

Zero Energy House

Chee Hau Teoh

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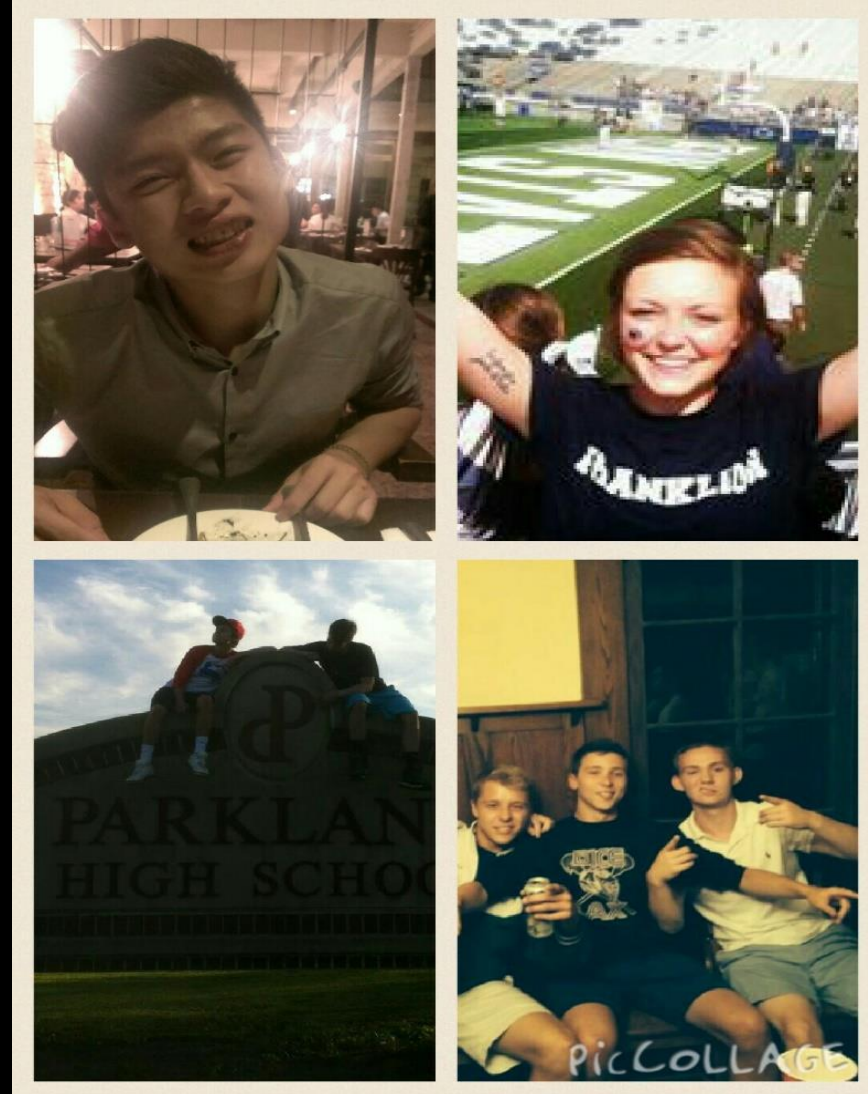
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Summary



Mission Statement



External Research



House of Quality



Final House Design

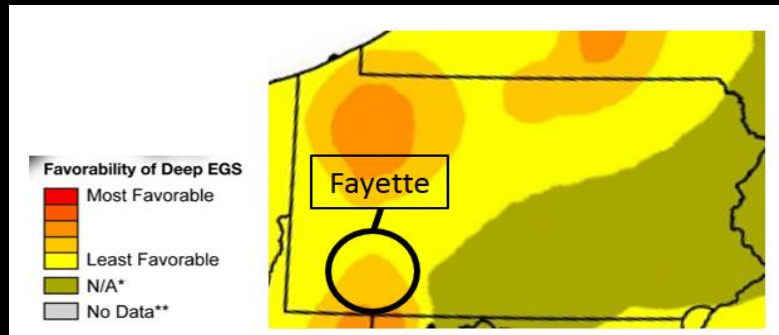


Conclusion and Final Cost

Our design is mainly focusing on building a self-sustained zero energy home with optimized function, value and visually appealing



Based on the solar map and geothermal map, Fayette County, PA becomes our choice of location for zero energy home and is designed by referring to different zero energy home benchmarking in US



