Illinois State University

Strategic Approach:

- Type of Project: Two Story Detached
- Location/Climate: Normal, IL, CZ 5A
- Design Strategy: Small footprint, functional basic form, integrated technologies, and simple details.
- Technical Strategy
 - Enclosure: Continuous rigid R10 exterior insulation, R19 cavity insulation, R3 openings, R10 under slab insulation with R21 ICF frost walls, vented energy heel R60 attic, single slope south facing roof to mount solar PV, <1ACH@50Pa infiltration rate.
 - HVAC: Ducted within the envelope Mini-Split and integrated HRV
 - IAQ: Low VOC materials, hard surface flooring, high-merv filtration, HVAC wall vents
- Construction Cost Strategy: Off the shelf materials with simple to assemble details, increased insulation and strategic shading with integrated PV to offer the best value.

Technical Specifications:

Wall R-Value: R-29
Ceiling R-Value: R-60
Foundation R-Value: R-21
Under Slab R-value: R-10
Window R-Value: R-3
Window SHGC: .45
Heat Pump HSPF: 9.2
Heat Pump SEER: 17.8
Water Heater EF: .93

Key Statistics:

Location: **Normal, Illinois** 2009 IECC Climate Zone: **5A**

Square Feet: **1,428**Number of Stories: **2**Number of Bedrooms: **4**Number of Bathrooms: **2**

Est. Construction Cost: \$100,956.00

HERS Index Score: 57

Estimated Monthly Energy Cost: -\$13









