

7272 Wisconsin Ave – LEED Case Study

Project Description

- The 7272 Wisconsin Ave project is a mixed use building located in Bethesda, Maryland.
- The building will consist of an office tower with ground floor retail. Parking will be provided in a garage with both below and above grade levels of parking.
- The project is designed to LEED for Core and Shell v2009.



Sustainable Sites

- Site is located in a densely developed area with access to numerous community services.
- Transit access is a unique feature of the building since a new Metro Rail station is being built in the project's adjacent plaza which will be integral to the overall site.
- Open space, including landscaped area and pedestrian hardscape, is 47% of the total site area. Open space includes pedestrian areas and vegetated area.



Sustainable Sites

- The project has a 3,664 sf green roof and 6,218 sf of vegetated area which provides open space, contributes to tenant amenities and natural habitat.
- A reflective white roof with glacier white pavers combined with the green roof contribute to reducing the heat island effect.
- The stormwater management plan, which combines both green roof, and onsite bioretention, results in a 37% reduction in post-development runoff for the 2-yr 24 hr storm.

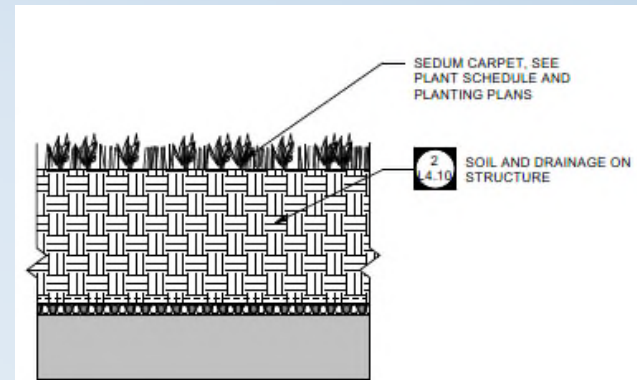


Image: Green Roof Detail

Water Efficiency

- Landscaping is irrigated with a drip irrigation system, which helps to reduce water use by 55% compared to the LEED baseline. Green roof areas aren't irrigated.
- Plumbing fixture flow rates result in 36% water savings compared to the LEED baseline. This is achieved with the below flow rates.
 - Lav faucets: 0.1 gpc sensor operated faucets
 - Toilets: 1.28 gpf
 - Urinals: 0.125 gpf
 - Showerheads: 1.5 gpm
- The above fixture flow rates result in approximately 1,012,652 gallons of anticipated water savings per year.



Energy and Atmosphere

- The project's energy model demonstrated 8.8% in energy cost savings compared to the ASHRAE 90.1-2010 baseline.
- Savings are due to the following energy efficiency measures:
 - Efficient lighting design in parking garage is 0.10 W/sf.
 - Lighting design for office core areas is 0.33 W/sf.
 - Variable speed pumps (primary and secondary CHW loops); differential pressure reset for secondary loop pumps
 - Frictionless VFD centrifugal chillers with 0.26-0.4 NPLV which represents a 30% better part-load performance over the baseline
 - Efficient dedicated outside air (DOAS) units with energy recovery

Materials and Resources

- Construction waste recycling resulted in 94% of construction waste either recycled or otherwise diverted from disposal. The project recycled or diverted 8,942 tons of construction material.
- Recycled content materials total over 20% of materials, by cost.
- Regional content materials constitute over 50% of all materials, by cost.
- Forest Stewardship Council (FSC) certified wood products were installed for all doors, architectural woodwork and rough carpentry.
- A total of 41% of wood materials (by cost) installed in the building are FSC certified wood products.



Indoor Environmental Quality

- The project implemented a Construction IAQ Management Plan during construction. Absorptive materials were wrapped to prevent moisture damage during construction.
- Low VOC paints, coatings, adhesives, sealants and flooring were installed during construction.
- Composite wood products contain no added urea formaldehyde.
- MERV 13 filters have been specified for DOAS units serving the building.

