

Promoting and advancing the development of healthy, durable, and sustainable shelter for Alaskans and other circumpolar people.



Research • Innovation • Education



Cold Climate Housing Research Center

CCHRC

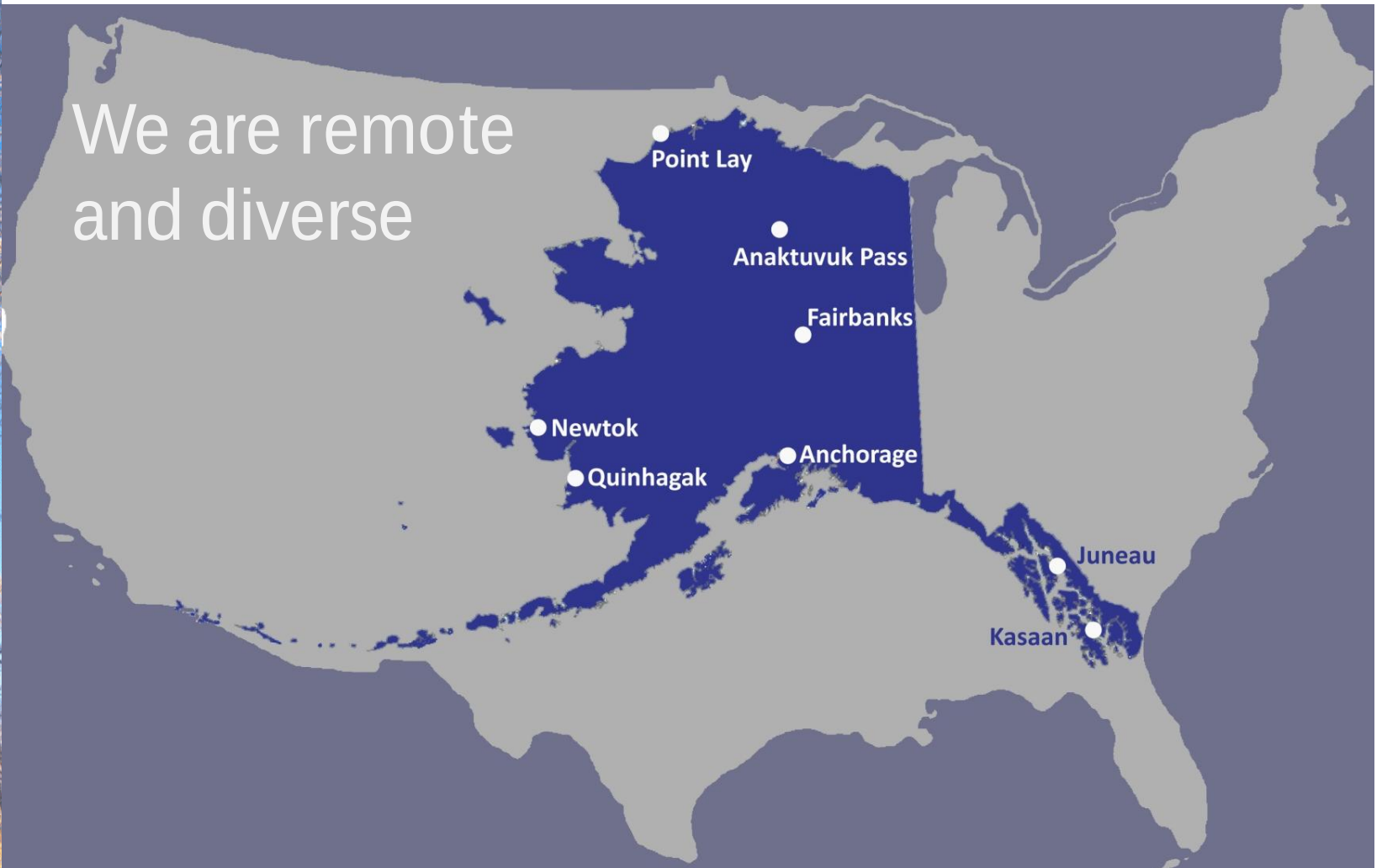


CCHRC

COLD CLIMATE HOUSING
RESEARCH CENTER



We are remote
and diverse





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RESEARCH CENTER



It's hard to get to work





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It's hard work





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Alaska is a Place of Problem Solvers





COLD CLIMATE HOUSING
RESEARCH CENTER



HOW DOES CCHRC SOLVE PROBLEMS?

