

COVER PAGE

University of Northern Colorado

FY 2019-20 CAPITAL CONSTRUCTION REQUESTS (LISTED IN OSPB PRIORITY ORDER)

RECOMMENDED FOR FUNDING BY OSPB:

- Heating Plant Boiler #3 Replacement (Capital Renewal)

NOT RECOMMENDED FOR FUNDING BY OSPB:

- Gray Hall Mechanical Systems Improvements (Capital Renewal)

TOTAL: FY 2019-20 CAPITAL CONSTRUCTION STATE-FUNDED REQUEST AMOUNT = **\$7,053,179**

FY 2019-20 CONTROLLED MAINTENANCE REQUESTS (3)

RECOMMENDED FOR FUNDING BY OSPB:

LEVEL II:

- Replace Chiller, McKee Hall

NOT RECOMMENDED FOR FUNDING BY OSPB:

LEVEL II:

- Replace Windows, Frasier Hall

LEVEL III:

- Replace Roof, Arts Annex, Ross, and Skinner

HISTORY OF STATE FUNDING

- **\$46.6 million** has been appropriated to the university on behalf of capital projects since FY 2014-15. This represents **4.8 percent** of the total amount appropriated on behalf of all capital construction and controlled maintenance projects during this period.
- **\$2.1 million** was appropriated in FY 2018-19 for controlled maintenance authorized through Senate Bill 17-267.

INVENTORY OF GENERAL FUND SUPPORTED FACILITIES

- The General Fund supported inventory of university facilities totals **1,531,339 GSF**. This total represents **3.1 percent** of the entire General Fund supported inventory of state buildings.

RECENT CDC VISITS

- Campus tour (June 2015)

Fiscal Year 2019-20 Capital Construction Request

University of Northern Colorado

Heating Plant Boiler #3 Replacement (Capital Renewal)

PROGRAM PLAN STATUS

2015-126

Approved Program Plan? Date Approved:

PRIORITY NUMBERS

| <u>Prioritized By</u> | <u>Priority</u> | |
|-----------------------|-----------------|--------------------------|
| DeptInst | 1 of 2 | |
| CCHE | 12 of 40 | |
| OSPB | 11 of 62 | Recommended for funding. |

PRIOR APPROPRIATION AND REQUEST INFORMATION

| <u>Fund Source</u> | <u>Prior Approp.</u> | <u>FY 2019-20</u> | <u>FY 2020-21</u> | <u>Future Requests</u> | <u>Total Cost</u> |
|--------------------|----------------------|--------------------|-------------------|------------------------|--------------------|
| CCF | \$0 | \$3,634,012 | \$0 | \$0 | \$3,634,012 |
| CF | \$0 | \$45,000 | \$0 | \$0 | \$45,000 |
| Total | \$0 | \$3,679,012 | \$0 | \$0 | \$3,679,012 |

ITEMIZED COST INFORMATION

| <u>Cost Item</u> | <u>Prior Approp.</u> | <u>FY 2019-20</u> | <u>FY 2020-21</u> | <u>Future Requests</u> | <u>Total Cost</u> |
|-----------------------|----------------------|--------------------|-------------------|------------------------|--------------------|
| Land Acquisition | \$0 | \$0 | \$0 | \$0 | \$0 |
| Professional Services | \$0 | \$320,154 | \$0 | \$0 | \$320,154 |
| Construction | \$0 | \$3,024,402 | \$0 | \$0 | \$3,024,402 |
| Equipment | \$0 | \$0 | \$0 | \$0 | \$0 |
| Miscellaneous | \$0 | \$0 | \$0 | \$0 | \$0 |
| Contingency | \$0 | \$334,456 | \$0 | \$0 | \$334,456 |
| Software Acquisition | \$0 | \$0 | \$0 | \$0 | \$0 |
| Total | \$0 | \$3,679,012 | \$0 | \$0 | \$3,679,012 |

PROJECT STATUS

This is the third request for funding. Funding was requested on behalf of the project from FY 2014-15 to FY 2016-17 through the controlled maintenance process.

PROJECT DESCRIPTION / SCOPE OF WORK

The University of Northern Colorado (UNC) is requesting state funds for a capital renewal project to replace an aging boiler in order to provide redundancy for the two main campus boilers. The capital renewal approach focuses on upgrading building systems, infrastructure, and the basic building components within existing academic buildings on a building-by-building basis, rather than project by project. The existing #3 boiler is a high-temperature hot water generator that the university says has exceeded its useful life. The replacement boiler will be more energy efficient, which the university says will reduce operating costs. In addition to purchasing the new boiler, the project also:

- demolishes and abates the existing boiler, mechanical equipment, and piping;
- demolishes and replaces sections of the roof and structure in the heating plant to create a path for installing the new boiler;

Fiscal Year 2019-20 Capital Construction Request

University of Northern Colorado

Heating Plant Boiler #3 Replacement (Capital Renewal)

- installs the boiler; and
- connects the new boiler infrastructure and piping to the plant main lines.

