Trends in Enclosure and Durability Detailing: Wood-Frame Multi-Family

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Outline

• Multi-Family Construction Architectural Trends
• Detailing Strategies for Durability
• Critical Enclosure Hot Spots for Durability
Multi-Family Construction Architectural Trends
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• Mixed Used Development
  – Urban Infill
  – Retail at ground level
  – Residential above
Multi-Family Construction Architectural Trends

• Mixed Structural Systems
  – Reinforced Concrete Podiums and Parking Garage
  – Wood-Framed for Apartment Unit Levels
Multi-Family Construction Architectural Trends

• Complex Geometry
  – Offsets
  – Inside Corners
  – Outside Corners
  – Window Frames
  – Projected Balconies
Multi-Family Construction Architectural Trends

• Fenestration on Steroids
  – Punched Windows
  – Balcony Doors
  – Screen Doors
  – Lobby Curtain Walls
  – Storefronts
Multi-Family Construction Architectural Trends

• Mixed Façade Materials
  – Rainscreens
  – Metal Panels
  – Brick Masonry
  – Faux Stone
  – Adhered Masonry
  – Stucco
  – EIFS
Multi-Family Construction Architectural Trends

- Fast Paced Construction
  - Speed to Market
  - Pre-Rented
  - Pre-Leased
  - Low-Skilled Labor
  - Lack of Quality Control
Detailing Strategies for Durability
Detailing Strategies for Durability

• Architectural Deflectors

  – Roof Overhangs
  – Coping Caps
  – Cornices
  – Ledges
  – Balconies
  – Belt Courses
  – Window Frames
  – Through-Wall Flashings
Detailing Strategies for Durability

• Control Layer Continuity
Detailing Strategies for Durability

• Material Selection
Detailing Strategies for Durability

• Redundancy

Mass Wall

Drainable Wall
Detailing Strategies for Durability

• Detail Every Detail on Paper
Detailing Strategies for Durability

• Mockups – Practice Makes Perfect
Detailing Strategies for Durability

• Test and Verify
Critical Enclosure Hot Spots for Durability
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- Podiums
Critical Enclosure Hot Spots for Durability

• Podiums
Critical Enclosure Hot Spots for Durability

- Balconies
Critical Enclosure Hot Spots for Durability

• Balconies
Critical Enclosure Hot Spots for Durability

• Balconies
Critical Enclosure Hot Spots for Durability

• Punched Windows
Critical Enclosure Hot Spots for Durability

- Punched Windows
Critical Enclosure Hot Spots for Durability

• Wall Penetrations
Enhanced Design Detailing

+ 

Quality Detailing Installation

= 

Durability

+ 

Resiliency!
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