THE unseen VALUE of AIR SEALING

Terry Nordbye
Air Sealing Solutions
Why make a building air tight?
“Approximately 30% to 50% of space conditioning energy consumption in buildings is (lost) due to air leakage through the building enclosure”

John Straub- Buildingscience.com
“In a 2013 California study of a code-compliant single-family house: Of all the (19) upgrade measures available, air sealing was the #1 most effective upgrade.”

Graham Irwin - Essential Habitat

“Dollar for dollar air-sealing generally will produce a more noticeable improvement in comfort and a higher Return-On-Investment than any other upgrade you could make.”

Home performance Services
Dept Of Energy Air Leakage Guide
“A tight house will:”

✓ Have lower heating bills due to less heat loss
✓ Have fewer drafts and be more comfortable
✓ Reduce the chance of mold and rot because moisture is less likely to enter and become trapped in cavities
✓ Have a better performing ventilation system
✓ Potentially require smaller heating and cooling equipment capacity
HOW AIR GETS IN or out

The anatomy of air leakage
Stack effect

No slack on the Stack Jack

Attic

Crawlspace
The four absolutes of air sealing

- Flexibility
- Adhesion
- Longevity

Access
the five decrees of successful air sealing

The road to success is paved with leaks
#1

ALLOCATION

Money talk has to be part of the bidding conversation
#2 Plan ahead

Sit down with architect and builder and plan out air sealing strategies
On the plans

1/2" FELT EXPANSION JOINT

THICKEN EDGES TO 8" MIN.
WIDE x 8" MIN. DEEP W/ (1) #4 CONT. AT BOTTOM

1/2" FELT EXPANSION JOINT

TAPE SEAL PLY SEAM

TAPE SEAL PLY TO FOOTING

GASKET

DOUBLE GASKET SEAL UNDER BOTT PLATE

STEM WALL, FOOTING AND REINF. PER DETAIL

AT HIGH STEM WALL CONDITION

GARAGE SLAB AT INTERIOR STEM WALL
Informed crew
• There should ONE designated Air Sealing Person on the job who oversees all the trades

• Nothing should be covered up until the Specialist has inspected it.

• The Air Sealing Specialist is responsible for all the holes
Can I make my house too tight?
Won’t it grow mold?
It needs to breath!

Attend my air sealing class through PG&E
to find out more
http://usi.pge.com
References for more information

https://buildingscience.com/document-search

http://www.cpuc.ca.gov/ZNE/

www.greenbuildingadvisor.com

passivehousecal.org

Free

PG&E Energy Education Classes

http://usi.pge.com