

San Leandro: Doin' it for Themselves

A DIY Energy Efficiency Program
San Leandro, California



Behavior, Energy, and Climate Change Conference
Sacramento, California
November 19, 2013

San Leandro DIY Energy Efficiency Program

Sally Barros, Principal Planner

Keith Weiner, Supervising Building Inspector

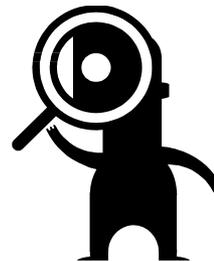
- How, What, Why and Where



- A 5-Minute Mini-Class



- Some Perspectives



- The DIY Class
- Base-Line and Post-Project Assessments
- up to \$400 Incentive, if Building Envelope Tighter by 15%

Does the money you spend on heating go right out the window?



Come to the City of San Leandro's Home Energy Efficiency Class and find out!

Learn how to save money and make your home more comfortable.

San Leandro residents that take the class get a *free* in home evaluation. We'll show you exactly where you can make the biggest bang for your buck!

The evaluation consists of a pressurization test that dramatically shows exactly where your house is leaking. We'll also use our infrared camera to find cold spots and missing insulation and pressure test your heating system for leaks!



The in-home evaluation is included in the cost of the class*

*Similar testing can cost \$200-\$500!

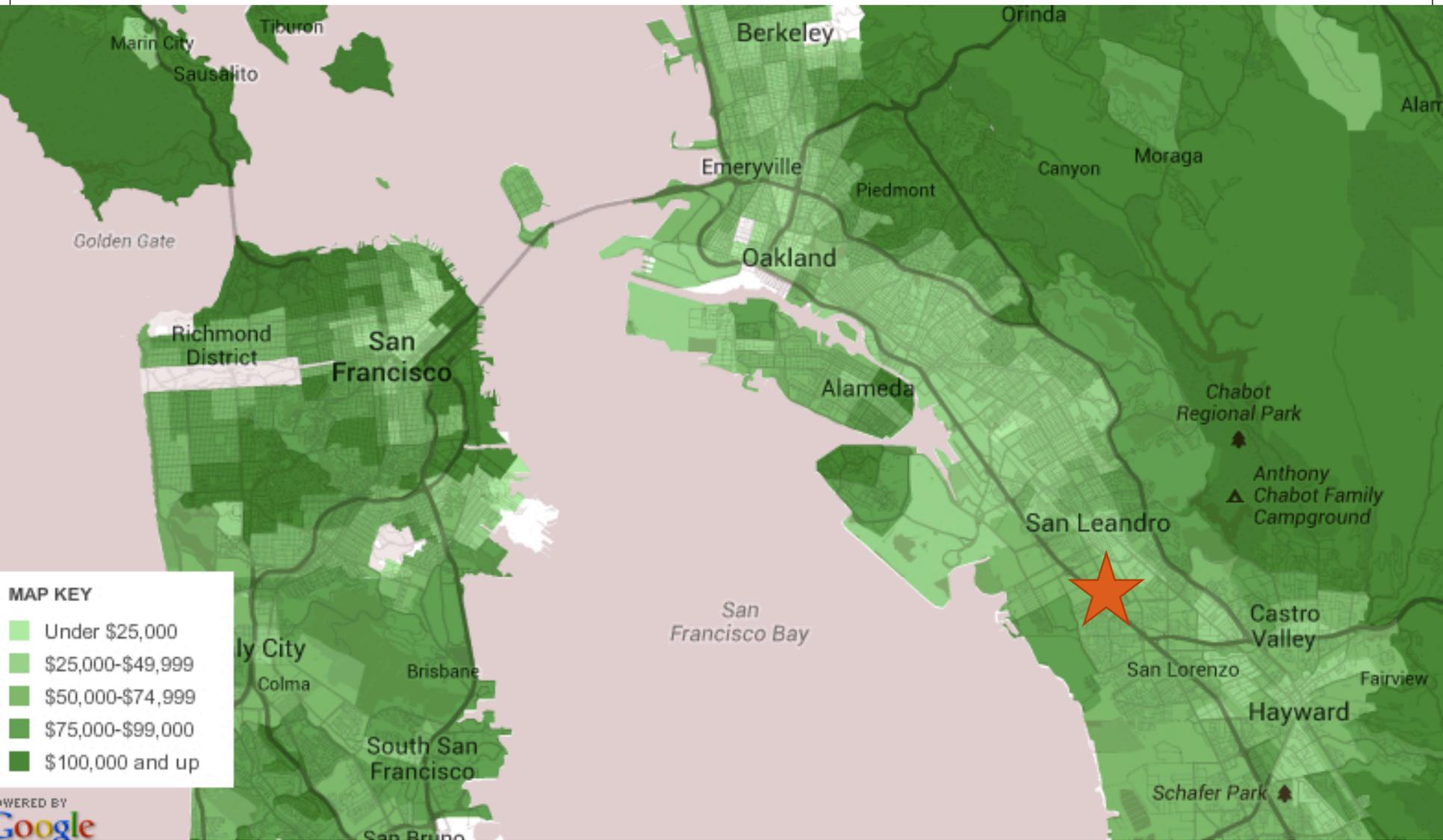
Test is for San Leandro residents only.

