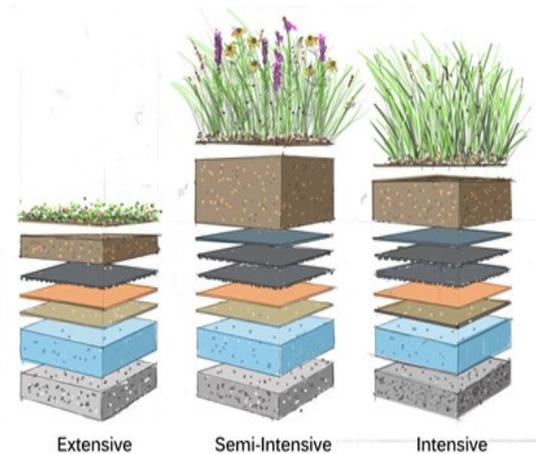


# Green Roofs

**A Green Roof** – sometimes called a sustainable roofing system, eco-roof, rooftop garden, vegetated rooftop or sky garden – consists of layers of vegetation and specially engineered soil laid over a conventional roofing surface. Green roofs typically have a protective root barrier underneath the vegetation and soil, a standard roofing membrane, drainage systems and a structural support system.

**Types of Green Roofs:** There are two basic types of green roof systems: extensive and intensive. The types differ in soil depth, weight, cost, maintenance, plant selection and overall function.



**Extensive green roofs** are designed to be self-sustaining and require minimal maintenance - primarily checking roof drains, annual weeding and perhaps an application of slow release fertilizer to promote growth. The vegetation can sometimes brown out over dry summers, but the plants revive once the rainy season begins. Extensive green roofs are usually less expensive to install and maintain than intensive green roof systems because they are lightweight and require only minimum care.



**Intensive green roofs** (so called because they are more labor intensive) have a deeper soil – typically 8 to 24 inches – and therefore a heavier weight than an extensive vegetated rooftop. The deeper soil allows for more plant diversity, including a wide range of vegetables, shrubs and sometimes even trees, which can make them more attractive than extensive rooftops in the dry season. The sturdier, heavier soil base also allows the intensive systems to be used as roof gardens.



In 2010, the Narragansett Bay Commission (NBC) began construction of a new administration building at the Field's Point Wastewater Treatment Facility. The structure features two vegetated rooftops to maintain and utilize stormwater onsite. The series of pictures below offer a timeline of the green roof construction at NBC.

Constructing conventional rooftop structure



Laying the protective membranes over the roof



Beginning stages of vegetation growth

