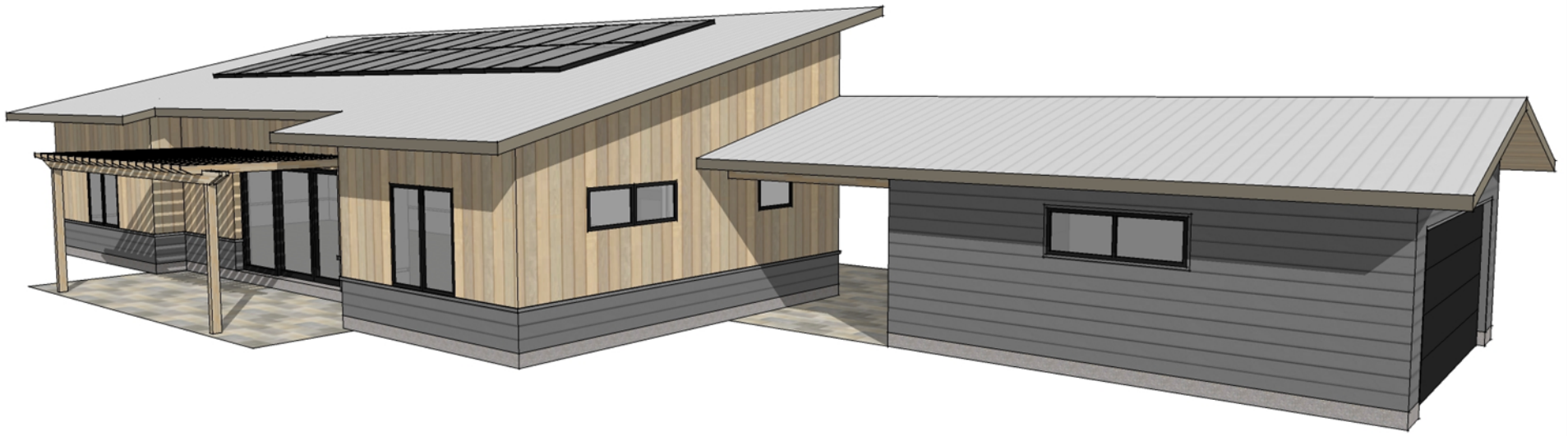


FOLLOW THE BUILD

Part 1: 2019



Amber Westerman

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Spring Green, Wisconsin

POEMHOMES.org

modest homes for modern living

*low environmental impact
small new homes 1000-1400 sf*

*fossil-fuel free
net-zero with on-site PV*

*super-insulated, super-airtight
passive heating/cooling*

*low/non-toxic materials/finishes
barrier-free/built with care*

FINDING A PLACE

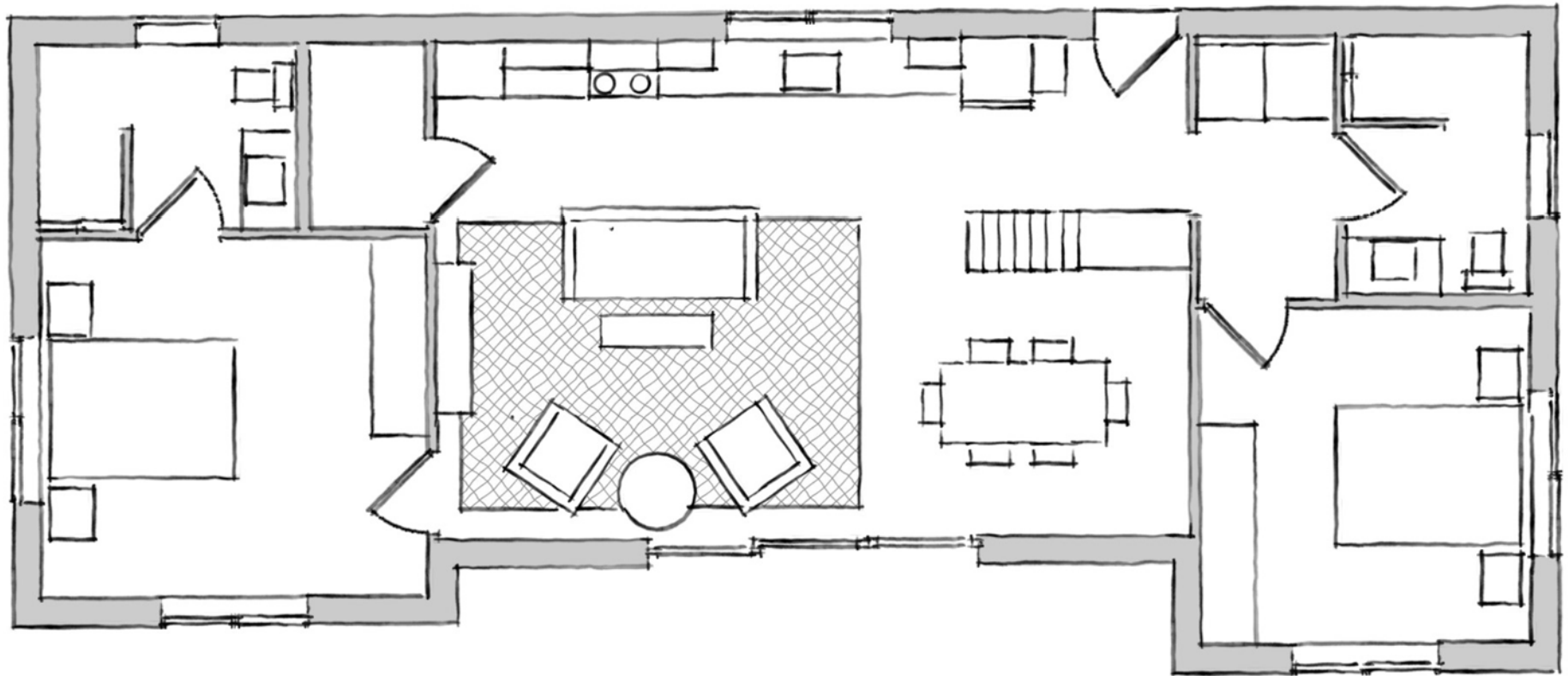


SITE PLAN



FLOOR PLAN

1208 square feet



BREAKING GROUND



Wisc. Code

SLAB	R-10
WALLS	R-20
CEILING	R-38
WINDOWS	R-2.8
AIRTIGHT	7 ACH

\$1678 *per year to heat*

Poem Home

SLAB	R-20
WALLS	R-45
