

## Resolutions for Board of Governors Action – August 9-10, 2018

1. Audit and Finance Committee: Approval of the Institutional Student Fee Plan and Policy for Fiscal Year 2018-19 (2019-0001-081018)
2. Audit and Finance Committee: Approval of the FY 2019-2020 CSU System Combined Capital Information Technology Priority List for State Funded Information Technology Capital Projects for CSU and CSU-Pueblo and the Program Plans for CSU-Pueblo's Communication System Upgrade and CSU's Network Refresh (2019-0002-081018)
3. Audit and Finance Committee: Approval of Revised Colorado State University System Board of Governors Policy 205: Board Reserves. (2019-0003-081018)
4. Audit and Finance Committee: Approval of 14th Supplemental Resolution – System Enterprise Revenue Bonds – Series 2018 (2019-0004-081018)
5. Audit and Finance Committee: Approval of 15th Supplemental Resolution – System Enterprise Revenue Refunding Bonds (2019-0005-081018)
6. Real Estate/Facilities Committee: Land - Sale of approximately 161 acres of land known as the Hughes Stadium Property. (2019-0006-081018)
7. Real Estate/Facilities Committee: Land - Grant of a non-exclusive permanent and a temporary construction easement for natural gas liquids pipeline to ONEOK Elk Creek Pipeline, L.L.C., a subsidiary of ONEOK, Inc., at the Eastern Colorado Research Center (ECRC). (2019-0007-081018)
8. Real Estate/Facilities Committee: Land - Acquisition of a Sanitary Sewer Easement from Melvin D. and Maureen Retting at the Western Colorado Research Center. (2018-0008-081018)
9. Real Estate/Facilities Committee: Real Property - Long-Term Lease of .22 acres of unimproved land from Colorado Mesa University in Mesa County, CO for the installation (relocation) and operation of an incinerator to support Colorado State University's Western Slope Diagnostic Laboratory. (2019-0009-081018)
10. Real Estate/Facilities Committee: Real Property - Long-Term Lease of an approximate 25,000 square feet stand-alone building from Adams-Arapahoe School District 28J in Aurora, Colorado. (2019-0010-081018)
11. Colorado State University: Approve the acceptance of gifts and the naming in recognition of gifts relating to a lab, workspace and outdoor space within the College of Health & Human Sciences. (2019-0011-081018)
12. Certification of Consent Agenda (2019-0012-081018)
13. Colorado State University: Allocation of Canvas Stadium Net Revenues (2019-0013-081018)

MATTERS FOR ACTION:

CSU and CSU-Pueblo: Institutional Student Fee Plan and Policy

RECOMMENDED ACTION:

MOVED, that the Board of Governors approve the Institutional Student Fee Plan and Policy for Fiscal Year 2018-19, as attached for CSU and CSU-Pueblo.



EXPLANATION:

Presented by *Lynn Johnson, Vice President Operations and Chief Financial Office, Colorado State University* and *Karl Spiecker, Vice President Finance and Administration, CSU-Pueblo*

Institutional Fee Policy and Plan. In accordance with C.R.S. §23-5-119.5 and CCHE Policy VI-C-3.01, the Board is required to adopt a Student Fee Policy and an Institutional Student Fee Plan and to annually review the plan and approve any new fees or fee changes. This document is organized according to the statutory requirements and provides all required information regarding Student Fees currently being charged, and to be charged in FY2018, by Colorado State University and Colorado State University - Pueblo. CSU Global Campus does not charge student fees and therefore no plan is necessary.

  
\_\_\_\_\_  
Approved

\_\_\_\_\_  
Denied

  
\_\_\_\_\_  
Board Secretary  
  
\_\_\_\_\_  
Date

COLORADO STATE UNIVERSITY  
FY19 Institutional Student Fee Plan and Policy

Introduction and Purpose:

The purpose of this Institutional Student Fee Plan and Policy (hereinafter “plan”) is to provide information in accordance with C.R.S. § 23-5-119.5 and CCHE Policy VI-C-3.1-3.3 requiring the Board to adopt a Fee Policy and an Institutional Student Fee Plan.

I. Definitions:

As used in this plan, the following terms are defined as follows:

*Academic Course:* A program of instruction, including, but not limited to: academic, vocational, occupational, technical, music, and physical education courses.

*Academic Facilities Construction:* As defined in CDHE Policy Section VI-C-1.50, includes buildings and site improvements, or specific space within a multi-use building (including utilities and transportation infrastructure) as defined in C.R.S. 24-75-301. The determination of whether it is an academic facility or space shall be determined based on the function/purpose of the building or space. Academic Facilities are those facilities that are core to the role and mission of the institution and may include, but not be limited to, space dedicated to instructional, student services, or administration. If a multipurpose building, the space determination shall be based on the primary usage of the space during the regular academic year.

*Alternative Transportation Fee Advisory Board (ATFAB):* A board comprised of student members and non-student *ex officio* members, that exists to provide guidance and advice to the President of ASCSU and the University administration regarding alternative transportation projects and initiatives and to recommend the allocation of ATFAB fees for new and improved transportation facilities and programs. ATFAB is governed by the ATFAB Bylaws, subject to approval of the Student Fee Review Board (SFRB).

*Auxiliary Facility:* As defined in C.R.S. § 23-5-101.5(2)(a), any student or faculty housing facility; student or faculty dining facility; recreational facility; student activities facility; child care facility; continuing education facility or activity; intercollegiate athletic facility or activity; health facility; alternative or renewable energy producing facility, including but not limited to, a solar, wind, biomass, geothermal, or hydroelectric facility; college store; or student or faculty parking facility; or any similar facility or activity that has been historically managed, and was accounted for in institutional financial statements prepared for fiscal year 1991-92, as a self-supporting facility or activity, including any additions to and any extensions or replacements of any such facility on any campus under the control of the governing board managing such facility. “Auxiliary facility” shall also mean any activity undertaken by the governing board of any state-supported institution of higher education as an eligible lender participant.

*Board for Student Organization Funding (BSOF):* A body whose primary purpose is to allocate a portion of the ASCSU Student Fee approved by the Board of Governors of the Colorado State University System to student organizations for educational and cultural programming and to

administer relevant provisions of Article VIII of the ASCSU Constitution. BSOF is governed by the BSOF Bylaws.

*Charge for Service:* A charge assessed to certain students to cover the costs of delivering specific services to those students. Charges for service are not mandatory for all students. Charges for service are, however, required for students who meet the criteria for which the charge is being assessed. These may include, but are not limited to: application charges, add/drop charges, fines and penalties, late charges, orientation charges, college technology charges and matriculation fees, parking permit charges and citations, and charges for services provided to online students. Charges for service are not Student Fees and do not require legislative spending authority appropriation or student approval.

*Contractually-Based Fee:* Any Fee that is (a) required to satisfy any existing contractual obligations, or (b) related to bonds or other debt obligations issued or incurred prior to July 30, 1997. (Fees related to bonds issued on or after July 30, 1997 are *User Fees*.)

*Fee(s) or Student Fee(s):* Any amount, other than tuition, that is assessed to all individual students as a condition of enrollment in the university. Fees may be used for academic and non-academic purposes, including, but not limited to: funding registered student organizations and student government; construction, remodeling, maintenance and improvement of student centers, recreational facilities, and other projects and improvements for which the University Facility Fee is approved; intercollegiate and intramural athletics; student health services; technology and infrastructure for which the University Technology Fee is approved; mass transit; and Contractually-Based Fees (including bond payments for which Student Fees have been pledged). "Student Fee" excludes tuition, Special Course Fees, User Fees, and Charges for Services. Student Fees may be subject to certain waivers, exceptions or pro-rations.

*Special Course or Program Fee(s):* Mandatory fees that a student must pay to enroll in a specific course or program (e.g., lab fees, music program fees, art fees, materials fees, and telecourse fees). Revenue generated from Special Course or Program Fees cannot be used to fund academic facilities construction. Special Course are established in accordance with the Special Course Fee Manual and are not Student Fees.

*Student Fee Review Board (SFRB):* A body comprised of student members and non-student, *ex officio* members that exists for purposes of providing efficient, equitable, and consistent review of Student Fees and the services for which Fees are assessed. SFRB makes recommendations to the Board of Governors regarding Fee proposals, new Fee-funded areas, and changes to existing Student Fees. SFRB is governed by the SFRB Bylaws. ATFAB, UFFAB and UTFAB-recommended fees must be approved by SFRB. All student-fee funded areas make recommendations to SFRB except as otherwise specified in this plan.

*University Facility Fee:* A Student Fee approved by ASCSU Senate Bill 3540 (2005) to be used for capital improvements at CSU.

*University Facility Fee Advisory Board (UFFAB):* A body comprised of student members and non-student, *ex officio* members, that exists to provide guidance concerning the University

Facility Fee to the Vice President of University Operations (VPUO) and/or his or her designees regarding project proposals for allocations of the University Facility Fee, and to ensure that all allocations of the University Facility Fee will be used to provide new facilities and/or to improve current facilities that directly benefit the students of Colorado State University. UFFAB is governed by the UFFAB Bylaws, subject to approval of SFRB.

*University Technology Fee:* a Student Fee approved by ASCSU and the Board of Governors in 2003, to be used to enhance online student services, replace computers, and to build and maintain the physical improvements needed for computer infrastructure.

*University Technology Fee Advisory Board (UTFAB):* A body comprised of student members and non-student *ex officio* members to provide guidance and advice in the implementation and application of technology at Colorado State University; to review all allocation requests of the University Technology Fee; and to ensure that all allocations of the University Technology Fee will be used to provide technology that has the potential to benefit as many Colorado State University students as possible. UTFAB is governed by the UTFAB Bylaws, subject to approval of SFRB.

*User Fee(s):* A fee collected for purposes of paying any bonds or other debt obligations issued or incurred on or after July 1, 1997, on behalf of an auxiliary facility, from persons using the auxiliary facility, that includes the amount necessary for repayment of the bonds or other debt obligations and any amount necessary for the operation and maintenance of the auxiliary facility. User Fees do not require legislative spending authority appropriation and do not require student approval. Examples of User Fees include (but are not limited to) debt service associated with residence halls, parking facilities, and Fees paid by non-campus users for use of university facilities.

## 2. Types and Purposes of Student Fees Collected by the Institution:

The institution collects Student Fees, User Fees, Special Course and Program Fees, and Charges for Services, as defined above. Student Fees are used for academic and non-academic purposes, including, but not limited to: funding registered student organizations and student government; construction, remodeling, maintenance and improvement of student centers, recreational facilities, and other projects and improvements for which the Fee is approved; intercollegiate and intramural athletics; student health services; technology for which the University Technology Fee is approved; mass transit; and Contractually-Based Fees (including bond payments for which Fees have been pledged). The allocation of Student Fees to the funding of registered student organizations or any other student speech shall be made in a viewpoint-neutral manner and shall not discriminate against any funding request based upon the viewpoint to be expressed by the proposed event.

## 3. Procedures for Establishing, Reviewing, Changing and Discontinuing Student Fees:

(a) The Student Fees to be assessed are approved annually by the Board of Governors of the Colorado State University System. The President of the University annually recommends to the Board of Governors the specific Fees and the allocation of Fee revenues, which may be

approved, rejected or modified at the Board's discretion. In addition, although it does not restrict the President's discretion, the Bylaws of the Student Fee Review Board (SFRB) set forth the processes by which meaningful student input on Student Fees is provided to the University administration before the President makes a recommendation to the Board of Governors. The budget assumptions on which to base the requests are set by the Operations Committee of the CSU President's Cabinet, consistent with the institution's annual budget process.

(b) Except for Contractually-Based Fees and/or to provide for mandatory cost increases, all new Student Fees, and all increases in existing Student Fees, shall be subject to the Bylaws of the SFRB. Mandatory costs comprise salaries and benefits, debt service, utilities and general and administrative Fees assigned by the University. All requests for new Student Fees, other than Contractually-Based Fees, shall be initiated through the established SFRB process. This process shall require the SFRB to make recommendations regarding Student Fees in accordance with the SFRB Bylaws and ASCSU Constitution.

(c) Each academic year, an SFRB member will be assigned as a liaison to one or more programs or activities funded by existing Student Fees. The SFRB liaison will work with the Director of the program or activity throughout the academic year to learn about the program and its budget and to review any proposed change or increase to the Fees supporting that program. The Director of the Fee-funded area and the assigned liaison will present the budget and all relevant information for the next fiscal year. The SFRB liaison for a Fee area may advise the SFRB, but shall not cast a vote on Fees for that area. University leadership may also present information to the SFRB regarding institutional priorities and goals. The SFRB shall review and consider all information presented, including student input/Feedback received by each SFRB member, following the specific processes and procedures detailed in the Bylaws of the SFRB. All recommendations for new Fee-funded areas shall be submitted to the SFRB in the form of a proposal as detailed in the SFRB Bylaws. The proposal shall demonstrate that the Fee request is student-sponsored, that sufficient student need for the Fee exists, and that the Fee will be allocated in partnership with a specific University department. Final approval of a new Student Fee rests with the Board of Governors.

(d) After the SFRB has reviewed the information presented by the liaisons, Directors, and University leadership, and evaluated any requests for new Fees, Fee increases or decreases, and Fee extensions, the SFRB forms recommendations and presents them to the ASCSU Senate for a vote of confidence. The Operations Committee of the President's Cabinet reviews the recommendations and forwards them to the President, who then forwards them to the Board of Governors for final action, along with any additional or different institutional recommendations. The CSU student representative to the Board of Governors attends the meeting at which the Board reviews and approves the Student Fees.

(e) The Board of Governors annually reviews and approves Student Fees. Its review and approval process includes any new Student Fees and increases in existing Fees. Notwithstanding any other provision in the Institutional Fee Plan, or any other governing procedure, rule, bylaw, or policy, the Board of Governors shall provide to students at least thirty (30) days advance notice of a new Fee assessment or Fee increase, which notice, at a minimum, specifies:

(1) The amount of the new Fee or of the Fee increase;

- (2) The reason for the new Fee or Fee increase;
- (3) The purpose for which the institution will use the revenues received from the new Fee or Fee increase; and
- (4) Whether the new Fee or Fee increase is temporary or permanent and, if temporary, the expected date on which the new Fee or Fee increase will be discontinued.

A decision by the Board of Governors with regard to a Fee shall be final and incontestable either on the thirtieth day after final action by the Board of Governors or on the date on which any evidence of indebtedness or other obligation payable from the Fee revenues is issued or incurred by the Board, whichever is earlier.

4. Procedures by which students may contest the imposition or amount of a Fee and a process for resolving disputes regarding Fees:

The process described above includes direct, meaningful student input on all Fees. If a student wishes to lodge a complaint about a specific Student Fee (other than a Contractually-Based Fee), the student submits a complaint or request for a Fee waiver to the Vice President for Student Affairs, who may hear the appeal or appoint an appeal officer to hear the appeal and resolve the issues. The decision of the VPSA or appeal officer is final.

5. Plan for addressing reserve fund balances:

Fee-funded areas should maintain a fund balance between 10 and 20 percent of annual revenues, dependent upon contractual and other financial obligations. Auxiliary Fee-funded areas should maintain a similar fund balance along with separate reserves in support of the anticipated capital expenditures and facility master plan.

**COLORADO STATE UNIVERSITY–PUEBLO  
Institutional Plan for Student Fees and Charges**

**1. INTRODUCTION AND DEFINITIONS**

The purpose of this Institutional Plan is to provide information on how student fees are proposed, reviewed, approved, and implemented at Colorado State University-Pueblo in an open and transparent manner and in accordance with CCHE Policy VI-C.

A. Definitions of Key Terms:

Fees: Any amount, other than tuition, that is assessed to all individual students (where fees apply) as a condition of enrollment in the University. Fees are identified as permanent student purpose and do not include items defined as Charges for Service or User Charges. Fees may be used for academic and non-academic purposes, including but not limited to:

- Funding registered student organizations and student government
- Construction, remodeling, maintenance, and improvement of student centers, recreational facilities, and other projects and improvements for which a facility fee is approved
- Athletics
- Student health services
- Student recreation center
- Student center
- Child care center
- Technology
- Mass transit
- Parking
- Bond payments for which fees have been pledged

Fees do not include Charges for Service, User Charges, and Program or Course fees as defined below.

Charges for Service: These are the assessments to cover the costs of delivering specific services which are incidental to instructional activities, including but not limited to:

- Application charges
- Add/drop charges
- Fines and penalties
- Transcript charges
- Late charges



- Testing charges
- Student identification card charges
- Health center charges and health insurance charges

Charges for Service do not include admissions to events or other such ancillary activities and are not fees as described above.

User Charges: These are assessments against students for the use of an auxiliary facility or service. A User Charge is assessed to only those students using the auxiliary facility or receiving the service. User Charges may include student housing, meal plans, and parking registration charges and are not fees as described above.

Program Instructional Fees: These are non-campus-wide fees related to an instructional program, but not to a specific course offering, and may include college-specific fees or program-specific fees, including program- or college-specific technology fees.

Course Specific Fees: These are non-campus-wide fees that a student may be assessed to enroll in specific courses (e.g., lab, music, art, and materials fees). Revenue from each Course Specific Fee is restricted for costs directly related to the associated course for which the fee is charged and each section of the associated course must be assessed the same Course Specific Fee.

Student Fee Governing Board: The Student Fee Governing Board (SFGB) is the body at Colorado State University-Pueblo responsible for recommending Permanent Student Purpose Fees, including the activities portion of the Student Affairs Fee. The SFGB shall also review requests for new, elimination of or changes in existing campus-wide Permanent Student Purpose Fees. The Chair of the SFGB is appointed by the Vice President of Enrollment Management, Communication, and Student Affairs and is a non-voting member. The Associated Students' Government (ASG) President shall appoint ten students to serve on the Board. One faculty/staff member shall be appointed by each of the following: the Provost, the Vice President for Finance and Administration, and the Vice President of Enrollment Management, Communications, and Student Affairs for a total of three additional members. The ten (10) student representatives and three (3) appointed representatives are voting members. The SFGB Chair, working with the SFGB, will maintain all records regarding allocations including but not limited to applications, justifications, and SFGB minutes for six years after the date of its recommendation.

## 2. FEE CATEGORIES

Every fee is classified as to whether its scope is Campus-wide or Non-campus-wide.

Campus-wide Fees: These are fees assessed to every (all) student at the University as a condition of enrollment, including but not limited to the mandatory fees identified as Permanent Student Purpose Fees.

Non-campus-wide Fees: These are mandatory assessments to students which are not automatically imposed upon all students as a condition of enrollment, but are automatically assessed to students from a particular classification. These include but are not limited to program-specific fees and course-specific fees.

### 3. PURPOSE OF FEES

Fee Purpose: Fees at Colorado State University-Pueblo are identified as 1) Permanent Student Purpose Fee, 2) Academic Facilities Fee, 3) Academic Purpose Fee, or 4) Administrative Purpose Fee. If a particular fee serves several purposes it shall be categorized within the most dominant purpose. Fee purposes are defined as:

- Permanent Student Purpose Fees: Campus-wide fees assessed to all students which are allocated to specific student programs including student centers, recreation facilities, parking lots, athletics, recreation and outdoor programs, child care centers, campus health clinics, contract health services, student government, general student activities which are allocated by student government for a specific purpose, and similar facilities and services. This category includes fees pledged to repay bonded indebtedness for student, auxiliary, and athletic facilities. The proposal and approval process for Permanent Student Purpose Fees is specified in item number 4.
- Academic Facility Purpose Fees: Campus-wide fees assessed to students and associated with the construction, acquisition, or remodel of academic facilities, which may include buildings and site improvements or specific space within a multi-use building, including utilities and transportation infrastructure. The determination of whether it is an academic facility or space is determined based on the function/purpose of the building or space. Academic facilities are those facilities that are core to the role and mission of the University and may include but not be limited to space dedicated to instruction and research. If it is a multi-purpose building, the space determination is based on the primary use of the space during the regular academic year.
- Academic Purpose Fees: Campus-wide or non-campus-wide fees associated with instruction, technology, and/or academic courses, including program and course fees.
- Administrative Purpose Fees: Campus-wide or non-campus-wide fees assessed to provide administrative and support services.

Charges for services and user charges are not fees.

#### 4. PROPOSAL AND APPROVAL PROCESS

The proposal, review, and approval of fees involve students in a significant way. Fee proposals or changes shall occur as agenda items at regularly scheduled meetings of the Board of Governors.

In all cases, when fees are reviewed, the review must conclude with a recommendation for or against the proposed fee.

Permanent Student Purpose Fee: The implementation of a new, elimination of an existing, or change of an existing fee, must be:

- Initiated by the proposing unit;
- Referred to the Chair of the SFGB as a proposal for their review and possible referral to the ASG Senate;
- If proposed by the SFGB to the ASG Senate in the form of a recommendation for review, then referred to the University President;
- Recommended by the President to the Board of Governors for their consideration; and
- Acted upon by the Board of Governors.

Academic Facilities Purpose Fees: A proposal for an Academic Facilities Purpose Fee is subject to the following:

- All other financing options have been exhausted before the fee request is presented to the SFGB. The SFGB, at its discretion, initiates a recommendation to the ASG Senate;
- All relevant information concerning the recommendation will be published in the ThunderWolves' Howl, and the SFGB will hold at least three information sessions to present the issue to the student body;
- The institution and student government representatives will present all relevant information in a fair and balanced manner;
- If the above conditions are met, an Academic Facilities Purpose Fee will be approved using the same process identified for campus-wide Permanent Student Purpose Fees.

Academic Purpose Fees: A new Academic Purpose Fee is:

- Initiated by the proposing unit in coordination with the appropriate Dean and reviewed by the curriculum committee of the college/school/center;
- Reviewed by the Provost, the appropriate Dean, the two Academic Senators from the proposing unit's school or college, and the Vice President for Finance and Administration;
- Referred to the University President for possible discussion with the SFGB and/or the ASG Senate; and
- If approved by the President, submitted to the Board of Governors for consideration.

Administrative Purpose Fees:

There are no Administrative Purpose Fees in place at CSU-Pueblo. If an Administrative Purpose Fee is proposed, it will be approved using the same process identified for Academic Purpose Fees.

Other Fees, Charges for Service, and User Charges:

Any new fee, Charge for Service, or User Charge not previously covered must be 1) initiated by the proposing unit in coordination with the appropriate Dean or Director and consultation with ASG representatives; 2) reviewed by the Provost, the Vice President for Finance and Administration, and the Vice President for Enrollment Management, Communication, and Student Affairs for possible referral to the University President; and 3) approved by the University President, which would then be submitted, if required, to the Board of Governors for consideration.

Proposals Referred to the ASG Senate:

A fee proposal referred to the ASG Senate as a recommendation must 1) be presented at an ASG Senate meeting, 2) clearly indicate the amount of the fee, the purpose of the fee, and indicate if the fee can be used as pledged revenue for financing activities, and 3) be phrased in such a manner that an affirmative vote is for the fee proposal and a negative vote is against the fee proposal.

A recommendation that receives a majority of favorable votes from among those voting on the proposal shall be deemed as approved by the ASG Senate and sent to the President for consideration. No resolution for a fee increase that is defeated by a vote of the ASG Senate may be resubmitted to the ASG Senate for a vote until the next academic semester (summer excluded).

Normally, the President will only recommend a fee that requires action by the ASG to the Board of Governors if the fee was approved by the ASG Senate. Exceptions are 1) a recommendation is deemed necessary as a condition of a bonded indebtedness agreement, or 2) a recommendation is deemed critical to the institution's mission.

## **5. ADMINISTRATION OF FEES AND CHARGES**

Budget Process for Fees and Charges:

Each fiscal year, the Budget Office will be responsible for overseeing a list of fees and charges that are currently in use and proposed for the next fiscal year. Fees should be proposed within the deadlines established by the Provost, the Vice President for Finance and Administration, and the Vice President of Enrollment Management, Communication, and Student Affairs. Each year, the Budget Office will develop a calendar of deadlines that includes deadlines for fees. Campus units will make recommendations as to whether the fees or charges in each of their respective areas should be continued, increased, decreased, or eliminated. Cabinet will review fee proposals prior to submitting to the Board of Governors for final approval.

Publication of Fees: The posting of the approved fee schedule on the CSU-Pueblo website constitutes notice regarding the fees.

Assessment of Fees: Fees are assessed and collected through normal accounting procedures. No fees shall be paid directly to academic or non-academic departments or individuals unless specifically authorized. Fees may be prorated for part-time students only if stated in the proposal for the fee.

Itemization of Fees on Billing Statement: Fees are separately identified on the University's student billing statement.

Assessing General And Administrative Costs: Each fee shall be accounted for in the appropriate account for the type of activity associated with the fee. Fees associated with Enterprises or maintained in a separate fund shall be assessed the University's standard General and Administrative (indirect cost) assessment.

Fees Related to Bond Issues or Specific University Sponsored Programs: Fees related to bond issues or specific University sponsored programs that are administered by University officials, will be allocated by the Vice President for Finance and Administration with the approval of the President prior to distribution of the Permanent Student Purpose Fee by the Student Fee Governing Board. Each of the specific University-sponsored programs is to have an advisory group consisting of a student majority, all of whom shall be approved by the ASG, and shall include an ASG member and faculty/staff representative(s). The advisory group will be responsible for budget review and recommendations to the Vice President for Finance and Administration. If an advisory group is not functional due to unavailability of students, the Director of the specific University-sponsored programs will submit the budget to the Vice President for Finance and Administration.

Viewpoint Neutral Criteria Related to Non-University-sponsored Programs and University Chartered Clubs and Organizations: Non-University-sponsored programs and University chartered clubs and organizations must submit allocation requests to the SFGB for review. All decisions made by the SFGB are subject to approval by the Vice President for Finance and Administration and the President. The following viewpoint neutral criteria are to be used to determine the funding of the various programs/organizations:

- The program/organization provides a service or adds value to the University student community in relationship to the program's/organization's purpose;
- The program/organization has fixed expenses, such as staff, office expenses, equipment, etc.;
- The program/organization adheres to a planned budget and is accountable for its expenses and also demonstrates familiarity with applicable laws, including but not limited to those laws that apply to expenditures and use of state money;
- The program/organization presents a budget with adequate justification for the upcoming fiscal year;

Any further allocations of funds must also meet viewpoint neutral criteria.

## 6. COMPLAINT RESOLUTION PROCEDURE

Any student, who wishes to request a financial statement of a specific student fee account in which income and expenses are detailed must make such a written request to the Vice President for Finance and Administration.

Appealing Recommendations made by the SFGB and/or the ASG Senate: Any affected individual or program/organization may appeal the allocation decision of the SFGB and/or ASG Senate to the Vice President for Finance and Administration. Any appeal of an allocation decision must be made in writing within five working days from the date of the letter notifying the individual/program/organization of the SFGB recommendation. Within five working days of receipt of the appeal, the Vice President for Finance and Administration, in consultation with a representative of the ASG, the Provost, and the Vice President of Enrollment Management, Communication, and Student Affairs, will issue a written decision regarding the appeal. The Vice President for Finance and Administration has the authority to void the decision made by the SFGB and/or ASG Senate and may remand it back to the appropriate body for reconsideration.

