

# FY 2017-18 Level 2 Controlled Maintenance Projects

*Listed in Priority Order*

Project Title	Fund Source	Amount
<p>37                      2015-097</p> <p><b>University of Colorado Denver</b>  <i>Repair Elevators, Building 500</i></p> <p>The three-phase project makes repairs to and modernizes the seven elevators in Building 500 in order to address code compliance issues. The university employs an elevator contractor to perform preventative maintenance; the contractor has identified code deficiencies that need to be corrected. This year's request for Phase II addresses modernization and repairs to three elevators. Phase III will make similar updates and repairs to the remaining four elevators. Phase I addressed code deficiencies in all seven elevators.</p>	<p>CCF</p>	<p>\$396,988</p>
<p>38                      2018-047</p> <p><b>Human Services</b>  <i>Update Fire Detection and Monitoring Systems, Wheat Ridge Regional Center</i></p> <p>The project replaces or repairs the fire alarm systems and associated components in three buildings on the campus: the Sunada Learning Center, the Zier Building, and the Therapeutic Pool Building. The systems are over 30 years old, obsolete, and difficult to maintain.</p>	<p>CCF</p>	<p>\$1,853,562</p>
<p>39                      2018-064</p> <p><b>Pikes Peak Community College</b>  <i>Improve Fire Sprinkler and Alarm System, Downtown Studio Campus</i></p> <p>The project installs an automatic fire sprinkler system and upgrades the fire alarm system in the Downtown Studio Campus building. It also installs a new underground fire main that ties into the city-owned water supply line. The building does not have an automatic fire sprinkler system and has two separate fire alarm systems.</p>	<p>CCF</p>	<p>\$773,242</p>
<p>40                      2015-120</p> <p><b>Office of Information Technology</b>  <i>Replace Microwave Site Tower, Toonerville</i></p> <p>The project replaces the existing microwave tower located near Toonerville and installs a new tower structure, including foundations and guy anchors. A high percentage of the towers in the state's Public Safety Communications Network are more than 35 years old. An associated controlled maintenance project funded in FY 2014-15 replaced rectifying/charger units at 69 of the state's 138 radio transmitting sites.</p>	<p>CCF</p>	<p>\$576,496</p>
<p>41                      2018-048</p> <p><b>Colorado Northwestern Community College</b>  <i>Replace Roof, Johnson Building, Rangely Campus</i></p> <p>The project replaces the roof, adds tapered insulation, replaces the downspouts, and repairs other roof components. The roof was replaced in 1986 and is now failing. Complete failure of the roof would shut down critical academic offices, the main chiller and boiler plant, the cafeteria, and the main electrical panel in the building.</p>	<p>CCF</p>	<p>\$721,977</p>
<p>42                      2017-084</p> <p><b>Human Services</b>  <i>Replace Boiler Economizer, Central Plant, CMHIP</i></p> <p>The project replaces four boiler economizers and several filter bags associated with two coal-fired boilers at the Central Heat Plant on the campus. The existing economizers are beyond their useful life. Economizers are used in conjunction with steam boilers to cut down on operating costs and increase efficiency.</p>	<p>CCF</p>	<p>\$1,024,467</p>

