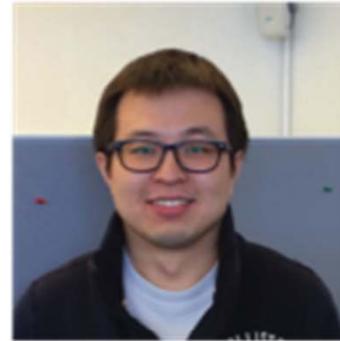
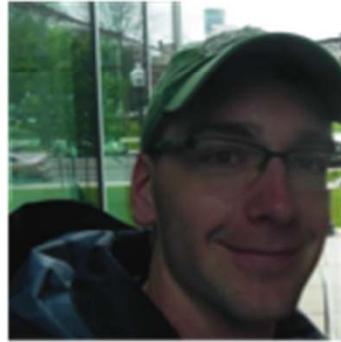
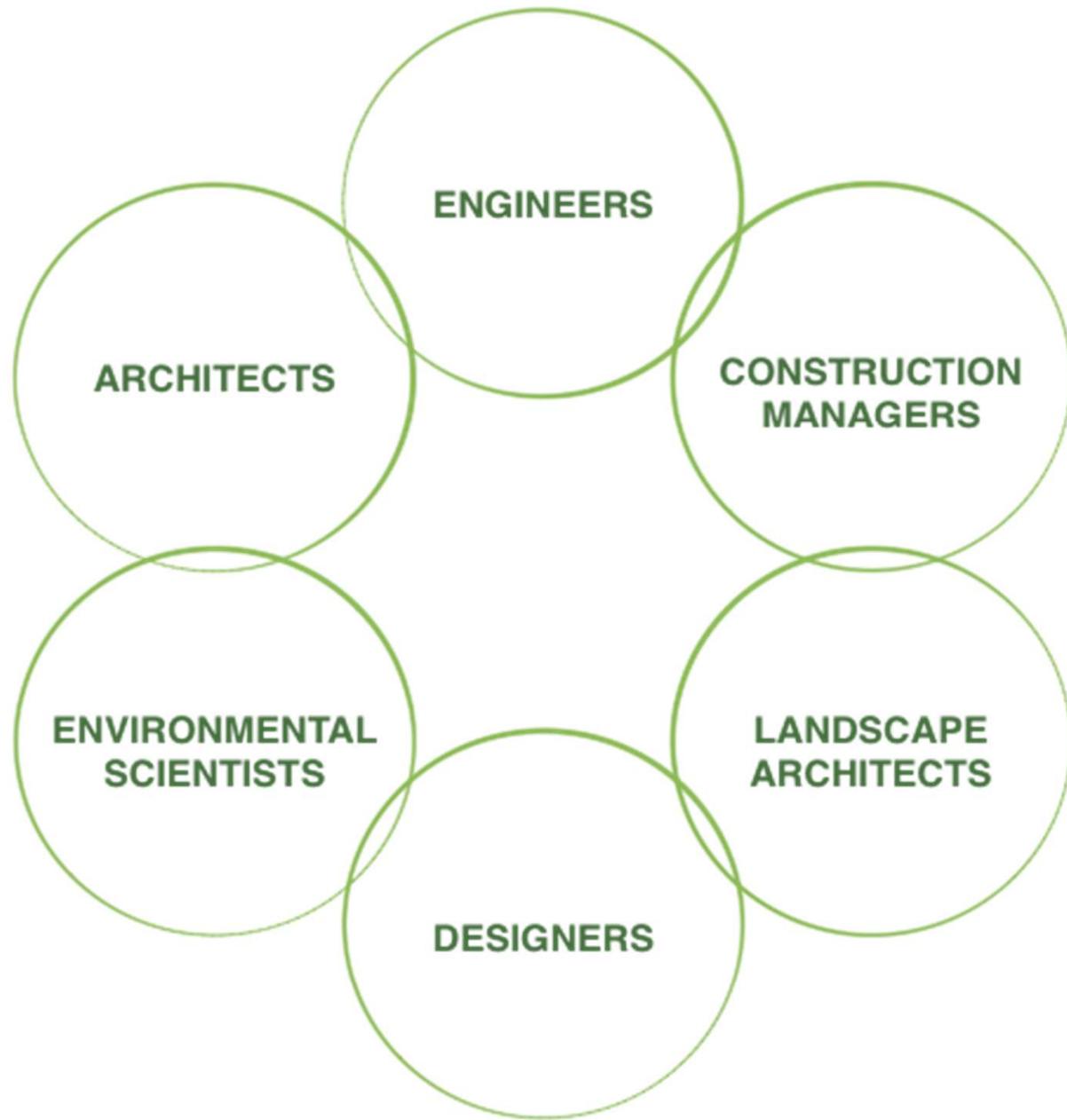


THE MONTAGE

By Montage Builders Northern Forest







Weighted Decision matrix

Superior Wall Foundation													
Weight:	14.9	14.2	14.7	15.2	13.9	13.8	10	15.3	11.4	11.7	14.1	13.7	13.9
Attribute:	Design Challenge	Budget	Build-ability	Indoor Air Quality	Water MGMT	Visit-ability	Net-Zero	Climate Change	Local	Recycled/ Recycl-able	Dur-ability	Resili-ence	No/Low Environ-mental Toxicity
David	97%	100%	100%	100%	100%	0%	95%	90%	85%	100%	100%	95%	70%
Jacek	95%	100%	100%	90%	100%	0%	100%	80%	75%	100%	100%	95%	89%
Gamika	90%	100%	95%	100%	100%	0%	90%	25%	15%	100%	100%	90%	73%
Jeff	95%	98%	100%	92%	100%	0%	100%	80%	75%	100%	100%	95%	65%
Zhauzhou	95%	99%	90%	95%	100%	0%	95%	52%	58%	100%	100%	95%	62%
Sarnai	94%	100%	100%	100%	100%	0%	100%	80%	75%	100%	100%	95%	80%
Mike	90%	100%	92%	89%	100%	0%	90%	25%	15%	100%	100%	90%	87%
Adam	87%	98%	100%	90%	100%	0%	100%	80%	75%	100%	100%	95%	90%
Talia	95%	99%	100%	95%	100%	0%	95%	52%	58%	100%	100%	95%	90%
Elizabeth	95%	100%	100%	100%	100%	0%	100%	80%	75%	100%	100%	95%	87%
Brent	90%	100%	88%	100%	100%	0%	90%	25%	15%	100%	100%	90%	95%
Andrew	95%	98%	100%	90%	100%	0%	100%	80%	75%	100%	100%	95%	89%
PJ	95%	99%	97%	95%	100%	0%	95%	52%	58%	100%	100%	95%	92%
Michelle	95%	98%	99%	90%	100%	0%	100%	80%	75%	100%	100%	95%	90%
Total %:	95%	99%	97%	95%	100%	0%	95%	52%	58%	100%	100%	95%	92%
Score:	14	14	15	14	14	0	10	8	7	12	14	13	9

Score

143



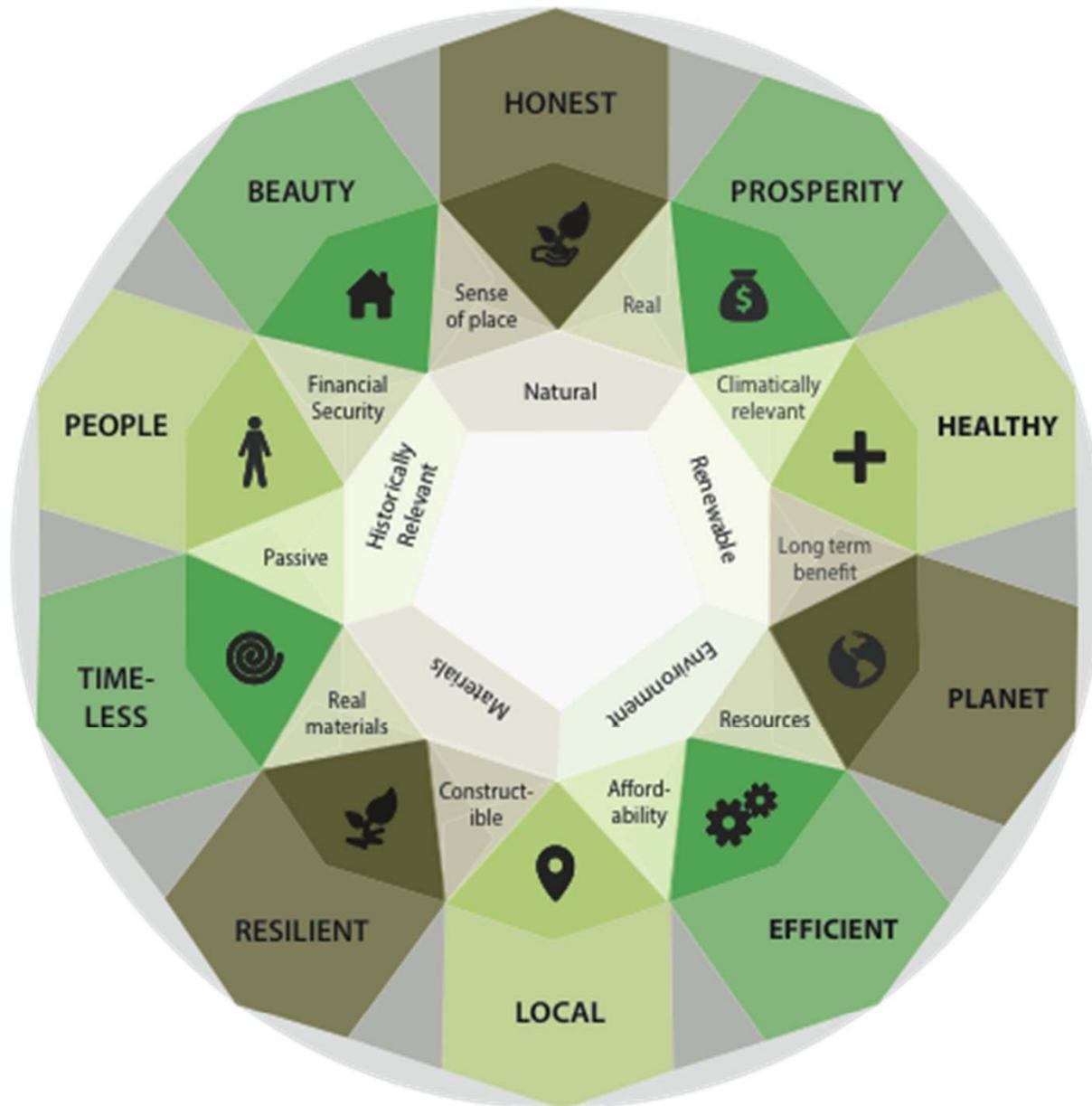
Design and build **regionally appropriate** and truly **sustainable** homes for our community



Holistic thinking and collaboration

Local Relevance





Performance Goals // HERS Index 50 or less



The Montage



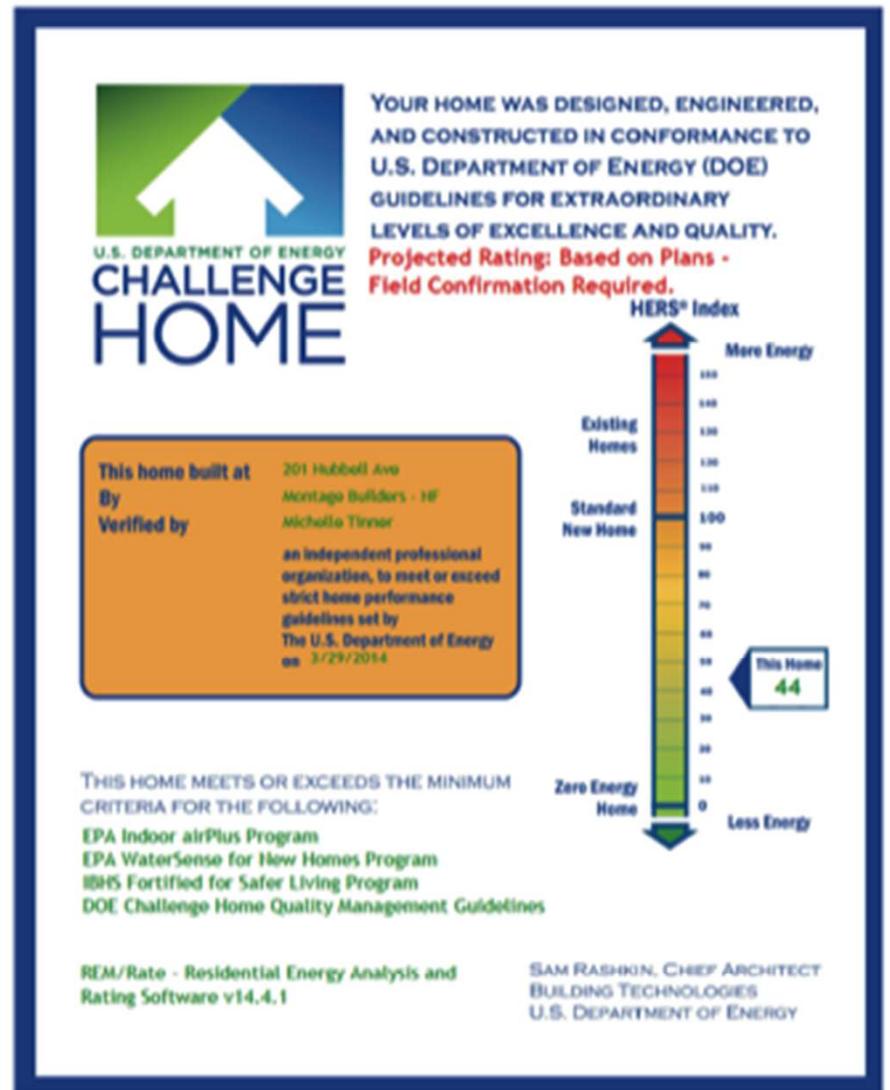
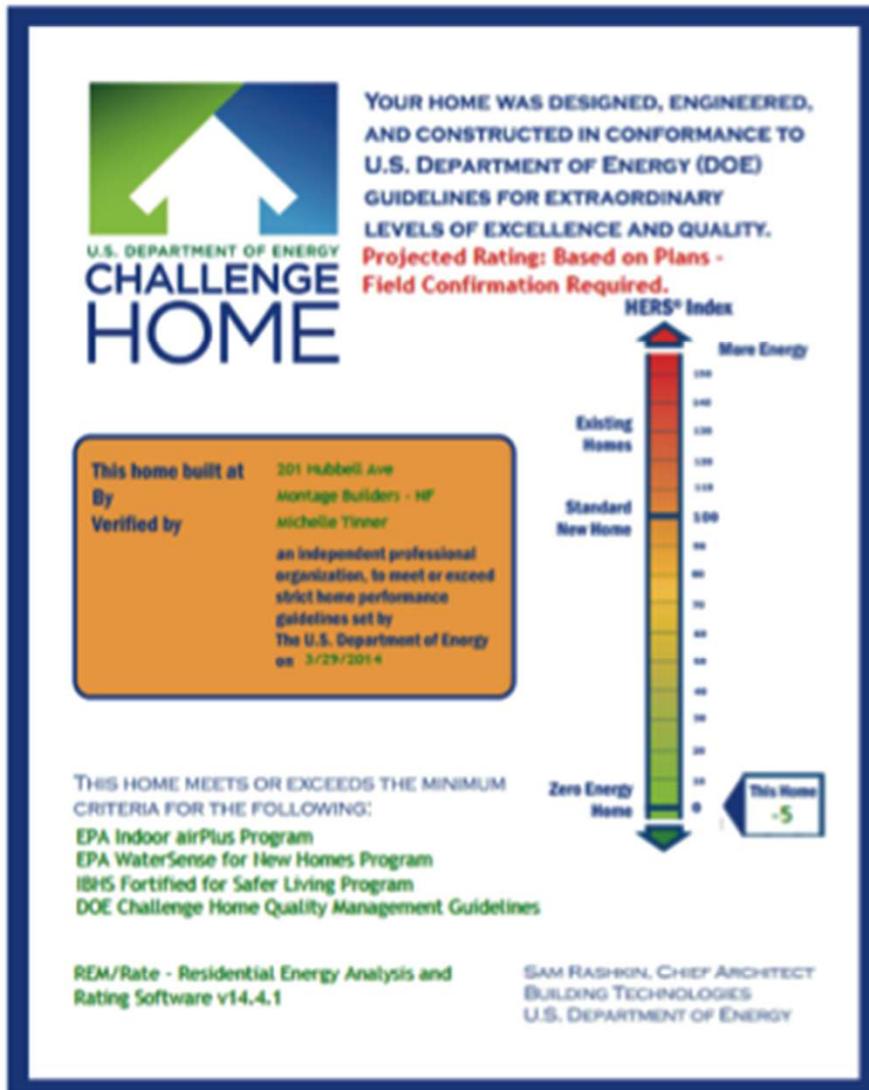
Focus first on one **hundred-plus** year components



Reduce the building's load while optimizing rapidly evolving "plug and play" mechanical systems.