CEILING	R-78
WINDOWS	R-3.7
AIRTIGHT	1 ACH

\$630 *per year to heat*

TOPSOIL



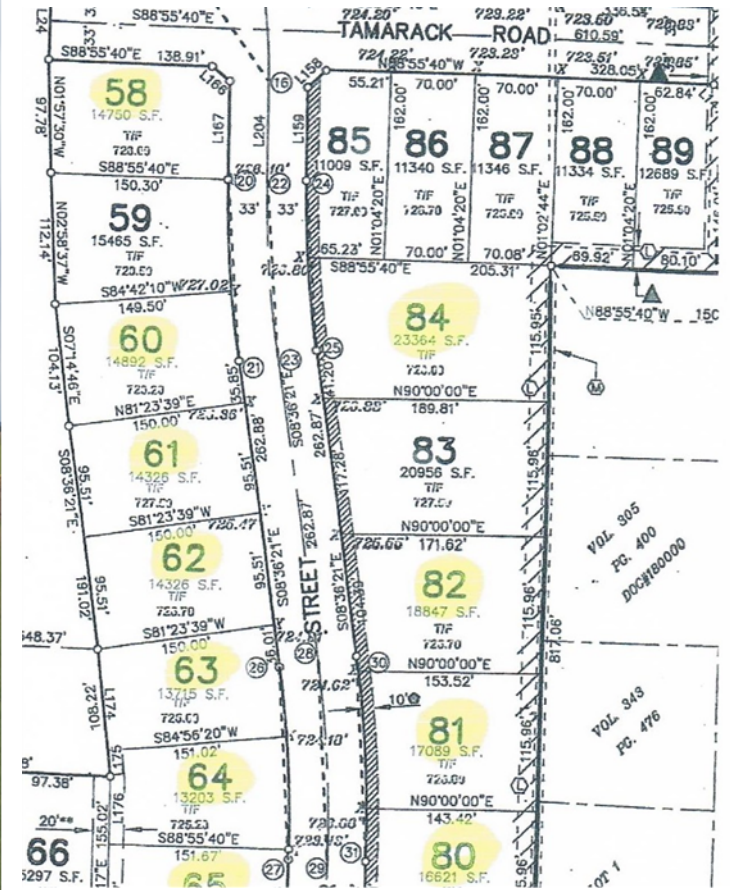
SILT FENCE



STRAW BALES



STAKING the LOT



EXCAVATION



FOOTINGS



GARAGE FORMS



HOUSE POUR



2"X8" EDGE FOAM



A close-up photograph showing a concrete curb on the left, a strip of yellow material in the middle, and a large area of light-colored gravel on the right. The gravel is contained within a purple plastic liner that has the text 'B180814D' printed on it. The entire assembly is set against a background of brown soil.



BAD SPOTS



BAD SPOTS



CURB CUT



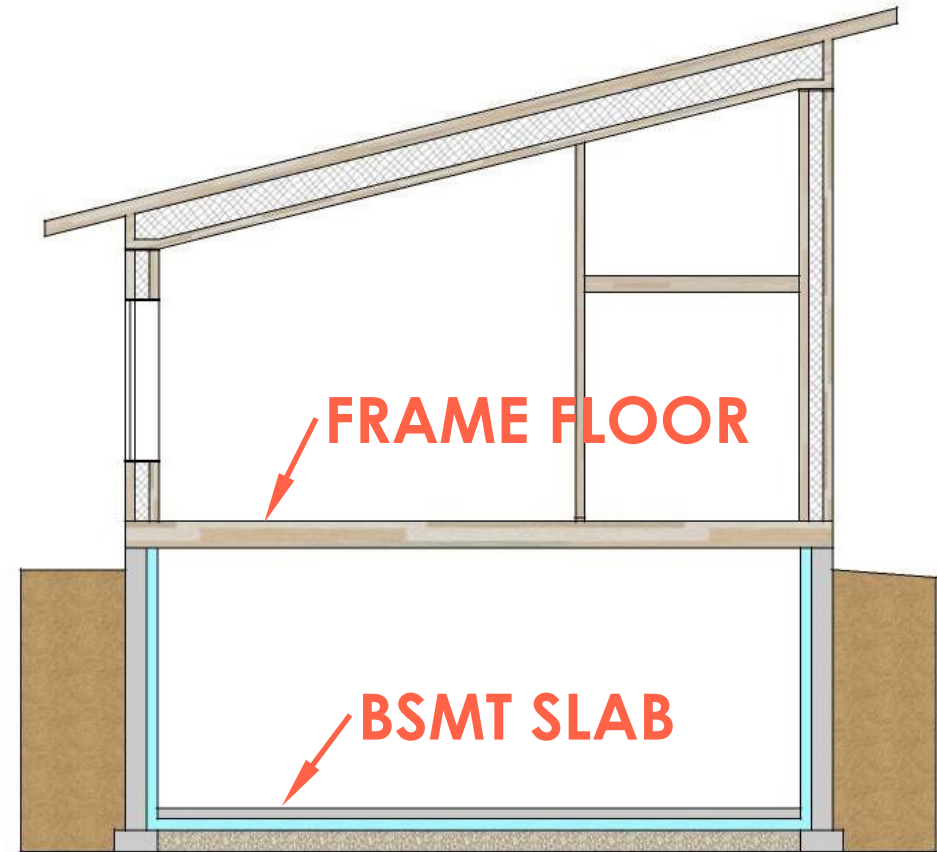
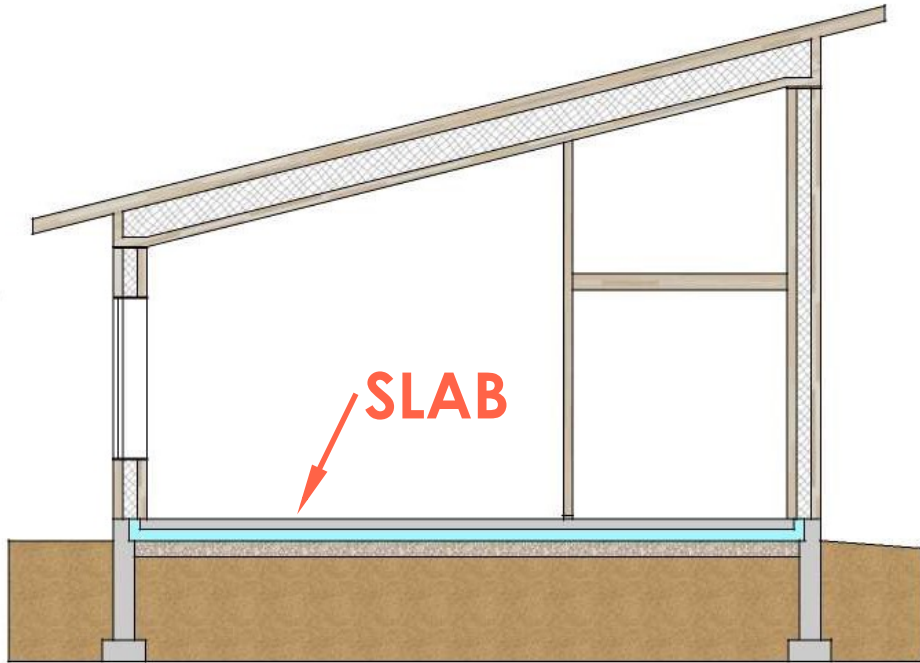
DRIVEWAY



