Fiscal Year 2021-22 Capital Construction Request

University of Colorado at Boulder

Hellems Arts and Sciences Building Renovation and Mary Rippon Outdoor Theatre Renovation

PROGRAM PLAN STATUS

2004-120

Approved Program Plan Yes **Date Approved:** June 1, 2019

PRIORITY NUMBERS

Prioritized By	Priority	
CU Boulder	1 of 2	
CU System	1 of 4	
CCHE	2 of 30	
OSPB	25 of 53	Not recommended for funding.

PRIOR APPROPRIATIONS AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2021-22	FY 2022-23	Future Requests	Total Costs
CCF	$0	$3,390,080	$10,692,720	$21,000,560	$35,083,360
CF	$0	$5,085,120	$16,039,080	$31,500,840	$52,625,040
Total	$0	$8,475,200	$26,731,800	$52,501,400	$87,708,400

ITEMIZED COST INFORMATION

Cost Item	Prior Approp.	FY 2021-22	FY 2022-23	Future Requests	Total Cost
Land Acquisition	$0	$0	$0	$0	$0
Professional Services	$0	$7,542,007	$1,668,832	$3,339,100	$12,549,939
Construction	$0	$111,097	$20,878,349	$40,972,734	$61,962,180
Equipment	$0	$0	$1,522,576	$2,955,706	$4,478,282
Miscellaneous	$0	$51,623	$231,879	$461,005	$744,507
Contingency	$0	$770,473	$2,430,164	$4,772,855	$7,973,492
Total	$0	$8,475,200	$26,731,800	$52,501,400	$87,708,400

PROJECT STATUS

This is the tenth request for funding. Funding was requested on behalf of the project for FY 2003-04, FY 2006-07, FY 2009-10 through FY 2011-12, and FY 2017-18 through FY 2019-20. The project has been listed on the university's five-year projection of need in the intervening years. Previous years' requests have been for a capital renewal project. A new program plan for the project published in May 2017 rescoped the project to combine the capital renewal elements with a number of program-driven renovations.

Prepared by Legislative Council Staff

Fiscal Year 2021-22 Capital Construction Request

University of Colorado at Boulder

Hellems Arts and Sciences Building Renovation and Mary Rippon Outdoor Theatre Renovation

PROJECT DESCRIPTION / SCOPE OF WORK

The University of Colorado at Boulder (CU Boulder) is requesting a combination of state funds and cash funds spending authority for the first phase of a four-phase project to address concerns with various electrical and mechanical systems within the 95,065-GSF Hellems Arts and Sciences Building, and to renovate the building's interior to address programming needs. The university says the project will preserve and protect the nearly 100-year-old building, which is structurally sound but requires modernization and interior reorganization to address life-safety and code issues and to more efficiently accommodate academic needs. The scope of the project includes improvements to the adjacent Mary Rippon Outdoor Theatre. This year's request for Phase I will design the project, while each subsequent phase will renovate one of the building's three wings.

The building assessment will include a materials test and an asbestos and environmental report.

Deferred maintenance to be addressed by the project includes:

- replacing the exterior windows and rehabilitating exterior doors;
- installing a new HVAC system, including associated duct work, grills, shafts, and controls, and integrating a cooling system into the building to enhance year-round building use;
- replacing the electrical distribution system;
- fire-alarm additions and modifications, and upgrading associated safety features;
- upgrading electrical panels;
- replacing interior lighting fixtures;
- roofing improvements, including replacing roof underlaying; insulating the roof underside; restoring damaged gutters and downspouts; and testing, and possibly abating, hazardous materials;
- abating hazardous materials in surfaces and finishes in the building's interior;
- repointing and cleaning exterior masonry;
- foundation waterproofing;
- restoring exterior flagstone stairs;
- providing ADA-accessible restrooms with new fixtures;
- correcting stair enclosures for better life-safety accessibility and ADA compliance; and
- updating finishes throughout the building's interior.

Interior renovations to improve program delivery include resizing of office space to create additional classroom space, and reconfiguring the building's layout for operational and energy efficiency purposes. Upgrades to the Mary Rippon Outdoor Theatre will address functionality, safety, and ADA issues. Considering the age of the facility, both interior and exterior improvements will conform to the building's historical character.