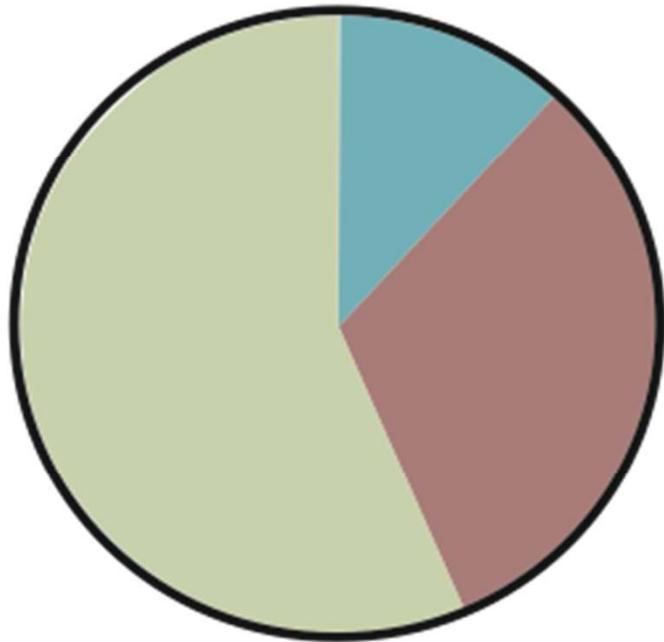
The Montage

The Montage No Solar



Energy Use Distribution

National Average



The Montage



DHW



Space Conditioning

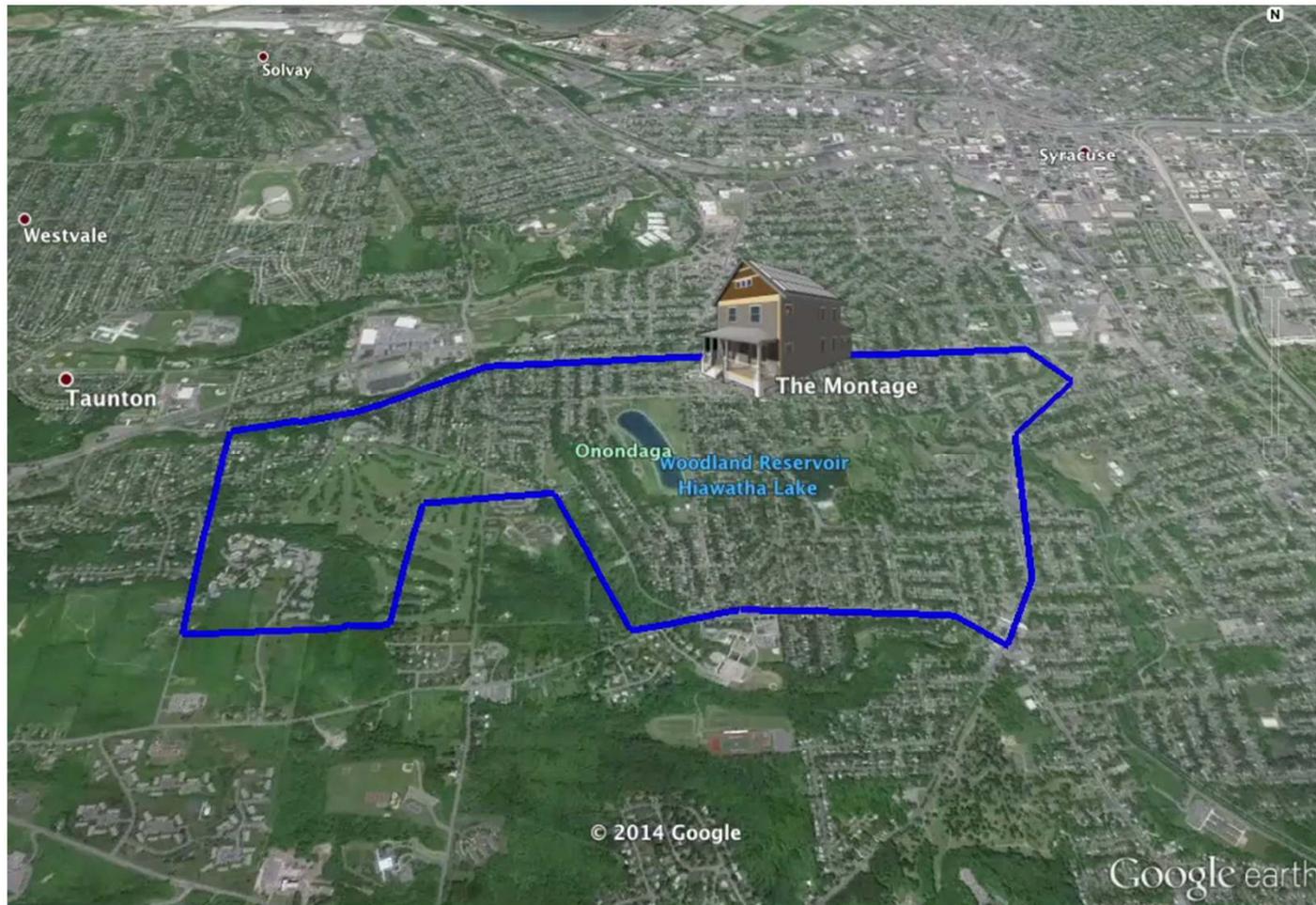


DHW

Syracuse, New York Strathmore Neighborhood



201 Hubbell Ave., Syracuse, NY



The Montage



NORTH



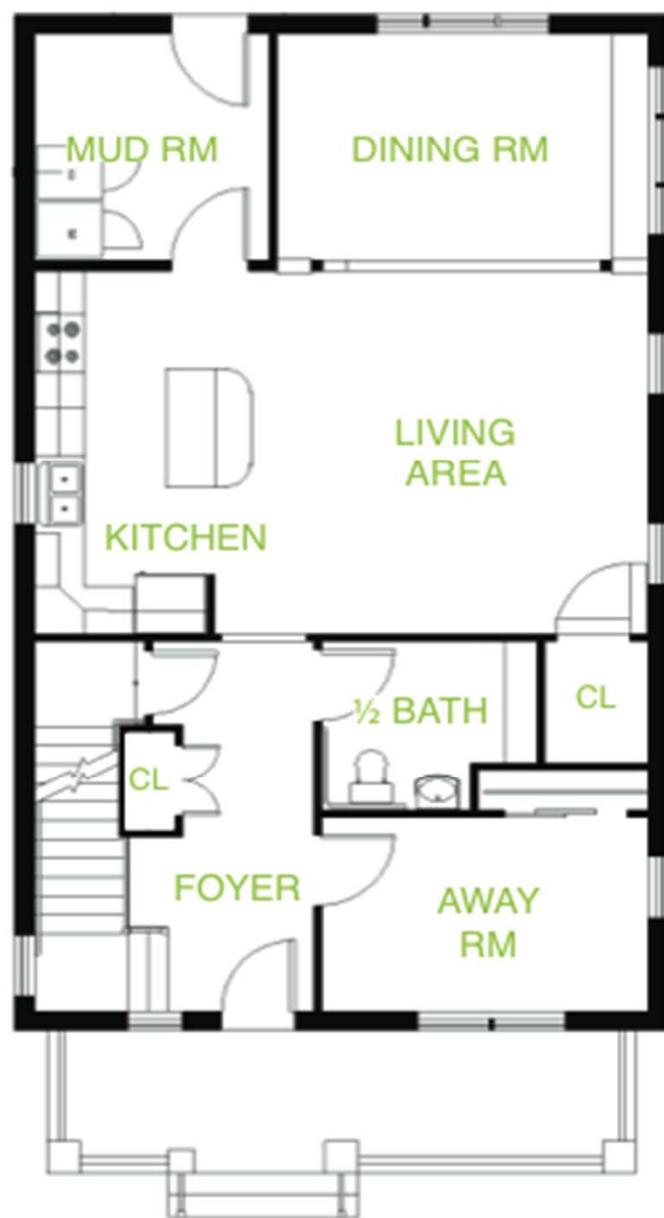
SOUTH

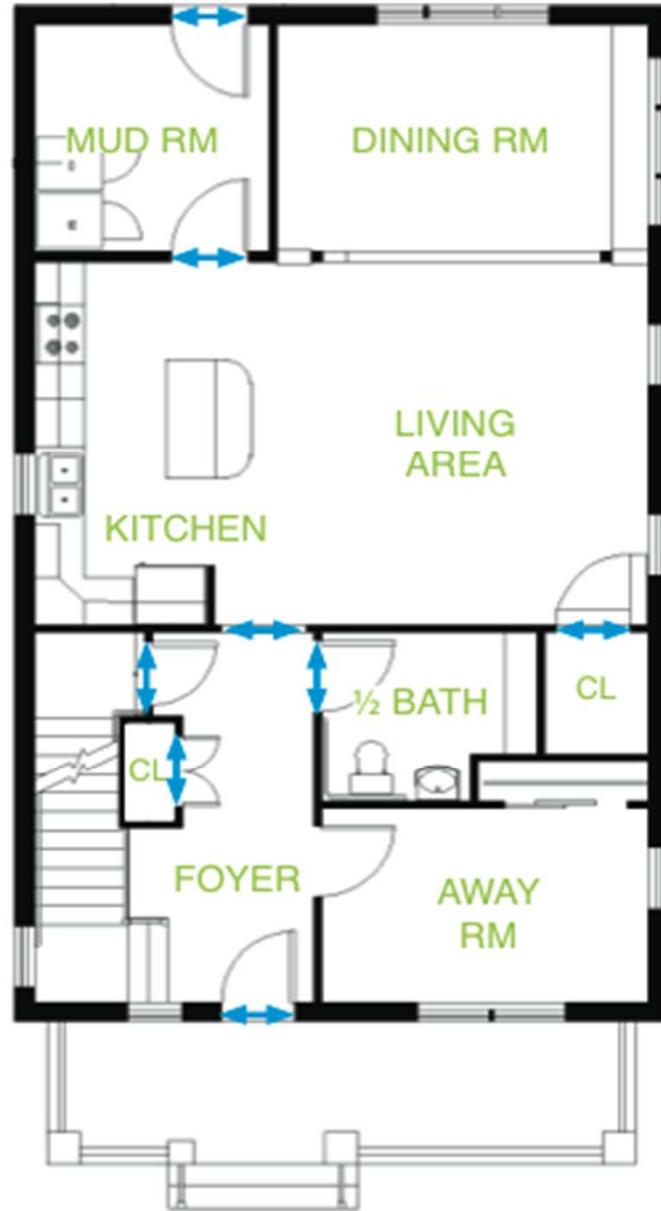
Pattern Language

