

City of Westminster Statement of Sustainability: Avalon Westminster Promenade

Avalon Westminster Promenade is pursuing LEED BD+C Multifamily Midrise v4 certification by the USGBC and GBCI as a good fit for AvalonBay Communities with their own, in-house existing national sustainability design standards, and for the communities AvalonBay serves. As part of a consistent development practice, sustainability provides growth to the communities that host new residences while preserving that community's resources, livability and quality of life. The LEED Midrise protocol was selected to promote the beneficial aspects of residential density as well as to blend in specific sustainability elements to ease congestion and the impacts of larger whole buildings. Additionally, the overall LEED protocol is intended to enhance quality and comfort for the occupants and efficiencies in energy, water and materials for good community citizenry.

Of the many sustainable representative components and elements in a LEED protocol, three were chosen specifically for this infill project to meet the City of Westminster Statement of Sustainability.

1. Bicycle use
2. Heat island reduction
3. Energy Star score/Portfolio Manager
4. Water Efficiency

Bicycle Use – Reduced Auto Use and Traffic

LEED BD+C v4 Midrise Location and Transportation, Option 5, Bicycle Network and Storage

Avalon Westminster Promenade is ideally situated for bicycle use and thus ideal for enhancing building features to ensure and encourage use in practical, real-living circumstances. The LEED credit can only be pursued if the project is located on an existing bicycle network that serves at least 10 uses, a school/employment center and bus rapid transit, rail/light rail or ferry. Using the 2030 Westminster Bicycle Master Plan, showing existing shared-road bike access and planned improvements, the above LEED criteria are met with abundance. The project location has access to long-range trips (US 36 Bikeway), medium and short-range destinations as well as significant recreational trails, all meeting LEED network requirements.

Avalon Westminster promenade will provide the necessary short and long-term LEED occupant-based bicycle parking/storage requirements within the structured parking area, just steps away from any individual residential unit. The net effect for the community is reduced auto traffic and congestion in the immediate vicinity of Avalon Westminster Promenade.

Heat Island Reduction – Shade and Reduced Density Impact

LEED BD+C v4 Midrise Sustainable Sites Credit, Heat Island Reduction Options 1, shaded hardscape, and Option 2, Non-(heat)-adsorptive Materials

In the effort to design Avalon Westminster Promenade to blend well within its inviting, walkable, dining and entertainment location, it has made itself more earth friendly as well. The intent of this sustainable sites credit is to minimize effects on microclimates and human and wildlife habitats by reducing urban heat islands. Urban areas, characterized by expanses of asphalt roadways and parking, lack of shade, buildings and highly adsorptive asphalt roofing, produce zones of warming that would not exist in the non-built environment as well as cycles of increase cooling-need for conditioned space within those zones.

Avalon Westminster Promenade is being designed with 100% reflective roofing materials, reflective hardscape and large areas of deciduous tree canopy. The large deciduous canopy in the center courtyard alone includes 31 large trees. The project border is also lined with trees on its Southeast and Northeast sides and the community will benefit from the strolling passageway on the Northwest side of the project, a public, park-like walking area that will be lined with large trees on both sides. At the 10-year-growth, age-mark for LEED, the shaded area, the total roof area and the small but impactful area of reflective concrete/enhanced concrete mix, the project LEED heat-island calculator is at 88.89% currently.

Energy Star Score/Portfolio Manager – Westminster Carbon Emission Reduction

LEED BD+C v4 Midrise Energy and Atmosphere Credits, Advanced Utility Tracking and Energy Star Portfolio Manager 1-100 score.

Energy Star Portfolio Manager 1-100 score is a required credit in LEED v4 Midrise. As an XCEL Energy, Energy Design Assistance project, an intentional energy design is being created through Energy Plus Open Studio including detailed cost/benefit analysis for energy efficiency decision-making. Avalon Westminster Promenade is on track to turn in a final score of 92.

Additionally, the project will participate in whole-building energy-data sharing thanks to XCEL energy's source-data capabilities at XCEL Energy Benchmarking. The source building meters for whole-building master metering will be connected online from Energy Star Portfolio Manager by the LEED consultant. This will give Avalon Westminster Promenade the ability to represent sustainability best practices in Westminster nationally.

Water Efficiency – Reduced Municipal Water Allocation Impact

LEED BD+C v4 Midrise, Total Reduction of Indoor and Outdoor Water Consumption

Avalon Westminster Promenade has specified and scheduled EPA WaterSense low water-flow fixtures and fittings through out living units and common areas to reduce the overall water consumption. The intent is to reduce the strain on Municipal water services and infrastructure.