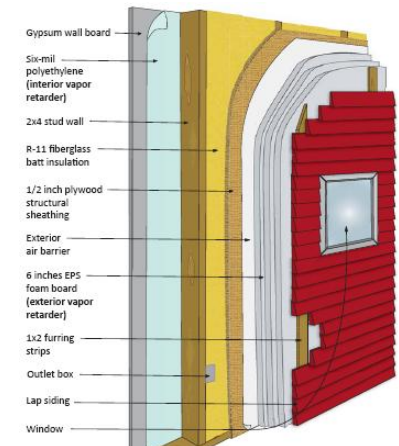
Understand the problem



Gather Information

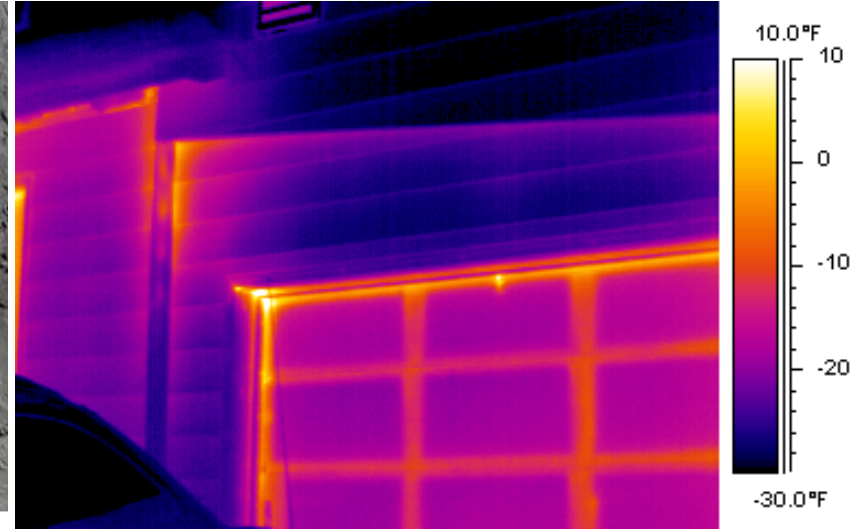


Identify Solutions



HOW DOES CCHRC SOLVE PROBLEMS?

Understand the Problem



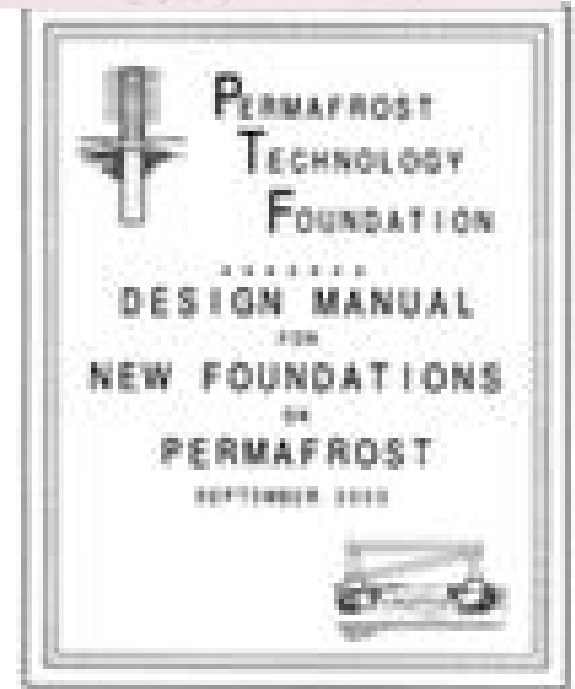
HOW DOES CCHRC SOLVE PROBLEMS?

Understand the Problem



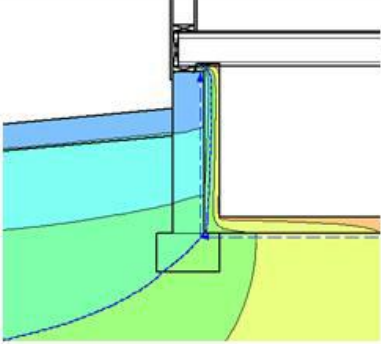
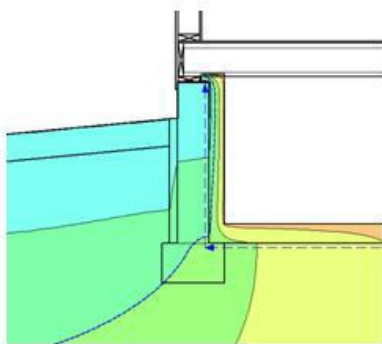
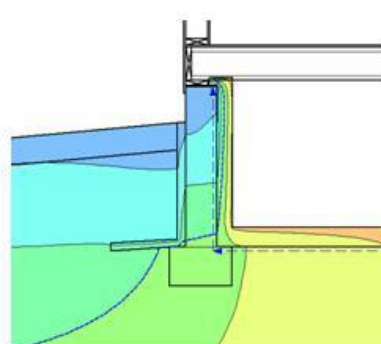
HOW DOES CCHRC SOLVE PROBLEMS?

Gather Information



HOW DOES CCHRC SOLVE PROBLEMS?

