ELECTRIC JANE

MARYWOOD UNIVERSITY SCHOOL OF ARCHITECTURE (MUSoA)
ATTACHED HOUSING (AH) DIVISION

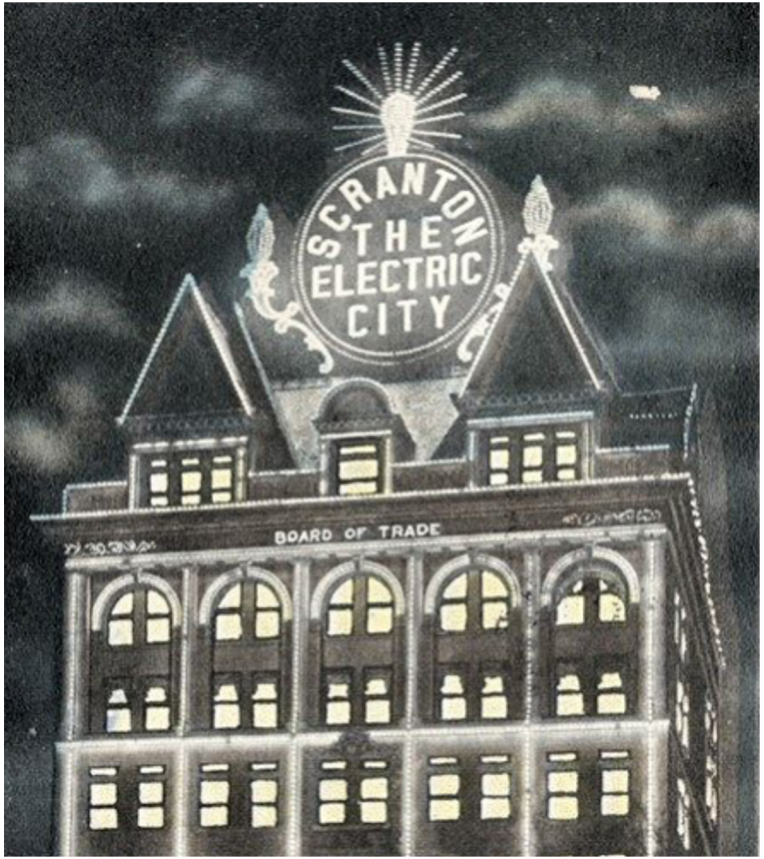
U.S. DEPARTMENT OF ENERGY SOLAR DECATHLON