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Project Title	Fund Source	Amount
43                      2018-049	CCF	\$484,284
<b>Fort Lewis College</b>		
<i>Replace Boiler, Whalen Gymnasium</i>		
The project replaces the existing natural gas boiler with two high efficiency condensing boilers, along with necessary pumps and associated heating water equipment. The boiler has exceeded its useful life and the college has difficulty obtaining parts and repairing equipment in a timely manner.		
44                      2018-050	CCF	\$339,146
<b>University of Northern Colorado</b>		
<i>Abate and Re-Insulate Frasier Tunnel System</i>		
The project abates asbestos-containing materials in the existing pipe insulation, cleans the floors and adjacent distribution systems, and installs new insulation in the tunnel system. The new insulation is necessary to improve the thermal performance of the steam and condensate piping systems.		
45                      2014-054	CCF	\$1,143,596
<b>Revenue</b>		
<i>Replace HVAC System, 1881 Pierce Street</i>		
The four-phase project replaces the HVAC system in the Pierce Street Building. Mechanical systems in the building have not been updated since its construction in 1972, and the four air handling units, south penthouse main fan, and variable air ventilation control system need to be replaced. The building is insufficiently cooled in the summer, hot and cold zones are found in the winter, and air distribution is poor. This year's request for Phase III completes repairs on the first floor.		
46                      2013-078	CCF	\$1,656,447
<b>Colorado Community Colleges — Lowry</b>		
<i>Install New Boilers, Chillers, and Air Handling Units and Upgrade Controls, Building 697</i>		
The project repairs or replaces chillers, boilers, controls, pumps, and air handling units in Building 697. The systems are old, unserviceable, or perform poorly. Replacement of this HVAC equipment will assure long-term viability of the facility in order to serve conferencing needs. Work on the project may require the temporary shutdown of the facility.		
47                      2015-152	CCF	\$319,132
<b>Lamar Community College</b>		
<i>Modernize Campus Walkway Lighting</i>		
The project replaces existing light fixtures with energy efficient light emitting diodes (LEDs) to provide safe walking conditions on campus at night. The existing metal halide fixtures are expensive to repair and operate.		
48                      2018-051	CCF	\$145,896
<b>Colorado State University</b>		
<i>Replace Roof above Auditorium, Engineering Building</i>		
The project replaces the roof above the auditorium in the Engineering Building with a fully adhered rubber roofing membrane. The existing roof does not have proper drainage, resulting in standing water and damaged insulation.		
49                      2013-072	CCF	\$428,824
<b>Colorado Mesa University</b>		
<i>Repair Roof, Wubben Hall</i>		
The project repairs a roof that experienced a large leak in December 2010. The leak damaged carpet, gypsum wallboard, and ceiling tiles on both floors of most of the east half of the building. The project removes the roof and replaces it with a built-up roof system with new flashing.		

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<p>50                      2017-096</p> <p><b>University of Colorado at Colorado Springs</b>  <i>Replace Roof and Rooftop Units, University Hall</i></p> <p>The four-phase project replaces 11 unreliable rooftop HVAC units and repairs the leaking roof on University Hall. Both project components require work as a result of normal life cycle deterioration. Fourteen rooftop units have already been replaced on the building. Each phase will address a section of the building's roof and replace the associated rooftop units.</p>	<p>CCF</p>	<p>\$1,073,000</p>
<p>51                      2015-087</p> <p><b>Corrections</b>  <i>Replace Roof, Sterling Correctional Facility</i></p> <p>The two-phase project replaces the rubber roofing system on three buildings. The facility has employed used tires and concrete blocks to maintain the integrity of the roofing system temporarily; however, the failing roof is at risk of damaging new equipment and essential program space used for managing high-custody-level offenders. This year's request for Phase II replaces the roof on the High Security Programs Building.</p>	<p>CCF</p>	<p>\$763,748</p>
<p>52                      2017-100</p> <p><b>Arapahoe Community College</b>  <i>Replace Roof, South Building</i></p> <p>The project replaces the roof, insulation, and flashing on the South Building, and creates proper drainage for the adjacent parking lot. Ponding on the roof's flat section has damaged its various components, resulting in office space leaks and indoor air quality concerns. Water pooling in the parking lot is causing potholes, vehicle issues, and water intrusion into the building.</p>	<p>CCF</p>	<p>\$982,468</p>
<p>54                      2018-052</p> <p><b>Human Services</b>  <i>Replace Fire Alarm and Upgrade HVAC Systems, Grand Mesa Youth Services Center</i></p> <p>The project replaces the fire alarm system and upgrades the HVAC system in the Developmental Center. The existing fire alarm system is more than 35 years old and does not function properly. The existing air handling rooftop unit is failing.</p>	<p>CCF</p>	<p>\$237,910</p>
<p>55                      2017-086</p> <p><b>Colorado State University</b>  <i>Replace/Repair Failing Walls, Pickett Center</i></p> <p>The two-phase project replaces and repairs failing brick walls at the B.W. Pickett Equine Center. Vertical cracking has been observed on several walls since 2000. The cracking has caused pieces of brick to fall on the ground and reinforcing bars to corrode. This year's request for Phase I addresses the west wall. Phase II will address the northwest wall.</p>	<p>CCF</p>	<p>\$999,448</p>
<p>56                      2015-100</p> <p><b>Colorado State Fair</b>  <i>Repair/Replace Water, Sanitary, and Storm Water Infrastructure</i></p> <p>The three-phase project repairs and replaces the water, sanitary sewer, and stormwater systems. It also replaces damaged asphalt to improve drainage. The existing systems are between 40 and 60 years old and mix their outflow, which violates code and is a health risk. Additionally, the water pressure on the fairground complex is inadequate. This year's request for Phase II installs four new storm drains and begins asphalt repairs.</p>	<p>CCF</p>	<p>\$1,180,895</p>