Cost assumption. The cost assumption was determined through the program planning process. A 5.0 percent inflation factor is applied to the project cost based on the recent regional inflation index. Project costs were reconfirmed in April 2019. The project meets the Art in Public Places and High Performance Certification Program requirements.

Fiscal Year 2021-22 Capital Construction Request

University of Colorado at Boulder

Hellems Arts and Sciences Building Renovation and Mary Rippon Outdoor Theatre Renovation

PROJECT JUSTIFICATION

CU Boulder says the project upgrades a facility that is structurally sound in order to address repairs and renovations necessary for code and ADA compliance, energy efficiency, and program functionality. According to the university, upgrading the systems within the Hellems Arts and Sciences Building will significantly improve building operational deficiencies, reduce negative environmental impacts, save energy and utility costs, and contribute to occupant safety. In addition, the university says the upgrade will greatly enhance occupant comfort and program delivery.

A facility audit conducted in 2019 gave the Hellems Arts and Sciences Building a Facility Condition Index rating (FCI) of 26. FCI is a measure of the cost of remedying building deficiencies compared to a building's current replacement value, and the state architect's target FCI for all buildings is 85. Upon completion of the project, the building is expected to have an FCI in the range of 90 to 95. The audit cited major deficiencies in functionality, building integrity, building and fire code compliance, and hazardous materials contamination for asbestos. Minor deficiencies were reflected in appearance, access, energy systems, and exterior systems.

According to the university, programmatic reconfigurations will increase operational efficiency, with high-traffic classroom areas placed on the main level and center of the building accessibility, and office areas and graduate student suites outside the high-traffic areas. CU Boulder says failure to fund the project will continue to severely affect the quality of the education delivered to over 40 academic programs.

PROGRAM INFORMATION

The Hellems Arts and Sciences Building (Hellems) is a three-story building, with a full basement, containing classrooms, academic offices, and lecture halls. The central portion of the building was constructed in 1921, with two wings added in 1937. The building was designed by Charles Z. Klauder in the Tuscan Vernacular style, which the university says the campus is known for internationally, and comprises part of a national historic district.

The university conducts core curriculum coursework in Hellems, and the university says that about half of freshmen students took a course in the building in academic year 2018-19, and 86.0 percent of students receiving bachelor's degrees in 2017-18 took at least one course in Hellems at some point. Components of several departments are housed in the building, including English, History, Linguistics, and Philosophy, along with the ALTEC Language Lab and the College of Media, Communication, and Information. An additional 37 academic departments use the teaching spaces in the building.

The Mary Rippon Outdoor Theatre hosts the annual Shakespeare Festival, which is staged from Hellems.

PROJECT SCHEDULE

	Start Date	Completion Date
Design	July 2021	October 2022
Construction	October 2022	December 2024
Equipment		
Occupancy	December 2024	

SOURCE OF CASH FUNDS

The source of cash funds for the project is campus cash funds, primarily derived from various uncommitted, unrestricted net assets for program improvements.

OPERATING BUDGET

Operating expenses are paid from institutional sources. The university expects the project to result in no new operating costs.

Prepared by Legislative Council Staff

Fiscal Year 2021-22 Capital Construction Request

University of Colorado at Boulder

Hellems Arts and Sciences Building Renovation and Mary Rippon Outdoor Theatre Renovation

STAFF QUESTIONS AND ISSUES

1. Since the project's phasing is based upon performing the renovations one wing at a time, is it possible that renovation of a wing could be a stand-alone project (i.e. - a wing could be completed and usable without continuation funding)?

The project could be executed via three stand-alone phases, but this is not a cost-effective approach. It would likely require us to design and build building systems (HVAC, plumbing, electrical, fire/smoke separation, etc.) in ways that are not efficient to maintain over the long term. Additionally, this approach would add significant costs to mobilize and demobilize each phase of the project and would limit opportunities for other project cost efficiencies.

Fiscal Year 2021-22 Capital Construction Request

University of Colorado Denver
Engineering and Physical Sciences Renovation

PROGRAM PLAN STATUS

2015-061

Approved Program Plan Yes **Date Approved:** October 22, 2020

PRIORITY NUMBERS

Prioritized By	Priority	
CU Denver	1 of 2	
CU System	2 of 4	
CCHE	5 of 30	
OSPB	27 of 53	Not recommended for funding.