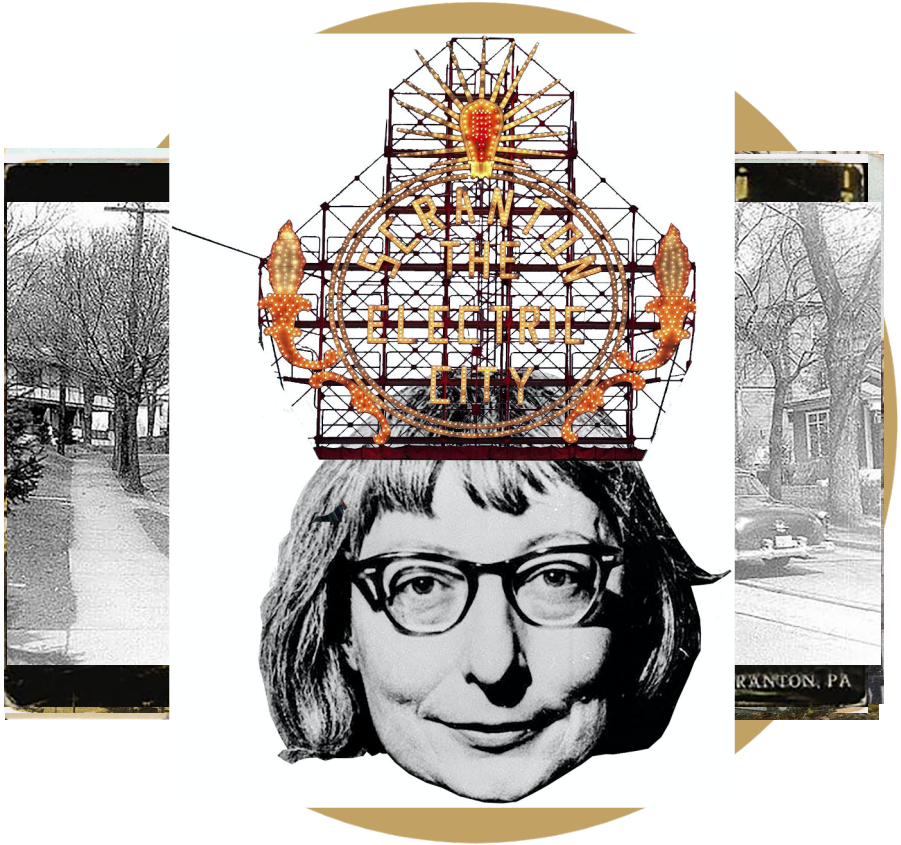
Habitat for Humanity®

RPA

GPI

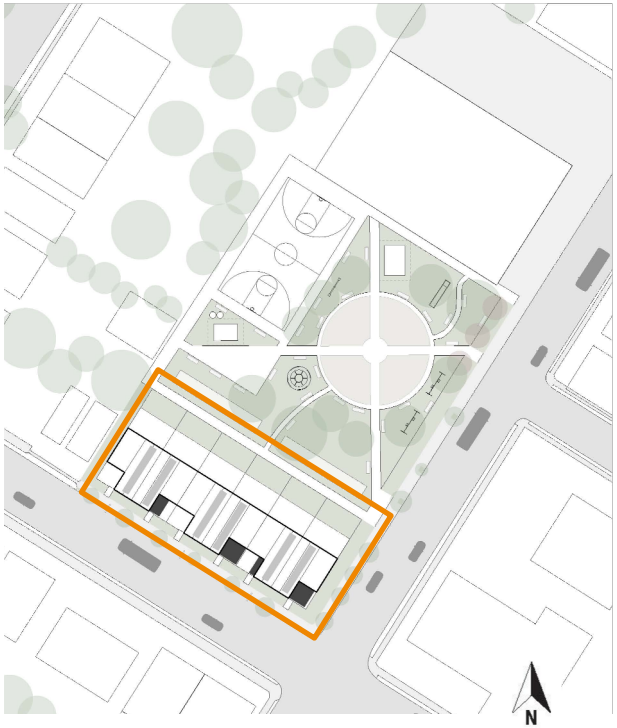
Marywood

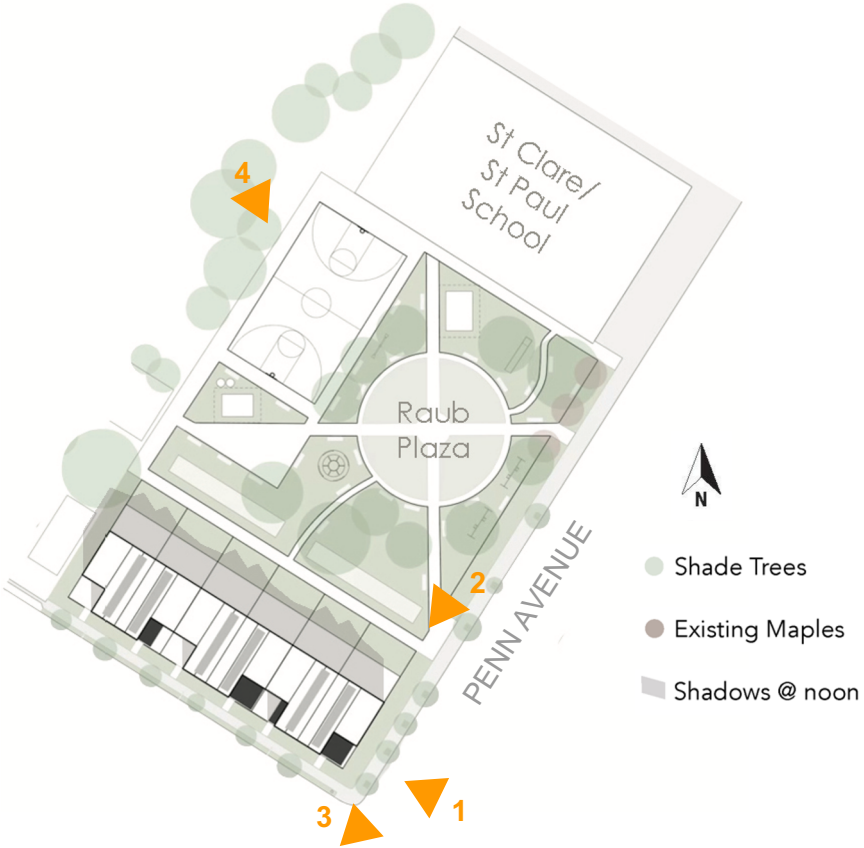

SCRANTON
THE
ELECTRIC
CITY
BOARD OF TRADE


SCRANTON
THE
ELECTRIC
CITY
RANTON, PA

1850	2,730
1860	9,223
1870	35,092
1880	45,850
1890	75,215
1900	102,026
1910	129,867
1920	137,783
1930	**143,433**
1940	140,404
1950	125,536
1960	111,443
1970	103,564
1980	88,117
1990	81,805
2000	76,415
2010	**76,089**

MARION ST + WYOMING AVE




St Clare/
St Paul
School
Raub
Plaza
PENN AVENUE
N
Shade Trees
Existing Maples
Shadows @ noon
1
2
3
4