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57                      2018-053 <b>Western State Colorado University</b> <i>Replace Boiler, Borick and Kelley Halls</i> The project replaces the condensing boilers in Borick and Kelley Halls, which the university says are nearing the end of their predicted service lives. The university explains that the system's aluminum heat exchangers, a metal no longer in standard use for exchangers, react poorly with the region's hard water, increasing the likelihood of a system failure and reducing its useful life. Further, the system is not designed for the type of boilers currently in use.	CCF	\$400,711
58                      2017-087 <b>Trinidad State Junior College</b> <i>Improve HVAC System, Windows, and Indoor Air Quality, Berg Building</i> The project installs two new condensing boilers, a new chilled water distribution system, a new cooling tower, and an energy recovery system. It also installs new insulated windows. The building has no building-wide HVAC system and the windows are not energy efficient.	CCF	\$1,881,507
59                      2013-071 <b>University of Colorado at Boulder</b> <i>Upgrade HVAC, Electrical Engineering Center</i> The four-phase project replaces the HVAC system throughout the Electrical Engineering Center. The current air-handling system does not meet the cooling load and make-up air requirements, resulting in poor indoor air quality and noncompliance with current codes and regulations. This year's request for Phase I designs the project, installs two new air handlers, and installs associated infrastructure for sub-basement level 2 and portions of sub-basement level 1.	CCF	\$1,520,527
60                      2015-128 <b>University of Colorado Denver</b> <i>Upgrade Building 500 HVAC, VAV Distribution, and Zone Controls</i> The five-phase project makes improvements to the HVAC distribution system. The system performs poorly and often malfunctions, resulting in poor temperature control, inadequate airflow, maintenance failures, and energy inefficiency. The constant-volume equipment will be replaced with a variable-volume distribution system with hot water reheat and digital controls. Past controlled maintenance projects replaced or upgraded the building's air handling units. This year's request for Phase I upgrades the HVAC system on the north side of the fourth floor and the west side of the first floor.	CCF	\$803,166
61                      2018-054 <b>Colorado State University</b> <i>Replace Roof, Glover Building</i> The project replaces the roof with a multi-layered, built-up roofing system; replaces and supplements insulation; and repairs drainage problems to stop leaking and meet code requirements. The roof has been patched multiple times and is beyond repair. Roof leaks have damaged laboratory equipment and insulation and require building occupants to stop or temporarily suspend research activities. In addition, the central telecommunications switch gear located in the building cannot be relocated without significant cost.	CCF	\$827,626
62                      2018-055 <b>Public Health and Environment</b> <i>Replace Roof, Laboratory Building</i> The two-phase project replaces the roof, repairs the roof deck, and replaces damaged insulation. Leaks over critical equipment are forcing the delay of testing required to support state and local agencies. The department has coated the roof to address the leaks and extend the roof's life, but the coating is deteriorating and leak sources are difficult to identify. This year's request for Phase I replaces about 60 percent of the roof, including portions covering laboratory areas.	CCF	\$1,017,268

