

#### Home Innovation RESEARCH LABS

# ALTERNATIVES TO LUMBER AND WOOD PRODUCTS IN NEW HOME CONSTRUCTION

October 2020

Finding Innovation a Home

### Basis for Presentation Data: Home Innovation's Building Products Tracking Studies

- Home Innovation has been tracking annual materials purchases since 1995
  - Builder Practices Survey of 1,550 U.S. Builders
  - Consumer Practices Survey of 100,000+ U.S. households
- Decades of <u>custom market research</u>, sponsored by hundreds of building materials manufacturers
- Support of <u>development and launch</u> of hundreds of new building products



## SF Detached <u>Exterior Wall</u> Materials, Above-Grade



### New Home Wall Construction, 2019 Combined Single & Multifamily

Site built - light wood frame	77.4%
Concrete block	7.4%
Panelized - light wood frame	5.8%
Poured concrete	2.3%
Steel (all types)	1.9%
Modular - light wood frame	1.9%
Post & beam	0.9% Source: 2020 Annual Builder Practices Reports
Insulated concrete forms	0.9%
Logs	0.5%
Structural insulated panels	0.5%
Other concrete or masonry	0.4%
Precast concrete	0.2%
e Innovation	0% 10% 20% 30% 40% 50% 60% 70% 80% 90%

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### Shares of Exterior Wood Wall Framing by **Species / Type (2017 & 2019)**



Preservative treated (any species)

Hem-fir or other western woods

#### Reduce Lumber Cost Through Advanced Framing or Optimum Value Engineered (OVE) Framing

- Primary Benefits—more resource efficient and energy efficient
- Designing on two-foot modules for sheathing
- Spacing wall studs, joists and rafters up to 24 inches on center
- Two-stud corner framing (ladder blocking for drywall)
- Eliminate headers in non-bearing walls;
  - single headers or downsized double headers in bearing walls
- Use single top plates with in-line framing
- Eliminate jack studs and cripple studs where possible
- Use 2 x 4 + foam sheathing in place of 2 x 6

#### Exterior Wall Framing in New Single Family Detached Homes



#### **New Single Family Home Floor Construction** (% of floor area)



#### **Roof Construction in Single Family Homes** (% of roof area)



#### Shares of Primary Wall Sheathing in New SFD Construction



#### **Shares of Roof Sheathing in New SFD Homes**



### Shares of Floor Sheathing Materials in New SF Detached Homes (All Floors)



## Porch Surface Materials, New SF Detached Homes 2019

**Poured Concrete** 69% **Treated wood** 9% Composite plastic 5% Natural stone 4% **Brick pavers** 4% PVC & other plastic 3% Brick or clay tile 3% Other 2% Cedar 1% Other untreated wood 1% Redwood 0% Concrete pavers 0% 0% 10% 20% 30% 40% 50% 60% 70%



Source: Annual Builder Practices Reports

80%

## Deck Surface Materials, New SF Detached Homes 2019



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Source: Annual Builder Practices Reports



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#### **THANK YOU**

Contact me for further discussion <u>ehudson@homeinnovation.com</u>

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