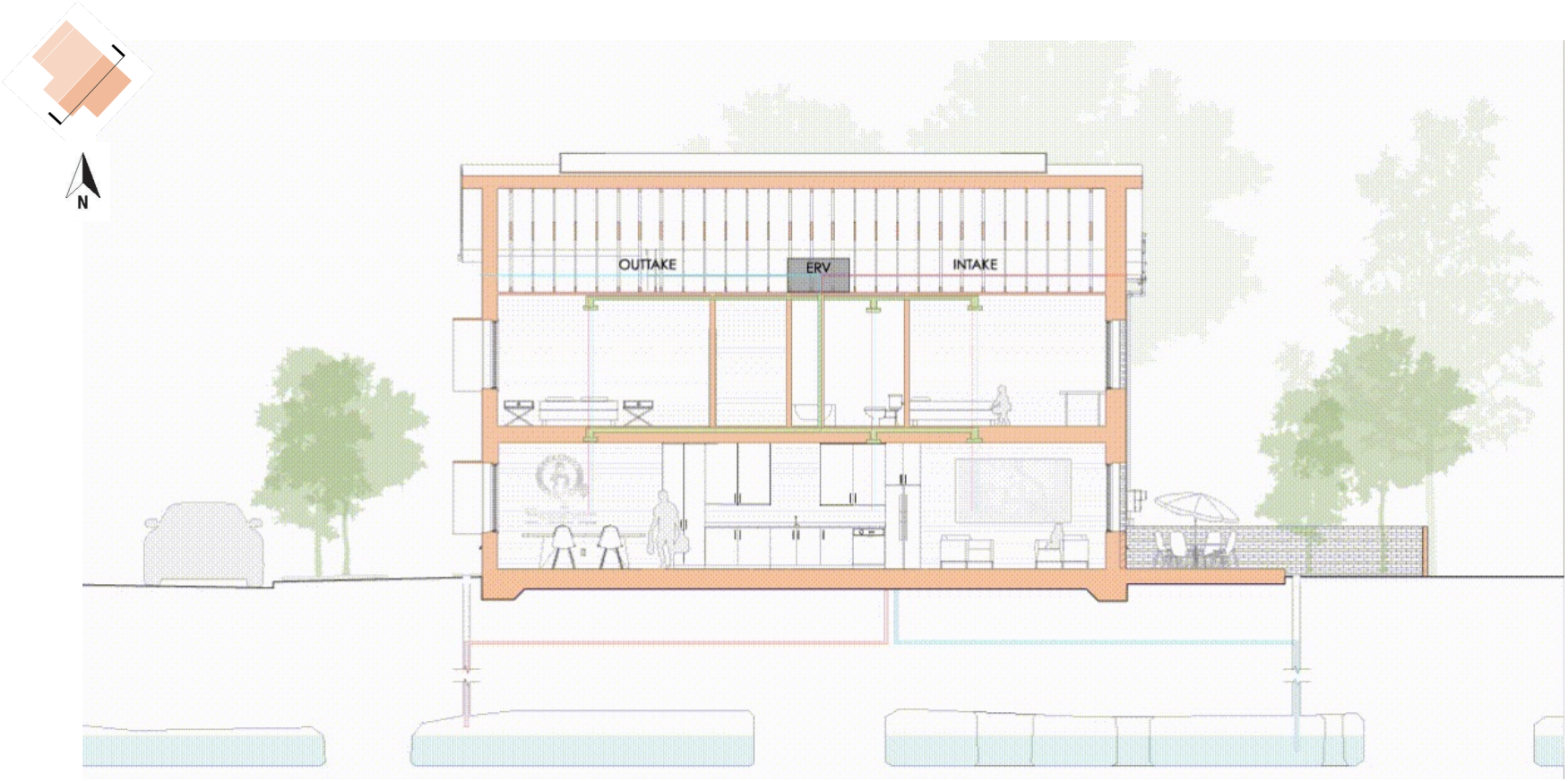
1

2

3

4

N

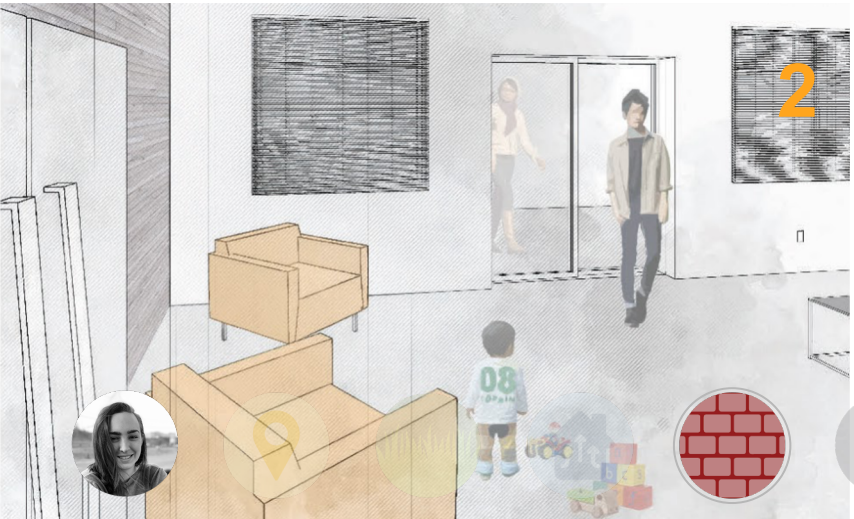

N
OUTTAKE
ERV
INTAKE

1

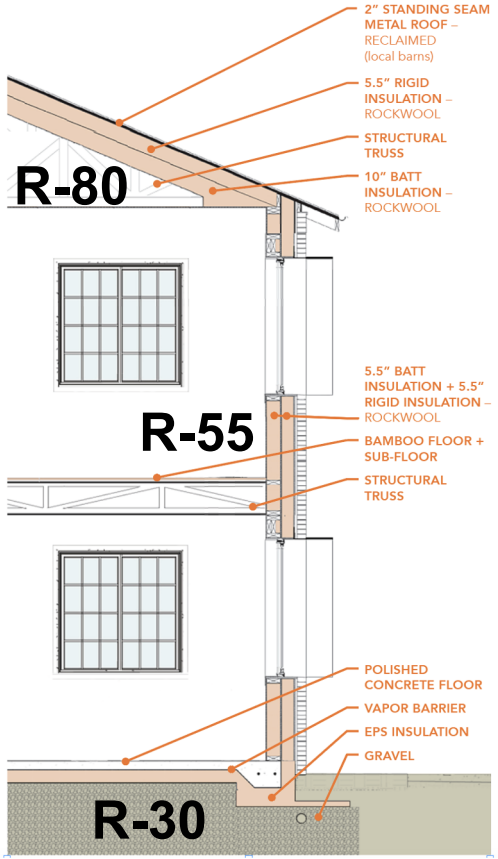
2

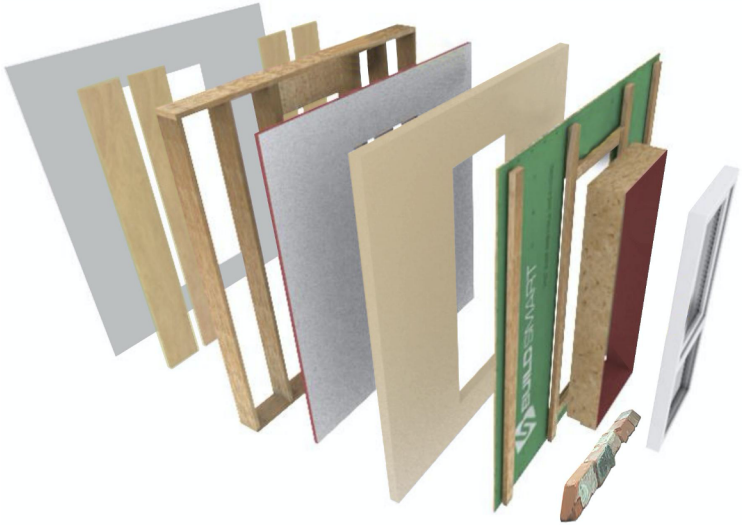
1
2
MARION STREET
PENN AVENUE
N

1

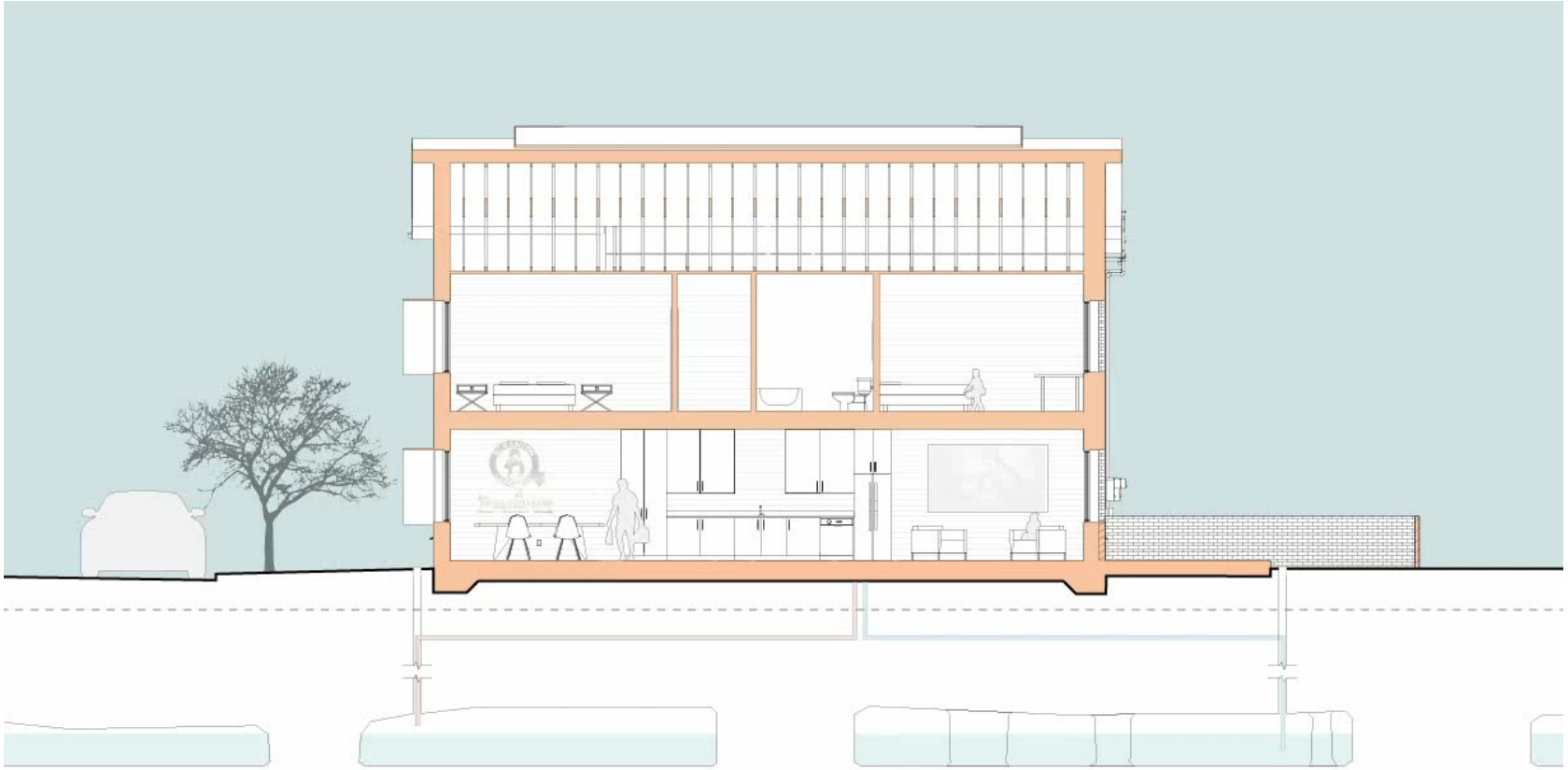

2

1
2
MARION STREET
PENN AVENUE
N