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Project Title	Fund Source	Amount
63                      2016-075	CCF	\$740,300
<b>Public Safety</b>		
<i>Repairs/Upgrades to Mechanical and Electrical Systems, Three Troop Offices</i>		
<p>The project upgrades or replaces mechanical and electrical system equipment in three field troop offices used by the Colorado State Patrol in Adams County, Fruita, and Golden. The buildings are structurally sound, but the mechanical systems have reached the end of their useful life. The project also replaces light fixtures in the buildings with more efficient, occupant-sensor lighting.</p>		
64                      2016-068	CCF	\$777,251
<b>Pikes Peak Community College</b>		
<i>Repair Exterior Walkways, Aspen Building, Centennial Campus</i>		
<p>The project replaces 700 linear-feet of concrete over a walkway between the Aspen and Breckenridge Buildings. Falling stucco on the underside of the walkway presents a safety hazard to pedestrians. The roofing is failing as a result of water infiltration. The project replaces the concrete with the proper slope and drains.</p>		
65                      2017-037	CCF FF	\$271,210 \$271,210
<b>Military and Veterans Affairs</b>		
<i>Mitigate Site Flooding Risk and Repair Building Envelope, Watkins Armory</i>		
<p>The two-phase project makes drainage and paving improvements to the site and makes repairs to the building envelope and interior finishes. The department says expansive soils under the building have caused the building slab and walls to move. Heavy rainstorms have caused site flooding, and existing asphalt paving has deteriorated allowing water to penetrate below the pavement. This year's request for Phase II addresses the building envelope and associated interior repairs.</p>		
66                      2015-143	CCF	\$356,420
<b>Education</b>		
<i>Replace Steam Line, North Side, Colorado School for the Deaf and the Blind</i>		
<p>The two-phase project replaces sections of the steam distribution system's piping on the campus. The expansion valves for the piping, which act as a safety feature, are not functioning properly, placing a strain on pipes and valves. Corrosion has thinned the pipe walls, resulting in leaks, and sediment build-up has constricted steam flow to about a third of its normal flow. Each phase replaces a discrete section of piping on the campus.</p>		
67                      2016-111	CCF	\$991,928
<b>Colorado State University</b>		
<i>Replace Electrical Service, Foothills Campus, Xcel Substation to West Meter Point</i>		
<p>The project replaces existing overhead power lines serving the Regional Biocontainment Laboratory with a redundant electrical feed. The existing lines are unreliable, are nearing capacity, and may fail in weather-related events. Further, the hazardous nature of the research conducted at the laboratory requires redundancy in the electrical feed. The university notes that there have been instances of existing poles collapsing and causing ground fires.</p>		
68                      2018-056	CCF	\$937,268
<b>University of Northern Colorado</b>		
<i>Replace Pool AHU, Butler Hancock</i>		
<p>The project replaces the air handling unit (AHU) serving the pool. The pool's humid environment is causing rusting and failure in the unit. The replacement AHU will be suitable for a pool environment, and will be moved from the ceiling above the pool to the building's roof. This relocation will require roof reinforcement and installation of new infrastructure, but will improve access to the AHU for maintenance purposes, thus prolonging the life of the new unit.</p>		