The next class is on January 26th at 6:30 pm in the Sister Cities Gallery at City Hall.

Cost: \$20 for San Leandro households and \$30 for non-residents.

Call Lyzanne Alfonso @ (510) 577-3405 to register or with questions.

How is Behavior involved?



Know Your Audience!

How is Behavior involved?

- **Evening** classes and home assessments
- **Building inspectors** as outreach leads
- **Enthusiasm!**

Know Your Staff!



The Fight for Dollars



- ARRA funds (EECBG) - \$732,000
- Preference of projects versus programs

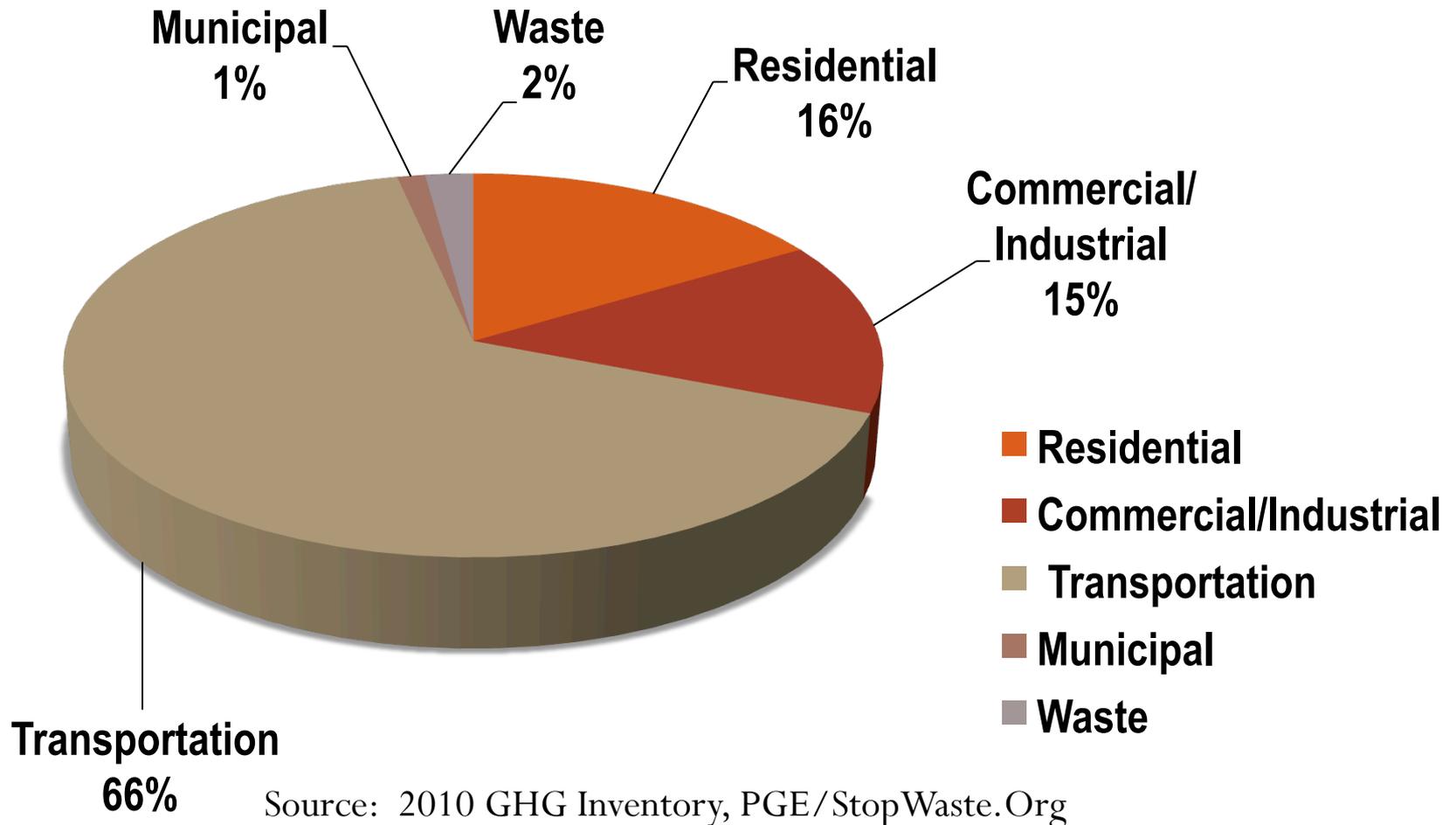
Projects

- LED streetlights
- Building systems
- Traffic Signal Efficiency

Programs

- DIY Class
- Energy Upgrade CA
- CA Youth Energy Svcs
- Rebates

The Numbers Win!



Community programs received \$267,000

DIY Expenses

- **\$100,000** for DIY Program funded



