

CHAPEL IN THE PINES PRESBYTERIAN CHURCH  
MANN'S CHAPEL RD. – BRIAR CHAPEL COMMUNITY

**SIPS Panels**

- Significant increase in R-value of walls, requiring less heating and air conditioning for a space.
- Heat loss is 40 to 60 percent lower than traditional wood-framed construction.
- Increased building efficiency, reduced air leakage, and energy savings which reduce overall greenhouse gas emissions.
- Average energy savings over 50 years were 9.9 times better compared to traditional stick framing and will provide a reduction in global warming potential 13.2 times the O2 equivalent of the emissions produced ([www.insulpan.com](http://www.insulpan.com)).
- Improved air quality – interior air is free of irritants including mold that might result from damp conditions in a wood-framed wall.
- Panels are made from expanded polystyrene foam, free of HCFCs and HFCs, chemicals released into the air by other insulation.
- Could qualify the entire structure for an Energy Star rating.

**Timber Frame Construction**

- Uses less total lumber materials to build.
- Cut from trees that are grown in managed timber land in NC.
- If the church was ever taken down, all the timber could be disassembled and re-used.
- Uses a fraction of the electricity to produce a timber frame when compared against the requirements of a steel mill producing steel beams.

**Energy Efficiency**

- Sealed crawl space uses the earth temperature for cooling and insulation.
- TEK Shield in the roof decking provides radiant heat barrier in the education wing.
- Motion sensor light switching.
- Fluorescent light fixtures are longer lasting and use less energy.
- HVAC system has variable speed fans to minimize energy usage and maintain constant air temperature.

**Minimizing Water Usage**

- Motion sensing faucets