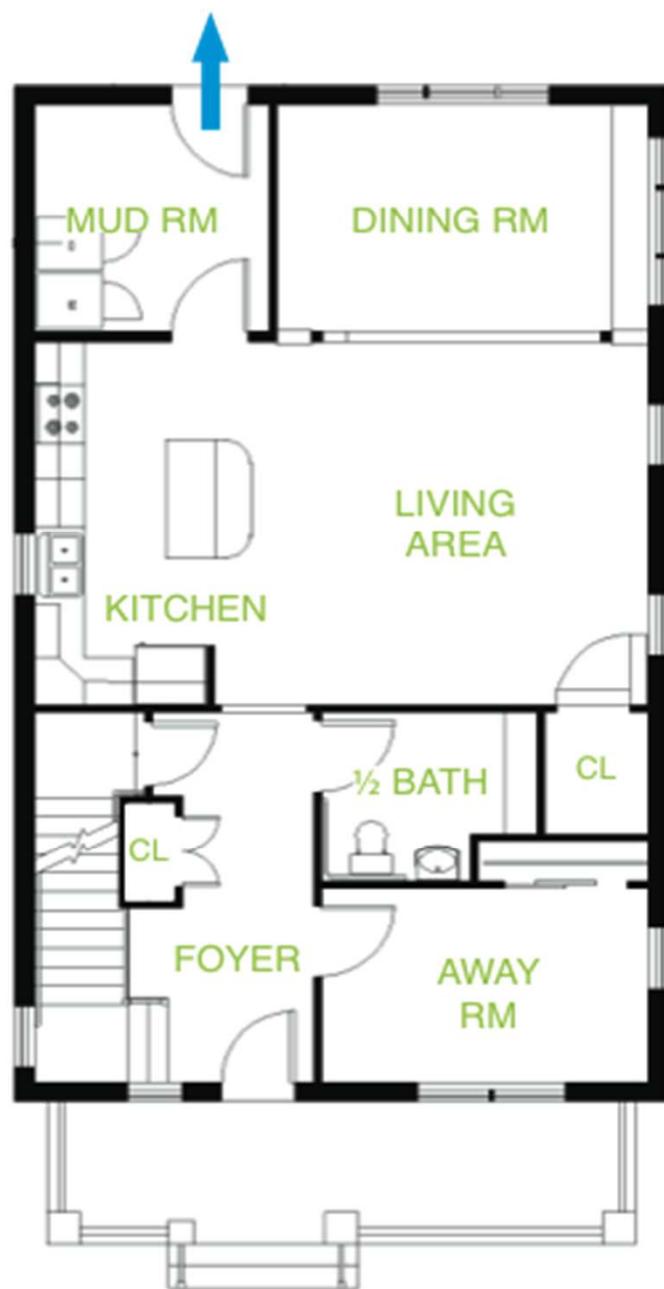


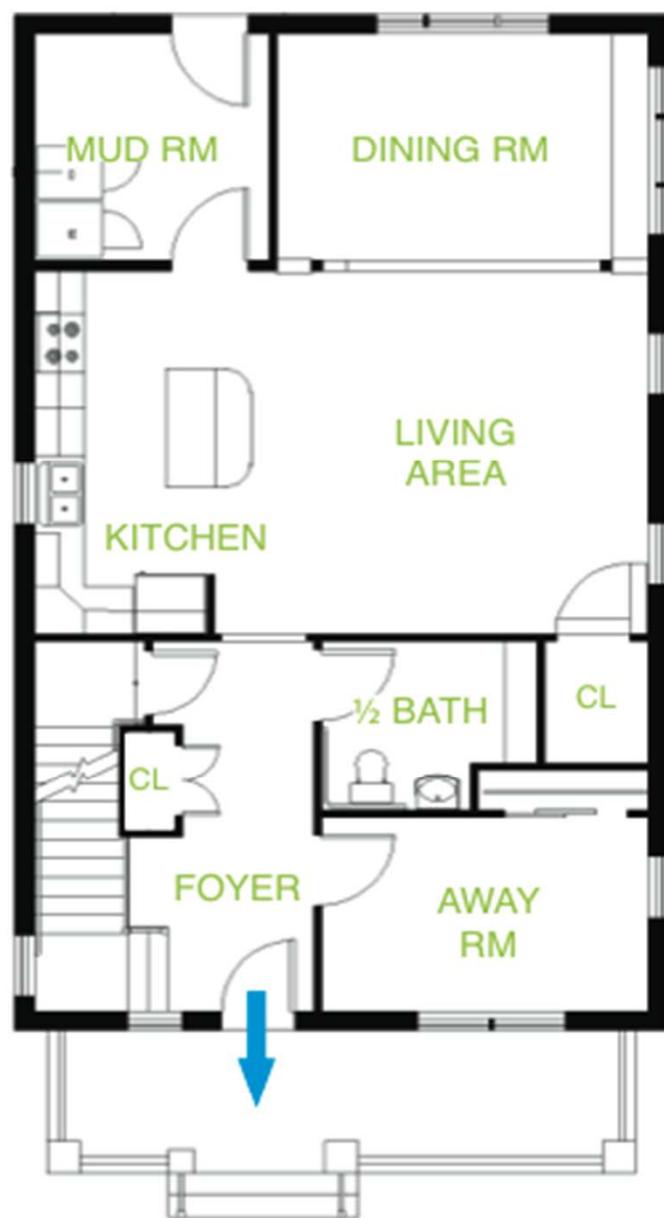
THE MONTAGE

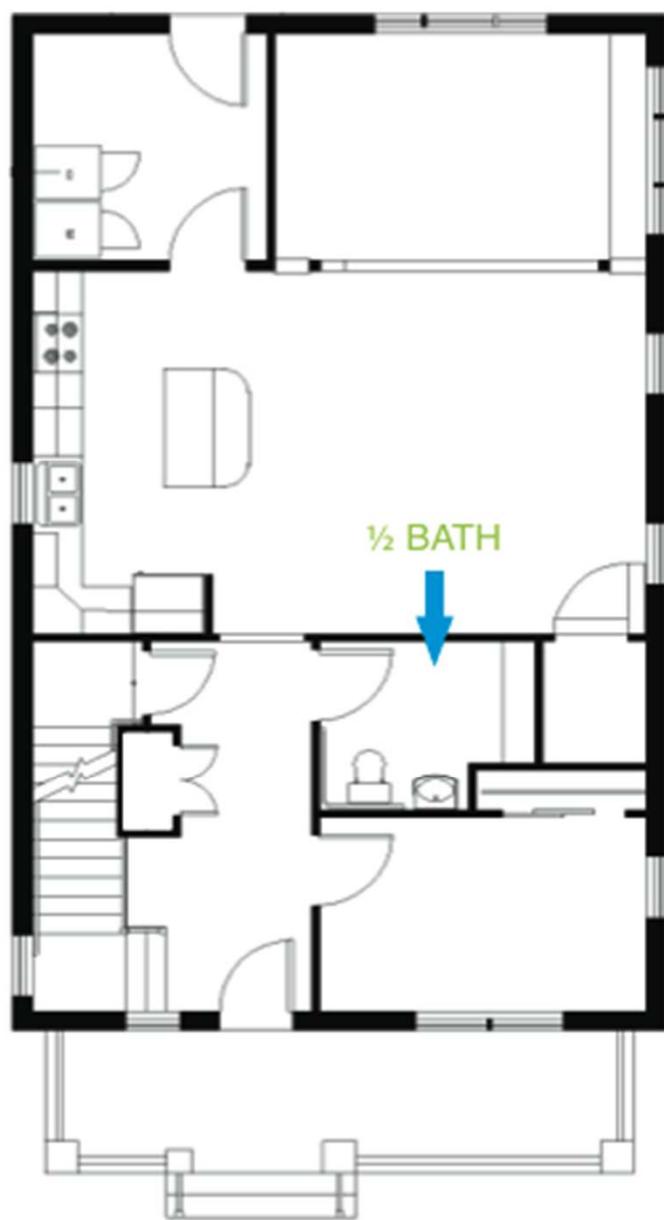












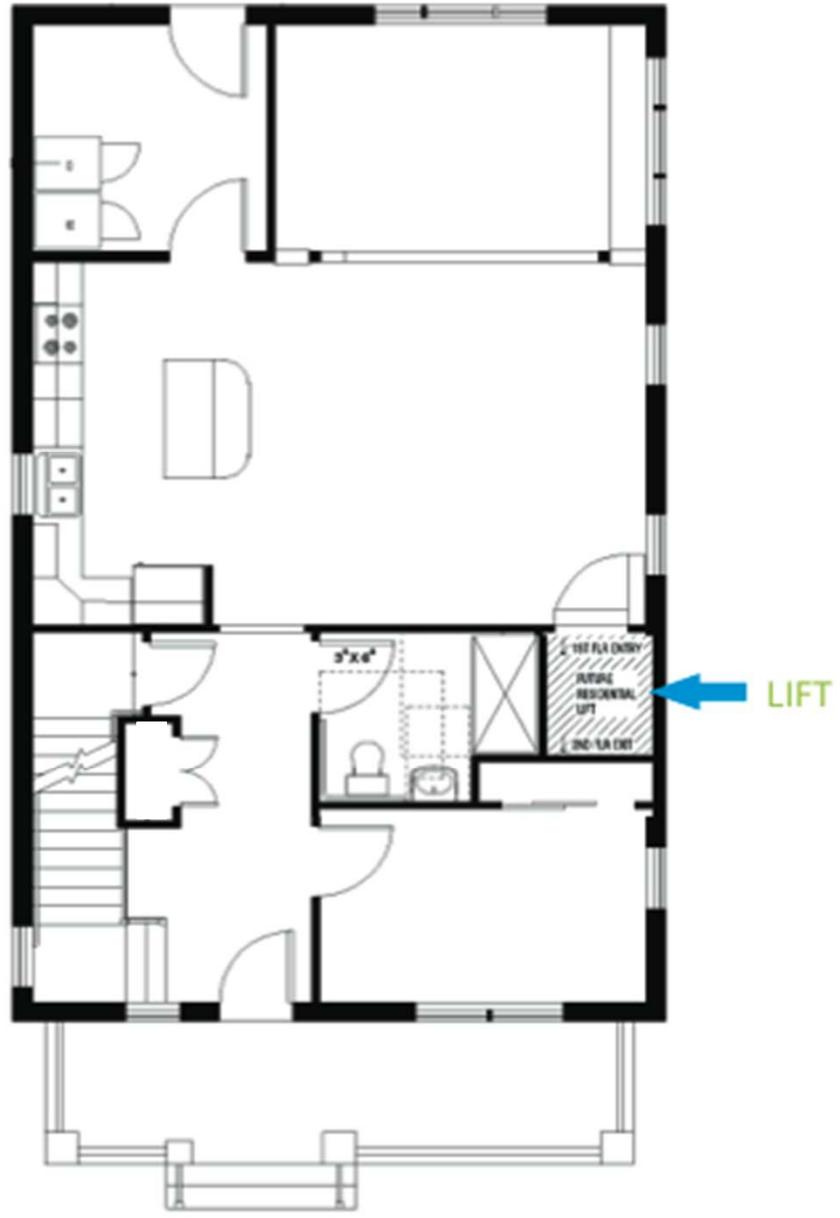


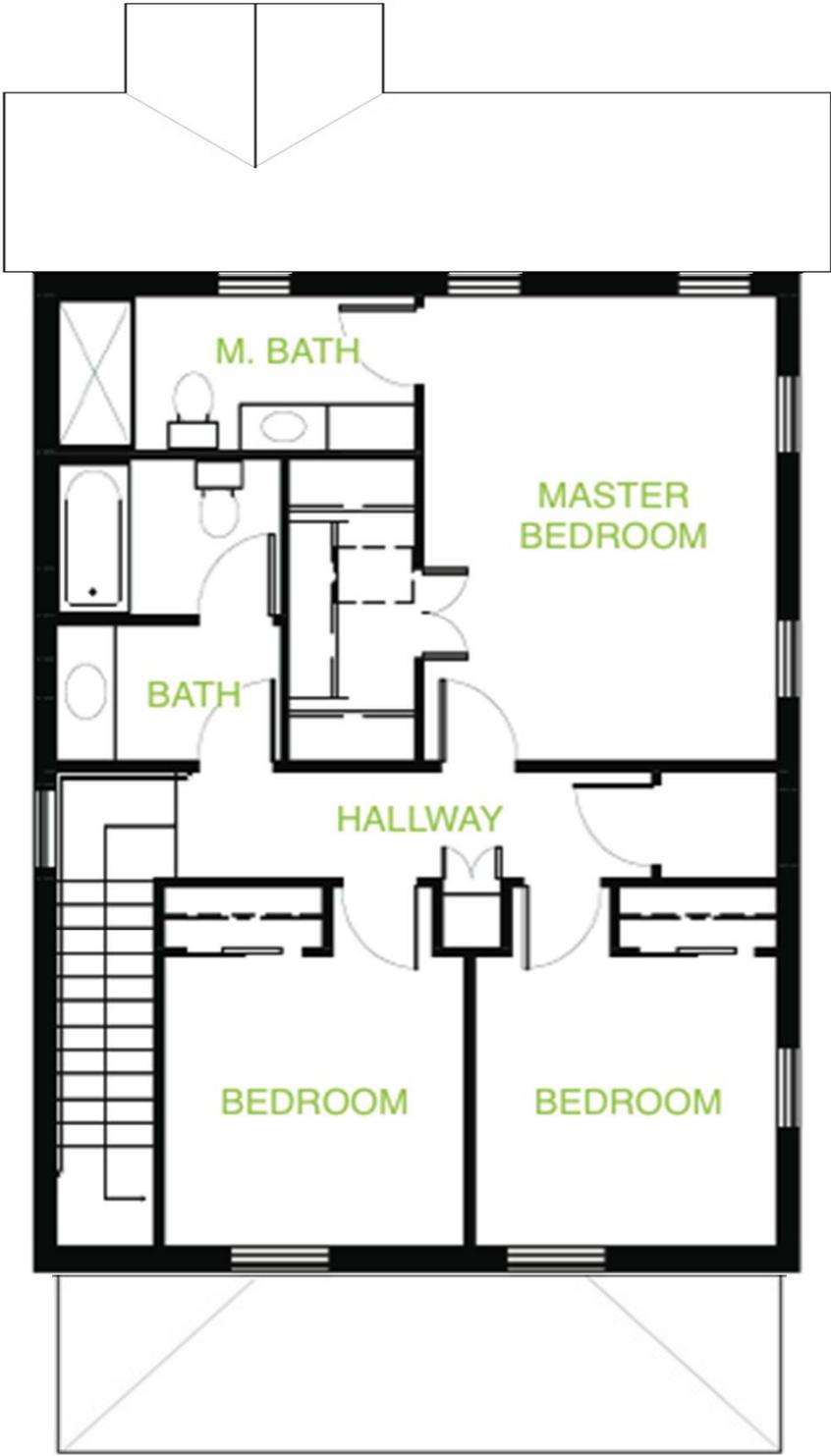
FULL BATH

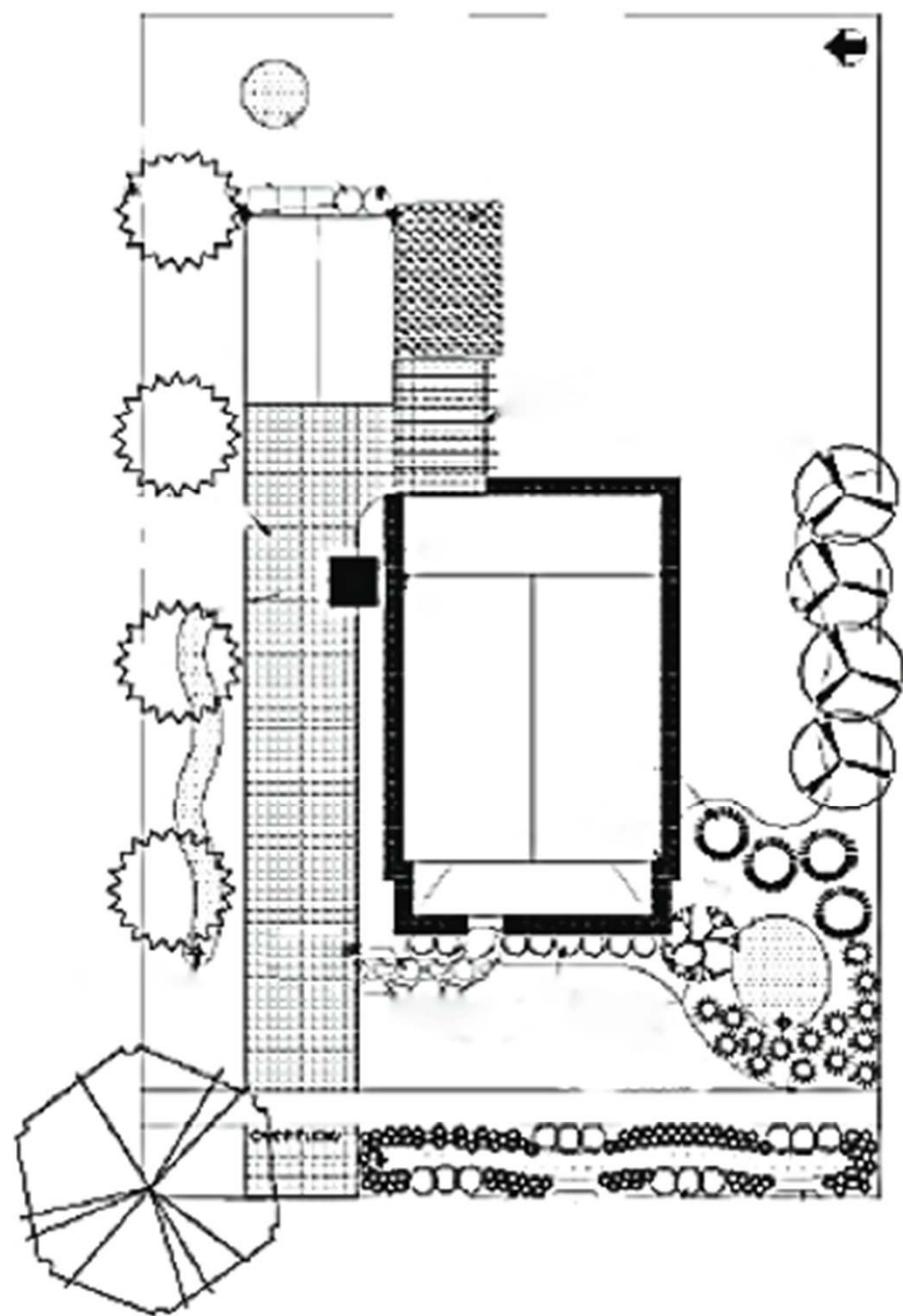


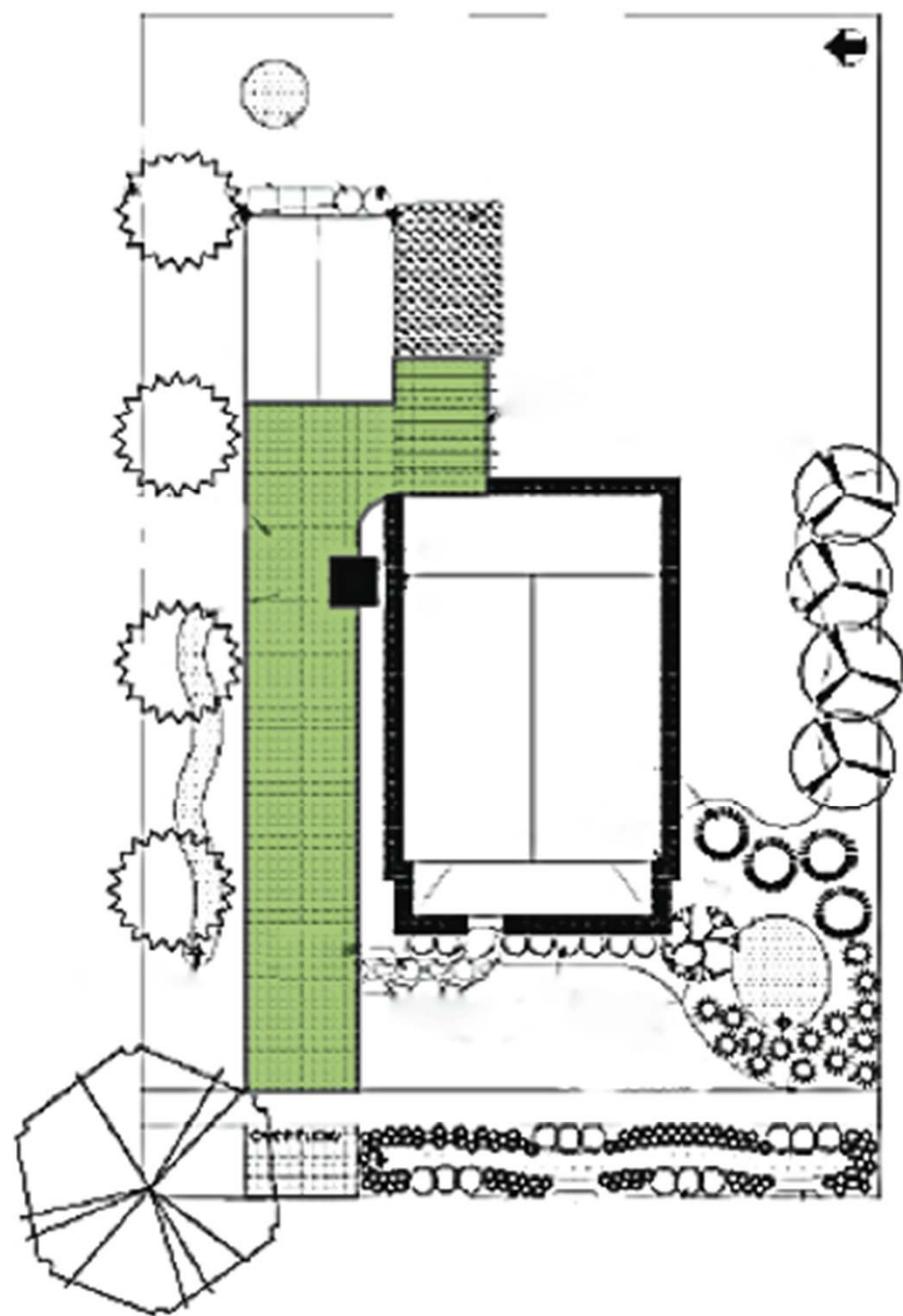
3'x6'

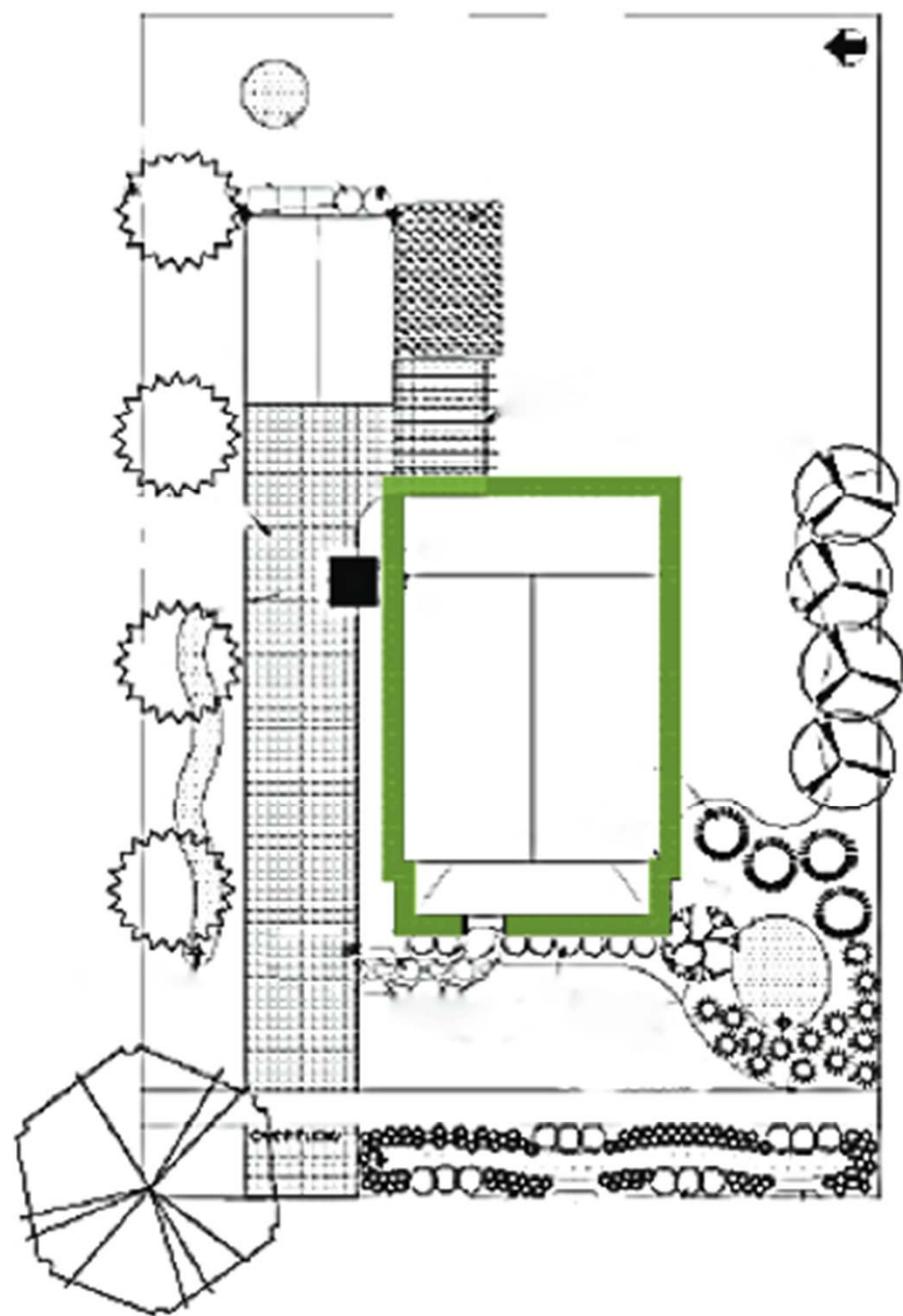
1ST FLR ENTRY
RESIDENTIAL LIFT
2ND FLR EXIT