HERS Training **15%**



Equipment **10%**



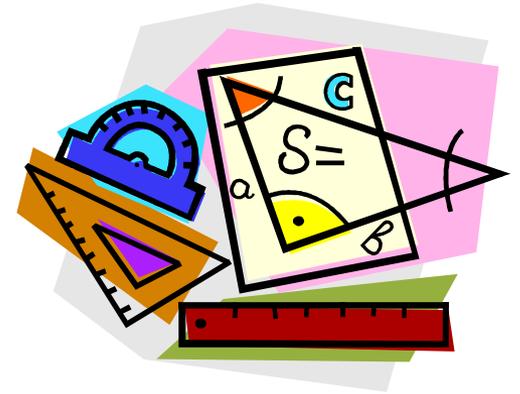
Class Materials **5%**



Staff Salaries **70%**

(authorized OVERTIME!!!)

The Class



- Two-hour evening classes
- Mock-ups for window sealing and duct sealing
- Free samples of foam and caulking

A Great Place to Start



Energy Star generously allowed public use of all of their website materials asking only that their website is referenced as the source.

A DO-IT-YOURSELF GUIDE TO SEALING
AND INSULATING WITH ENERGY STAR®
SEALING AIR LEAKS AND ADDING ATTIC INSULATION



Benefits of Energy Efficient Homes

- Less expensive
- Smaller carbon footprint
- Comfortable
- Increased value

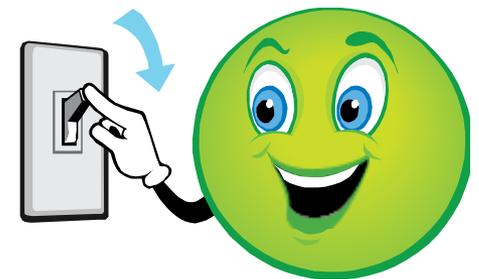


Small Improvements Make a Big Difference

Changing Incandescent to CFL or LED



Turning them off, even better!