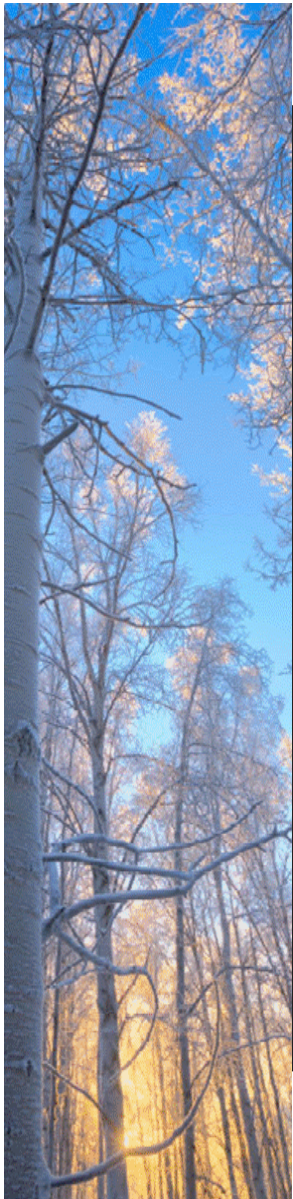
Gather Information

	Scenario A	Scenario C	Scenario D
age, AK ture: 36.5°F MC⁽¹⁾ avel Soil, 8% MC⁽¹⁾ all,			
	No Exterior Insulation	Vertical Exterior Insulation (2" XPS R-10 Foam Board)	Vertical Exterior Insulation with Horizontal Wing (2" XPS R-10 Foam Board, 48" Total Length)

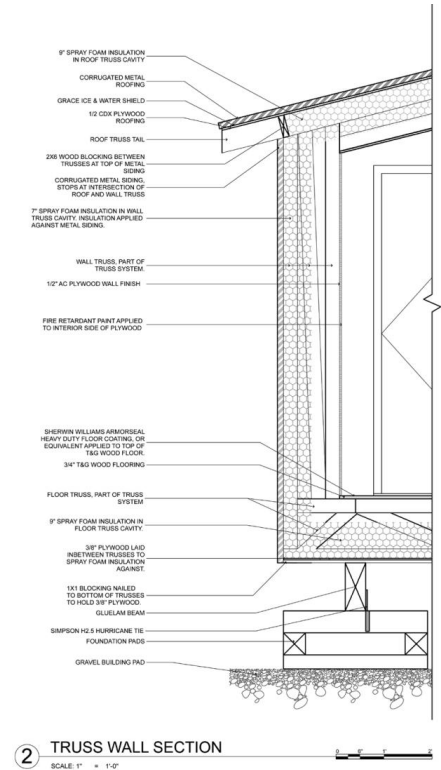
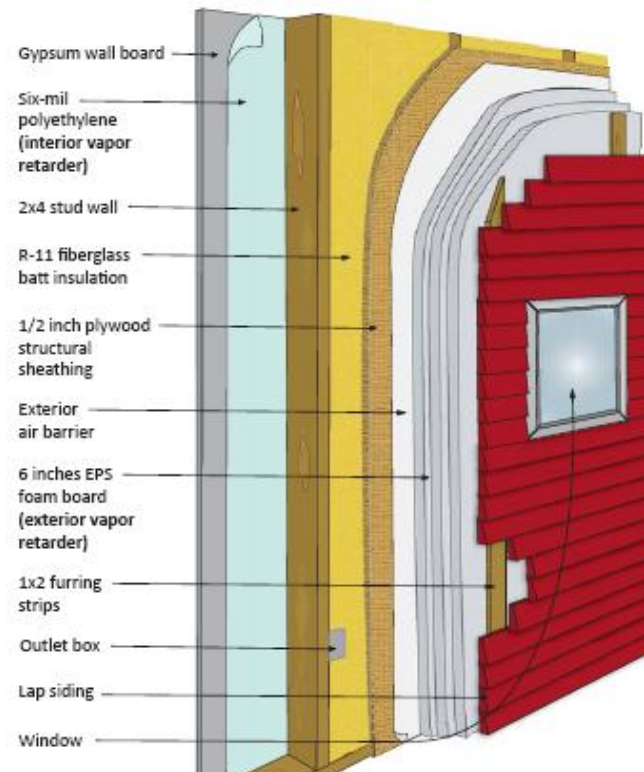


HOW DOES CCHRC SOLVE PROBLEMS?

Identify Solutions

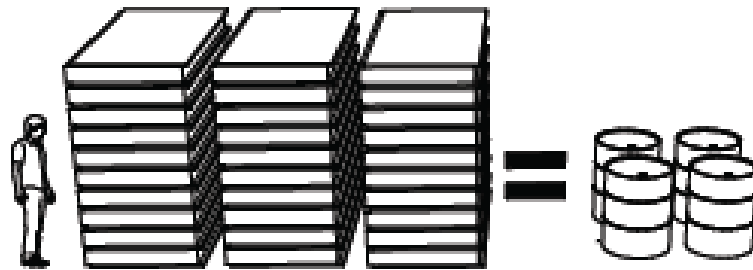


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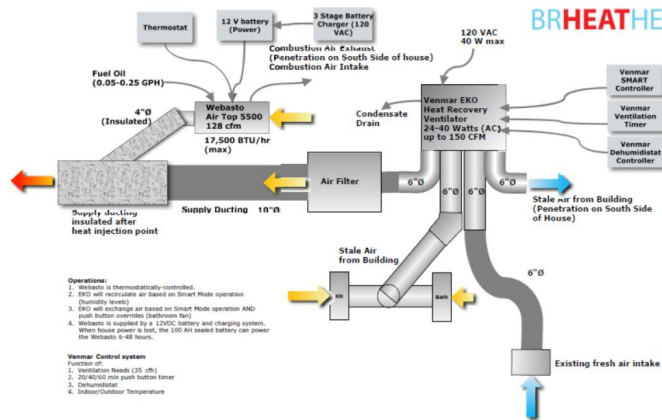
HOW DOES CCHRC SOLVE PROBLEMS?