- Solar map

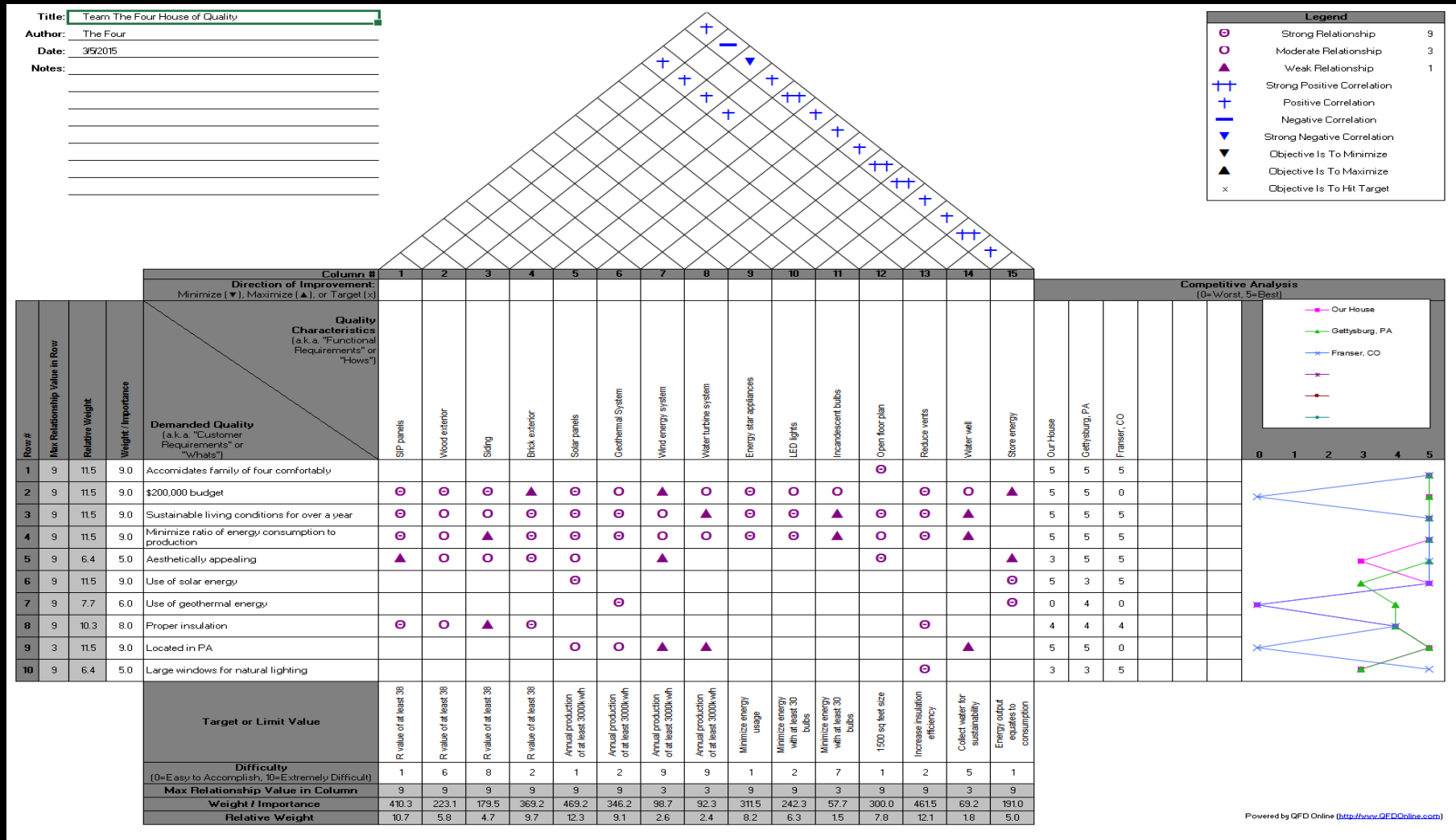


- Geothermal map

Location	Gettysburg, PA
URL	http://www.hphpa.com/floorplans/nice
House Size	1,942 sq. ft.
Number of Floors	1
Number of Bedrooms	3
Number of Baths	2
Type of Heating System	Geothermal
Solar Panels	Yes
Insulation	SIP's
Other Key Information	Air Filtration is also used

- Benchmarking of house in Gettysburg, PA

In house of quality, we have included concept screening, concept scoring and target specification which show their relevant importance with customer needs



