Quadrangle

# Land Development Conference

## Multi-Unit Residential Case Study

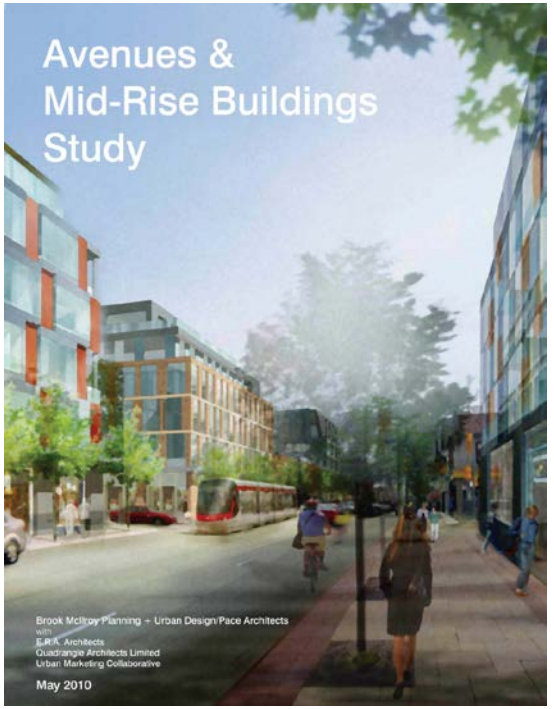
**Sheldon Levitt**
Principal

28 May 2013

# Introduction

## Quadrangle + Background Studies

- Avenues & Mid-Rise Buildings Study for the City of Toronto with Brook McIlroy
- Wood Solutions in Mid-rise Construction for WoodWORKS!



# Introduction
## Potential on the Avenue

# Introduction

© City of Toronto Avenues & Mid-Rise Building Study, 2010

# Introduction
## Quadrangle's Mid-rise Experience

**Saint James Condominiums** | King Street East, Toronto

# Introduction
## Quadrangle's Mid-rise Experience

**Viva Condominiums** | Bathurst Street, North York

# Introduction

## Quadrangle’s Mid-rise Experience

**Rouge Bijou** | Enterprise Road, Markham

# Introduction

## Quadrangle's Mid-rise Experience

### Proposed Mid-rise

Concept design RAW | partner in charge Richard Witt

**Abacus Lofts** | Dundas Street West, Toronto

# Intelligent Wood Construction

- Panelization (Brockport) Facility
- Conceptual Prototype
- Details
- Home Ownership Today (HOT) Condominiums

# Intelligent Wood Construction

## Brockport Facility

### Computer Controlled Automated Assembly

BROCKPORT HOME SYSTEMS LTD.

# Intelligent Wood Construction

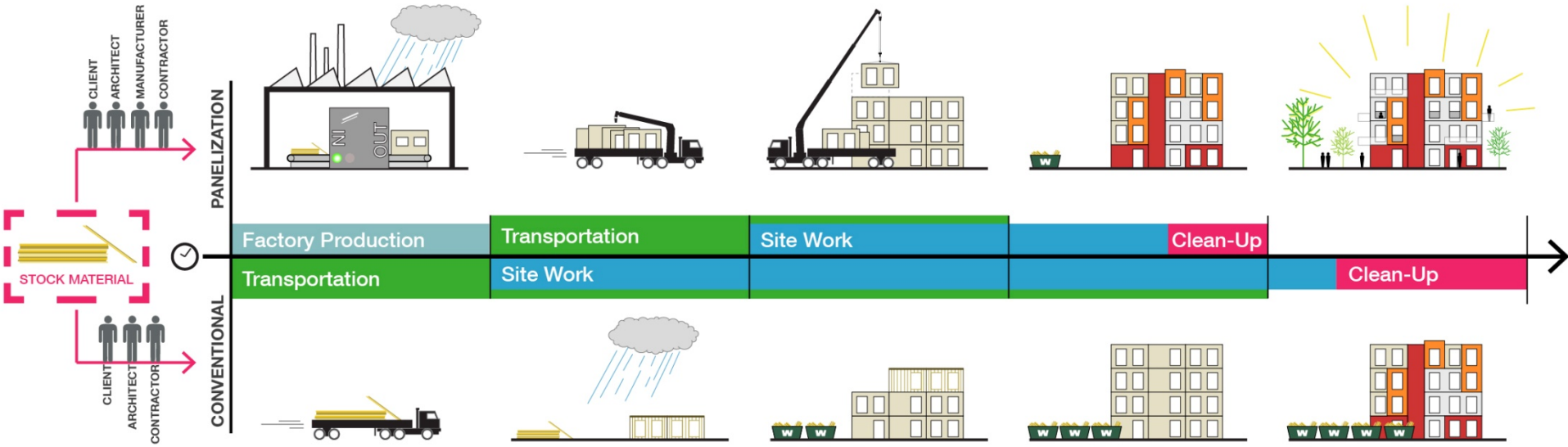
## Brockport Facility

### Quick On-site Installation

BROCKPORT HOME SYSTEMS LTD.

