The Southeast Mass Timber Symposium

Sizemore Group

The SE US Renewable Building Material

Wood

Disclaimer: This presentation was developed by a third party and is not funded by WoodWorks or the Softwood Lumber Board.

William J. de St. Aubin, AIA, LEED AP
CEO Sizemore Group
43 Years of Sustainable Design Expertise

Sizemore Group
Award-Winning Master Planning & Architecture

William J. de St. Aubin, AIA, LEED AP
CEO Sizemoregroup:
GT 1983 Final Project
A wooden boat factory & museum on Lake Lanier
Our Home Office:

- A **1915 Timber Building** in Historic Atlanta
Agenda:

- Sustainable
  - Urban Planning
  - Design
  - Economics

“*It's all about the Tree’s*”
Sustainable Urban Planning

- **Global Urbanization**
- **Affordable Construction**
- **Wood High-rise Construction**

“Today, roughly 80 percent of economic growth comes from urban centers.”

Proposed Wooden Sky-Scraper Paris
Will Rogers

“Urbanization and climate change may be the two most important trends to shape global development in the decades ahead.”

Global Urbanization

34 Story Wood Frame Residential Tower Stockholm 2023 Possibility
Global Sub-Urbanization

**CO2 concentration causing global temperature increase**

There is no doubt any more: In order to mitigate global warming, the emission of greenhouse gases must be reduced, the sooner the better.
Affordable Construction

Wood Frame
Ashford Crossing
- Senior Housing
- **Mixed-Income**
- Recreation
- Retail
- Apartments
- Town Homes
- Single Family
Wood Mid-High Rise Construction

276’ Vienna Austrian Wood Tower: 2016

A carbon footprint is defined as:
“The total amount of greenhouse gases produced to directly and indirectly support human activities, usually expressed in equivalent tons of carbon dioxide (CO2).”

97’ British Columbia Wood Innovation Design Center as built
T3 Minneapolis Office Building
Location: Minneapolis, Minnesota
Year of completion: 2016
Architect: Michael Green Architecture/DLR Group
Base Building Engineer: Magnussen Klemencic Associates
Design Assist Builder: StructureCraft
Number of stories: 7
Area: 220,000 sqft.
Construction Material: Nail Laminated Timber (first level is concrete).
Case Studies: Mid-Rise

Nail Laminated Timber (NLT) was used over Cross Laminated Timber (CLT), Glue Laminated Timber (GLT) etc. because of structural advantages, lower cost, and faster procurement times.
Wood High-Rise Construction

276’ Vienna Austrian Wood Tower : 2016

A carbon footprint is defined as:
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97’ British Columbia Wood Innovation Design Center as built
Case Studies: High-Rise

Framework
Location: Portland, Oregon
Year of completion: Expected in 2018
Architect: LEVER Architecture
Number of stories: 12 (148 feet tall)
Area: 90,000 sqft.
Construction Material: Cross Laminated Timber.
Case Studies: High-Rise
Case Studies: High-Rise
Tree Tower Toronto
Location: Toronto, Ontario
Year of completion: Conceptual
Architect: Penda
CLT consultants: Tmber
Number of stories: 18
Area: 48,000 sqft. of residential area, 6,000 sqft. of public space.
Construction Material: Cross Laminated Timber, concrete in some areas.
Case Studies: High-Rise
Case Studies: High-Rise
Sustainable Design

- Renewable
- Local
- Natural Beauty
- Authentic
Trees

Trees are a renewable resource providing clean air, clean water and abundant products.

**Wood** require 60% **less energy** to manufacturer then **concrete** walls

**Wood** require 24% **less energy** to manufacturer then **steel** frame walls

**Steel** manufacturing generates 300% **more water pollutants** than **wood**
Sustainable Parking Deck

Glenwood CLT Parking Garage
Location: City of Springfield, Oregon
Year of completion: 2018 (On going)
Architect: SRG Partnership Inc.
Number of stories: 4
Area: 206,000 sqft. (360 parking stalls)
Construction Material: Cross Laminated Timber, transparent glass for façade.
A Sustainable Deck
Georgia’s has over 23 million acres of commercial forest, and is a world leaders in timber as a renewable raw material.

Georgia’s commercial timberlands grow 19 million tons more wood each year than is harvested, resulting in growth exceeding removals by 38 percent.

Georgia’s timberland coverage has remained stable since the 1950s.

Georgia’s net growth of our forests has consistently exceeded net removals.

Georgia volume in timber is greater now than it was in the 1930s!
Natural Beauty
Natural Beauty

O’Malley’s Tavern to the Interim Medical Partnership Building
Holy Vietnamese Martyrs Catholic church - Authentic nave Ceiling to reflect their heritage
Sustainable Economics

- Georgia’s Natural Resource
- CLT manufacturing in the US
- Connecting the two Georgia’s
Georgia's Natural resource

Contribution to the Economy

Forest-related industries inject $23.6 billion and 108,112 jobs into the state’s economy, making it Georgia’s second largest manufacturing employer.

Compensation for forest industry employees and supporting businesses exceeds $5.4 billion per year, and forest management and supply to mills by landowners and forest managers generate $900 million in output (mill gate value).
CLT Manufacturing in the US

- SmartLam, Columbia Falls, MT
- DR Johnson, Riddle, OR
- International Beams (manufacturing coming soon; currently distributing), Dothan, AL

Georgia?

CLT construction is:

5 times lighter than concrete

Cost competitive

Reduces overall construction time

Low environmental impact

“Andrew Higgins is the man who won the war for us”
President Dwight D. Eisenhower.

He did it with CLT Uboat manufacturing
Connecting the two Georgia’s

- Georgia’s rural industry to exporting CLT’s?
- Atlanta’s booming Urban Economy
- Worlds Tallest Wood Structure in Georgia?
Thank You!
Mr. de St. Aubin graduated from Georgia Institute of Technology in 1985 with a Masters in Architecture. He then worked as an Architect for Rosser International before joining Sizemore Group in 1993. He is currently CEO of Sizemore Group and guides the firm’s strategies while providing expertise on Healthy Town Planning and Architecture to the development industry. He is a founding board member of the Atlanta Chapter of the Congress for New Urbanism and a subject matter expert for the United States Green Building Council (USGBC LEED ND – for Neighborhood Design). Bill has published several papers, conducted seminars and received design awards for his work in health district planning and architecture.

Select Experience / Publications / Speeches:
ULI Pittsburgh Key Note Speaker on Healthy Communities; Harvard University Guest speaker on Mall Retrofits and the experiential economy, Georgia’s Environmental Conference Renewable Building Material: Wood, ULI Regional Sustainable Summit Retrofitting Suburban Communities; National Congress for New Urbanism Conference Speaker; Rebuilding the American Dream through Public/Private Partnerships Publication; American Institute of Architects Public Architects, National Conference on Sustainable Design Conference & Workshop Speaker on Sustainable Commercial Facilities; Healthy Community Planning / Sustainable Urbanism in the South CNU 18 Publication; Athens-Clarke County Design Courthouse Renovation & DFCS Building; Athens-Clarke County Water Treatment Facility; US. Centers for Disease Control and Prevention 25 Year Master Plan; City of Duluth Town Center, National Award Winner; Hollowell Corridor LCI for City of Atlanta and Cobb County; Perimeter Center Master Plan for Medical District; AIA Georgia Regional Conference Readapt = Design + Economic Yield Presentation; Cumberland CID Blueprint and Green TOD Plan – GPA Award Winner