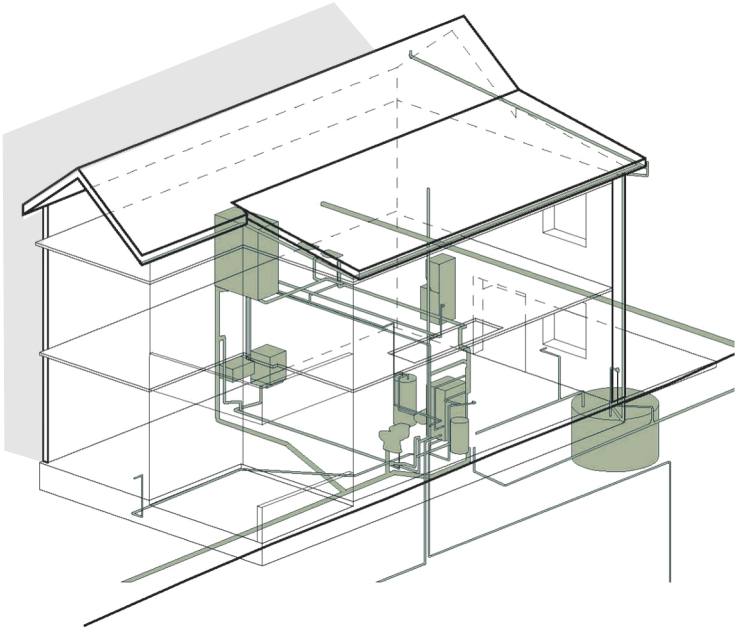


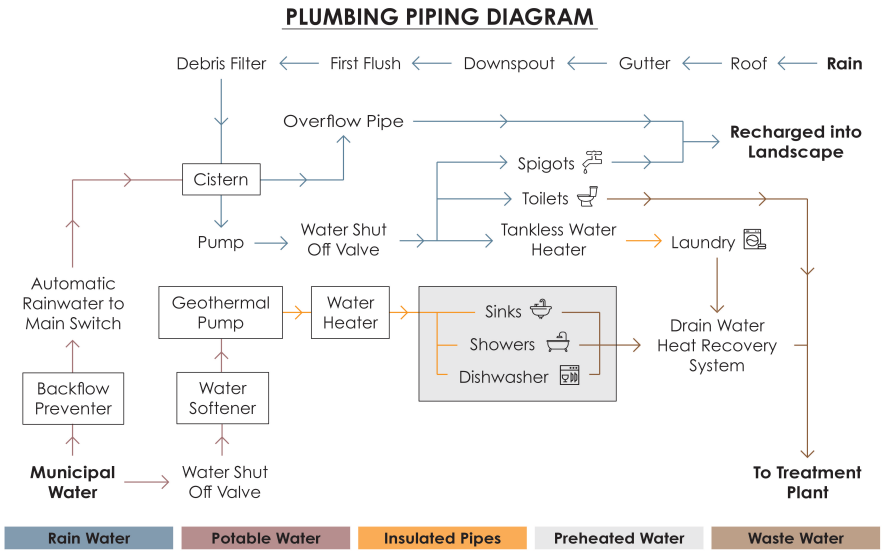


BUILD SMART™
Energy efficiency made simple



31,000 gallons/year



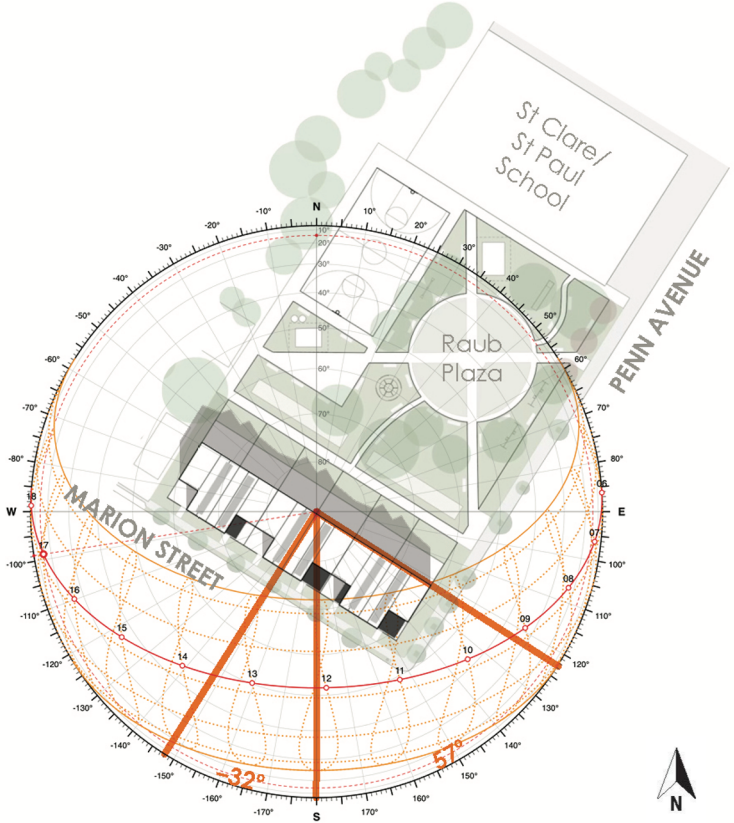


[1 of 16] [June 21, 2010 - 04:30]

SUMMER SOLSTICE

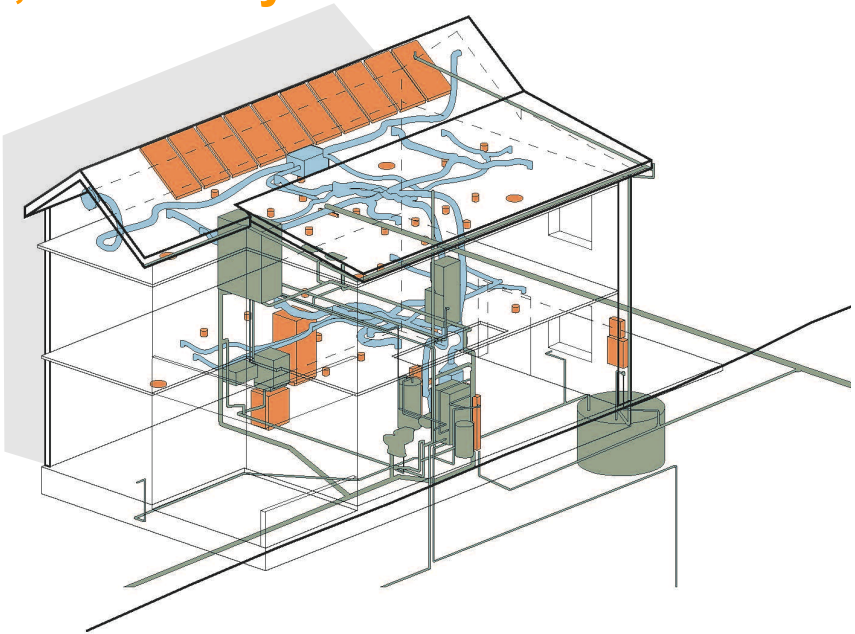
[1 of 16] [December 21, 2010 - 04:00]

