

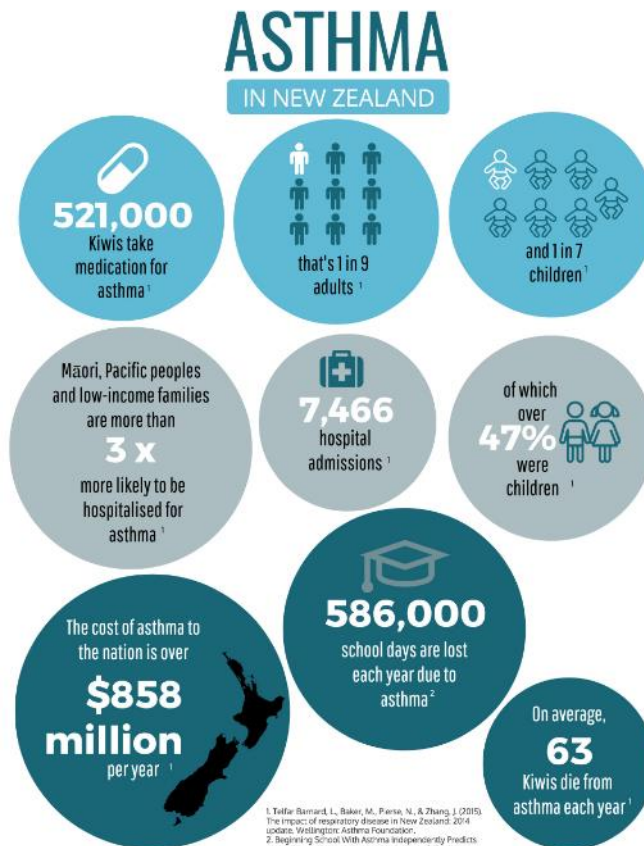
How to Change the world in 20mins

Guaranteeing Healthy Homes



Conference 2018

NZ has the highest
asthma rate in the
world,
30% of 7 year olds
in NZ have asthma,
directly attributed
to mouldy houses.



1. Telfer-Barnard L, Baker M, Paine N, & Zhang J (2015). The impact of respiratory disease in New Zealand: 2014 update. Wellington: Asthma Foundation.
2. Beginning School With Asthma Independently Predicts Low Achievement in a Prospective Cohort of Children, Kambou A, Liberty, Philip Paterson, James Reid and Michael Turner. Smevery, Christ 2010/06/18/9-18/5.

For more resources, to get involved or to donate visit asthmaandrespiratory.org.nz
or call 04 499 4592

**Asthma
+ Respiratory**
FOUNDATION NZ

Christchurch City
most suicides in
the world

90% of residents
say homes too
cold

Most waste going
to landfill per/cap

Decrease in bar width indicates decrease in effect

Optimum zone

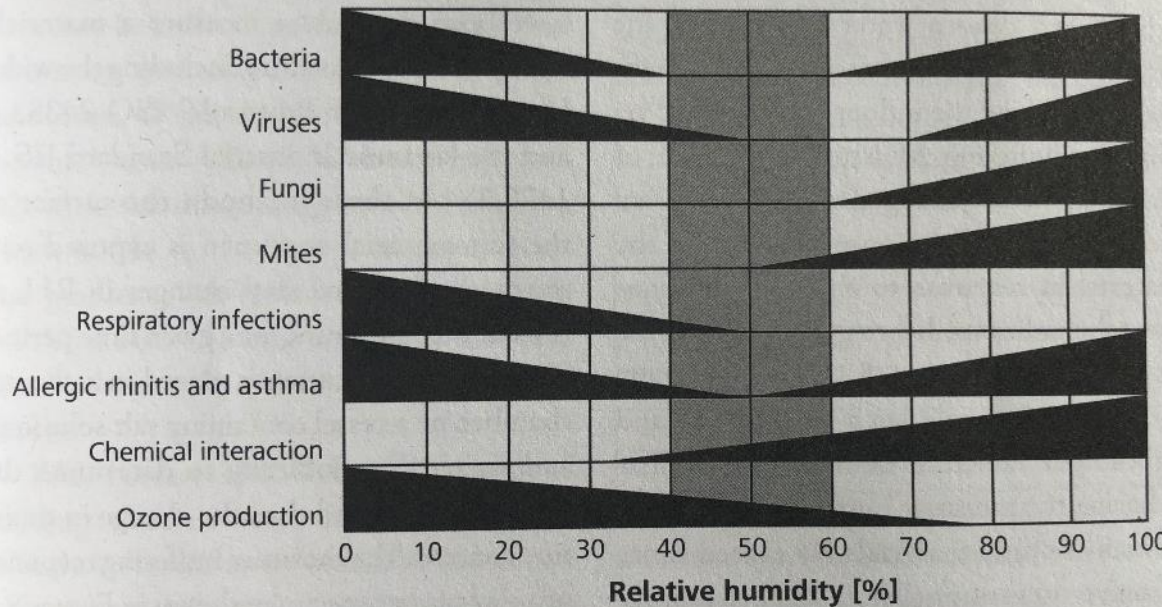


Fig. 8.1:
Optimum zones
for relative
humidity (based
on work of RDH
Building Science
Inc.