TEMPORARY ELECTRIC



SLAB or BASEMENT?



TRENCHING



ROUGH PLUMBING

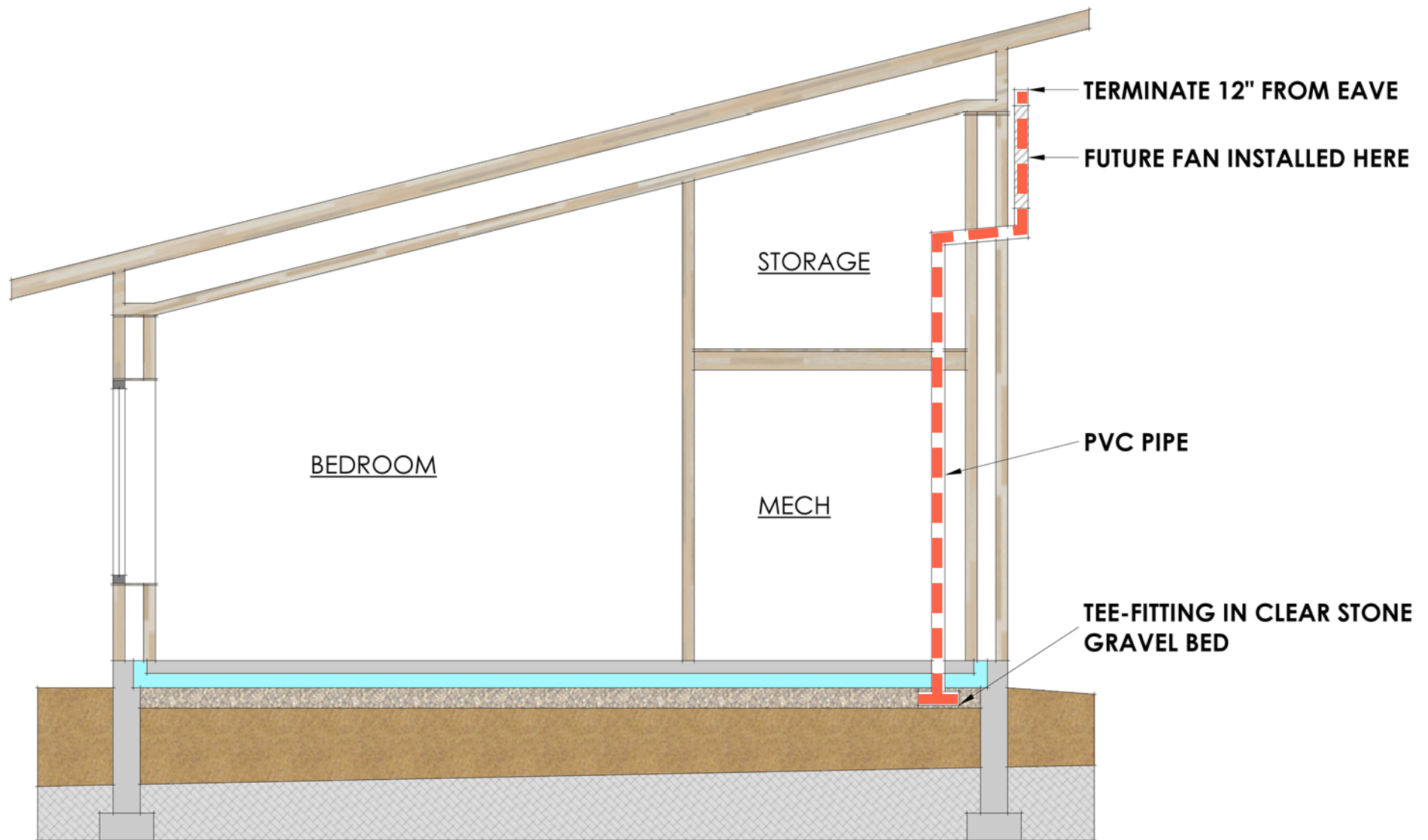


RADON

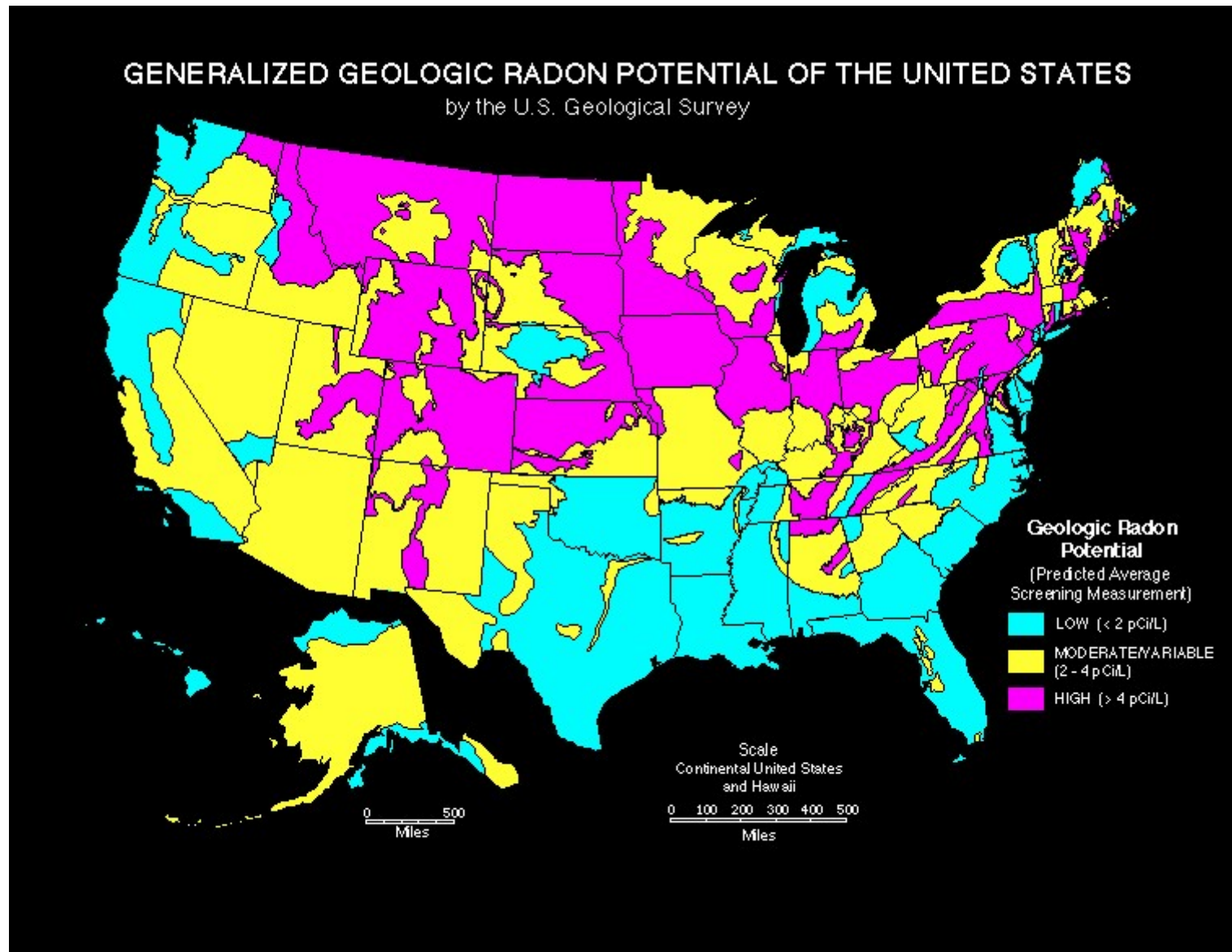
6" CLEAR GRAVEL



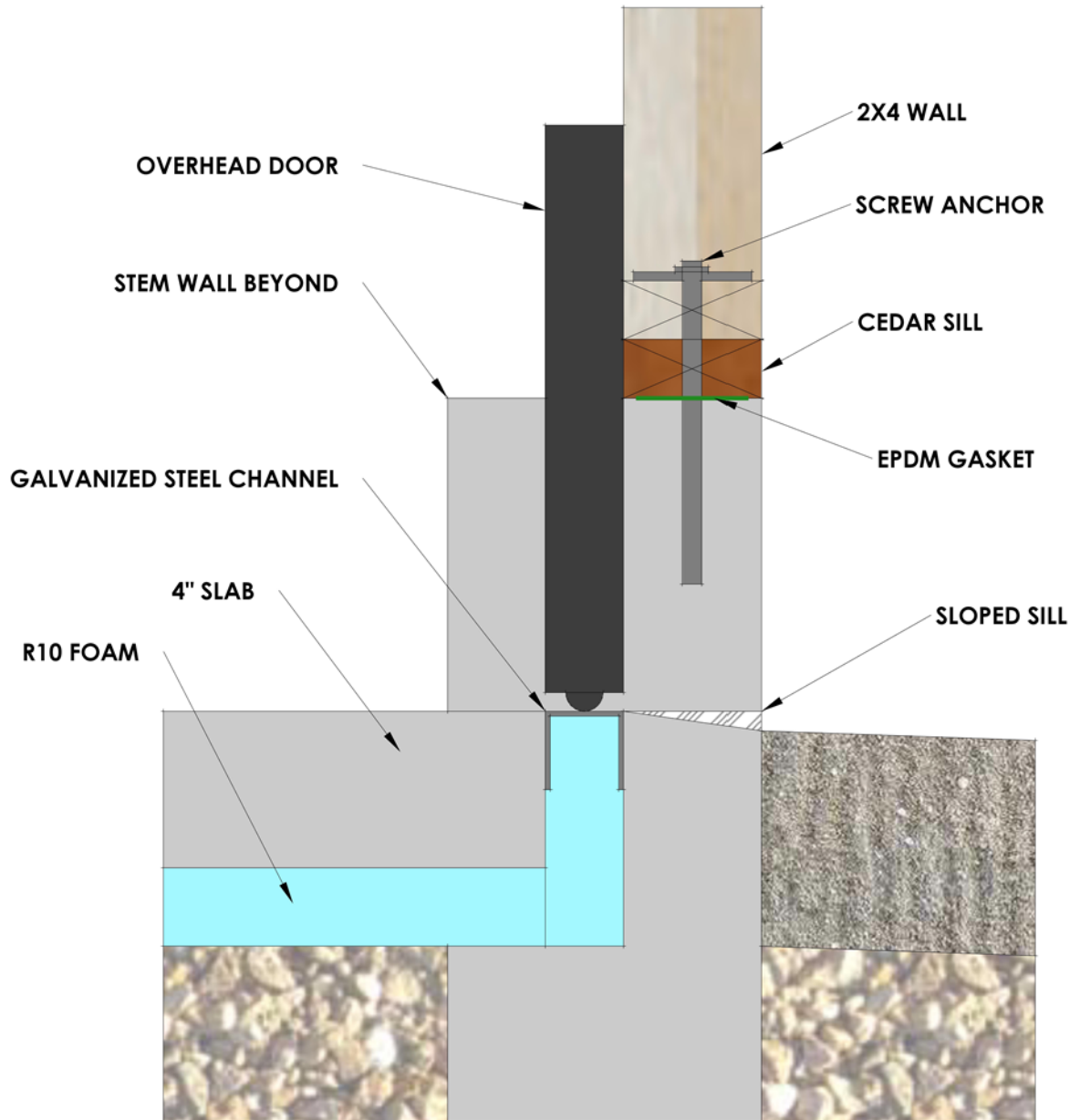
RADON PLAN



PINK=high



GARAGE FOAM



**2" EDGE FOAM
UNDER OHD**



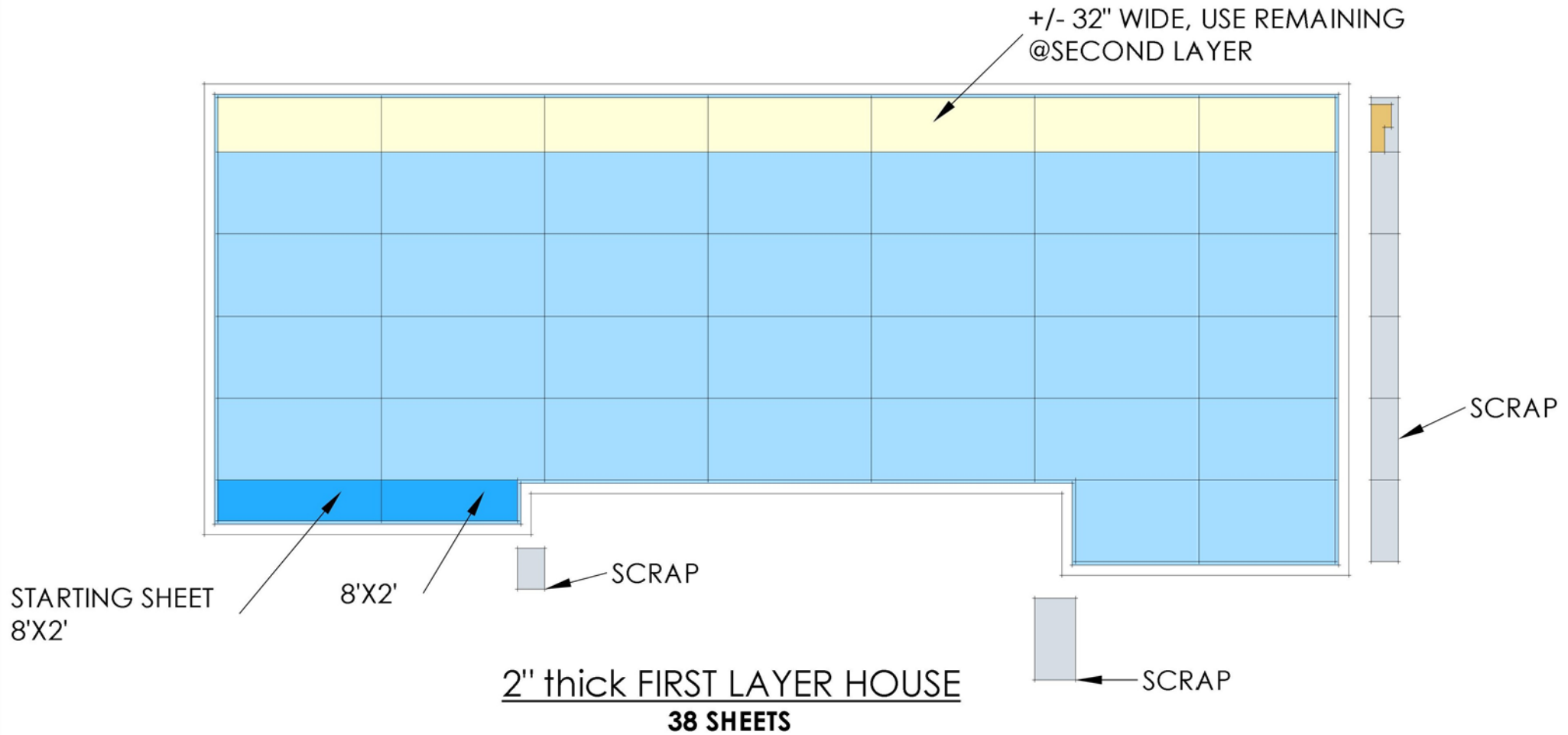