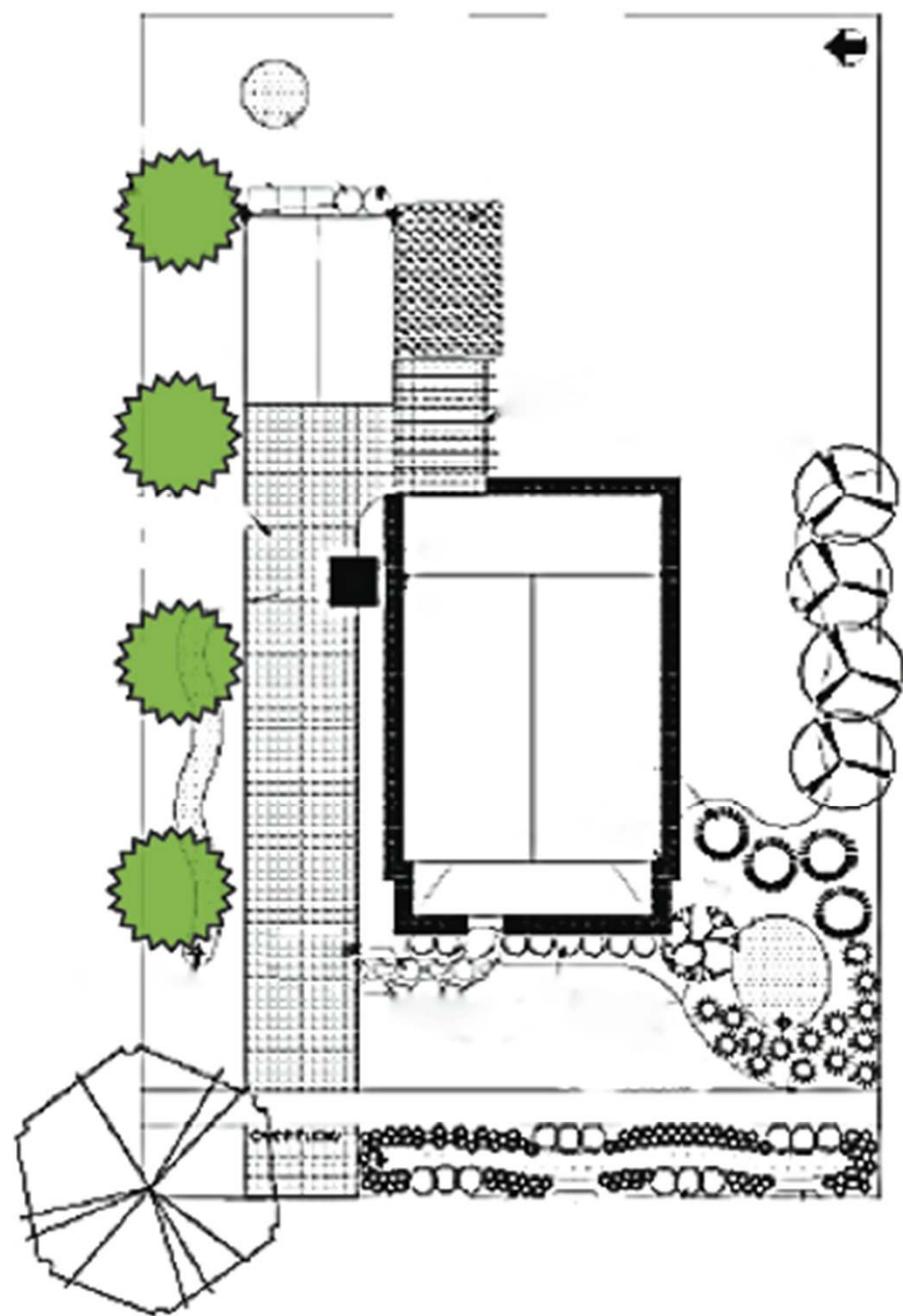


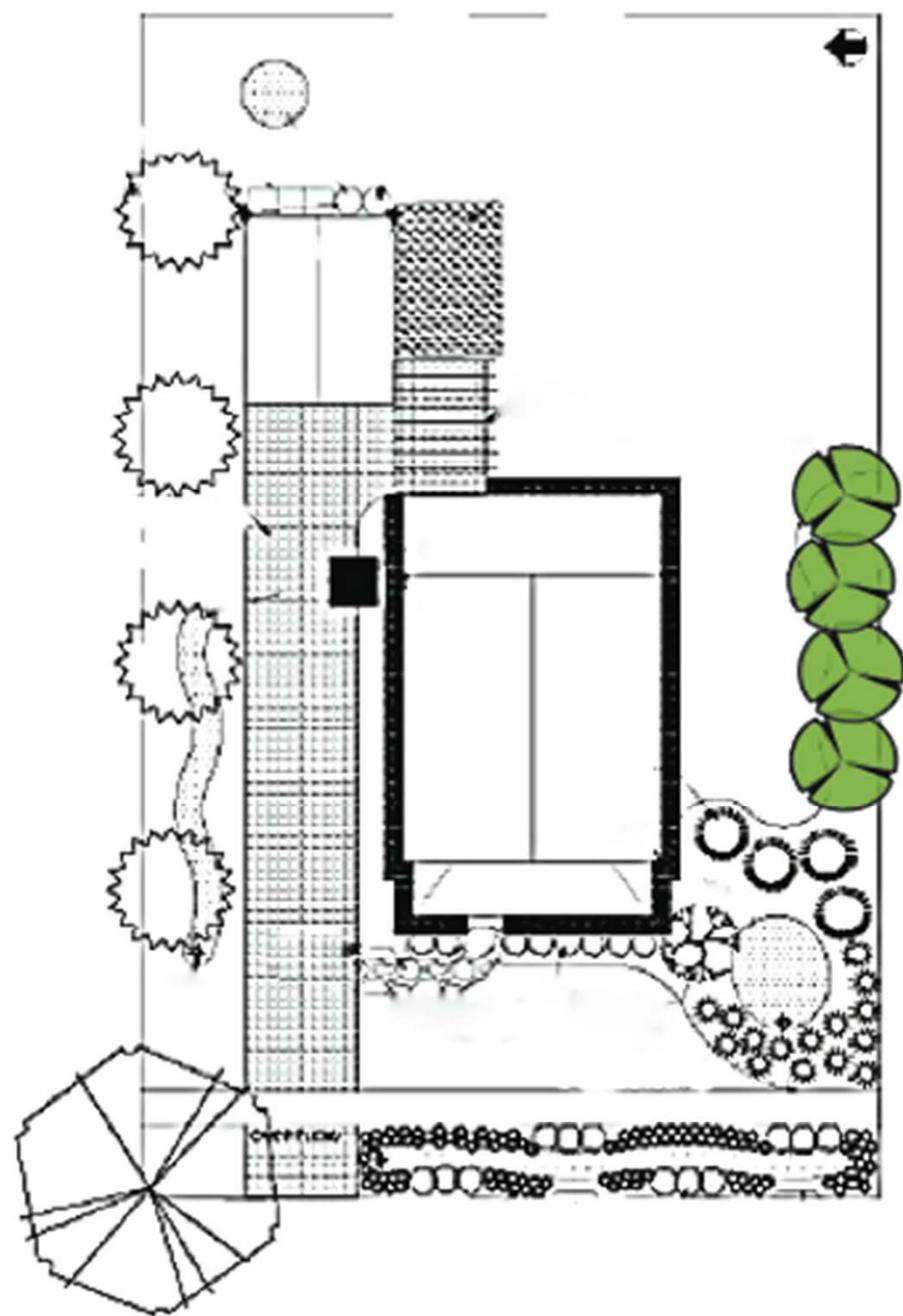


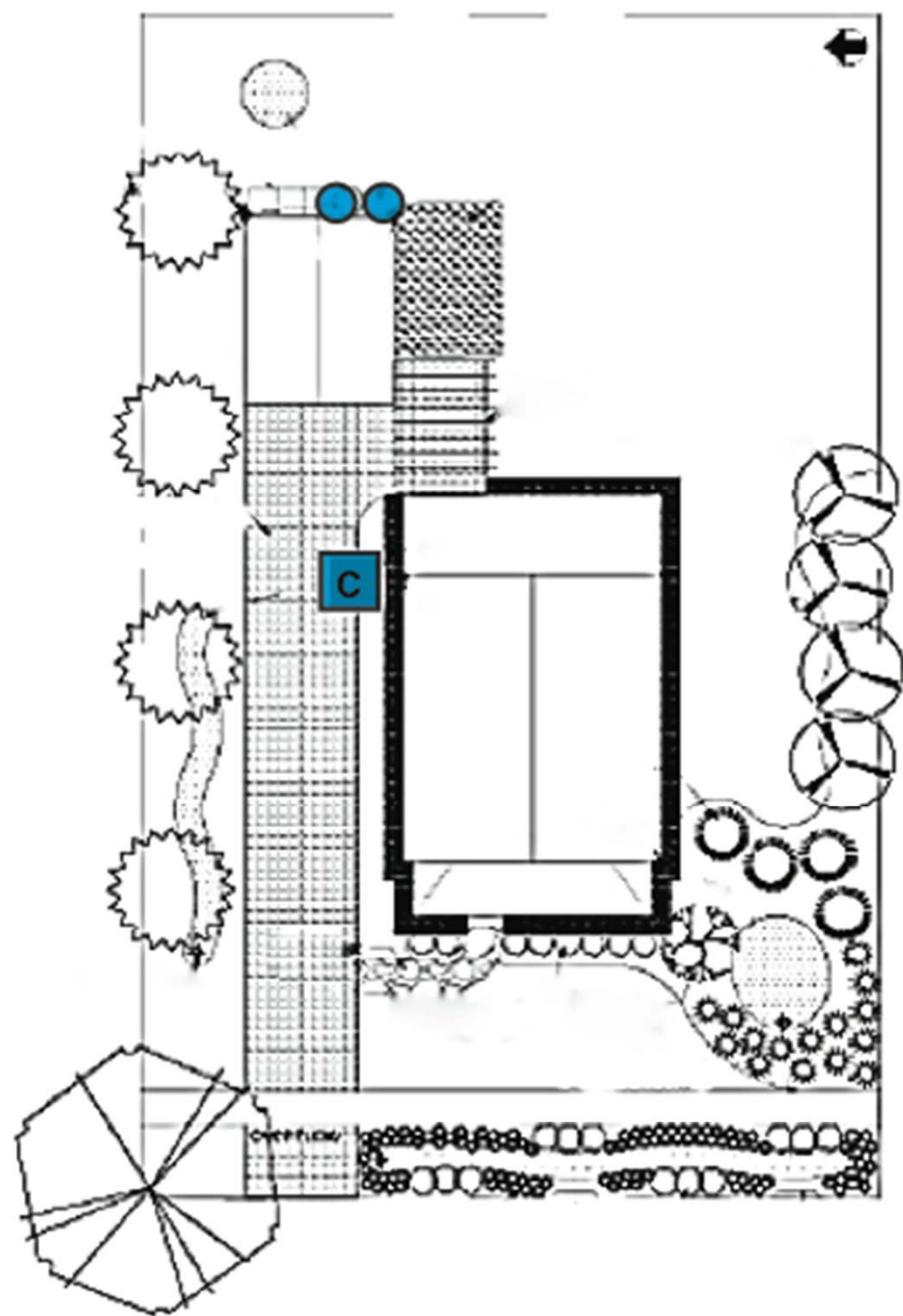


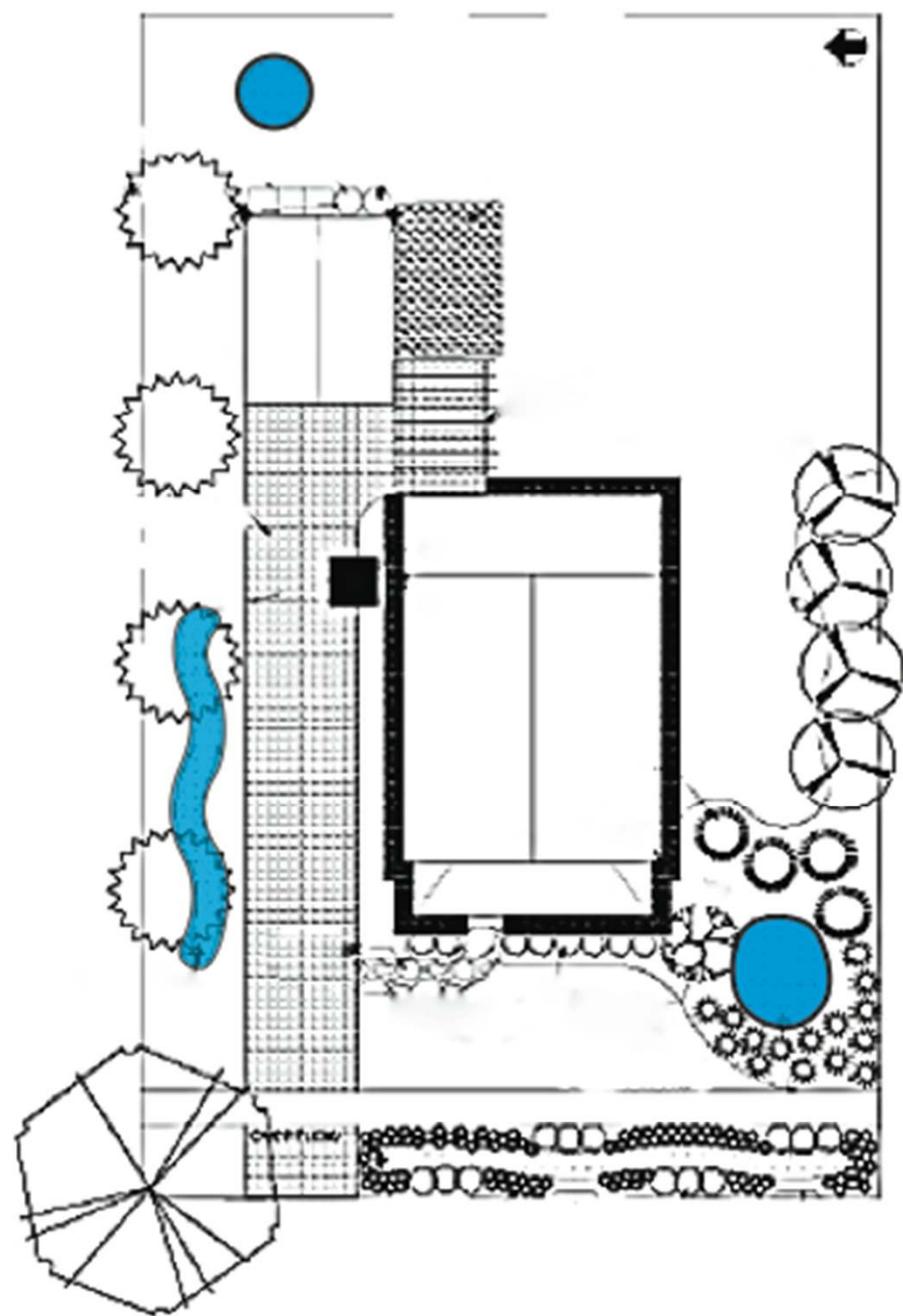












ENVELOPE DURABILITY

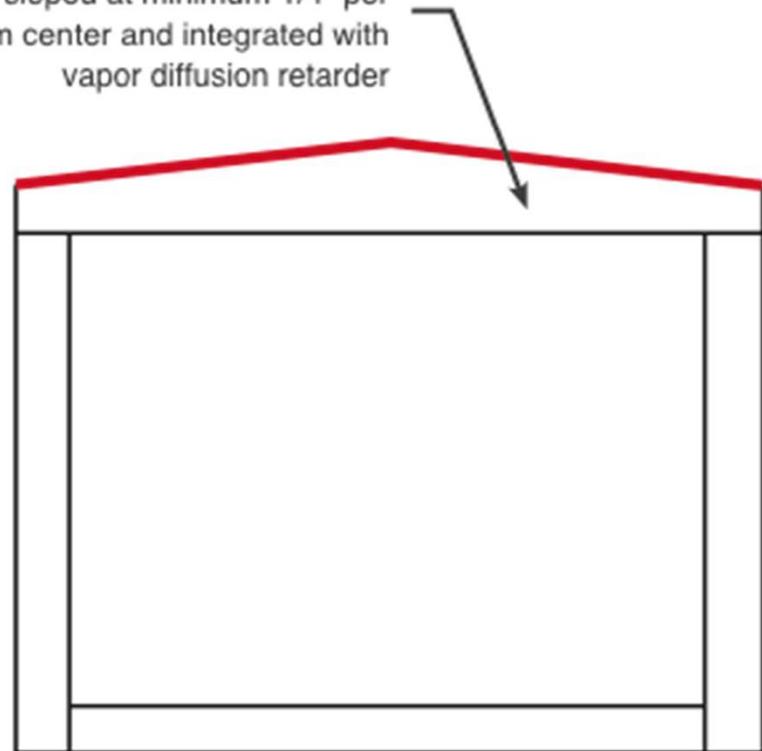


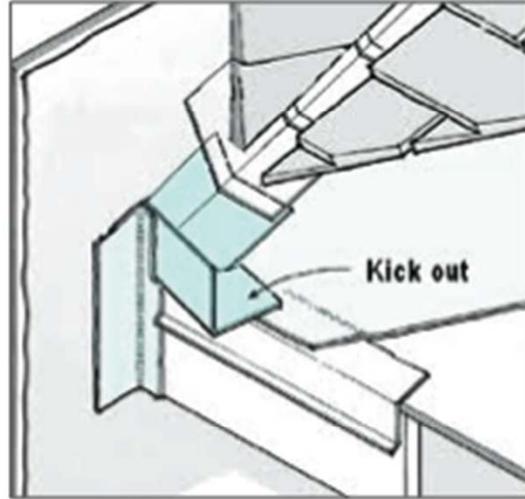
TIMELESS

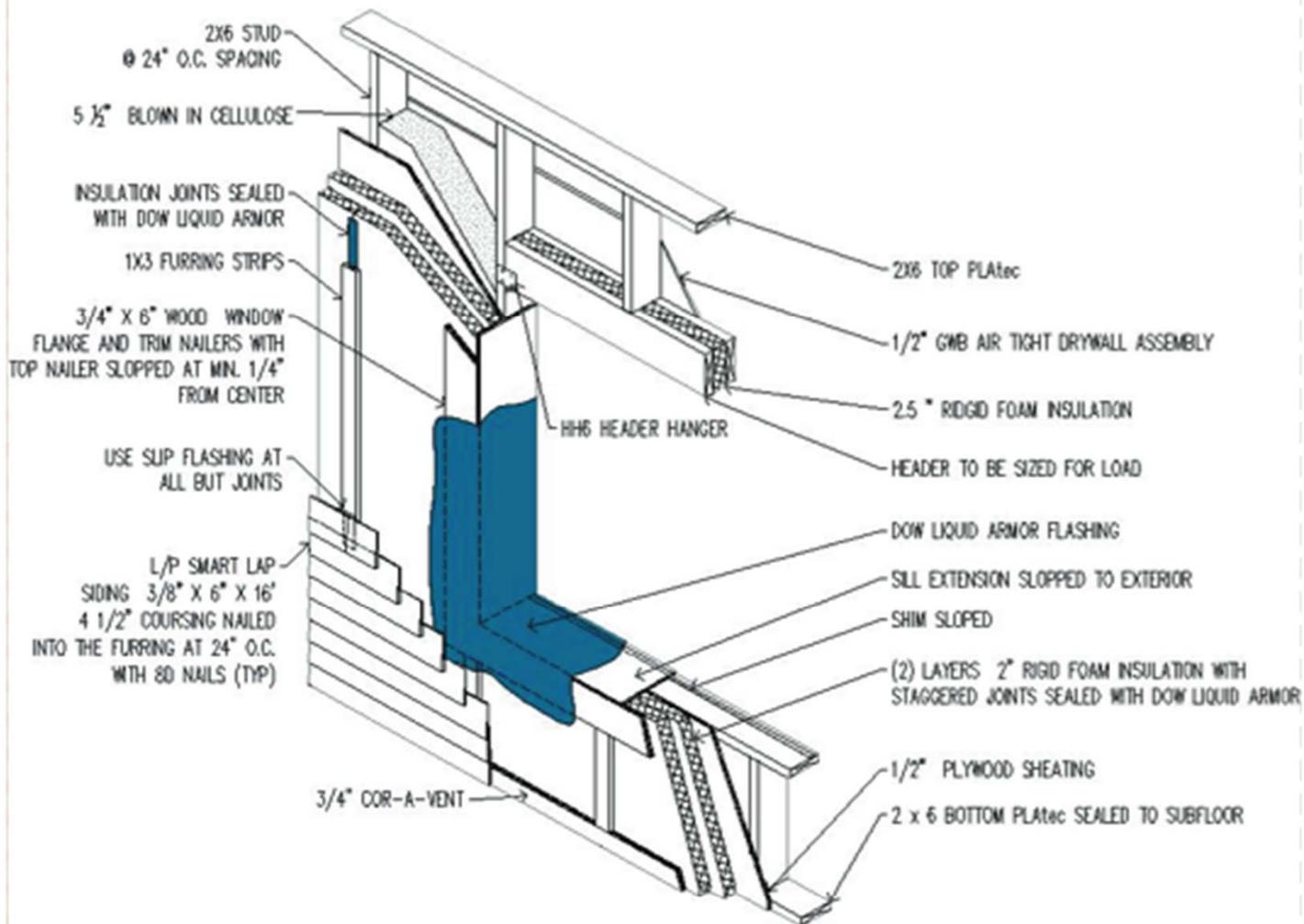
Traditional Ecological Knowledge



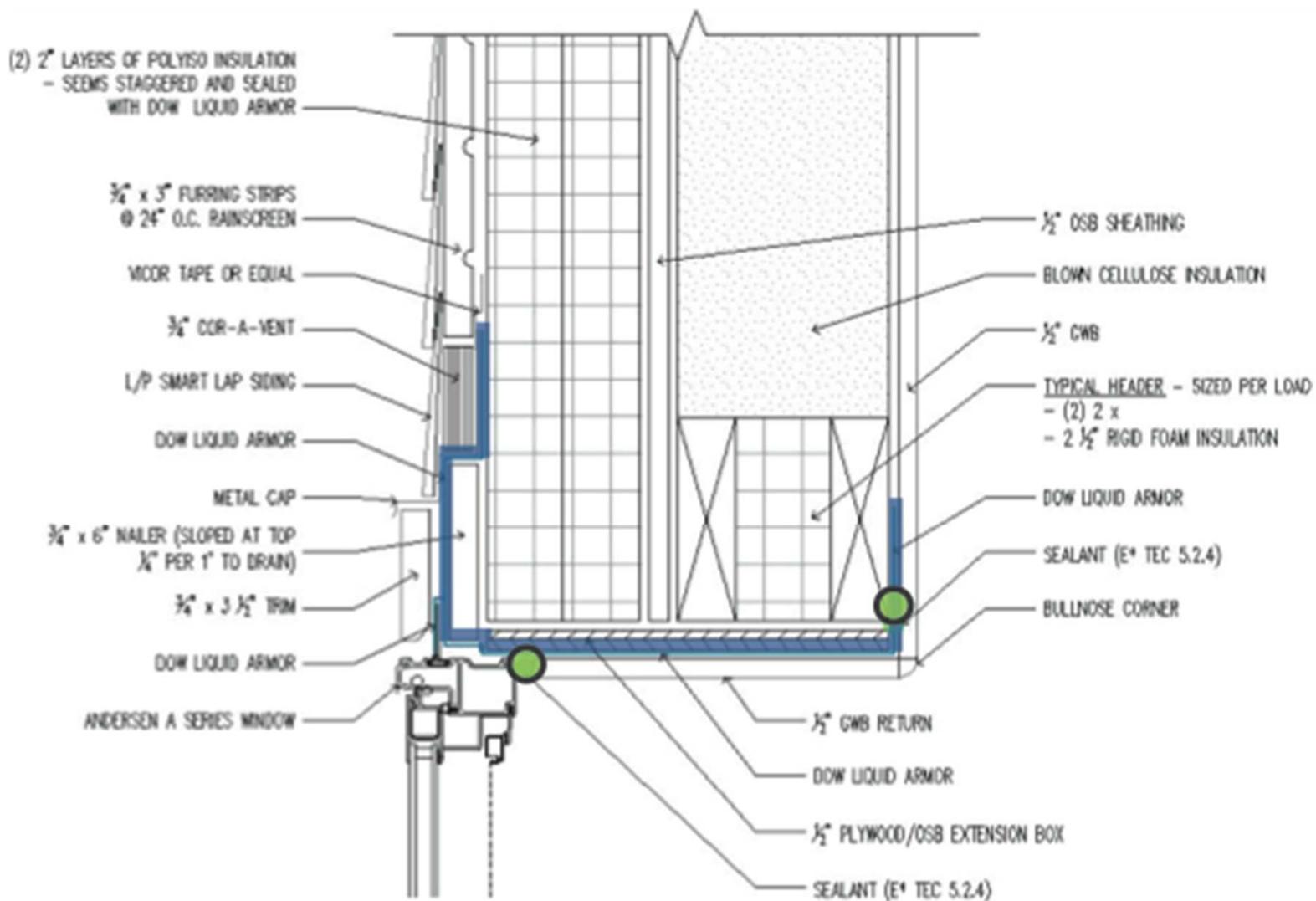
3/4" X 6" Nailers for trim and siding
top nailer sloped at minimum 1/4" per
foot from center and integrated with
vapor diffusion retarder