(evaporative cooling) to regulate our own body heat. Moisture introduced by normal activity such as cooking and washing can lead to condensation problems, often causing mold growth on internal surfaces and

and particles. By contrast, some natural insulation products such as wool present no hazard to installers.

Moisture Buffering Materials

"TRULY, WHAT A FANTASTIC, TIMELY, IMPORTANT BOOK!"
— PAUL HAWKEN, author of *Drawdown* and *Blessed Unrest*

THE NEW CARBON ARCHITECTURE



BUILDING TO COOL
THE CLIMATE

BRUCE KING



Home Truths

Confronting
New Zealand's
Housing Crisis

**PHILIPPA
HOWDEN-CHAPMAN**

'WHEN I TALK ABOUT NEW ZEALAND
HOUSING OVERSEAS I'M INCREASINGLY
EMBARRASSED BY THE ASTONISHED
REACTION OF AUDIENCES.'

BWB Texts

Home Truths

'when I talk about New Zealand Housing Overseas I'm increasingly embarrassed by the astonished reaction of audiences

**\$1 spent on building better saves
\$4 on health costs**

Which one of these people has **most effect** on
public health?



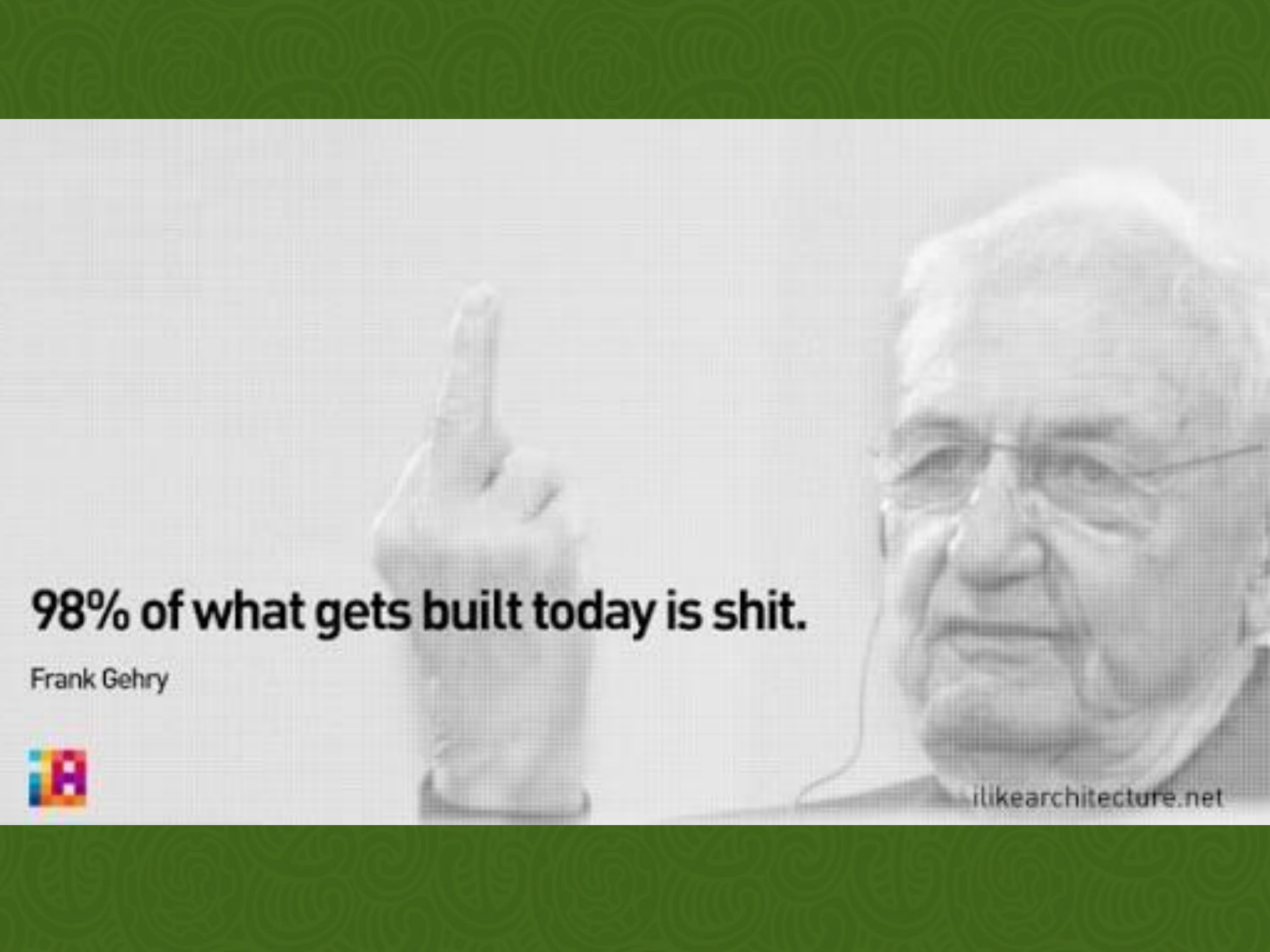
If we all lived in **healthy homes**

8-9% more productivity (180,000 fewer days off)

30% less hospital admissions (\$54m less in hospital costs)

250 less deaths

..... and we'd be healthier &
happier with more disposable income



98% of what gets built today is shit.