Now What?



- Prioritize projects
- Start with “low hanging fruit”
- Replace appliances *only when they need to be replaced.*
- Maintain what you have!

The Home Energy Analyzer



Hi [User] | [logout](#)

[Home](#) [Discover](#) [Profile](#)

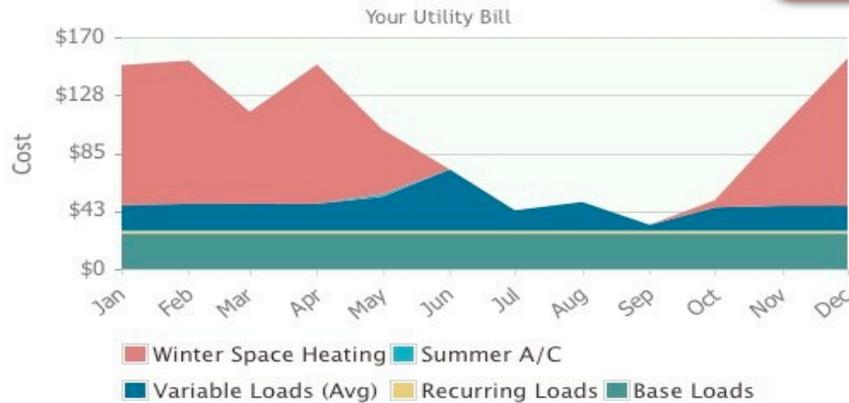
Resource Use: **Household Energy** ([Electricity Only](#) or [Natural Gas Only](#)) | [Water](#) | [GHG](#)

Show **Cost** | [Use](#)

Use Type: **All Loads** [?](#)

High Heating Load

Your annual utility bill **\$1,110**



Base Load = 120 Watts

You: **\$1,110**

California: **\$1,172**

Mountain View: **\$1,112**

Discovery

[View History](#) **0 recommendations** reclaiming **\$0.00** a year

Remaining Topics

EUMV Program Selector

Completed Topics

- User Profile
- Home Profile
- EUMV Initial Group Assignment
- Household Energy Profile

LOCATING AIR LEAKS

More than any other time of year, you notice your home's air leaks in the winter. Most people call these air leaks "drafts." You may feel these drafts around windows and doors and think these leaks are your major source of wasted energy. In most homes, however, the most significant air leaks are hidden in the attic and basement. These are the leaks that significantly raise your energy bill and make your house uncomfortable. In cold weather, warm air rises in your house, just like it does in a chimney. This air, which you have paid to heat, is just wasted as it rises up into your attic and sucks cold air in all around your home—around windows, doors, and through holes into the basement. The illustrations on Page 1.3 and 3.1 show warm air leaving (red arrows) the house through the attic and cold air being pulled into the house (blue arrows). Locating these leaks can be difficult because they are often hidden under your insulation. This guide will help you find these leaks and seal them with appropriate materials.

Even if you have enough insulation in your attic, sealing attic air leaks will enhance the performance of your insulation and make for a much more comfortable home.

