



# Dulles Station

Herndon, VA

## Project Data: Mixed Use Development

The pace of development in suburban Fairfax County, Virginia, just outside of Washington, is breakneck. Yet among the sprawl a new development near Dulles Airport will offer a sustainable alternative: rental apartments that are part of a pilot project in the LEED for Homes program targeted to multifamily buildings.

Dulles Station, being developed by JPI East, a division of development giant JPI, is a mixed-used commercial and residential community that will include 448 market-rate apartment units. The two-building scheme is part of a 63-acre development that will consist of 2.7 million square feet of residential, commercial, and hotel space that will connect to the capital region’s Metro system.

As LEED consultant, SWA is working with a team that includes SK&I Architectural Design Group; KTA Group, Inc. mechanical, electrical, and plumbing engineers; landscape and civil engineers Urban Ltd.; and Cates Engineering, Ltd., the structural engineer. Under SWA’s direction, a kick-off charrette brought all of these players together with the developer to demonstrate the opportunities for blending lessons learned through LEED’s New Construction with new ideas employed in the LEED for Homes pilot program, which has focused on single-family residences. The four-story mid-rise construction allows Dulles Station to draw from both standards, making it one of the first LEED projects of its kind in the region.

Mid-rise wood-frame construction is often compromised by poor indoor air quality and energy efficiency. One area of innovation being explored should help improve both. The mechanical systems will be unitized (meaning that each apartment will have its own heating, cooling, and domestic hot water equipment), but fresh air will be introduced to each unit via a central trunk in the corridor ceilings, providing mechanical ventilation, coupled with a heat recovery. This will eliminate the need for a separate energy recovery ventilator in each unit and should improve efficiency. As the project moves along (it is now in the design development



*Client:* JPI East  
*Location:* Herndon, VA  
*Building Type:* Mixed Use Development  
*Building Size:* 63 acre community  
*Project Status:* Complete  
  
*Reference:* <http://www.dullesstation.com>  
  
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phase) the team will be looking for other opportunities to maximize sustainable and efficient performance.