# Process and Construction Performance Methods

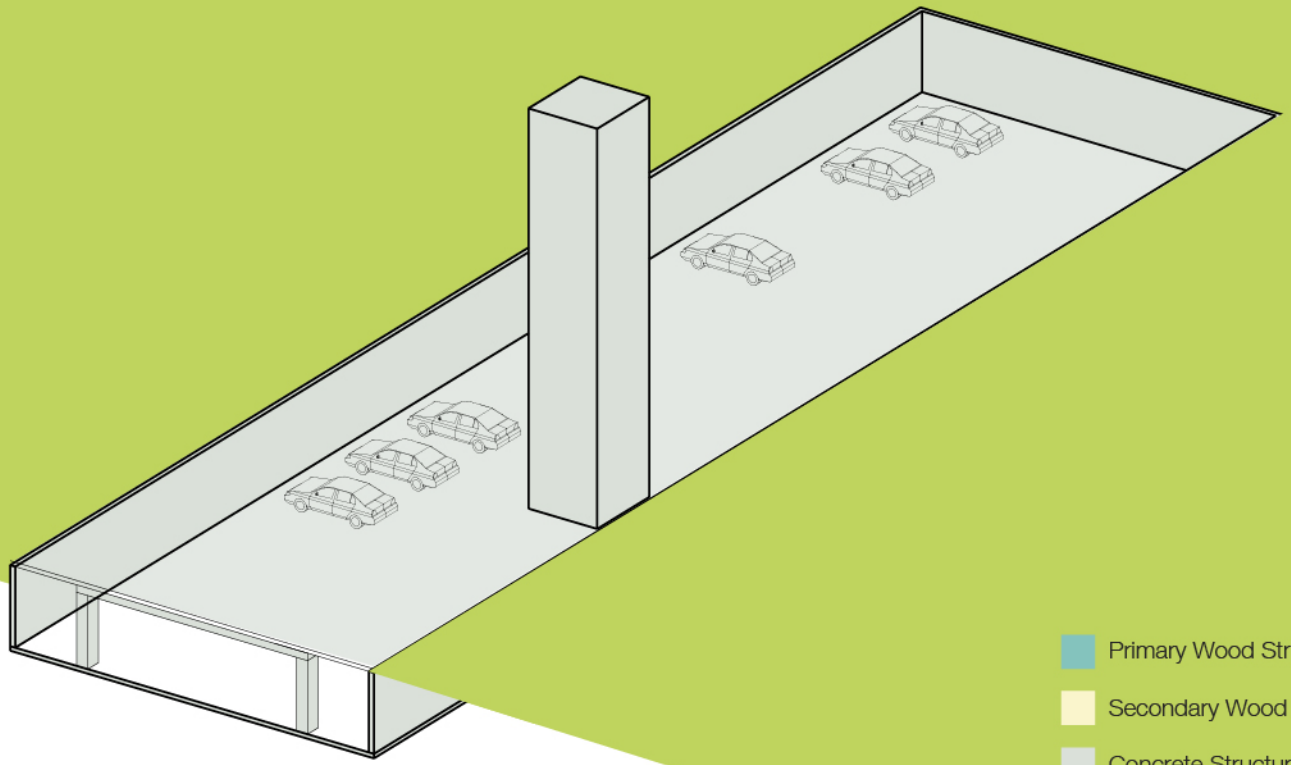
## Quality Control for Higher Light Wood-Frame Buildings



