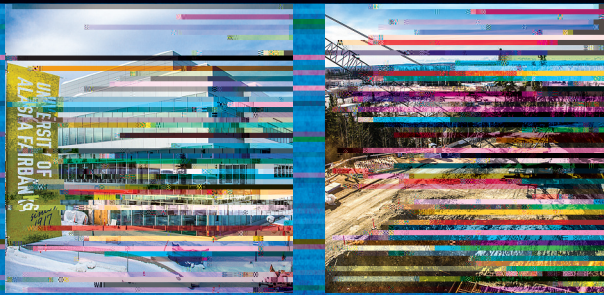


# FY15 Capital Budget Request Summary & Narrative



August 2013

UNIVERSITY



## CAPITAL CONSTRUCTION REQUESTS

	State Appropriation	Receipt Authority	Total
<b>Renewal &amp; Renovation, Code, ADA</b>	23,370.0	-	23,370.0
<b>R&amp;R, Code, ADA Total</b>	<b>\$ 23,370.0</b>	<b>\$ -</b>	<b>\$ 23,370.0</b>
<b>New Construction</b>			
Engineering Facility	33,300.0	10,000.0	43,300.0
Cogen Heating and Power Plant Boiler and Turbine Replacement	200,000.0	45,000.0	245,000.0
Housing Receipt Authority	-	65,000.0	65,000.0
<b>New Construction Total</b>	<b>\$ 233,300.0</b>	<b>\$ 120,000.0</b>	<b>\$ 353,300.0</b>
<b>Planning for New Construction</b>			
UFD Emergency Services and Management Facility Replacement	700.0	-	700.0
Community & Technical College Emergency Services Training Center	900.0	-	900.0
Parking Garage	350.0	-	350.0
CRCD-Kuskokwim Campus Consortium Learning Center	700.0	-	700.0
<b>Planning for New Construction Total</b>	<b>\$ 2,650.0</b>	<b>\$ -</b>	<b>\$ 2,650.0</b>
<b>Land, Property, and Facilities Acquisition</b>			
Bunnell House Replacement	250.0	-	250.0
Northwest Campus Realignment	150.0	-	150.0
<b>Land, Property, and Facilities Acquisition Total</b>	<b>\$ 400.0</b>	<b>\$ -</b>	<b>\$ 400.0</b>

## CAPITAL RESEARCH

	State Appropriation	Receipt Authority	Total
<b>Enhancing Competitive Research and the Benefits of Research as an Industry in Alaska</b>			



## UAF FY15 Capital Budget Request Narratives

### RENEWAL & RENOVATION (R&R), CODE, ADA

UAF's R&R request represents a proportional share of the expected \$37.5M UA system R&R request. The list of items below represents several high priority R&R, Code and ADA items and an estimated amount for allocation in FY15. These items are a small fraction of all UAF R&R and DM needs. Events and circumstances may require reprioritizing and/or increasing or decreasing specific projects and allocation amounts.

#### Cogen Heating Plant Required Upgrades to Maintain Service and Code Corrections (Ph3)

(GF \$1,000.0)

The UAF combined heat and power plant is a co-generation facility that provides electrical power, domestic and firefighting water, and steam for heating buildings. The plant is over almost 50 years old and many components have exceeded their useful life. This project will address revitalization of the highest priority deficiencies of utilities on the UAF Main Campus. The heating plant renewal items will include the steam and electrical system and water system. The items were identified in the 2006 Utility Development Plan as needing immediate action. Avoiding a major utility failure is the primary objective of this project.

#### Critical Electrical Distribution

(GF \$3,500.0)

The existing electrical distribution system at UAF is nearly 50 years old. With the completion of several new facilities, the antiquated equipment could be stretched beyond its capabilities and begin to fail. To ensure campus power is not shutdown, major upgrades must be made to replace the ancient switchboard and cabling to bring the campus distribution back into code compliance. This is a multi-phase project and \$32.9M has already been appropriated in past years (2005-2014). Additional funding is necessary to complete the upgrade.

#### Fairbanks Campus Main Waste Line Repairs

(GF \$2,000.0)

Planning is still on going on the sanitary systems and UAF has developed a priority list of repairs. Essentially, 90% of the sanitary mains and building branch lines have failed or are failing. Earlier phased work has replaced the most critical failed sections including the main trunk off campus to the utility, and failed lines are several existing facilities. This funding will address the next group of projects in the prioritized list developed by engineering consultants in 2011.



## Fairbanks Main Campus Wide Roof Replacement





## Student Services Renewal - Wood Center Student Union

(GF \$2,000.0)

The Wood Center has the advantages of a central campus location, the draw of food service, and very high levels of pedestrian traffic. Despite these advantages, Wood Center does not function as a “campus center” that attracts students in the evenings or on weekends or whenever they have spare time during the day. While there are areas within the building that are “destinations” for students, including the Pub and the bowling alley, the building as a whole is not a draw for students, even those who live on campus. Renewal work in the Wood Center will include renovation of existing spaces to allocate room for the consolidation of programs serving UAF students.

