The Last Word...

I-Joists vs. Floor Trusses

The advantages of open-web floor trusses are beginning to decelerate the growth of EWP. Though I-Joist sales per housing start have increased about 6% over the last two years, the trend has slowed considerably. Some of the small gain is due to the continuation of the replacement of solid-sawn joists. However, most of the increase results from the national builders’ market share growth spurred by EWP manufacturer incentives.

CMs should continue to market floor truss strengths:

Quicker installation for framing and mechanical trades:

- Replacement of steel hardware with pre-made beam pockets, top-chord bearing details, and customized end conditions.
- Elimination of web stiffeners and most blocking.
- Precision End Trimmed (PET) and no cutting of holes.
- Shortest HVAC, plumbing, and electrical runs due to open webbing.

The trend toward higher density housing:

- The number of attached single family units, especially townhouses, has increased 20% since 2016.
  - Locating HVAC in conditioned spaces (within floor containers) is often mandated by energy code.

The increasing challenges of I-Joist floor systems:

- Handling 48’ or 60’ joists and processing them through $300,000 saws.
- Increasingly complicated hole patterns; round, oval, rectangular.
- Incorporating HVAC in floor containers requires deeper joists.
- As depth increases, I-Joist costs rise faster than floor truss costs.
- Precision End Trimming (PET) adds to processing expense.

- Large inventory of stock lengths required to minimize waste.
- More unusable material waste generated.

Lower manufacturing costs:

- Joe Hikel, owner of Shelter Systems, emphasizes that building floor trusses is more cost effective than handling and cutting holes in I-Joists.

In summary, floor trusses are more “framer friendly” and better satisfy the goal of increasing “offsite manufacturing.”