



| v3 - LEED 2008

Surface water management in mid-rise buildings

MSSc4 | Possible point

Glossary

Intent

Design site features to minimize erosion and runoff from the building site.

Requirements

Prerequisites

None.

Note: Certain surface water management strategies may be regulated, restricted, or even prohibited by local water authorities or code requirements.

Credits

4.1 Permeable lot for mid-rise (maximum 2 points, as specified in Table 8). Design the lot such that at least 70% of the buildable land, not including area under roof, is permeable or designed to capture water runoff for infiltration on-site. Area that can be counted toward the minimum includes the following:

- a. Vegetative landscape (e.g., grass, trees, shrubs).
- b. Permeable paving, installed by an experienced professional. Permeable paving must include porous above-ground materials (e.g., open pavers, engineered products) and a 6-inch porous subbase, and the base layer must be designed to ensure proper drainage away from the home.
- c. Impermeable surfaces that are designed to direct all runoff toward an appropriate permanent infiltration feature (e.g., vegetated swale, on-site rain garden, or rainwater cistern).

4.2 Permanent erosion controls (1 point). Design and install one of the following permanent erosion control measures:

- a. If portions of the lot are located on a steep slope, reduce long-term runoff effects through use of terracing and retaining walls.

OR

- b. Plant one tree, four 5-gallon shrubs, or 50 square feet of native groundcover per 500 square feet of disturbed lot area (including area under roof).

4.3 Stormwater quality control for mid-rise (2 points).

Implement a stormwater management plan that reduces impervious cover, promotes infiltration and captures and treats the stormwater runoff from 90% of the average annual rainfall³ using acceptable best management practices (BMPs).

BMPs used to treat runoff must be capable of removing 80% of the average annual post development total suspended solids (TSS) load based on existing monitoring reports.

BMPs are considered to meet these criteria if:

- a. They are designed in accordance with standards and specifications from a state or local program that has adopted these performance standards,

OR

- b. There exists infield performance monitoring data demonstrating compliance with the criteria. Data must conform to accepted protocol (e.g., Technology Acceptance Reciprocity Partnership [TARP], Washington State Department of Ecology) for BMP monitoring.

| Table 8. Permeable Area | |
|---|--------|
| Percentage of buildable lot (excluding area under roof) that is permeable | Points |
| 70-79% | 0.5 |
| 80-89% | 1 |
| 90-99% | 1.5 |
| 100% | 2 |

³There are 3 distinct climates in the United States that influence the nature and amount of annual rainfall. Humid watersheds are defined as those that receive at least 40 inches of rainfall each year. Semiarid watersheds receive between 20 and 40 inches of rainfall per year, and arid watersheds receive less than 20 inches of rainfall per year. For this credit, 90% of the average annual rainfall is equivalent to treating the runoff from the following (based on climate):

- Humid Watersheds — 1 inch of rainfall
- Semiarid Watersheds — 0.75 inches of rainfall
- Arid Watersheds — 0.5 inches of rainfall