Cost assumption. The cost assumption was determined by an engineering firm hired by the university. The project cost accounts for inflation. As a capital renewal request, the project is not required to meet the Art in Public Places or High-Performance Certification Program requirements.

PROJECT JUSTIFICATION

According to UNC, boiler #3, which was installed in 1971, has exceeded its useful life and utilizes old technology. In June 2015, this boiler developed several leaking tubes, which the university was able to repair. In addition, several of boiler #3's infrastructure components do not meet current National Fire Protection Association code.

Boiler #3 provides redundancy to the two main boilers, both of which are used to serve the campus load during peak energy use. Failure of one of the main boilers would require operation of boiler #3 which, if not available, could cause significant damage to campus facilities and operations.

PROGRAM INFORMATION

UNC operates the 8,682-GSF Central Heating Plant with three boilers to provide its campus heating and cooling needs, serving all major buildings (about 2.8 million square feet). Boiler #3 is a 60 million BTU Riley Stoker high-temperature hot water generator. Boilers #1 and #2 were replaced in 2006 and 1996, respectively.

PROJECT SCHEDULE

| | Start Date | Completion Date |
|--------------|--------------|-----------------|
| Design | July 2019 | February 2020 |
| Construction | April 2020 | October 2020 |
| Equipment | | |
| Occupancy | October 2020 | December 2020 |

SOURCE OF CASH FUNDS

This project is not funded from cash sources.

OPERATING BUDGET

Operating costs are paid from institutional sources. UNC does not expect the project to impact operating costs.

STAFF QUESTIONS AND ISSUES

None.

Fiscal Year 2019-20 Capital Construction Request

University of Northern Colorado

Gray Hall Mechanical Systems Improvements (Capital Renewal)

PROGRAM PLAN STATUS

2017-049

Approved Program Plan? No Yes

Date Approved:

PRIORITY NUMBERS

| Prioritized By | Priority | |
|----------------|----------|------------------------------|
| DeptInst | 2 of 2 | |
| CCHE | 22 of 40 | |
| OSPB | 43 of 62 | Not recommended for funding. |

PRIOR APPROPRIATION AND REQUEST INFORMATION

| <u>Fund Source</u> | <u>Prior Approp.</u> | <u>FY 2019-20</u> | <u>FY 2020-21</u> | <u>Future Requests</u> | <u>Total Cost</u> |
|--------------------|----------------------|--------------------|-------------------|------------------------|--------------------|
| CCF | \$0 | \$3,419,167 | \$0 | \$0 | \$3,419,167 |
| Total | \$0 | \$3,419,167 | \$0 | \$0 | \$3,419,167 |

ITEMIZED COST INFORMATION

| <u>Cost Item</u> | <u>Prior Approp.</u> | <u>FY 2019-20</u> | <u>FY 2020-21</u> | <u>Future Requests</u> | <u>Total Cost</u> |
|-----------------------|----------------------|--------------------|-------------------|------------------------|--------------------|
| Land Acquisition | \$0 | \$0 | \$0 | \$0 | \$0 |
| Professional Services | \$0 | \$383,572 | \$0 | \$0 | \$383,572 |
| Construction | \$0 | \$2,724,762 | \$0 | \$0 | \$2,724,762 |
| Equipment | \$0 | \$0 | \$0 | \$0 | \$0 |
| Miscellaneous | \$0 | \$0 | \$0 | \$0 | \$0 |
| Contingency | \$0 | \$310,833 | \$0 | \$0 | \$310,833 |
| Software Acquisition | \$0 | \$0 | \$0 | \$0 | \$0 |
| Total | \$0 | \$3,419,167 | \$0 | \$0 | \$3,419,167 |

PROJECT STATUS

This is the third request for funding. Funding on behalf of the project was requested for FY 2017-18 and FY 2018-19.