Appealing Individual Charges on a Student Account: Any student who is seeking a fee or charge waiver or has a complaint that fees or charges have been assessed against her/him inappropriately may file a written request for review with the University Controller. Such requests will be addressed through a Review Board comprised of the University Controller and two students appointed by the ASG. The recommendation of this Board will be forwarded to the Vice President for Finance and Administration, who will make the final decision on any complaint or appeal.

## 7. SPECIAL CONSIDERATIONS FOR REFUNDS IN TIMES OF EMERGENCY

In times of emergency, certain students (e.g., those in reserve military units, individuals with specialized skills, or firefighters) are called to provide services to the country.

Normal refund, grading, and withdrawal policies may not be applicable in such situations, and CSU-Pueblo procedures comply with CCHE Section VI, Part C, 2.03.

Board of Governors of the Colorado  
State University System Meeting Date:  
August 9-10, 2018 Action Item

MATTER FOR ACTION

Approval of the FY 2019-2020 CSU System Combined Capital Information Technology Priority List for State Funded Information Technology Capital Projects for CSU and CSU-Pueblo and the Program Plans for CSU-Pueblo's Communication System Upgrade and CSU's Network Refresh

RECOMMENDED ACTION:

MOVED, that the Board of Governors approve the attached FY 2019-2020 capital information technology prioritization list for the CSU System.

FURTHER, that the Board of Governors approve the attached Program Plans for CSU- Pueblo Information Technology Voice-over IP (VOIP) Installation and CSU Network Refresh and Upgrade.

FURTHER, that staff is authorized to submit any and all documents required by the Department of Higher Education, Governor's Office, and General Assembly.

EXPLANATION:

Presented by Lynn Johnson, Vice President of Operations and Chief Financial Officer, Colorado State University and Karl Spiecker, Vice President Finance and Administration, CSU-Pueblo.

This action item reflects the yearly-required approval by the Board of a prioritized combined capital information technology list for consideration by the CCHE, OSPB, JTC and the Joint Budget Committee. This action item also includes approval of the program plans for CSU-Pueblo's Information Technology VOIP Installation project and CSU's Network Refresh and Upgrade project. Board approval of the program plan is required when the cost of the project is more than \$2 million. This is an annually occurring Action Item that requires Board approval and represents the official request for state funded capital IT projects for FY 2019-2020.

This item is recommended by the Board of Governors Audit and Finance Committee.

✓  
Approved

\_\_\_\_\_  
Denied

Lynn Johnson  
Board Secretary

10 August 2018  
Date

**Board of Governors of the CSU System  
FY 19-20 Combined Campus State Capital Information Technology Request**

Priority	Funding	Project Name	Prior Funding	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	Total State Funds	Total Cash Funds	Total Project Costs
1	State	CSU-Pueblo Communications System Upgrade		4,290,130					\$4,290,130		\$4,290,130
	Cash									\$0	(State & Cash)
2	State	CSU Network Refresh and Upgrade - 3 Phases		498,000	1,759,000	1,313,000			\$3,570,000		\$3,570,000
	Cash									\$0	(State & Cash)
	State	CSU-Pueblo Category 6A Network Cabling			2,600,000				\$2,600,000		\$2,600,000
	Cash									\$0	(State & Cash)
	State	CSU-Pueblo Remote Classroom Technology				2,500,000			\$2,500,000		\$2,500,000
	Cash									\$0	(State & Cash)
	State	CSU-Pueblo Wi-fi Network Expansion					1,800,000		\$1,800,000		\$1,800,000
	Cash									\$0	(State & Cash)
	State	CSU-Pueblo Upgrade Classroom Technology in Instruction Buildings						1,700,000	\$1,700,000		\$1,700,000
	Cash									\$0	(State & Cash)

State Funds Request for FY 19-20

\$ 4,788,130



**Program Plan  
Colorado State University – Pueblo  
Information Technology Voice-over IP (VOIP) Installation**

*FY 2018-2019 Capital Budget Request – July 20, 2018*



**Page 2 Preface**

**Page 3 Problem Statement**

**Page 4 Project Details**

*Initiative #1 – Install New Voice Over Internet Protocol (VOIP)*

*Initiative #2 – Install New Campus Emergency Phones*

*Initiative #3 – Install New Network Power-Over-Ethernet (POE) Switches*

*Initiative #4 – Install Category 6A Network Cabling in Priority Buildings*

*Initiative #5 – Renovate and Upgrade HVAC in IT Data Closets*

*Initiative #6 – Install Generators at Buell and Chemistry Buildings*

**Page 13 Summary of Infrastructure Improvement Costs**

**Page 14 CDHE and State of Colorado Technology Goals**

**Page 15 University Mission Statement and Strategic Plan**

**Page 17 Summary**

## PREFACE

Effective communication is vital to the success of any University campus. Higher education is constantly evaluating methods to enhance the learning environment, as well as advance the technological approach to course instruction. Institutions are switching to Voice Over Internet Protocol (VOIP) systems to provide unified communication across campus by combining phone calls, texts, conference calls, video chats, email, and desktop applications to provide a unique user interface. VOIP allows users to make and receive phone calls using a high speed internet connection, as opposed to a traditional phone line. Upgrading to VOIP is becoming necessary for universities due to fact that traditional phone systems, i.e. legacy phone systems, are not manufactured as they were historically and replacement parts for these systems are becoming more difficult to find. By migrating an existing legacy phone system to a VOIP system, an institution can utilize existing network infrastructure and reduce operational costs such as monthly service charges, all while benefiting from long distance calls at no cost.

This program plan strives to support the Colorado State University-Pueblo (CSU-Pueblo) Strategic Plan and its goals for providing high quality educational opportunities to students, providing research opportunities for faculty, and supporting service to the community. Additionally, Colorado Department of Higher Education and State goals have been taken into consideration and are addressed as well. CSU-Pueblo's role is to promote opportunities to students throughout Southern Colorado. With the installation of a functional VOIP system on the campus, CSU-Pueblo's existing communication barriers will be greatly reduced and will greatly increase the number of student the University is able to reach.

## **PROBLEM STATEMENT**

As data networks become more reliable and high-speed networks continue to improve, the need for CSU-Pueblo to move to a VOIP system will continue to increase. CSU-Pueblo presently utilizes a legacy phone system on campus through the use of analog desktop phones. This system will ultimately become antiquated. Replacement parts will continue to become more costly and increasingly difficult to find, as will service technicians trained in their maintenance and repair.

CSU-Pueblo utilizes wireless emergency call boxes located throughout the exterior walkways on campus to alert the Office of Campus Security of emergencies. While the University utilizes an emergency text messaging system, it operates independently of all other systems on campus. The current legacy system also does not allow for the ability to perform reverse 911 calls to the campus community.

CSU-Pueblo is constantly striving to improve communication across campus and safety remains a top priority. With the installation of a VOIP system, progression can be made toward improving both. For these reasons, CSU-Pueblo is requesting the following initiatives:

- Initiative #1 – Install New Voice Over Internet Protocol (VOIP)
- Initiative #2 – Install New Campus Emergency Phones
- Initiative #3 – Install New Network Power-Over-Ethernet (POE) Switches
- Initiative #4 – Install Category 6A Network Cabling in Priority Buildings
- Initiative #5 – Renovate and Upgrade HVAC in IT Data Closets
- Initiative #6 – Install Generators at Buell and Chemistry Buildings

With the installation of a new VOIP system, CSU-Pueblo will not only improve connectivity and communication throughout the campus environment but, more importantly, will enhance campus safety. A new VOIP system will provide unified communication with the ability to generate reverse 911 calls during emergencies and provide emergency text messaging, as well as provide new emergency callboxes to be located throughout currently deficient exterior walkways across campus.

## PROJECT DETAIL

### **Initiative #1 – Install New Voice Over Internet Protocol (VOIP)**

#### **Project Description**

The request include the replacement of the current campus PBX telephone system with the installation of a new VOIP unified system on the CSU-Pueblo campus. A VOIP unified communications system utilizes data network infrastructure and allows seamless integration of telephone calling, voicemail, email, video conferencing, and other features. Included are hardware, 1,000-license software, voicemail, E-911 integration, and two instances of the system for purposes of redundancy.

#### **Background and Justification**

CSU-Pueblo's existing traditional PBX is at end of its useful life. Although CSU-Pueblo has factory-trained technicians and a supply of spare parts, the technology is outdated (circa early 2000s) and does not offer the robust options of today's VOIP systems. The replacement of the PBX with a new VOIP system will afford campus faculty and staff the ability to improve communication and bring CSU-Pueblo more in line with peer institutions who are already utilizing this technology.

#### **Cost-Benefit Analysis and Project Alternatives**

The implementation of this project will result in the realization of cost savings with regard to purchased services in the form of telecommunications lines, circuits, and services. Additionally, the new technologies employed by the VOIP telephone system will result in greater efficiencies and ease of operations with regard to how the unified communication technologies inherent in the new VOIP telephone system are utilized by the end user.

Movement to the cloud of campus systems was also researched. The campus is moving non-essential computing activities to the cloud but the redundant datacenter will still be needed to house the networking, firewalls, and servers that will be need to connect to the cloud systems.

#### **Consequences If Not Funded**

Not funding the VOIP telephone system will prevent the University from taking advantage of 21st century technology and will simply mean that CSU-Pueblo will continue to use its current traditional PBX telephone system, which is adequate for little more than basic communication between persons on the telephone. It has some enhanced features such as voicemail, conferencing, and E-911 services, but does not provide the advanced unified communications services of a VOIP telephone system. Not funding the VOIP technology upgrade and added emergency blue phones will simply force CSU-Pueblo to maintain the campus safety status quo.

## **Assumptions for Calculations**

### **Initiative #1 – Install New VOIP**

VOIP Telephone System  
(equipment and services installed with 1,000 licenses) **\$1,350,000**

#### **Timeline**

Installation **3 months**

### **Initiative #2 – Install New Campus Emergency Phones**

#### **Project Description**

The request includes the provision and installation of 20 campus emergency telephones throughout the campus walkways connected to VOIP campus system.

#### **Background and Justification**

CSU-Pueblo's current emergency (blue) telephones are installed in parking lots and campus areas where student, faculty, and staff may be vulnerable to unsafe conditions. The existing system utilizes wireless ultrahigh frequency digital radio technology and has historically been problematic in regard to reliable operation. As a life safety issue, installing new VOIP-capable emergency phones hard wired to the VOIP system will eliminate the reliability issue while the addition of five new phones will help to eliminate campus coverage deficiencies.

The campus network and system security upgrade is to install systems and tools that follow *The Critical Security Controls for Effective Cyber Defense* set forth by the Council on Cyber Security (Otherwise known as the CSC 20 rules). This is the security framework that the OIT's Office of Information Security has been successful in implementing to minimize the threats present in today's information technology landscape.

#### **Cost-Benefit Analysis and Project Alternatives**

Currently, CSU-Pueblo does have a wireless emergency phone system across campus. The system is becoming antiquated with replacement parts difficult to obtain. At some point, the system will become obsolete.

## **Assumptions for Calculations**

Installation of twenty (20) new emergency phones  
(cost includes directional boring) **\$368,997**

#### **Timeline**

Installation **3 months**

### **Initiative #3 – Install New Network Power-Over-Ethernet (POE) Switches**

#### **Project Description**

The request includes the provision and installation of 39 additional Edge switches to be deployed in IT data closets across campus to support the new VOIP telephone system.

#### **Background and Justification**

While CSU-Pueblo has recently upgraded all of its Edge switches to the latest technology, not enough are in place to handle the addition of POE VOIP telephone handsets. The additional 39 Edge switches requested are needed in order to be able to place new handsets and replace the old on a one-for-one basis. The new VOIP handsets utilize the POE function of the Edge switches to power displays and functions. Without the additional switches, the VOIP phones will require a power “brick” at each handset.

#### **Assumptions for Calculations**

Installation of 39 new Edge switches	<b>\$142,882</b>
--------------------------------------	------------------

#### **Timeline**

Installation	<b>3 months</b>
--------------	-----------------

### **Initiative #4 – Install Category 6A Network Cabling in Priority Buildings**

#### **Project Description**

The request includes provision for the upgrade of five campus buildings from category 5/SE network cabling to state-of-the-art category 6A network cabling. The five campus buildings to be upgraded are in order of priority: Hasan School of Business, Technology, Administration, Chemistry, and Life Science.

#### **Background and Justification**

CSU-Pueblo employs an updated telecommunications standard that requires all campus building networks be cabled to the Institute of Electrical and Electronics Engineers (IEEE) category 6A standard. CSU-Pueblo strives to remain as current as possible but is bound by budgetary constraints in its endeavor to meet this specification. Currently, there are several campus buildings already utilizing Category 6A cabling due to new construction or remodel. As a function of this request, CSU-Pueblo is asking for funding to bring more campus buildings in line with this standard.

#### **Assumptions for Calculations**

Installation of 6A cabling in five Buildings	<b>\$1,538,240</b>
--	--------------------

#### **Timeline**

Installation	<b>12 months</b>
--------------	------------------

## **Initiative #5 – Renovate and Upgrade HVAC in IT Data Closets**

### **Project Description**

The request includes the remodel/enlarging of five IT data closets in two campus buildings. This includes three IT data closets in the Administration building and two IT data closets in the Art/Music building. The request also includes the addition of HVAC to four IT data closets in two campus buildings: three IT data closets in the Chemistry building and one IT data closet in the Technology building.

### **Background and Justification**

CSU-Pueblo presently has two campus buildings where the IT data closets are no more than a piece of plywood mounted on the wall ten inches back from the door enclosing them. This creates a serious lack of space for the installation of telecommunications and networking equipment in the affected buildings; not to mention issues with heat dissipation. CSU-Pueblo is asking for funding to remodel/enlarge five IT data closets located in the Administration and Art/Music buildings. This will be required in order to add the additional POE switches needed for the VOIP installation in these buildings.

CSU-Pueblo also has two campus buildings in which four IT data closets have no form of HVAC protecting the telecommunications and networking equipment from heat damage. CSU-Pueblo is requesting funding to augment three IT data closets in the Chemistry building and one IT data closet in the Technology building with HVAC.

### **Assumptions for Calculations**

Renovations to Existing IT Data Closets	\$50,000
HVAC Upgrades to Existing IT Data Closets	\$50,000

### **Timeline**

Design, Renovations, and HVAC Upgrades	9 months
--	----------

## **Initiative #6 – Install Generators at Buell and Chemistry Buildings**

### **Project Description**

The request includes the provision and installation of two diesel backup generators for the Buell and Chemistry buildings.

### **Background and Justification**

Historically, due to its location on the electrical power grid, CSU-Pueblo experiences outages, spikes, and low voltage conditions with its commercial power. Consequently, it has been the practice of CSU-Pueblo to add backup generators to campus buildings as funding permitted or whenever a building is re-modeled or newly built. CSU-Pueblo is requesting funding to provide and install backup generators at the Buell and Chemistry buildings on campus.

The Buell building is particularly vulnerable when electrical power is lost due to the fact that it houses the campus radio station KTSC Radio (Rev 89) and Rocky Mountain Public Broadcasting Network television station KTSC TV, both of which are bound by Federal Communications Commission rules and regulations. Both entities face stiff fines and penalties each time they go off the air due to power outages in the building. These outages also adversely affect telecommunications and networking equipment within the building. A backup generator installed at the Buell building will alleviate this problem.

The Chemistry building is also particularly vulnerable when electrical power is lost due to the nature of the types of classes, experiments, and research that take place within the building. Telecommunications and networking equipment are also adversely affected by loss of power in this building. A backup generator installed at the Chemistry building will eliminate damage done to telecommunications and networking equipment, damage done to expensive and intricate test equipment used in teaching and research, and the potential loss of important research data/experiments.

### **Cost-Benefit Analysis and Project Alternatives**

The cost savings that will be realized from the installation of the generators is in the form of protection to telecommunications and networking equipment, building systems and equipment (e.g., eliminating the replacement/repair of equipment damaged by power outages, low voltage scenarios, and spikes). Additionally, savings will be realized in the elimination of lost research data from experiments ruined in the Chemistry building and from potential Federal Communications Commission fines to the broadcast entities in the Buell building.

### **Assumptions for Calculations**

Installation of generator at Buell Communication Center	<b>\$100,000</b>
Installation of generator at Chemistry Building	<b>\$300,000</b>

### **Timeline**

Design and Installation	<b>12 months</b>
-------------------------	------------------



### Summary of Requested Funds

Description	Total Cost
Initiative #1 – Install New Voice Over Internet Protocol	\$1,350,000
Initiative #2 – Install New Campus Emergency Phones	\$368,997
Initiative #3 – Install New Network Power-Over-Ethernet Switches	\$142,882
Initiative #4 – Install Category 6A Network Cabling in Priority Buildings	\$1,538,240
Initiative #5 – Renovate and Upgrade HVAC in IT Data Closets	\$100,000
Initiative #6 – Install Generators at Buell and Chemistry Buildings	\$400,000
Contingency (10%)	\$390,011
<b>Total</b>	<b>\$4,290,130</b>

## **Colorado Department of Higher Education and State of Colorado Technology Goals**

This Program Plan purposefully takes into account all Colorado Department of Higher Education (CDHE) and State Technology goals, which are also listed below. The Information Technology Campus Connectivity and Classroom Enhancements speak directly to improved access, more modern computers and technology, electronic services and workflow, and most important an enhanced learning experience that will positively impact student employability and support demands of Colorado employers.

### **Colorado Department of Higher Education**

- a) Provides full access to campus networks
- b) Provides access to modern computers and software
- c) Ensures minimum Internet access to faculty, students, and administration
- d) Provides network support to accommodate demand
- e) Provides for technology-enhanced classrooms and labs
- f) Provides for training and development to ensure proficient use of information technology
- g) Provides for electronic student services
- h) Supports efficient use of information for administrative workflow processing, decision-making, and reporting both within the institution and with DHE
- i) Provides digital library resources
- j) Provides systems to support outreach
- k) Supports distance learning to increase student access to instruction
- l) Promotes the coordination of distance learning development within governing board system and within institution
- m) Supports the workforce needs of Colorado employers
- n) Other

### **State**

- a) Makes use of the Multi-use Network
- b) Makes use of the Beanpole Fund—Not Applicable
- c) Streamlines service to the beneficiaries
- d) Implements cutting-edge technologies
- e) Transforms the institution by implementing uses of the Internet for e-commerce and new management efficiencies
- f) Replaces costly, cumbersome procedures with paperless, on-line methods
- g) Builds on Colorado's world-recognized leadership in the development of telecommunications technology
- h) Other

## University Mission Statement and Strategic Plan

The University's name, mission and role were changed by the Colorado Legislature effective July 1, 2003. House Bill 02-1324 (Section 23-55-101, C.R.S.), establishes CSU-Pueblo University's Mission Statement as:

***Section 23-55-101, C.R.S., University established – role and mission.***

*There is hereby established a University at Pueblo, to be known as Colorado State University-Pueblo, which shall be a regional, comprehensive university, with moderately selective admissions standards. The University shall offer a broad array of baccalaureate programs with a strong professional focus and firm grounding in the liberal arts and sciences. The University shall also offer selected Masters-level graduate programs.*

The University's Strategic Plan 2015-2020 contains technology and technology-related goals that guide the work of Information Technology Services (ITS) and technology decisions across campus. The plan identifies four major goals of the University, each of which requires development and support of campus technology. Goal Four directly addresses technology needs:

***Goal Four: Supportive Student Life***

*We will provide our students a supportive student life experience that addresses their academic, social, physical, and technological needs.*

***Objectives:***

- 1. Enhance/increase co- and extra-curricular opportunities for involvement and engagement for students.***
- 2. Provide opportunities for networking, leadership, and mentoring opportunities for students both on and off-campus.***
- 3. Provide modern and relevant campus facilities and technology.***
- 4. Create Sophomore Experience Program.***
- 5. Improve campus residential life.***

***Objective Three - Provide modern, comfortable, and safe campus facilities and technology to support student learning***

*Modern, comfortable, safe facilities play an important role in attracting new students as well as improving the quality of life for all students, faculty, and staff. Reliable and current technology is crucial to providing an academic environment that supports teaching, learning, and research and creative activity.*

- 1. Measure: Provide a totally wired/wireless campus by 2020.***

**A. Strategy:** *Promote an environment for academic success by increasing connectivity campus wide.*

**B. Strategy:** *Maintain and update computer labs across campus as necessary.*

The mission of Information Technology Services at CSU-Pueblo is to provide a broad spectrum of support for the planning, development, deployment, and integration of state-of-the-art facilities, infrastructure, and services to support the information technology needs of the academic, research, and administrative functions of CSU-Pueblo. This unit provides oversight, management, coordination, integration, and staffing of Technology Support Services, Network and Systems Support Services, Information Support Services, Instructional Development and Educational Technology Support Services, and Telephone and Network Services.

### SUMMARY

A VOIP communications system will enhance the teaching and learning processes at the University by simplifying operations, improving engagement, and encouraging collaboration. Using a VOIP system helps students, faculty, and administrators create enriched learning opportunities in the following ways:

- Encouraging collaboration and interaction by allowing students, faculty, and off campus colleagues to meet virtually to share ideas and findings and to test their understanding on certain subjects anywhere and at any time.
- Providing an easy way for students, faculty, and off campus colleagues to share and receive information in a variety of formats (e.g., images, text, audio, and video), which can help nurture the mind and develop new skill sets.
- Extending the learning experience beyond the classroom. Through VOIP features such as video conferencing and instant messaging, students can pursue mentoring programs with outside field experts, participate in study groups, and join field trips via virtual learning environments.

VOIP will provide flexibility and increased adaptability to provide the necessary learning environment on the CSU-Pueblo campus. VOIP will provide operational savings to the campus as well as improved communication and increased campus security.



FY 2018-19 CAPITAL INFORMATION TECHNOLOGY PROJECT REQUEST- NARRATIVE (CC_IT-N)*			
A	Capital Construction Fund Amount (CCF):	\$3,573,000	Cash Fund Amount (CF): \$3,573,000
B	Funding Type	Capital IT Infrastructure	Intercept Program Request? Yes/No: No
C	(1) Institution Name:	Colorado State University	(2) Name & Title of Preparer: Patrick J. Burns
D	(1) Project Title (Phase 1 of 1):	Networking Refresh and Upgrade - Phase 1 of 1	(2) E-mail of Preparer: Patrick.Burns@colostate.edu
E	(1) Project Type:	<input checked="" type="checkbox"/> Technology Hardware <input type="checkbox"/> Technology Software	(2) State Controller Project No. (if applicable): Not applicable.
F	(1) Year First Requested:	FY 2019	(2) Institution Signature Approval: July 23, 2018
G	(1) Priority Number:	___ OF ___	(2) CDHE Signature Approval: Date

\* Accompanies CC\_IT-C form

**A. PROJECT SUMMARY:**

This is a Capital-IT request for CSU-Fort Collins to upgrade critical networking infrastructure. It is axiomatic that IT currently permeates almost all areas of higher education, and adequate network connectivity for all constituents is essential to the effective and efficient conduct of business. Despite various creative and proactive strategies to maintain currency with our networking infrastructure, we have been unable to do so comprehensively at the University. Falling behind in networking infrastructure presents a manifold of critical problems, and is simply unacceptable. The magnitude of the problem is that to achieve currency in our networking environment, we need to replace/upgrade 331 of approximately 1,100 edge switches, and over the next couple of years upgrade our core networking backbone by a factor of 10X. This capital-IT proposal is submitted to 1) “catch up” to achieving currency in our networking infrastructure at today’s speeds, 2) allow us to meet increasing capacity demands (we need an upgrade of 10X in capacity in our core networking backbone before the end of the project), and 3) allow us the time it will take to establish a base budget funding model for maintaining currency beyond the three-year time frame for the project. The total request is \$3,573,000 that will allow us to get back on track with our critical networking infrastructure.

**B. PROJECT DESCRIPTION:**

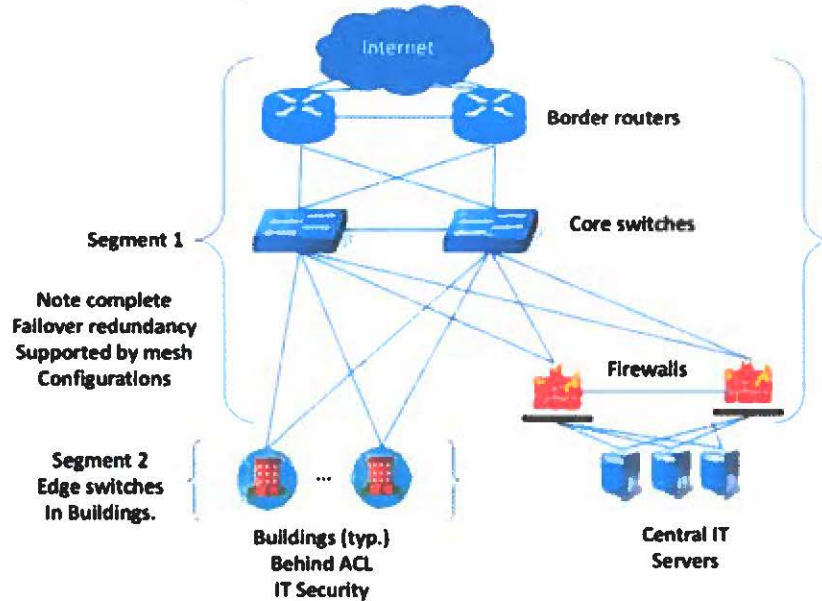
A diagram illustrating a simplified view of our networking infrastructure is shown in Figure 1 below. Two segments are depicted: segment 1, the “upper” or “core” segment, consists of devices necessary to route to and from the Internet that connect to the campus Local Area Network (LAN), depicted as segment 2, the “lower” segment in the diagram, consisting of edge switches for the buildings that require refresh. Not shown in the diagram are the building switches in segment 2, to which the core switches. Building switches provide connectivity outbound from the building “upstream” to the core, and inbound to the edge switches that provide in-building connectivity to users’ devices, for example attached to either network user jacks in an office, lab or other area, or Wi-Fi access points. We have a funding model for building switches, and they are not included in this request.

**Segment 1: Core/Backbone Devices**

Segment 1, the “upper” or “core” segment, consists of border routers used to connect a mesh of redundant “core” switches and firewalls for IT network security to the Internet. Note all connections at all levels

between and among all devices are configured to be automatically redundant. Also, note that our administrative data systems requiring very highest level of IT security and privacy are behind the redundant firewalls. New firewalls are required to provide the upgraded capacities needed for our administrative, research and academic IT systems behind them, especially as the current devices are not capable of 100 Gig, and the IT security rules are becoming ever more complex, requiring much more processing horsepower than available in our current firewalls.

