# Working with Engineered Wood Building Material

Opportunities in Design and Details







# Experience with Wood



**Engineered Lumber** 



**Heavy Timber** 



Glu-Lam/CLT



# Experience with Wood







Combination



- Versatility
- Variety
- Material Quality
- Usuable on Multiple Scales
- Renewable Resource/Recyclable



# Obstacles and Challenges

- Combustibility and NBCC
- Availability locally Quality/Species
- Moisture Ingress in Buildings



#### • Glu-Lam

















- Cross-Laminated Timber (CLT)
  - Paul Reynolds Community Centre, St. John's









































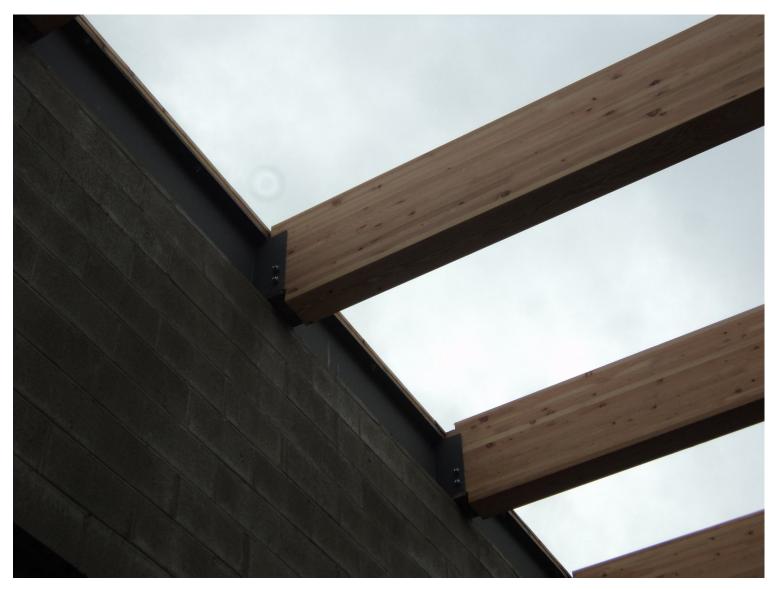
#### • Glu-Lam and CLT















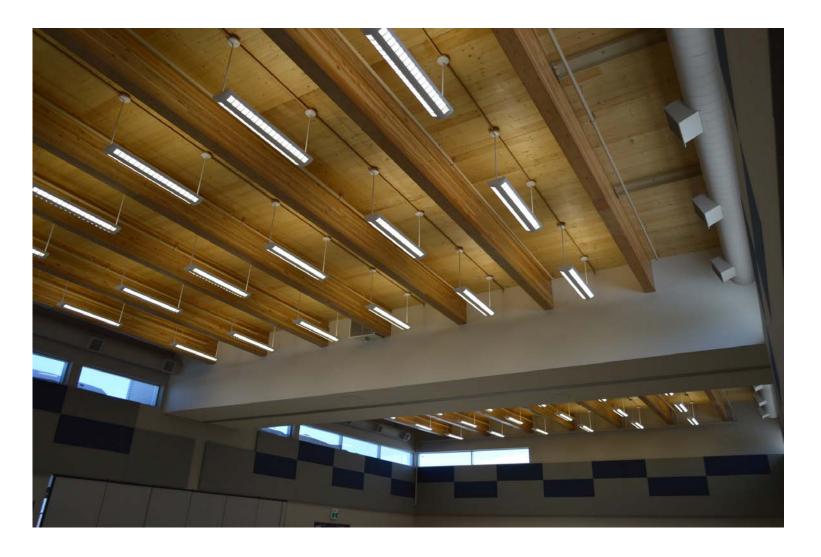


















- Group A, Division 2, two storey, sprinklered building with a floor area of 4955m2 = NBCC 3.2.2.24.

#### **PRIMARY REQUIREMENT 1:**

- "There is no fire resistance rating required for the roof". Therefore, the CLT panels and glulam structure (supporting roof only) would be permitted based on fire ratings.

#### **PRIMARY REQUIREMENT 2:**

- "The building is required to be NON-COMBUSTIBLE construction".
- However: NBCC 3.2.2.16. 1 states ".... A roof assembly in a building up to two storeys in building height is permitted to be of HEAVY TIMBER CONSTRUCTION regardless of building area or type of construction required, provided the building is sprinklered."























# Improving Designing with Engineered Wood

- Expanding Code Solutions
- Establish "Best Practices" Details
- Early Collaborative Design Approach
  - Team engineers
  - Wood product suppliers
  - o Trades
- Availability/Regionality



# Thank-you!