## Kuskokwim Campus Facility Critical Deferred & Voc-Tech Renewal Phase 2

(GF \$970.0)

Current maintenance and repair funding levels are not sufficient to meet the critical maintenance needs at the rural campuses. Funding will allow for continued major

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the existing building and the successful existing UAF engineering program. The proposed solution is to selectively upgrade portions of the existing building. Portions of the existing building that currently adequately house their programs will remain in their current configuration. Some of these spaces are not ideal; but they do provide an effective learning and/or research environment. The new UAF Engineering Facility design provides an efficient solution to the space and functional deficits recognized in the existing Duckering Building.

The new facility will support the University of Alaska Fairbanks in its role to graduate more engineering students. The new facility creates an environment that enhances interaction among the students, professors and researchers. The modern building improves indoor environment and building systems and student success and retention are enhanced through a visible and interactive learning environment (engineering on display), day lighting of common, learning, and research spaces, improved air quality, student interaction and learning spaces in common areas and integrated engineering research and instruction.

### **Cogen Heating and Power Plant Boiler and Turbine Replacement**

(GF \$200,000.0, NGF \$45,000.0, Total \$245,000.0)

The Atkinson Heat and Power Plant provides electricity, heating and cooling for about 3 million square feet of academic, research, office and housing space at the University of Alaska Fairbanks. The plant's two main boilers were installed in 1964 and are nearing the end of their 50-year useful life. A failure of these boilers (either gradual or catastrophic) is a substantial risk to the University's mission and finances. The boilers are identified as the most significant risk to UAF in the Risk Management Plan submitted to the Board of Regents.

With that looming, a wide variety of options were evaluated by consultants (both engineering and environmental) and UAF. The best solution was a new 17-megawatt combined heat and power plant, anchored by circulating fluidized bed (CFB) boilers. CFB's are flexible solid fuel boilers that allow us to augment our coal use with up to 15 percent biomass or other solid fuels. This new plant will produce cleaner air for our community than the current facility and is the cornerstone of a strong and diverse energy portfolio for the next 50 years.

This project will provide a flexible heat and power solution, reduced emissions and lower fuel costs, and will allow the university to use its financial resources for a long-term solution rather than temporary fixes on an aging plant that uses 1890's technology.

### **Housing Receipt Authority**

(NGF \$65,000.0)

As part of the Student Life: Transforming the UAF Experience project, UAF proposes to provide new student housing units through a public private partnership arrangement. The housing will be the first phase in a plan to increase the quality and quantity of housing stock. The project will provide beds in dormitory buildings either







front of this facility. Half would be a library expansion and the remaining half would be for a gift shop, offices, and conference room. This expansion would promote the university consortium collection.

## **LAND, PROPERTY, AND FACILITIES ACQUISITION**

### **Bunnell House Replacement**

(GF \$250.0)

The Early Childhood Education (ECE) program requires more functional space in order to meet accreditation requirements and to continue to offer the high-quality education and service provided by the program. UAF is in discussions on a land swap to acquire an existing building near campus which is larger and well suited to be the new home of the ECE program. UAF land to be traded is on the south side of Geist Road, and abuts the Parks Highway.

### **Northwest Campus Realignment**

(GF \$150.0)

The Northwest campus was designed and constructed to provide adult basic education (ABE) and offer introductory college on campus course work in small traditional classrooms of 5-25 students taught byc/0t2(n)4T/P <</Mt2(n)4T/P <(ic)10(es)-1(A)4(( H)8 12 P)11(i



During the pilot phase, UAF researchers visited communities, listened to community priorities, offered suggestions for ways that UAF expertise might address some of these priorities, and established collaborative connections between community leaders and appropriate UAF research groups to guide and implement solutions. For



scratch. With the infrastructure in place, it becomes possible to communicate this information across the State in a timely manner. This investment will, for the first time, provide sustained comprehensive earthquake monitoring across Alaska.

### **Arctic Oil Spill Response through a Science Technology Center**

(GF \$1,000.0, NGF \$2,000.0, Total \$3,000.0)

One of the areas of highest interest and potential for new development in oil production is in the Alaskan Arctic offshore where it is estimated there are more than 23 billion barrels of technically recoverable oil exist. Exploration and development of these resources are dependent on public trust in the capacity to prevent, respond to and mitigate the effects of an offshore arctic oil spill. The danger of oil spills - whether from exploration, production, ship traffic, or land-based activities - can best be mitigated by thoroughly informed decisions based on integrated, multi-dimensional knowledge of the operations and the total environment, including the people. In terms of risk mitigation, prevention is always the first priority.

This funding will support research and educational programs developed at UAF through an Arctic Center for Oil Spill Research and Education (A-CORE). Funds will build the infrastructure required to partner effectively with



## ACADEMIC EQUIPMENT & TECHNOLOGY

eLearning Technology  
(GF \$1,488.0)