**Figure 1 Diagram of Switch Architecture**



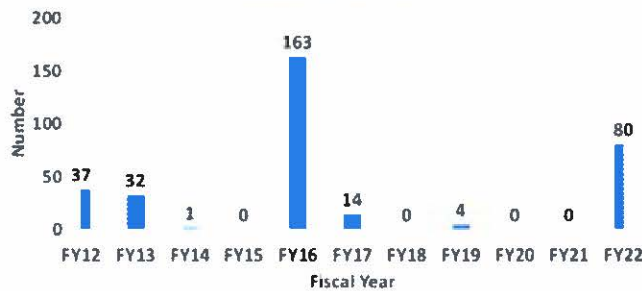
Critical needs in our core networking infrastructure in Segment 1 that we are unable to keep up with are:

- 1) Our aging border routers in segment 1, that need to be replaced on a five-year cycle,
- 2) Our aging “core” switches in segment 1, that need to be replaced on a five-year cycle, and
- 3) The need to upgrade our enterprise (campus-level) firewalls in segment 1 to provide adequate network and IT security for the campus, that need to be replaced on a five-year cycle.

### Segment 2: Edge Switches

An inventory of the number of our edge switches in Segment 2 needing replacement on the seven-year replacement cycle versus “end of life” fiscal year is shown in the histogram below in Figure 2. Note that more than two-thirds of those needing replacement during the project are currently beyond the manufacturer’s “end of life” specification, placing us in dire need of an upgrade, and at significant risk from an IT Security standpoint. A survey of peer institutions indicated replacement cycles for edge switches ranging from five to seven years. We have adopted seven years as the standard for replacement for edge switches to balance cost versus functionality, leaning toward minimizing cost. We anticipate submitting this request for capital IT funding in FY 2019. The three-year project will persist through June 30, 2022. By that time, it is anticipated that 331 edge switches will need replacement to bring our network into currency - this represents about a 30% of our total number of edge about 1,100 edge switches. Note that we are already well behind on our replacement cycle, as today we have over 200 switches needing replacement today. During the three years of the project, we would plan to develop a model for base funding for comprehensive network switch replacement going forward. It is this project that will allow us the time we need to get on track for those planning and budgeting purposes.

Figure 2 Number of Edge Switches  
Needing Replacement



### C. PROGRAM INFORMATION:

Contemporary networking capacity and functionality are fundamental to the conduct of any business, and especially to higher education. Many of our users require the highest current capacity, and we have tens of thousands of users to accommodate. Best practices therefore dictate regular replacement/refresh of all network devices on predetermined cycles:

- Backbone network “core” devices should be replaced on a five-year cycle, each with an increase in capacity of 10X to meet emerging and evolving demand – this proposal if funded will get us on this next cycle for the core.
- Building and edge switches should be replaced on a seven-year cycle, each with an increase in capacity of 10X to meet emerging and evolving demand – this proposal if funded will get us back on this cycle for edge switches. We are on this cycle for building switches, and none such are included in this proposal.

Also, best practices mandate that the devices in segment 1, the “core,” are purposefully redundant as it is essential to maintain 7/24/365 connectivity, as the network is critical infrastructure. The devices proposed for the core are configured for automatic fail-over in case either device fails, and to allow planned maintenance to occur, taking down only one device at a time to ensure continuity of operations. Additional programmatic requirements are detailed in Section E below.

### Implementation Plan

The project is planned for implementation in three phases, i.e. over three fiscal years. Segment 1 devices are to be replaced in years two and three, while segment 2 edge switches will be replaced over all three years of the project.

- The 331 edge switches will be replaced in increments of one-third each for each of the three years,
- The redundant core backbone routers and switches will be replaced in year two of the project, and
- The redundant core backbone firewalls will be replaced in year three of the project.

Planning for the project has already begun, yielding the information provided in this proposal. Formal purchasing processes will be conducted for each of the items above. We will conduct such processes for edge network switches in each of the three years, so that we may: i) ride the cost curve downward over all three years, and ii) ride the technology curve upward over all three years. In year two, we will conduct such a process for the backbone routers and core switches. In year three, we will conduct such a process for the firewalls. Actually, we will likely begin the bid process prior to the start of the fiscal year, so that the equipment will be available and delivered in time for installation at the beginning of each fiscal years.

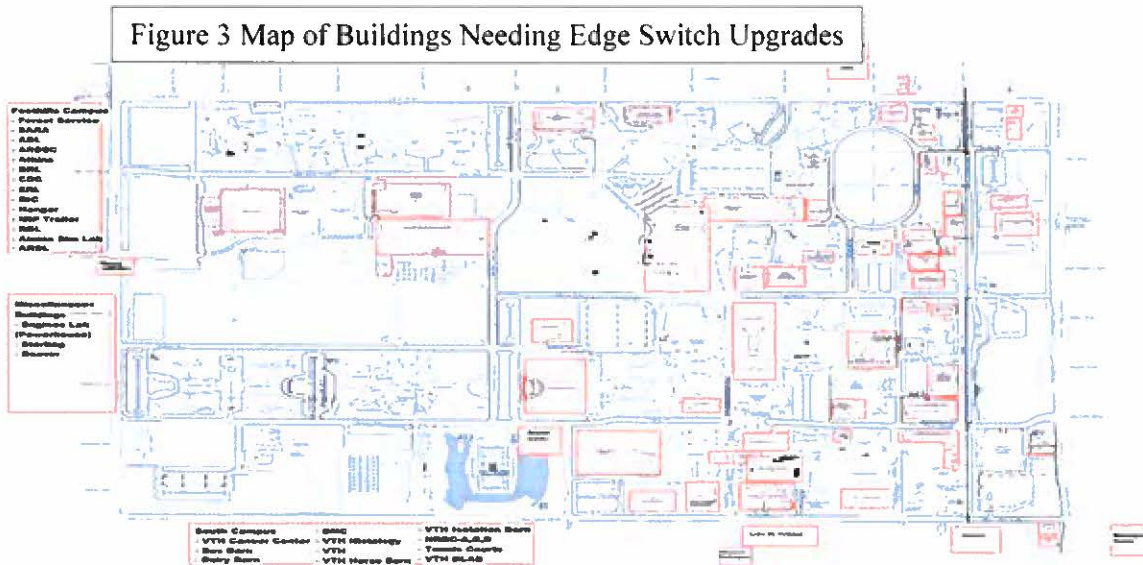
### D. JUSTIFICATION:

Segment 1 – Our current core networking devices operate at 10 Gig, and were upgraded to this speed in FY 14. Were we to stay on the normal five-year upgrade path these would need to be upgraded to 100 Gig in

FY 19. By the time we are proposing to upgrade the core (beginning in FY 20), the additional 10X capacity will be sorely needed. Today, we are connecting dozens of major buildings to the core with dual 10 Gig links, but the core is only 10 Gig today. While we still have some spare capacity in the core, it is waning, and we will need the 10X upgrade by FY 20.

All three types of core devices need to be upgraded in concert, as they all must interoperate at the same, elevated level of speed, and accommodate contemporary interconnected functionality (particularly security). In addition, over this period of time, we anticipate upgrading our Wide Area Network capacity from its current 30 Gig to dual, redundant 100 Gig capacity, and the core devices we are proposing at the next generation of 100 Gig will have the capacity to match that in our WAN environment. Thus, these core devices need to be upgraded to accommodate both external (WAN) and internal (LAN) needs.

**Segment 2-** We have performed a comprehensive inventory of all switches to gather the information for this proposal; Figure 3 below is a plan view of the CSU campus showing buildings which require one or more edge switch upgrades. Some buildings need all switches upgraded, while others need only select switches upgraded. Note that most buildings have needs.



**E. CONSEQUENCES IF NOT FUNDED:**

There are various critical needs requiring a minimum standard of network connectivity in higher education environments:

- **General Capacity** – The amount of information available worldwide, accessible by the Internet, keeps growing exponentially at a rate exceeding 25% growth per year. Simply, newer switches are required to keep up with basic growing needs for capacity. Most of our current unmet needs are to replace older switches (older than seven years) that operate at 100 Mbps (million bits per second) to the wall jack (user). Contrast this to the City of Fort Collins deploying gigabit speed networking (1,000 Mbps) locally and comprehensively in Fort Collins over the next two and one-half years. CSU has adopted a national trend of standardizing on gigabit per second connectivity at the user level, or 1,000 Mbps to every wall jack. In many campus buildings (see Figure 3), connectivity is sub-standard.
- **Support for Life and Safety devices** – Older switches are not capable of supplying Power Over Ethernet (POE) that is required for some life and safety devices, particularly video cameras. POE technology is available in all modern switches, where both a network signal and electrical power are supplied over the same networking wire. At the end of FY 18, we had 1,173 video cameras deployed,



with 414 targeted for immediate deployment in FY 19. Having so many older switches that do not have POE capability limits our ability to deploy such devices in areas of critical need, and it will not be possible to meet identified life and safety needs without edge switch upgrades/replacement.

- Emerging Applications – Emerging applications, including ultrahigh-def video (8K), 3D videos, artificial reality, and virtual reality, have an insatiable requirement for new, much higher capacities. In addition to much higher raw transport capacity, all such applications typically also require low latency and jitter, all factors motivating this request.
- Big Data – Both educators and researchers are increasingly engaged in working with Big Data, files of TeraByte size or larger. Files of this size are now common and ubiquitous across the Institution. Most of our current unmet needs are to replace older switches (older than seven years) that operate at 100 Mbps to the wall jack (user). As an example, moving one 10 TB file on a 100 Mbps network will require over 9 days to complete the file transfer! Researchers often have needs to transport a number of these sizes of files, or even larger sizes of files, across the network simultaneously.
- Wi-Fi – The need for, and indeed the expectation of excellent Wi-Fi connectivity exists today. The latest Wi-Fi access points require 10 Gbps uplink capability, as upload speeds from individual mobile devices can approach 1 gigabit per second each, and many such devices can be connected through a single access point. Larger buildings have dozens of Wi-Fi access points, with the single 10 Gig core representing a significant bottleneck. Our ability to attract and retain students, researchers, faculty and staff is dependent upon infrastructure required for them to get their work done, and Wi-Fi networking is a critical component needed today to support education and research.
- Basic Functionality – Newer switches have enhanced features and functionality essential for a modern network architecture, involving layer-3 routing, newer network protocols, contemporary IT security rules, and more ports for services. We can provide additional technical details upon request, but here we simply assert that network switch technology continues to evolve and improve, and falling too far behind will severely limit our ability to deliver needed connectivity safely to our constituents.
- IT Security – Newer switches have enhanced IT security features that interact seamlessly and automatically with routers, firewalls, intrusion detection systems, etc. This is a dire need as we continue to elevate and enhance our IT security posture. Older switches run past end of life (as defined by the manufacturer) are no longer supplied with IT security patches. We are currently operating in a locus of much higher IT security risk, as 331 of our switches need to be upgraded to maintain an acceptable IT security posture.

Any single one of these factors is sufficient to motivate a network upgrade, and yet there are seven critical factors listed above. Not keeping up with essential networking requirements will impair business efficiency and effectiveness, as well as prohibit needed critical life and safety enhancements.

#### **F. ASSUMPTIONS FOR CALCULATIONS:**

A detailed inventory of needs was conducted to identify hardware configurations for the edge switches. A summary of the process used to determine costs for needed replacement/upgrade of edge switches is:

- Switch configuration assumptions
  - 10G uplink to building switch
  - POE+ fully available across all ports at all times
  - Single power supply for 1U switches, dual (2) power supplies in chassis switches
  - 1G edge ports to the user/device
- Cost calculations (N.B. a “port” is a network connection to an end user, e.g. a computer, a Wi-Fi access point, or other network connected device)
  - A chassis switch with 288 1G edge ports, 10G capable uplinks, POE+, 2 power supplies= \$12,700 = \$44/port if every port is occupied (cannot be accomplished)

- o A chassis switch with 144 1G edge ports, 10G capable uplinks, POE+, 2 power supplies = \$7,500 = \$52/port if every port is occupied (cannot be accomplished)
- o A 1U switch with 48 1G edge ports, 10G capable uplinks, POE+, single power supply = \$2,800 = \$58/port if every port is occupied (cannot be accomplished)
- o All switches are purchased using formal state contracts, purchasing processes
- o The above three types of switches will be deployed proportionally in accordance with the number of network ports in buildings that need to be activated by each switch type. Averaging over the three types of switches in the numbers we require yields an average cost of \$51/port if every port is occupied. Because switches are only available in multiples of 24 ports, it is not possible to utilize every port. Correcting for this yields an average deployable cost of \$83/port.

The budget for the project is very simple:

1. Yrs. 1-2: 331 edge switches – 18,000 ports @ \$83 per active port	\$1,494,000
(\$498,000 per year for each of three years)	
2. Year 2: 2 redundant core switches @ \$286,500 ea.	\$573,000
3. Year 2: 2 redundant border routers @ \$344,000 ea.	\$688,000
4. Year 3: <u>2 redundant enterprise-level firewalls @ \$409,000 ea.</u>	<u>\$818,000</u>
5. Total	\$3,573,000

The requirement for the core infrastructure is that it will need to operate at 10X our current capacity of 10 Gig. E.g., 100 Gig equipment will be needed. Equipment will be selected accommodating 100 Gig to meet contemporary needs, encompassing IT security, number of routes to be accommodated, number of VLANs, protocols, and IT Security rules to be accommodated, etc. We order “core” equipment with additional backplane, internal routing/switching capacity, to provide upgradeability within the five years of lifetime, as the most economical approach.

**G. OPERATING BUDGET IMPACT:**

All planning, purchasing, receiving, configuring, deploying, testing, patching, operations and maintenance will be done with in-house labor, at an estimated cost of \$182,050. Over the course of the project, a funding model will be developed for maintaining currency in the networking infrastructure, to be deployed at the end of the project.

**H. PROJECT SCHEDULE:**

Phase	Start Date	Completion Date
Planning	June 2018	Sept 2018 (prepare RFP/Bid)
Implementation	Oct. 2018	June 2022
Equipment	Oct. 2018	June 2022
Completion	June 2022	June 2022

**I. ADDITIONAL INFORMATION:**

<b>Please indicate if three-year roll forward spending authority is required.</b>	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Date of project’s most recent program plan:	Not applicable	
Please provide the link to the program plan or attach the document:	This document presents the program plan for networking.	
Request 6-month encumbrance waiver?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Is this a continuation of a project appropriated in a prior year?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
If this is a continuation project, what is the State Controller Project Number?	Not applicable.	

#### **J. COST SAVINGS / IMPROVED PERFORMANCE OUTCOMES:**

Direct cost savings will be minimal but will exist in the simplified operation of switches, as none will then be beyond the end-of-life and more difficult to integrate into our environment. However, substantial indirect cost savings will exist in that the adequate network capacity needed by all CSU constituents will exist to meet their needs. No longer will researchers and educators need to wait days, or even weeks, for large file transfers. The capacity to support emerging academic programs associated with big data will exist. Researchers and educators will be able to connect to ultrahigh-speed resources across the Internet, with the confidence that the network capacity to accommodate fast, responsive access will exist by default. Although we have observed “pain points” that exist in our network today (we are the recipients of the complaints), it is virtually impossible to estimate the increased productivity and indirect cost savings that will accrue from this proposed network upgrade. However, we are certain that performance increases will result comprehensively and ubiquitously with substantially improved and much needed network access across the Institution.

#### **K. SECURITY AND BACKUP / DISASTER RECOVERY:**

Keeping up with needed IT security is also crucially important to avoid malware, intrusions, phishing, etc. and is essential to protect the large amount of sensitive data we have in our environment. It is also not possible to estimate cost savings here, but this could result in very large cost avoidance of a network breach or intrusion.

The firewalls will be bid to meet then-contemporary IT Security needs, will integrate with the core routers and switches, and will be specified to accommodate a 10X increase in capacity of their internal backplane fabric.

All routers and switches are strictly protected with non-routable administrative access using highly secure Duo two-factor authentication. Configurations for all network devices are backed up upon each and every change to the configuration, with ability to reload the configurations within minutes, if needed. Disaster recovery for the core is obviated by the redundant design incorporating automated failover, with the backbone/core devices in two disparate data centers, each separately powered, environmentally conditioned with self-starting generator backup.

Building switches are redundantly connected to backbone network, and all chassis-level switches have redundant power supplies, connected to two different legs (phases) of building power, where available.

#### **L. BUSINESS PROCESS ANALYSIS:**

The business process used to determine current needs is described above in sections B through F.

#### **LIST OF ACRONYMS**

ACL	Access Control Lists, to provide an adequate level of IT security for most devices
Border Router	A device that “routes” data between the internal campus network and the Internet
Core Switch	A switch placed at the “core” of a hierarchical network design, intended to provide inter-connect between and among campus buildings and the border routers
Edge Switch	A switch at the “edge” of a hierarchical network design, to provide connectivity to user devices, e.g. computers, printers, instruments, cameras, Wi-Fi access points, etc.
Gbps	gigabits per second, or $10^9$ bits per second
Gig	gigabits per second, or $10^9$ bits per second (identical to Gbps)
Mbps	megabits per second, or $10^6$ bits per second (1,000 times slower than Gig)
POE	Power Over Ethernet, required to deliver electrical power in addition to network connectivity to devices such as security cameras, phones, etc.
TB or TByte	TeraByte, or terabyte, or $10^{12}$ Bytes, equal to $8 \times 10^{12}$ bits
WAN	Wide Area Network

## Answers to the Specific Questions Asked by the CDHE

### I. FACILITY MANAGEMENT

- Has this project been reviewed and signed-off by the department facility management office?  
– Yes.
- Has the Office of State Architect's delegate been involved in this project? – No, not considered necessary.
- Will the project require construction? No, just replacing existing switches with new ones.
- Have cost of consultants been included in the cost of this project? None are needed, all work will be planned and done in house.
- Has the cost of design services by an engineer and review by a code consultant been included in the cost of this project? Not needed, all work will be planned and done in house.
- What is the impact of the project on building occupants and users? Minimal disruption, as switch replacements are scheduled to occur between 5 and 7 am with ample notice given of scheduling. Very positive impact once the work has been completed, in the form of greatly enhanced network throughput.
- What is the estimate based on? We regularly purchase switches, especially for facilities projects, off of a formal higher-ed contract obtained by RFP, in fairly high volumes that gives us the best pricing available. These best prices have been used above for the cost estimates.
- Please provide a detailed breakdown of the cost estimate. Provided in Section V, above.
- How will the project be scheduled? Provided in Section V, above.
- Who will manage the project? The director of Networking at CSU, Mr. Greg Redder. He is eminently well qualified to serve as PM, having already done so for all of our large, central IT networking projects in the past.

### II. Building Impact/General

- Which building(s) will this project impact? Figure 3 above shows a plan view of the campus, with the affected buildings highlighted. See attached map, highlighting the buildings affected.
- What is the impact on the infrastructure/utilities? Minimal disruption, as we are simply removing old switches and replacing with new ones. Very high positive impact in the form of greater throughput and removing bandwidth bottlenecks.
- What is the extent of the existing building system impact? Minimal disruption, as we are simply removing old switches and replacing with new ones. Much better connectivity for building automation systems, etc. will result from increased throughput.
- What is the impact on the complex or campus? Minimal disruption, as we are simply removing old switches and replacing with new ones. Very high positive impact in the form of greater throughput and removing bandwidth bottlenecks.
- Will the project require demolition of any portion of the building or complex? No.

### III. Building Impact/Electrical

- How will the project impact the loading requirements to the building and campus or complex? Minimal, just removing old switches and replacing with new ones.
- What is the impact on the back-up system? Minimal, we will just continue to back up network switch configurations, for which there is a process in place requiring very modest storage requirements.
- Will the conduit route be designed by an engineer? Already in place, no new conduit required.

### IV. Building Impact/Mechanical

- Is there a need for additional cooling or a modification to existing cooling? **No.**
- If applicable, what is the cooling modification requirement? A modification to server room or modification to building cooling system? **Not applicable.**

**MATTERS FOR ACTION:**

Approval of revised Colorado State University System Board of Governors Policy 205: Board Reserves.

**RECOMMENDED ACTION:**

MOVED, that the Board of Governors of the Colorado State University System (Board) hereby approves the attached revised CSUS Board Reserves Policy 205.

**EXPLANATION:** Presented by Dr. Tony Frank, Chancellor, Colorado State University System and President, Colorado State University; and Lynn Johnson, Vice President for University Operations, CSU.

In August 2017, the Board of Governors of the Colorado State University System (Board) approved an updated Policy and Procedures Manual to govern how the Board discharges its constitutional and statutory responsibilities. From time to time, and in accordance with best practices, the Board updates or amends the Policy and Procedures Manual.

CSUS Board Reserves Policy 205: Pursuant to Colorado law, the Board has exclusive control over all funds of, and appropriated to, any institution that it governs. (Colorado Constitution, Article VIII, Section 5; C.R.S. § 23-30-106). CSUS Board Reserve Policy 205 sets forth the process, method of calculation, and potential use of certain reserves by the Board, the System and its institutions. At the May 31, 2018, Board of Governors Retreat, the Board as part of its annual strategic planning process reviewed the existing reserves policy. The Audit and Finance Committee was then directed to amend the policy based upon the recommendations brought forward at the Board Retreat.

Upon approval of the aforementioned revised policy, the Policy and Procedures Manual will be amended accordingly, both in the official hard copy maintained in the CSU System Office and on the CSUS website.

Approved       Denied

Kim Jordan  
Kim Jordan, Board Secretary  
10 August 2018  
Date

# COLORADO STATE UNIVERSITY SYSTEM

---

## Policy and Procedures Manual

SUBJECT: BUDGET AND FINANCE

Policy 205: CSUS Board Reserves Policy

---

### Board Policy

Pursuant to Colorado law, the Board has exclusive control over all funds of and appropriated to any institution that it governs (Colorado Constitution, Article VIII, Section 5; C.R.S. § 23-30-106). This policy sets forth the process, method of calculation, and potential use of certain reserves by the Board, the CSUS and its institutions.

### Purpose of the Reserves

The purpose of maintaining reserves is to ensure the financial health and stability of each institution within the CSUS, as well as the CSUS as a whole, and to provide an additional measurement of the fiscal condition of the CSUS and its institutions. Reserve levels beyond that needed to maintain its fiscal condition, as defined by the **Board Reserve Floor**, may be deployed to meet the strategic initiatives of the System. Generally, there are three primary and strategic areas of focus for the utilization of reserves:

1. **Fiscal and Fiduciary Responsibility** – Ensuring the financial integrity of its institutions. Examples include, but are not limited to, addressing revenue shortfalls or extraordinary expenditures.
2. **Enhance the Essentials** – Providing resources to improve existing programs, tools, systems and activities that are essential. Examples include, but are not limited to, start-ups, seed capital, bridge funding to base and reducing outstanding debt; and
3. **Transformational Investments** - To provide resources to invest in opportunities that arise that are transformational. Examples include, but are not limited to, the establishment of a signature program, such as a medical school, or an extraordinary investment in Academy level faculty.

Reserves should not be utilized to backfill expected on-going shortfalls in revenue unless a plan exists to either increase the respective revenue stream or reduce related expenses. The use of reserves is appropriate to assist with timing issues, but should not be relied upon for the support of on-going expenditures. The reserves also provide operational flexibility to allow for strategic-related risks and to respond to changes within the environment. Through these reserves, the CSUS will be able to better manage financial challenges, enhance existing programs and invest in strategic initiatives and opportunities.

# COLORADO STATE UNIVERSITY SYSTEM

---

## Policy and Procedures Manual

SUBJECT: BUDGET AND FINANCE

Policy 205: CSUS Board Reserves Policy

---

### Definitions

1. **Maximum Available Unrestricted Nets Assets (MAUNA).** Unrestricted Net Assets as reported within the annual audited financial statements, limited to the General Fund (E&G) for CSU and CSU-Pueblo, adjusted for GASB 68 accruals.
2. **Board Reserve Floor.** The minimum balance that the summation of MAUNA and the Non-E&G Allocated Reserves should not go below.

The Board Reserve Floor (Floor) will be calculated each year following the compilation of the annual audited financial statements for the CSUS. For CSUS, CSU and CSU-Pueblo, the Floor will be equal to 20% of the actual expenditures reported within the Budget Data Book each September. For CSU-Global, the Floor will be equal 40% of their annual actual expenditures adjusted for depreciation.

3. **Non-E&G Allocated Reserves.** Reserves recorded within other fund group types that are internally uncommitted and unrestricted but allocated for specific purposes. These resources could be utilized to support E&G related expenditures if needed. This includes items such as our internal loan fund, academic enrichment program funds, and other related fund balances.
4. **E&G Board Reserves Available for Strategic Deployment (Board Reserves).** Those reserve funds held on behalf of the Board at the System level. The E&G Board Reserves will be recorded in, and transferred to, a separate general ledger account within the CSUS financial accounting system that is labeled as the Board Designated Reserve.

The Board Reserves will be set at an amount equal to MAUNA less CSU-Global's 250 DCOH, the Board Reserve Floor for CSU, CSUP and CSUS, and the 10% Institutional Reserves for CSU, CSUP and the CSUS.

5. **Institutional Reserve.** Those reserve funds that an institution may retain each year to support its operations.

The initial Institutional Reserve (CSU, CSU-Pueblo, and CSUS), will be set at an amount equal to ten percent (10%) of MAUNA as of June 30, 2015. The maximum annual increase to the Institutional Reserve will be equal to ten percent (10%) of the change in MAUNA for each respective fiscal year thereafter for each institution, unless otherwise approved by the Board (example – reserve replenishment), respectively. For CSU-Global, the Institutional Reserve will be set as 250 DCOH. In the event budgeted expenses decline from one year to the next, CSU-Global will be allowed to retain the reserve balance established at the beginning of year (less



# COLORADO STATE UNIVERSITY SYSTEM

---

## Policy and Procedures Manual

SUBJECT: BUDGET AND FINANCE

Policy 205: CSUS Board Reserves Policy

---

any amounts utilized), to support future institutional needs as opposed to a lower "reset" of the above due to the lower DCOH calculation. In the event MAUNA is an amount equal to or less than \$0, no Institutional Reserve will be available.

6. **Days Cash on Hand (DCOH).** This represents the number of days of budgeted operating expenses, excluding non-cash expenses, such as depreciation, that could be paid by an institution with its current available cash.

