

AHFC Cold Climate Housing Research Center (CCHRC)**FY2017 Request:****\$1,000,000****Reference No:****6351****AP/AL:** Appropriation**Project Type:** Energy**Category:** Development**Location:** Statewide**House District:** Statewide (HD 1-40)**Impact House District:** Statewide (HD 1-40)**Contact:** Les Campbell**Estimated Project Dates:** 07/01/2016 - 06/30/2021**Contact Phone:** (907)330-8356**Brief Summary and Statement of Need:**

This project provides funding for a designated grant to the Cold Climate Housing Research Center (CCHRC) to conduct housing construction research, analysis, and information dissemination among the housing industry and the public. Data gathering and analysis of energy efficiency technology for homes constructed in northern building and market conditions is being continually performed.

Funding:	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	Total
1139 AHFC Div	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$6,000,000
Total:	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$6,000,000

☐ State Match Required
 ☐ One-Time Project
 ☐ Phased - new
 ☐ Phased - underway
☒ On-Going
 0% = Minimum State Match % Required
☐ Amendment
☐ Mental Health Bill

Operating & Maintenance Costs:

	<u>Amount</u>	<u>Staff</u>
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	0
Totals:	0	0

Prior Funding History / Additional Information:

Sec1 Ch38 SLA2015 P6 L14 SB26 \$500,000
 Sec25 Ch38 SLA2015 P39 L17 SB26 \$250,000
 Sec1 Ch18 SLA2014 P61 L27 SB119 \$750,000
 Sec1 Ch16 SLA2013 P76 L28 SB18 \$750,000
 Sec1 Ch17 SLA2012 P130 L17 SB160 \$1,000,000
 Sec1 Ch5 SLA2011 P98 L11 SB46 \$1,000,000
 Sec7 Ch43 SLA2010 P34 L11 SB230 \$1,000,000
 Sec1 Ch15 SLA2009 P19 L28 SB75 \$1,000,000
 Sec13 Ch29 SLA2008 P156 L17 SB221 \$1,000,000

Project Description/Justification:**The projected outcomes are:**

- Conducting research, analysis, information dissemination and interchange among members of the industry, and between the industry and the public
- Gathering data and performing geographically diverse analysis of energy-efficient designs for homes
- Monitoring homes for energy usage, comfort levels, durability, occupant health, and economic benefits of efficiency features

This program funds monitoring and testing of energy efficiency designs, products, and construction technology tests in areas of Alaska where little is being done. Considering the diverse building conditions and requirements across the state, the home building industry has indicated they would like to see research and testing of energy efficiency designs in different regions of the state.

Energy Efficiency (EE) in Alaska is an energy resource. The Alaska Housing Finance Corporation (AHFC) is required by state law to purchase homes that meet minimum energy efficiency standards. The State of Alaska and AHFC have established and funded incentive programs for increased energy efficiency in homes and public facilities. CCHRC is an integral partner with AHFC to help maximize this resource and determine best EE practices, techniques and materials (including determining the effectiveness of certain energy efficiency designs across Alaska's climate regions and researching promising technologies for the future). Funds will be used to conduct research, analysis, and implementation.

Activities should have a high level of effectiveness and success based on following:

Programs and projects will be results-oriented.

Home building is a practical activity. Monitoring research and analysis should seek workable answers to real problems and real ways to improve homes across Alaska. Future trends and developing technologies need to be considered, with an emphasis on the impact that such trends and technologies will have on the way the homes are actually built.

Contact with the real world of home building needs to exist by having some ties to the state home building industry.

In addition to AHFC, local home building associations exist in Anchorage, the Kenai Peninsula, Ketchikan, Juneau, Interior Alaska, Mat-Su, and Kodiak. These associations could provide a grassroots network of cooperating builders. When research is launched, builders would be expected to provide direction on specific questions, technologies, designs, and to cooperate in studies and field tests.

Research and analysis flow directly into the building industry and the public.

Monitoring results would be expected to help link the research and product development communities with the practitioners who put methods into practice and products into use. The involvement of the building industry is intended to increase builder's confidence in the findings. All results and analyses would be publicized and disseminated throughout the housing industry, creating a favorable climate for the adoption of desirable change.

CCHRC's Cold Climate Building Infrastructure Research and Testing Facility (RTF) is located in Fairbanks, Alaska. CCHRC is a 501c(3) corporation founded by members of the Alaskan homebuilding industry. The RTF is a research and testing facility which is, in itself, a set of research and demonstration projects with over 600 sensors monitoring each component in the building from the foundation to the roof. Project deliverables include: ongoing web-based performance reports, final report, PowerPoint presentation, and information and recommendations on renewable energy systems, passive refrigeration, masonry heating systems, EE software development, and associated databases, biomass heating systems, EE standards, rural housing and community design.