PROJECT DESCRIPTION / SCOPE OF WORK

The University of Northern Colorado (UNC) is requesting state funds for a capital renewal project to upgrade various mechanical systems in the 27,531-GSF Gray Hall. The capital renewal approach focuses on upgrading building systems, infrastructure, and the basic building components within existing academic buildings on a building-by-building basis, rather than project by project. Specifically, the project upgrades the HVAC system and associated infrastructure, installs a sprinkler system, and installs air conditioning in certain areas of the building. Work to be completed in association with the main objectives of the project includes:

- creating wall openings and constructing walled enclosures for ductwork and piping;
- repairing and replacing ceilings;
- removing window-mounted air conditioning units and replacing window sashes;
- replacing the plumbing system;
- upgrading the building's electrical service and modifying the electrical systems to accommodate the new

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University of Northern Colorado

Gray Hall Mechanical Systems Improvements (Capital Renewal)

mechanical systems;

- painting;
- removing all steam components from the building and installing a new connection to the campus hot water system;
- and
- extending chilled water lines to existing utility infrastructure.

Cost assumption. The cost assumption was determined by university architects and a consultant study. The project cost accounts for inflation. As a capital renewal request, the project is not required to meet the Art in Public Places Program or High-Performance Certification Program requirements.

PROJECT JUSTIFICATION

UNC explains that Gray Hall, which was constructed in 1913, contains many outdated mechanical systems and supporting components, some of them original to the building and all at the end of their useful life. Additionally, the university has constructed a number of additions and renovations to the building over the years, resulting in a mix of mechanical system technologies. The project will bring these disparate technologies into alignment. UNC further says that the building is cooled in only a few areas, so the project adds air conditioning via a newly constructed central campus chilled water plant. Concerns expressed by the university's insurance carrier prompted the addition of a fire sprinkler system to the scope of the project. The domestic water system is experiencing high iron levels, so the university is using bottled water in the building until the plumbing system is replaced.

The most recent Facility Condition Index (FCI) audit, conducted in April 2015, placed Gray Hall's FCI at 65, short of the 85 target FCI established by the Office of the State Architect. The university has cash funded several infrastructure improvements to the building, including replacing a buried steam line and air conditioning units that cool information technology infrastructure. UNC says failure to replace the building's mechanical systems will result in continued high maintenance costs to keep the current systems operational.

PROGRAM INFORMATION

Gray Hall houses the UNC campus police department, a major telephone and data hub, a black box theater, classrooms, and offices.

PROJECT SCHEDULE

| | Start Date | Completion Date |
|--------------|------------|-----------------|
| Design | July 2019 | April 2020 |
| Construction | April 2020 | April 2021 |
| Equipment | | |
| Occupancy | April 2021 | July 2021 |

SOURCE OF CASH FUNDS

This project is not funded from cash sources.

OPERATING BUDGET

Operating costs are paid from institutional sources. UNC anticipates the project will result in a decrease in its operating costs.

STAFF QUESTIONS AND ISSUES

None.

**University of Northern Colorado
Five-Year Projection of Need
FY 2019-20 through FY 2023-24**

| Project Title | Fund Source | FY 2019-20 | FY 2020-21 | FY 2021-22 | FY 2022-23 | FY 2023-24 | Totals |
|--|-------------|--------------------|-------------------------------|---------------------|------------|------------|---------------------|
| Capital Construction (Current Year) | | | | | | | |
| Gray Hall Mechanical Systems Improvements (Capital Renewal) | CCF | 3,419,167 | 0 | 0 | 0 | 0 | \$3,419,167 |
| | CF | 0 | 0 | 0 | 0 | 0 | \$0 |
| Heating Plant Boiler #3 (Capital Renewal) | CCF | 3,634,012 | 0 | 0 | 0 | 0 | \$3,634,012 |
| | CF | 45,000 | 0 | 0 | 0 | 0 | \$45,000 |
| Capital Construction (Out Year) | | | | | | | |
| Crabbe Hall Renovation | CCF | 0 | 6,000,000 | 0 | 0 | 0 | \$6,000,000 |
| | CF | 0 | 0 | 0 | 0 | 0 | \$0 |
| Frasier Hall Renovation | CCF | 0 | 0 | 20,000,000 | 0 | 0 | \$20,000,000 |
| | CF | 0 | 0 | 0 | 0 | 0 | \$0 |
| Capital Construction Subtotals | CCF | 7,053,179 | 6,000,000 | 20,000,000 | 0 | 0 | \$33,053,179 |
| | CF | 45,000 | 0 | 0 | 0 | 0 | \$45,000 |
| Controlled Maintenance Subtotals | CCF | 1,935,618 | <i>See OSA Annual Report.</i> | | | | \$1,935,618 |
| <i>Total: State Funds</i> | | <i>8,988,797</i> | <i>6,000,000</i> | <i>20,000,000</i> | <i>0</i> | <i>0</i> | <i>\$34,988,797</i> |
| Grand Total: All Fund Sources | | \$9,033,797 | \$6,000,000 | \$20,000,000 | \$0 | \$0 | \$35,033,797 |

Source: Department of Higher Education and Office of the State Architect