Frank Gehry



ilikearchitecture.net





Across Church Square...
The New Slums
Opened by a Prime Minister

The Building Code describes...





The Building Code describes...

The Worst House You Are
Legally Allowed to Build

SUPERHOME

m o v e m e n t

Learning / Sharing / Connecting

Innovate /Collaborate /Co-create

Walking the talk



Learning / Sharing / Connecting

Innovate /Collaborate /Co-create

Walking the talk



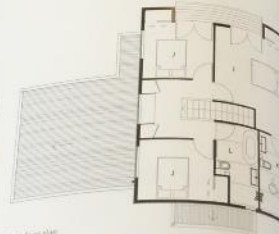






Ground floor plan

- | | |
|----------------|----------------------|
| A. Entry | I. Master bedroom |
| B. Carport | J. Bathroom |
| C. Kitchen | K. Ensuite |
| D. Bedroom | L. Bathroom |
| E. Dining | M. Carport |
| F. Living | N. Water tank |
| G. Laundry | O. Deep water system |
| H. Powder room | |



First floor plan



VISIT OUR
MANDEVILLE ST.
RICCARTON
SHOWROOM
TODAY



HOME
IDEAS
GET INSPIRED

spark your imagination

Hundreds of products and services on display
to inspire your build or renovation.

EXEMPLAR

Homes **Free** Self-Guided Tour 2017

Open 11am-4pm, Saturdays & Sundays in May

You are invited to look through some of the most innovative and sustainable homes in Christchurch.

FREE Tour runs from Saturday 6th to Sunday 28th May.