### Procedures

1. Within the financial accounting system, each institution may designate internal restrictions on the use of some or all of its Institutional Reserve. For example, an institution may designate internal restrictions for debt service or controlled maintenance, and other such related items. Any such internal restriction may be determined by the President of the institution.
2. On an annual basis, funds will be transferred to the Board Reserves as indicated by the annual calculation noted above.
3. Transfers to or from the Institutional Reserve accounts at the institutions and the Board Reserves account will occur following the issuance of the annual audited financial statements each year.
4. The funds held within the Board Reserves may be segregated by institution. Any Board Reserves that are not internally restricted are designated as unrestricted Board Reserves.
5. The E&G Board Reserve Available for Strategic Deployment may be utilized to support the educational mission of the CSUS and its institutions. It is the Board's policy that it will not utilize the Board Reserves except in the event of compelling and unique circumstances. Any expenditure from the Board Reserves shall be made in consultation with the Chancellor and must be approved by action of the Board.
6. Any utilization of Institutional Reserves shall be determined by the President of the institution in consultation with the Chancellor, and will require notification to the Board, but not Board approval.
7. Information about the Board Reserves and each Institutional Reserve, including the amounts held in those accounts, will be reported to the Board annually at its February meeting.

**COLORADO STATE UNIVERSITY SYSTEM**

---

**Policy and Procedures Manual**

**SUBJECT: BUDGET AND FINANCE**

**Policy 205: CSUS Board Reserves Policy**

---

**History: Policy and Procedures Manual effective October 4, 2013 by Board Resolution  
Amended May 6, 2016 by Board Resolution  
Amended October 6, 2016 by Board Resolution  
Amended August 2, 2017 by Board Resolution  
Amended August 9, 2018 by Board Resolution**

**BOARD OF GOVERNORS OF THE  
COLORADO STATE UNIVERSITY SYSTEM**

**FOURTEENTH SUPPLEMENTAL RESOLUTION**

Authorizing the issuance of one or more series of:

Board of Governors of the Colorado State University System  
System Enterprise Revenue Bonds  
Series 2018

# TABLE OF CONTENTS

Page

## ARTICLE I

### DEFINITIONS

Section 1.01.	Definitions.....	1
Section 1.02.	Construction.....	4
Section 1.03.	Successors.....	4
Section 1.04.	Parties Interested Herein.....	4
Section 1.05.	Ratification.....	4
Section 1.06.	Resolution Irrepealable.....	5
Section 1.07.	Repealer.....	5
Section 1.08.	Severability.....	5
Section 1.09.	Effective Date.....	5

## ARTICLE II

### AUTHORIZATION OF 2018 IMPROVEMENT PROJECTS AND CERTAIN RELATED DOCUMENTS

Section 2.01.	Authority for Resolution.....	5
Section 2.02.	Necessity of the 2018 Improvement Projects and Series 2018 Bonds.....	5
Section 2.03.	Authorization of the 2018 Improvement Projects.....	5
Section 2.04.	Provision for Sale of Series 2018 Bonds.....	6
Section 2.05.	Execution of 2018 Paying Agency Agreement.....	6
Section 2.06.	Approval and Use of Preliminary Official Statement and Official Statement; Rule 15c2-12; Continuing Disclosure Undertaking.....	6
Section 2.07.	Bond Insurance.....	6
Section 2.08.	Execution of Documents.....	6

## ARTICLE III

### AUTHORIZATION AND TERMS OF SERIES 2018 BONDS

Section 3.01.	Authorization of Series 2018 Bonds.....	7
Section 3.02.	Purposes.....	7
Section 3.03.	Terms of Series 2018 Bonds, Generally.....	7
Section 3.04.	Payment of Bond Requirements.....	9
Section 3.05.	Bond Form.....	12
Section 3.06.	State Tax Exemption.....	12

## ARTICLE IV

### REDEMPTION OF SERIES 2018 BONDS

Section 4.01.	Optional Redemption.....	12
---------------	--------------------------	----

Section 4.02.	Mandatory Sinking Fund and Make Whole Redemption .....	12
Section 4.03.	Selection of Series 2018 Bonds for Redemption .....	12
Section 4.04.	Redemption Procedures .....	12
Section 4.05.	Notice of Redemption .....	13

ARTICLE V

ISSUANCE OF SERIES 2018 BONDS  
AND USE OF SERIES 2018 BOND PROCEEDS

Section 5.01.	Series 2018 Bond Preparation, Execution and Delivery.....	13
Section 5.02.	Disposition of Series 2018 Bond Proceeds .....	13
Section 5.03.	Application of 2018 Improvement Projects Fund.....	14
Section 5.04.	Completion of 2018 Improvement Projects.....	15
Section 5.05.	Purchaser Not Responsible .....	15

ARTICLE VI

ESTABLISHMENT OF CERTAIN ACCOUNTS

Section 6.01.	Establishment of Certain Accounts.....	15
---------------	--	----

ARTICLE VII

FEDERAL TAX LAW MATTERS

Section 7.01.	Determination of Tax Exempt or Taxable Obligations.....	15
Section 7.02.	Prohibited Actions .....	16
Section 7.03.	Affirmative Actions .....	16
Section 7.04.	2018 Tax Certificate .....	16

ARTICLE VIII

MISCELLANEOUS

Section 8.01.	Applicability of Master Resolution.....	16
Section 8.02.	Severability and Invalid Provisions .....	17
Section 8.03.	Table of Contents and Section Headings Not Controlling.....	17
Section 8.04.	Effective Date .....	17

EXHIBIT A	FORM OF SERIES 2018 BONDS [TO BE MODIFIED FOR EACH SERIES]	
-----------	--	--

## FOURTEENTH SUPPLEMENTAL RESOLUTION

### WITNESSETH:

WHEREAS, the Board of Governors of the Colorado State University System (the "Board") has adopted a Master System Enterprise Bond Resolution on June 20, 2007, as previously supplemented (the "Master Resolution"); and

WHEREAS, this Fourteenth Supplemental Resolution is proposed for adoption pursuant to and in accordance with the Master Resolution; and

WHEREAS, the Board has determined to authorize hereby the issuance of Bonds, in one or more series or subseries, to be designated "The Board of Governors of the Colorado State University System, System Enterprise Revenue Bonds, Series 2018" (referred to herein as the "Series 2018 Bonds") for the purposes of (a) defraying the cost of financing the 2018 Improvement Projects, as further described herein; and (b) paying certain costs relating to the issuance thereof, in accordance with and as provided by the Master Resolution and this Fourteenth Supplemental Resolution;

**NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF GOVERNORS OF THE COLORADO STATE UNIVERSITY SYSTEM:**

### ARTICLE I

#### DEFINITIONS

**Section 1.01. Definitions.** Except as provided below in this Section, all terms which are defined in Section 1.01 of the Master Resolution shall have the same meanings, respectively, in this Fourteenth Supplemental Resolution as such terms are given in the Master Resolution. In addition, the following terms shall have the following respective meanings:

*"Authorized Denomination"* shall have the meaning set forth in the Pricing Certificate.

*"Board Representative"* means the Chief Financial Officer of the System and any other officer of the System subsequently designated by the Board or the Chief Financial Officer to be the Board Representative with respect to all matters affecting the Bonds.

*"Bond Insurance Policy"* means the municipal bond new issue insurance policy issued by the Bond Insurer, if any, that guarantees payment of principal of and interest on all or a portion of the Series 2018 Bonds.

*"Bond Insurer"* means such municipal bond insurance company, if any, as shall be selected to provide credit enhancement with respect to all or any portion of the Series 2018 Bonds, as designated in the Pricing Certificate.

*"Continuing Disclosure Undertaking"* means the Continuing Disclosure Undertaking of the Board with respect to the Series 2018 Bonds authorized in Section 2.06 hereof; provided,

however, that the Continuing Disclosure Undertaking may refer to multiple undertakings in the event the Series 2018 Bonds are issued in more than one series.

*“Financial Consultant”* means, with respect to the Series 2018 Bonds, North Slope Capital Advisors, Denver, Colorado, in its capacity as municipal advisor, and any successor thereto.

*“Fourteenth Supplemental Resolution”* means this Fourteenth Supplemental Resolution adopted by the Board on August 9, 2018.

*“Interest Payment Date”* means (a) each March 1 and September 1, commencing on the date or dates set forth in the Pricing Certificate with respect to the Series 2018 Bonds; (b) any other date or dates that interest is due and payable with respect to the Series 2018 Bonds as set forth in the Pricing Certificate with respect to the Series 2018 Bonds; and (c) the final maturity date of or any redemption date of each Series 2018 Bond.

*“Issue Date”* means the date or dates (in the event the Series 2018 Bonds are issued in more than one series) on which the Series 2018 Bonds are first delivered to the initial purchasers thereof against payment therefor.

*“Master Resolution”* means the Master Resolution adopted by the Board on June 20, 2007, as previously amended and supplemented and as may be further amended and supplemented from time-to-time.

*“Official Statement”* means the final Official Statement relating to the Series 2018 Bonds, including any supplements thereto; provided, however, that the Official Statement may refer to multiple Official Statements in the event the Series 2018 Bonds are issued in more than one series.

*“Preliminary Official Statement”* means the Preliminary Official Statement relating to the Series 2018 Bonds, including any supplements thereto; provided, however, that the Preliminary Official Statement may refer to multiple Preliminary Official Statements in the event the Series 2018 Bonds are issued in more than one series.

*“Pricing Certificate”* means a certificate executed by the Board Representative and evidencing the determinations made pursuant to Section 3.03(b) of this Fourteenth Supplemental Resolution; provided, however, that the Pricing Certificate may refer to multiple certificates, in the event the Series 2018 Bonds are issued in more than one series, and provided further that the provisions of any Pricing Certificate shall be deemed to be incorporated into this Fourteenth Supplemental Resolution.

*“Purchase Contract”* means any Purchase Contract relating to the Series 2018 Bonds between the Board and the Underwriters; provided, however, that the Purchase Contract may refer to multiple contracts in the event the Series 2018 Bonds are issued in more than one series.

*“Regular Record Date”* means the close of business on the fifteenth day (whether or not a Business Day) of the calendar month next preceding each regularly scheduled Interest Payment Date for the Series 2018 Bonds.

“*Resolution*” means the Master Resolution as supplemented by this Fourteenth Supplemental Resolution.

“*Series 2018 Bonds*” means the Bonds issued in one or more series or subseries hereunder and designated as “The Board of Governors of the Colorado State University System, System Enterprise Revenue Bonds, Series 2018,” and as more particularly designated in the Pricing Certificate.

“*State Intercept Act*” means Section 23-5-139, Colorado Revised Statutes, as amended.

“*State Intercept Program*” means the Higher Education Revenue Bond Intercept Program, established pursuant to the State Intercept Act.

“*State*” means the State of Colorado.

“*Taxable Obligation*” means any Series 2018 Bonds the interest on which is not excludable from gross income of the holder thereof for federal income tax purposes, which, with respect to the Series 2018 Bonds, shall be determined by the Board Representative, in accordance with the Article VII hereof titled “FEDERAL TAX LAW MATTERS” and set forth in the Pricing Certificate.

“*Tax Exempt Obligation*” means any Series 2018 Bonds the interest on which is excludable from gross income of the holder thereof for federal income tax purposes, which, with respect to the Series 2018 Bonds, shall be determined by the Board Representative, in accordance with Article VII hereof title “FEDERAL TAX LAW MATTERS” and set forth in the Pricing Certificate.

“*Underwriters*” means, in the determination of the Board, any combination of investment banking firms, financial institutions or commercial banks selected by the Board, acting as underwriters, direct purchasers or lenders in connection with the sale of the Series 2018 Bonds.

“*2018 Expense Account*” means the account created in Section 5.02(b) hereof.

“*2018 Improvement Projects*” means the financing of certain Improvement Projects, as determined by the Board, including but not limited to construction of an approximately 38,000 gsf CVID Facility (Center for Vector-borne Infectious Diseases) on the Foothills Campus to house faculty and research infrastructure, functional research laboratories, insectary and office space.

“*2018 Improvement Projects Fund*” means the fund created in Section 5.02(a) hereof, including any accounts and subaccounts therein.

“*2018 Paying Agency Agreement*” means the Paying Agency, Transfer Agency and Bond Registrar Agreement, by and between the Board and the 2018 Paying Agent relating to the Series 2018 Bonds; provided, however, that the 2018 Paying Agent Agreement may refer to multiple agreements in the event the Series 2018 Bonds are issued in more than one series.



“*2018 Paying Agent*” means Wells Fargo Bank, National Association, Denver, Colorado, acting as agent of the Board for the payment of the principal of, premium, if any, and interest on the Series 2018 Bonds, and any successor thereto.

“*2018 Registrar*” means the 2018 Paying Agent acting as agent of the Board for the registration of the Series 2018 Bonds, and any successor thereto.

“*2018 Tax Certificate*” means the Tax Certificate relating to the Series 2018 Bonds, executed by the Board on the date of issuance of the Series 2018 Bonds; provided, however, that the 2018 Tax Certificate may refer to multiple tax compliance certificates executed in connection with the Series 2018 Bonds.

**Section 1.02. Construction.** This Fourteenth Supplemental Resolution shall be construed as follows:

(a) The captions herein are for convenience only and in no way define, limit or describe the scope or intent of any provisions hereof.

(b) Any Series 2018 Bond held by the Board shall not be deemed to be Outstanding for the purpose of redemption, for the purpose of consents hereunder or for any other purpose.

**Section 1.03. Successors.** All of the covenants, stipulations, obligations and agreements by or on behalf of and any other provisions for the benefit of the System or the Board set forth in the Resolution shall bind and inure to the benefit of any successors thereof and shall bind and inure to the benefit of any officer, board, district, commission, authority, agent, enterprise or instrumentality to whom or to which there shall be transferred by or in accordance with law any right, power or duty of the System or the Board or of their respective successors, if any, the possession of which is necessary or appropriate in order to comply with any such covenants, stipulations, obligations, agreements, or other provisions hereof.

**Section 1.04. Parties Interested Herein.** Except as otherwise expressly provided in the Resolution, nothing expressed or implied in the Resolution is intended or shall be construed to confer upon or to give to any Person, other than the System, the Board, the 2018 Paying Agent, the Bond Insurer, if any, and the owners from time-to-time of the Series 2018 Bonds, any right, remedy or claim under or by reason hereof or any covenant, condition or stipulation hereof. All the covenants, stipulations, promises and agreements set forth herein by and on behalf of the System shall be for the sole and exclusive benefit of the System, the Board, the 2018 Paying Agent, the Bond Insurer, if any, and the owners from time-to-time of the Series 2018 Bonds.

**Section 1.05. Ratification.** All action heretofore taken (not inconsistent with the provisions of the Resolution) by the officers of the Board, the officers of the System, the Financial Consultant, and otherwise by the Board directed toward the 2018 Improvement Projects and the issuance, sale and delivery of the Series 2018 Bonds for such purposes, be, and the same hereby is, ratified, approved and confirmed, including, without limitation, the sale of the Series 2018 Bonds as provided in the Purchase Contract and the preparation and distribution of the Preliminary Official Statement and final Official Statement in connection therewith.

**Section 1.06. Resolution Irrepealable.** After any Series 2018 Bonds are issued, the Resolution shall constitute an irrevocable contract between the Board and owners of the Series 2018 Bonds; and the Resolution shall be and remain irrepealable until the Series 2018 Bonds and the interest thereon shall be fully paid, as herein provided.

**Section 1.07. Repealer.** All bylaws, orders and resolutions, or parts thereof, inconsistent herewith are hereby repealed to the extent only of such inconsistency. This repealer shall not be construed to revive any bylaw, order, resolution or part thereof, heretofore repealed.

**Section 1.08. Severability.** If any provision of the Resolution shall be held invalid or unenforceable, such holding shall not affect any other provisions hereof.

**Section 1.09. Effective Date.** This Fourteenth Supplemental Resolution shall become effective immediately upon its passage.

## ARTICLE II

### AUTHORIZATION OF 2018 IMPROVEMENT PROJECTS AND CERTAIN RELATED DOCUMENTS

**Section 2.01. Authority for Resolution.** The Resolution is adopted by virtue of the plenary powers of the Board as a constitutionally established body corporate under Article VIII, Section 5 of the Constitution of the State and under the particular authority of the Auxiliary Facilities Enterprise Act, the Institutional Enterprise Statute, the Research Building Fund Act, the State Intercept Act (if applicable) and the Supplemental Public Securities Act. The Board has ascertained and hereby determines that each matter and thing as to which provision is made herein is necessary in order to carry out and effectuate the purposes of the Board in accordance with such powers and authority.

**Section 2.02. Necessity of the 2018 Improvement Projects and Series 2018 Bonds.** It is necessary and for the best interests of the Board and the System that the Board undertake the 2018 Improvement Projects as herein authorized and obtain funds therefor by issuing the Series 2018 Bonds; and the Board hereby so determines and declares.

**Section 2.03. Authorization of the 2018 Improvement Projects.** The Board hereby determines to undertake the 2018 Improvement Projects pursuant to the Auxiliary Facilities Enterprise Act, the Institutional Enterprise Statute, the Research Building Fund Act, the State Intercept Act (if applicable), the Supplemental Public Securities Act, and applicable provisions of the Code, and further determines that all requirements and limitations of such statutes have been met.

In addition, the Board hereby determines that (a) the limitations and requirements imposed by the Resolution for the issuance of Bonds have been met and (b) the 2018 Improvement Projects are hereby authorized.

**Section 2.04. Provision for Sale of Series 2018 Bonds.** The Board Representative and the officers of the Board, or any of them, are hereby authorized, for and on behalf of the Board, to accept and execute the Purchase Contract submitted by the Underwriters for the purchase of

the Series 2018 Bonds, in substantially the form filed with the Board on the date of adoption of this Fourteenth Supplemental Resolution, bearing interest at the rates therein designated and otherwise upon the terms and conditions provided in this Fourteenth Supplemental Resolution, the Pricing Certificate and such Purchase Contract.

**Section 2.05. Execution of 2018 Paying Agency Agreement.** The appropriate officers of the Board, as designated in the 2018 Paying Agency Agreement, are hereby authorized to complete and execute the 2018 Paying Agency Agreement on behalf of and in the name of the Board, in substantially the form filed with the Board following the date of adoption of this Fourteenth Supplemental Resolution.

**Section 2.06. Approval and Use of Preliminary Official Statement and Official Statement; Rule 15c2-12; Continuing Disclosure Undertaking.** The distribution and use of a Preliminary Official Statement relating to the Series 2018 Bonds, in substantially the form filed with the Board on or following the date of adoption of this Fourteenth Supplemental Resolution, is hereby approved with such changes as may be necessary for the sale of the Series 2018 Bonds. The Chair of the Board and/or the Chancellor of the System is each hereby authorized, directed and empowered to determine when such Preliminary Official Statement may be deemed final within the meaning of Securities and Exchange Rule 15c2-12, subject to permitted omissions, and thereupon to give a certificate to such effect. The Chair of the Board and/or the Chancellor of the System is each hereby authorized to execute and deliver the final Official Statement relating to the Series 2018 Bonds and the Underwriters may thereafter distribute the same. The appropriate officers of the Board and the System are hereby authorized to complete and execute the Continuing Disclosure Undertaking on behalf of and in the name of the Board, in substantially the form attached to the Preliminary Official Statement.

**Section 2.07. Bond Insurance.** In the event that it is determined to obtain a municipal bond insurance policy insuring the payment when due of the principal of and interest on all or a portion of the Series 2018 Bonds, as provided in Section 3.03(b)(ii) hereof and the Pricing Certificate, the completion, execution and delivery of all documents relating to and required or necessary in connection with such municipal bond insurance policy by the appropriate officers of the Board and the System are hereby authorized and approved. To the extent provided therein, the provisions of any agreement between the Board and the Bond Insurer, as contemplated in this Section 2.08, shall be deemed to be incorporated in this Fourteenth Supplemental Resolution and shall be enforceable as if set forth herein.

**Section 2.08. Execution of Documents.** The following individuals, namely: the Chair of the Board, the Secretary of the Board, the Chancellor of the System, General Counsel to the System, the Chief Financial Officer of the System and the Treasurer of the System (and any other officers authorized by law to act on their behalf in their absence) are hereby authorized to execute and deliver, this Fourteenth Supplemental Resolution, and, as appropriate in connection with each series of Series 2018 Bonds issued hereunder, the Purchase Contract, the Pricing Certificate, the 2018 Paying Agency Agreement, the Continuing Disclosure Undertaking, the Official Statement, any documents required in connection with any Credit Enhanced Bonds, and any other documents or certificates necessary or appropriate to close the sale of the Series 2018 Bonds and all related transactions and to take any action with respect to any matter required to accomplish the same.

## ARTICLE III

### AUTHORIZATION AND TERMS OF SERIES 2018 BONDS

**Section 3.01. Authorization of Series 2018 Bonds.** Pursuant to the provisions of the Master Resolution, there is hereby authorized the borrowing of funds, and to evidence such borrowing there are hereby authorized one or more series Bonds of the Board designated “The Board of Governors of the Colorado State University System, System Enterprise Revenue Bonds, Series 2018,” or as more particularly designated in the Pricing Certificate, including the year of issuance. If, in accordance with the Article VII titled “FEDERAL TAX LAW MATTERS,” the Board Representative shall determine that any series of Series 2018 Bonds shall constitute a Taxable Obligation, the title of such series shall further include the following: “Taxable.” The full title of any and all series of bonds issued hereunder shall be determined by the Board Representative in accordance with the foregoing, and shall be set forth in the Pricing Certificate.

**Section 3.02. Purposes.** The Series 2018 Bonds are authorized for the purposes of funding the 2018 Improvement Projects and paying certain costs of issuance relating to the Series 2018 Bonds, all as more specifically provided in Article V hereof.

#### **Section 3.03. Terms of Series 2018 Bonds, Generally.**

(a) ***Registered Form; Numbers and Date.*** The Series 2018 Bonds shall be issued in fully registered form and shall be numbered from one upward in consecutive numerical order preceded by the letter “R.” The registered Owner of all Series 2018 Bonds shall be a Securities Depository in accordance with the Master Resolution. The Series 2018 Bonds shall be dated the Issue Date.

(b) ***Principal Amounts; Maturities; Interest Rates.*** The Series 2018 Bonds shall mature, subject to the right of prior redemption as provided in Article IV hereof, on the dates and in the aggregate principal amounts, and shall bear interest, payable on each Interest Payment Date, as provided below:

(i) ***Parameters.*** Any Series 2018 Bonds, issued in one or more series or subseries, shall be issued in an aggregate principal amount not to exceed \$30,000,000 for the 2018 Improvement Projects. Any Series 2018 Bonds, issued in one or more series or subseries, shall bear interest at such taxable and/or tax exempt rate or rates resulting in a true interest cost not exceeding 6% with respect to any debt issued hereunder. Notwithstanding the forgoing, Credit Enhanced Bonds may have a maximum interest rate not in excess of 12% per annum. Any Series 2018 Bonds may mature as term bonds or serial bonds, or both, not later than March 1, 2058 with respect to bonds issued for the 2018 Improvements Projects.

(ii) ***Delegated Powers.*** The Board Representative is authorized, without further approval of the Board, to make any and all determinations listed in Section 11-57-205(1), Colorado Revised Statutes, as amended, provided such

determinations are not inconsistent with the standards set forth in this Fourteenth Supplemental Resolution. In furtherance thereof, the Board Representative is hereby authorized, without further approval of the Board, to determine in conformity with the standards set forth in this Fourteenth Supplemental Resolution and after the Series 2018 Bonds have been priced in the market: (A) the final designation of one or more series or subseries of the Series 2018 Bonds; (B) the principal amount of each series or subseries of the Series 2018 Bonds; (C) the coupon interest rate or rates (whether fixed or variable) on the Series 2018 Bonds; (D) the maturity or maturities of the Series 2018 Bonds (any of which may include Series 2018 Bonds bearing different interest rates) and the amount and date of any mandatory sinking fund redemption; (E) provisions for the optional, mandatory or extraordinary redemption of any or all of the Series 2018 Bonds prior to maturity; (F) the purchase price of the Series 2018 Bonds; (G) whether the Series 2018 Bonds will constitute Tax Exempt Obligations, Taxable Obligations, and the other matters set forth in Article VII hereof entitled "FEDERAL TAX LAW MATTERS"; (H) whether or not to utilize bond insurance, a Credit Facility or a debt service reserve policy for the Series 2018 Bonds and the execution of all agreements, documents and certificates in connection therewith; (I) whether or not the Series 2018 Bonds will be sold pursuant to a negotiated sale, a competitive sale or direct placement; all as may be necessary to effect the 2018 Improvement Projects and in a manner consistent with this Fourteenth Supplemental Resolution; including the estimated true interest cost of the Series 2018 Bonds and the Underwriter's or Purchaser's discount relating to the Series 2018 Bonds. The determinations described herein shall be evidenced by a Pricing Certificate filed with the Board, and except as otherwise expressly provided herein or in the Master Resolution, the terms of the Series 2018 Bonds shall be as set forth in the Pricing Certificate and incorporated by reference into this Fourteenth Supplemental Resolution; (J) whether or not to qualify any of the Series 2018 Bonds under the State Intercept Program.

(c) ***Authorized Denominations.*** The Series 2018 Bonds shall be issued in Authorized Denominations.

(d) ***Computation of Interest.*** Each Series 2018 Bond shall bear interest at the applicable rate in accordance with Section 3.03(b) hereof, (i) from the date of authentication, if authenticated on an Interest Payment Date to which interest has been paid or duly provided for; or (ii) from the last preceding Interest Payment Date to which interest has been paid or duly provided for (or the Issue Date if no interest thereon has been paid or duly provided for) in all other cases. The amount of interest so payable on Series 2018 Bonds on any Interest Payment Date shall be computed on the basis of a 360-day year of twelve 30-day months, unless an alternative computational convention is set forth in the Pricing Certificate.

(e) ***Appointment of 2018 Paying Agent and 2018 Registrar.*** Wells Fargo Bank, National Association, is hereby appointed the 2018 Paying Agent and 2018 Registrar.

#### **Section 3.04. Payment of Bond Requirements.**

(a) ***Principal and Final Interest.*** The principal or Redemption Price of and the final interest payment on any Series 2018 Bond shall be payable to the owner thereof as shown on the registration books maintained by the 2018 Registrar upon maturity or prior redemption thereof and upon presentation and surrender at the principal office of the 2018 Paying Agent. If any Series 2018 Bond shall not be paid upon such presentation and surrender at or after maturity, it shall continue to draw interest (but without compounding of interest) at the rate borne by it until the principal thereof is paid in full.

(b) ***Interest.*** The interest due on any Series 2018 Bond on any Interest Payment Date shall be paid to the owner thereof, as shown on the registration books kept by the 2018 Registrar at the close of business on the Regular Record Date. Any such interest not so timely paid or duly provided for shall cease to be payable to the person who is the owner of such Series 2018 Bond on the Regular Record Date and shall be payable to the person who is the owner of such Series 2018 Bond at the close of business on a Special Record Date for the payment of any such defaulted interest. Such Special Record Date shall be fixed in accordance with Section 3.10 of the Master Resolution.