HOUSE FOAM

SPRAY FOAM GAPS



TWO 2" LAYERS, STAGGERED

FOAM CUT SHEET



REM/Design-slab

*** R-20 TRAY OF FOAM**

=\$696/yr. heat/cool

initial cost=\$2,212

R-30 TRAY OF FOAM

=\$636/yr. heat/cool

initial cost=\$3,402

SAVINGS OF \$60/YEAR RECOUPED IN 20 YEARS

VAPOR BARRIER



TAPED JOINTS & PENETRATIONS

V.B. CAULKED

EPDM
GASKET



CAULK

EPDM GASKET

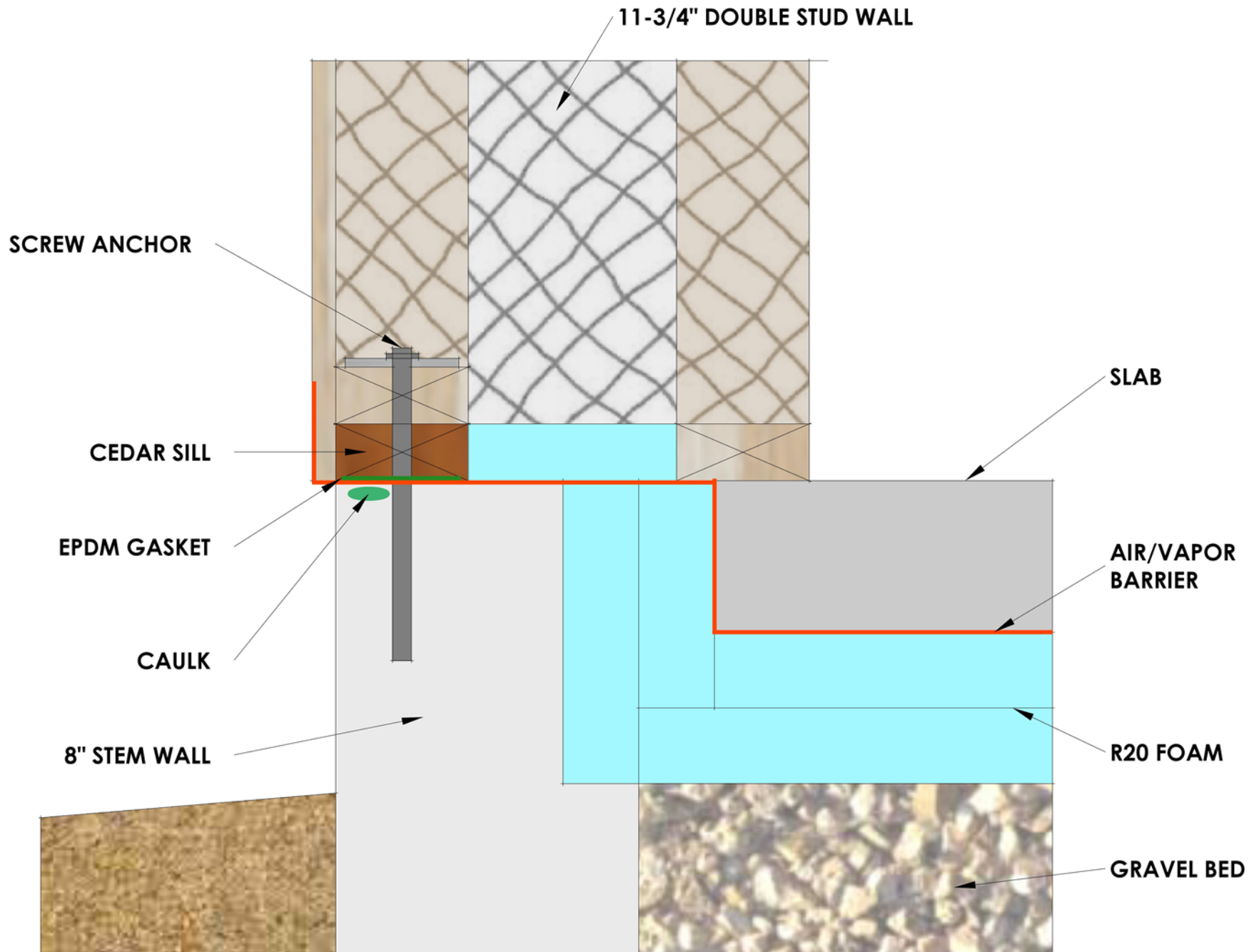


NO VB
@GARAGE

CEDAR SILL PLATE



SECTION



GARAGE POUR



WALL PANELS



CRANE



2-1/2 days



TRUSSES



EXTERIOR AIR-SEAL



3M 8067 TAPE

UNDER-SLAB VAPOR
BARRIER RUN LONG

EXTERIOR AIR-SEAL

GAP FOR AIR CHUTE

FLEX-WRAP EZ @TRUSS TAILS



TYVEK "DRAINWRAP"