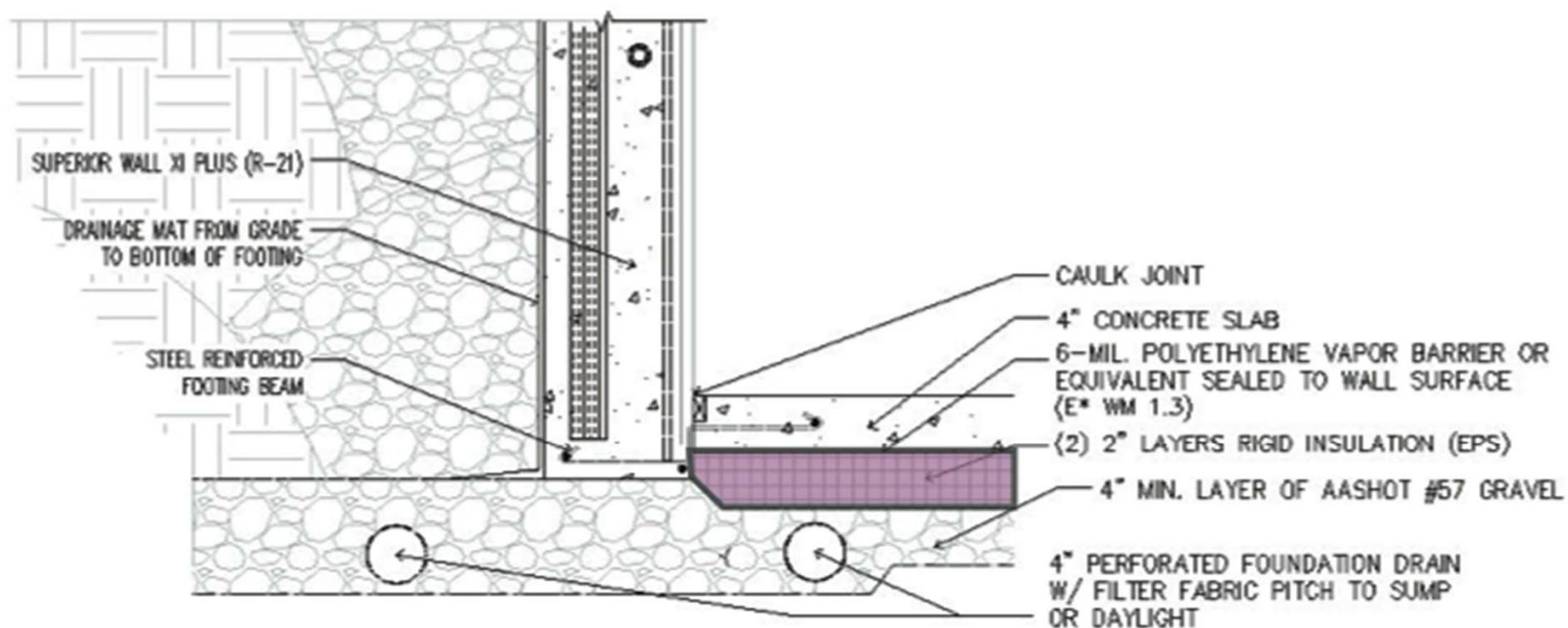


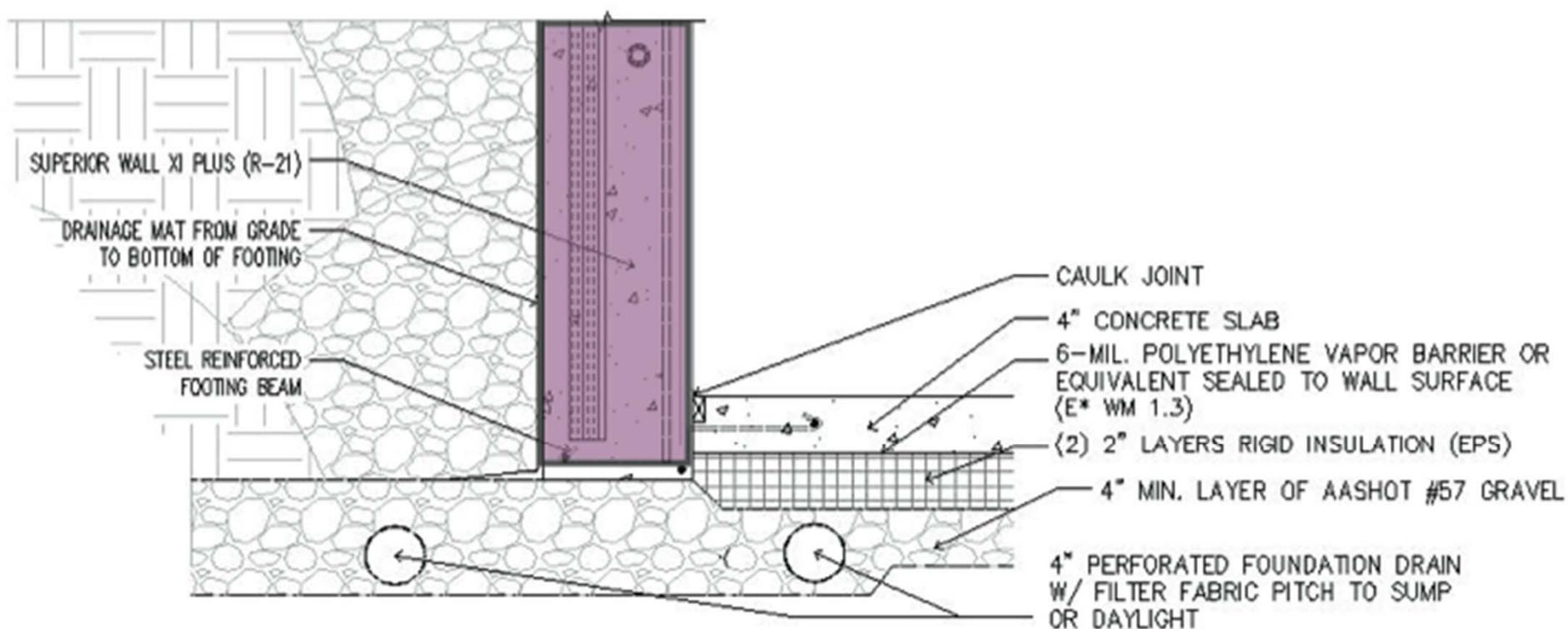


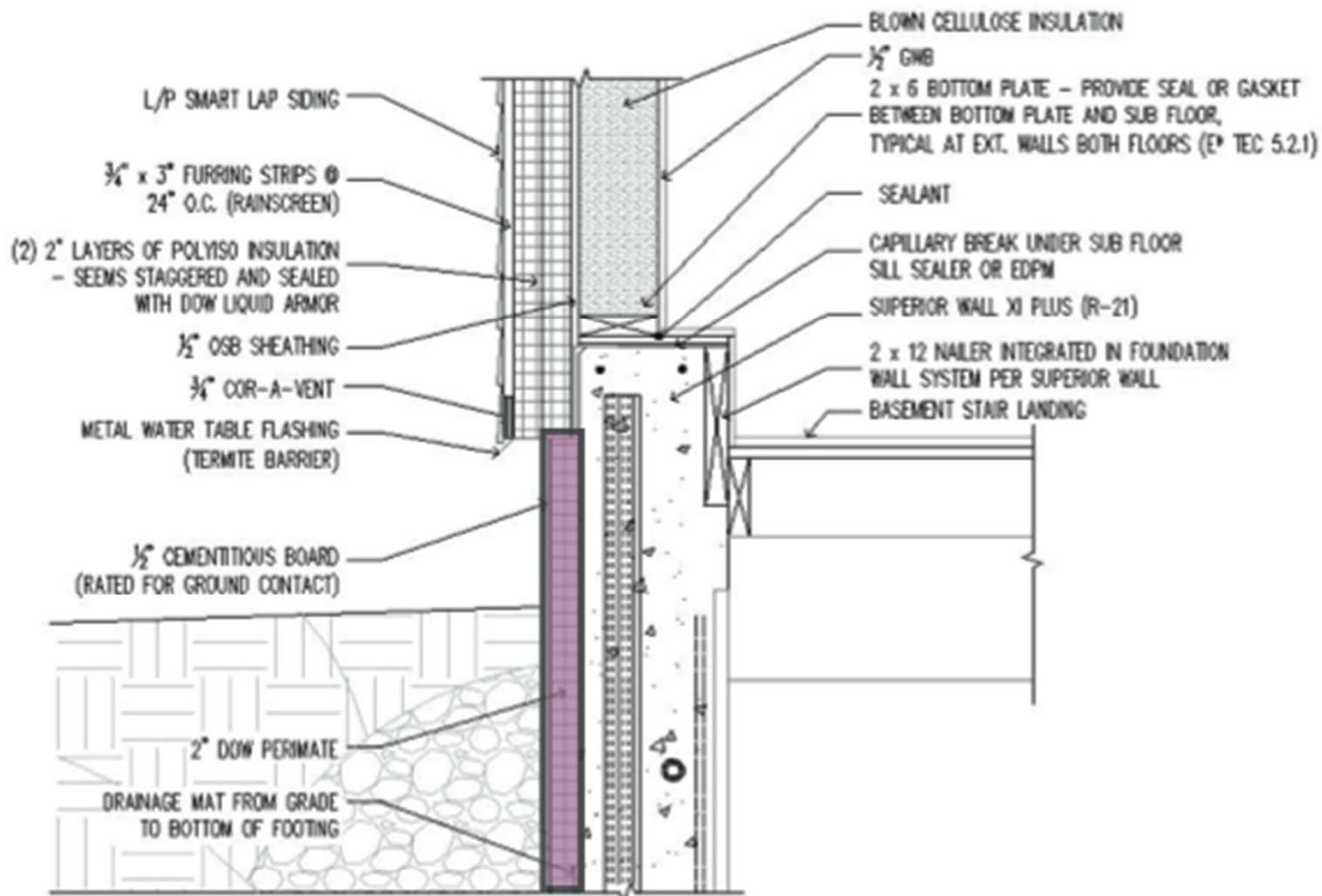


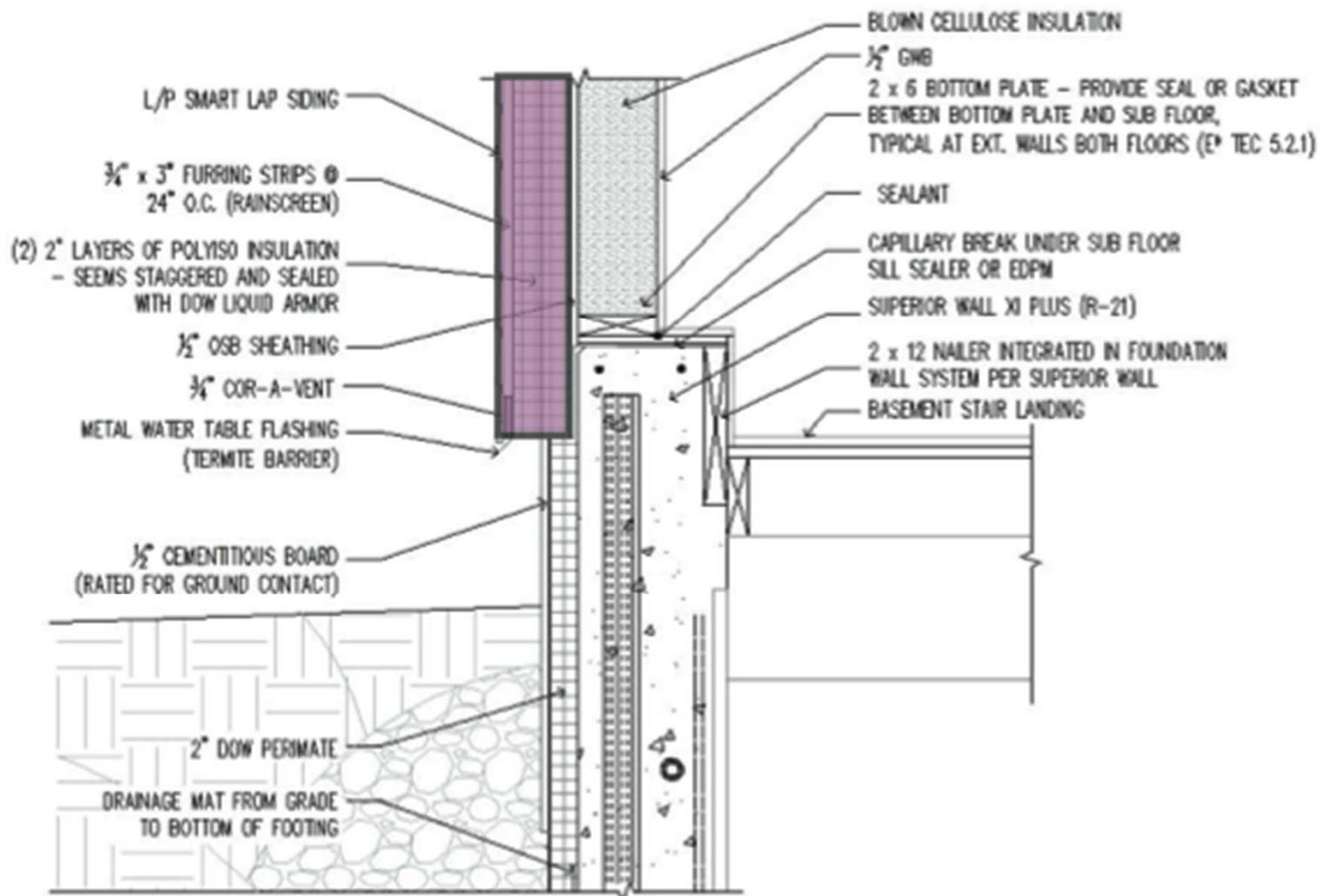
Typical Window Head Detail

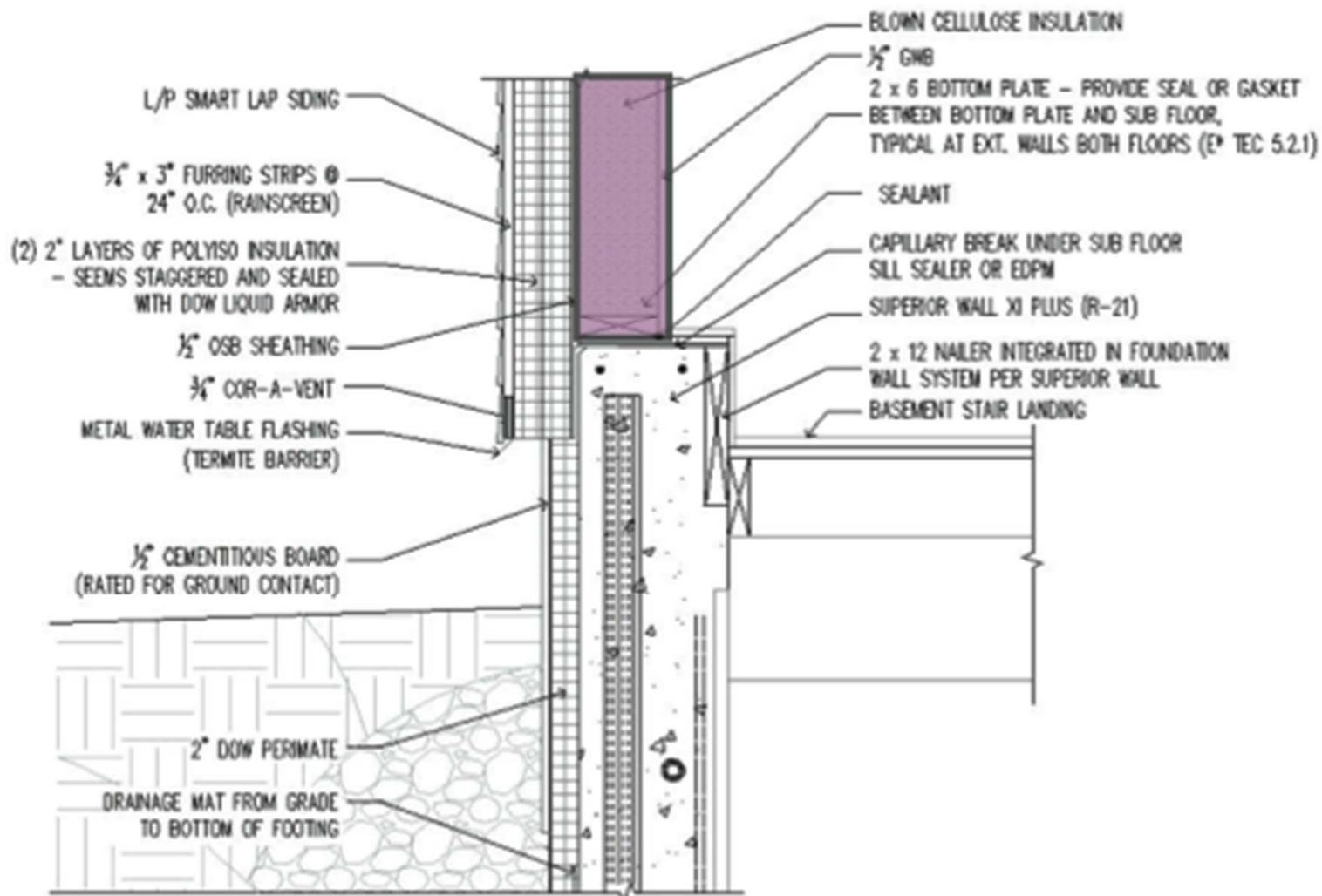


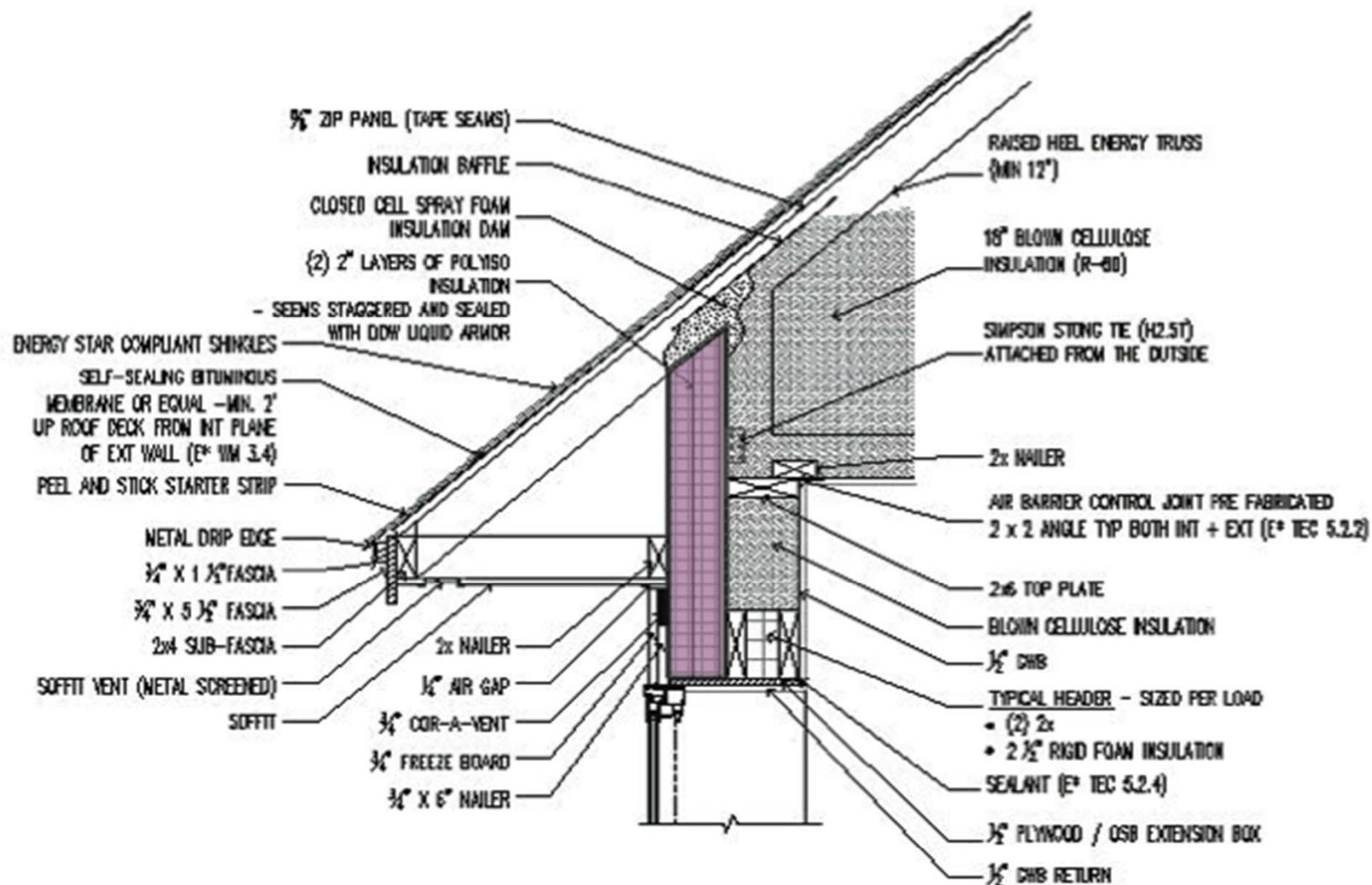


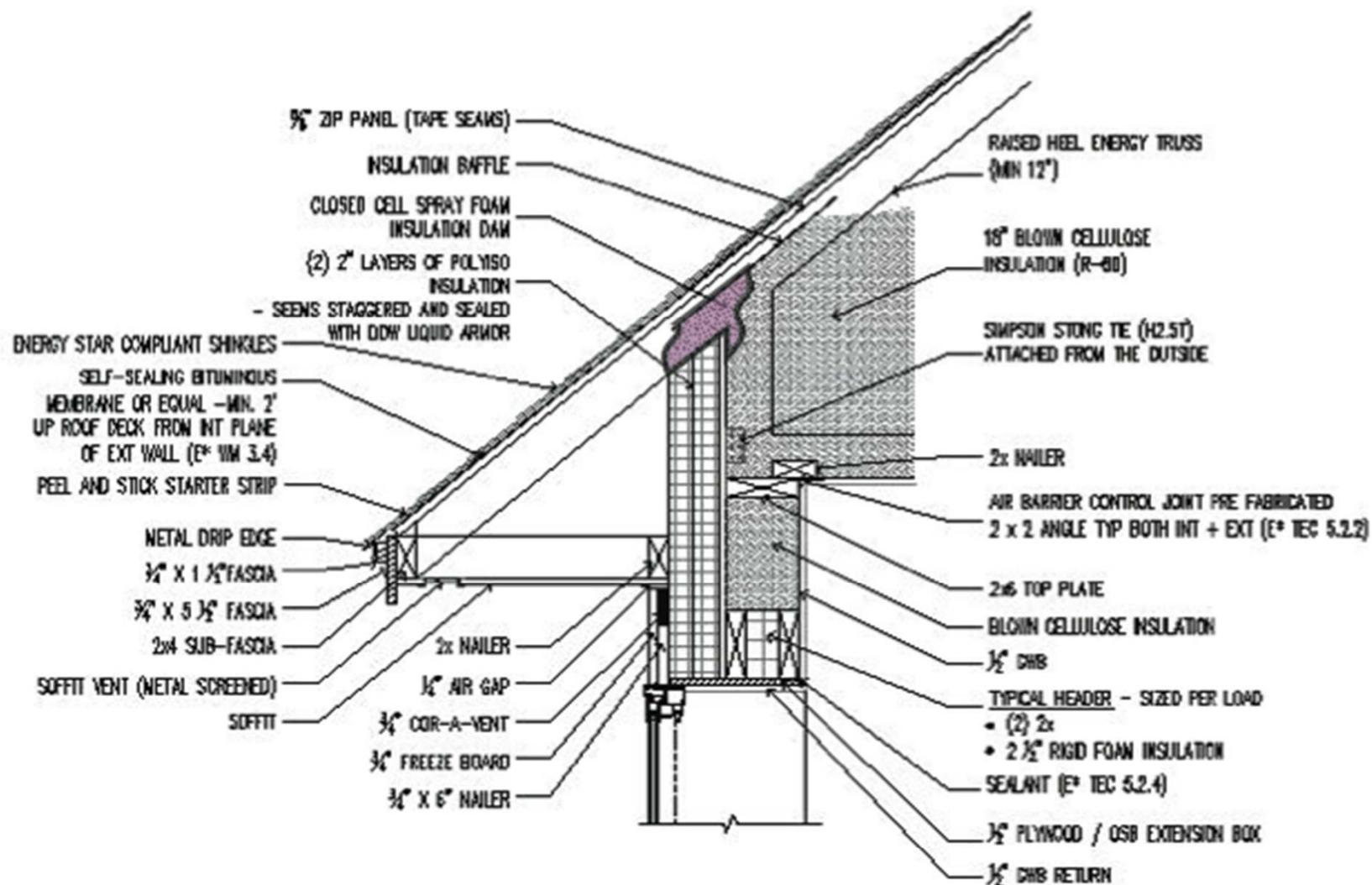


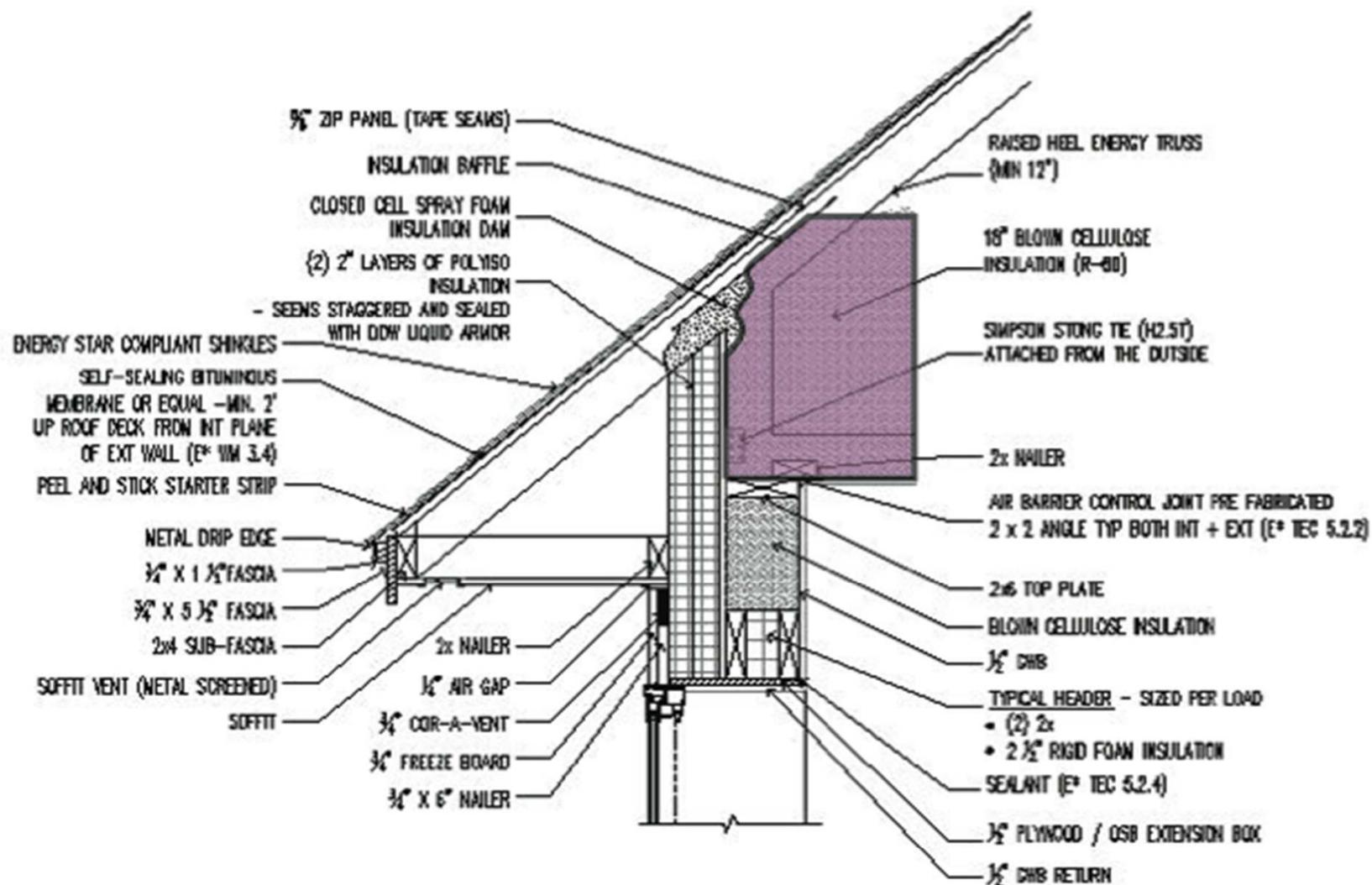