PRIOR APPROPRIATIONS AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2021-22	FY 2022-23	Future Requests	Total Costs
CCF	$0	$5,146,026	$21,858,496	$12,457,898	$39,462,420
CF	$0	$15,438,080	$21,858,496	$4,152,633	$41,449,209
Total	$0	$20,584,106	$43,716,992	$16,610,531	$80,911,629

ITEMIZED COST INFORMATION

Cost Item	Prior Approp.	FY 2021-22	FY 2022-23	Future Requests	Total Cost
Land Acquisition	$0	$0	$0	$0	$0
Professional Services	$0	$10,848,210	$0	$0	$10,848,210
Construction	$0	$8,690,522	$33,228,845	$12,714,503	$54,633,870
Equipment	$0	$0	$7,312,576	$2,045,180	$9,357,756
Miscellaneous	$0	$65,179	$1,093,809	$340,800	$1,499,788
Contingency	$0	$980,195	$2,081,762	$1,510,048	$4,572,005
Total	$0	$20,584,106	$43,716,992	$16,610,531	$80,911,629

PROJECT STATUS

This is the sixth request for funding. Funding on behalf of the project has been requested each year since FY 2016-17. A 2017 program plan amendment moved the planned location of the new building from adjacent to the North Classroom Building to southeast of the Science Building, facing Speer Boulevard.

Prepared by Legislative Council Staff

Fiscal Year 2021-22 Capital Construction Request

University of Colorado Denver
Engineering and Physical Sciences Renovation

PROJECT DESCRIPTION / SCOPE OF WORK

The University of Colorado Denver (CU Denver) is requesting a combination of state funds and cash funds spending authority for the first phase of a three-phase project that constructs a 60,000-GSF, three-story academic building adjacent to the Auraria Science Building on the Auraria Higher Education Center (AHEC) campus, and renovates 38,368 GSF in the nearby North Classroom Building. CU Denver says the project will allow for growth and consolidation of the College of Engineering, Design, and Computing (CEDC) in a new, state-of-the-art facility, and will update existing space for use by the College of Liberal Arts and Sciences (CLAS).

The new building will include instructional labs, high-bay labs for the testing of large-scale projects, computer labs, research labs, classrooms, academic offices, and support space for CEDC. Approximately 80 percent of the assignable area within the new building will be used for instructional purposes, while the remaining 20 percent will be used for academic support and service functions. The new building will provide space for the following departments and functions:

- Civil Engineering (1,784 ASF);
- Electrical Engineering (6,408 ASF);
- Mechanical Engineering (6,930 ASF);
- Computer Science and Engineering (5,661 ASF);
- Bioengineering (1,620 ASF);
- other class and open labs (3,910 ASF);
- student services (3,527 ASF);
- IT/facilities space (1,120 ASF); and
- Interdisciplinary Innovation Hub (5,040 ASF).

The space currently used by CEDC in the North Classroom Building will be vacated and renovated for use by CLAS. Relocating disparate CLAS departments to the North Classroom Building will consolidate faculty and students within CU Denver's neighborhood on the Auraria campus. The renovations will include a CLAS Student Success Hub, which the university says will serve as a "one stop" center where students in its largest college can find the support resources they need to succeed. CEDC will also relocate some functions that are currently housed in the Boulder Creek and Administration Buildings. Space will also be freed up in three other university buildings as a result of the programming consolidations that will take place under the project.

Cost assumption. The cost assumption was determined through the program planning process. The university's Facilities Projects Department used costs from recently completed projects for its estimates, inflated to the year of construction, along with industry data. The cost per GSF for both the renovation and new construction is $823. The project meets the Art in Public Places and High Performance Certification Program requirements.

Fiscal Year 2021-22 Capital Construction Request

University of Colorado Denver

Engineering and Physical Sciences Renovation

PROJECT JUSTIFICATION

According to CU Denver, the project addresses critical instructional space challenges by replacing obsolete, heavily used lab and classroom space for growing programs with state-of-the-art, larger, and more innovative environments, and by renovating outdated space in the North Classroom Building. The university says the new lab space will improve the current CEDC labs, some of which have had no improvements in the last 20 years. CU Denver also says that the programs impacted by the project have seen significant enrollment growth in recent years, and that space occupied by these programs is dispersed across several areas, making collaboration among students and faculty very challenging.