(c) ***Payment of Interest.*** All payments of interest on any Series 2018 Bond shall be paid to the person entitled thereto pursuant to Section 3.04(b) above by check mailed on the Interest Payment Date to his or her address as it appears on the registration books kept by the 2018 Registrar (or, in the case of defaulted interest, the date selected by the 2018 Registrar for the payment of such defaulted interest), or, at the option of any owner of \$1,000,000 or more in principal amount of Series 2018 Bonds, by wire transfer on such date to a bank within the continental United States as directed by such owner.

(d) ***State Intercept Program.*** The Board may elect to utilize the State Intercept Program for all or a portion of the 2018 Improvement Projects. The final determination of which Series 2018 Bonds (and any series thereof) are subject to the State Intercept Program shall be set forth in the Pricing Certificate. The Board is hereby directed to file with the State Treasurer a copy of this Fourteenth Supplemental Resolution, the Pricing Certificate and the Official Statement. The Board shall also make such filings as are required by the State Intercept Act.

**Section 3.05. Bond Form.** Subject to the provisions of this Fourteenth Supplemental Resolution, the Series 2018 Bonds shall be in substantially the form set forth in Exhibit A hereto, with such omissions, insertions, endorsements and variations as to any recitals of fact or other provisions as may be required by the circumstances, be required or permitted by the Master Resolution, or be consistent with the Master Resolution.

**Section 3.06. State Tax Exemption.** Pursuant to Section 23-5-105, Colorado Revised Statutes, as amended, the Series 2018 Bonds, their transfer, and the income therefrom shall forever be and remain free and exempt from taxation by the State or any subdivision thereof.

## ARTICLE IV

### REDEMPTION OF SERIES 2018 BONDS

**Section 4.01. Optional Redemption.** The Series 2018 Bonds shall be subject to redemption prior to maturity at the option of the Board, if at all, on the dates and at the Redemption Prices as set forth in the Pricing Certificate.

**Section 4.02. Mandatory Sinking Fund and Make Whole Redemption.** The Series 2018 Bonds shall be subject to mandatory sinking fund redemption and make whole redemption, if at all, on the dates and in the principal amounts as set forth in the Pricing Certificate.

**Section 4.03. Selection of Series 2018 Bonds for Redemption.** If less than all of the Series 2018 Bonds are called for prior redemption hereunder, the Series 2018 Bonds or portions to be redeemed shall be redeemed in such order of maturities as shall be specified by the Board. If less than all Series 2018 Bonds or portions thereof of a single maturity and rate are to be redeemed, they shall be selected by lot in such manner as the Paying Agent may determine. In the case of a Series 2018 Bond of a denomination larger than an Authorized Denomination, such Series 2018 Bond may be redeemed only in principal amounts equal to any integral multiple of the minimum Authorized Denomination. In the event a portion of any Series 2018 Bonds is so redeemed, the 2018 Registrar shall, without charge to the owner of such Series 2018 Bond, authenticate a replacement Series 2018 Bond for the unredeemed portion thereof.

**Section 4.04. Redemption Procedures.** Except as otherwise provided herein, the Series 2018 Bonds shall be called for prior redemption and shall be paid by the 2018 Paying Agent upon notice as provided in Section 4.05 hereof. The 2018 Registrar shall not be required to transfer or exchange any Series 2018 Bond after notice of the redemption of such Series 2018 Bond has been given (except the unredeemed portion of such Series 2018 Bond, if redeemed in part) or to transfer or exchange any Series 2018 Bond during the period of 15 days next preceding the day such notice is given.

In addition, the 2018 Registrar is hereby authorized to comply with any operational procedures and requirements of the Securities Depository relating to redemption of Series 2018 Bonds and notice thereof. The Board and the 2018 Registrar shall have no responsibility or obligation with respect to the accuracy of the records of the Securities Depository or a nominee therefor or any Participant of such Securities Depository with respect to any ownership interest in the Series 2018 Bonds or the delivery to any Participant, beneficial owner or any other person (except to a registered owner of the Series 2018 Bonds) of any notice with respect to the Series 2018 Bonds, including any notice of redemption.

**Section 4.05. Notice of Redemption.** The 2018 Registrar shall cause notice of the redemption of the Series 2018 Bonds being redeemed under this Article IV to be given in the form and manner described in Section 3.07 of the Master Resolution not less than 30 days nor more than 60 days prior to the redemption date.

**Section 4.06. Tender and Purchase.** The Series 2018 Bonds shall be subject to tender and purchase prior to maturity at the option of the Board, if at all, on the dates, in the manner and at the prices as set forth in the Pricing Certificate.

## ARTICLE V

### ISSUANCE OF SERIES 2018 BONDS AND USE OF SERIES 2018 BOND PROCEEDS

**Section 5.01. Series 2018 Bond Preparation, Execution and Delivery.** The officers of the Board and the System designated in this Fourteenth Supplemental Resolution are hereby authorized and directed to prepare and to execute the Series 2018 Bonds, as herein provided. When the Series 2018 Bonds have been duly executed, the Board Representative shall deliver them to the Underwriters upon receipt of the agreed purchase price.

**Section 5.02. Disposition of Series 2018 Bond Proceeds.** The proceeds of the Series 2018 Bonds, upon the receipt thereof, shall be accounted for in the following manner and priority and are hereby pledged therefor:

(a) **2018 Improvement Projects Fund.** First, from the proceeds of the Series 2018 Bonds, there shall be deposited in a separate account, which account is hereby created, to be known as “The Board of Governors of the Colorado State University System, System Enterprise Revenue Bonds, Series 2018, Improvement Projects Fund” (the “2018 Improvement Projects Fund”), such amount as the Board Representative shall determine to be necessary and available to defray the costs of the 2018 Improvement Projects, subject to the provisions of the 2018 Tax Certificate. Such account shall be under the control of the Board.

There is hereby created within the 2018 Improvement Projects Fund a separate account under the control of the Board which shall be designated “The Board of Governors of the Colorado State University System, System Enterprise Revenue Bonds, Series 2018, Capitalized Interest Account” (the “2018 Capitalized Interest Account”). There shall be credited to such 2018 Capitalized Interest Account such amount as the Board Representative shall determine to be necessary and available to pay a portion of the interest on the Series 2018 Bonds through a date specified by the Board Representative in the Pricing Certificate, taking into account any other moneys available to pay interest on the Series 2018 Bonds.

In the event that the Series 2018 Bonds are issued in only one series, then the Board shall not be required to establish additional accounts or subaccounts within the 2018 Improvement Projects Fund; provided, however, that in the event that the Series 2018 Bonds are issued in more than one series, additional separate accounts and, as necessary, subaccounts shall be created within the 2018 Improvement Projects Fund in accordance with the following:

A separate account shall be created within the 2018 Improvement Projects Fund for each separate series of Series 2018 Bonds issued as Tax Exempt Obligations the



proceeds of which are to be applied to the 2018 Improvement Projects, into which shall be deposited amounts received from the sale of each such series of the Series 2018 Bonds, and the amount of such deposit shall be as set forth in the Pricing Certificate.

In the event that any of the Series 2018 Bonds are issued as Taxable Obligations, and the proceeds from such Series 2018 Bonds are to be applied to the 2018 Improvement Projects, then separate accounts shall be established for each such series of Series 2018 Bonds, and the amount of proceeds from the sale of such Series 2018 Bonds deposited to such account(s) shall be as set forth in the Pricing Certificate.

(b) **2018 Expense Account.** Second, from the proceeds of the Series 2018 Bonds, there shall be deposited to the credit of a separate account, hereby created (the "2018 Expense Account"), which 2018 Expense Account shall be under the control of the Board, all remaining amounts of proceeds of the Series 2018 Bonds. From such 2018 Expense Account, the Board shall be authorized to pay all expenses associated with the issuance of the Series 2018 Bonds. Any moneys remaining in the 2018 Expense Account six months after the date of issuance of the Series 2018 Bonds shall be transferred as directed by the Board Representative.

**Section 5.03. Application of 2018 Improvement Projects Fund.** Amounts on deposit in the 2018 Capitalized Interest Account within the 2018 Improvement Projects Fund shall be applied to the payment of interest on the Series 2018 Bonds as directed by the Board Representative. Any other moneys credited from time-to-time to the 2018 Improvement Projects Fund shall be used, without requisition, voucher or other direction or further authority than is herein contained, to pay, or to reimburse the Board and the System for the payment of costs of the 2018 Improvement Projects, as the same become due. All amounts derived from the investment of moneys on deposit in the 2018 Improvement Projects Fund shall remain in the 2018 Improvement Projects Fund and shall be applied as described herein, or, at the direction of the Board Representative, shall be applied to pay interest on the Series 2018 Bonds. Upon completion of the 2018 Improvement Projects by the Board and the delivery of a Completion Certificate to the Board in accordance with the Resolution, all money remaining in the 2018 Improvement Projects Fund, except amounts estimated to be needed for costs of the 2018 Improvement Projects not then due and payable as provided in Section 5.04 hereof, may be used for any other lawful capital expenditures of the Board or may be transferred to the Series 2018 Principal Account of the Debt Service Fund and used to pay the principal of, premium, if any, or interest on the Series 2018 Bonds.

**Section 5.04. Completion of 2018 Improvement Projects.** Upon completion of the 2018 Improvement Projects and the acceptance thereof by the System, the Board Representative shall deliver to the Board a certificate (the "Completion Certificate") stating that, to the best of the System's knowledge based upon the representations of the Board Representative and the contractors, architects, engineers, vendors or other consultants, and except for any amounts estimated by the Board Representative to be necessary for payment of any costs of the 2018 Improvement Projects not then due and payable as set forth in such certificate, the 2018 Improvement Projects have been completed and accepted by the System and all costs of the 2018 Improvement Projects have been paid. Notwithstanding the foregoing, such certificate shall not,

and shall state that it does not, prejudice any rights against third parties which exist at the date of such certificate or which may subsequently come into being.

**Section 5.05. Purchaser Not Responsible.** The Underwriters, any associate thereof, and any subsequent owner of any Series 2018 Bond shall in no manner be responsible for the application or disposal by the Board or by any System officer or any other employee or agent of the Board or System of the moneys derived from the sale of the Series 2018 Bonds or of any other moneys herein designated.

## ARTICLE VI

### ESTABLISHMENT OF CERTAIN ACCOUNTS

**Section 6.01. Establishment of Certain Accounts.** In accordance with Section 5.01 of the Master Resolution, the Board hereby creates and establishes the following accounts in respect of the Series 2018 Bonds: (a) within the Debt Service Fund, a “Series 2018 Interest Account” and a “Series 2018 Principal Account”; and (b) within the Rebate Fund, a “Series 2018 Rebate Account.” Such accounts shall be maintained and applied as provided in (i) Section 5.06 of the Master Resolution, with respect to the Series 2018 Interest Account and the Series 2018 Principal Account; and (ii) Sections 5.11 through 5.13 of the Master Resolution, with respect to the Series 2018 Rebate Account.

## ARTICLE VII

### FEDERAL TAX LAW MATTERS

**Section 7.01. Determination of Tax Exempt or Taxable Obligations.** All or any portion of the Series 2018 Bonds is authorized to be issued as a Tax Exempt Obligation or Taxable Obligation. The Board hereby delegates to the Board Representative the authority to determine what, if any, portion of the Series 2018 Bonds shall constitute a Tax Exempt Obligation, and what, if any, portion of the Series 2018 Bonds shall constitute a Taxable Obligation which determinations shall be set forth in the applicable Pricing Certificate. To the extent that any portion of the Series 2018 Bonds shall constitute Tax Exempt Obligations, for purposes of ensuring that the interest on the Tax Exempt Obligations is and remains excluded from gross income for federal income tax purposes, the Board makes the covenants set forth in Sections 7.02 through 7.04 of this Article VII. In the event that, as determined by the Board Representative and set forth in the Pricing Certificate, no portion of the Series 2018 Bonds constitutes Tax Exempt Obligations, Sections 7.02 through 7.04 of this Article VII shall be of no force or effect.

**Section 7.02. Prohibited Actions.** The Board will not use or permit the use of any proceeds of the Tax Exempt Obligations or any other funds of the Board from whatever source derived, directly or indirectly, to acquire any securities or obligations and shall not take or permit to be taken any other action or actions, which would cause any Tax Exempt Obligations to be an “arbitrage bond” within the meaning of Section 148 of the Code, or would otherwise cause the interest on any Tax Exempt Obligations to be includible in gross income for federal income tax purposes.

**Section 7.03. Affirmative Actions.** The Board will at all times do and perform all acts permitted by law that are necessary in order to assure that interest paid by the Board on the Tax Exempt Obligations shall not be includible in gross income for federal income tax purposes under the Code or any other valid provision of law. In particular, but without limitation, the Board represents, warrants and covenants to comply with the following unless it receives an opinion of Bond Counsel stating that such compliance is not necessary: (a) gross proceeds of the Tax Exempt Obligations will not be used in a manner that will cause the Series 2018 Bonds to be considered “private activity bonds” within the meaning of the Code; (b) the Tax Exempt Obligations are not and will not become directly or indirectly “federally guaranteed”; and (c) the Board will timely file Internal Revenue Form 8038-G which shall contain the information required to be filed pursuant to Section 149(e) of the Code with respect to the Tax Exempt Obligations.

**Section 7.04. 2018 Tax Certificate.** The Board will comply with the 2018 Tax Certificate delivered to it on the date of issuance of any Series 2018 Bonds constituting Tax Exempt Obligations, including but not limited to the provisions of the 2018 Tax Certificate regarding the application and investment of proceeds of such Series 2018 Bonds, the calculations, the deposits, the disbursements, the investments and the retention of records described in the 2018 Tax Certificate; provided that, in the event the original 2018 Tax Certificate is superseded or amended by a new 2018 Tax Certificate drafted by, and accompanied by an opinion of Bond Counsel stating that the use of the new 2018 Tax Certificate will not cause the interest on such Series 2018 Bonds to become includible in gross income for federal income tax purposes, the Board will thereafter comply with the new 2018 Tax Certificate.

## ARTICLE VIII

### MISCELLANEOUS

**Section 8.01. Applicability of Master Resolution.** Except as otherwise provided herein, the provisions of the Master Resolution govern the Series 2018 Bonds and the 2018 Improvement Projects. The rights, undertakings, covenants, agreements, obligations, warranties, and representations of the Board set forth in the Master Resolution shall in respect of the Series 2018 Bonds be deemed the rights, undertakings, covenants, agreements, obligations, warranties and representations of the Board.

**Section 8.02. Severability and Invalid Provisions.** If any one or more of the covenants or agreements provided in this Fourteenth Supplemental Resolution on the part of the Board to be performed should be contrary to law, then such covenant or covenants or agreement or agreements shall be deemed severable from the remaining covenants and agreements, and shall in no way affect the validity of the other provisions of this Fourteenth Supplemental Resolution.


**Section 8.03. Table of Contents and Section Headings Not Controlling.** The Table of Contents and the headings of the several Articles and Sections of this Fourteenth Supplemental Resolution have been prepared for convenience of reference only and shall not control, affect the meaning of, or be taken as an interpretation of any provision of this Fourteenth Supplemental Resolution.

**Section 8.04. Effective Date.** This Fourteenth Supplemental Resolution shall take effect immediately.

ADOPTED AND APPROVED as of August 9, 2018.

[SEAL]

BOARD OF GOVERNORS OF THE  
COLORADO STATE UNIVERSITY SYSTEM

By  \_\_\_\_\_  
Chair of the Board

ATTEST:

By  \_\_\_\_\_  
Secretary

[Signature Page to Fourteenth Supplemental Resolution]

**EXHIBIT A**

**FORM OF SERIES 2018 BONDS [TO BE MODIFIED FOR EACH SERIES]**

**UNLESS THIS BOND IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY, A NEW YORK CORPORATION ("DTC"), TO THE 2018 PAYING AGENT, THE 2018 REGISTRAR OR ANY AGENT THEREOF FOR REGISTRATION OF TRANSFER, EXCHANGE OR PAYMENT, AND ANY BOND ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC (AND ANY PAYMENT IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL INASMUCH AS THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN.**

**TRANSFER OF THIS BOND OTHER THAN BY REGISTRATION IS NOT EFFECTIVE.**

**UNITED STATES OF AMERICA  
STATE OF COLORADO**

**BOARD OF GOVERNORS OF THE COLORADO STATE UNIVERSITY SYSTEM  
SYSTEM ENTERPRISE REVENUE BONDS  
SERIES 2018**

No. R- \_\_\_\_\_ \$ \_\_\_\_\_

<b>Interest Rate (Per Annum)</b>	<b>Maturity Date</b>	<b>Dated as of</b>	<b>CUSIP</b>
_____ %	March 1, _____	_____, 2018	_____

REGISTERED OWNER: CEDE & CO.

PRINCIPAL AMOUNT: \_\_\_\_\_ DOLLARS

The Board of Governors of the Colorado State University System (the "Board" and the "System," respectively), being a body corporate under the laws of the State of Colorado (the "State"), for value received, hereby promises to pay to the registered owner specified above or registered assigns solely from the special funds provided therefor, the principal amount specified above, on the maturity date specified above (unless called for earlier redemption), and to pay from such special funds interest thereon on March 1 and September 1 of each year (each an "Interest Payment Date"), commencing on \_\_\_\_\_ at the interest rate per annum specified above, until the principal sum is paid or payment has been provided. This Series 2018 Bond (as hereinafter defined) will bear interest from the most recent Interest Payment Date to which interest has been paid or provided for, or, if no interest has been paid, from the date of this

Series 2018 Bond. The principal of and premium, if any, on this Series 2018 Bond are payable upon presentation and surrender hereof at the principal office of the Board's paying agent for the Series 2018 Bonds (the "2018 Paying Agent"), initially Wells Fargo Bank, National Association. The 2018 Paying Agent's principal office for such payment shall be in Minneapolis, Minnesota. Interest on this Series 2018 Bond will be paid on each Interest Payment Date (or, if such Interest Payment Date is not a business day, on the next succeeding business day), by check or draft mailed to the person in whose name this Series 2018 Bond is registered (the "registered owner") in the registration records of the Board maintained by the Board's registrar for the Series 2018 Bonds (the "2018 Registrar"), initially Wells Fargo Bank, National Association, and at the address appearing thereon at the close of business on the fifteenth day of the calendar month next preceding such Interest Payment Date (the "Regular Record Date"). Any such interest not so timely paid or duly provided for shall cease to be payable to the person who is the registered owner hereof at the close of business on the Regular Record Date and shall be payable to the person who is the registered owner thereof at the close of business on a Special Record Date (as described in the resolution of the Board authorizing the issuance of this Series 2018 Bond; herein the "Resolution"), for the payment of any defaulted interest. Such Special Record Date shall be fixed by the 2018 Registrar whenever moneys become available for payment of the defaulted interest, and notice of the Special Record Date shall be given to the registered owners of the bonds of the series of which this is one not less than 10 days prior thereto. Alternative means of payment of interest may be used if mutually agreed to between the owner of any Series 2018 Bond and the 2018 Paying Agent, as provided in the Resolution. All such payments shall be made in lawful money of the United States of America without deduction for the services of the 2018 Registrar or 2018 Paying Agent.

This bond is one of an authorized series of bonds issued under the Resolution designated the Board of Governors of the Colorado State University System, System Enterprise Revenue Bonds, Series 2018 in the aggregate principal amount of \$[ ] (the "Series 2018 Bonds").

It is hereby certified that all acts, conditions and things required to be done precedent to and in the issuance of this Series 2018 Bond and the series of which it is a part have been properly done, have happened, and have been performed in regular and due time, form and manner as required by the Constitution and laws of the State and the proceedings herein mentioned, and that this series of bonds does not exceed any constitutional or statutory limitation.

This Series 2018 Bond shall not be valid or obligatory for any purpose until the 2018 Registrar shall have manually signed the certificate of authentication hereon.

The Series 2018 Bonds are issuable solely as fully registered bonds in denominations of \$5,000 and any integral multiple thereof and are exchangeable for fully registered Series 2018 Bonds of the same maturity in equal aggregate principal amounts and in authorized denominations at the aforesaid office of the 2018 Registrar but only in the manner, subject to the limitations, and on payment of the charges provided in the Resolution.

The 2018 Registrar will not be required to transfer or exchange (a) any Series 2018 Bond subject to redemption during a period beginning at the opening of business 15 days before the

day of the mailing by the 2018 Registrar of a notice of prior redemption of Series 2018 Bonds and ending at the close of business on the day of such mailing, or (b) any Series 2018 Bond after the mailing of notice calling such Series 2018 Bond or any portion thereof for prior redemption.

The Series 2018 Bonds or portions thereof maturing on and after March 1, 20\_\_\_, are subject to redemption prior to their respective maturities, at the option of the Board, on or after March 1, 20\_\_\_, in whole or in part at any time, in such order of maturities as the Board shall determine and by lot within a maturity, in integral multiples of \$5,000 (giving proportionate weight to Series 2018 Bonds in denominations larger than \$5,000), in such manner as the 2018 Paying Agent may determine, at a redemption price equal to \_\_\_% of the principal amount of each Series 2018 Bond or portion thereof so redeemed plus accrued interest thereon to the redemption date.

The Series 2018 Bonds are subject to mandatory sinking fund redemption as provided in the Pricing Certificate.

In the case of a Series 2018 Bond of a denomination larger than \$5,000, a portion of such Series 2018 Bond (\$5,000 or any integral multiple thereof) may be redeemed, in which case the 2018 Registrar shall, without charge to the owner of such Series 2018 Bond, authenticate and issue a replacement Series 2018 Bond or Bonds for the unredeemed portion thereof. Redemption shall be made upon not less than 30 days' prior mailed notice to each registered owner as shown on the registration records maintained by the 2018 Registrar, as provided in the Resolution.

This Series 2018 Bond is fully transferable by the registered owner hereof in person or by his duly authorized attorney on the registration records maintained by the 2018 Registrar upon surrender of this Series 2018 Bond together with a duly executed written instrument of transfer satisfactory to the 2018 Registrar. Upon such transfer a new fully registered Series 2018 Bond or Series 2018 Bonds of authorized denomination or denominations of the same aggregate principal amount and maturity will be issued to the transferee in exchange for this Series 2018 Bond, subject to such terms and conditions as set forth in the Resolution. The Board, 2018 Registrar and 2018 Paying Agent may deem and treat the person in whose name this Series 2018 Bond is registered as the absolute owner hereof for the purpose of making payment (except to the extent otherwise provided hereinabove and in the Resolution with respect to Regular and Special Record Dates for the payment of interest) and for all other purposes and the Board and 2018 Paying Agent and 2018 Registrar shall be not affected by notice to the contrary.

The Series 2018 Bonds are being issued to finance the 2018 Improvement Projects.

The Series 2018 Bonds are issued by the Board as authorized by and pursuant to the Auxiliary Facilities Enterprise Act, the Institutional Enterprise Statute, the Research Building Fund Act, the State Intercept Act (if applicable), the Supplemental Public Securities Act, and applicable provisions of the Code.

This Series 2018 Bond does not constitute a debt or an indebtedness of the State, the Board or the System within the meaning of any constitutional or statutory provision or limitation, shall not be considered or held to be a liability or general obligation of the State, the Board or the System, and is payable and collectible as an obligation of the Board solely out of the net



revenues (including Student Fees) (the "Net Revenues") to be derived from the operation of certain revenue-producing Facilities and Research Facilities, as well as certain Tuition Revenues, as such Net Revenues, Student Fees, Facilities, Research Facilities and Tuition Revenues are defined in the Resolution. The owner hereof may not look to any general or other fund of the State or the System for the payment of the principal of, premium, if any, and interest on this obligation, except the special funds pledged therefor.

Payment of the Series 2018 Bonds and the interest thereon shall be made from, and as security for such payment there is pledged pursuant to the Resolution, a special fund identified as the "System Enterprise Debt Service Fund" (the "Debt Service Fund"), into which fund the Board covenants to pay from the Net Revenues moneys sufficient to pay when due the principal of, premium, if any, and interest on the Series 2018 Bonds. The Series 2018 Bonds constitute an irrevocable lien on the Net Revenues and are being issued on parity with the Board's Outstanding Parity Obligations (as defined in the Resolution) Outstanding Obligations in addition to the Series 2018 Bonds, subject to expressed conditions, may be issued and made payable from the Net Revenues and having a lien thereon subordinate and junior to the lien, or subject to additional expressed conditions, having a lien thereon on a parity with the lien thereon of the Series 2018 Bonds, as provided in the Resolution.

Reference is made to the Resolution and any and all modifications and amendments thereof and to the designated statutes for the provisions, among others, with respect to the custody and application of the proceeds of the Series 2018 Bonds, for a description of the nature and extent of the security for the Series 2018 Bonds, the funds or revenues pledged, the nature and extent and manner of enforcement of the pledge, the rights and remedies of the owners of the Series 2018 Bonds with respect thereto, the terms and conditions upon which the Series 2018 Bonds are issued, and a statement of rights, duties, immunities and obligations of the Board and the rights of the owners of the Series 2018 Bonds.

To the extent and in the respects permitted by the Resolution, the provisions of the Resolution or any resolution amendatory thereof or supplemental thereto may be modified or amended by action on behalf of the Board taken in the manner and subject to the conditions and exceptions prescribed in the Resolution. The pledge of the Net Revenues and other duties of the Board under the Resolution may be discharged at or prior to the maturity or redemption of the Series 2018 Bonds upon the making of provision for the payment thereof on the terms and conditions set forth in the Resolution.

The Board covenants and agrees with the owner of this Series 2018 Bond and with each and every person who may become the owner hereof that it will keep and perform all of the covenants of the Resolution.

When all principal of, premium, if any, and interest on the Series 2018 Bonds, or any portion thereof, have been duly paid, the pledge and lien of all obligations hereunder shall thereby be discharged as to such issue or part of such issue and such issue or part of such issue shall no longer be deemed to be Outstanding within the meaning hereof. There shall be deemed to be such due payment if the Board has placed in escrow or in trust with a trust bank exercising trust powers, an amount sufficient (including the known minimum yield available for such purpose from federal securities in which such amount wholly or in part may be initially invested)

to meet all requirements of principal of, premium, if any, and interest on the securities issue, as such requirements become due to their final maturities or upon any designated redemption dates. The federal securities shall become due prior to the respective times on which the proceeds thereof shall be needed, in accordance with a schedule established and agreed upon between the Board and such trust bank at the time of the creation of the escrow or trust, or the federal securities shall be subject to redemption at the option of the holders thereof to assure such availability as so needed to meet such schedule.