Find out more visit www.superhome.co.nz

SUPERHOME

m o v e m e n t

Supported
by



Christchurch
City Council





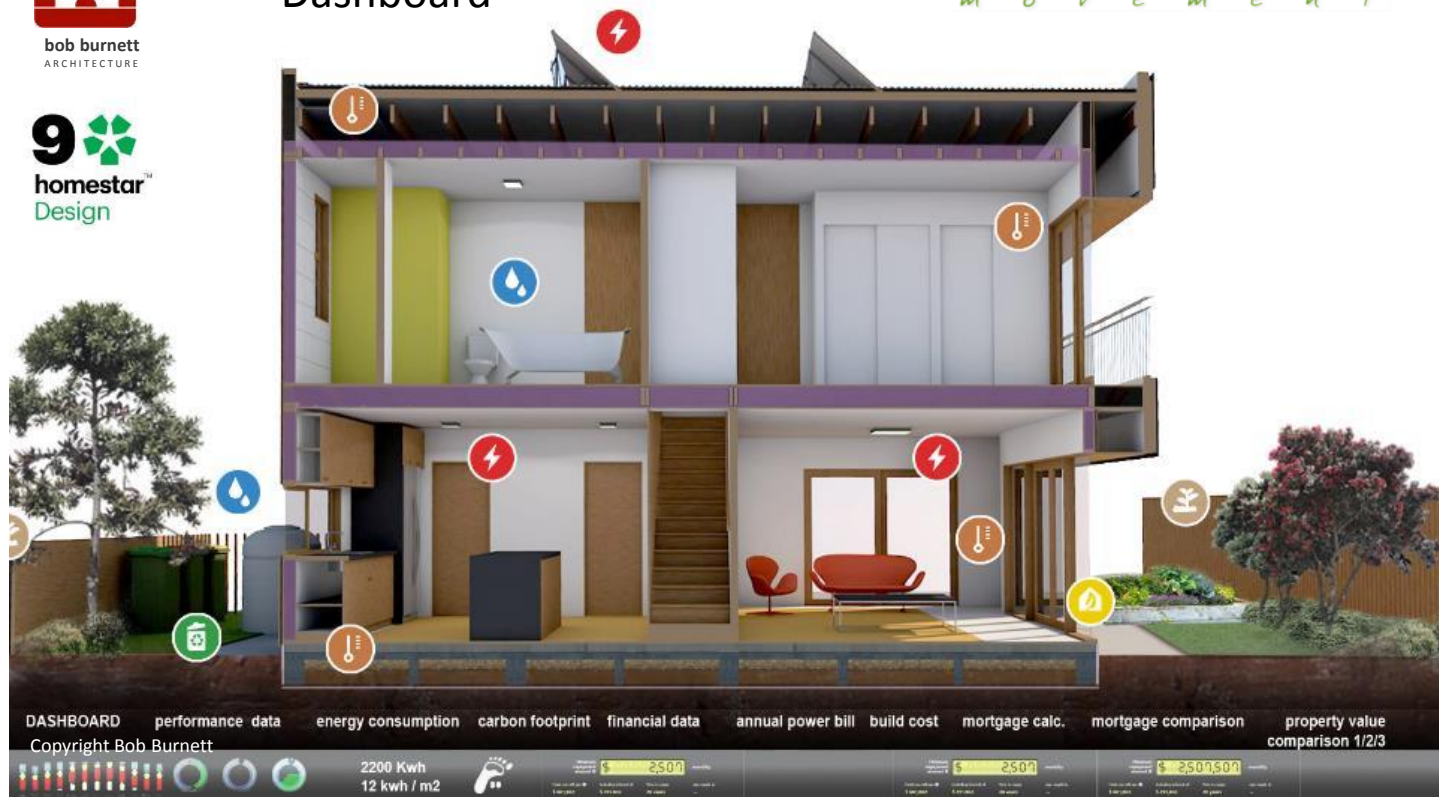


bob burnett
ARCHITECTURE



Affordability Dashboard

SUPERHOME
movement



COST to CUSTOMER?

NZGBC data for

specification data prepared for Auckland City Council and extrapolated by BBA

	%+	power/yr	house cost		extra	
• Homestar 3-4 rating		\$320,139	+\$0		0%	\$2500
• Homestar 5 rating		\$323,376	+\$3,237	+1.1%	\$1800	
• Homestar 6 rating		\$326,810	+\$6,347	+2.2%	\$1250	
• Homestar 7 rating		\$336,704		+\$16,241	+5.5%	\$675
• Homestar 8 rating		\$352,152	+\$32,013	+10%	\$0	



\$285,000
160m² 2011



\$300,000
149m² 2012

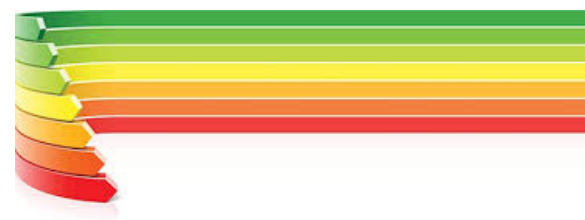
Creating Living Buildings

	Energy use	Airtightness	Integrative process	Location + transport	Sustainable sites	Inspiration + education	Water efficiency	Energy + atmosphere	Materials + resources	Indoor environment	Innovation + design	Urban agriculture	Net zero water	Net zero energy	Civilised environment	Health + happiness	Biophilic environment	Red list chemicals	Carbon footprint	Living economy	Net positive waste	Responsible industry	Equity	Beauty + spirit	Inspiration + education
LEED	●	●	●	●	●	●	●	●	●	●	●	●	●			●	●				●				●
DEAP	●	●																							
Homestar	●	●		●	●	●	●	●	●	●	●	●	●			●	●				●				
Passive House	●	●																							
LBC	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Living Building Challenge



- fully considered requirement
- partly considered requirement
- partly considered requirement



The logo for 'SUPERHOME movement' is centered on a light gray rectangular background. The word 'SUPERHOME' is written in a bold, white, blocky, sans-serif font, with each letter contained within its own dark gray square. Below this, the word 'movement' is written in a dark gray, lowercase, handwritten-style font. The entire logo is set against a dark green background with a repeating, intricate, light-colored swirling pattern.

SUPERHOME movement

1. **Design** (function and delight/beauty)
2. **Resilience** (longevity and durability)
3. **Green** (environment & resource use)
4. **Energy** (cost, comfort & affordability)
5. **Health** (well, happy & productive)



MAR
28

Kaikoura - Superhome Seminar and Live Webinar

by Superhome Movement

Free

EVENTS [www. superhome.co.nz](http://www.superhome.co.nz)
Sign on for email NEWSLETTER
Like us on FACEBOOK
eventbrite



Simon Sinek | TEDxPuget Sound

How great leaders inspire action

17:58

- Share
- Add to list
- Like

Watch next Your list (0)