Identify Solutions



HOW DOES CCHRC SOLVE PROBLEMS?

Identify Solutions

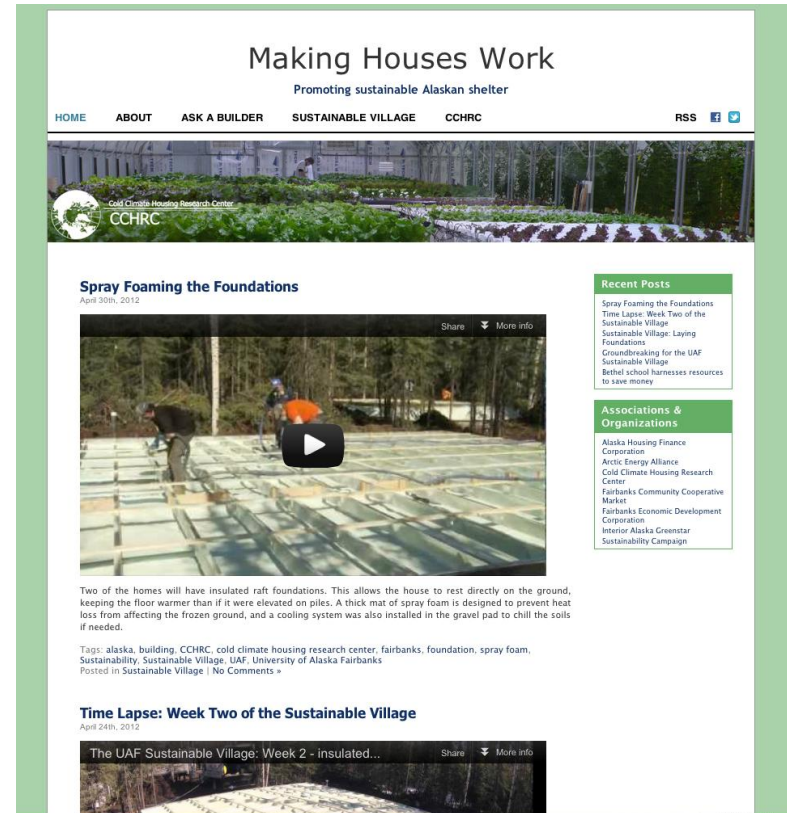


HOW ARE SOLUTIONS APPLIED?

Communicate with End Users

+50,000 Hits/yr

+20,000 Hits/yr



HOW ARE SOLUTIONS APPLIED?

Communicate with End Users

+20,000 Hits/yr



WALLS

ABOUT USCONTACTCCHRC

ShareMore info

0:00

YouTube

GENERAL INFO

Walls typically represent the largest exterior surface area of a home. As a result, from an energy stand point, the wall system is a major component of the building envelope, particularly in extreme cold climates. When it comes to improving thermal performance, there are many ways to construct a wall, and the details of sealing, sheathing and insulating are even more numerous.

There are many factors that must be taken into account when designing or choosing a wall system: Energy efficiency, cost, resistance to the elements, availability of materials, and the climate in which the wall is expected to perform, are all important considerations.

PODCASTS

- exterior insulation
- walls

VIDEOS

- your northern home: walls
- REMOTE part 1
- REMOTE part 2

PRESENTATIONS

- straw bale housing
- case study: REMOTE retrofit

ARTICLES

- how does mold affect my walls
- what are the different types of insulation
- what are some green insulations
- insulating doors in log homes
- mold prevention
- how does vapor drive work?
- how do vapor barriers and house wraps work

REPORTS

- exterior insulation retrofits Part 1
- exterior insulation retrofits Part 2
- REMOTE walls
- REMOTE manual

LINKS

- REMOTE walls

TOPICS

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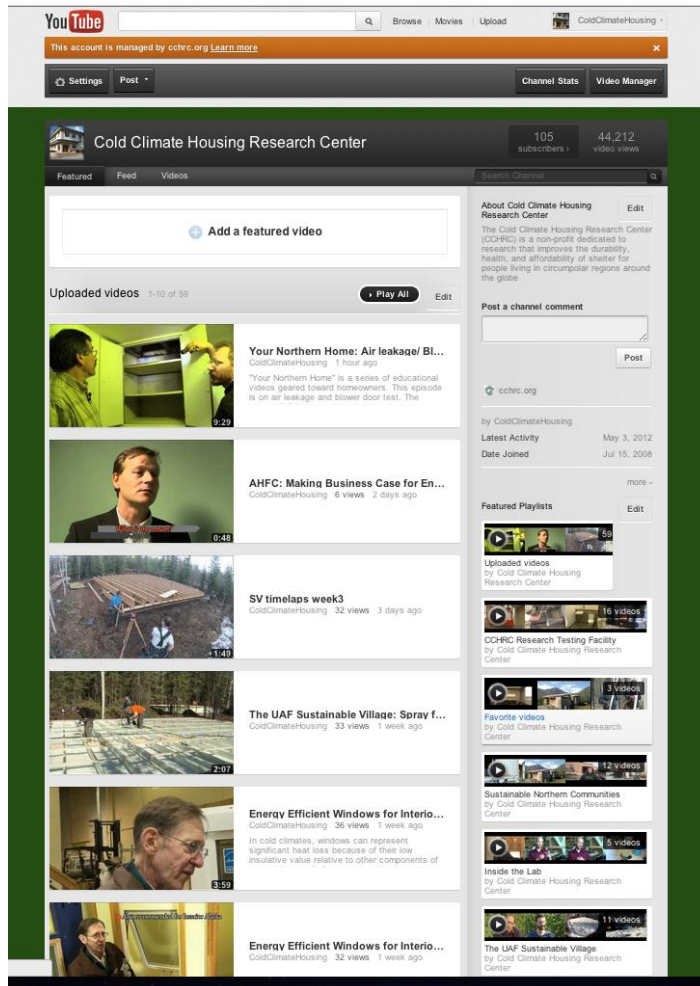
HOME