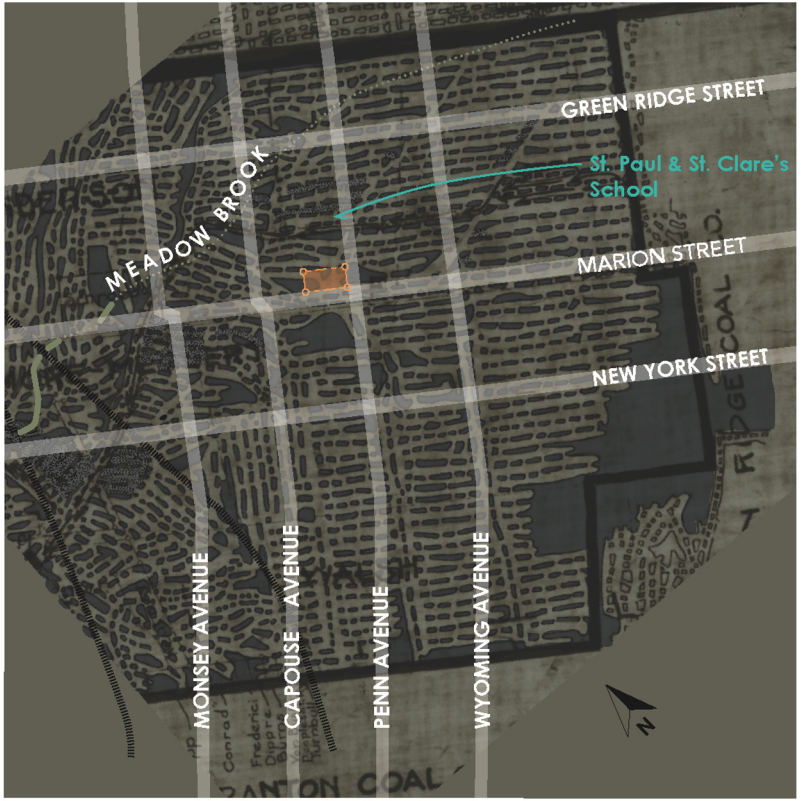
WINTER SOLSTICE



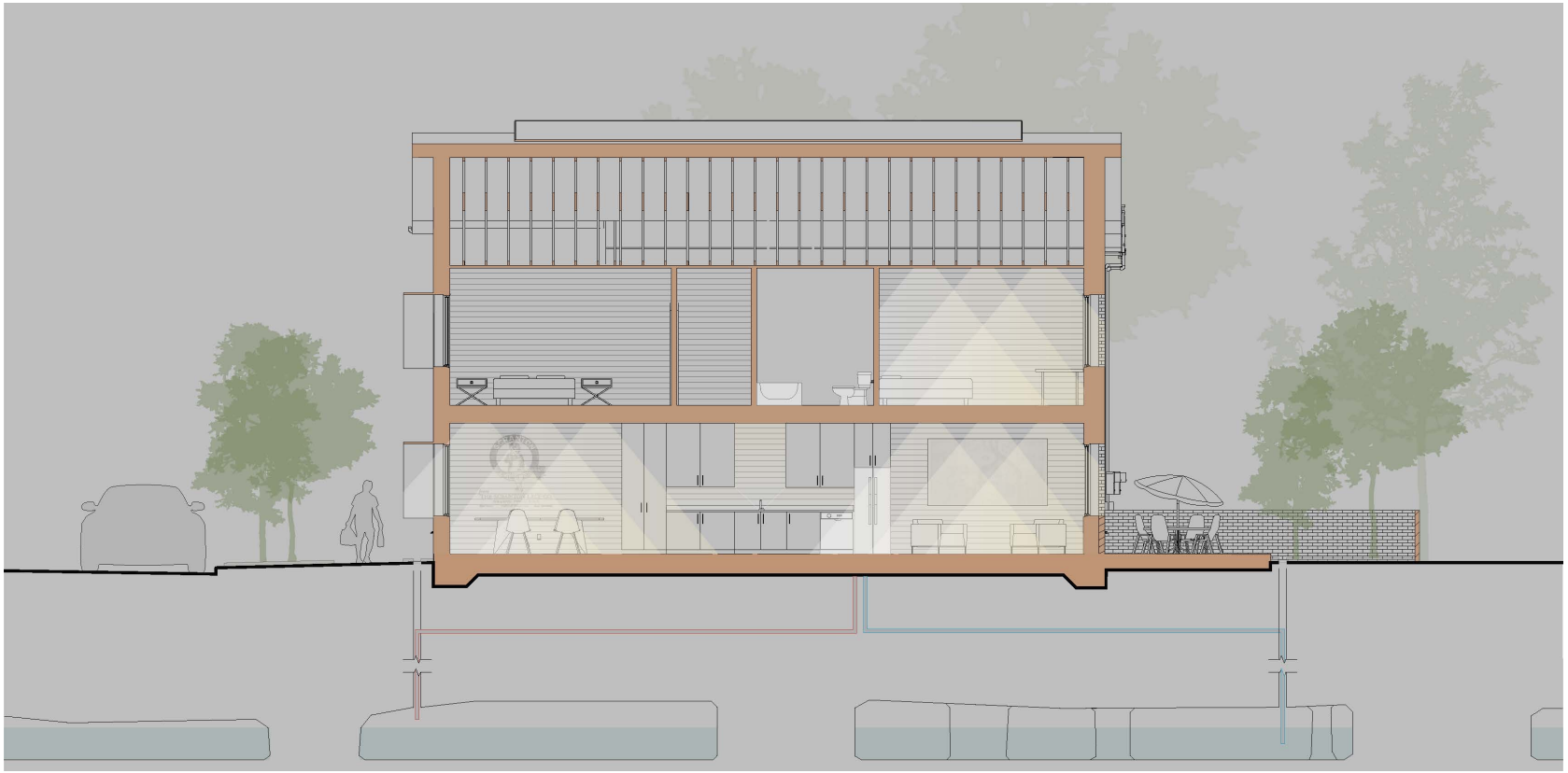
4,730 kWh/year

5,110 kWh/year





Site Pillars/Voids Fill Meadow Brook



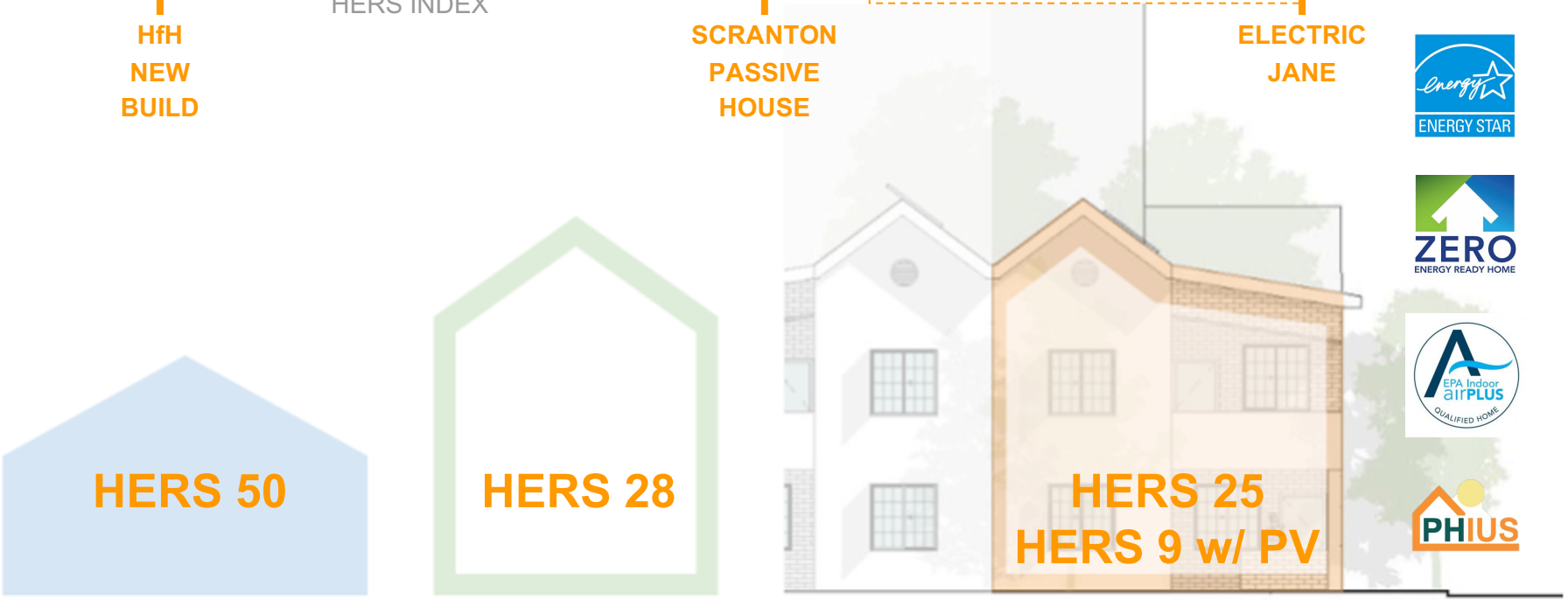
50 28 25 9

HERS INDEX

HfH NEW BUILD

SCRANTON PASSIVE HOUSE

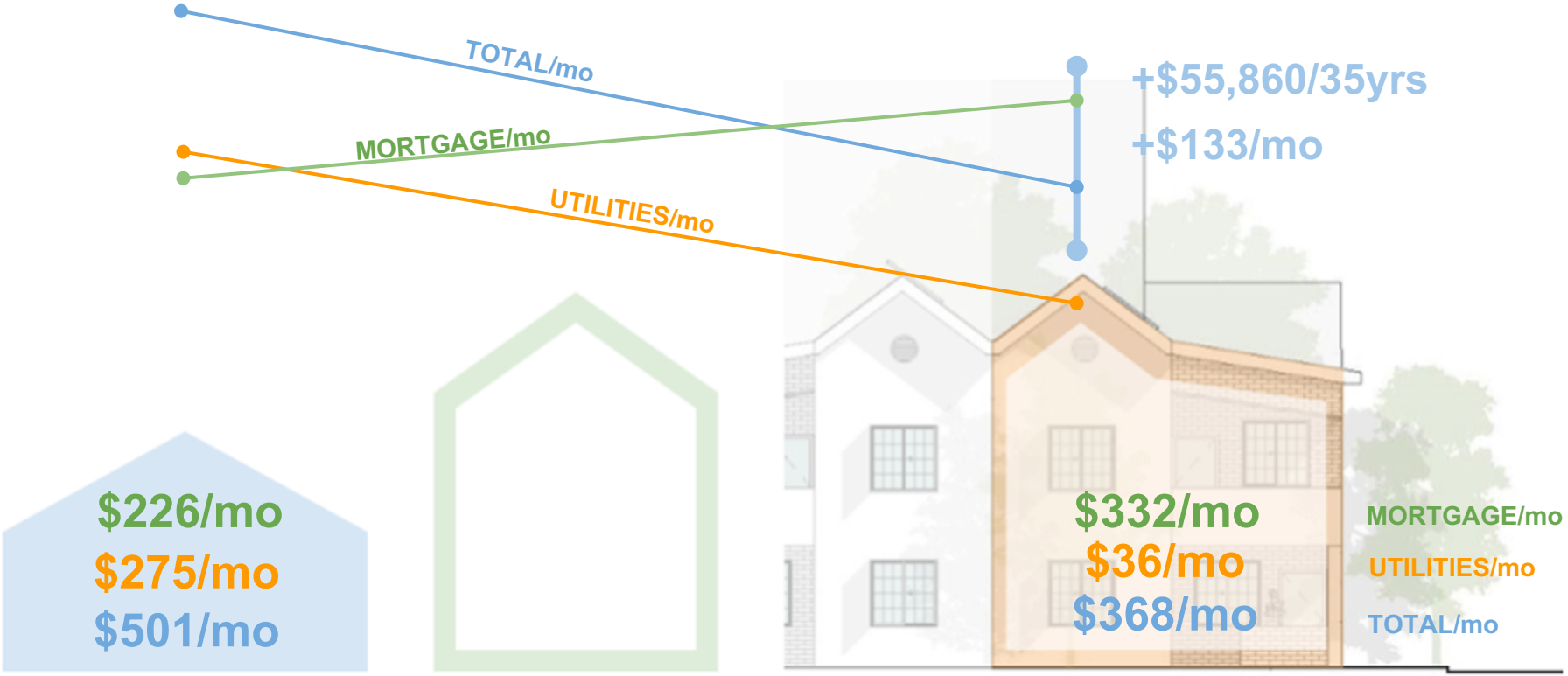