CU Denver says the current facilities that house CEDC and CLAS programs are severely overcrowded and overutilized, and do not have capacity to grow. CEDC experienced undergraduate application growth of 40 percent from 2015 to 2017, but the program has reached maximum facility capacity and enrolls only a fraction of applicants. The deficiency of research space has made the recruitment and retention of faculty and graduate students difficult. The college has also been unable to fully support opportunities for undergraduate research. The university projects that CEDC will grow by 59 percent over the next ten years. CLAS freshman enrollment grew nearly 80 percent from 2010 to 2016, and undergraduate and graduate enrollment is expected to grow another 8 percent by 2025.

According to CU Denver, space occupied by CEDC and CLAS in the North Classroom Building is obsolete and does not meet modern teaching and research needs. Issues with the labs include deficient HVAC systems, outdated audio/visual equipment, poor visibility for students, and dated furnishings. Additionally, many of the lab spaces were not originally built as labs and do not effectively advance engineering instruction or investigation. Numerous code issues exist in the building related to fire safety, emergency lighting, the building's generator, and compliance with the Americans with Disabilities Act. Furthermore, the distribution of CEDC and CLAS programs across the AHEC campus, in downtown Denver, and on the CU Anschutz Medical Campus impedes collaboration and interdisciplinary learning, according to the university.

Project alternatives. CU Denver says the demand for additional labs and support spaces can only be met through new construction or the lease of comparable space off-campus. According to the university, leasing off-campus space would be more costly. When modeled over a 25-year timeframe, the university estimates the total life-cycle costs of leased space to be $6.0 million more than the construction of a new facility. Furthermore, it is unrealistic to find leasable space with the specialized needs of engineering research labs within close proximity to campus, according to CU Denver. The university also considered five alternate sites for the new building, but the preferred site proved to be the best for reasons ranging from cost to poor access to displacement of other programs.

PROGRAM INFORMATION

CEDC at CU Denver offers undergraduate and graduate programs in bioengineering, civil engineering, electrical engineering, mechanical engineering, and computer science and engineering. Graduate programs include master of science, master of engineering, and doctor of philosophy degrees. CEDC also offers professional training and continuing education classes on engineering topics. CLAS offers numerous undergraduate and graduate degrees in the humanities, natural and physical sciences, social sciences, and integrated sciences. CU Denver notes that CEDC and CLAS enroll 55 percent of all students at the university.

AHEC is comprised of three separate higher education institutions, the Community College of Denver, Metropolitan State University of Denver, and CU Denver, all of which share classroom space, parking, and general services on the campus. AHEC manages campus facilities and non-academic functions, including the library, the child care center, classroom and event scheduling, and campus police and security.

Fiscal Year 2021-22 Capital Construction Request

University of Colorado Denver
Engineering and Physical Sciences Renovation

PROJECT SCHEDULE

	Start Date	Completion Date
Design	July 2021	July 2021
Construction	August 2022	July 2024
Equipment	July 2024	August 2024
Occupancy	Sept 2024	Sept 2024

SOURCE OF CASH FUNDS

The source of cash funds for the project is gifts, grants, campus cash, and debt.

OPERATING BUDGET

Operating expenses are paid from institutional sources. The university expects operating costs to increase by $781,200 per year as a result of the new building's construction.

STAFF QUESTIONS AND ISSUES

1. Has the university initiated a fundraising campaign for the project, or sought grants to fund the project? If so, what is the status of these activities?

CU Denver leadership has identified the building as a top fundraising priority.

Some of the fundraising accomplishments to date include:

- Securing two contingent pledges worth a total of $800,000
- an investment from Lockheed Martin to support a program in 3D printing for aerospace manufacturing;
- a pledge to name a space in the building;
- a pending multi-million dollar pledge to create a new lab in existing space; and
- additional prospects for seven-figure gift opportunities.