HOW ARE SOLUTIONS APPLIED?

Communicate with End Users

+200,000 Views



2,000 Tour Attendees
2,000 Consultations
50+ Classes



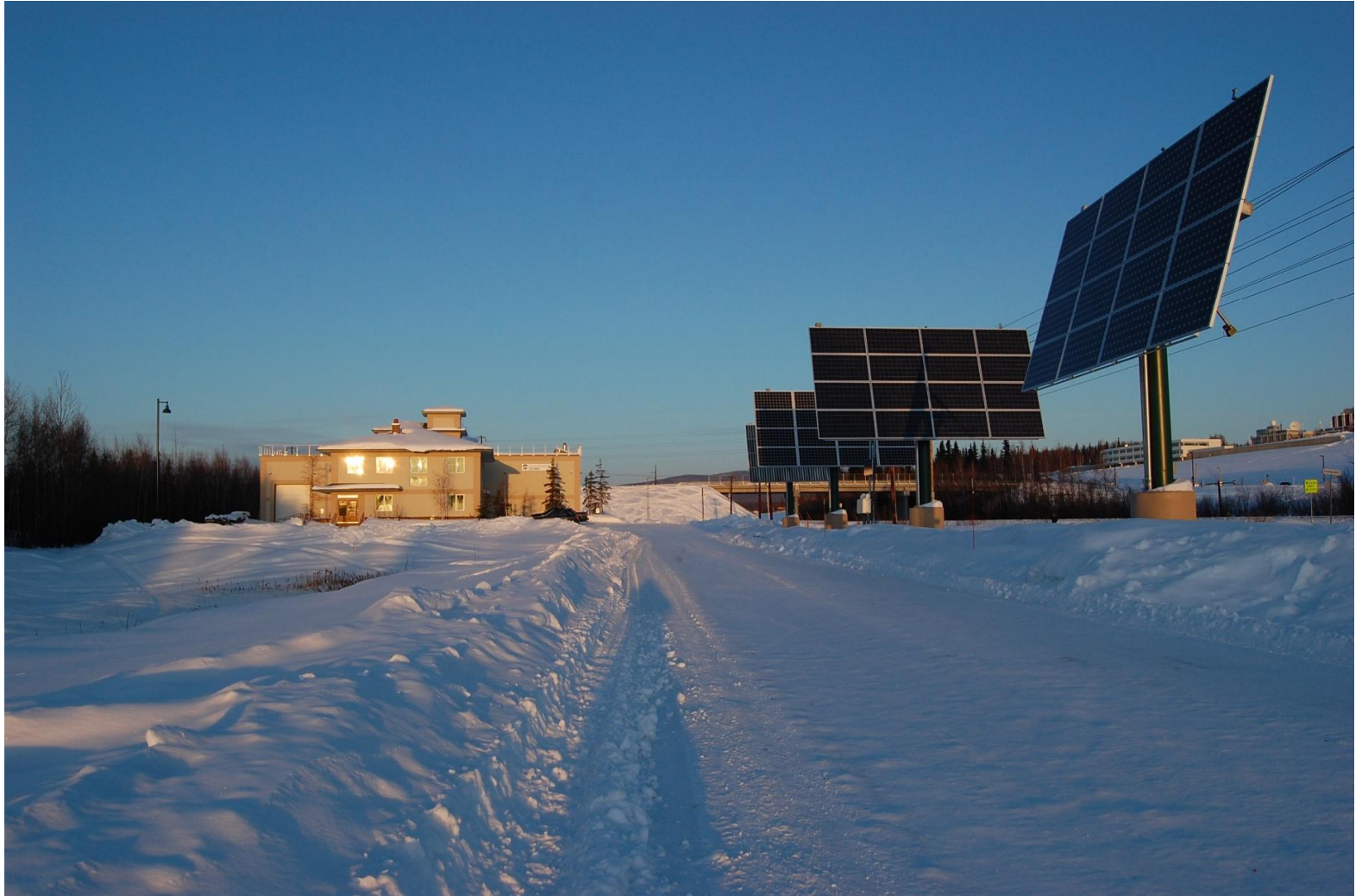
HOW ARE SOLUTIONS APPLIED?