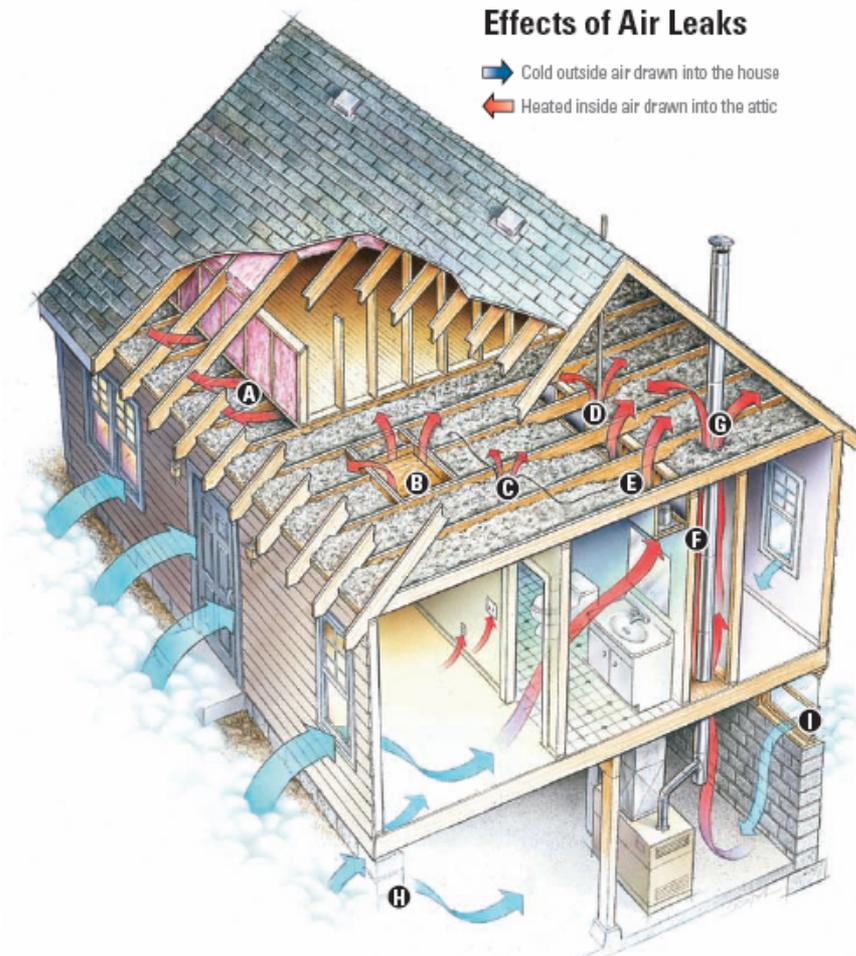
If you are not familiar with some of the terms in this guide, check our glossary inside the back cover.

Common Household Air Leaks

- A** Behind Kneewalls
- B** Attic Hatch
- C** Wiring Holes
- D** Plumbing Vent
- E** Open Soffit (the box that hides recessed lights)
- F** Recessed Light
- G** Furnace Flue or Duct Chaseways (the hollow box or wall feature that hides ducts)
- H** Basement Rim Joists (where the foundation meets the wood framing)
- I** Windows and Doors

Effects of Air Leaks

-  Cold outside air drawn into the house
-  Heated inside air drawn into the attic



Call a Contractor...if:



After the Class

- ❑ Blower Door Test
- ❑ Thermal Imaging
- ❑ Duct Blaster Test



Homeowner and Building Inspectors together conduct energy audits to establish baselines and pinpoint leaks