Mission Statement

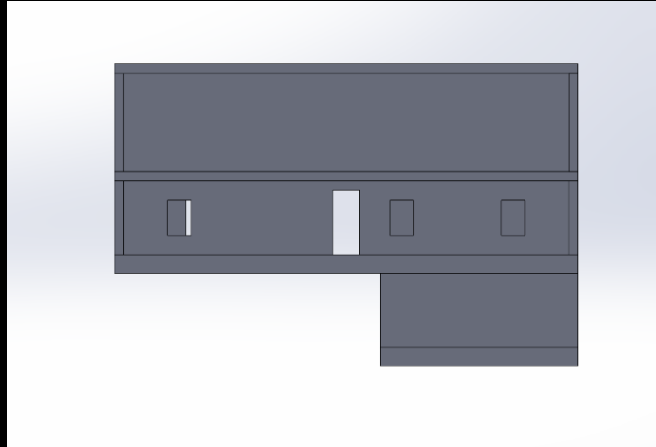
External Research

House of Quality

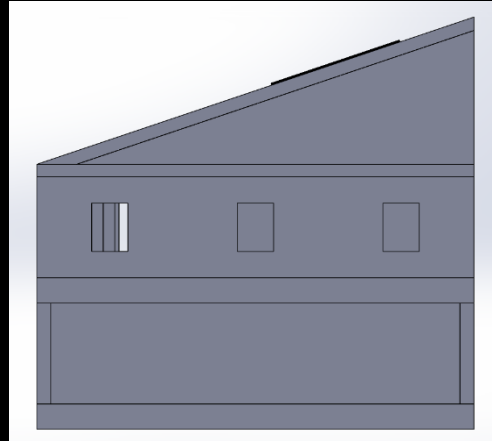
Final House Design

Conclusion and
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Our zero energy home design with its drawings is made by Solidworks



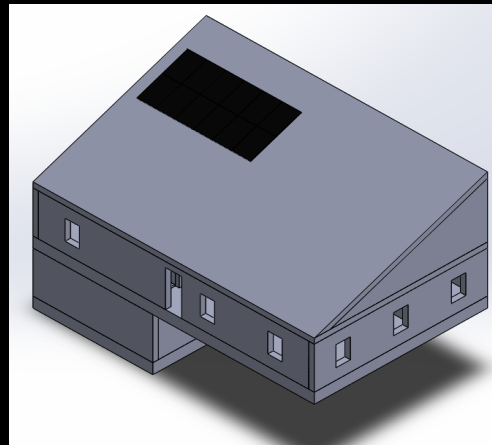
- Back view



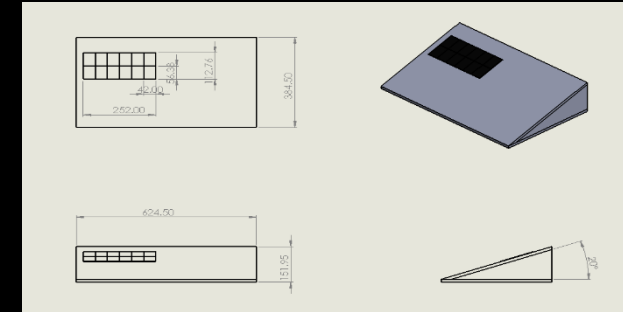
- Right view



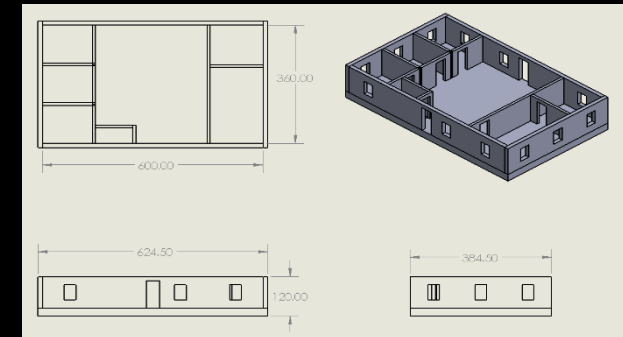
- Front view



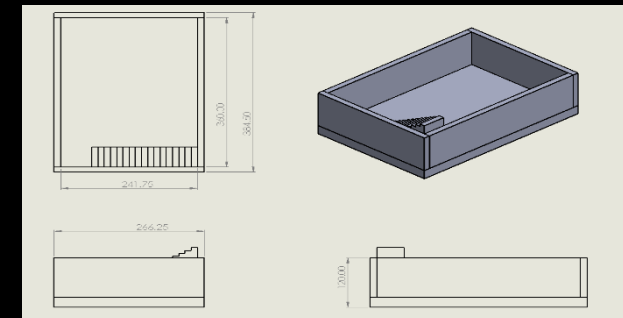
- Isometric view



- Roof design



- First floor design



- Basement design

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Our total estimated cost, including construction materials, electrical appliances, and solar panel, is based on reliable online resources