How to start a movement
7.0M views



How to live before you die
8.9M views



Why good leaders make you feel safe
7.8M views



TED Talks are free thanks to our partners and advertisers

HOME SOLAR
POWER SYSTEM

Details About the talk

Transcript 47 languages

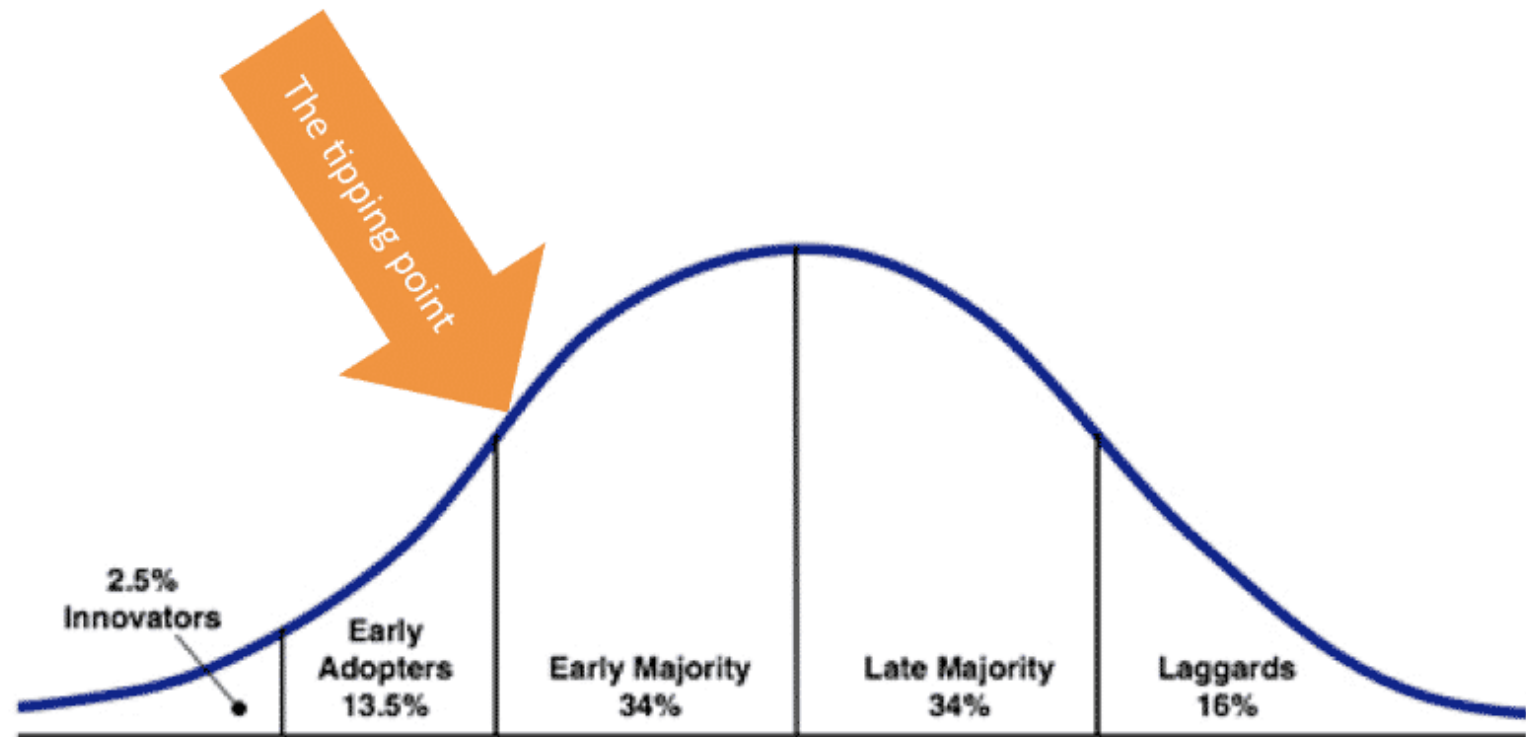
Reading List Further learning

Comments Join the conversation

Simon Sinek has a simple but powerful model for inspirational leadership -- starting with a golden

37.637.678 views

The law of diffusion of innovation



THE GOLDEN CIRCLE

WHAT

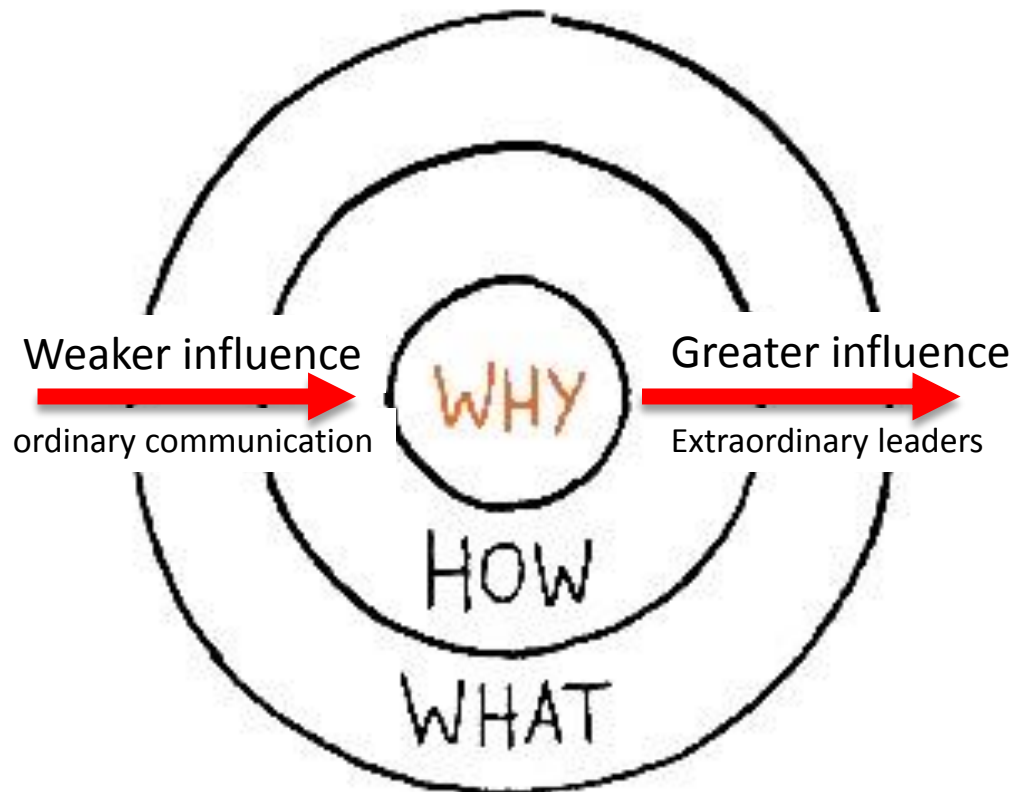
Every organization on the planet knows WHAT they do. These are products they sell or the services