# Intelligent Wood Construction

## Conceptual Prototype

### Foundations and Core



Primary Wood Structure

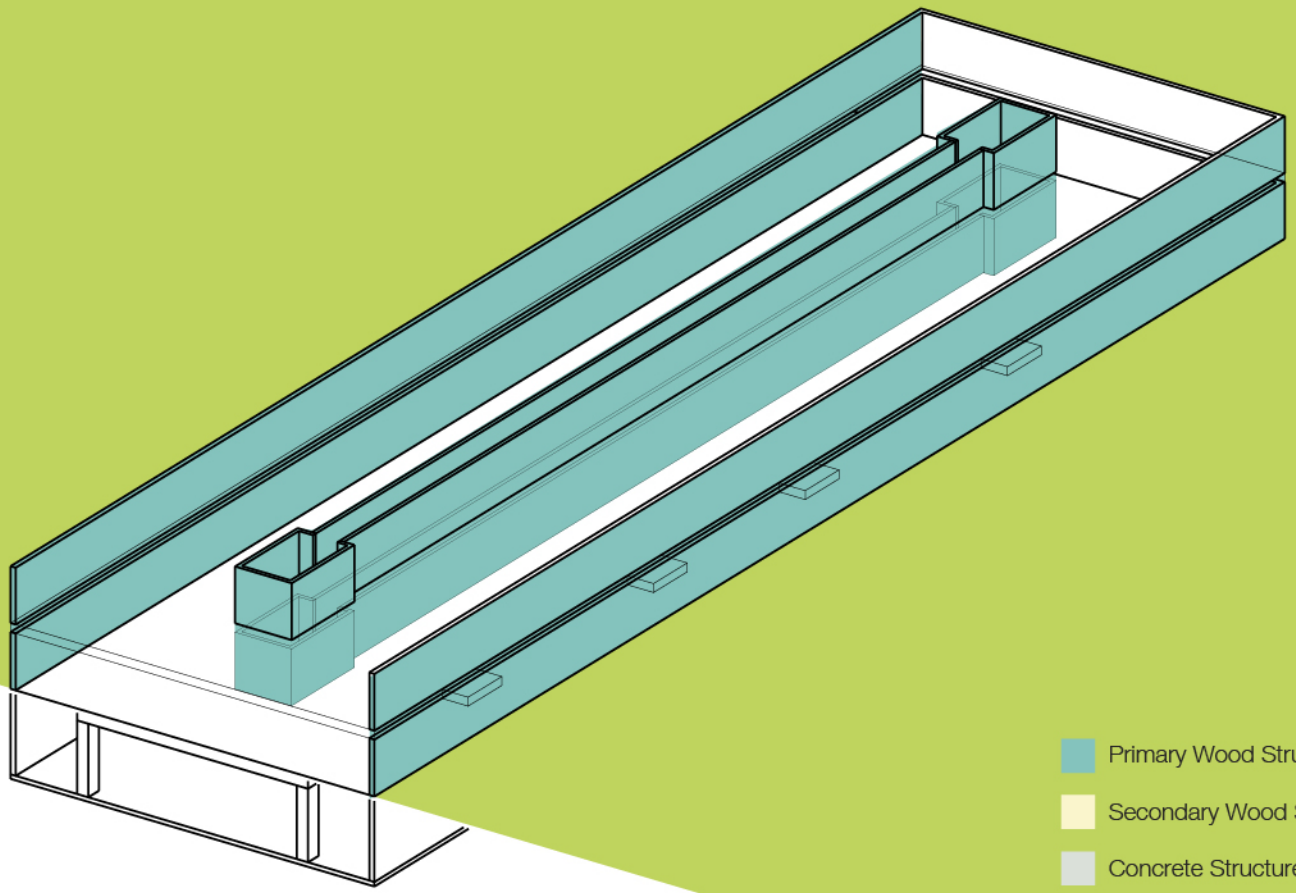
Secondary Wood Structure

Concrete Structure

# Intelligent Wood Construction

## Conceptual Prototype

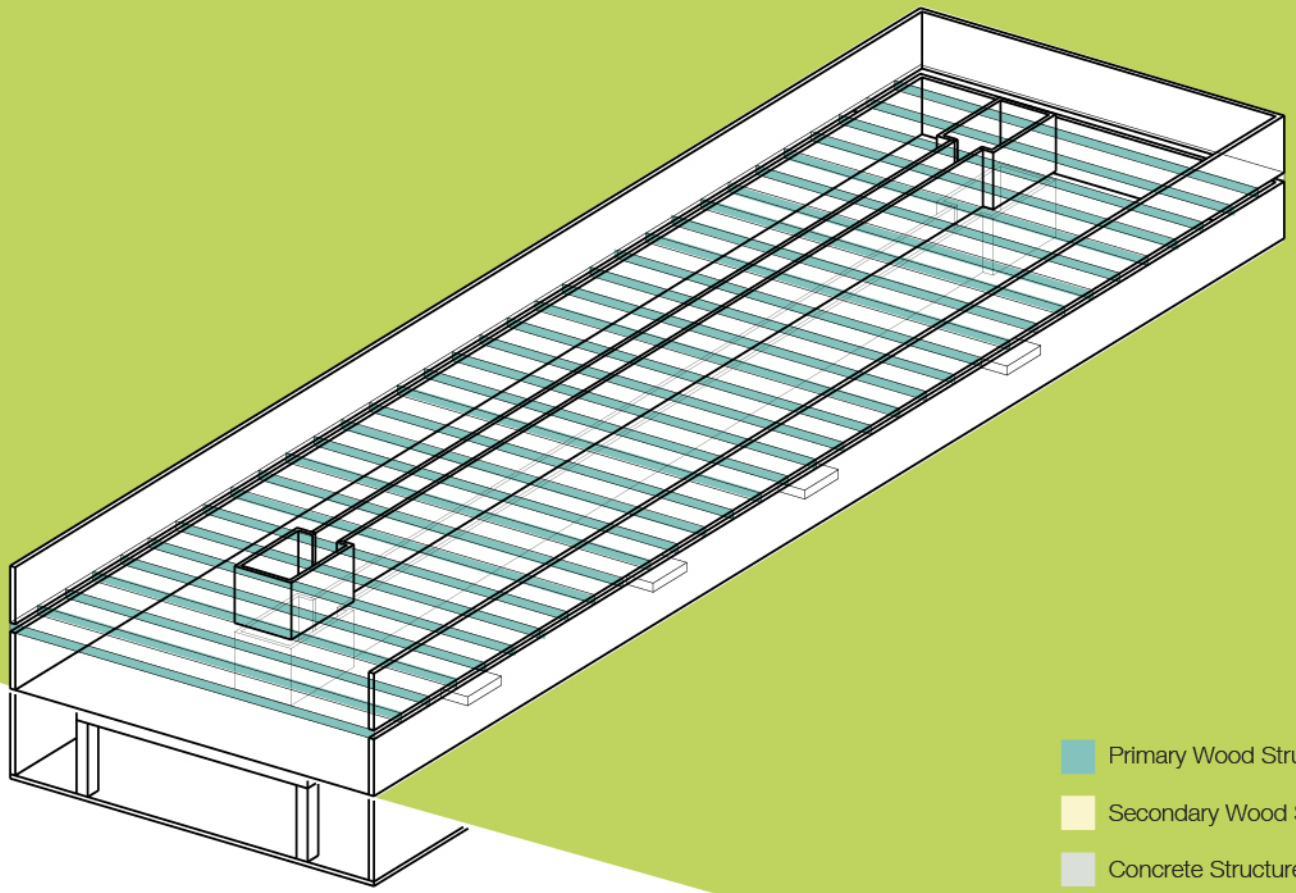