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69                      2016-080	CCF	\$495,128
<b>Colorado Mesa University</b>		
<i>Repair Roof, Building B, Western Colorado Community College</i>		
<p>The project repairs the roof on Building B. The existing roof is the original roof installed when the building was constructed about 25 years ago. The roof is no longer under warranty and is beginning to fail in numerous locations. During a recent rain storm, a severe leak occurred above a lab, pouring water into light fixtures and electrical equipment.</p>		
70                      2016-070	CCF	\$1,150,785
<b>Human Services</b>		
<i>Repair/Replace Emergency and Secondary Electrical Systems, Colorado Mental Health Institute at Pueblo</i>		
<p>The three-phase project addresses the inadequate and outdated primary and emergency electrical distribution systems. The repairs address both overhead and underground power distribution. Primary power distribution is provided by a substation that has some of the oldest equipment in the city of Pueblo. This year's request for Phase I upgrades and completes the 13.2 kV loop on the north side of campus, and completes service upgrades to eight buildings.</p>		
71                      2013-079	CCF	\$1,634,156
<b>Personnel and Administration</b>		
<i>Repair Main Chilled Water Loop, Downtown Capitol Complex</i>		
<p>The two-phase project repairs the main chilled water distribution system in the Capitol Complex tunnel system. The loop was installed in the 1960s and was last repaired in the 1990s; the piping is deteriorating, the controls are failing, and, with the installation of the new geexchange system, the loop needs to be commissioned. This year's request for Phase I replaces the chiller and updates necessary components.</p>		
72                      2014-070	CCF	\$333,251
<b>Colorado School of Mines</b>		
<i>Repair Campus Steam Branch</i>		
<p>The three-phase project replaces existing steam pipe sections that provide heat to classrooms, laboratories, offices, residence halls, and the campus dining facility. The steam pipes are more than 55 years old and beyond their useful life. This year's request for Phase II replaces steam pipes near Stratton Hall. Phase I, funded in FY 2014-15, replaced steam pipes that are older than the lines serving Guggenheim Hall near the campus dining facility; Phase III will replace steam pipes near the student recreation facility.</p>		
73                      2012-064	CCF	\$890,450
<b>Colorado State University — Pueblo</b>		
<i>Install Campus Security System</i>		
<p>The three-phase project provides controlled access to all General Fund-supported campus buildings, and video surveillance for all General Fund-supported buildings, open spaces, and parking lots, including surveillance of building entrances and corridors. The campus has experienced numerous break-ins and thefts as a result of aging door and lock hardware coupled with lack of surveillance. This year's request for Phase III installs a campus video surveillance system and completes the installation of the electronic door access system.</p>		
74                      2018-057	CCF	\$248,740
<b>University of Colorado at Colorado Springs</b>		
<i>Replace Generator, Columbine Hall</i>		
<p>The project replaces the emergency generator and transfer switches with a larger generator capable of backing up all of the building's functions. The current generator, which is experiencing performance and reliability issues due to normal life-cycle deterioration, only backs up certain functions in the building, not including the back-up data center for the main campus.</p>		