No recourse shall be had for the payment of the principal of, premium if any, and interest on this Series 2018 Bond or for any claim based thereon or otherwise in respect to the Resolution against any individual member of the Board, past, present or future, either directly or through the Board or the System, or through any successor body corporate of either, whether by virtue of any constitution, statute or rule of law, or by the enforcement of any penalty or otherwise, all such liability, if any, being by the acceptance of this Series 2018 Bond and as a part of the consideration of its issuance specially waived and released. The obligation of the Board, as a body corporate, to the owner hereof is limited to applying funds for the payment hereof, as set forth above and as more fully delineated in the Resolution, and to otherwise complying with the contractual provisions therein.

Unless this certificate is presented by an authorized representative of The Depository Trust Company, a New York corporation ("DTC"), to the Board or its agent for registration of transfer, exchange, or payment, and any certificate issued is registered in the name of Cede & Co. or in such other name as is requested by an authorized representative of DTC (and any payment is made to Cede & Co. or to such other entity as is requested by an authorized representative of DTC), ANY TRANSFER, PLEDGE, OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL inasmuch as the registered owner hereof, Cede & Co., has an interest herein.

This Series 2018 Bond is issued pursuant to the Supplemental Public Securities Act, Colorado Revised Statutes, Sections 11-57-201 et seq., as amended, and, pursuant to Section 11-57-210, C.R.S., this recital shall be conclusive evidence of the validity and the regularity of the issuance of this Bond after its delivery for value.

IN TESTIMONY WHEREOF, the Board of Governors of the Colorado State University System has caused this Series 2018 Bond to be executed in the name and on the behalf of the Board with the manual or facsimile signature of its Chair, and to be attested and signed with the manual or facsimile signature of the Secretary of the Board; and has caused the facsimile of the seal of the System to be affixed hereon, all as of \_\_\_\_\_, 2018.

[FACSIMILE SEAL]

BOARD OF GOVERNORS OF THE  
COLORADO STATE UNIVERSITY SYSTEM

By \_\_\_\_\_ (Manual or Facsimile Signature)  
Chair of the Board

ATTEST:

By \_\_\_\_\_ (Manual or Facsimile Signature)  
Secretary of the Board

[FORM OF CERTIFICATE OF AUTHENTICATION FOR SERIES 2018 BONDS]

**CERTIFICATE OF AUTHENTICATION**

Date of authentication and registration: \_\_\_\_\_

This is one of the Series 2018 Bonds described in the within-mentioned Resolution, and this Series 2018 Bond has been duly registered on the registration records kept by the undersigned as 2018 Registrar for such Series 2018 Bonds.

WELLS FARGO BANK, NATIONAL  
ASSOCIATION, as Registrar

By                     (Manual Signature)                      
Authorized Officer or Employee

[END OF FORM OF CERTIFICATE OF AUTHENTICATION FOR SERIES 2018 BONDS]

[FORM OF ASSIGNMENT OF SERIES 2018 BONDS]

**ASSIGNMENT**

For value received, the undersigned hereby sells, assigns and transfers unto \_\_\_\_\_ the within Series 2018 Bond and hereby irrevocably constitutes and appoints \_\_\_\_\_ attorney, to transfer the same on the records kept for registration of the within Series 2018 Bond, with full power of substitution in the premises.

Dated: \_\_\_\_\_

NOTE: The signature to this Assignment must correspond with the name as written on the face of this Series 2018 Bond in every particular, without alteration or enlargement or any change whatsoever.

Signature Guaranteed:

\_\_\_\_\_

Name and address of transferee:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Social Security or other  
tax identification number of transferee:

\_\_\_\_\_

TRANSFER FEE MAY BE REQUIRED

[END OF FORM OF ASSIGNMENT OF SERIES 2018 BONDS]

**BOARD OF GOVERNORS OF THE  
COLORADO STATE UNIVERSITY SYSTEM**

**FIFTEENTH SUPPLEMENTAL RESOLUTION**

Authorizing the issuance of one or more series of:

Board of Governors of the Colorado State University System  
System Enterprise Revenue Refunding Bonds

---

TABLE OF CONTENTS

Page

ARTICLE I

DEFINITIONS

Section 1.01. Definitions..... 1  
Section 1.02. Construction..... 4  
Section 1.03. Successors ..... 4  
Section 1.04. Parties Interested Herein ..... 4  
Section 1.05. Ratification..... 4  
Section 1.06. Resolution Irrepealable ..... 5  
Section 1.07. Repealer ..... 5  
Section 1.08. Severability ..... 5  
Section 1.09. Effective Date ..... 5

ARTICLE II

AUTHORIZATION OF REFUNDING PROJECTS  
AND CERTAIN RELATED DOCUMENTS

Section 2.01. Authority for Resolution ..... 5  
Section 2.02. Necessity of the Refunding Projects and Refunding Bonds ..... 5  
Section 2.03. Authorization of the Refunding Projects ..... 5  
Section 2.04. Provision for Sale of Refunding Bonds ..... 6  
Section 2.05. Execution of Paying Agency Agreement..... 6  
Section 2.06. Approval and Use of Preliminary Official Statement and Official  
Statement; Rule 15c2-12; Continuing Disclosure Undertaking..... 6  
Section 2.07. Bond Insurance ..... 6  
Section 2.08. Execution of Documents..... 6

ARTICLE III

AUTHORIZATION AND TERMS OF REFUNDING BONDS

Section 3.01. Authorization of Refunding Bonds..... 7  
Section 3.02. Purposes ..... 7  
Section 3.03. Terms of Refunding Bonds, Generally ..... 7  
Section 3.04. Payment of Bond Requirements ..... 9  
Section 3.05. Bond Form ..... 12  
Section 3.06. State Tax Exemption..... 12

ARTICLE IV

REDEMPTION OF REFUNDING BONDS

Section 4.01. Optional Redemption ..... 12

Section 4.02.	Mandatory Sinking Fund and Make Whole Redemption .....	12
Section 4.03.	Selection of Refunding Bonds for Redemption .....	12
Section 4.04.	Redemption Procedures .....	12
Section 4.05.	Notice of Redemption .....	13

## ARTICLE V

### ISSUANCE OF REFUNDING BONDS AND USE OF REFUNDING BOND PROCEEDS

Section 5.01.	Refunding Bond Preparation, Execution and Delivery.....	13
Section 5.02.	Disposition of Refunding Bond Proceeds.....	13
Section 5.03.	Purchaser Not Responsible .....	15

## ARTICLE VI

### ESTABLISHMENT OF CERTAIN ACCOUNTS

Section 6.01.	Establishment of Certain Accounts.....	15
---------------	--	----

## ARTICLE VII

### FEDERAL TAX LAW MATTERS

Section 7.01.	Determination of Tax Exempt or Taxable Obligations.....	15
Section 7.02.	Prohibited Actions .....	16
Section 7.03.	Affirmative Actions .....	16
Section 7.04.	Tax Certificate .....	16

## ARTICLE VIII

### MISCELLANEOUS

Section 8.01.	Applicability of Master Resolution.....	16
Section 8.02.	Severability and Invalid Provisions .....	17
Section 8.03.	Table of Contents and Section Headings Not Controlling.....	17

EXHIBIT A	FORM OF REFUNDING BONDS [TO BE MODIFIED FOR EACH SERIES]	
-----------	--	--



## FIFTEENTH SUPPLEMENTAL RESOLUTION

### WITNESSETH:

WHEREAS, the Board of Governors of the Colorado State University System (the "Board") has adopted a Master System Enterprise Bond Resolution on June 20, 2007, as previously supplemented (the "Master Resolution"); and

WHEREAS, this Fifteenth Supplemental Resolution is proposed for adoption pursuant to and in accordance with the Master Resolution; and

WHEREAS, the Board has determined to authorize hereby the issuance of Bonds, in one or more series or subseries, to be designated "The Board of Governors of the Colorado State University System, System Enterprise Revenue Refunding Bonds, Series \_\_\_\_" (referred to herein as the "Refunding Bonds") for the purposes of (a) defraying the cost of financing the Refunding Project, as further described herein; and (b) paying certain costs relating to the issuance thereof, in accordance with and as provided by the Master Resolution and this Fifteenth Supplemental Resolution;

**NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF GOVERNORS OF THE COLORADO STATE UNIVERSITY SYSTEM:**

### ARTICLE I

#### DEFINITIONS

**Section 1.01. Definitions.** Except as provided below in this Section, all terms which are defined in Section 1.01 of the Master Resolution shall have the same meanings, respectively, in this Fifteenth Supplemental Resolution as such terms are given in the Master Resolution. In addition, the following terms shall have the following respective meanings:

*"Authorized Denomination"* shall have the meaning set forth in the Pricing Certificate.

*"Board Representative"* means the Chief Financial Officer of the System and any other officer of the System subsequently designated by the Board or the Chief Financial Officer to be the Board Representative with respect to all matters affecting the Bonds.

*"Bond Insurance Policy"* means the municipal bond new issue insurance policy issued by the Bond Insurer, if any, that guarantees payment of principal of and interest on all or a portion of the Refunding Bonds.

*"Bond Insurer"* means such municipal bond insurance company, if any, as shall be selected to provide credit enhancement with respect to all or any portion of the Refunding Bonds, as designated in the Pricing Certificate.

*"Continuing Disclosure Undertaking"* means the Continuing Disclosure Undertaking of the Board with respect to the Refunding Bonds authorized in Section 2.06 hereof; provided,

however, that the Continuing Disclosure Undertaking may refer to multiple undertakings in the event the Refunding Bonds are issued in more than one series.

*“Escrow Account”* means the escrow account established by the Escrow Agreement.

*“Escrow Agent”* means Wells Fargo Bank, National Association, Denver, Colorado, and its successors and assigns.

*“Escrow Agreement”* means that certain Escrow Deposit Agreement, dated as of the dated date of the Refunding Bonds, by and between the Escrow Agent and the Board; provided, however, that the Escrow Agreement may refer to multiple Escrow Agreements in the event the Refunding Bonds are issued in more than one series.

*“Expense Account”* means the account created in Section 5.02(b) hereof for each series of the Refunded Bonds.

*“Fifteenth Supplemental Resolution”* means this Fifteenth Supplemental Resolution adopted by the Board on August 9, 2018.

*“Financial Consultant”* means, with respect to the Refunding Bonds, North Slope Capital Advisors, Denver, Colorado, in its capacity as municipal advisor, and any successor thereto.

*“Interest Payment Date”* means (a) each March 1 and September 1, commencing on the date or dates set forth in the Pricing Certificate with respect to the Refunding Bonds; (b) any other date or dates that interest is due and payable with respect to the Refunding Bonds as set forth in the Pricing Certificate with respect to the Refunding Bonds; and (c) the final maturity date of or any redemption date of each Refunding Bond.

*“Issue Date”* means the date or dates (in the event the Refunding Bonds are issued in more than one series) on which the Refunding Bonds are first delivered to the initial purchasers thereof against payment therefor.

*“Master Resolution”* means the Master Resolution adopted by the Board on June 20, 2007, as previously amended and supplemented and as may be further amended and supplemented from time-to-time.

*“Official Statement”* means the final Official Statement relating to the Refunding Bonds, including any supplements thereto; provided, however, that the Official Statement may refer to multiple Official Statements in the event the Refunding Bonds are issued in more than one series.

*“Paying Agency Agreement”* means the Paying Agency, Transfer Agency and Bond Registrar Agreement, by and between the Board and the Paying Agent relating to the Refunding Bonds; provided, however, that the Paying Agent Agreement may refer to multiple agreements in the event the Refunding Bonds are issued in more than one series.

*“Paying Agent”* means Wells Fargo Bank, National Association, Denver, Colorado, acting as agent of the Board for the payment of the principal of, premium, if any, and interest on the Refunding Bonds, and any successor thereto.

*“Preliminary Official Statement”* means the Preliminary Official Statement relating to the Refunding Bonds, including any supplements thereto; provided, however, that the Preliminary Official Statement may refer to multiple Preliminary Official Statements in the event the Refunding Bonds are issued in more than one series.

*“Pricing Certificate”* means a certificate executed by the Board Representative and evidencing the determinations made pursuant to Section 3.03(b) of this Fifteenth Supplemental Resolution; provided, however, that the Pricing Certificate may refer to multiple certificates, in the event the Refunding Bonds are issued in more than one series, and provided further that the provisions of any Pricing Certificate shall be deemed to be incorporated into this Fifteenth Supplemental Resolution.

*“Purchase Contract”* means any Purchase Contract relating to the Refunding Bonds between the Board and the Underwriters; provided, however, that the Purchase Contract may refer to multiple contracts in the event the Refunding Bonds are issued in more than one series.

*“Refunded Commercial Paper Notes”* means those Board of Governors of the Colorado State University System, Commercial Paper Notes, Series A and the Board of Governors of the Colorado State University System, Commercial Paper Notes, Taxable Series B issued pursuant to the Twelfth Supplemental Resolution, to be refunded, paid and discharged with a portion of the proceeds of one or more series of the Refunded Bonds, as designated in the applicable Pricing Certificate and, if applicable, the Escrow Agreement.

*“Refunding Project”* means the refunding, payment and discharge of the Refunded Commercial Paper Notes.

*“Registrar”* means the Paying Agent acting as agent of the Board for the registration of the Refunding Bonds, and any successor thereto.

*“Regular Record Date”* means the close of business on the fifteenth day (whether or not a Business Day) of the calendar month next preceding each regularly scheduled Interest Payment Date for the Refunding Bonds.

*“Resolution”* means the Master Resolution as supplemented by this Fifteenth Supplemental Resolution.

*“Refunding Bonds”* means the Bonds issued in one or more series or subseries hereunder and designated as “The Board of Governors of the Colorado State University System, System Enterprise Revenue Refunding Bonds, Series \_\_\_\_\_,” and as more particularly designated in the Pricing Certificate.

*“State Intercept Act”* means Section 23-5-139, Colorado Revised Statutes, as amended.

*“State Intercept Program”* means the Higher Education Revenue Bond Intercept Program, established pursuant to the State Intercept Act.

*“State”* means the State of Colorado.

“*Taxable Obligation*” means any Refunding Bonds the interest on which is not excludable from gross income of the holder thereof for federal income tax purposes, which, with respect to the Refunding Bonds, shall be determined by the Board Representative, in accordance with the Article VII hereof titled “FEDERAL TAX LAW MATTERS” and set forth in the Pricing Certificate.

“*Tax Certificate*” means the Tax Certificate relating to the Refunding Bonds, executed by the Board on the date of issuance of the Refunding Bonds; provided, however, that the Tax Certificate may refer to multiple tax compliance certificates executed in connection with the Refunding Bonds.

“*Tax Exempt Obligation*” means any Refunding Bonds the interest on which is excludable from gross income of the holder thereof for federal income tax purposes, which, with respect to the Refunding Bonds, shall be determined by the Board Representative, in accordance with Article VII hereof title “FEDERAL TAX LAW MATTERS” and set forth in the Pricing Certificate.

“*Underwriters*” means, in the determination of the Board, any combination of investment banking firms, financial institutions or commercial banks selected by the Board, acting as underwriters, direct purchasers or lenders in connection with the sale of the Refunding Bonds.

**Section 1.02. Construction.** This Fifteenth Supplemental Resolution shall be construed as follows:

(a) The captions herein are for convenience only and in no way define, limit or describe the scope or intent of any provisions hereof.

(b) Any Refunding Bond held by the Board shall not be deemed to be Outstanding for the purpose of redemption, for the purpose of consents hereunder or for any other purpose.

**Section 1.03. Successors.** All of the covenants, stipulations, obligations and agreements by or on behalf of and any other provisions for the benefit of the System or the Board set forth in the Resolution shall bind and inure to the benefit of any successors thereof and shall bind and inure to the benefit of any officer, board, district, commission, authority, agent, enterprise or instrumentality to whom or to which there shall be transferred by or in accordance with law any right, power or duty of the System or the Board or of their respective successors, if any, the possession of which is necessary or appropriate in order to comply with any such covenants, stipulations, obligations, agreements, or other provisions hereof.

**Section 1.04. Parties Interested Herein.** Except as otherwise expressly provided in the Resolution, nothing expressed or implied in the Resolution is intended or shall be construed to confer upon or to give to any Person, other than the System, the Board, the Paying Agent, the Bond Insurer, if any, and the owners from time-to-time of the Refunding Bonds, any right, remedy or claim under or by reason hereof or any covenant, condition or stipulation hereof. All the covenants, stipulations, promises and agreements set forth herein by and on behalf of the

System shall be for the sole and exclusive benefit of the System, the Board, the Paying Agent, the Bond Insurer, if any, and the owners from time-to-time of the Refunding Bonds.

**Section 1.05. Ratification.** All action heretofore taken (not inconsistent with the provisions of the Resolution) by the officers of the Board, the officers of the System, the Financial Consultant, and otherwise by the Board directed toward the Refunding Project and the issuance, sale and delivery of the Refunding Bonds for such purposes, be, and the same hereby is, ratified, approved and confirmed, including, without limitation, the sale of the Refunding Bonds as provided in the Purchase Contract and the preparation and distribution of the Preliminary Official Statement and final Official Statement in connection therewith.

**Section 1.06. Resolution Irrepealable.** After any Refunding Bonds are issued, the Resolution shall constitute an irrevocable contract between the Board and owners of the Refunding Bonds; and the Resolution shall be and remain irrepealable until the Refunding Bonds and the interest thereon shall be fully paid, as herein provided.

**Section 1.07. Repealer.** All bylaws, orders and resolutions, or parts thereof, inconsistent herewith are hereby repealed to the extent only of such inconsistency. This repealer shall not be construed to revive any bylaw, order, resolution or part thereof, heretofore repealed.

**Section 1.08. Severability.** If any provision of the Resolution shall be held invalid or unenforceable, such holding shall not affect any other provisions hereof.

**Section 1.09. Effective Date.** This Fifteenth Supplemental Resolution shall become effective immediately upon its passage. Pursuant to the Supplemental Public Securities Act, the Board by subsequent action may renew this Fifteenth Supplemental Resolution on an annual basis by amending and/or extending the effective date.

## ARTICLE II

### AUTHORIZATION OF REFUNDING PROJECT AND CERTAIN RELATED DOCUMENTS

**Section 2.01. Authority for Resolution.** The Resolution is adopted by virtue of the plenary powers of the Board as a constitutionally established body corporate under Article VIII, Section 5 of the Constitution of the State and under the particular authority of the Auxiliary Facilities Enterprise Act, the Institutional Enterprise Statute, the Refunding Act, the Research Building Fund Act, the State Intercept Act (if applicable) and the Supplemental Public Securities Act. The Board has ascertained and hereby determines that each matter and thing as to which provision is made herein is necessary in order to carry out and effectuate the purposes of the Board in accordance with such powers and authority.

**Section 2.02. Necessity of the Refunding Project and Refunding Bonds.** It is necessary and for the best interests of the Board and the System that the Board undertake the Refunding Project as herein authorized and obtain funds therefor by issuing the Refunding Bonds; and the Board hereby so determines and declares.

**Section 2.03. Authorization of the Refunding Project.** The Board hereby determines to undertake the Refunding Project pursuant to the Auxiliary Facilities Enterprise Act, the Institutional Enterprise Statute, the Refunding Act, the Research Building Fund Act, the State Intercept Act (if applicable), the Supplemental Public Securities Act, and applicable provisions of the Code, and further determines that all requirements and limitations of such statutes have been met.

In addition, the Board hereby determines that (a) the limitations and requirements imposed by the Resolution for the issuance of Bonds have been met and (b) the Refunding Project is hereby authorized.

**Section 2.04. Provision for Sale of Refunding Bonds.** The Board Representative and the officers of the Board, or any of them, are hereby authorized, for and on behalf of the Board, to accept and execute the Purchase Contract submitted by the Underwriters for the purchase of the Refunding Bonds, in substantially the form filed with the Board on the date of adoption of this Fifteenth Supplemental Resolution, bearing interest at the rates therein designated and otherwise upon the terms and conditions provided in this Fifteenth Supplemental Resolution, the Pricing Certificate and such Purchase Contract.

**Section 2.05. Execution of Paying Agency Agreement.** The appropriate officers of the Board, as designated in the Paying Agency Agreement, are hereby authorized to complete and execute the Paying Agency Agreement on behalf of and in the name of the Board, in substantially the form filed with the Board following the date of adoption of this Fifteenth Supplemental Resolution.

**Section 2.06. Approval and Use of Preliminary Official Statement and Official Statement; Rule 15c2-12; Continuing Disclosure Undertaking.** The distribution and use of a Preliminary Official Statement relating to the Refunding Bonds, in substantially the form filed with the Board on or following the date of adoption of this Fifteenth Supplemental Resolution, is hereby approved with such changes as may be necessary for the sale of the Refunding Bonds. The Chair of the Board and/or the Chancellor of the System is each hereby authorized, directed and empowered to determine when such Preliminary Official Statement may be deemed final within the meaning of Securities and Exchange Rule 15c2-12, subject to permitted omissions, and thereupon to give a certificate to such effect. The Chair of the Board and/or the Chancellor of the System is each hereby authorized to execute and deliver the final Official Statement relating to the Refunding Bonds and the Underwriters may thereafter distribute the same. The appropriate officers of the Board and the System are hereby authorized to complete and execute the Continuing Disclosure Undertaking on behalf of and in the name of the Board, in substantially the form attached to the Preliminary Official Statement.

**Section 2.07. Bond Insurance.** In the event that it is determined to obtain a municipal bond insurance policy insuring the payment when due of the principal of and interest on all or a portion of the Refunding Bonds, as provided in Section 3.03(b)(ii) hereof and the Pricing Certificate, the completion, execution and delivery of all documents relating to and required or necessary in connection with such municipal bond insurance policy by the appropriate officers of the Board and the System are hereby authorized and approved. To the extent provided therein, the provisions of any agreement between the Board and the Bond Insurer, as contemplated in this

Section 2.08, shall be deemed to be incorporated in this Fifteenth Supplemental Resolution and shall be enforceable as if set forth herein.

**Section 2.08. Execution of Documents.** The following individuals, namely: the Chair of the Board, the Secretary of the Board, the Chancellor of the System, General Counsel to the System, the Chief Financial Officer of the System and the Treasurer of the System (and any other officers authorized by law to act on their behalf in their absence) are hereby authorized to execute and deliver, this Fifteenth Supplemental Resolution, and, as appropriate in connection with each series of Refunding Bonds issued hereunder, the Purchase Contract, the Pricing Certificate, the Paying Agency Agreement, the Escrow Agreement, the Continuing Disclosure Undertaking, the Official Statement, any documents required in connection with any Credit Enhanced Bonds, and any other documents or certificates necessary or appropriate to close the sale of the Refunding Bonds and all related transactions and to take any action with respect to any matter required to accomplish the same.

### ARTICLE III

#### AUTHORIZATION AND TERMS OF REFUNDING BONDS

**Section 3.01. Authorization of Refunding Bonds.** Pursuant to the provisions of the Master Resolution, there is hereby authorized the borrowing of funds, and to evidence such borrowing there are hereby authorized one or more series Bonds of the Board designated “The Board of Governors of the Colorado State University System, System Enterprise Revenue Refunding Bonds, Series \_\_\_\_\_,” or as more particularly designated in the Pricing Certificate, including the year of issuance. If, in accordance with the Article VII titled “FEDERAL TAX LAW MATTERS,” the Board Representative shall determine that any series of Refunding Bonds shall constitute a Taxable Obligation, the title of such series shall further include the following: “Taxable.” The full title of any and all series of bonds issued hereunder shall be determined by the Board Representative in accordance with the foregoing, and shall be set forth in the Pricing Certificate.

**Section 3.02. Purposes.** The Refunding Bonds are authorized for the purposes of funding the Refunding Project and paying certain costs of issuance relating to the Refunding Bonds, all as more specifically provided in Article V hereof.

**Section 3.03. Terms of Refunding Bonds, Generally.**

(a) **Registered Form; Numbers and Date.** The Refunding Bonds shall be issued in fully registered form and shall be numbered from one upward in consecutive numerical order preceded by the letter “R.” The registered Owner of all Refunding Bonds shall be a Securities Depository in accordance with the Master Resolution. The Refunding Bonds shall be dated the Issue Date.

(b) **Principal Amounts; Maturities; Interest Rates.** The Refunding Bonds shall mature, subject to the right of prior redemption as provided in Article IV hereof, on the dates and in the aggregate principal amounts, and shall bear interest, payable on each Interest Payment Date, as provided below:

(i) *Parameters.* Any Refunding Bonds, issued in one or more series or subseries, shall be issued in an aggregate principal amount not to exceed \$50,000,000 for the Refunding Project. Any Refunding Bonds, issued in one or more series or subseries, shall bear interest at such taxable and/or tax exempt rate or rates resulting in a true interest cost not exceeding 6% with respect to any debt issued hereunder. Notwithstanding the forgoing, Credit Enhanced Bonds may have a maximum interest rate not in excess of 12% per annum. Any Refunding Bonds may mature as term bonds or serial bonds, or both, not later than March 1, 2058 with respect to bonds issued for the Refunding Project. In addition, the Board shall only issue the Refunding Bonds to finance the Refunding Project if such Refunding Project results in present value savings with respect to the debt service requirements on the Refunded Bonds sufficient to comply with the Board's debt management policy as determined by the Board Representative.

(ii) *Delegated Powers.* The Board Representative is authorized, without further approval of the Board, to make any and all determinations listed in Section 11-57-205(1), Colorado Revised Statutes, as amended, provided such determinations are not inconsistent with the standards set forth in this Fifteenth Supplemental Resolution. In furtherance thereof, the Board Representative is hereby authorized, without further approval of the Board, to determine in conformity with the standards set forth in this Fifteenth Supplemental Resolution and after the Refunding Bonds have been priced in the market: (A) the final designation of one or more series or subseries of the Refunding Bonds; (B) the principal amount of each series or subseries of the Refunding Bonds; (C) the coupon interest rate or rates (whether fixed or variable) on the Refunding Bonds; (D) the maturity or maturities of the Refunding Bonds (any of which may include Refunding Bonds bearing different interest rates) and the amount and date of any mandatory sinking fund redemption; (E) provisions for the optional, mandatory or extraordinary redemption of any or all of the Refunding Bonds prior to maturity; (F) the purchase price of the Refunding Bonds; (G) whether the Refunding Bonds will constitute Tax Exempt Obligations, Taxable Obligations, and the other matters set forth in Article VII hereof entitled "FEDERAL TAX LAW MATTERS"; (H) whether or not to utilize bond insurance, a Credit Facility or a debt service reserve policy for the Refunding Bonds and the execution of all agreements, documents and certificates in connection therewith; (I) whether or not the Refunding Bonds will be sold pursuant to a negotiated sale, a competitive sale or direct placement; all as may be necessary to effect the Refunding Project and in a manner consistent with this Fifteenth Supplemental Resolution; including the estimated true interest cost of the Refunding Bonds and the Underwriter's or Purchaser's discount relating to the Refunding Bonds. The determinations described herein shall be evidenced by a Pricing Certificate filed with the Board, and except as otherwise expressly provided herein or in the Master Resolution, the terms of the Refunding Bonds shall be as set forth in the Pricing Certificate and incorporated by reference into this Fifteenth Supplemental Resolution; (J) which Outstanding Bonds will be refunded; and (K) whether or not to qualify any of the Refunding Bonds under the State Intercept Program.



