

# Maintenance Guide

## Extensive Systems



## GREENGRID® EXTENSIVE MAINTENANCE MANUAL

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U.S. Patents: 6,711,851 | 6,862,842 | 7,900,397 | 7,997,027 – Canadian Patents: 2,416,457 | 2,418,262 | 2,416,463 - Additional U.S. and international patents pending

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## 1. LONG-TERM MAINTENANCE

After the completion of an Extensive GreenGrid® Green Roof installation the following maintenance protocol outlines the recommended maintenance to encourage a successful green roof long-term that has been planted with species of *Sedum*. Extensive green roofs are generally designed to have minimal maintenance after the vegetation has been established, but not maintenance free. Routine maintenance events throughout the growing season are strongly recommended especially within the first few growing seasons following installation.

The recommended initial maintenance of the GreenGrid® Green Roof System will mainly consist of weeding and watering with trimming/pruning and pesticide/fertilization applications to be performed as needed by a qualified/certified person. The following maintenance recommendations and activities are listed for a project that has been installed during the “Growing Season”, and should be followed as described to help ensure a successful green roof long-term. Recommended Schedules:

### Year 1

- First Month following green roof installation: visit site and perform maintenance activities a minimum of two (2) times per week, placing emphasis on irrigating the plant material to help promote plant vigor.
- Second Month following green roof installation: visit site and perform maintenance activities irrigating plant material and removal of unwanted vegetation a minimum of one (1) time per week.
- Duration of Year 1 Maintenance Schedule: Visit site and perform maintenance including watering and weeding a minimum of once every three (3) weeks or as needed for the duration of the growing season.

### Year 2

- Second Year Maintenance Schedule: Visit site and perform maintenance including watering and weeding a minimum of once every six (6) weeks or as needed for the duration of the growing season.

### Long-term

- Long-term Maintenance Schedule: Visit site and perform maintenance as needed. WESTON recommends three (3) to four (4) times a year. This will primarily consist of watering and the removal of unwanted vegetation. During extended drought-like conditions, WESTON recommends that the green roof be irrigated by hand to sufficiently moisten the growth media every 10 days. Other maintenance activities shall be performed as needed, i.e. fertilization, pesticide applications, etc.
- Growing Season: The Hardiness Zone 5 growing season is approximately April 1 through October 15 of each year, depending on weather conditions.

## 2. MAINTENANCE ACTIVITIES

### Spot Weeding

- Perform hand weeding as needed to keep areas free of weeds, including undesirable grasses, broadleaf weeds and tree saplings.
- Where weeds have been allowed to take hold resulting in a planting void, remove and replace with new plants or take cuttings (when applicable) from a healthy plant and plant a portion of the cutting in a shallow hole and backfill. Repeat as necessary.

### Watering

- During the first growing season, it is recommended that an Intensive system be watered according to the timeline mentioned above (should be altered based on weather conditions and hardiness zone) until the vegetation has adapted to its environment (average 4-6 weeks).
- In seasons following year 1, irrigate the plant material based on the recommendations above.
- Finally, the maintenance provider shall be responsible for proper watering both as to time and method. When necessary, green roof vegetation should be watered in sufficient amounts to moisten all growth media around the root system of each plant.

**\*Note** Avoid over watering the plant material as this can lead to root rot.

### Cleaning

- All green roof areas and waterproofing surfaces adjacent to these areas must be kept clean of leaves, stems, weeds, and other debris. These areas shall be cleaned and swept during visits. Spilled growth media and/or other debris shall not be washed down the roof drains.

### Repair Growth Media

- If areas wash out or erode, repair growth media and replant with new plants during the specified maintenance period.

### Fertilization (To be applied by a qualified person)

- In growing seasons following the installation, if it is determined by an industry professional that the vegetation has an insufficient nutrient concentration present in the growth media, then a 3-6 month slow release 4-6-4 fertilizer is recommended. Be sure to follow all manufacturer's label instructions as to application ratios to avoid causing plant damage such as burning due to lack of water. Repeat annually as necessary.
- Based on plant species needs and the chemical makeup of the growth media at the time of test. Fertilizer applications may vary.

### Spraying: Pesticides – Herbicides, Fungicides and Insecticides (To be applied by a certified applicator)

- Herbicides currently are not recommended to control unwanted vegetation when on rooftop applications as they may pollute local water sources due to run-off. Mechanical control (hand removal) is the preferred method for the management of weeds. With monthly visits during the growing season weeds will be minimal and under control.
- Keep plant material free of insects and diseases. It is encouraged that a horticultural professional be consulted to determine plant conditions. If using pesticides, use licensed spray applicators, and spray only after notifying the Owner's Representative. Comply with all applicable local, State, and Federal regulations and manufacturers instructions.

### Trimming and Pruning

- The maintenance contractor will be responsible for only the pruning necessary according to standard horticultural practices and for the aesthetic grooming of the vegetation as new growth occurs. In any case, no pruning shall be done that needlessly changes the natural habit or shape of each plant.

## 3. QUESTIONS OR CONCERNS

Contact your local WESTON/GreenGrid® office listed below for any further assistance you may have.

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