ELECTRIC JANE

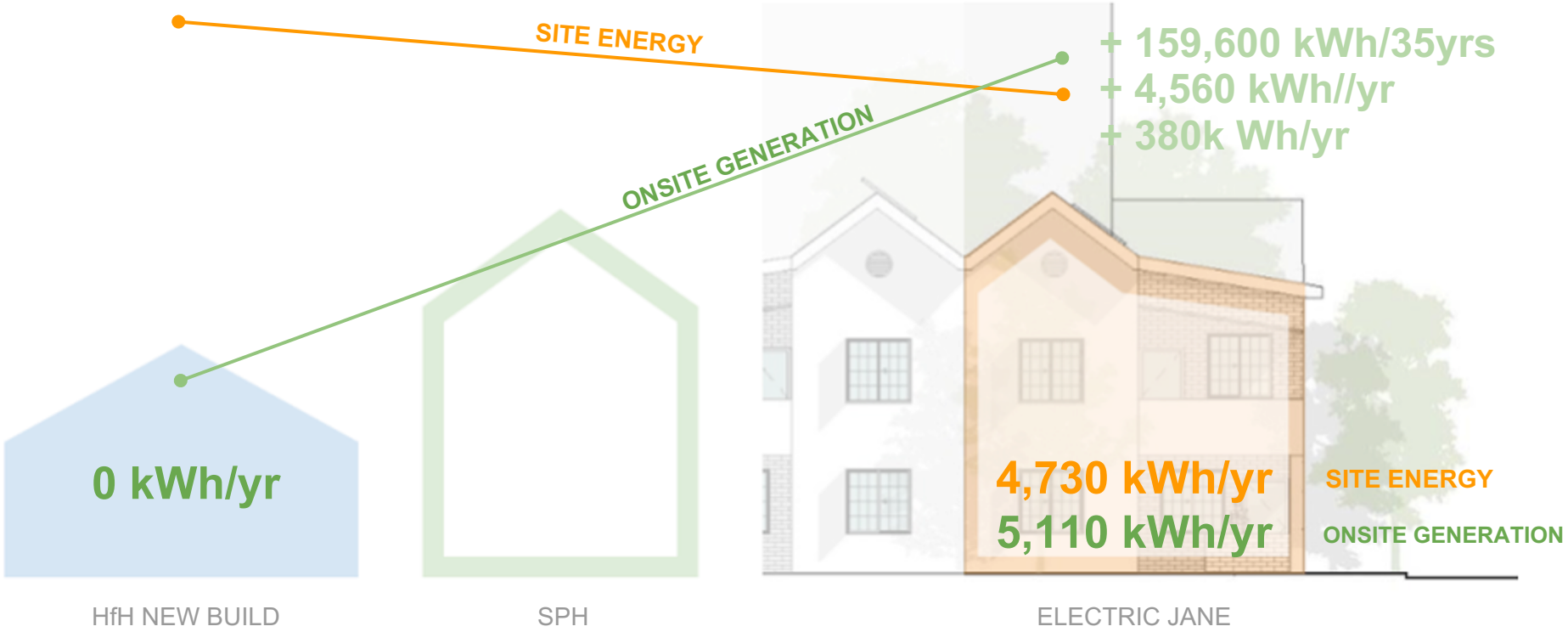


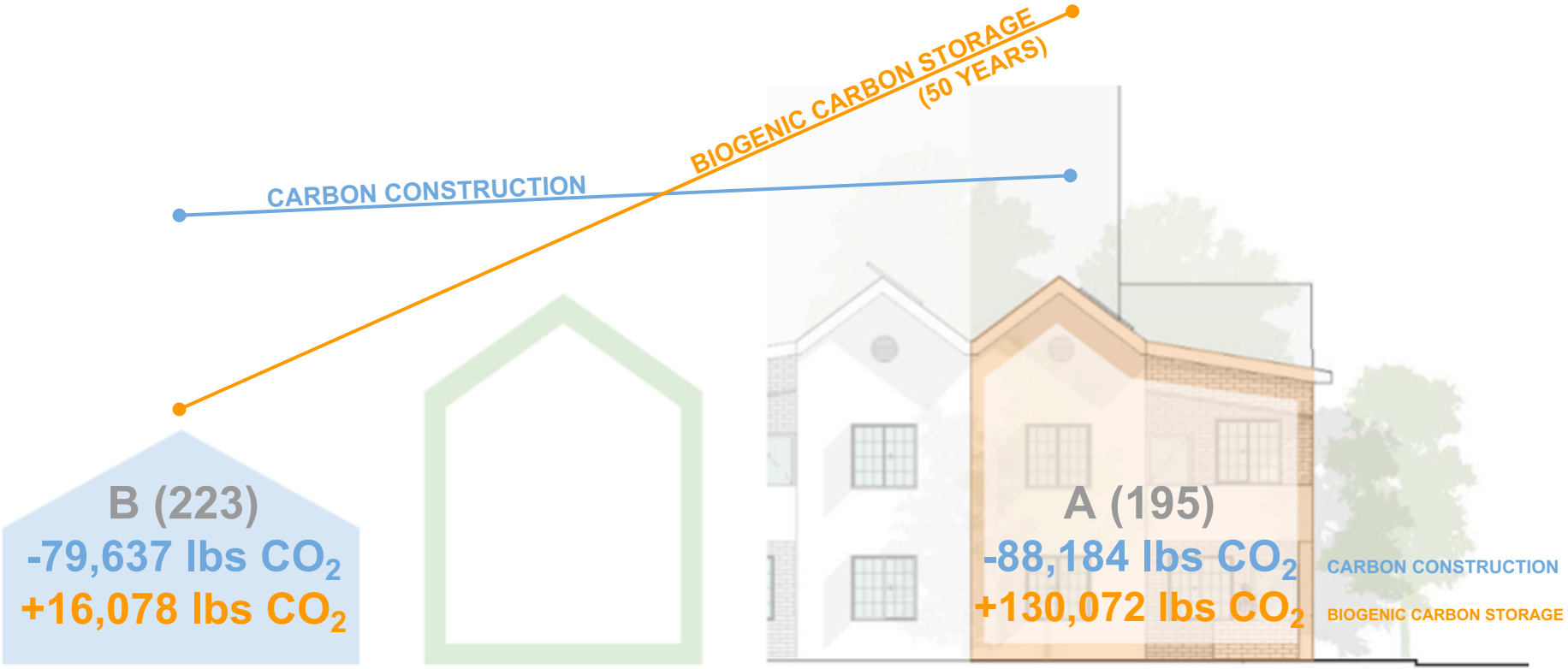
HfH NEW BUILD

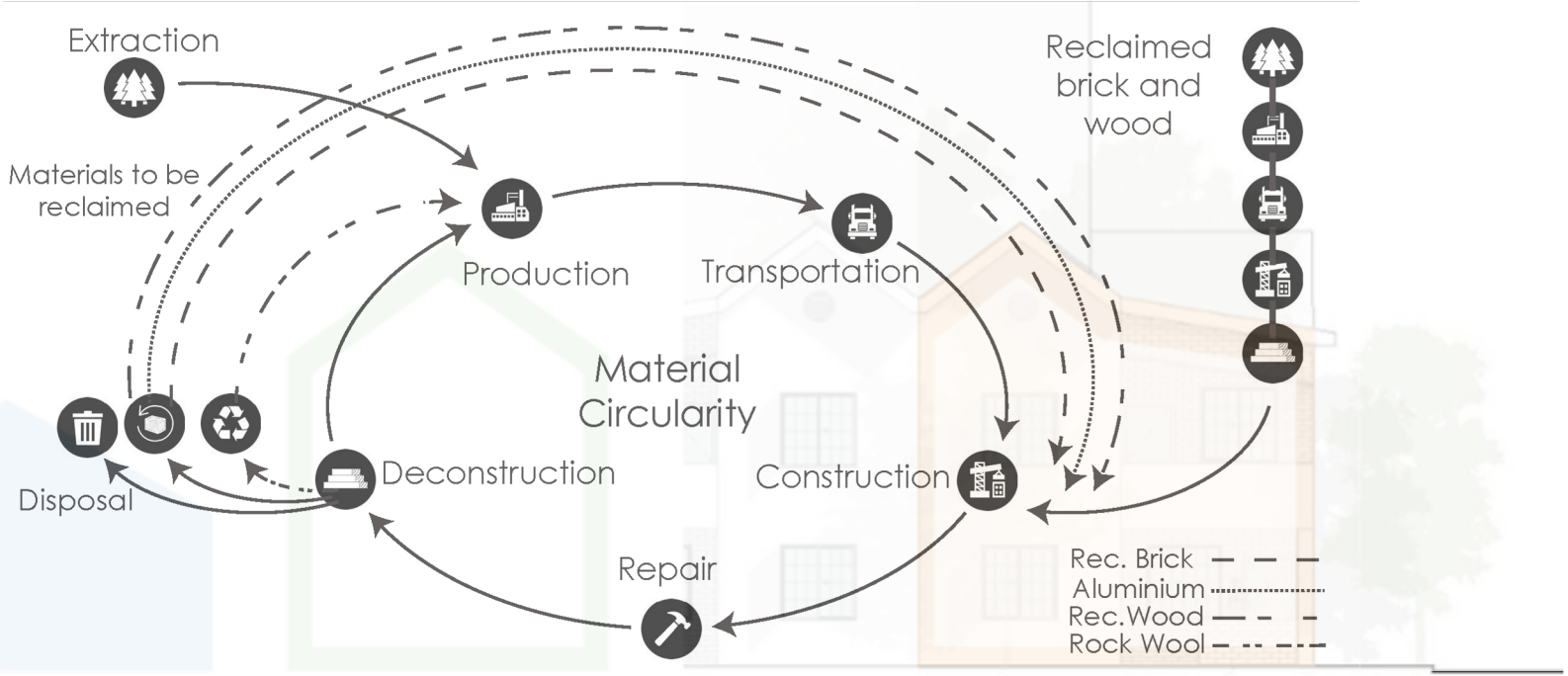
SPH

ELECTRIC JANE


TOTAL/mo
MORTGAGE/mo
UTILITIES/mo
+$55,860/35yrs
+$133/mo
$226/mo
$275/mo
$501/mo
$332/mo
$36/mo
$368/mo
MORTGAGE/mo
UTILITIES/mo
TOTAL/mo
HfH NEW BUILD
1,600 ft²