Fiscal Year 2021-22 Capital Construction Request

University of Colorado at Boulder
Guggenheim Geography Building Renovation

PROGRAM PLAN STATUS

2008-056

Approved Program Plan Yes **Date Approved:** June 1, 2019

PRIORITY NUMBERS

Prioritized By	Priority	
CU Boulder	2 of 2	
CU System	3 of 4	
CCHE	17 of 30	
OSPB	51 of 53	Not recommended for funding.

PRIOR APPROPRIATIONS AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2021-22	FY 2022-23	Future Requests	Total Costs
CCF	$0	$1,162,800	$10,506,600	$0	$11,669,400
CF	$0	$1,744,200	$15,759,900	$0	$17,504,100
Total	$0	$2,907,000	$26,266,500	$0	$29,173,500

ITEMIZED COST INFORMATION

Cost Item	Prior Approp.	FY 2021-22	FY 2022-23	Future Requests	Total Cost
Land Acquisition	$0	$0	$0	$0	$0
Professional Services	$0	$2,584,204	$2,026,298	$0	$4,610,502
Construction	$0	$0	$20,158,219	$0	$20,158,219
Equipment	$0	$0	$1,426,107	$0	$1,426,107
Miscellaneous	$0	$45,655	$261,562	$0	$307,217
Contingency	$0	$277,141	$2,394,314	$0	$2,671,455
Total	$0	$2,907,000	$26,266,500	$0	$29,173,500

PROJECT STATUS

This is the fourth request for funding. Funding was first requested for FY 2018-19. Elements of the project have appeared on the University of Colorado at Boulder's (CU Boulder) five-year projection of need as a capital renewal project since 2006. A June 2017 program plan changed the scope of the project to include programmatic renovations.

Prepared by Legislative Council Staff

Fiscal Year 2021-22 Capital Construction Request

University of Colorado at Boulder
Guggenheim Geography Building Renovation

PROJECT DESCRIPTION / SCOPE OF WORK

CU Boulder has requested a combination of state funds and cash funds spending authority for the first phase of a two-phase project to renovate the 22,908-GSF Guggenheim Building. The project combines $11.7 million in capital renewal system upgrades with $17.5 million in academic and programmatic improvements. The university says the project will revitalize an antiquated building with a low Facilities Condition Index (FCI) rating and facilitate greater operational and energy efficiency. This year's request for Phase I will design the project, while Phase II will perform the renovations.

CU Boulder says the capital renewal elements of the project will address the following systems and issues in the Guggenheim Building:

- asbestos contamination;
- elevator motors;
- the electrical system, including the transformer, panel boards, and feeder;
- exterior windows, including skylights;
- fire-rated doors, fire alarm systems, fire-rated wall penetrations, and additional fire exits;
- the HVAC system, including installing air conditioning in the building;
- lighting systems;
- plumbing and the sanitary waste system;
- roofing, gutters, and soffits;
- telephone and data systems;
- utility distribution lines; and
- wood carpentry, including interior doors and associated hardware.

The project also performs programmatic renovations of the building's interior by resizing offices, reconfiguring the classrooms and offices to consolidate tenants, and upgrading corridors and the overall building layout to improve traffic patterns.

Cost assumption. The cost assumption was determined through the program planning process, which relied upon campus costs for the recently completed Ketchum Arts and Sciences Renovation project. The Ketchum project was similar to the Guggenheim project in that it revitalized an historic building with structural integrity that needed renewal of its basic building systems. The cost per GSF is $1,274. The project meets the Art in Public Places and High Performance Certification Program requirements.

Fiscal Year 2021-22 Capital Construction Request

University of Colorado at Boulder
Guggenheim Geography Building Renovation

PROJECT JUSTIFICATION

According to CU Boulder, the Guggenheim Building, which is more than 100 years old, has received minimal improvements over the years and requires an overhaul of its systems to address life-safety, code, deferred maintenance, and tenant comfort issues. Program-based renovations will consolidate the scattered Department of Geography, increase the operational efficiency of the building, and provide modern facilities in support of the social science programs housed in the building.