(c) **Authorized Denominations.** The Refunding Bonds shall be issued in Authorized Denominations.

(d) **Computation of Interest.** Each Refunding Bond shall bear interest at the applicable rate in accordance with Section 3.03(b) hereof, (i) from the date of authentication, if authenticated on an Interest Payment Date to which interest has been paid or duly provided for; or (ii) from the last preceding Interest Payment Date to which interest has been paid or duly provided for (or the Issue Date if no interest thereon has been paid or duly provided for) in all other cases. The amount of interest so payable on Refunding Bonds on any Interest Payment Date shall be computed on the basis of a 360-day year of twelve 30-day months, unless an alternative computational convention is set forth in the Pricing Certificate.

(e) **Appointment of Paying Agent and Registrar.** Wells Fargo Bank, National Association, is hereby appointed the Paying Agent and Registrar.

#### **Section 3.04. Payment of Bond Requirements.**

(a) **Principal and Final Interest.** The principal or Redemption Price of and the final interest payment on any Refunding Bond shall be payable to the owner thereof as shown on the registration books maintained by the Registrar upon maturity or prior redemption thereof and upon presentation and surrender at the principal office of the Paying Agent. If any Refunding Bond shall not be paid upon such presentation and surrender at or after maturity, it shall continue to draw interest (but without compounding of interest) at the rate borne by it until the principal thereof is paid in full.

(b) **Interest.** The interest due on any Refunding Bond on any Interest Payment Date shall be paid to the owner thereof, as shown on the registration books kept by the Registrar at the close of business on the Regular Record Date. Any such interest not so timely paid or duly provided for shall cease to be payable to the person who is the owner of such Refunding Bond on the Regular Record Date and shall be payable to the person who is the owner of such Refunding Bond at the close of business on a Special Record Date for the payment of any such defaulted interest. Such Special Record Date shall be fixed in accordance with Section 3.10 of the Master Resolution.

(c) **Payment of Interest.** All payments of interest on any Refunding Bond shall be paid to the person entitled thereto pursuant to Section 3.04(b) above by check mailed on the Interest Payment Date to his or her address as it appears on the registration books kept by the Registrar (or, in the case of defaulted interest, the date selected by the Registrar for the payment of such defaulted interest), or, at the option of any owner of \$1,000,000 or more in principal amount of Refunding Bonds, by wire transfer on such date to a bank within the continental United States as directed by such owner.

(d) **State Intercept Program.** The Board may elect to utilize the State Intercept Program for all or a portion of the Refunding Project. The final determination of which Refunding Bonds (and any series thereof) are subject to the State Intercept Program shall be set forth in the Pricing Certificate. The Board is hereby directed to file

with the State Treasurer a copy of this Fifteenth Supplemental Resolution, the Pricing Certificate and the Official Statement. The Board shall also make such filings as are required by the State Intercept Act.

**Section 3.05. Bond Form.** Subject to the provisions of this Fifteenth Supplemental Resolution, the Refunding Bonds shall be in substantially the form set forth in Exhibit A hereto, with such omissions, insertions, endorsements and variations as to any recitals of fact or other provisions as may be required by the circumstances, be required or permitted by the Master Resolution, or be consistent with the Master Resolution.

**Section 3.06. State Tax Exemption.** Pursuant to Section 23-5-105, Colorado Revised Statutes, as amended, the Refunding Bonds, their transfer, and the income therefrom shall forever be and remain free and exempt from taxation by the State or any subdivision thereof.

## ARTICLE IV

### REDEMPTION OF REFUNDING BONDS

**Section 4.01. Optional Redemption.** The Refunding Bonds shall be subject to redemption prior to maturity at the option of the Board, if at all, on the dates and at the Redemption Prices as set forth in the Pricing Certificate.

**Section 4.02. Mandatory Sinking Fund and Make Whole Redemption.** The Refunding Bonds shall be subject to mandatory sinking fund redemption and make whole redemption, if at all, on the dates and in the principal amounts as set forth in the Pricing Certificate.

**Section 4.03. Selection of Refunding Bonds for Redemption.** If less than all of the Refunding Bonds are called for prior redemption hereunder, the Refunding Bonds or portions to be redeemed shall be redeemed in such order of maturities as shall be specified by the Board. If less than all Refunding Bonds or portions thereof of a single maturity and rate are to be redeemed, they shall be selected by lot in such manner as the Paying Agent may determine. In the case of a Refunding Bond of a denomination larger than an Authorized Denomination, such Refunding Bond may be redeemed only in principal amounts equal to any integral multiple of the minimum Authorized Denomination. In the event a portion of any Refunding Bonds is so redeemed, the Registrar shall, without charge to the owner of such Refunding Bond, authenticate a replacement Refunding Bond for the unredeemed portion thereof.

**Section 4.04. Redemption Procedures.** Except as otherwise provided herein, the Refunding Bonds shall be called for prior redemption and shall be paid by the Paying Agent upon notice as provided in Section 4.05 hereof. The Registrar shall not be required to transfer or exchange any Refunding Bond after notice of the redemption of such Refunding Bond has been given (except the unredeemed portion of such Refunding Bond, if redeemed in part) or to transfer or exchange any Refunding Bond during the period of 15 days next preceding the day such notice is given.

In addition, the Registrar is hereby authorized to comply with any operational procedures and requirements of the Securities Depository relating to redemption of Refunding Bonds and

notice thereof. The Board and the Registrar shall have no responsibility or obligation with respect to the accuracy of the records of the Securities Depository or a nominee therefor or any Participant of such Securities Depository with respect to any ownership interest in the Refunding Bonds or the delivery to any Participant, beneficial owner or any other person (except to a registered owner of the Refunding Bonds) of any notice with respect to the Refunding Bonds, including any notice of redemption.

**Section 4.05. Notice of Redemption.** The Registrar shall cause notice of the redemption of the Refunding Bonds being redeemed under this Article IV to be given in the form and manner described in Section 3.07 of the Master Resolution not less than 30 days nor more than 60 days prior to the redemption date.

**Section 4.06. Tender and Purchase.** The Refunding Bonds shall be subject to tender and purchase prior to maturity at the option of the Board, if at all, on the dates, in the manner and at the prices as set forth in the Pricing Certificate.

## ARTICLE V

### ISSUANCE OF REFUNDING BONDS AND USE OF REFUNDING BOND PROCEEDS

**Section 5.01. Refunding Bond Preparation, Execution and Delivery.** The officers of the Board and the System designated in this Fifteenth Supplemental Resolution are hereby authorized and directed to prepare and to execute the Refunding Bonds, as herein provided. When the Refunding Bonds have been duly executed, the Board Representative shall deliver them to the Underwriters upon receipt of the agreed purchase price.

**Section 5.02. Disposition of Refunding Bond Proceeds.** The proceeds of the Refunding Bonds, upon the receipt thereof, shall be accounted for in the following manner and priority and are hereby pledged therefor:

(a) **Escrow Account.** First, from the proceeds of the Refunding Bonds there shall be deposited with the Escrow Agent in the Escrow Account under the Escrow Agreement an amount sufficient to accomplish the Refunding Project as set forth in the Pricing Certificate and the Escrow Agreement.

(b) **Expense Account.** Second, from the proceeds of the Refunding Bonds, there shall be deposited to the credit of a separate account, hereby created (the "Expense Account"), which Expense Account shall be under the control of the Board, all remaining amounts of proceeds of the Refunding Bonds. From such Expense Account, the Board shall be authorized to pay all expenses associated with the issuance of the Refunding Bonds. Any moneys remaining in the Expense Account six months after the date of issuance of the Refunding Bonds shall be transferred as directed by the Board Representative.

**Section 5.03. Purchaser Not Responsible.** The Underwriters, any associate thereof, and any subsequent owner of any Refunding Bond shall in no manner be responsible for the application or disposal by the Board or by any System officer or any other employee or agent of

the Board or System of the moneys derived from the sale of the Refunding Bonds or of any other moneys herein designated.

## ARTICLE VI

### ESTABLISHMENT OF CERTAIN ACCOUNTS

**Section 6.01. Establishment of Certain Accounts.** In accordance with Section 5.01 of the Master Resolution, the Board hereby creates and establishes the following accounts in respect of the Refunding Bonds: (a) within the Debt Service Fund, an “Interest Account” and a “Principal Account” for each series of Refunded Bonds; and (b) within the Rebate Fund, a “Rebate Account” for each series of Refunded Bonds. Such accounts shall be maintained and applied as provided in (i) Section 5.06 of the Master Resolution, with respect to each Interest Account and Principal Account; and (ii) Sections 5.11 through 5.13 of the Master Resolution, with respect to each Rebate Account. The Board authorizes the creation of the Escrow Account with the Escrow Agent under the Escrow Agreement for each series of Refunded Bonds.

## ARTICLE VII

### FEDERAL TAX LAW MATTERS

**Section 7.01. Determination of Tax Exempt or Taxable Obligations.** All or any portion of the Refunding Bonds is authorized to be issued as a Tax Exempt Obligation or Taxable Obligation. The Board hereby delegates to the Board Representative the authority to determine what, if any, portion of the Refunding Bonds shall constitute a Tax Exempt Obligation, and what, if any, portion of the Refunding Bonds shall constitute a Taxable Obligation which determinations shall be set forth in the applicable Pricing Certificate. To the extent that any portion of the Refunding Bonds shall constitute Tax Exempt Obligations, for purposes of ensuring that the interest on the Tax Exempt Obligations is and remains excluded from gross income for federal income tax purposes, the Board makes the covenants set forth in Sections 7.02 through 7.04 of this Article VII. In the event that, as determined by the Board Representative and set forth in the Pricing Certificate, no portion of the Refunding Bonds constitutes Tax Exempt Obligations, Sections 7.02 through 7.04 of this Article VII shall be of no force or effect.

**Section 7.02. Prohibited Actions.** The Board will not use or permit the use of any proceeds of the Tax Exempt Obligations or any other funds of the Board from whatever source derived, directly or indirectly, to acquire any securities or obligations and shall not take or permit to be taken any other action or actions, which would cause any Tax Exempt Obligations to be an “arbitrage bond” within the meaning of Section 148 of the Code, or would otherwise cause the interest on any Tax Exempt Obligations to be includible in gross income for federal income tax purposes.

**Section 7.03. Affirmative Actions.** The Board will at all times do and perform all acts permitted by law that are necessary in order to assure that interest paid by the Board on the Tax Exempt Obligations shall not be includible in gross income for federal income tax purposes under the Code or any other valid provision of law. In particular, but without limitation, the

Board represents, warrants and covenants to comply with the following unless it receives an opinion of Bond Counsel stating that such compliance is not necessary: (a) gross proceeds of the Tax Exempt Obligations will not be used in a manner that will cause the Refunding Bonds to be considered “private activity bonds” within the meaning of the Code; (b) the Tax Exempt Obligations are not and will not become directly or indirectly “federally guaranteed”; and (c) the Board will timely file Internal Revenue Form 8038-G which shall contain the information required to be filed pursuant to Section 149(e) of the Code with respect to the Tax Exempt Obligations.

**Section 7.04. Tax Certificate.** The Board will comply with the Tax Certificate delivered to it on the date of issuance of any Refunding Bonds constituting Tax Exempt Obligations, including but not limited to the provisions of the Tax Certificate regarding the application and investment of proceeds of such Refunding Bonds, the calculations, the deposits, the disbursements, the investments and the retention of records described in the Tax Certificate; provided that, in the event the original Tax Certificate is superseded or amended by a new Tax Certificate drafted by, and accompanied by an opinion of Bond Counsel stating that the use of the new Tax Certificate will not cause the interest on such Refunding Bonds to become includible in gross income for federal income tax purposes, the Board will thereafter comply with the new Tax Certificate.

## ARTICLE VIII

### MISCELLANEOUS

**Section 8.01. Applicability of Master Resolution.** Except as otherwise provided herein, the provisions of the Master Resolution govern the Refunding Bonds and the Refunding Project. The rights, undertakings, covenants, agreements, obligations, warranties, and representations of the Board set forth in the Master Resolution shall in respect of the Refunding Bonds be deemed the rights, undertakings, covenants, agreements, obligations, warranties and representations of the Board.


**Section 8.02. Severability and Invalid Provisions.** If any one or more of the covenants or agreements provided in this Fifteenth Supplemental Resolution on the part of the Board to be performed should be contrary to law, then such covenant or covenants or agreement or agreements shall be deemed severable from the remaining covenants and agreements, and shall in no way affect the validity of the other provisions of this Fifteenth Supplemental Resolution.

**Section 8.03. Table of Contents and Section Headings Not Controlling.** The Table of Contents and the headings of the several Articles and Sections of this Fifteenth Supplemental Resolution have been prepared for convenience of reference only and shall not control, affect the meaning of, or be taken as an interpretation of any provision of this Fifteenth Supplemental Resolution.

ADOPTED AND APPROVED as of August 9, 2018.

[SEAL]

BOARD OF GOVERNORS OF THE  
COLORADO STATE UNIVERSITY SYSTEM

By  \_\_\_\_\_  
Chair of the Board

ATTEST:

By  \_\_\_\_\_  
Secretary

[Signature Page to Fifteenth Supplemental Resolution]

**EXHIBIT A**

**FORM OF REFUNDING BONDS [TO BE MODIFIED FOR EACH SERIES]**

**UNLESS THIS BOND IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY, A NEW YORK CORPORATION ("DTC"), TO THE Paying Agent, THE Registrar OR ANY AGENT THEREOF FOR REGISTRATION OF TRANSFER, EXCHANGE OR PAYMENT, AND ANY BOND ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC (AND ANY PAYMENT IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL INASMUCH AS THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN.**

**TRANSFER OF THIS BOND OTHER THAN BY REGISTRATION IS NOT EFFECTIVE.**

**UNITED STATES OF AMERICA  
STATE OF COLORADO**

**BOARD OF GOVERNORS OF THE COLORADO STATE UNIVERSITY SYSTEM  
SYSTEM ENTERPRISE REVENUE REFUNDING BONDS  
SERIES \_\_\_\_\_**

No. R- \_\_\_\_\_ \$ \_\_\_\_\_

<b>Interest Rate (Per Annum)</b>	<b>Maturity Date</b>	<b>Dated as of</b>	<b>CUSIP</b>
_____ %	March 1, _____	_____, _____	_____

REGISTERED OWNER: CEDE & CO.

PRINCIPAL AMOUNT: \_\_\_\_\_ DOLLARS

The Board of Governors of the Colorado State University System (the "Board" and the "System," respectively), being a body corporate under the laws of the State of Colorado (the "State"), for value received, hereby promises to pay to the registered owner specified above or registered assigns solely from the special funds provided therefor, the principal amount specified above, on the maturity date specified above (unless called for earlier redemption), and to pay from such special funds interest thereon on March 1 and September 1 of each year (each an "Interest Payment Date"), commencing on \_\_\_\_\_ at the interest rate per annum specified above, until the principal sum is paid or payment has been provided. This Refunding Bond (as hereinafter defined) will bear interest from the most recent Interest Payment Date to which interest has been paid or provided for, or, if no interest has been paid, from the date of this

Refunding Bond. The principal of and premium, if any, on this Refunding Bond are payable upon presentation and surrender hereof at the principal office of the Board's paying agent for the Refunding Bonds (the "Paying Agent"), initially Wells Fargo Bank, National Association. The Paying Agent's principal office for such payment shall be in Minneapolis, Minnesota. Interest on this Refunding Bond will be paid on each Interest Payment Date (or, if such Interest Payment Date is not a business day, on the next succeeding business day), by check or draft mailed to the person in whose name this Refunding Bond is registered (the "registered owner") in the registration records of the Board maintained by the Board's registrar for the Refunding Bonds (the "Registrar"), initially Wells Fargo Bank, National Association, and at the address appearing thereon at the close of business on the fifteenth day of the calendar month next preceding such Interest Payment Date (the "Regular Record Date"). Any such interest not so timely paid or duly provided for shall cease to be payable to the person who is the registered owner hereof at the close of business on the Regular Record Date and shall be payable to the person who is the registered owner thereof at the close of business on a Special Record Date (as described in the resolution of the Board authorizing the issuance of this Refunding Bond; herein the "Resolution"), for the payment of any defaulted interest. Such Special Record Date shall be fixed by the Registrar whenever moneys become available for payment of the defaulted interest, and notice of the Special Record Date shall be given to the registered owners of the bonds of the series of which this is one not less than 10 days prior thereto. Alternative means of payment of interest may be used if mutually agreed to between the owner of any Refunding Bond and the Paying Agent, as provided in the Resolution. All such payments shall be made in lawful money of the United States of America without deduction for the services of the Registrar or Paying Agent.

This bond is one of an authorized series of bonds issued under the Resolution designated the Board of Governors of the Colorado State University System, System Enterprise Revenue Refunding Bonds, Series [ ] in the aggregate principal amount of \$[ ] (the "Refunding Bonds").

It is hereby certified that all acts, conditions and things required to be done precedent to and in the issuance of this Refunding Bond and the series of which it is a part have been properly done, have happened, and have been performed in regular and due time, form and manner as required by the Constitution and laws of the State and the proceedings herein mentioned, and that this series of bonds does not exceed any constitutional or statutory limitation.

This Refunding Bond shall not be valid or obligatory for any purpose until the Registrar shall have manually signed the certificate of authentication hereon.

The Refunding Bonds are issuable solely as fully registered bonds in denominations of \$5,000 and any integral multiple thereof and are exchangeable for fully registered Refunding Bonds of the same maturity in equal aggregate principal amounts and in authorized denominations at the aforesaid office of the Registrar but only in the manner, subject to the limitations, and on payment of the charges provided in the Resolution.

The Registrar will not be required to transfer or exchange (a) any Refunding Bond subject to redemption during a period beginning at the opening of business 15 days before the day of the mailing by the Registrar of a notice of prior redemption of Refunding Bonds and



ending at the close of business on the day of such mailing, or (b) any Refunding Bond after the mailing of notice calling such Refunding Bond or any portion thereof for prior redemption.

The Refunding Bonds or portions thereof maturing on and after March 1, 20\_\_\_, are subject to redemption prior to their respective maturities, at the option of the Board, on or after March 1, 20\_\_\_, in whole or in part at any time, in such order of maturities as the Board shall determine and by lot within a maturity, in integral multiples of \$5,000 (giving proportionate weight to Refunding Bonds in denominations larger than \$5,000), in such manner as the Paying Agent may determine, at a redemption price equal to \_\_\_% of the principal amount of each Refunding Bond or portion thereof so redeemed plus accrued interest thereon to the redemption date.

The Refunding Bonds are subject to mandatory sinking fund redemption as provided in the Pricing Certificate.

In the case of a Refunding Bond of a denomination larger than \$5,000, a portion of such Refunding Bond (\$5,000 or any integral multiple thereof) may be redeemed, in which case the Registrar shall, without charge to the owner of such Refunding Bond, authenticate and issue a replacement Refunding Bond or Bonds for the unredeemed portion thereof. Redemption shall be made upon not less than 30 days' prior mailed notice to each registered owner as shown on the registration records maintained by the Registrar, as provided in the Resolution.

This Refunding Bond is fully transferable by the registered owner hereof in person or by his duly authorized attorney on the registration records maintained by the Registrar upon surrender of this Refunding Bond together with a duly executed written instrument of transfer satisfactory to the Registrar. Upon such transfer a new fully registered Refunding Bond or Refunding Bonds of authorized denomination or denominations of the same aggregate principal amount and maturity will be issued to the transferee in exchange for this Refunding Bond, subject to such terms and conditions as set forth in the Resolution. The Board, Registrar and Paying Agent may deem and treat the person in whose name this Refunding Bond is registered as the absolute owner hereof for the purpose of making payment (except to the extent otherwise provided hereinabove and in the Resolution with respect to Regular and Special Record Dates for the payment of interest) and for all other purposes and the Board and Paying Agent and Registrar shall be not affected by notice to the contrary.

The Refunding Bonds are being issued to finance the Refunding Project.

The Refunding Bonds are issued by the Board as authorized by and pursuant to the Auxiliary Facilities Enterprise Act, the Institutional Enterprise Statute, the Refunding Act, the Research Building Fund Act, the State Intercept Act (if applicable), the Supplemental Public Securities Act, and applicable provisions of the Code.

This Refunding Bond does not constitute a debt or an indebtedness of the State, the Board or the System within the meaning of any constitutional or statutory provision or limitation, shall not be considered or held to be a liability or general obligation of the State, the Board or the System, and is payable and collectible as an obligation of the Board solely out of the net revenues (including Student Fees) (the "Net Revenues") to be derived from the operation of

certain revenue-producing Facilities and Research Facilities, as well as certain Tuition Revenues, as such Net Revenues, Student Fees, Facilities, Research Facilities and Tuition Revenues are defined in the Resolution. The owner hereof may not look to any general or other fund of the State or the System for the payment of the principal of, premium, if any, and interest on this obligation, except the special funds pledged therefor.

Payment of the Refunding Bonds and the interest thereon shall be made from, and as security for such payment there is pledged pursuant to the Resolution, a special fund identified as the "System Enterprise Debt Service Fund" (the "Debt Service Fund"), into which fund the Board covenants to pay from the Net Revenues moneys sufficient to pay when due the principal of, premium, if any, and interest on the Refunding Bonds. The Refunding Bonds constitute an irrevocable lien on the Net Revenues and are being issued on parity with the Board's Outstanding Parity Obligations (as defined in the Resolution). Outstanding Obligations in addition to the Refunding Bonds, subject to expressed conditions, may be issued and made payable from the Net Revenues and having a lien thereon subordinate and junior to the lien, or subject to additional expressed conditions, having a lien thereon on a parity with the lien thereon of the Refunding Bonds, as provided in the Resolution.

Reference is made to the Resolution and any and all modifications and amendments thereof and to the designated statutes for the provisions, among others, with respect to the custody and application of the proceeds of the Refunding Bonds, for a description of the nature and extent of the security for the Refunding Bonds, the funds or revenues pledged, the nature and extent and manner of enforcement of the pledge, the rights and remedies of the owners of the Refunding Bonds with respect thereto, the terms and conditions upon which the Refunding Bonds are issued, and a statement of rights, duties, immunities and obligations of the Board and the rights of the owners of the Refunding Bonds.

To the extent and in the respects permitted by the Resolution, the provisions of the Resolution or any resolution amendatory thereof or supplemental thereto may be modified or amended by action on behalf of the Board taken in the manner and subject to the conditions and exceptions prescribed in the Resolution. The pledge of the Net Revenues and other duties of the Board under the Resolution may be discharged at or prior to the maturity or redemption of the Refunding Bonds upon the making of provision for the payment thereof on the terms and conditions set forth in the Resolution.

The Board covenants and agrees with the owner of this Refunding Bond and with each and every person who may become the owner hereof that it will keep and perform all of the covenants of the Resolution.

When all principal of, premium, if any, and interest on the Refunding Bonds, or any portion thereof, have been duly paid, the pledge and lien of all obligations hereunder shall thereby be discharged as to such issue or part of such issue and such issue or part of such issue shall no longer be deemed to be Outstanding within the meaning hereof. There shall be deemed to be such due payment if the Board has placed in escrow or in trust with a trust bank exercising trust powers, an amount sufficient (including the known minimum yield available for such purpose from federal securities in which such amount wholly or in part may be initially invested) to meet all requirements of principal of, premium, if any, and interest on the securities issue, as

such requirements become due to their final maturities or upon any designated redemption dates. The federal securities shall become due prior to the respective times on which the proceeds thereof shall be needed, in accordance with a schedule established and agreed upon between the Board and such trust bank at the time of the creation of the escrow or trust, or the federal securities shall be subject to redemption at the option of the holders thereof to assure such availability as so needed to meet such schedule.

No recourse shall be had for the payment of the principal of, premium if any, and interest on this Refunding Bond or for any claim based thereon or otherwise in respect to the Resolution against any individual member of the Board, past, present or future, either directly or through the Board or the System, or through any successor body corporate of either, whether by virtue of any constitution, statute or rule of law, or by the enforcement of any penalty or otherwise, all such liability, if any, being by the acceptance of this Refunding Bond and as a part of the consideration of its issuance specially waived and released. The obligation of the Board, as a body corporate, to the owner hereof is limited to applying funds for the payment hereof, as set forth above and as more fully delineated in the Resolution, and to otherwise complying with the contractual provisions therein.

Unless this certificate is presented by an authorized representative of The Depository Trust Company, a New York corporation ("DTC"), to the Board or its agent for registration of transfer, exchange, or payment, and any certificate issued is registered in the name of Cede & Co. or in such other name as is requested by an authorized representative of DTC (and any payment is made to Cede & Co. or to such other entity as is requested by an authorized representative of DTC), ANY TRANSFER, PLEDGE, OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL inasmuch as the registered owner hereof, Cede & Co., has an interest herein.

This Refunding Bond is issued pursuant to the Supplemental Public Securities Act, Colorado Revised Statutes, Sections 11-57-201 et seq., as amended, and, pursuant to Section 11-57-210, C.R.S., this recital shall be conclusive evidence of the validity and the regularity of the issuance of this Bond after its delivery for value.

IN TESTIMONY WHEREOF, the Board of Governors of the Colorado State University System has caused this Refunding Bond to be executed in the name and on the behalf of the Board with the manual or facsimile signature of its Chair, and to be attested and signed with the manual or facsimile signature of the Secretary of the Board; and has caused the facsimile of the seal of the System to be affixed hereon, all as of \_\_\_\_\_, \_\_\_\_\_.

[FACSIMILE SEAL]

BOARD OF GOVERNORS OF THE  
COLORADO STATE UNIVERSITY SYSTEM

By \_\_\_\_\_ (Manual or Facsimile Signature)  
Chair of the Board

ATTEST:

By \_\_\_\_\_ (Manual or Facsimile Signature)  
Secretary of the Board

[FORM OF CERTIFICATE OF AUTHENTICATION FOR REFUNDING BONDS]

**CERTIFICATE OF AUTHENTICATION**

Date of authentication and registration: \_\_\_\_\_

This is one of the Refunding Bonds described in the within-mentioned Resolution, and this Refunding Bond has been duly registered on the registration records kept by the undersigned as Registrar for such Refunding Bonds.

WELLS FARGO BANK, NATIONAL  
ASSOCIATION, as Registrar

By \_\_\_\_\_ (Manual Signature)  
Authorized Officer or Employee

[END OF FORM OF CERTIFICATE OF AUTHENTICATION FOR REFUNDING BONDS]

[FORM OF ASSIGNMENT OF REFUNDING BONDS]

**ASSIGNMENT**

For value received, the undersigned hereby sells, assigns and transfers unto \_\_\_\_\_ the within Refunding Bond and hereby irrevocably constitutes and appoints \_\_\_\_\_ attorney, to transfer the same on the records kept for registration of the within Refunding Bond, with full power of substitution in the premises.