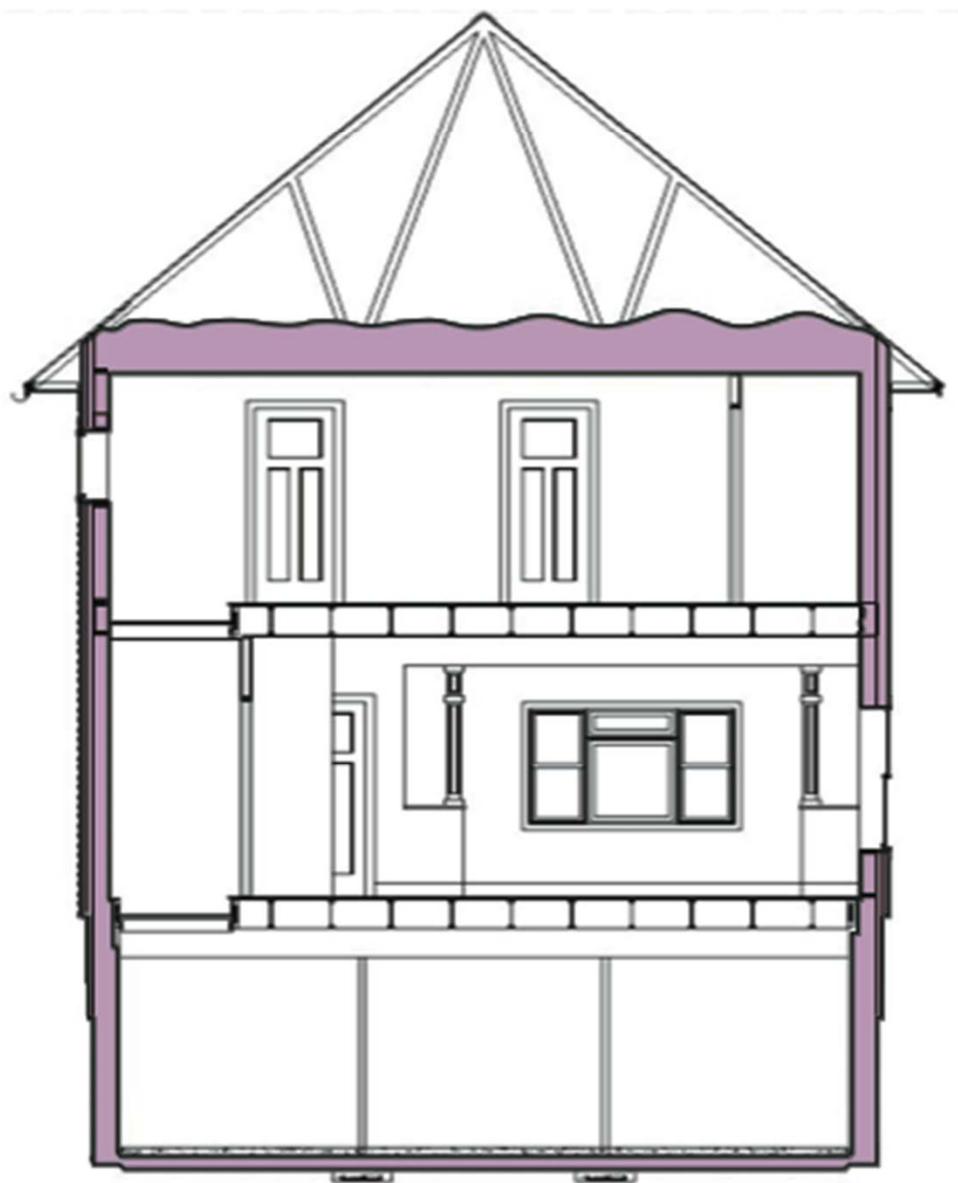




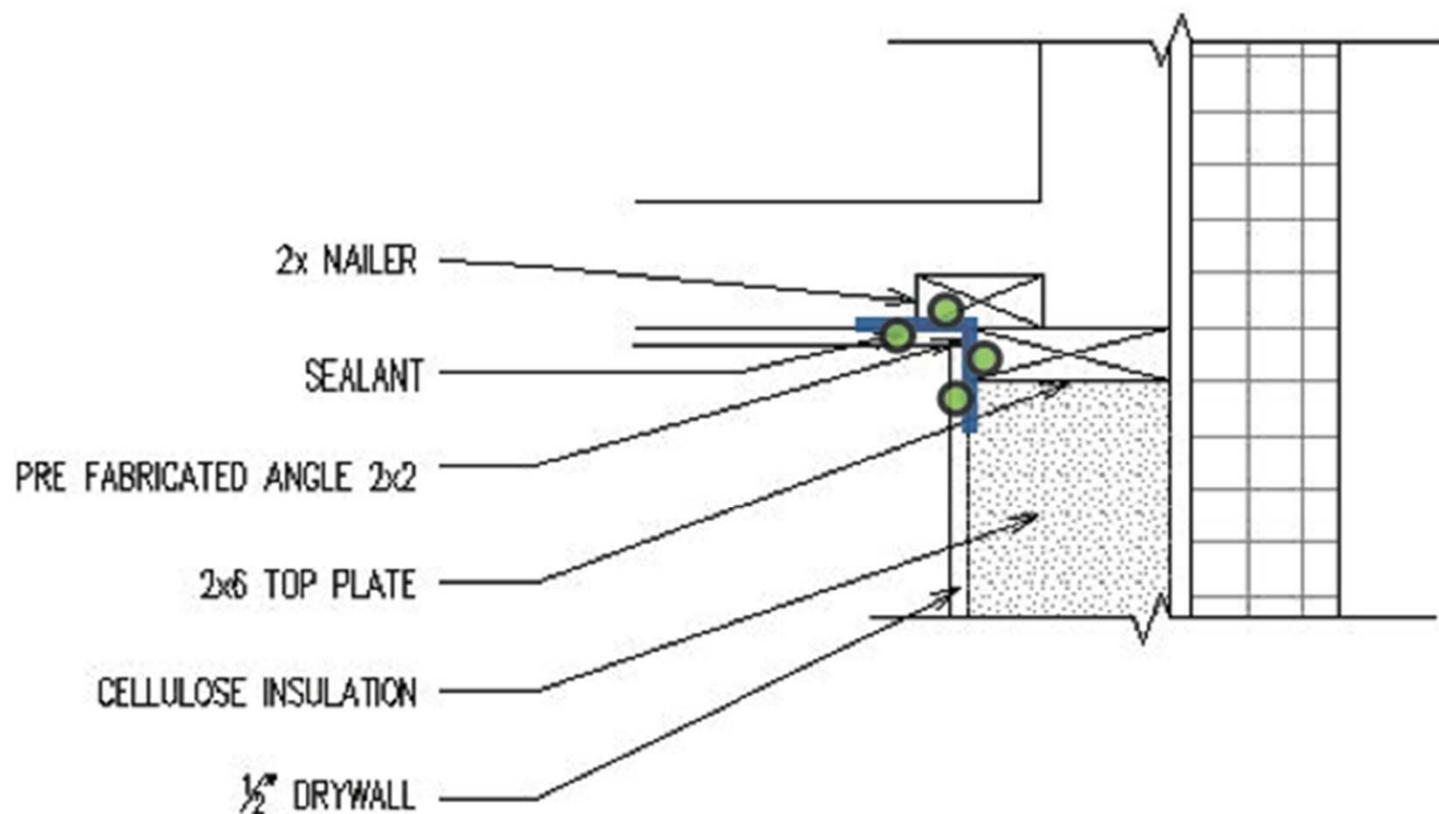








Typical Air Sealing Detail

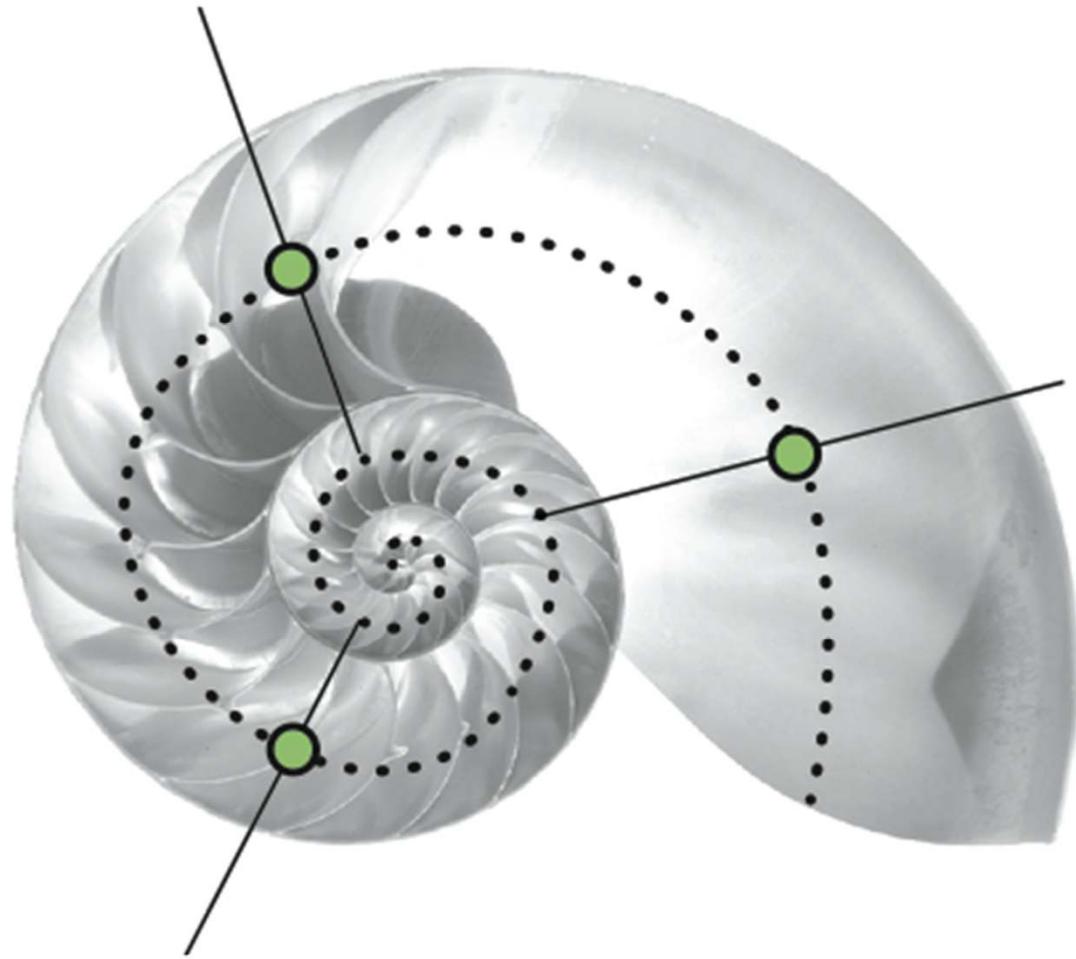


INDOOR AIR QUALITY



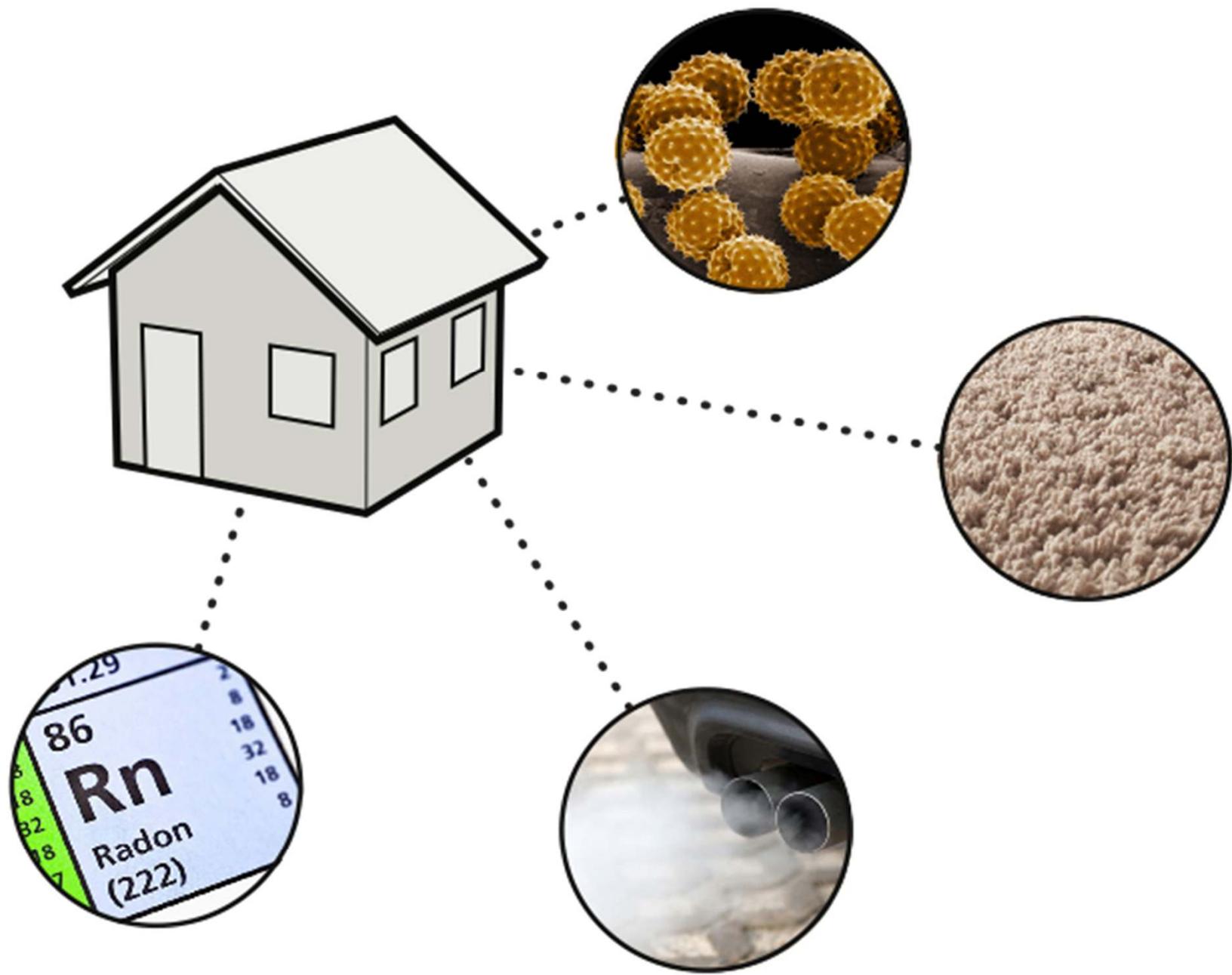
HEALTHY

Provide Adequate
Mechanical Ventilation



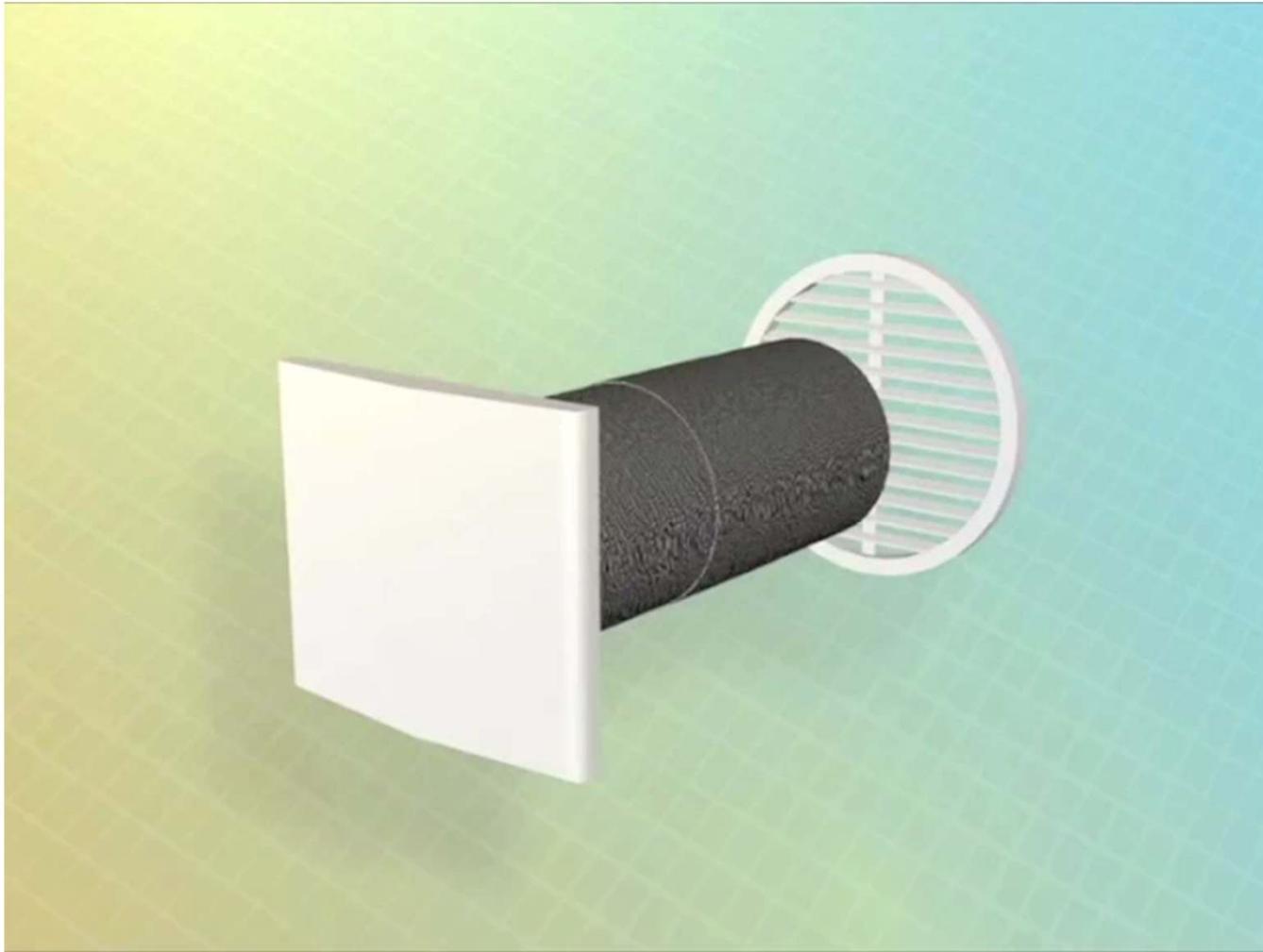
Operable
Windows for
Natural ventilation