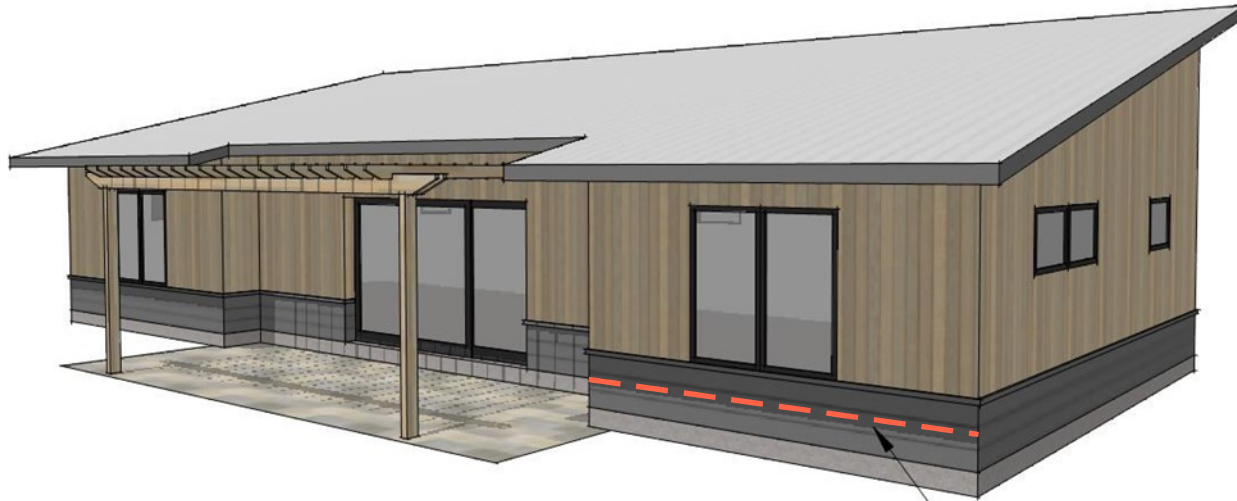
VAPOR BARRIER MEETS TYVEK



FASCIA



SHADE @ SOLSTICE



SHADE JUNE 21 NOON



SHADE DECEMBER 21, NOON

ROOFING



WINDOWS



REM/Design-windows

***Integrity LowE2 dual ALL = \$672/yr. heat/cool**

initial cost=\$8167

**Integrity LowE2/E1 tripane E/W/N = \$624/yr heat/cool
LowE1 dual SOUTH**

initial cost=\$10,250

SAVINGS OF \$48/YEAR RECOUPED IN 43 YEARS

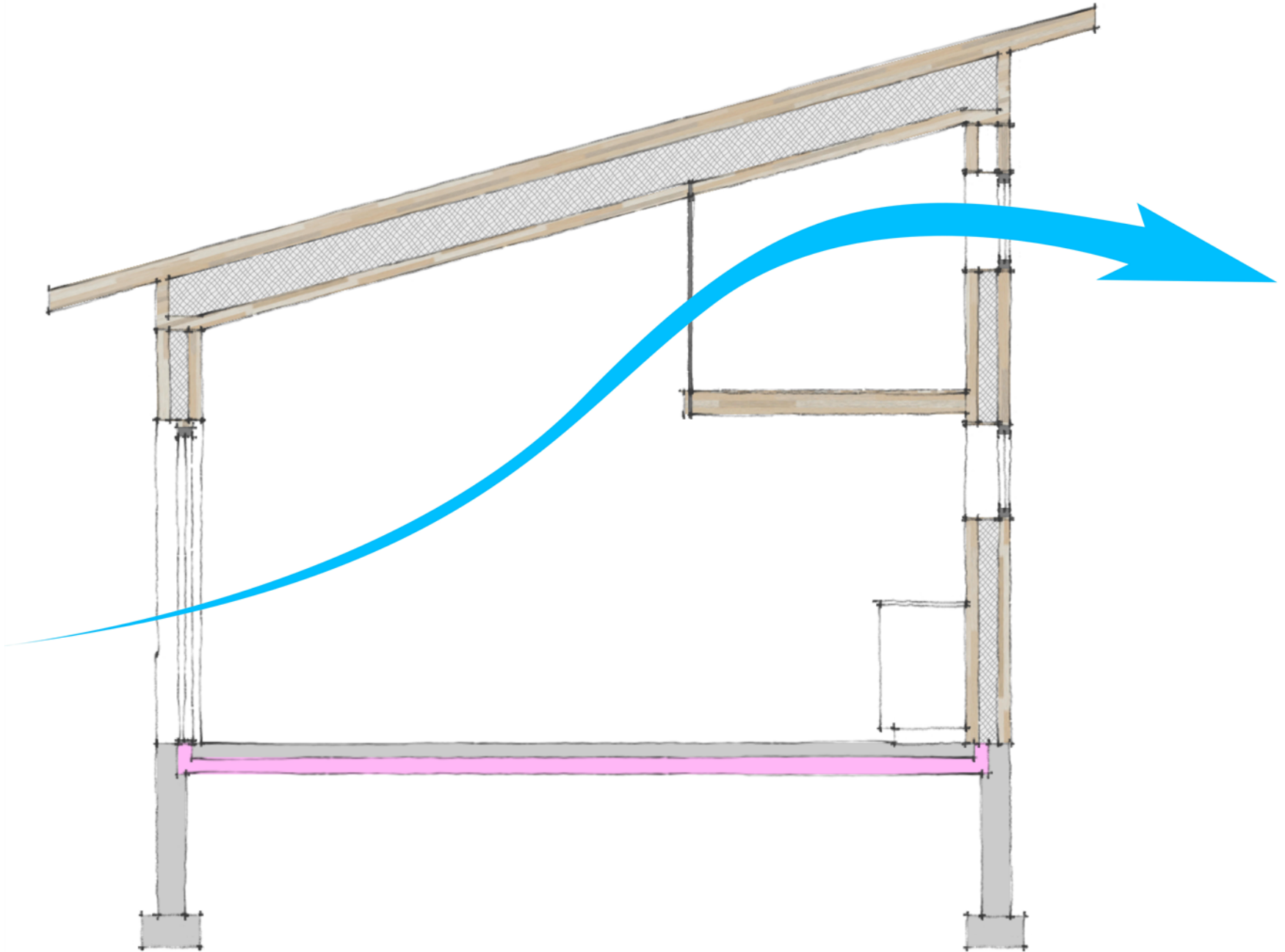
FLASHING



PATIO DOOR