Demonstration



HOW ARE SOLUTIONS APPLIED?

Demonstration



HOW DO WE SOLVE PROBLEMS?



Understand the problem

High Energy Costs in Some Public Facilities
Budget Deficit
Long-term Burden on State

Gather Information

Benchmark
Investment Grade Audits
White Paper on Public Facilities

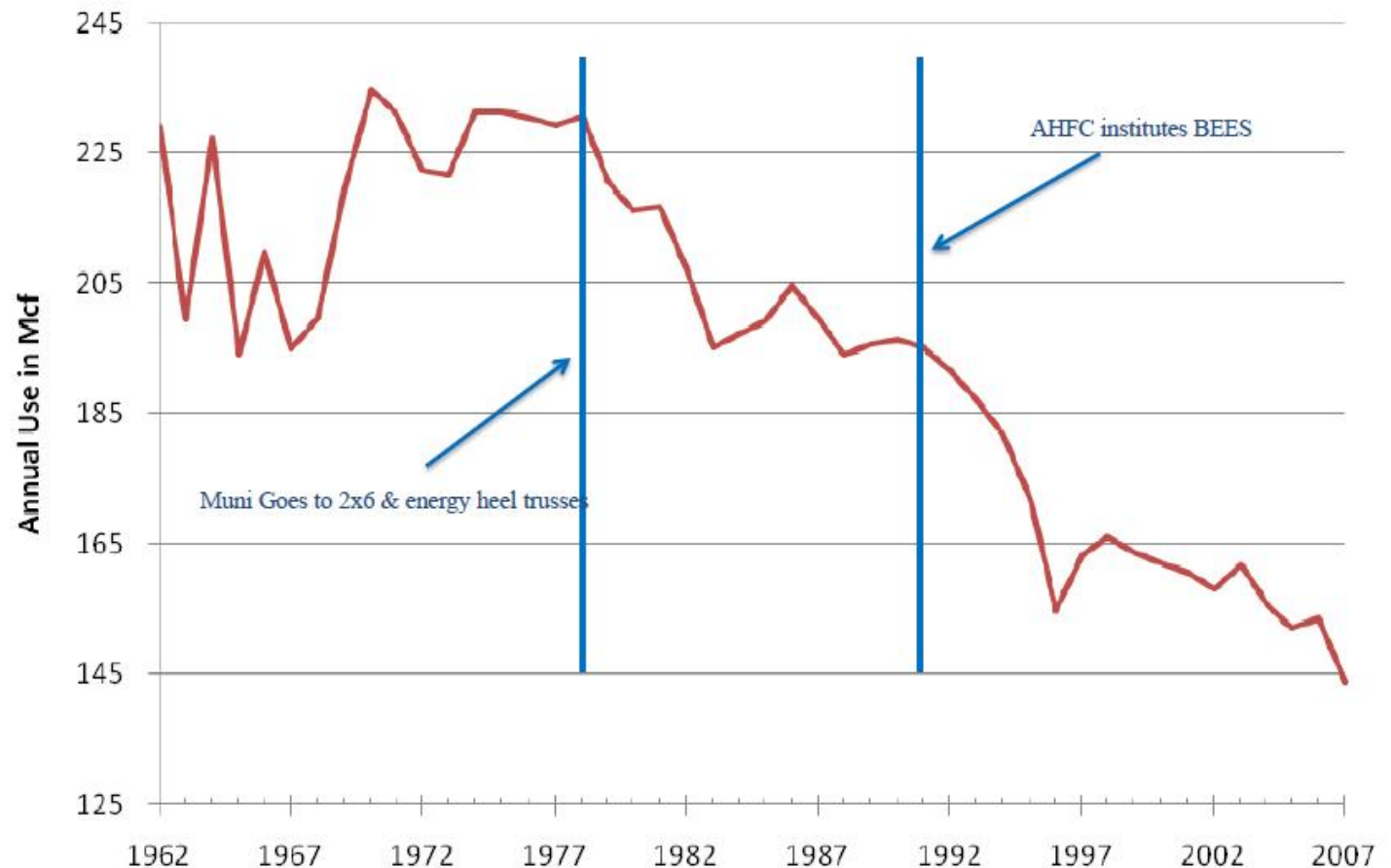
Identify Solutions

REAL
Standards
Multi-stakeholder collaborations

HOW ARE SOLUTIONS APPLIED?

Through Standards: Example from the Housing Industry

Chart 3 - 2008 Residential Customer Average Annual Usage By Year Service Was Initiated