### Primary Vertical Structure



# Intelligent Wood Construction

## Conceptual Prototype

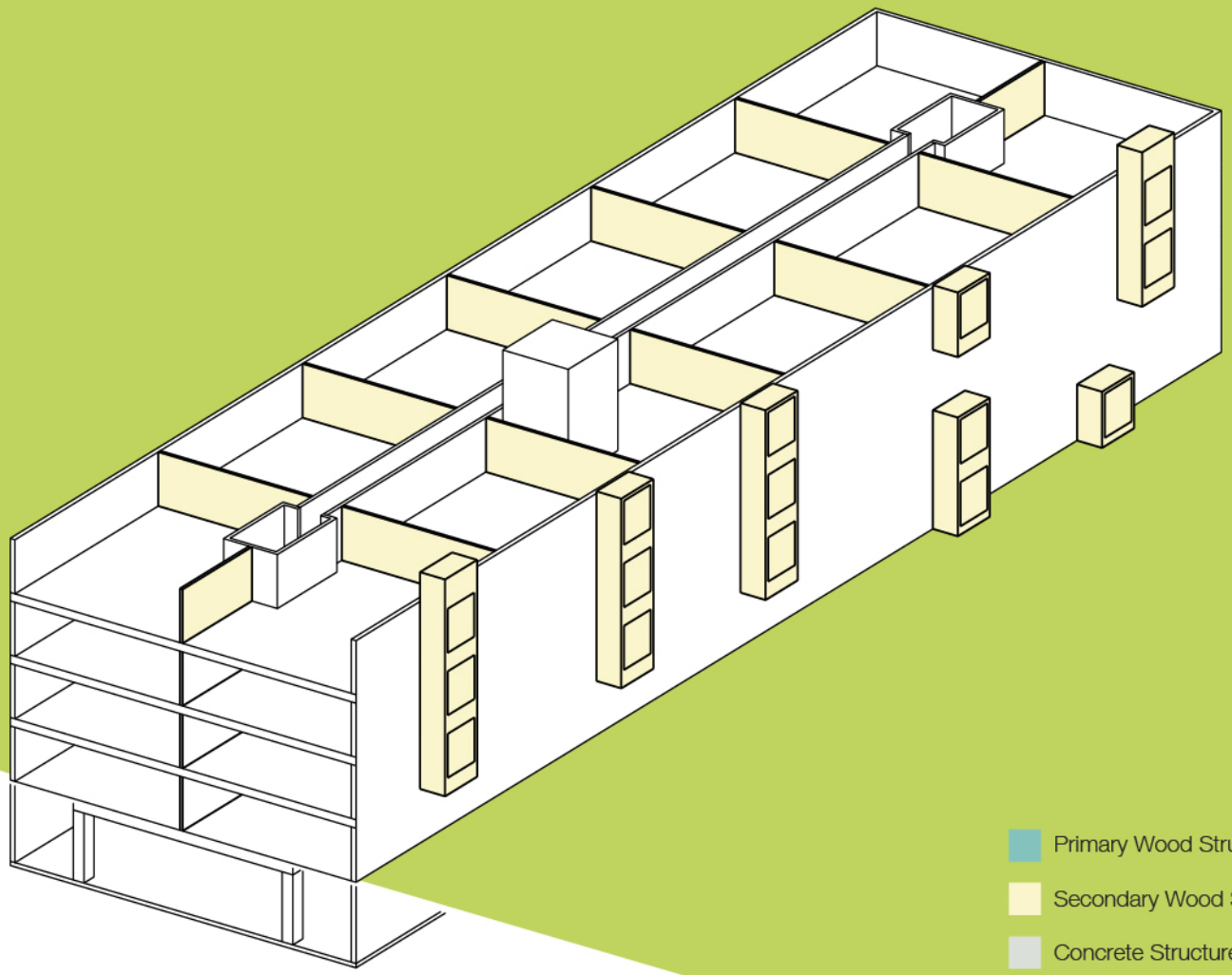
### Primary Horizontal Structure



# Intelligent Wood Construction

## Conceptual Prototype

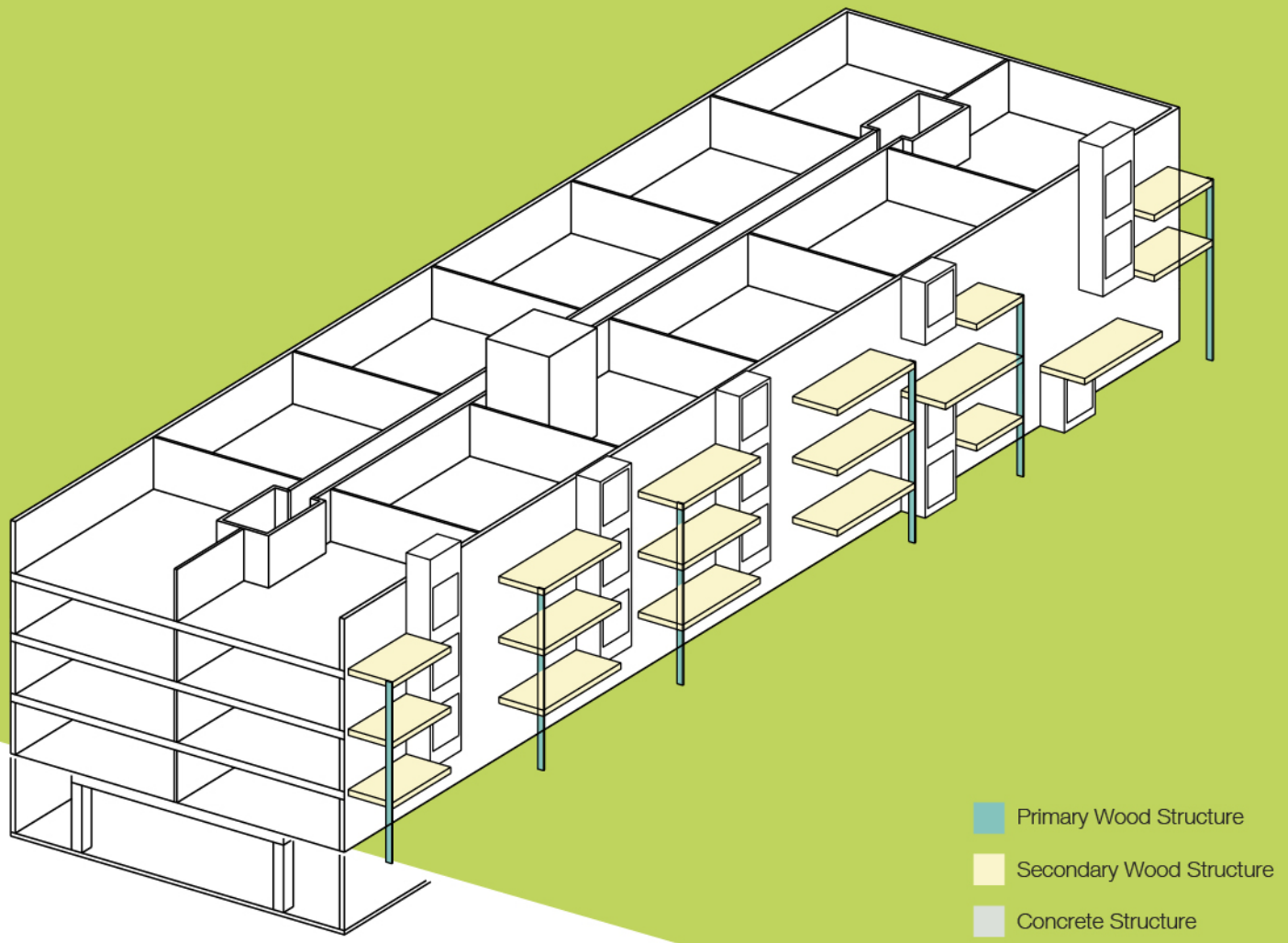
### Secondary Demising Walls and Bay Window Structure