PASSIVE VENTILATION



VENT CHUTE

1X2 FURRING STRIPS

TAPED SEAMS

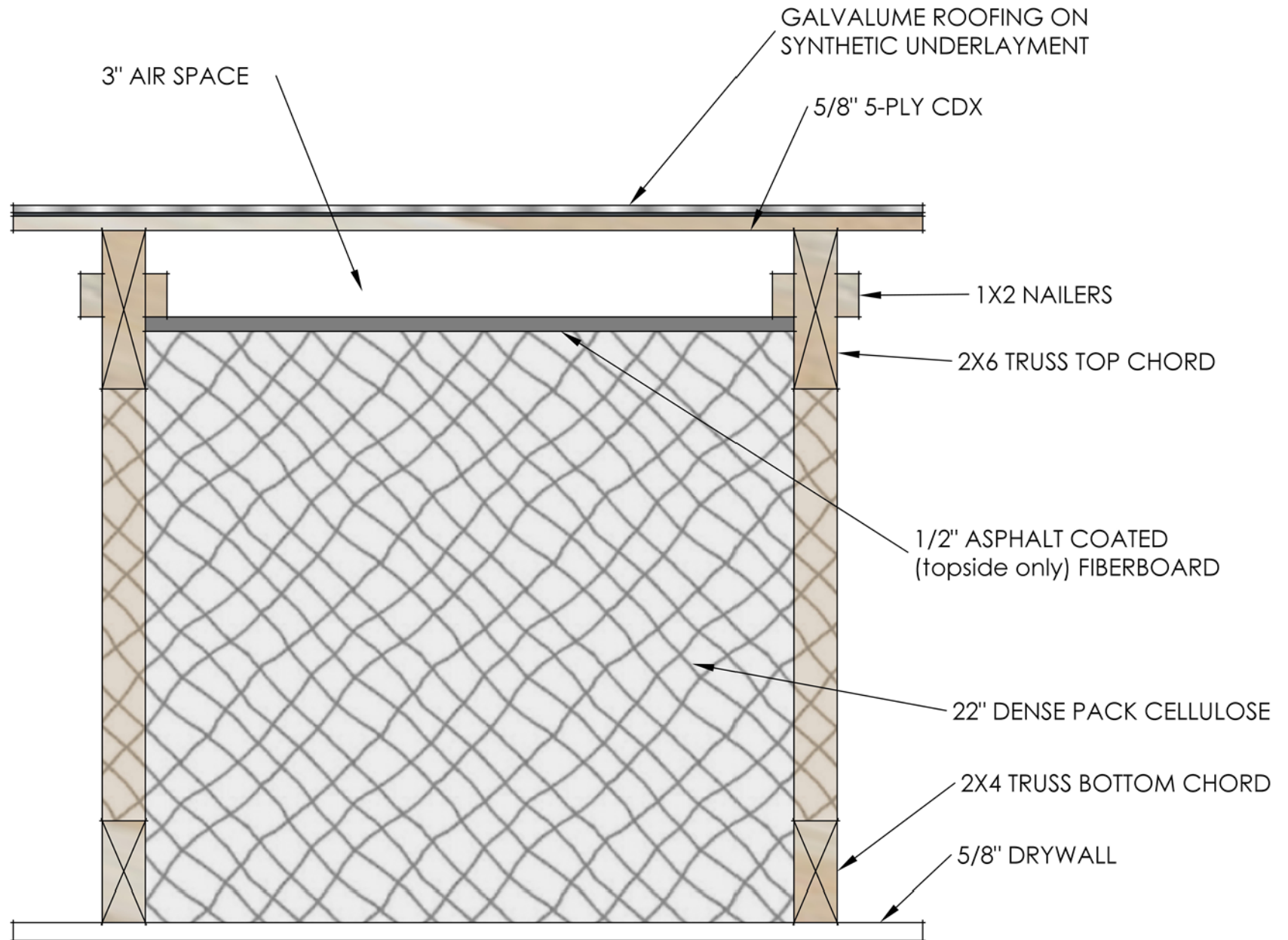
3" AIR SPACE



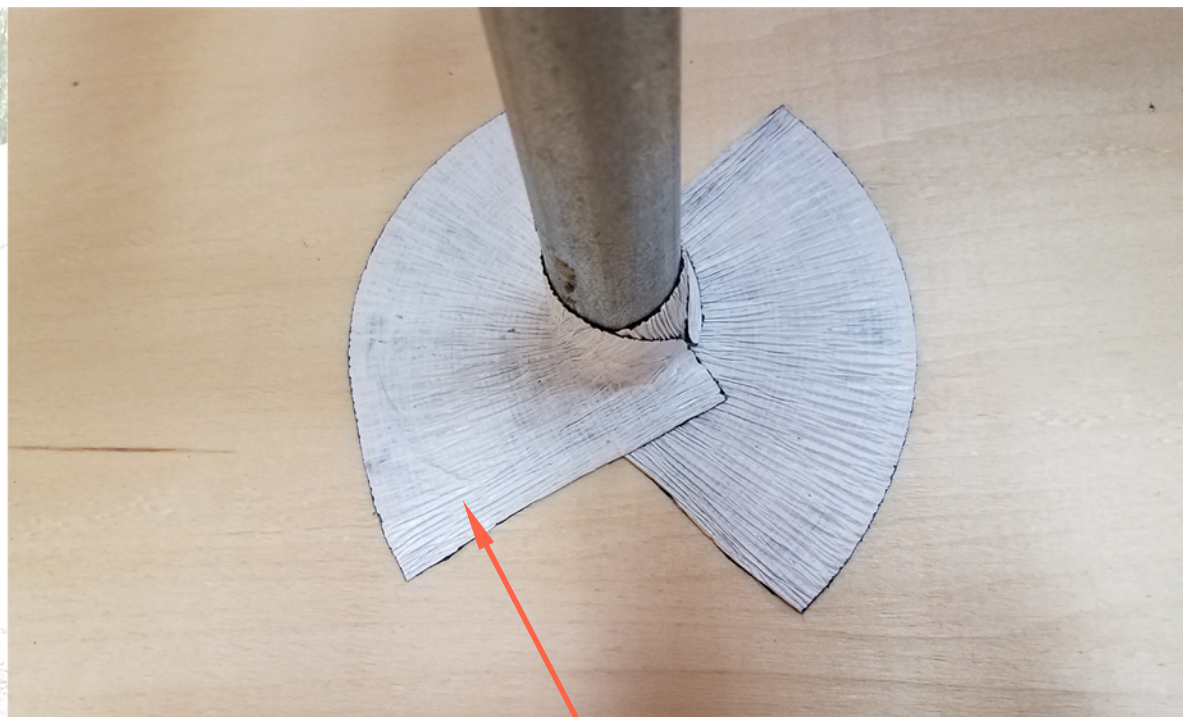
1/2" FIBERBOARD

CAULKED JOINTS

VENT CHUTE



MIND the GAP



FLEX WRAP

SPRAY FOAM

BLOWER DOOR #1

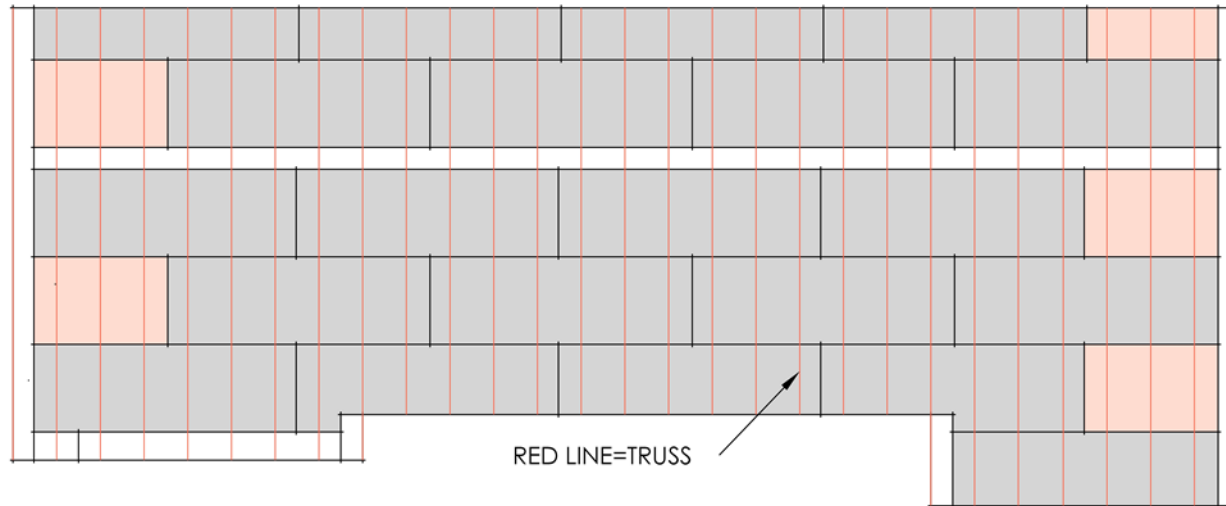
2.6 ACH



VAPOR RETARDER



HANGING the LID



DRYWALL CLIPS

6 CLIPS @ BUTT JOINT



COMPOST



SEALING the SLAB



BEFORE



AFTER

DENSE PACK-take 1.



REM/Design-ceiling

R-60 CEILING

=\$708/yr. heat/cool

initial cost=\$4,144

*** R-75 CEILING**

=\$684/yr. heat/cool

initial cost=\$5,200

SAVINGS OF \$24/YEAR RECOUPED IN 44 YEARS

REM/Design-walls

***R-45 WALLS**

=\$684/yr. heat/cool

initial cost=\$4,356

R-75 WALLS

=\$552/yr. heat/cool

initial cost=\$7,260

SAVINGS OF \$132/YEAR RECOUPED IN 22 YEARS

NET ZERO or BUST

please come back next year for Part 2

7.32 kW system=10,660 kWh/year
REM/Design =13,400 kWh/year



QUESTIONS or COMMENTS?