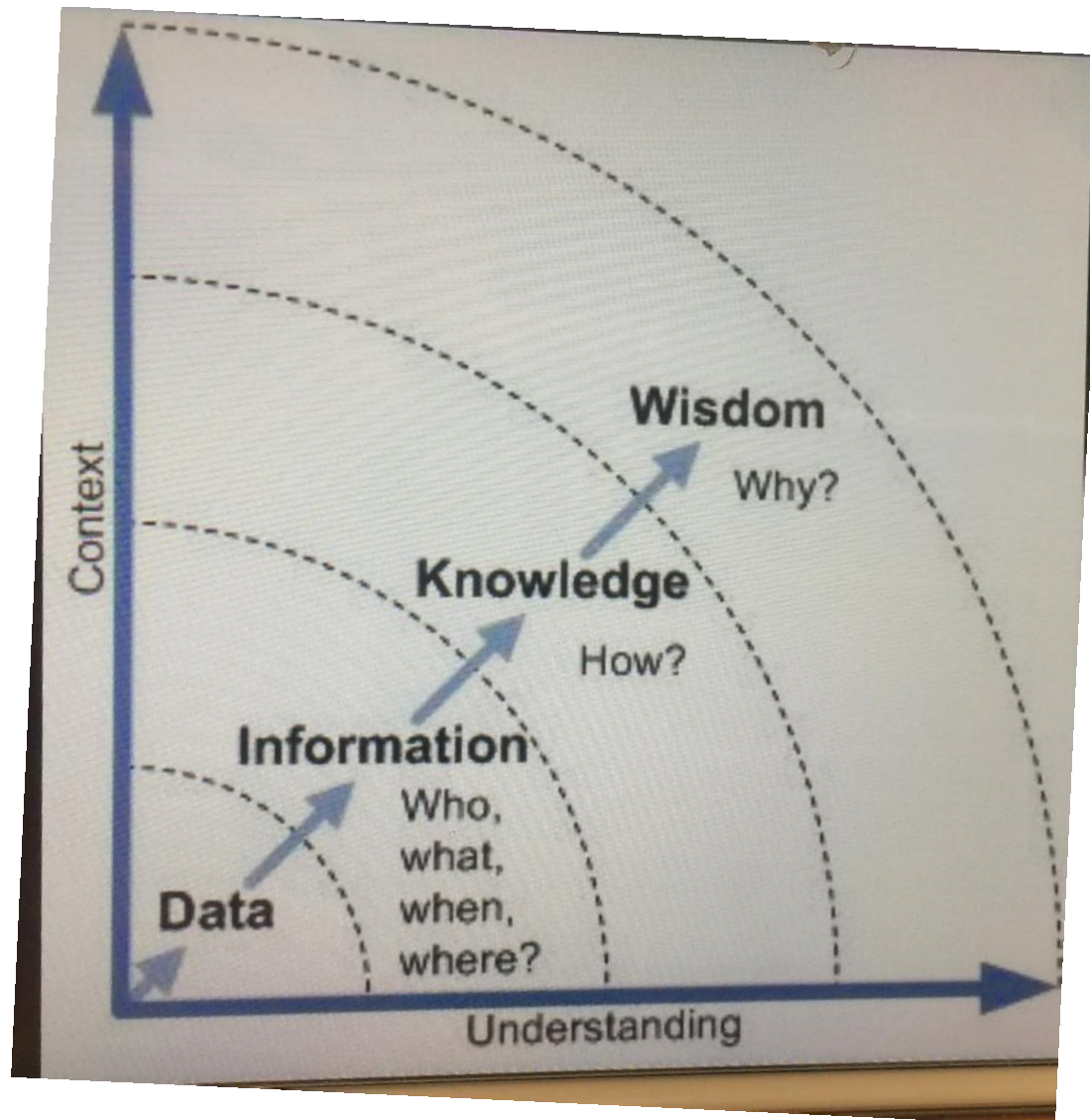
HOW

Some organizations know HOW they do it. These are the things that make them special or set them apart from their competition.

WHY

Very few organizations know WHY they do what they do. WHY is not about making money. That's a result. WHY is a purpose, cause or belief. It's the very reason your organization exists.





生き甲斐 ikigai

ikigai is the Japanese concept of “**a reason for being.**” Everyone has an ikigai. To find it requires a journey of self discovery. But the search is worth it.