# Intelligent Wood Construction

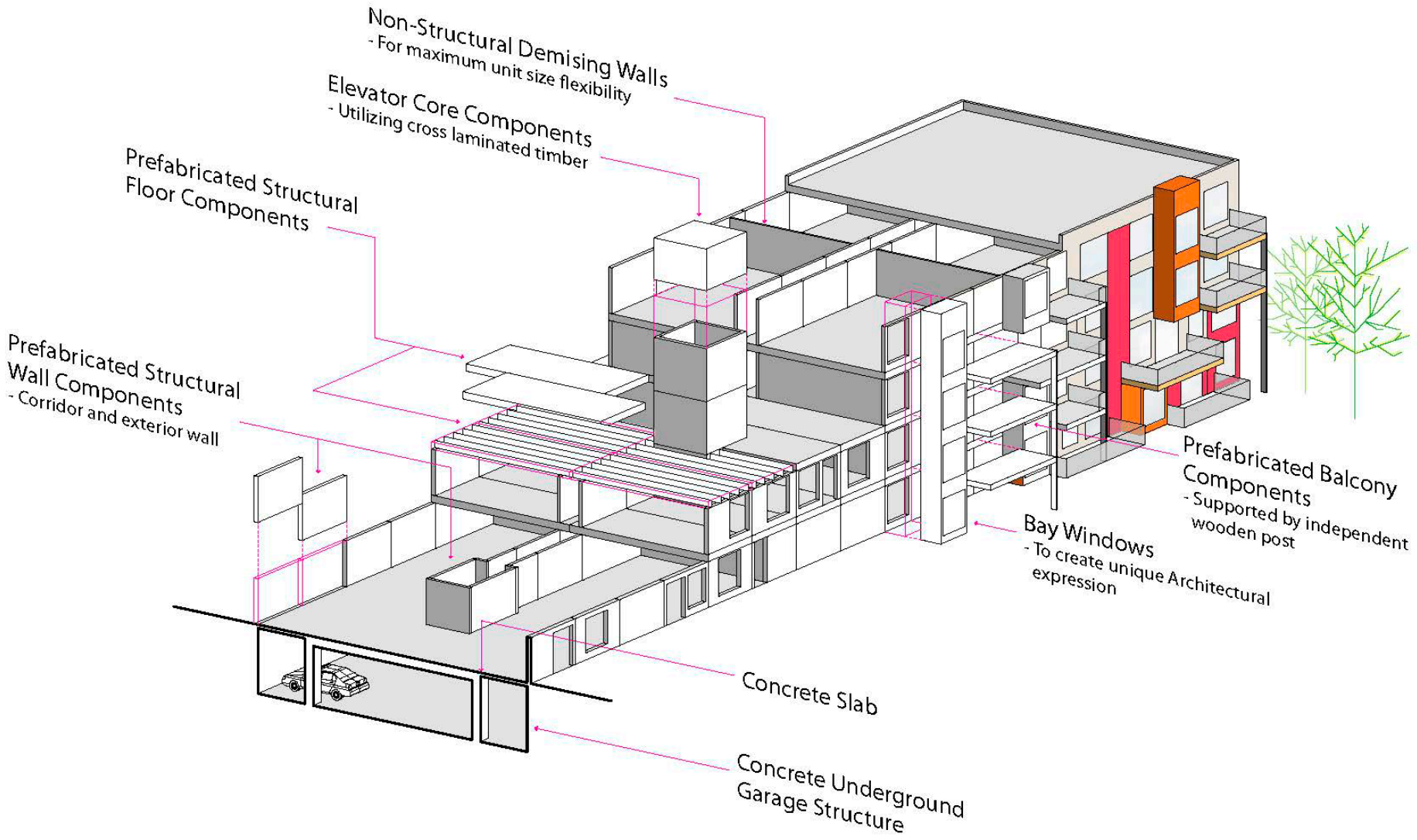
## Conceptual Prototype

### Secondary Balcony Structure



# Intelligent Wood Construction

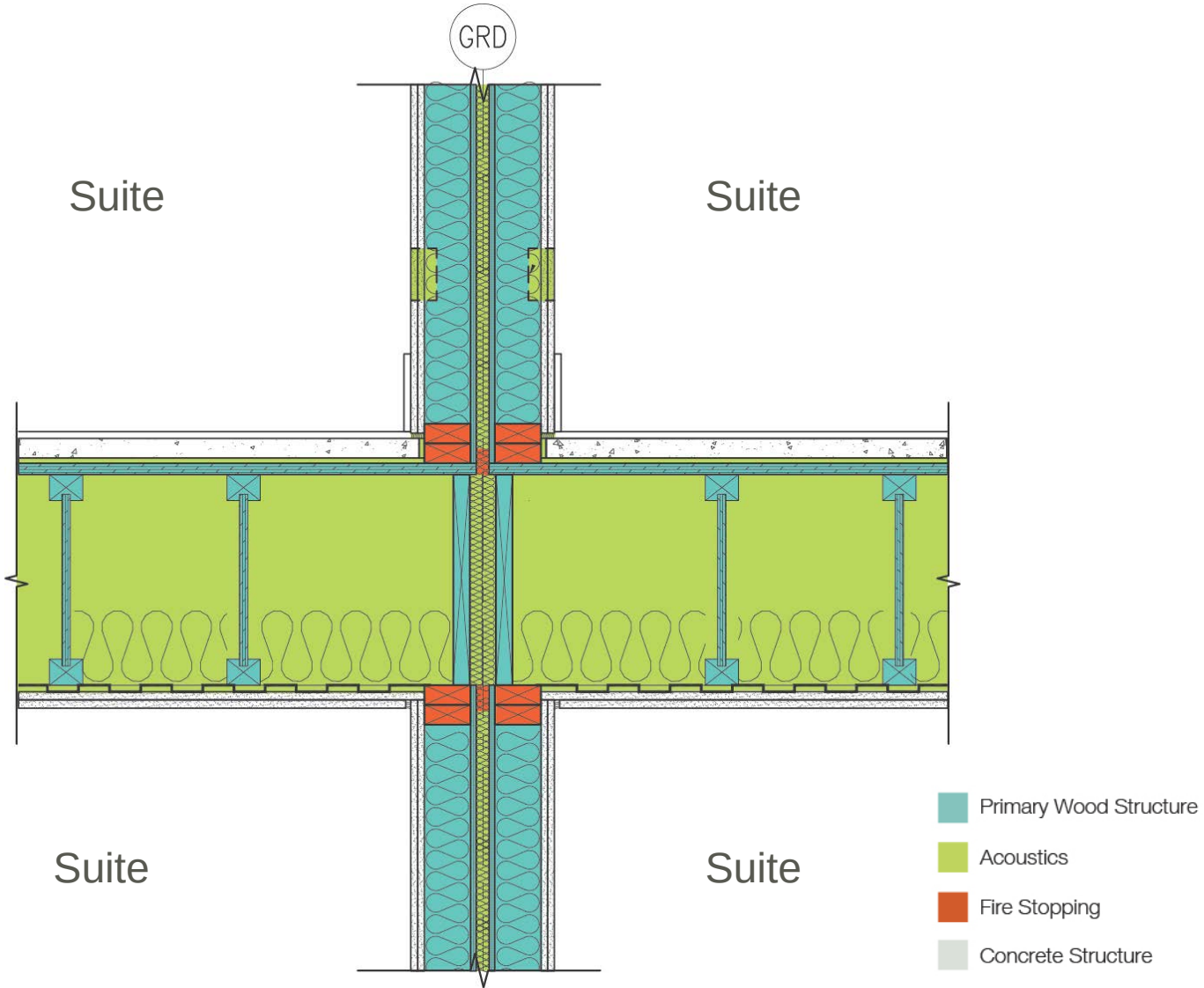