Dated: \_\_\_\_\_

NOTE: The signature to this Assignment must correspond with the name as written on the face of this Refunding Bond in every particular, without alteration or enlargement or any change whatsoever.

Signature Guaranteed:

\_\_\_\_\_

Name and address of transferee:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Social Security or other  
tax identification number of transferee:

\_\_\_\_\_

TRANSFER FEE MAY BE REQUIRED

[END OF FORM OF ASSIGNMENT OF REFUNDING BONDS]

**MATTER FOR ACTION:**

Land: Sale of approximately 161 acres of land known as the Hughes Stadium Property.

**RECOMMENDED ACTION:**

MOVED, that the Board of Governors of the Colorado State University System (the "Board") hereby approves the sale of approximately 161 acres of land that is known as the Hughes Stadium Property, as generally shown on Exhibit A, upon the terms and conditions discussed in Executive Session.

FURTHER MOVED, that the President of Colorado State University is hereby authorized to negotiate with the final two candidates that submitted a response to the Request for Master Developer Qualifications for the Hughes Stadium Property and to select a finalist as the Master Developer for the Hughes Stadium Property in accordance with the terms and conditions discussed in Executive Session, and the President or Vice President for University Operations of Colorado State University are hereby further authorized to sign implementing contracts and other documents necessary and appropriate to consummate the transaction with the Master Developer, with modifications made in consultation with General Counsel.

**EXPLANATION PRESENTED BY:** Presented by Dr. Tony Frank, President, Colorado State University.

Hughes Stadium is located on the northwest corner of an approximately 161 acre parcel of property (the "Property") owned by The Board of Governors at 2011 South Overland Trail, Fort Collins, Colorado.


Since Hughes Stadium opened in 1968, it served as the home of the Colorado State University Rams football team. With the opening of the new on-campus stadium, the University, with the assistance of the Colorado State University Research Foundation ("CSURF"), has moved forward with a process to identify a Master Developer to develop the Property in a manner that best serves the collective interests of the University, Larimer County and the City of Fort Collins. In January 2018, CSURF issued a Request for Master Developer Qualifications for the Hughes Stadium Property ("RFQ").

The Board of Governors of the  
Colorado State University System  
Meeting Date: August 10, 2018  
Action Item

The RFQ process has been successful, and two final candidates have submitted proposals seeking to become the Master Developer for the Property. The final steps in this process include the selection of the final candidate as the Master Developer, along with that candidate's proposal for the development of the Hughes Stadium Property, and executing the appropriate contracts with the Master Developer in order to consummate that transaction and the sale of the Hughes Stadium Property.

  
\_\_\_\_\_  
Approved

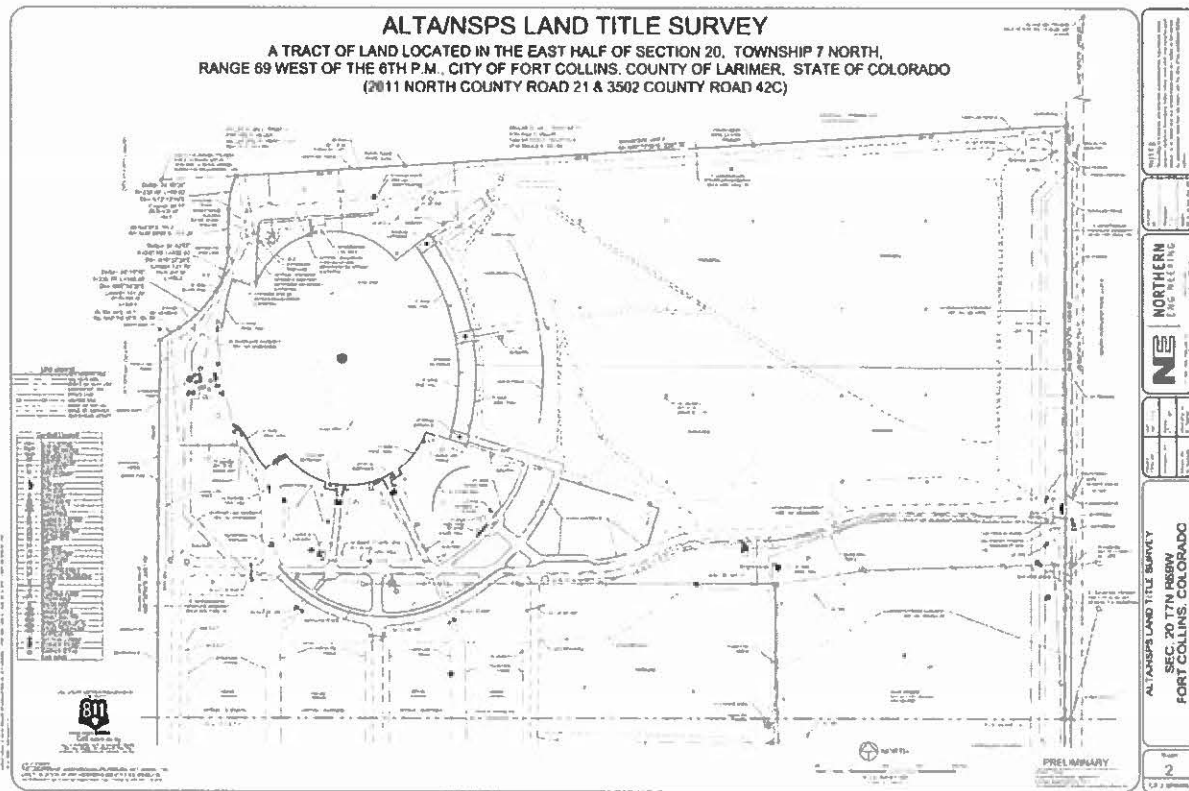
\_\_\_\_\_  
Denied

  
\_\_\_\_\_  
Kim Jordan, Board Secretary  
10 August 2018  
\_\_\_\_\_  
Date

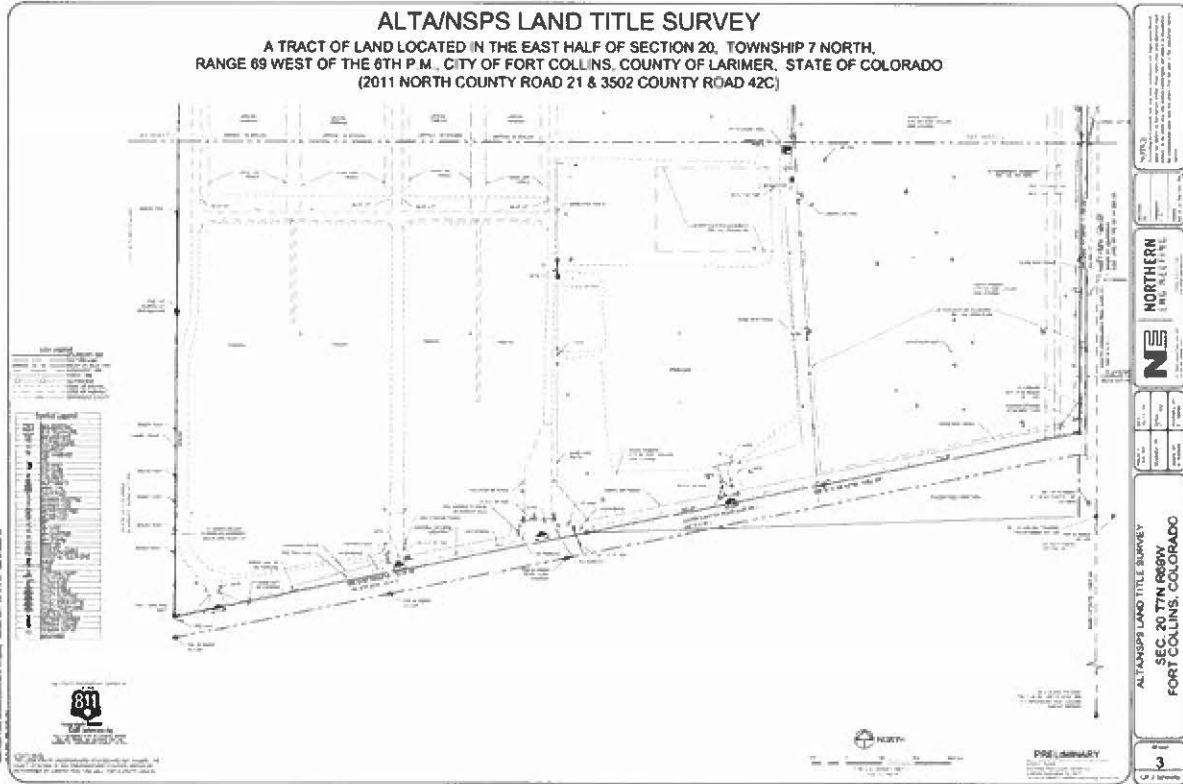




The Board of Governors of the  
Colorado State University System  
Meeting Date: August 10, 2018  
Action Item



The Board of Governors of the  
Colorado State University System  
Meeting Date: August 10, 2018  
Action Item



Board of Governors of the Colorado State University System  
Meeting Date: August 10, 2018  
Action Item

**MATTERS FOR ACTION:**

Land: Grant of a non-exclusive permanent and a temporary construction easement for natural gas liquids pipeline to ONEOK Elk Creek Pipeline, L.L.C., a subsidiary of ONEOK, Inc., at the Eastern Colorado Research Center (ECRC).

**RECOMMENDED ACTION:**

**MOVED**, that the Board of Governors approve the grant of an 8.53-acre permanent non-exclusive easement along with a 5.53-acre temporary construction easement at the Eastern Colorado Research Center in Washington County as generally shown on Exhibit A, for \$84,683 to ONEOK Elk Creek Pipeline, L.L.C. for installation and maintenance of a natural gas liquids pipeline.

**FURTHER MOVED**, that the President or Vice President for University Operations of Colorado State University is hereby authorized to sign implementing contracts and other documents necessary and appropriate to consummate the transaction with modifications made in consultation with General Counsel.

**EXPLANATION:**

Presented by Lynn Johnson, Vice President for University Operations, Colorado State University.

ONEOK is preparing to construct a 20-inch Natural Gas Liquids pipeline originating in Montana and terminating in Kansas. ONEOK wants to route the pipeline across a portion of the ECRC property. The new gas pipeline will follow the path of other existing pipelines and easements on the property. The easements are generally shown on Exhibit A and include approximately 8.53-acres of permanent easement and 5.53-acres of temporary easement. Compensation for the easement will be \$84,683 which equates to a value of \$6,023/acre.

✓  
Approved                
Denied

Lynn Johnson  
Board Secretary  
10 August 2018  
Date

**Exhibit A**



Board of Governors of the Colorado State University System Meeting Date:  
August 10, 2018  
Action Item

**MATTERS FOR ACTION:**

Land: Acquisition of a Sanitary Sewer Easement from Melvin D. and Maureen Retting at the Western Colorado Research Center.

**RECOMMENDED ACTION:**

**MOVED**, that the Board of Governors approve the acquisition of an approximate 38,100 sf (0.88 acre) non-exclusive permanent easement, as generally shown on Exhibit A, for approximately \$20,000 to support the expansion of facilities at the Western Colorado Research Center for the benefit of the Diagnostic Lab and New Classroom Office Building projects.

**FURTHER MOVED**, that the President or Vice President for University Operations of Colorado State University is hereby authorized to sign implementing contracts and other documents necessary and appropriate to consummate the transaction with modifications made in consultation with General Counsel.

**EXPLANATION:**

Presented by Lynn Johnson, Vice President for University Operations, Colorado State University

The construction of a new Diagnostics Lab and Classroom Office Building at the Orchard Mesa Research center requires connection to a local sanitation system. The existing septic and treatment systems will not adequately handle the increased needs and expansion of the systems would take away valuable research land. The project team worked with the Clifton sanitation district to identify the preferred route and connection point. The route will require obtaining an easement from the neighbors, Melvin and Maureen Retting. The approximately 38,100 square foot (0.88 acre) easement runs along the southern boundary of Retting's property as shown in purple in Exhibit A.

The Retting's have asked for compensation of approximately \$20,000 to cover the land encumbrance, future tap fees, and attorney costs. \*

✓  
Approved                  Denied

Lynn Johnson  
Board Secretary  
10 August 2018  
Date

# Exhibit A



Board of Governors of the Colorado State University System  
Meeting Date: August 10, 2018  
Action Item

**MATTERS FOR ACTION:**

Real Property: Long-Term Lease of .22 acres of unimproved land from Colorado Mesa University in Mesa County, CO for the installation (relocation) and operation of an incinerator to support Colorado State University's Western Slope Diagnostic Laboratory.

**RECOMMENDED ACTION:**

**MOVED**, that the Board of Governors approve a long-term lease of approximately .22 acres of unimproved land from Colorado Mesa University for the installation (relocation) and operation of an incinerator to support Colorado State University's Western Slope Diagnostic Laboratory. The lease will be \$0 rent with an initial lease term up to 40 years, with renewal options of up to an additional 40 years.

**FURTHER MOVED**, that the President or Vice President for University Operations of Colorado State University is hereby authorized to sign implementing contracts and other documents necessary and appropriate to consummate the transaction with modifications made in consultation with General Counsel.

**EXPLANATION:**

Presented by Lynn Johnson, Vice President for University Operations, Colorado State University

At the request of the Mesa County Commissioners and Colorado Mesa University, Colorado State University has agreed to relocate the Western Slope Diagnostic Laboratory's incinerator to a location that is not heavily populated or in the path of development. Colorado Mesa University has offered a small site adjacent to their Forensics Laboratory near the Mesa County Landfill. The location of the new long-term lease and a general vicinity map are shown on Exhibit A.

The incinerator's relocation will be timed to correspond with the move of the Diagnostic Laboratory to a new building at the Western Colorado Research Center's Orchard Mesa site.



After the relocation of both the incinerator and diagnostic laboratory, the existing 40-year lease between the Board of Governors and Colorado Mesa University for the current location will be terminated. Colorado Mesa University has agreed to help fund a portion of the incinerator relocation costs.

✓  
Approved

\_\_\_\_\_  
Denied

Kim Johnson

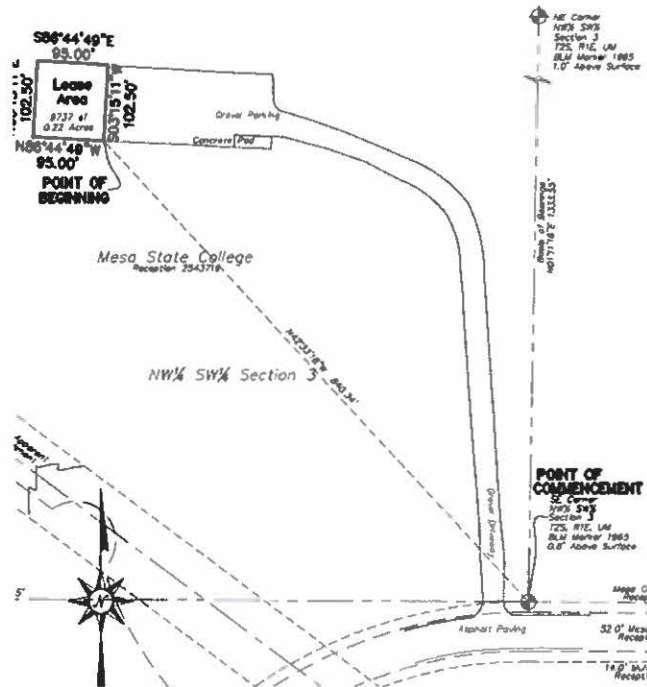
Board Secretary

10 August 2018

Date

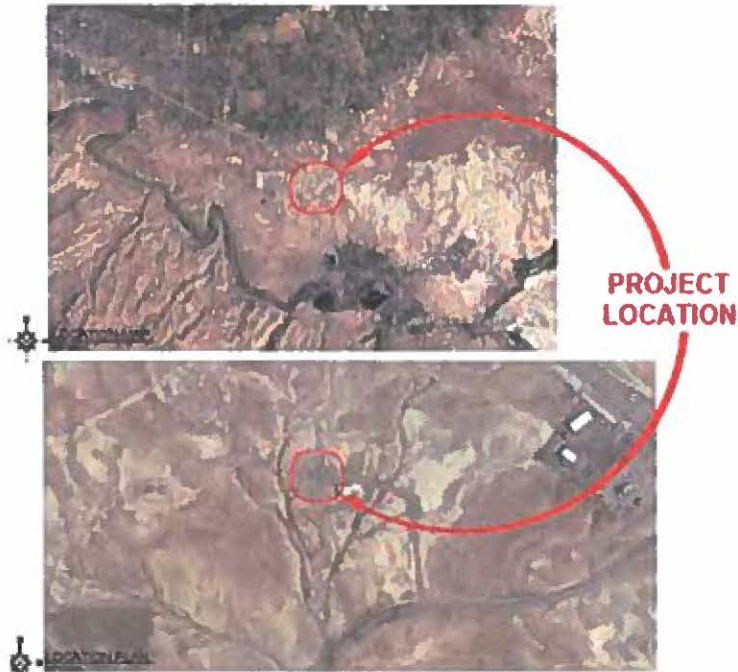
# Exhibit A

## Lease Site



## General Vicinity Map

CMU FORENSICS BUILDING SITE  
950 COFFMAN RD. WHITEWATER, CO. 81527  
PROJECT NUMBER: 161215A



The Board of Governors of the Colorado State University System  
Meeting Date: August 10, 2018  
Action Item

**MATTERS FOR ACTION:**

Real Property: Long-Term Lease of an approximate 25,000 square feet stand-alone building from Adams-Arapahoe School District 28J in Aurora, CO.

**RECOMMENDED ACTION:**

**MOVED**, that the Board of Governors approve a long-term (10 year) lease of an approximate 25,000 square foot stand-alone building for the use of CSU-Global Campus, as generally shown on Exhibit A.

**FURTHER MOVED**, that the President of CSU-Global Campus is hereby authorized to sign implementing contracts and other documents necessary and appropriate to consummate the transaction with modifications made in consultation with General Counsel.

**EXPLANATION:**

Presented by Becky Takeda-Tinker, President, CSU-Global Campus.

CSU-Global Campus has negotiated a 10-year lease with the Adams-Arapahoe School District 28J for the use of a building currently being constructed. The space is scheduled for completion and occupancy by September 1, 2019. This timing coincides with the need for CSU-Global Campus to find additional space for its operations upon the expiration of its current lease. The rent payments for the new long-term lease are based upon the fair market value for this space, and rent will be payable in cash or through in-kind exchange with CSU-Global Campus offering discounted courses for the benefit and use of Aurora Public Schools.

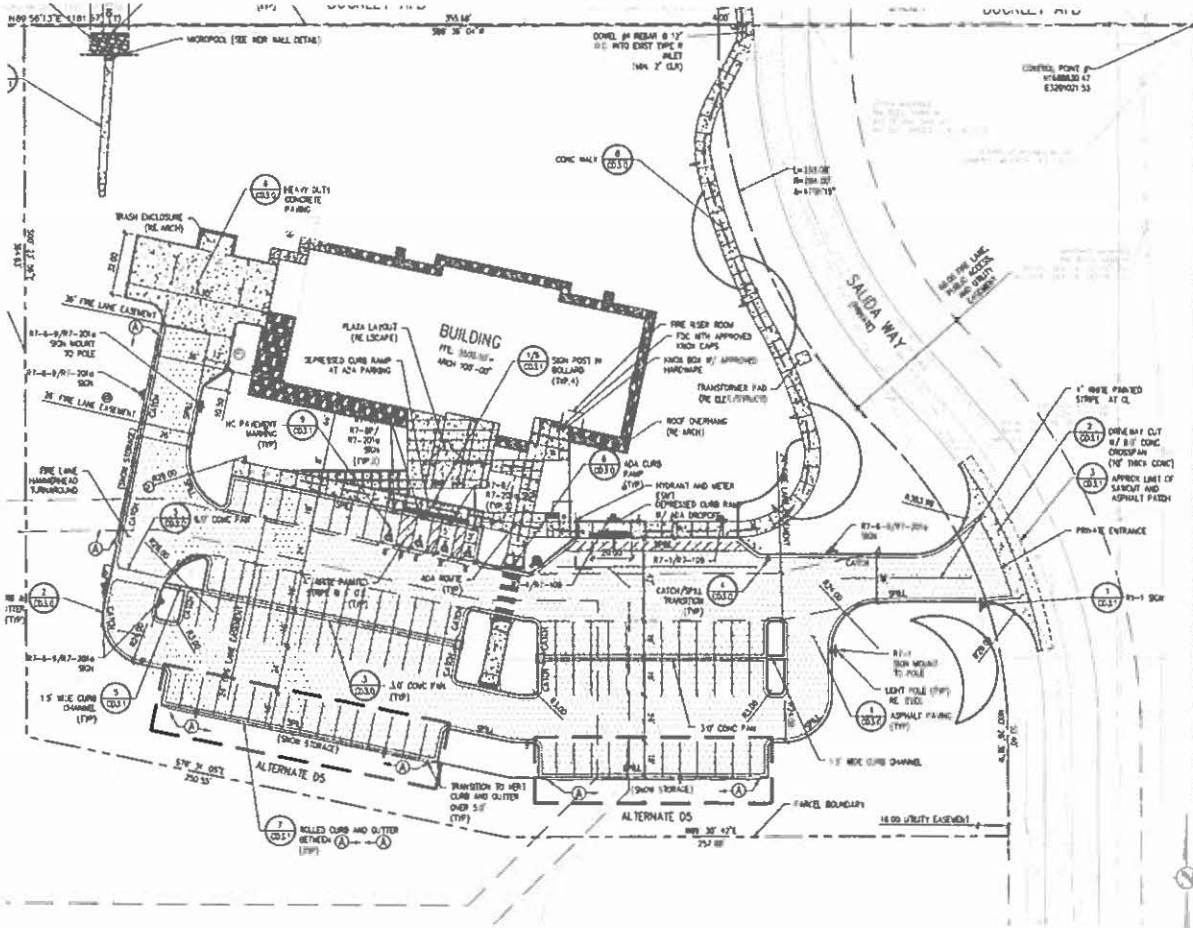
✓  
Approved

\_\_\_\_\_  
Denied

Kim Jordan  
Kim Jordan, Board Secretary

10 August 2018  
Date

# Exhibit A



Board of Governors of the  
Colorado State University System  
Meeting Date: August 9, 2018  
Action Item

\_\_\_\_\_  
Approved

MATTERS FOR ACTION:

CSU: Approval of the Acceptance of Gifts and Naming Opportunities

RECOMMENDED ACTION:

MOVED, that the Board of Governors approve the acceptance of gifts and the naming in recognition of gifts relating to a lab, workspace and outdoor space within the College of Health & Human Sciences.

EXPLANATION:

Presented by Tony Frank, President, and Kim Tobin, Vice President for University Advancement.

The University allows the naming of specified facilities under its policy outlining the specific qualifications and procedures. The procedures require approval by the President of the University. Once the naming opportunity has been endorsed by the President, the President submits it to the Board of Governors for final approval.

To maintain confidentiality, the donors of the gifts and the specific naming opportunities are not identified at this time. A brief description of the gifts and the naming opportunities has been distributed to the Board members during the executive session.

The announcement of the gifts and the naming will be made by the appropriate unit.

✓                      \_\_\_\_\_  
Approved              Denied

Kim Jordan  
Board Secretary

10 August 2018

Date



## CERTIFICATION OF CONSENT AGENDA ITEMS

The undersigned Secretary of the Board of Governors for the Colorado State University System hereby certifies:

That with a unanimous affirmative vote of the voting members of the Board of Governors at a duly held meeting thereof on August 10, 2018, the consent agenda items listed below were referred for consideration of approval and were adopted:

- Colorado State University System
  - Minutes of the May 1, 2018 Meeting and Committee Meetings
  - Minutes of the May 31-June 1, 2018 Board Retreat, Meeting and Committee Meetings
- Colorado State University
  - Graduate Certificate in Communications for Conservation (*referred by Academic and Student Affairs Committee*)
  - Graduate Certificate – Postsecondary Access and Success (*referred by Academic and Student Affairs Committee*)
  - Program Review Schedule 2018-19 (*referred by Academic and Student Affairs Committee*)
  - Approval of Degree Candidates for AY18-19 (*referred by Academic and Student Affairs Committee*)
  - Faculty Manual Changes (*referred by Academic and Student Affairs Committee*)
    - Section D.7.1 – Maximum Employment
    - Section I.7 – Student Appeals of Grading Decisions
    - Section K – Resolution of Disputes
- Colorado State University-Pueblo
  - Program Review Schedule 2018-19 (*referred by Academic and Student Affairs Committee*)
  - Approval of Degree Candidates for AY18-19 (*referred by Academic and Student Affairs Committee*)
- Colorado State University-Global Campus
  - Approval of Degree Candidates for AY18-19 (*referred by Academic and Student Affairs Committee*)

The consent agenda items together with a record of the votes for the resolutions have been recorded and will be entered into the full minutes of the duly held August 10, 2018, meeting of the Board of Governors.

  
 \_\_\_\_\_  
 Board Secretary  
  
 \_\_\_\_\_  
 Date

The Board of Governors of the Colorado State University System  
Meeting Date: August 9-10, 2018  
Action Item

MATTERS FOR ACTION:

CSU: Allocation of Canvas Stadium Net Revenues

RECOMMENDED ACTION:

MOVED, that the Board of Governors of the Colorado State University System approve the allocation of the positive net revenue from Colorado State University's Canvas Stadium operations for fiscal year 2017-2018, as follows: FY18 positive net revenue of \$4,625,446, with \$1,125,446 allocated to Athletics Operations, \$500,000 allocated to Academic Programs, and \$3,000,000 allocated to the Stadium Reserve.


EXPLANATION:

Presented by System Chancellor and CSU President Dr. Tony Frank.

As shown in the materials provided by CSU Athletic Director Joe Parker as part of his presentation to the Board of Governors about CSU Athletics, specifically the Income Statement Pro Forma for Fiscal Year 2018 for Canvas Stadium and the Projected Bond Debt Service Coverage, the Net Income from FY18 Canvas Stadium operations was \$12,437,825. After accounting for the Bond Payments and the Contribution to Athletics from the CSL Model, the Net Revenue from Canvas Stadium operations in FY18 is \$4,625,446. In order to support additional CSU academic programs and athletic operations, as well as funding the Stadium Reserve, the university is asking the Board of Governors to allocate that net revenue as set forth above.

  
\_\_\_\_\_  
Approved

\_\_\_\_\_  
Denied

  
\_\_\_\_\_  
Kim Jordan, Board Secretary  
10 August 2018  
\_\_\_\_\_  
Date