Remove Pollutants
at the Source



Lunos e2 HRV

Decentralized Heat Recovery System



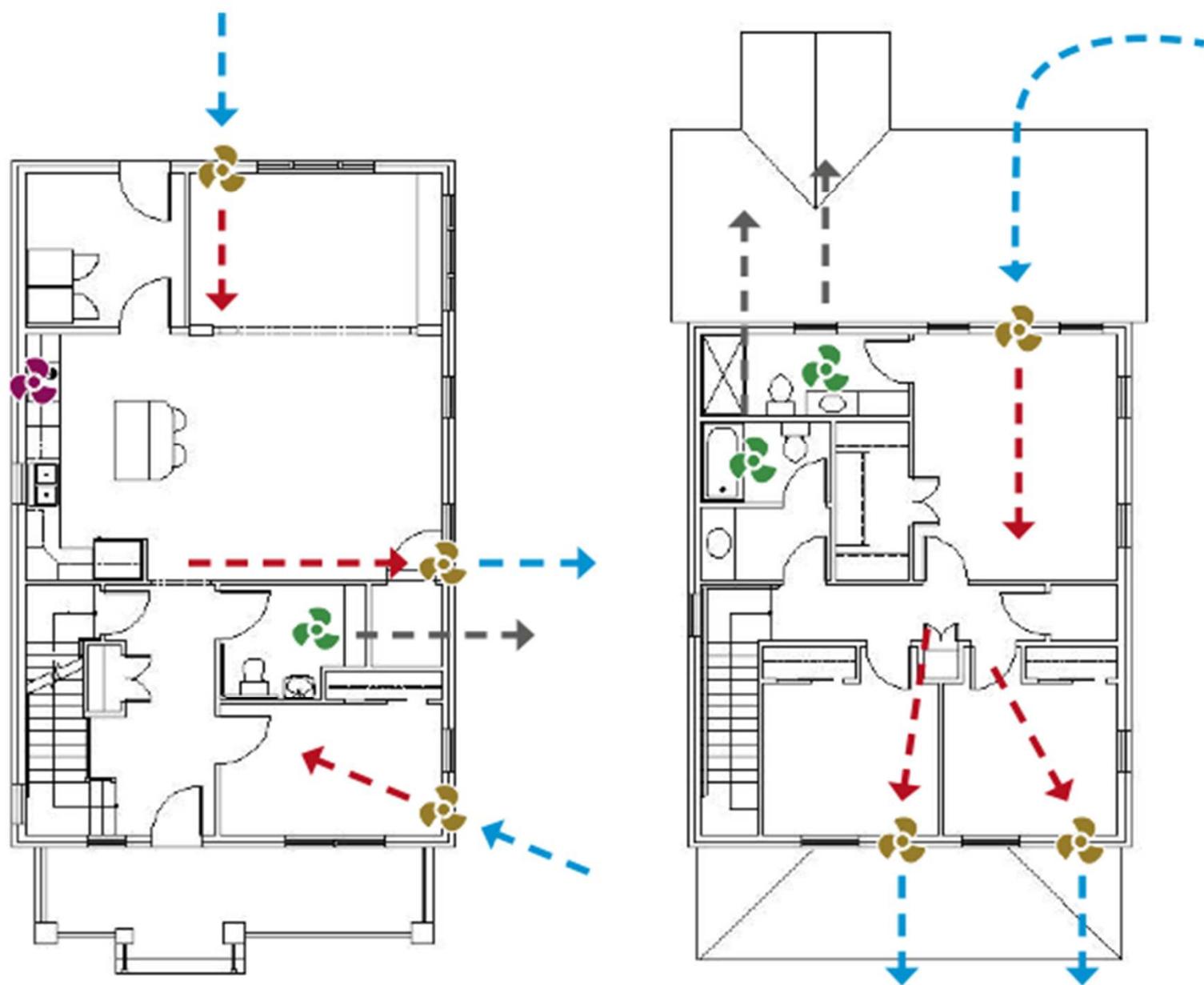
Local Exhaust Ventilation

Panasonic WhisperGreen



Range Hood



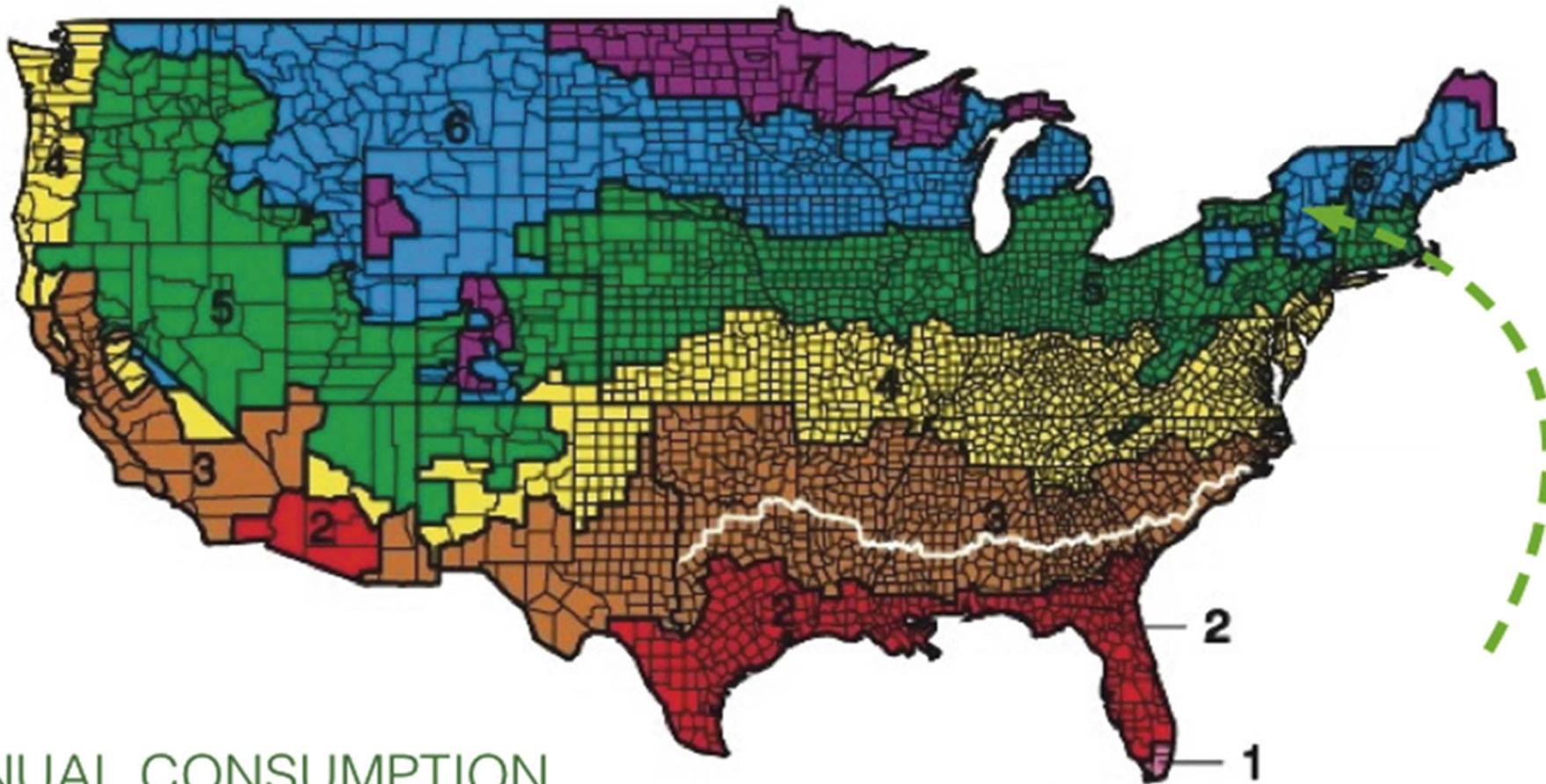


 Lunos e2 HRV
  Panasonic WhisperGreen Exhaust Fan
  Rangehood

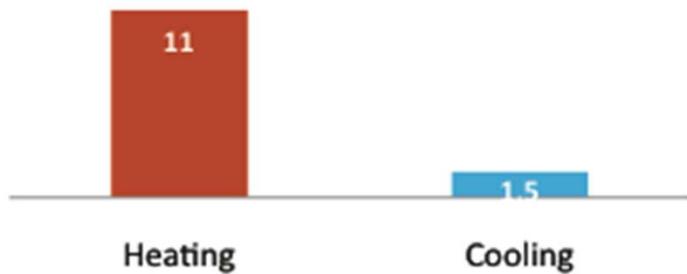
SPACE CONDITIONING



EFFICIENT



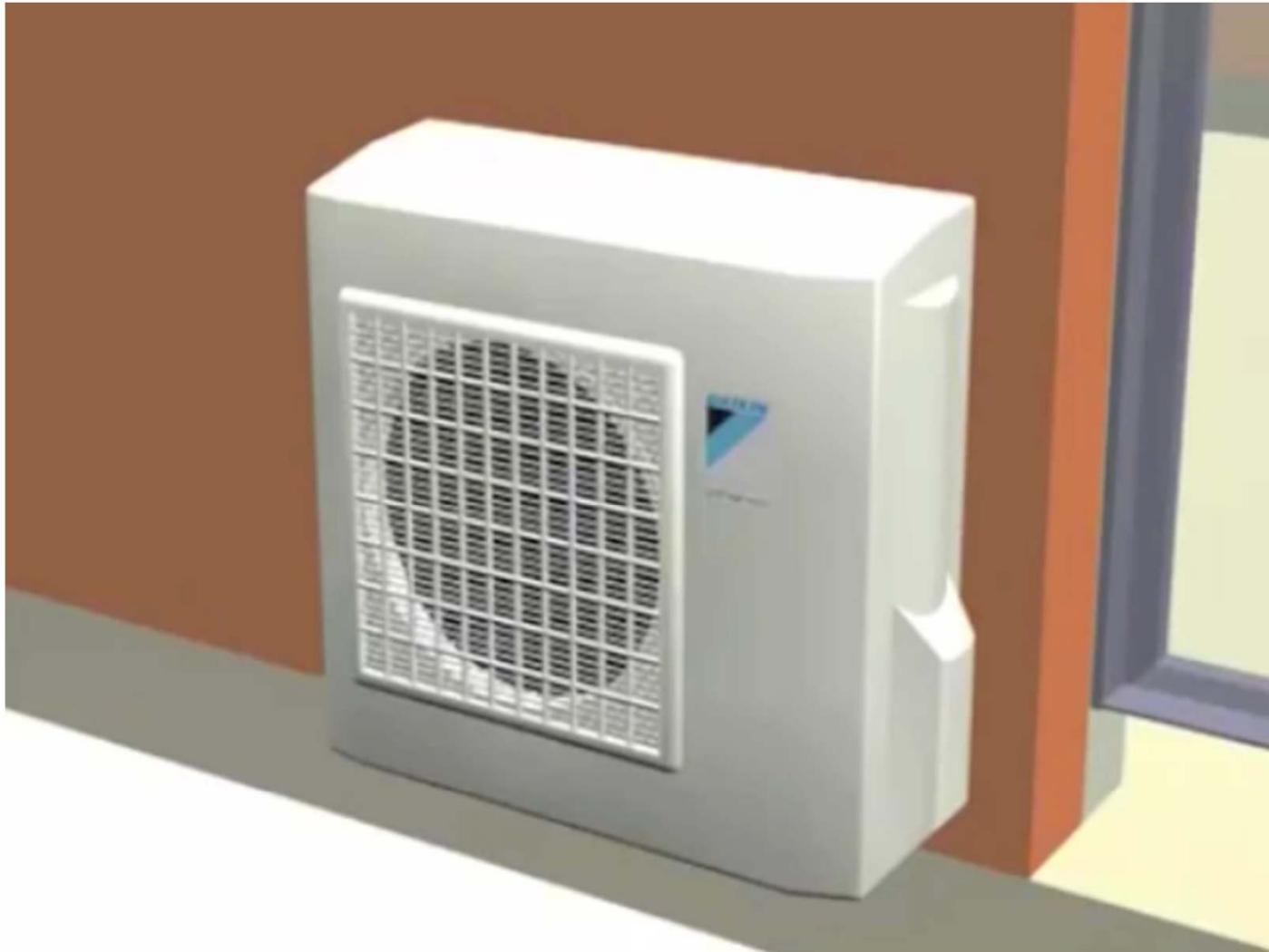
ANNUAL CONSUMPTION
(MMBTU/YEAR)

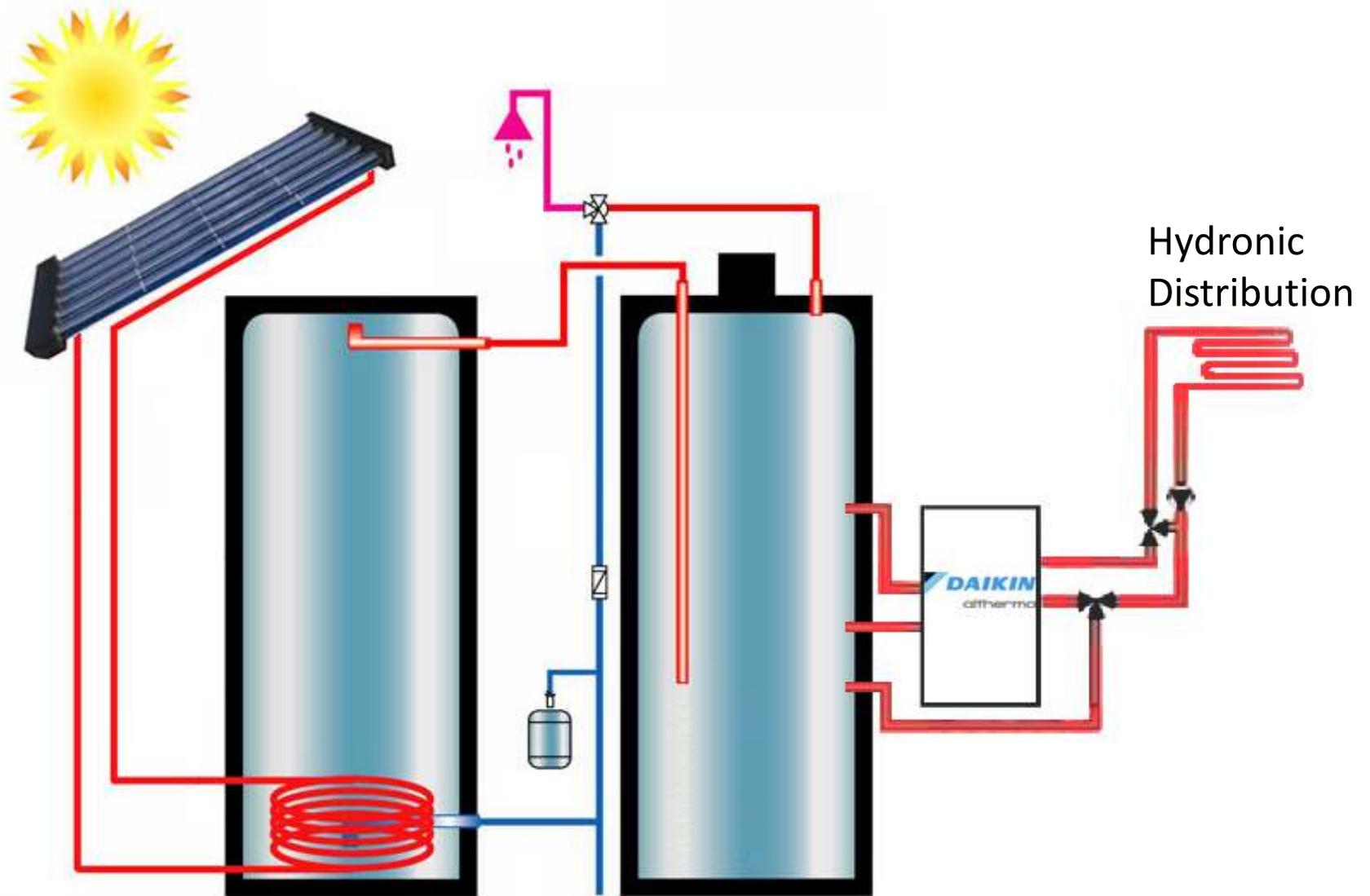


CLIMATE ZONE 5a

Daikin Altherma

Air-source to Water Heat Pump





Distribution

	Low temp Baseboard	Staple-up Radiant	Warm board Radiant
Energy consumption heating	3824 kWh	3199 kWh	2402 kWh
Energy cost heating	570 \$	477 \$	358 \$
Spare capacity	19777 BTU/h	20029 BTU/h	21490 BTU/h
Seasonal COP	2.3	2.8	3.7

