2

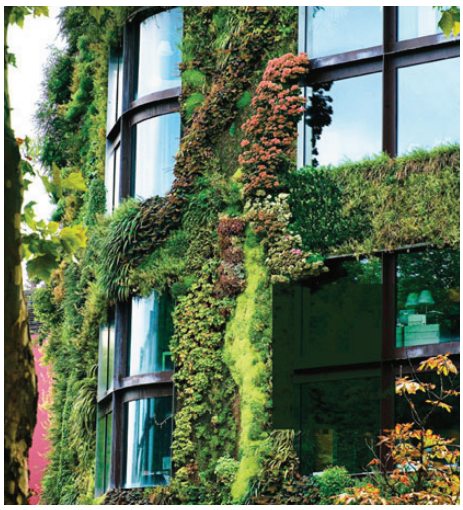
Environmental Sustainability

Environmental Sustainability

Sustainable design is not so much a collection of technologies, but rather the integration of the built environment into the natural ecosystem. The Plan supports redevelopment of a site impacted by historic rail yard operations by using innovative techniques and environmental requirements to achieve innovative outcomes in sustainability. The following are the primary strategies to ensure that the development of the Plan area enhances the natural environment and quality of life.

A. **District-wide sustainability measures:** The intent of the Plan is to encourage sustainability measures that will be integrated in a coordinated and comprehensive manner supporting the City's environmental goal of new construction to be carbon neutral by 2030. These measures will include, but are not limited to, green buildings, stormwater management, energy and water efficiency, conservation measures, and use of renewable resources and emerging technologies.

B. **Green roofs:** New development will be required to provide green roofs. Green roofs have the potential to provide amenity space for building users; reduce heat (by adding thermal mass and thermal resistance value); reduce cooling (evaporative cooling) loads on buildings; reduce the urban heat island effect; increase the life span of the roof; reduce stormwater runoff; filter airborn pollutants and CO_2 out of the air; filter pollutants, nutrients and heavy metals out of rainwater; and increase wildlife habitats in an urban area.



> **"My interest is in the future, because I am going to spend the rest of my life there."**
>
> *- Charles Kettering*

C. **Mixed-use development:** Provide a balance of office, residential, and retail to maximize walkability and transit use.

D. **Native plants:** The use of native plant species and water-efficient landscaping limits the need of fertilization and conserves water.

E. **Open space network:** An interconnected park and greenway system will provide residents, employees, and visitors access to local and regional active and passive recreation amenities.

F. **Quality built form:** Quality built form will encourage reuse rather than replacement and account for life cycle analysis.

G. **Stormwater and natural vegetation:** Stormwater management is required to be integrated as part of the street and open space design to improve the site's hydrology to reduce runoff, improve water quality, and provide residents and visitors opportunities to participate in the natural processes of their environment.

H. **Water conservation:** Rainwater collection systems, natural irrigation, and greywater recycling are encouraged, and green roofs are required to help conserve energy and limit potable water usage.

The Plan recommends the submission of a Sustainability Plan as part of the submission of the first development special use permit, which will identify strategies to implement the phased recommendations on a plan-area wide basis. The Sustainability Plan should integrate long-term progressive goals in successive phases, with the ultimate goal of carbon neutrality for the entire plan area. The phasing should anticipate a 20 to 30 year build-out of North Potomac Yard, and the evolution of sustainability requirements and technology during that period.

Note:
Specific deadline and submission requirements not specified for recommendations will be determined as part of the rezoning for the subject property.

ENVIRONMENTAL SUSTAINABILITY RECOMMENDATIONS

2.1 Explore a minimum of LEED Silver or comparable, or the City's green building standards and requirements, whichever is greater.

2.2 Require plan area-wide sustainability through LEED-ND or comparable. Require the provision of green roofs for new development.

2.3 Explore the possibility of community gardens so that residents and visitors could have access to edible and non-edible plantings. Community gardens also offer a unique educational opportunity.

2.4 Require stormwater management to be integrated as part of the street and open space design.

2.5 Encourage water conservation by using ultra low and/or low flow plumbing fixtures and reuse of captured rainwater.

2.6 North Potomac Yard should strive to achieve carbon neutrality by 2030.

2.7 Require the submission of a Sustainability Plan as part of the submission of the first development special use permit and amended for subsequent block(s) and/or building(s) that demonstrates the compliance with anticipated goals and recommendations of the Plan and the goal of district-wide sustainability measures.