Building system improvements. The university explains that although the Guggenheim Building has not received a wholesale renovation since its construction, the historic building remains structurally sound but is in need of upgrades to its basic systems. A professional audit performed in February 2014 gave the building an FCI of 43, and the university says that the FCI is now 37. FCI is a measure of the cost of remedying building deficiencies compared to a building's current replacement value, and the state architect's target FCI for all buildings is 85. The project's capital renewal improvements will address various life-safety and code compliance issues. For instance, a metal ladder extending down the south side of the three-story building provides the only fire egress; the project will mitigate this issue by developing fire-rated egress pathways that meet code, and will upgrade other fire-related systems to increase safety. The project also abates asbestos, improves ADA accessibility, and enhances room capacity. Installation of a cooling system in the building will improve occupant comfort. The systems improvements will also address deferred maintenance, energy efficiency, worn finishes, preservation of key historical elements, and the building's appearance.

Program-related improvements. The university says that the building's current layout is a legacy of its original construction, with classroom and lab spaces scattered around the building, intermingling with faculty offices. Office configurations create inefficient layouts on each floor, and the offices are much larger than current standards, resulting in multiple occupants being assigned to single offices. Narrow corridors access offices, and configurations have been further compromised by retrofits to accommodate more modern building systems and life-safety measures. Under the project, the building's interior will be reconfigured with an eye toward operational efficiency. Spaces will be consolidated by academic type, providing for greater efficiency and easier access for students to classroom and study space. Currently, the Department of Geography is housed in four different buildings across campus. The programmatic renovations will allow the department to centralize its operations.

PROGRAM INFORMATION

Built in 1908, the Guggenheim Building first housed the School of Law, until the Department of Geography moved into the building in 1959. The department confers BA, MA, and PhD degrees, and conducts theoretical and applied work in human geography, environment and society geography, physical geography, and geographic information science. Although the Department of Geography is the primary occupant in the Guggenheim Building, 21 other departments each offered at least one course in the building in fall 2017. Overall, 3,082 undergraduate credit hours and 78 graduate credit hours were taught in the building in fall 2018. Additionally, the building provides office and support space for 84 faculty, staff, and graduate students.

PROJECT SCHEDULE

	Start Date	Completion Date
Design	July 2021	July 2022
Construction	October 2022	December 2023
Equipment	December 2023	January 2024
Occupancy	January 2024	February 2024

SOURCE OF CASH FUNDS

The source of cash funds for the project is uncommitted, unrestricted net assets.

OPERATING BUDGET

Operating expenses are paid from institutional sources. The university expects the project to result in no new operating costs.

Prepared by Legislative Council Staff

Fiscal Year 2021-22 Capital Construction Request

University of Colorado at Boulder
Guggenheim Geography Building Renovation

STAFF QUESTIONS AND ISSUES

1. Please briefly elaborate on what constitutes "various uncommitted unrestricted net assets" as a cash funds source.

Funding will come from a mix of debt and campus capital reserves. The project will not impact student tuition and will not use revenues from student fees.

Fiscal Year 2021-22 Capital Construction Request

University of Colorado Denver

CU Denver Building Infrastructure Renewal (Capital Renewal)

PROGRAM PLAN STATUS

2022-009

Approved Program Plan | **Date Approved:**

PRIORITY NUMBERS

Prioritized By	Priority	
CU Denver	2 of 2	
CU System	4 of 4	
CCHE	20 of 30	
OSPB	52 of 53	Not recommended for funding.

PRIOR APPROPRIATIONS AND REQUEST INFORMATION

Fund Source	Prior Approp.	FY 2021-22	FY 2022-23	Future Requests	Total Costs
CCF	$0	$22,182,686	$0	$0	$22,182,686
CF	$0	$224,068	$0	$0	$224,068
Total	$0	$22,406,754	$0	$0	$22,406,754

ITEMIZED COST INFORMATION

Cost Item	Prior Approp.	FY 2021-22	FY 2022-23	Future Requests	Total Cost
Land Acquisition	$0	$0	$0	$0	$0
Professional Services	$0	$3,192,130	$0	$0	$3,192,130
Construction	$0	$16,582,492	$0	$0	$16,582,492
Equipment	$0	$0	$0	$0	$0
Miscellaneous	$0	$595,154	$0	$0	$595,154
Contingency	$0	$2,036,978	$0	$0	$2,036,978
Total	$0	$22,406,754	$0	$0	$22,406,754

PROJECT STATUS

This is a new, never-before-requested project.

