



Elegant and Efficient
TIMBER-FRAME STRUCTURE
 Old world craftsmanship where
 it shows on center-piece features;
 contemporary high-tech joinery
 where it makes sense

MERIDIAN TIMBERWORKS
TIMBER-SIP
SYNERGY
HOMES

Interior ceiling and wall finishing
 drywall or T&G paneling options

Utilizes all major
 window and exterior
 door manufacturers



TIMBER-FRAME
 ENTRYWAYS

TIMBER
 STAIRS
 (Optional)

Superior Energy Efficiency with
STRUCTURAL INSULATED PANELS
 No thermal breaks; unlimited
 interior and exterior surfaces

WHAT IS A TIMBER-SIP SYNERGY HOME?

Timber-SIP "SYNERGY" homes merge the best aspects of both timber-framing and Structural Insulated Panels. Timber-Framing provides superior structural and aesthetic features, but typically is expensive and enclosed by SIP curtain walls that duplicate some of the engineering capacity of timbers. SIP homes provide superior energy efficiency, but too often that efficiency is compromised when internal bearing components are added inside the panel. Synergy homes take the best of both technologies without compromise.

SMART TIMBER-FRAME STRUCTURE

Meridian Synergy homes utilize the best structural and aesthetic capacities of timber-frame structures. Load bearing is carried by timber posts, plates, trusses and rafters, but knee braces are eliminated because their function to resist racking can be provided by SIPs without compromise to energy performance. The elimination of the knee braces alone saves between five and fifteen percent over typical timber-frames. Additional cost savings come from simplified lap joinery augmented by unseen high-tech timber screws and connectors. Relatively more expensive mortise-and-tenon joinery is featured only on show-case components like entry systems and center-piece trusses.

ENERGY EFFICIENT STRUCTURAL INSULATED PANEL ENCLOSURE

Structural Insulated Panels out perform all other insulation technologies when used without thermal breaks. Typical batt insulation has a thermal break every sixteen or twenty-four inches. According to Department of Energy studies, even at optimal performance frame and batt walls perform about half as well as SIPs. That's due partly to air leakage between batt and framing, but also to the thermal mass of the system. And when there's gaps due to poor installation, batt performance is further degraded. Also, Structural Insulated Panels can be pre-cut to generate additional savings by shortening construction time-lines and eliminating on-site mess.

INTELLIGENT DESIGN

All Meridian Synergy homes are designed by Mountain Shelter Design Institute where design principles include maximizing economies of materials, utilization of local sources, and responsible use of scarce forest resources. Synergy homes can be modified to owner requirements or new design to Synergy principles can be started from scratch...



MERIDIAN TIMBERWORKS, INC.
 Boone, North Carolina
 meridiantimberworks.com Phone (828) 773-4496