## Assembly Diagram



# Intelligent Wood Construction

## Details

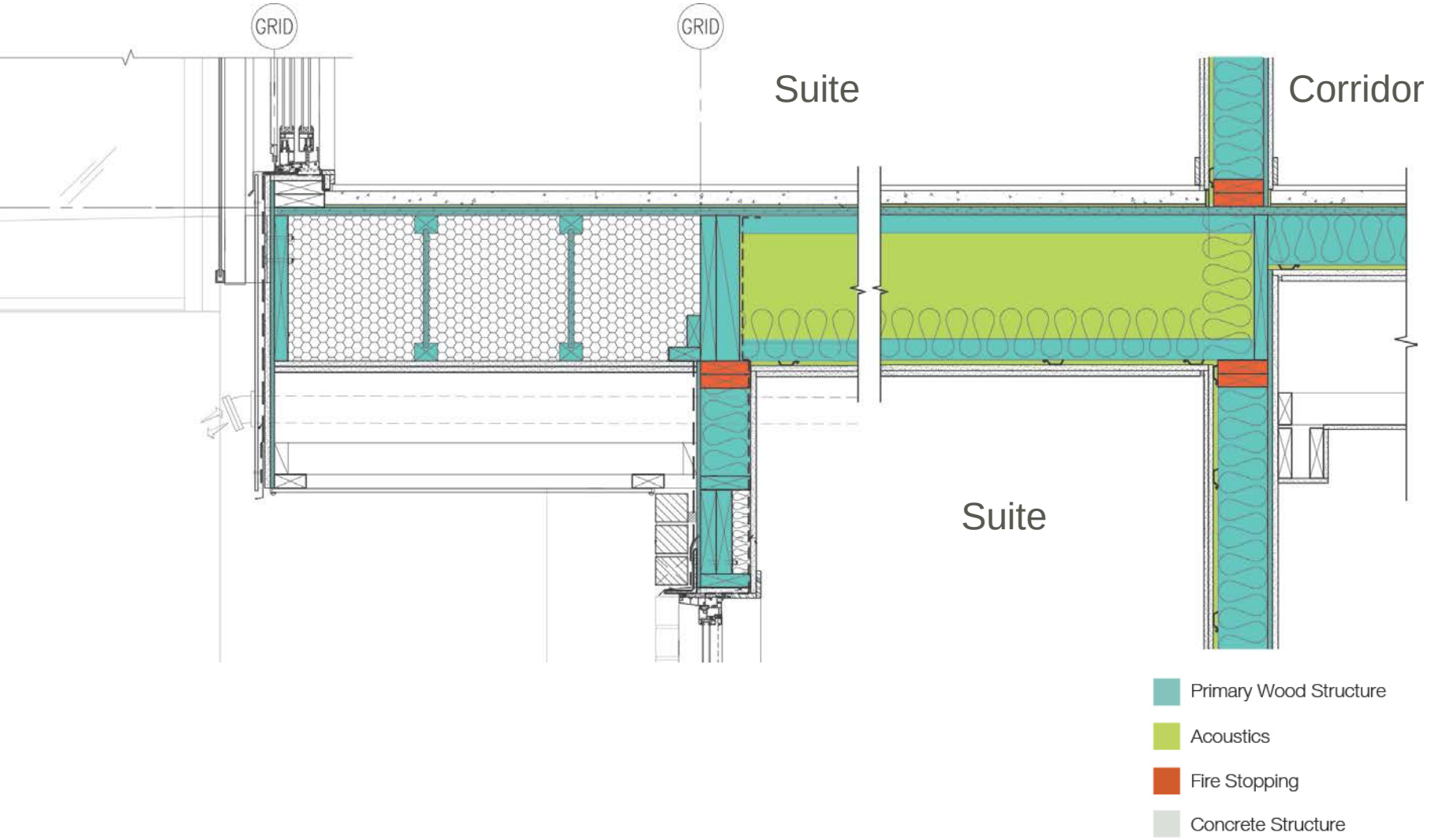
### Demising Wall/Floor



# Intelligent Wood Construction

## Details

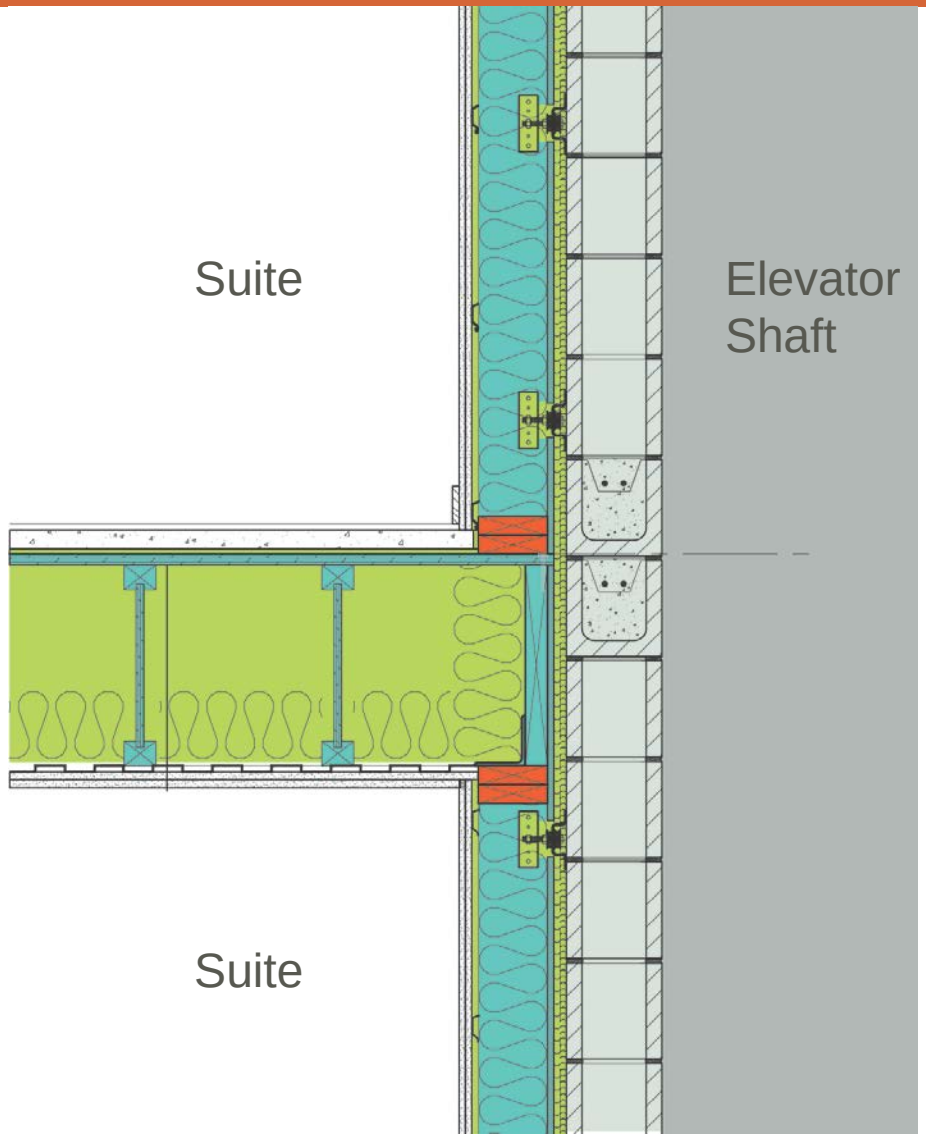
### Exterior and Corridor Wall and Bay Window