Your ikigai is the meaning to your life.





bob burnett
ARCHITECTURE

Filtering of innovations on high-end experimental projects
Adapted to affordable, smaller, spatially efficient homes

The icing on the quake



Selwyn road House 2010 **bob burnett**
ARCHITECTURE



Selwyn road House 2011 **bob burnett**
ARCHITECTURE



Hawkesbury Ave 2012

Sodden House Syndrome





Cold
Mould
Rising damp



Somerfield House 2014

Carey Street Exemplar Housing

Preliminary Design Concept Issue 28 July 2016





canopy
LANDSCAPE ARCHITECTS

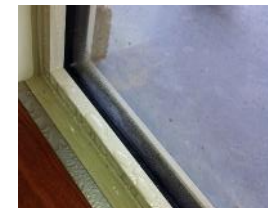
GETHSEMANE VILLAGE - CLIFTON HILL, CHRISTCHURCH
CONCEPT PLAN
DECEMBER 2017, CD NO. 1679

Innovations



Fully insulated Slabs
Magroc insulfound
ECOMASTER dual heat
U/F & HWC heat pump
FRAME SAVER / LVL 140
High performance windows
Solar wall / ERV with
ultraclad
Earthquake resilience /
dampers
Rainwater harvesting
(grey water)
energy recovery sh wastes
Energy management and
monitoring
PV with battery back up
Passive solar design
LED lighting
Spatially aware
Acoustic design
Certified materials
Sharing ideas etc. etc.

- **Slab - Fully insulated no bridging**
Slab Edge Insulation is essential
Breakthrough In-Slab Heating systems
- **Walls -better building envelopes**
stronger, warmer, more airtight
Frame Saver
Panelised Construction Systems
- **Windows – high performance**
NZBC acceptable vs alternative solution
install in warm part of wall not cavity





WINDOWS



- Double glazed
- With right spacer (thermex)
- PVC frame (non conductive)
- Low E Xcel (best Low E) +30%
- Argon filled +10%
- R value 0.53 **> 0.70**
- Recessed into the wall

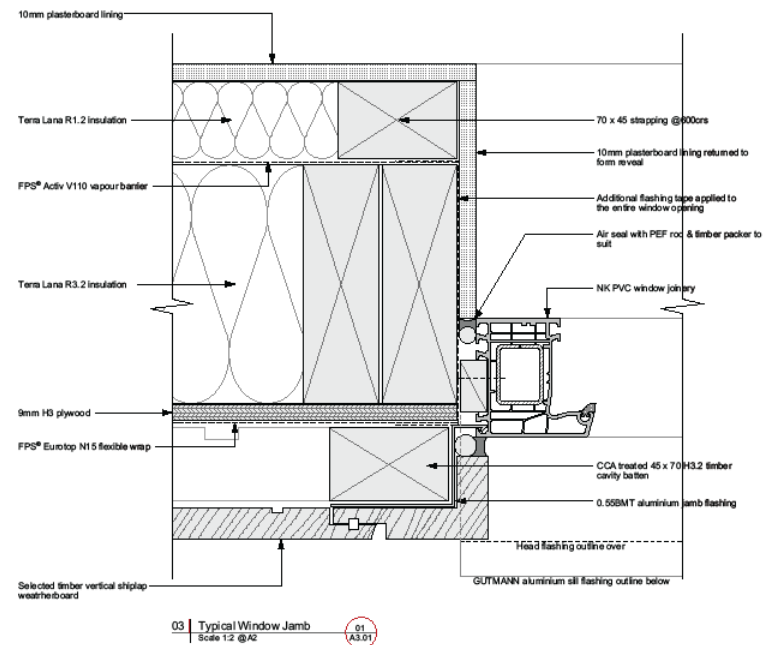
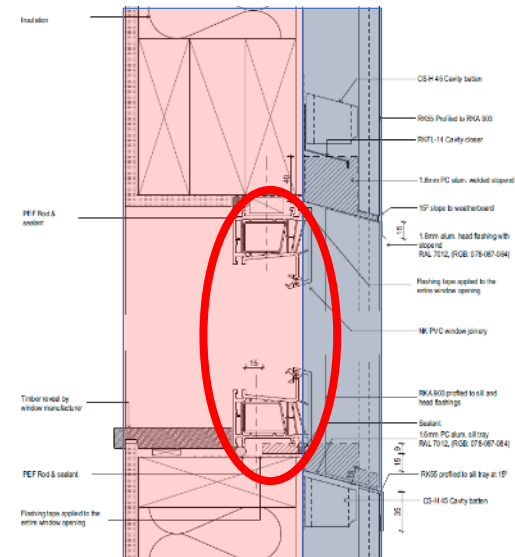
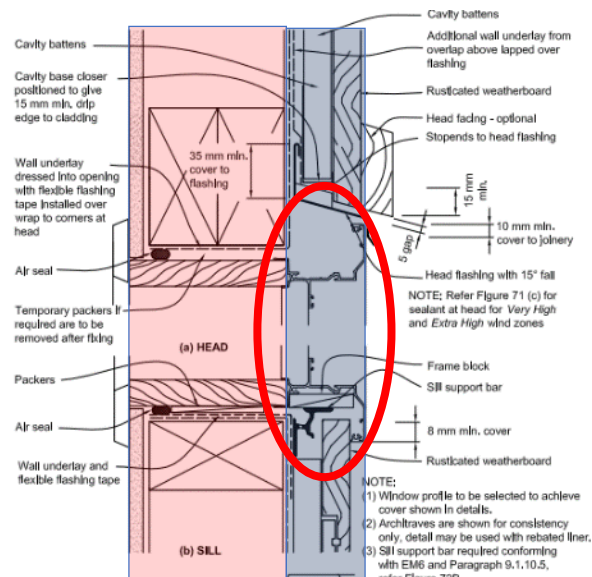
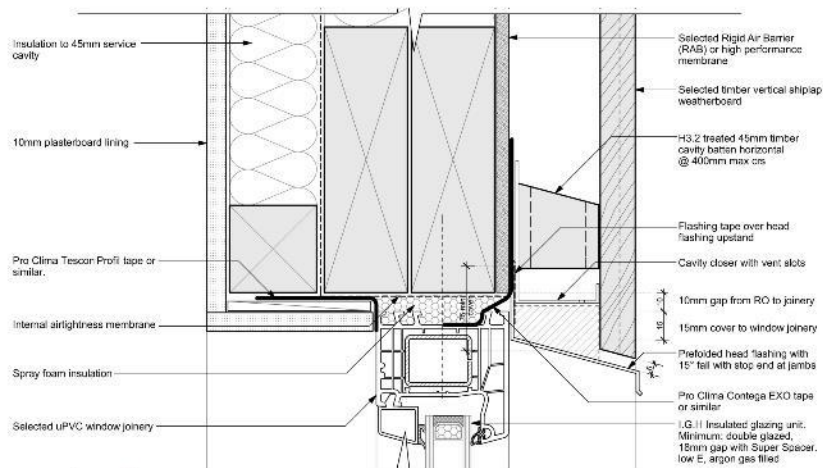
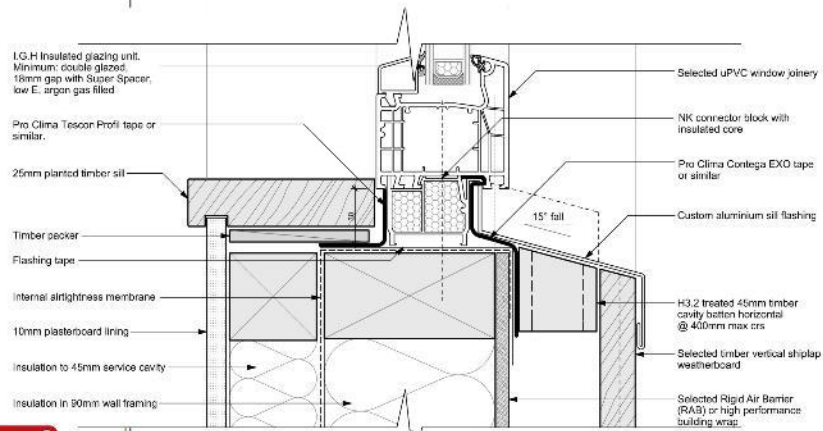