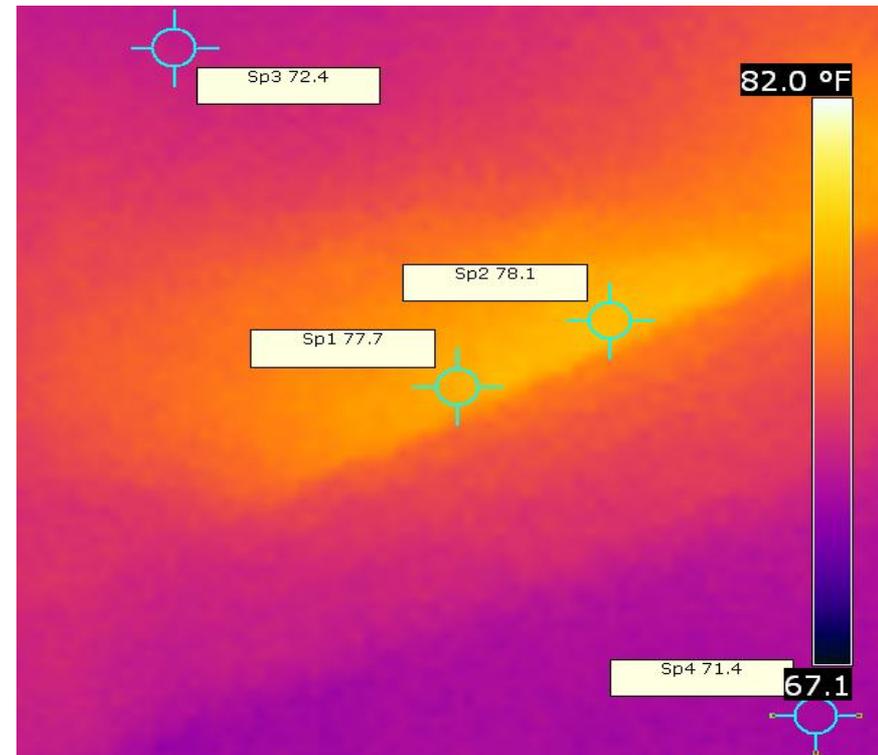
The Home Visit



Blower Door Test



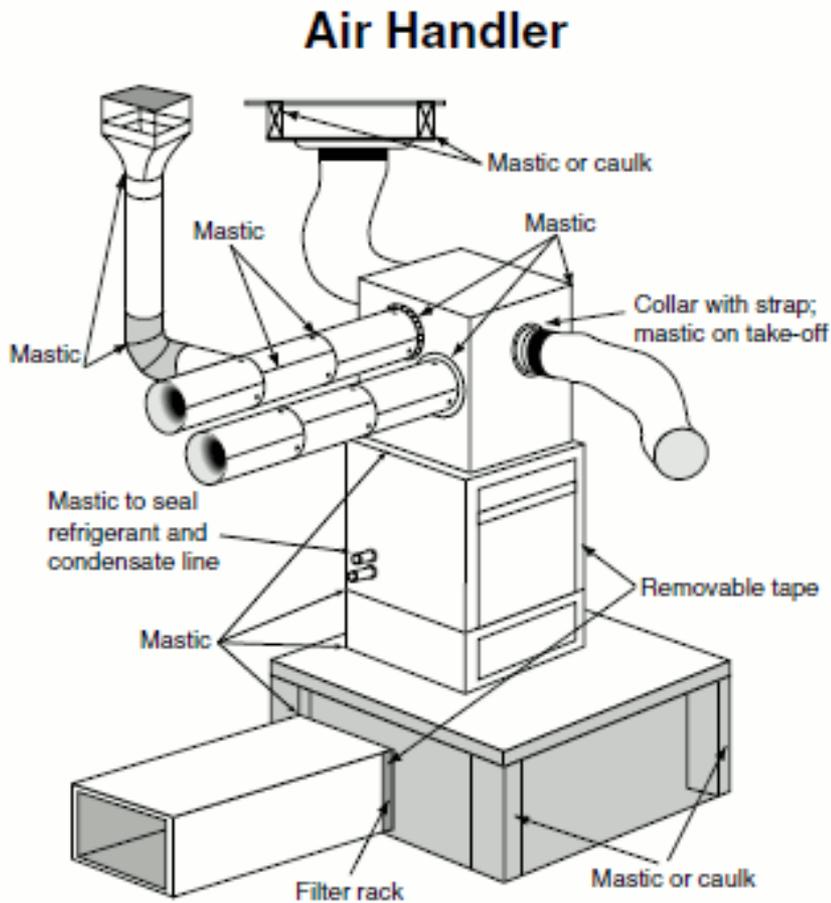
Thermal Imaging



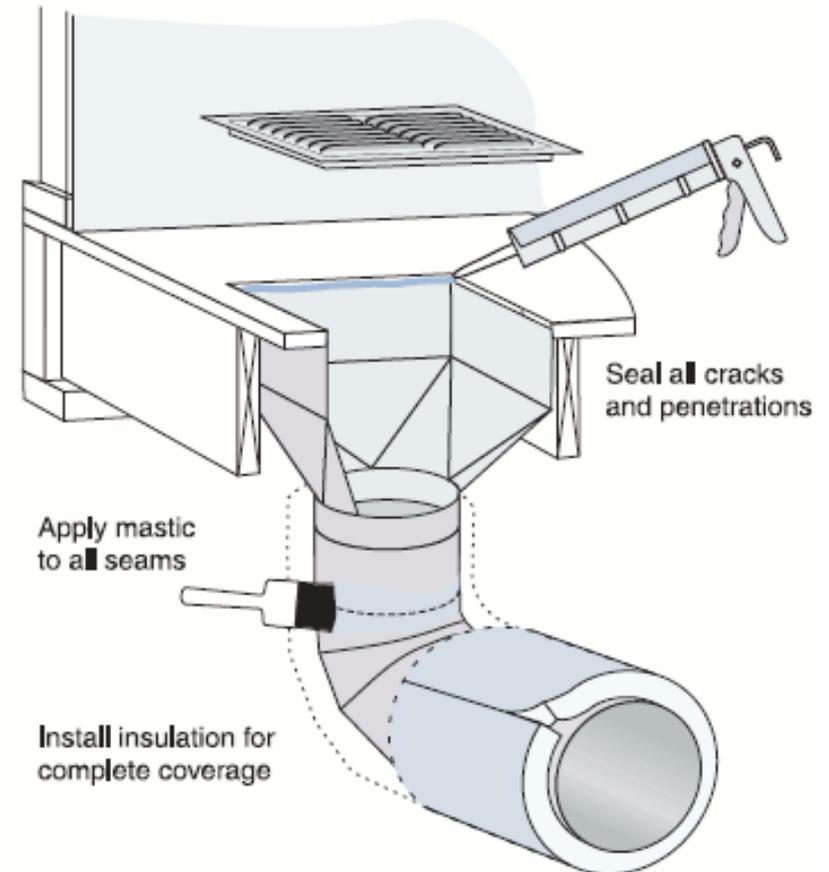
The Duct Blaster Test



Complex Repairs Can Be Done by Homeowner

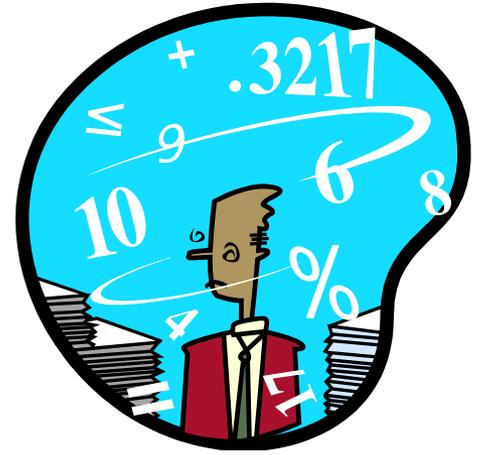


BOOT AND DUCT CONNECTION HIGHLIGHTS



Results

- **15** classes
- **300** participants
- **100** home performance audits
- **43** DIY projects completed
(vs **5** Energy Upgrade completed)
- **\$15,400** in incentives to DIY
(vs **\$4,700** to Energy Upgrade)



What the participants say:

“ I felt great about doing this for myself. It saved me money in hard \$\$...I am just that much more efficient in my footprint.” - A.B.

“We spent almost \$400 insulating our attic and covering many drafts and holes coming from electrical sockets, door ways, and leaks around the fireplace....**I found the class to be very helpful in educating us.**” - C. T.

“Your team was able to **point out quite a few spots were cold was coming in that I was not aware of.** Now that the cold season is coming I can feel the improvement and it only cost me about \$450.00” - T.L.



San Leandro DIY Energy Efficiency

Sally Barros, Senior Planner

sbarros@sanleandro.org

Keith Weiner, Supervising Building Inspector

kweiner@sanleandro.org

William Schock, Chief Building Official

wschock@sanleandro.org