# Intelligent Wood Construction

## Details

### Concrete Elevator Shaft Interface

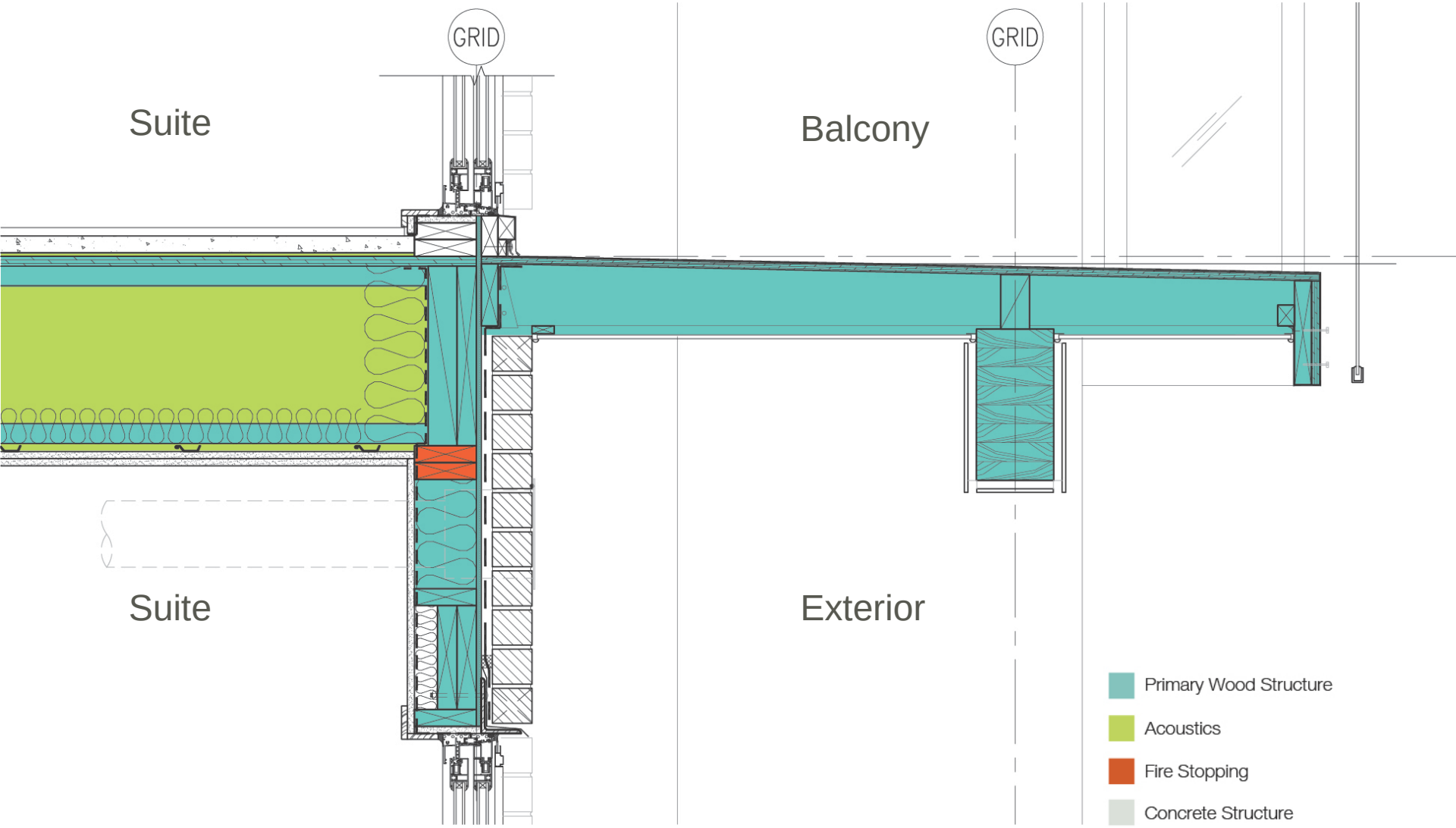



- Primary Wood Structure
- Acoustics
- Fire Stopping
- Concrete Structure

# Intelligent Wood Construction

## Details

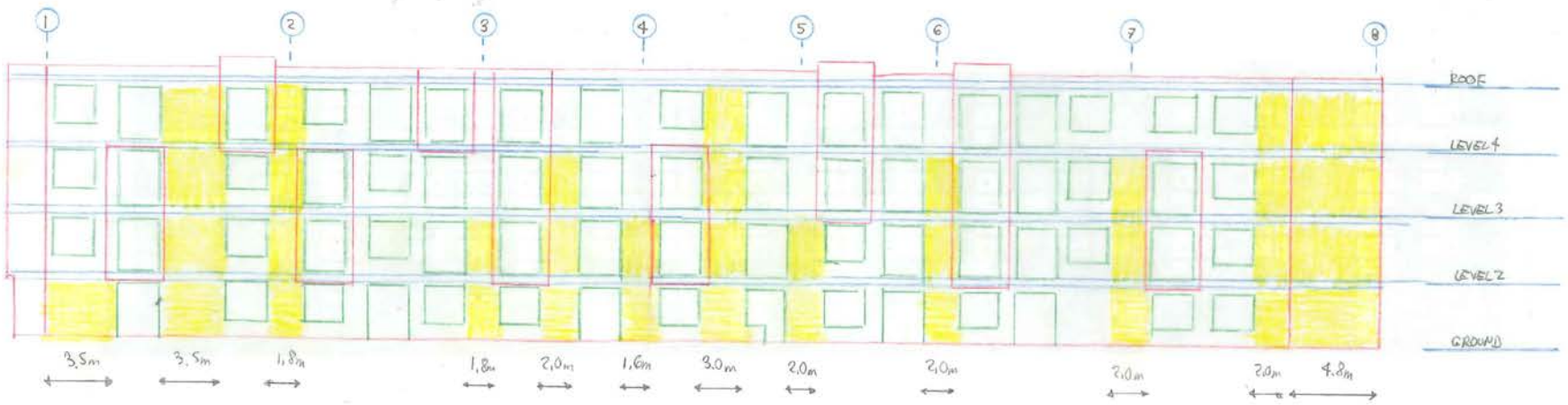
### Balcony Integration



# Case Study

## Home Ownership Today (HOT) Condominiums

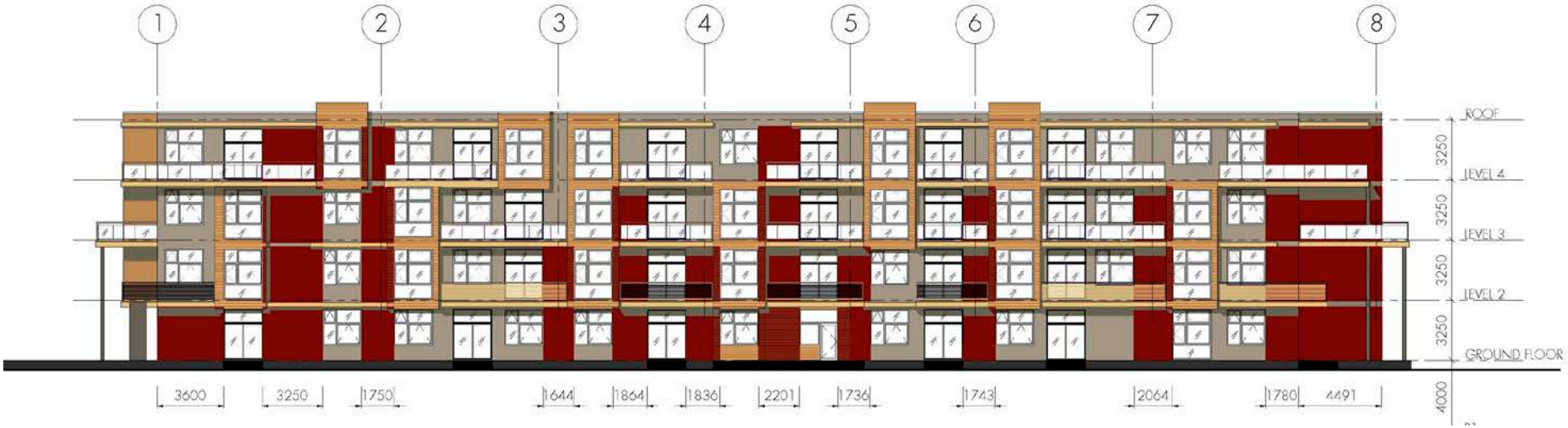
### Structural Analysis Sketch



# Case Study

## Home Ownership Today (HOT) Condominiums

### Structural Design Development




moses structural engineers

# Case Study

## Home Ownership Today (HOT) Condominiums

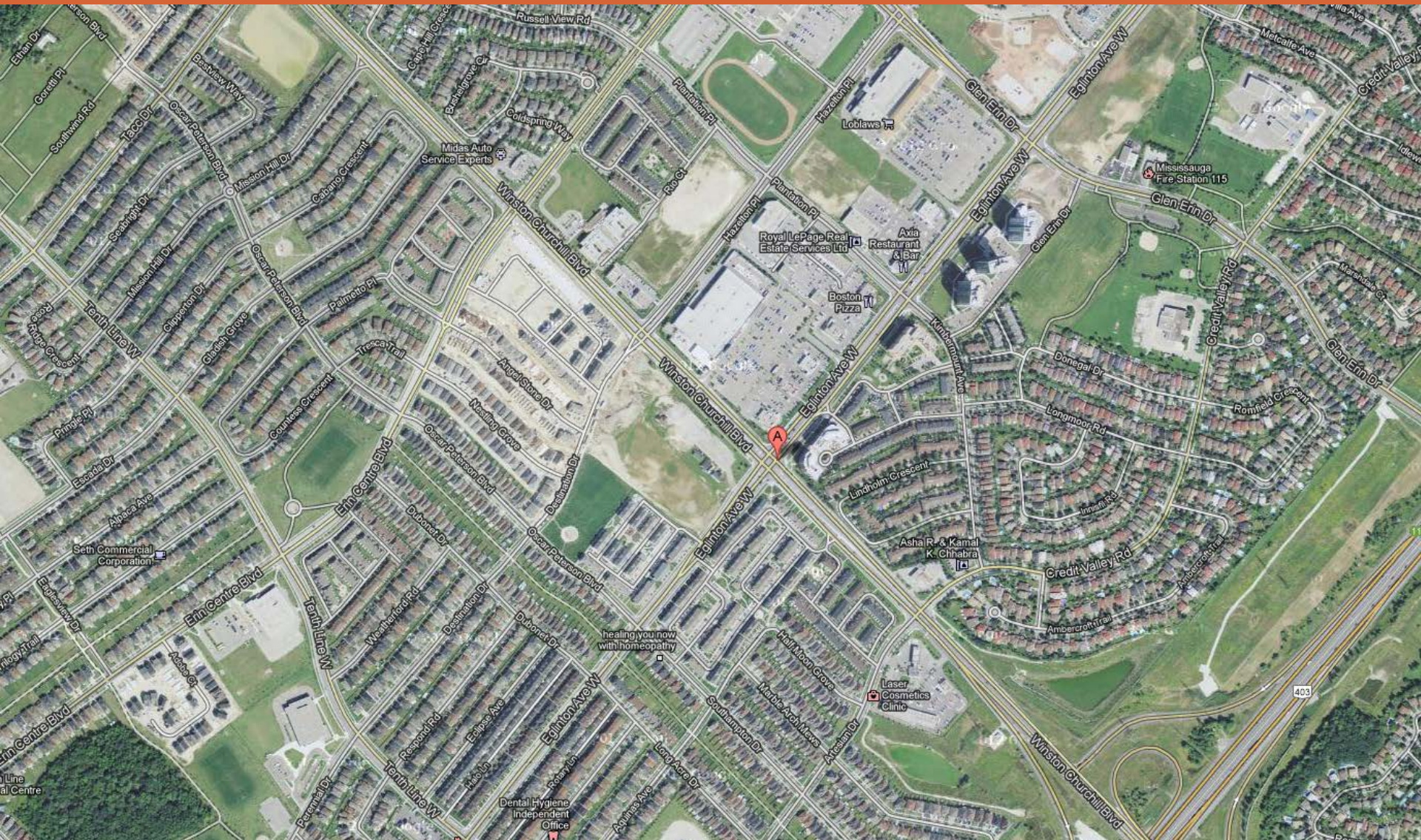
### Anticipating Six Storey Design

moses structural engineers

# Case Study

## Home Ownership Today (HOT) Condominiums

### Aerial View



# Case Study

## Home Ownership Today (HOT) Condominiums

### Site Plan

# Case Study

## Home Ownership Today (HOT) Condominiums

### Courtyard View

# Case Study

## Home Ownership Today (HOT) Condominiums

### Main Entrance View

# Case Study

## Home Ownership Today (HOT) Condominiums

### Interior Perspective

# Case Study

## Home Ownership Today (HOT) Condominiums

### Interior Perspective

# Case Study

## Home Ownership Today (HOT) Condominiums

### View from Winston Churchill Boulevard and Eglinton Avenue West