



# WOOD: SAFE, SMART, AND SUSTAINABLE

Solaire wheaton is a six-story, 232-unit class a luxury apartment community in wheaton, md that serves as the centerpiece to an ambitious new eight-acre transit-oriented urban environment minutes from washington, D.C.

Solaire Wheaton is a 361,000 square foot Type IIIA five-story wood-frame construction structure over a cast-in-place concrete podium with two levels of sub-grade parking. Residents enjoy dedicated access to many amenities, including a private resort-style swimming pool, landscaped courtyard, a fitness center, Wi-Fi café, demonstration kitchen, and easily-walkable proximity to a Metro (subway) station and new Safeway and Costco stores.

### CODE COMPLIANCE

Building codes require all building systems to perform to the same level of safety, regardless of material used. Wood-frame construction has a proven safety and performance record for fire protection, and the addition of sprinkler systems, fire-resistance-rated wall and floor/ceiling assemblies, and open spaces around the building can be used to increase the allowable size of wood-frame structures.

The building conforms to all applicable building codes and housing standards including the IBC, Uniform Fire Code, International Energy Conservation Code, Fair Housing Act, National Fire Alarm Code, Code of Maryland, ADA, and various city and county ordinances.



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## Residential

### Long-term stay multiple-family facilities (R-2) and Short-term (R-1)

(i.e., apartments, convents, dormitories, fraternities and sororities for R-2; hotels and motels for R-1)

NFPA 13 Sprinklers

100% Open Perimeter

	Type IIIA	Type IIIB	Type VA	Type VB
Maximum stories	5	5	4	3
Maximum building height (ft)	85	75	70	60
Total building area (at maximum permitted stories) (ft <sup>2</sup> )	270,000	180,000	135,000	78,750
Single floor area (ft <sup>2</sup> )	90,000	60,000	45,000	26,250
Total building area (ft <sup>2</sup> ), single-story building	114,000	76,000	57,000	33,250
Total building area (ft <sup>2</sup> ), two-story building	180,000	120,000	90,000	52,500

2015 IBC allowable heights and areas for residential wood construction

Source: American Wood Council



### WHY WOOD?

**Wood is safe.** The property represents best practice in active and passive fire prevention and suppression. As outlined in Section 602.3 of the IBC, Solaire Wheaton utilizes fire-retardant treated wood at all exterior walls that are rated at two hours or less.

**Wood costs less.** Wood supports the economics of an urban multi-family project. The architect estimates wood framing is just 80 percent of the cost of metal framing at the same unit density. Building with wood reduced the total project cost per square foot to \$87.18, placing it at the low-end of a national average of \$85 to \$125 for most commercial or multiple unit projects. Today, podium construction is an increasingly popular choice in the Washington D.C. metro area because of affordability, speed-to-market, design flexibility, and investment return.

**Wood is versatile.** Solaire Wheaton is designed wedge-shaped with a flat, sun-reflecting thermoplastic polyolefin membrane roof to minimize building heat. The design aesthetic echoes the look of New York's famous Flatiron Building, contributing to the classic, upscale urban aesthetic.

### DENSITY

Solaire Wheaton is built on a tight (1.76 acre) site. With 232 alcove studios, one- and two-bedroom units, the owner achieved 131.82 dwelling units per acre.

### SUSTAINABILITY

The project is LEED Silver-certified by the U.S. Green Building Council. Prior to construction, materials from the demolition of the previous structure were largely recycled and diverted from landfills.

### AMENITIES

The five floors of wood-framed apartments incorporate a wide range of luxury features including granite countertops, stainless steel appliances, wood flooring, large windows, and private balconies. The apartment community is surrounded by a diverse assortment of restaurants, a wide variety of shopping options, many nightlife venues, and rapid access to Washington D.C. by public transportation and on-site Zipcars.

#### Architect & Landscape Architect:

The Preston Partnership

**Owner:** The Washington Property Company

**Construction Manager:** Clark Builders Group

**Interior Design Architect:** SR/A Interior Architecture & Design

**Structural Engineer:** Cates Structural Engineers, Ltd.

**MEP Engineers:** Summit Engineers, Inc.

**Civil Engineer:** Macris, Hendricks, & Glascock, P.A.

**Photography** courtesy of John Cole

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