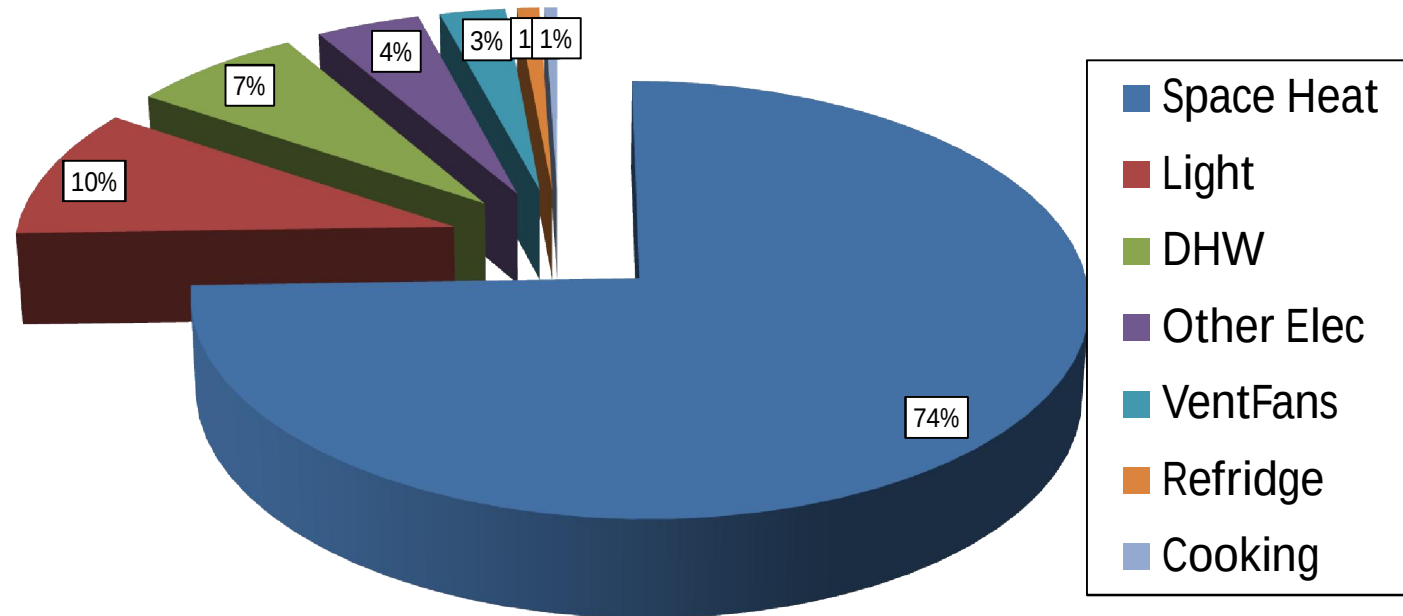


HOW DO WE SOLVE PROBLEMS?

Gather Information



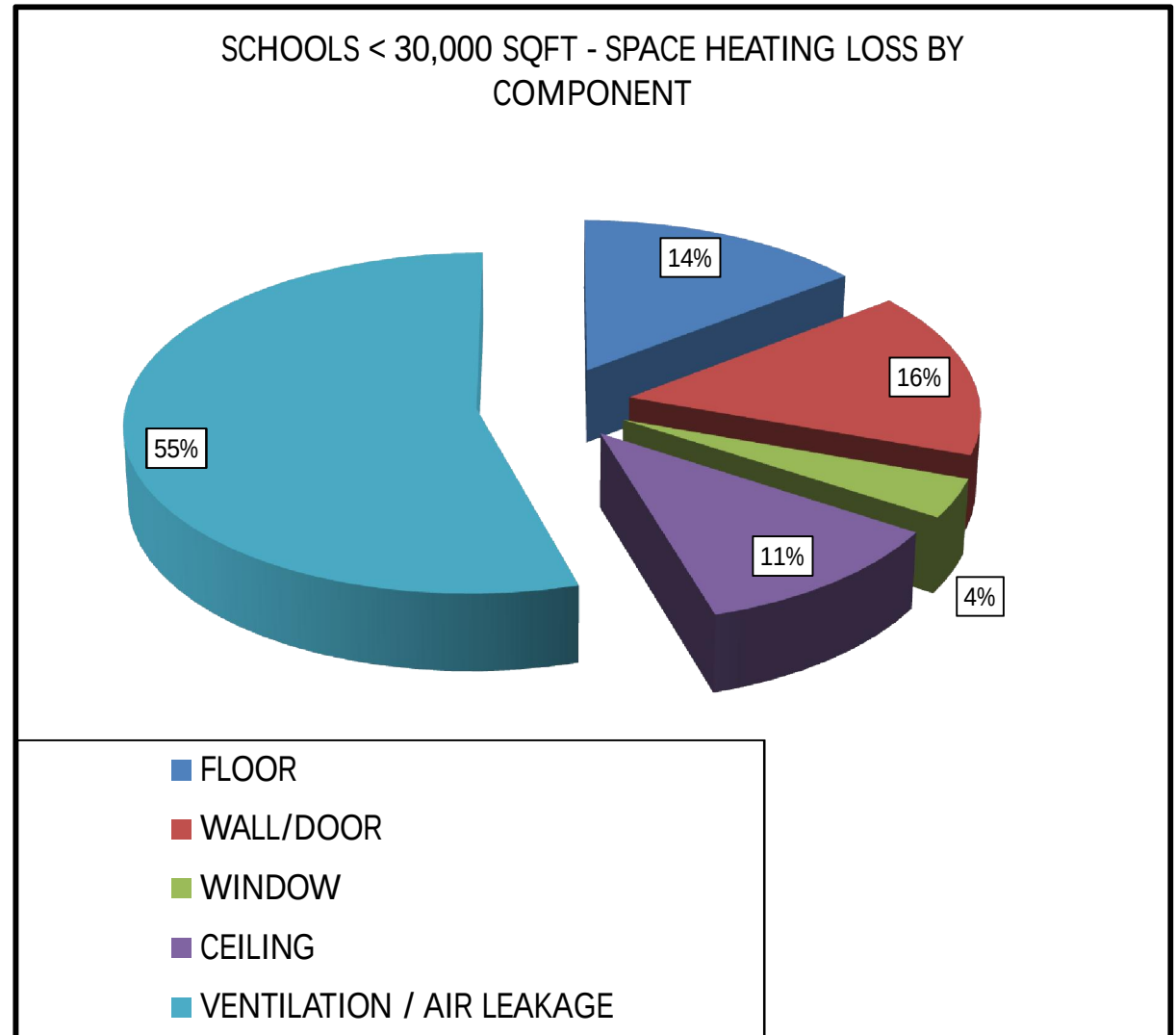
Energy End-Use for Public Schools in Alaska



