

# Energy Efficient Construction Checklist

## Energy-Efficient Builder

- ☐ Use a qualified knowledgeable authorized dealer/builder

## Framing

- ☐ Structural Insulated Panels are 50% more efficient than stud walls and 15 times more air tight
- ☐ Completed Thermal Bypass Checklist

## Effective Insulation

- ☐ Ceiling: R-49 or SIP roof panels
- ☐ Wall: R-19 or greater, R-26 SIP panels are ideal
- ☐ Basement wall: R-10/13 or greater, or SIP basement panels
- ☐ Band/rim joist: R-19 or greater, SIP/floor hangers are best
- ☐ Floor above unheated space: R-30 or greater
- ☐ Slab Edge insulation: required at Climate Zone 4 and higher  
(maximum of 25% of the slab edge may be uninsulated in Climate Zones 4-5)

## High Performance Windows and Doors

- ☐ Make sure windows are ENERGY STAR rated
- ☐ U-factor less than or equal to 0.35
- ☐ Doors should have an R-value greater than or equal to 5

## Tight Construction and Ducts

- ☐ Install ducts in conditioned spaces to minimize energy loss
- ☐ Seal ducts with mastic and/or UL 181 approved tape
- ☐ Size ducts base on the Air Conditioning Contractors of America Manual J and D.

## Efficient Equipment

- ☐ Geothermal heating and cooling systems
- ☐ Natural gas furnaces: AFUE of 94 percent or higher
- ☐ Central air conditioner: 13 SEER or greater
- ☐ Natural gas water heaters: Up to 60 gal.: 0.62 EF or greater; 60-80 gal.: 0.85 thermal efficiency or greater
- ☐ Electric water heaters: 0.93 EF or greater
- ☐ Size your equipment properly for your home using Manual J or equivalent calculations.  
Bigger is not better!
- ☐ ENERGY STAR qualified thermostat (except for zones with radiant heat)

## ENERGY STAR PRODUCTS

- ☐ Include at least one Energy Star qualified product category: Heating or cooling equipment; windows; water heating equipment; five or more ENERGY STAR qualified light fixtures, appliances, ceiling fans equipped with lighting fixtures, and/or ventilation fans.

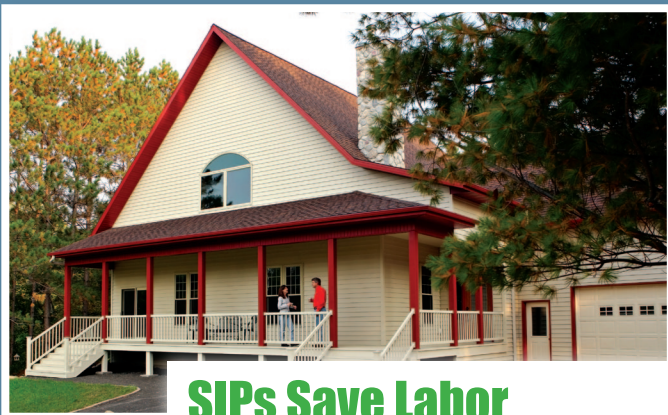
## Third-Party Verification

- ☐ Review plans with Home Energy Rater
- ☐ Home Energy Rater does first inspection for air sealing and insulation
- ☐ Home Energy Rater tests for leakiness of building envelope and ducts

## Energy-Efficiency Cash Rebates

- ☐ Energy-efficiency rebates vary by state due to differences in regulatory obligations.
- ☐ Look for local and national rebates in your area





## SIPs Save Labor

- ☐ Eliminate call backs
- ☐ Straight, flat, true walls
- ☐ Headers and windows are pre-cut
- ☐ Interior framing done after SIPs are set



## SIPs Save Money

- ☐ Less job site waste
- ☐ Reduced HV AC equipment costs
- ☐ Shorter duct runs
- ☐ Increased appraised value
- ☐ Earn energy efficiency tax credits
- ☐ Save on construction financing

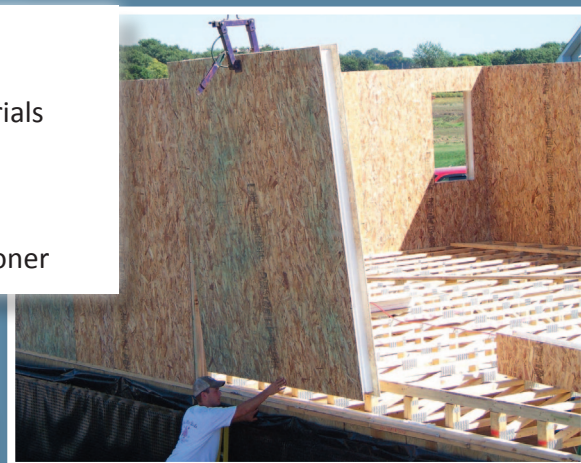


## SIPs Save Energy

- ☐ May save 50% or more on energy costs
- ☐ Building is up to 15 times more air-tight
- ☐ Reduces size of HVAC equipment
- ☐ Whole wall R-value outperforms stick built

## SIPs Save Time

- ☐ Pre-designed and pre-cut materials
- ☐ Fast dry-in time
- ☐ Less material sorting
- ☐ Less waste
- ☐ Allows subcontractor access sooner



## SIPs Save the Environment

- ☐ Renewable resources
- ☐ Recyclable
- ☐ Efficient use of materials
- ☐ Qualifies as green building product
- ☐ Healthy indoor air quality



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