Prepared by Legislative Council Staff

Fiscal Year 2021-22 Capital Construction Request

University of Colorado Denver

CU Denver Building Infrastructure Renewal (Capital Renewal)

PROJECT DESCRIPTION / SCOPE OF WORK

The University of Colorado Denver (CU Denver) is requesting a combination of state funds and cash funds spending authority to replace and upgrade mechanical and electrical infrastructure which has exceeded its useful life in the CU Denver Building. This is a capital renewal project. The capital renewal approach focuses on upgrading building systems, infrastructure, and the basic building components within existing buildings on a building-by-building basis, rather than project by project.

The project focuses on mechanical and infrastructure upgrades to maintain the building's use and on energy-related improvements to lessen the building's carbon footprint, including:

- replacing a chiller, associated pumps, and heat exchanger;
- replacing the Xcel steam system with natural gas boiler system;
- replacing the air handler;
- replacing electrical switchgear and the main electrical distribution system;
- replacing the existing Silent Knight fire alarm system;
- repairing and replacing sanitary piping risers;
- repairing a collapsed storm drain;
- replacing the majority of plaza drains and piping;
- replacing mechanical and electrical systems and making structural repairs in the parking garage;
- installing and prewiring electric vehicle charging stations;
- updating annex ADA accessibility;
- standardizing signage and wayfinding across the building and site;
- upgrading to LED lighting; and
- Installing a photovoltaic solar array.

The most recent Facilities Condition Audit rated the building's Facility Condition Index (FCI) at 67. The FCI is a measure of the cost of remedying building deficiencies compared to a building's current replacement value, and the state architect's target FCI for all buildings is 85.

Cost assumption. The cost assumption was determined by an engineering firm hired by the university, and accounts for inflation. As a capital renewal request, the project is exempt from the Art in Public Places and High Performance Certification Program requirements.

PROJECT JUSTIFICATION

The building was built in 1977 and most of the mechanical and electrical systems are original and in need of replacement. As the building was purchased by the university from the Auraria Foundation in 2006, it was not eligible for controlled maintenance funding until this year, due to the statutory requirement that 15 years must elapse from the date of acquiring state property to the date of requesting funding. In that time, CU Denver has self-funded significant renovations and repairs costing over $7.4 million. The university states that this project prioritizes taking care of valuable existing state assets and critical infrastructure needs.

According to the university, existing systems are inefficient, unreliable, and there is a significant risk of system failure. Because there is no sufficient, available space to house the programs currently located in the CU Denver building, loss of use would have a devastating effect on these programs and their students.

Project Alternatives. According to CU Denver, the university is unable to provide enough internal funding to resolve the overwhelming volume of maintenance issues, though the campus will prioritize the building's deferred maintenance backlog above all other campus buildings. The university plans to submit several elements contained in this capital renewal request for possible controlled maintenance funding. If this project is funded, the university will withdraw all related controlled maintenance requests; if the capital renewal project does not receive funding this year and any related controlled maintenance requests receive funding, they will be removed from the subsequent capital renewal request.

PROGRAM INFORMATION

The CU Denver Building, located in Denver at 1250 14th Street, houses the College of Architecture and Planning, the College of Arts and Media, the CU System-wide Executive MBA program, and CU Denver CityCenter. The university served as building operator and master tenant for 11 years prior to the sale, and has been leasing space in the building since 1983.

Prepared by Legislative Council Staff

Fiscal Year 2021-22 Capital Construction Request

University of Colorado Denver

CU Denver Building Infrastructure Renewal (Capital Renewal)

PROJECT SCHEDULE

	Start Date	Completion Date
Design	July 2021	May 2022
Construction	May 2022	Sept 2023
Equipment	June 2023	Sept 2023
Occupancy	October 2023	November 2023

SOURCE OF CASH FUNDS

The source of cash funds is institutional reserves. This project is not funded from student fees.

OPERATING BUDGET

Operating expenses are paid from institutional sources. The university estimates that the project will result in annual utility cost savings of about $155,000.

STAFF QUESTIONS AND ISSUES

All responses to staff questions were incorporated into the project write-up.