HOW DO WE SOLVE PROBLEMS?

Gather Information

Source of Heat Loss in Public Schools

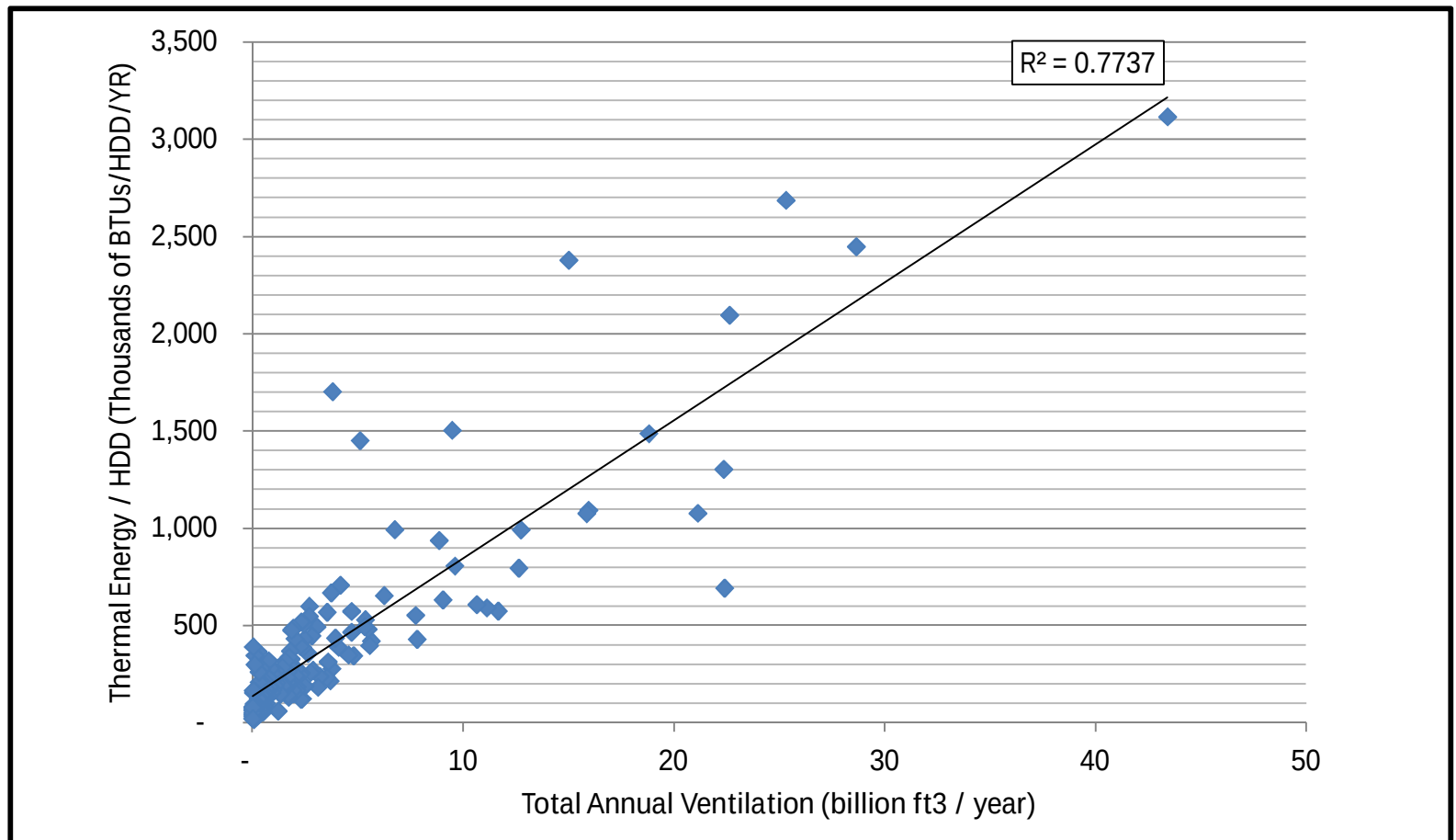


HOW DO WE SOLVE PROBLEMS?

Gather Information



Ventilation is a Key Driver of Energy Use



Promoting and advancing the development of
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