SPH
2,153 ft²
ELECTRIC JANE
1,743 ft²
GROSS AREA


SITE ENERGY
ONSITE GENERATION
+ 159,600 kWh/35yrs
+ 4,560 kWh//yr
+ 380k Wh/yr
0 kWh/yr
4,730 kWh/yr
SITE ENERGY
5,110 kWh/yr
ONSITE GENERATION
HfH NEW BUILD
SPH
ELECTRIC JANE


BIOGENIC CARBON STORAGE (50 YEARS)
CARBON CONSTRUCTION
B (223)
-79,637 lbs CO_2
+16,078 lbs CO_2
A (195)
-88,184 lbs CO_2
+130,072 lbs CO_2
CARBON CONSTRUCTION
BIOGENIC CARBON STORAGE
HfH NEW BUILD
SPH
ELECTRIC JANE

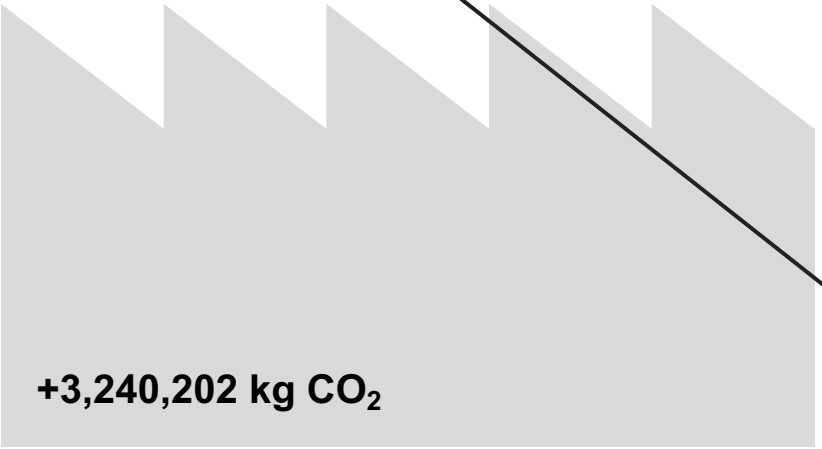


HfH NEW BUILD

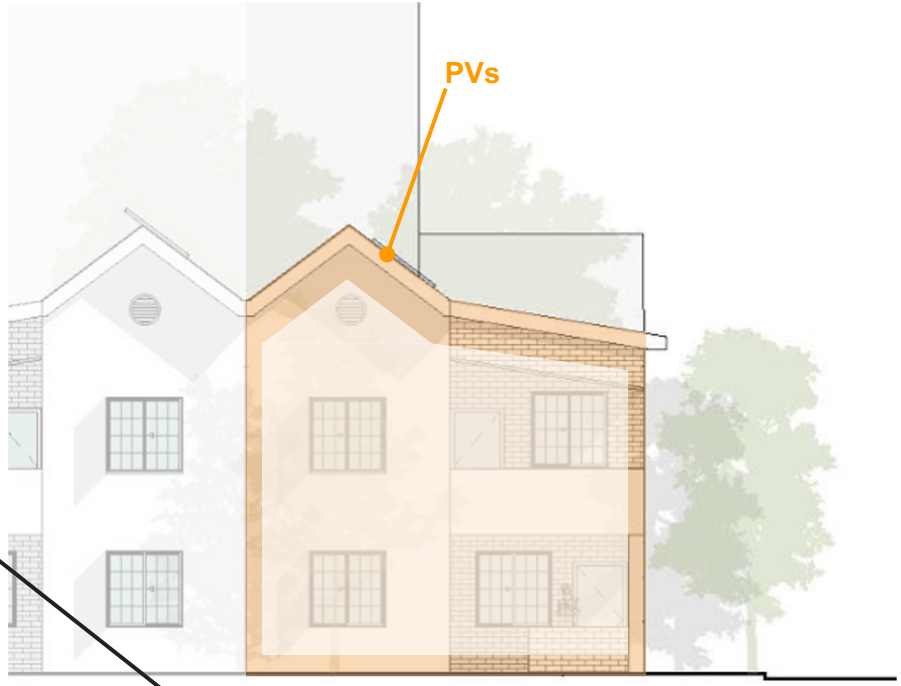
SPH

ELECTRIC JANE

CARBON OPERATION
(50 YEARS)



ELECTRICITY (COAL-FIRED POWER PLANT)



ELECTRICITY (JANE)