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75                      2018-058	CCF	\$122,980
<b>Public Health and Environment</b>		
<i>Upgrade/Replace Fire Alarm System, Argo Water Treatment Facility</i>		
<p>The project replaces the fire alarm system in the facility that treats water discharged from the Argo Tunnel into Clear Creek. The project also repairs door hardware, air handling units, the fire alarm notification system, and elevator components in the facility. The fire alarm system has had several malfunctions in recent years. The department says a shut-down of the facility would interrupt water treatment, leading to serious environmental impacts to downstream water users.</p>		
76                      2015-135	CCF	\$929,653
<b>University of Colorado at Boulder</b>		
<i>Upgrade Electrical Service, Science Learning Lab Building</i>		
<p>The project upgrades the electrical unit in the Science Learning Lab Building by replacing the switchgear and relocating the electrical panel boards. The unit is operating at capacity, not code compliant, and past its useful life. Also, parts are no longer available for repairs.</p>		
77                      2018-059	CCF	\$698,639
<b>Morgan Community College</b>		
<i>Repair/Replace Damaged Sidewalks, Stairs, and ADA Ramps</i>		
<p>The project repairs or replaces various sidewalks, stairways, and ADA accessibility ramps throughout campus to reduce hazards for pedestrians. Two stairways leading to Aspen Hall are failing, while two ADA ramps accessing the building require replacement due to undermining and ice melt damage. Sidewalks around campus are settling, cracking, and failing, creating trip hazards.</p>		
78                      2018-060	CCF	\$1,421,242
<b>Corrections</b>		
<i>Replace Roofs, Limon Correctional Facility</i>		
<p>The three-phase project replaces failing roofs on numerous buildings throughout the facility. The existing roofs require extensive maintenance and continuously leak, causing property damage and disruption of operations and programs. The project is phased based on level of maintenance and service disruptions. This year's request for Phase I replaces the roofs on Administration, Recreation, and Central Plant.</p>		
79                      2014-079	CCF	\$389,950
<b>Revenue</b>		
<i>Rehabilitate Elevators, 1881 Pierce Street Building</i>		
<p>The project rehabilitates elevators to meet current (2010) ADA code. The Pierce Street Building elevators are over 30 years old and have not received major repairs or renovations since that time. If the elevator sized for wheelchairs stops working, there will be no wheelchair access between floors.</p>		
80                      2018-061	CCF	\$648,340
<b>Colorado State University — Pueblo</b>		
<i>Upgrades to Campus Fire Systems</i>		
<p>The two-phase project replaces the main campus fire alarm panel and 18 associated building panels throughout campus. The university says the system is nearing the end of its useful life and showing signs of deterioration and unreliability. This year's request for Phase I replaces the main fire alarm panel and five building panels. Phase II will replace the remaining 13 building fire alarm panels.</p>		

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Project Title	Fund Source	Amount
81                      2017-085  <b>Military and Veterans Affairs</b> <i>Repair Envelopes, ACM Remediation, and Fire Detection, Longmont Readiness Center</i>  The project corrects critical envelope failures, upgrades systems, and removes asbestos-containing materials and lead paint to address code issues, improve environmental comfort, mitigate safety concerns, and conserve energy. The building has received few upgrades since its construction in 1954. System upgrades will include minor HVAC upgrades, installation of a fire detection system, and addressing furnace issues.	CCF FF	\$366,940 \$366,940
82                      2018-062  <b>Front Range Community College</b> <i>Replace MZU and Ductwork and Add Controls, East Wing, Westminster Campus</i>  The project replaces the 40-year-old, multi-zone unit (MZU) HVAC system on the 12,930-GSF east wing of the main Westminster building. The east wing HVAC system does not have automated integration with the rest of the building's system, requiring manual operation. The system's ground-level outdoor air intake positioning results in indoor air contamination. The project increases the number of temperature zones in the east wing from 8 to 24, and right-sizes air distribution ducts.	CCF	\$687,704
83                      2015-156  <b>Pueblo Community College</b> <i>Install Heat Exchanger, Medical Technologies Building</i>  The project installs a heat exchanger and bypass valves system in the building similar to those installed in other campus buildings. The building is connected to the main campus heating loop, but does not have a building-specific heat exchanger or bypass piping. As a result, any failures in the building's heating system cause degradation in, or loss of, the entire campus heating loop. Once the project is complete, issues with the building's heating system will not affect the rest of the campus.	CCF	\$374,782
84                      2013-077  <b>Colorado Community Colleges — Lowry</b> <i>Replace Roof, Building 697</i>  The project replaces the roof on Building 697. The roof is over 30 years old and no longer serviceable. The project replaces the roofing system, upgrades insulation, installs new flashings, and seals masonry wall joints, which will improve energy efficiency and curtail water infiltration. If the roof is not replaced, the college says the building, or portions of it, could become un-usable.	CCF	\$305,495

<b>Total Request Amount</b>	<b>\$36,963,093</b>
CCF	36,324,943
FF	638,150