first generation students, who now make up 17% of commits, compared to 13% last fall, and women applicants are more that 33% of the group, up 2%. Everything is trending positive. There was brief discussion regarding the financial commitment if applicants walk away.

Graduate Admissions Dr. Boyd asked Dr. Zhou for an update regarding graduate admissions. Dr. Zhou commented that the total number of applicants is down since 2016 due to lower international applicant numbers; however, the total graduate enrollment is not down.

CSM Foundation report Mr. Winkelbauer provided a brief update on Foundation activity, noting the Foundation is a little over \$22 million towards the \$30 million goal. He noted the increase in donors, overall, due to crowd funding and the #digMines campaign. Mr. Winkelbauer provided a review of upcoming events, including the Evening of Excellence and Board of Governors meeting. He noted that the Foundation is in the midst of the planning phase of the campaign supporting Mines@150, and reviewed the scope and scale of the campaign. Mr. Winkelbauer thanked the Trustees for their representation, engagement and involvement in advancing the goals of the institution.

12:00 motion to move into executive session by Trustee Haddon; motioned seconded by Trustee Truly. Motion approved 7-0.

3:00 p.m. Motion to adjourn by Trustee McNeil; seconded by Trustee Starzer. Approved 7-0

There being no further business, the regular meeting adjourned.



Anne Stark Walker, Secretary