Figure 86: Windows and doors for rusticated weatherboards on cavity
Paragraph 9.4.7

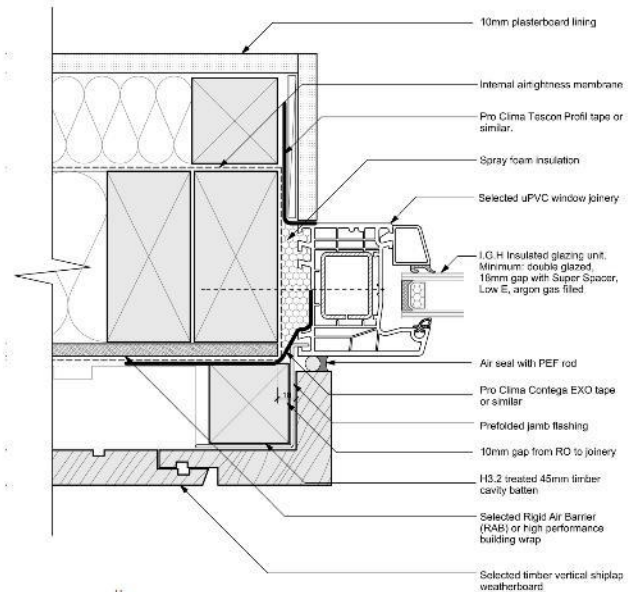




01 Window Head - Vertical Shiplap
Scale 1:5 @A3



01 Window Sill - Vertical Shiplap
Scale 1:5 @A3



01 Window Jamb - Vertical Shiplap
Scale 1:5 @A3

SUPERHOME
movement



bob burnett
ARCHITECTURE

11 Church Street, Auckland, NZ
t +64 9 366 0121
f +64 9 366 0121
e info@bbn.co.nz
w www.bbna.co.nz



SUPERWindow
Details

Created by: BOB BURNETT

Rev	Date	Revised	By	Job no	Date	Drawn by	Set of	Rev of
A	10/01/16	2000		XXXX	25/03/2017	BB	XX	X
Construction Details								
A4.01								

Consideration of the New Zealand Building Code is required. The design of the building must comply with the New Zealand Building Code. The design of the building must comply with the New Zealand Building Code. The design of the building must comply with the New Zealand Building Code.











