

FOR SINGLE-FAMILY RESIDENTIAL ONLY WITH LESS THAN 5,000 SQUARE FEET OF NEW OR REPLACED IMPERVIOUS AREA

Rain Garden

A rain garden is a depressed landscaped area that collects rain water from impervious areas including roofs, driveways, and pool decks and allows the water to soak into the ground and provide water to the plants. Planted with grasses and flowering perennials, rain gardens can be a cost effective and beautiful way to reduce runoff from your property.



Locate

- Choose an area which receives runoff from impervious areas or where flow can be directed
- Remain at least 10 feet away from building foundations
- Avoid septic fields, utility easements and public right of way
- Excess water should not be directed toward a building or channeled onto a neighboring property.

Design

- The size of the rain garden should be 10% of the impervious area draining to it. For example, if the rain garden will be designed to receive 1200 square feet of impervious area, the rain garden planting area should be 120 square feet. The shape can vary to fit the landscape.
- Excavate the garden area to a depth of 26 inches.
- Planting soil can be made from a mix of 30% excavated soils, 50% sand, and 20% compost.
- Protect inflow area of the rain garden with rock so inflowing water does not cause erosion.
- Protect the overflow exit area of the rain garden with rock so the dirt does not erode in this area. A grate with an outflow pipe could also be used to convey excess water from the rain garden.

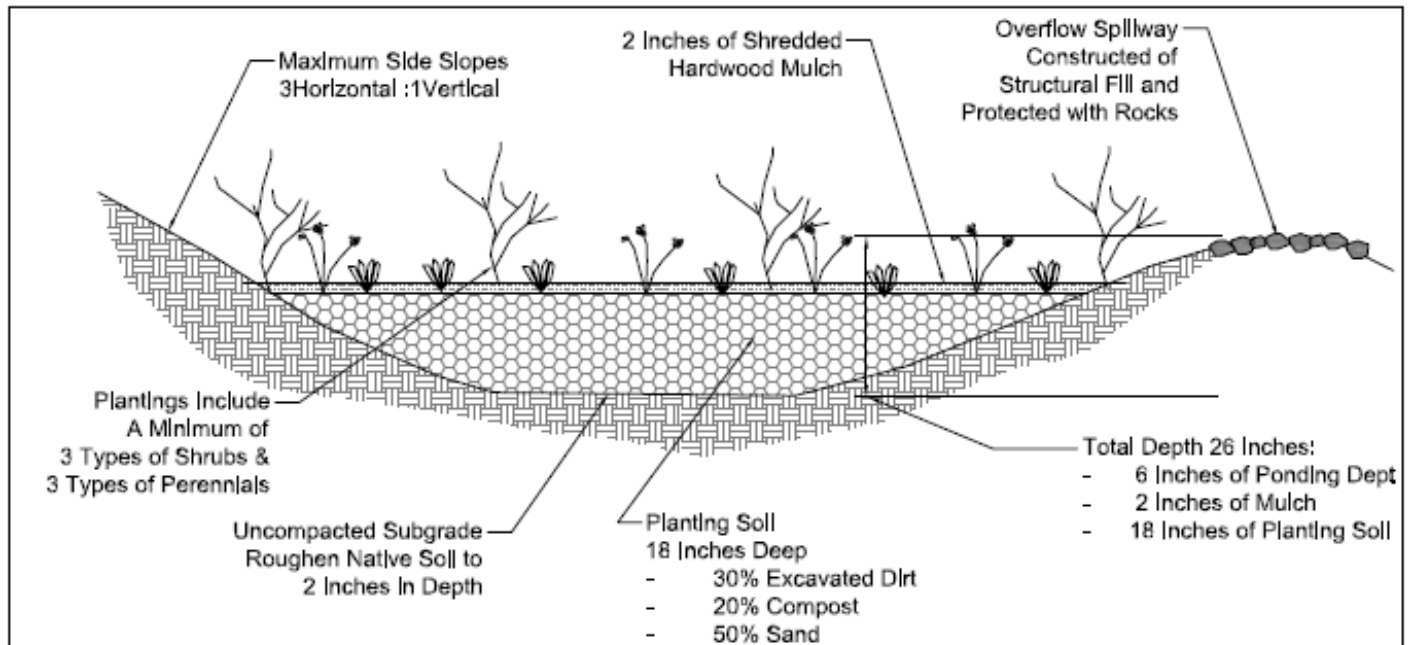
Plant

- Choose drought resistant, hearty, native plants which can tolerate frequent water inundation.
- Consider the amount of sunlight which the garden will receive.
- Use a minimum of 3-5 different types of perennials and 3-5 different shrubs and follow plant spacing guidelines.
- Add 2-3 inches of shredded hardwood mulch after planting.

Maintain

- Routine garden maintenance should include weeding, replacing dead plants, and replacing mulch when depleted.
- Water the rain garden during the first year while plants are becoming established.
- Monitor the rain garden surface for erosion. Repair the surface and add rock protection as needed.
- If the rain garden holds water for more than a day, rake back the mulch and roughen the surface of the garden with a firm rake, and then replace the mulch. This will allow water to infiltrate more quickly.

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Design Steps

1. Locate the rain garden in an area where water from impervious areas can be collected. Water can either flow overland to the garden or can be directed with a pipe or berm. Don't choose an area where water ponds already. Flat areas facilitate construction. Avoid areas within 10 feet of a building foundation, near slopes, near septic lines or other utilities, or public right of way.
2. The rain garden should be 10% of the area that is being treated.

Construction Steps

1. Call 811 for a utility locate before digging.
2. Stake out the garden to the desired surface area.
3. Stake out the flow path from the area to be treated to the rain garden confirm that gravity flow can be maintained.
4. Remove turf or vegetation from the rain garden area and dig out the excess dirt. If the area slopes gently, an earth berm can be constructed on the downhill side and the uphill side can be excavated into the slope. Ultimately a depression 26 inches deep is required to allow for 18 inches of planting material, 2 inches of shredded hardwood mulch, and 6 inches of water ponding depth.
5. Level the bottom of the area to maximize the infiltration area. Roughen the native soil and avoid compacting the bottom of the garden.
6. Note where the overflow point will be along the edge of the garden. Confirm that this location will not channel flow onto a neighboring property, and that the location is at least 10 feet from the property line.
7. Mix the planting soil using 30% excavated soils, 50% sand, and 20% compost by volume.
8. Install 18 inches of planting soil in the excavated area. Final grades on side slopes should be 3:1 (slope equal to 3 feet over to 1 foot up) or flatter.
9. Plant the rain garden using plant selecting guidance here in.
10. Install a 2 inch thick layer of shredded hardwood mulch. This type of mulch interlocks and is less likely to float during a large rain event.
11. Use rocks to protect the inflow and outflow points as necessary.
12. Water the plants regularly during the first growing season.

<p>CITY OF ROSWELL COMMUNITY DEVELOPMENT DEPARTMENT</p>	<p>Name/Address:</p>	<p>RAIN GARDEN DIAGRAM & CONSTRUCTION STEPS</p>
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