Warm Board

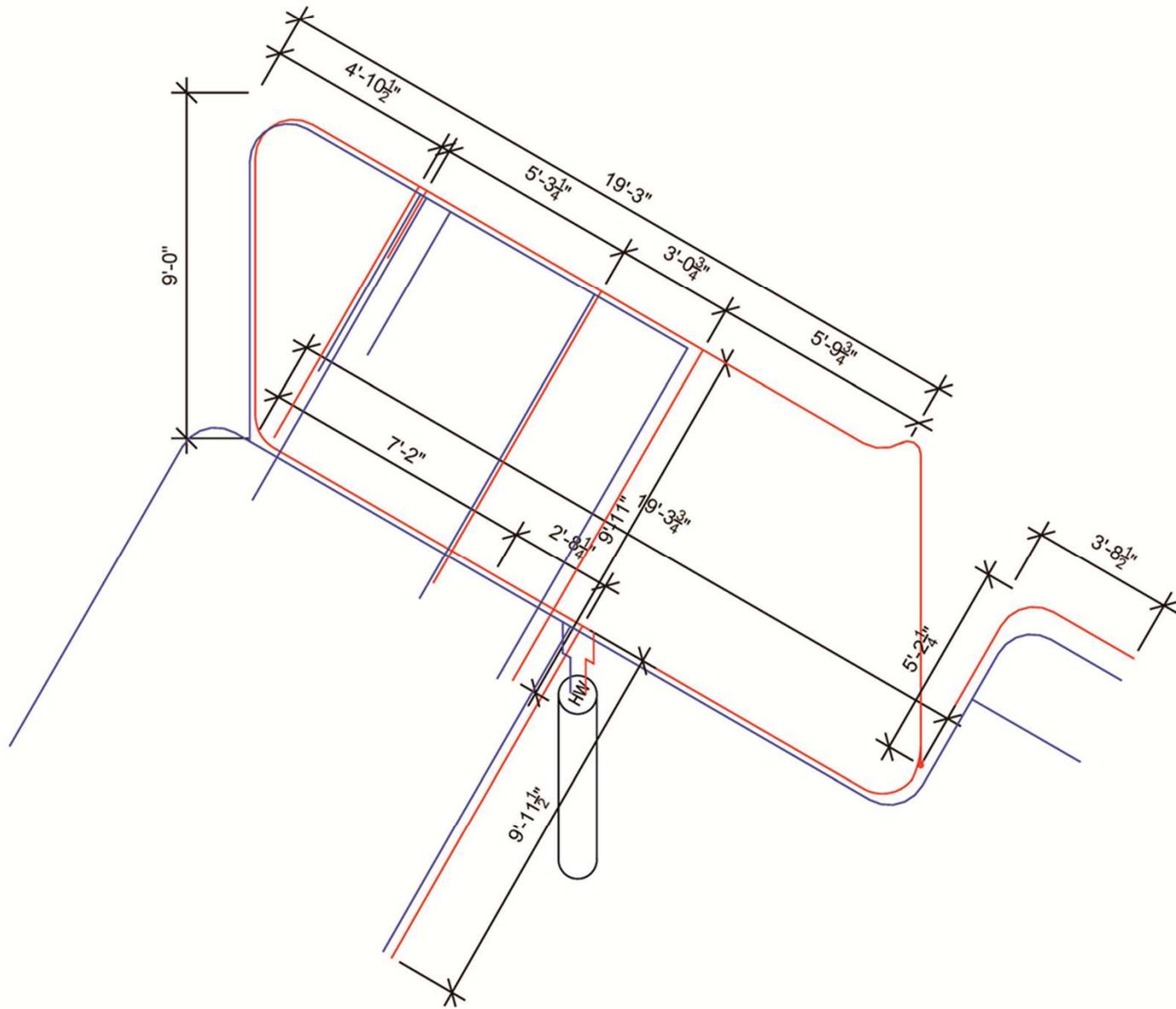


DOMESTIC HOT WATER

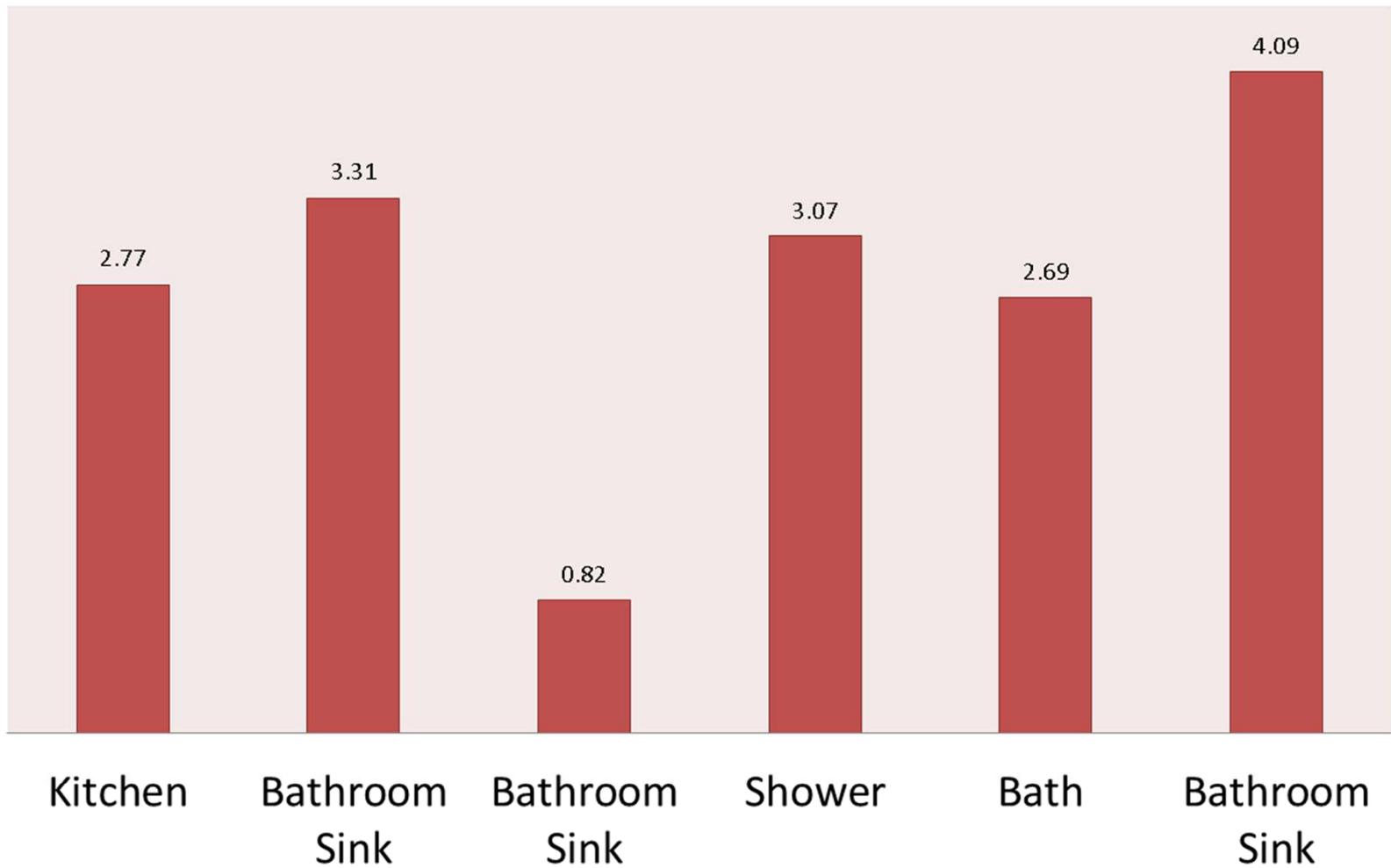


PLANET

Plumbing Riser Diagram



Hot Water Wait Time (Seconds)



NET ZERO



PROSPERITY

HIGH EFFICIENCY



- HVAC
- Lighting
- Appliances
- Construction

NET ZERO ENERGY



SOLAR
ELECTRIC
THERMAL
ELECTRIC



Solar Study

Winter Solstice



Net Zero



Energy



Water Ready



Money



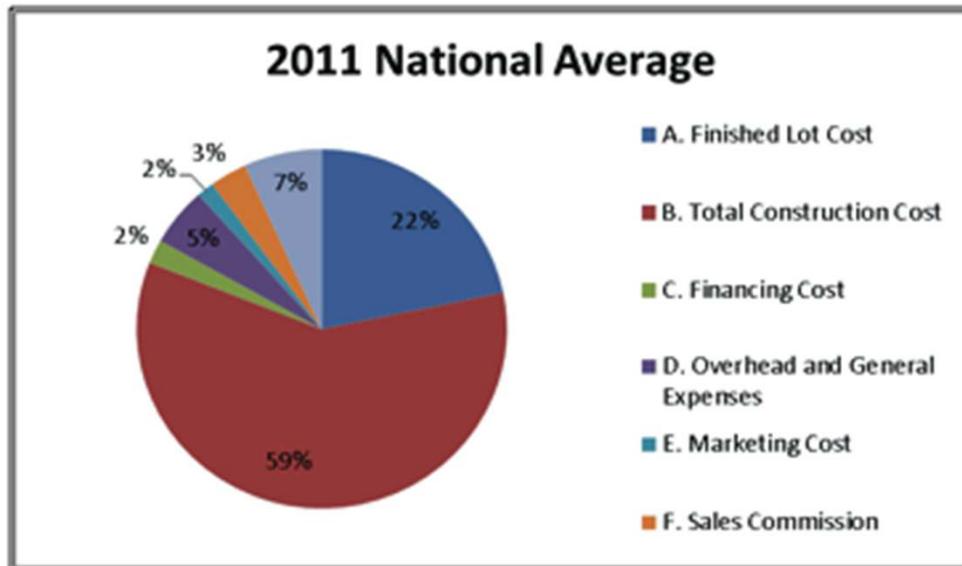
Fossil Fuels

FINANCIAL



LOCAL

Sales Price Breakdown

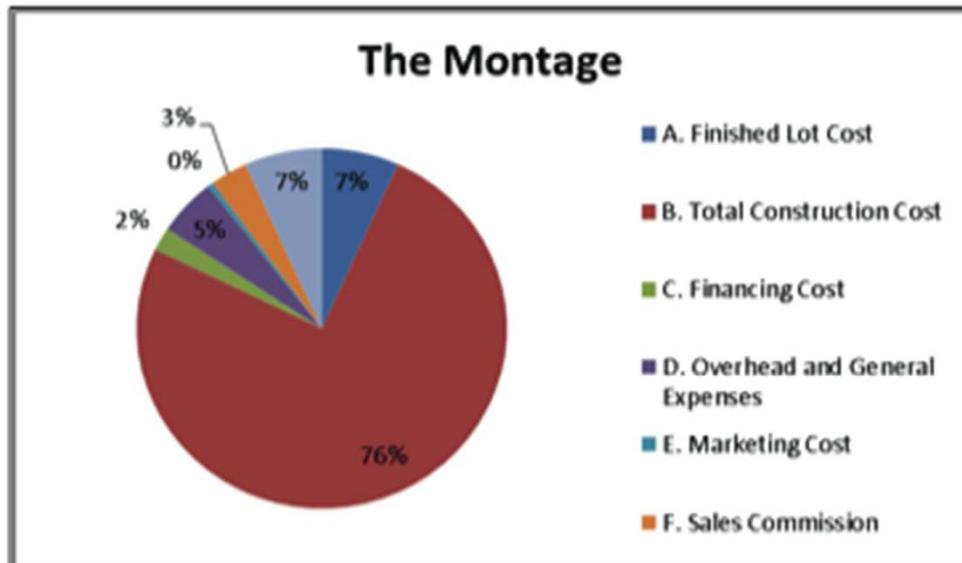


- 2011 NAHB AVERAGE

- \$310,618
- \$134 / SF

- THE MONTAGE

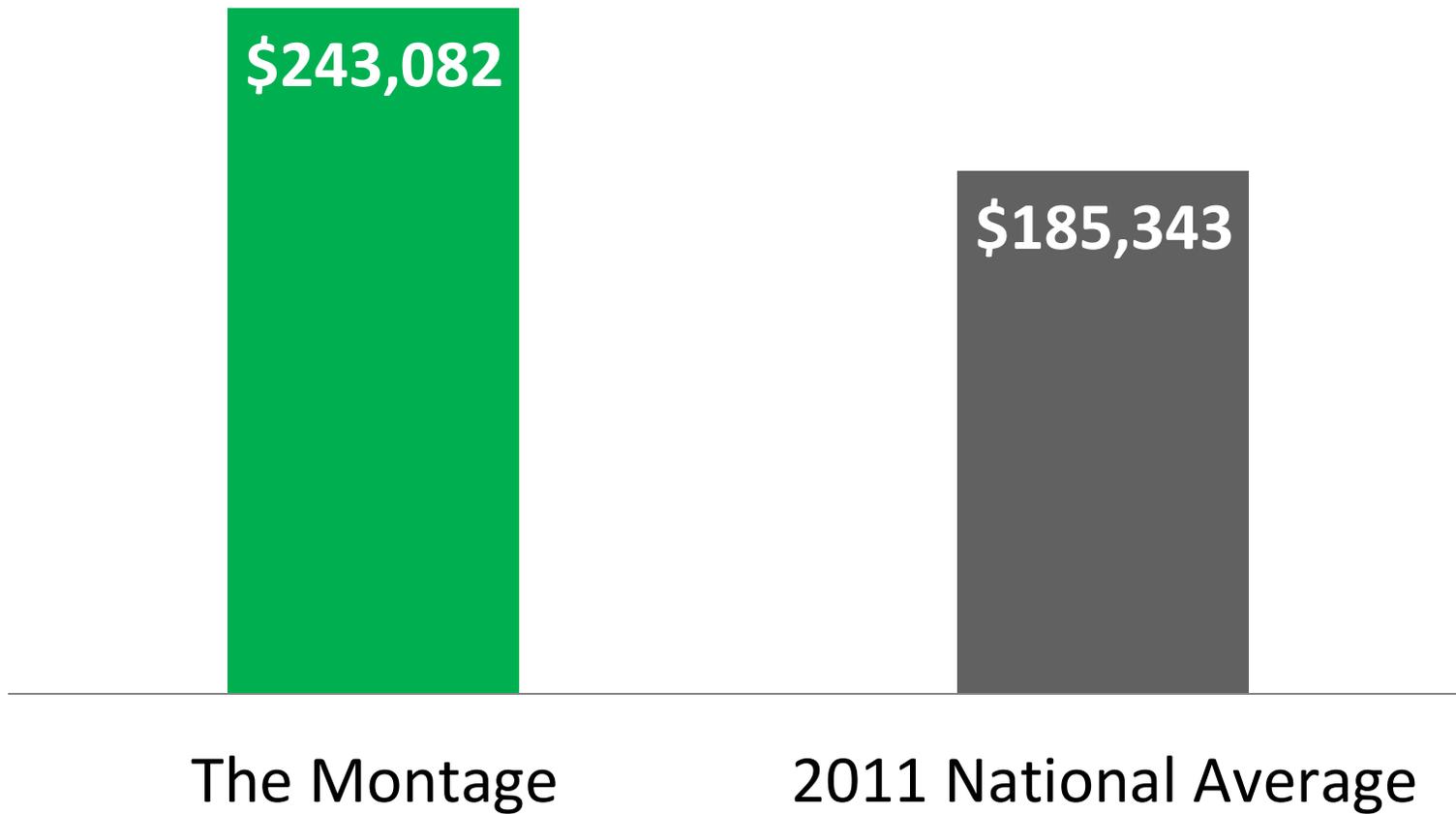
- \$321,977
- \$169 / SF



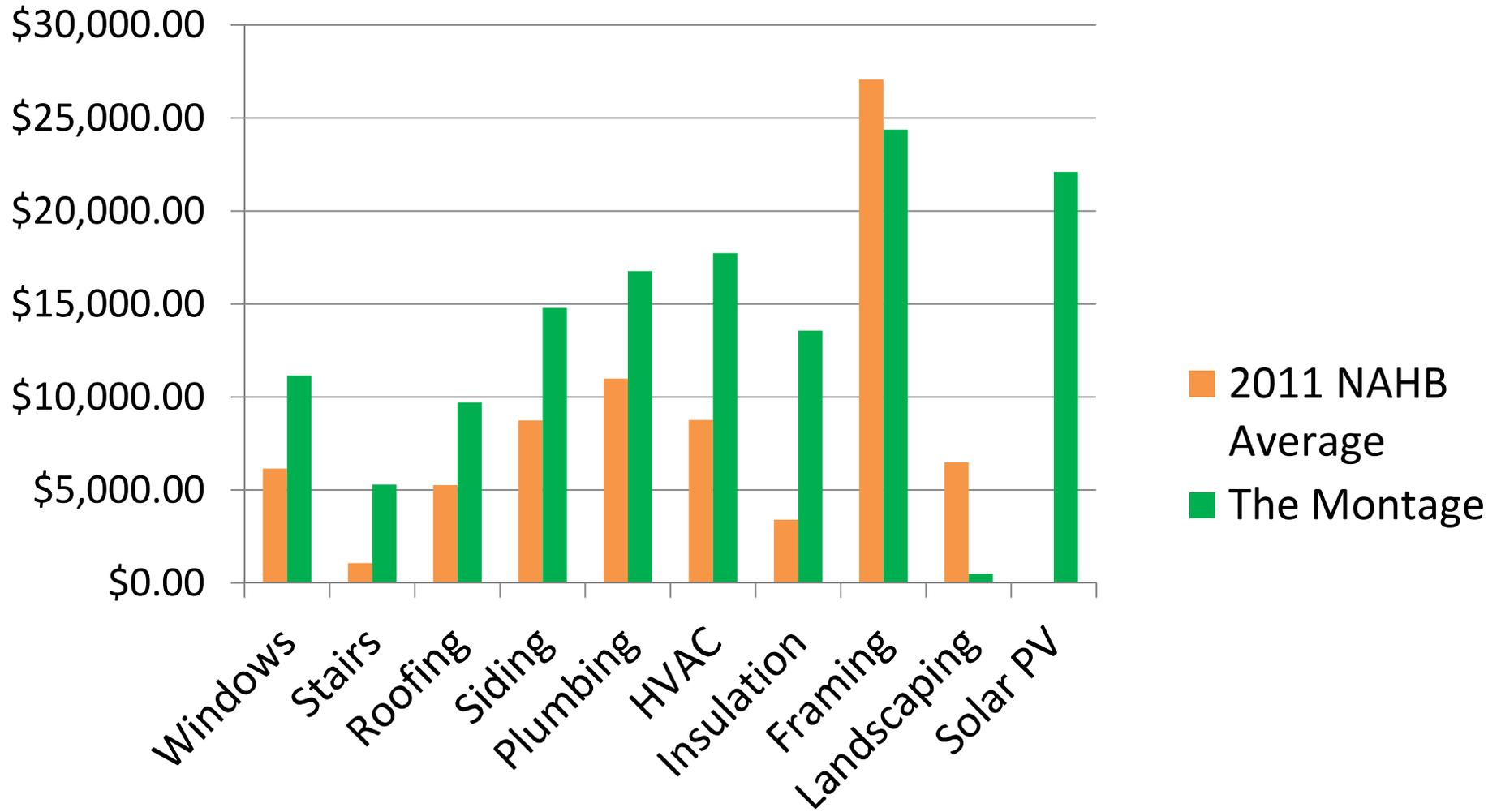
- DIFFERENCE:

- \$11,359
- 3.65% Increase

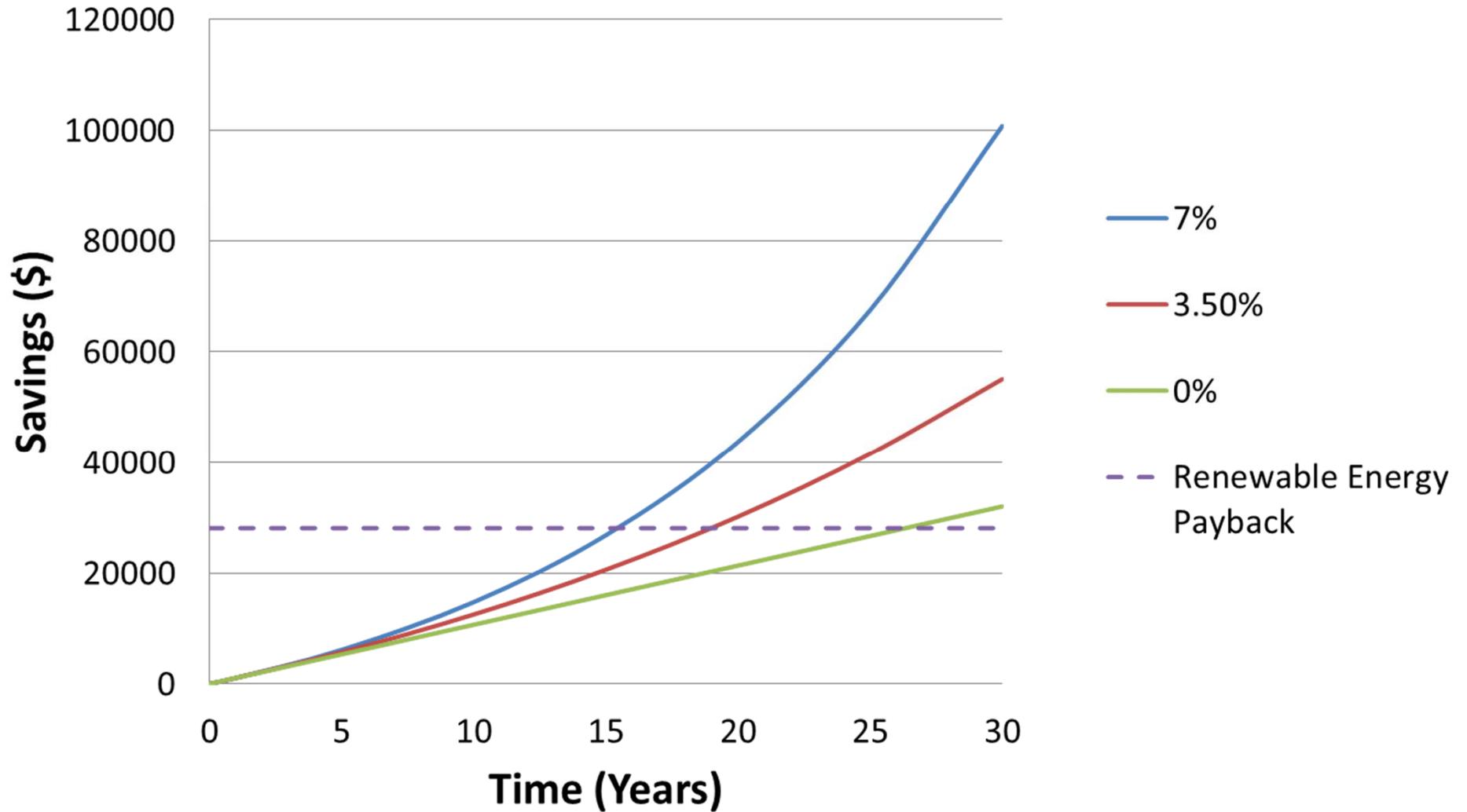
Construction Cost



Construction Cost



Utility Cost Savings



THANK YOU!



QUESTIONS?