

Rain Gardens

Rain gardens are a great way to enhance water quality by filtering many pollutants out of the stormwater before it reaches groundwater or local waterways. So if you're planning to do some landscaping, consider creating a rain garden as an attractive way to add natural habitat into your backyard while also being a better environmental steward.

What is a Rain Garden?

A rain garden is a shallow depression landscaped with plants and designed to catch rainwater runoff from impervious surfaces such as driveways, walkways and roofs.

Why are Rain Gardens Important?

If appropriately designed, rain gardens can soak up and the runoff from rooftops, roadways, and other impervious surfaces and keep it out of the City's stormwater system. Rain gardens provide habitat for animals and protect aquatic life from pollutants otherwise entering our streams and wetlands through the stormwater system.

Key Features of Rain Gardens

- A specially designed soil mix planted with a variety of suitable trees, shrubs, grasses and other plants
- Designed to retain stormwater

Some Benefits of Rain Gardens

- Keeping pollutants from reaching local waterways
- Reducing flooding problems
- Providing habitat for beneficial birds and insects
- Refreshing local groundwater
- Low-maintenance landscaping with no need for chemicals
- Can create an attractive and creative landscaping piece

Green Stormwater Infrastructure Typical Details for Rain Gardens

The Green Stormwater Infrastructure Typical Details have been developed for use by City staff and private developers. Refer to the [Stormwater Management Manual](#) for associated design criteria and sizing guidance.

Typical Details for Rain Gardens include:

Figure 011 - Rain Garden - Planting Zones

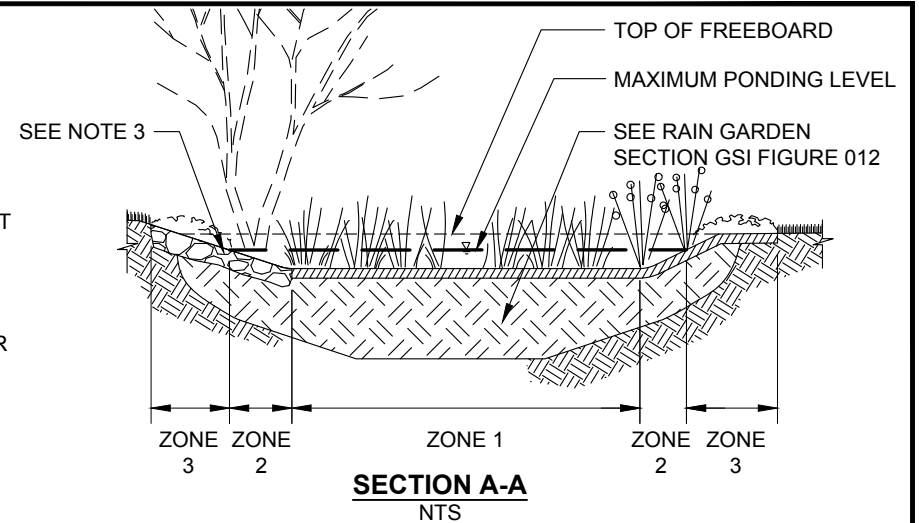
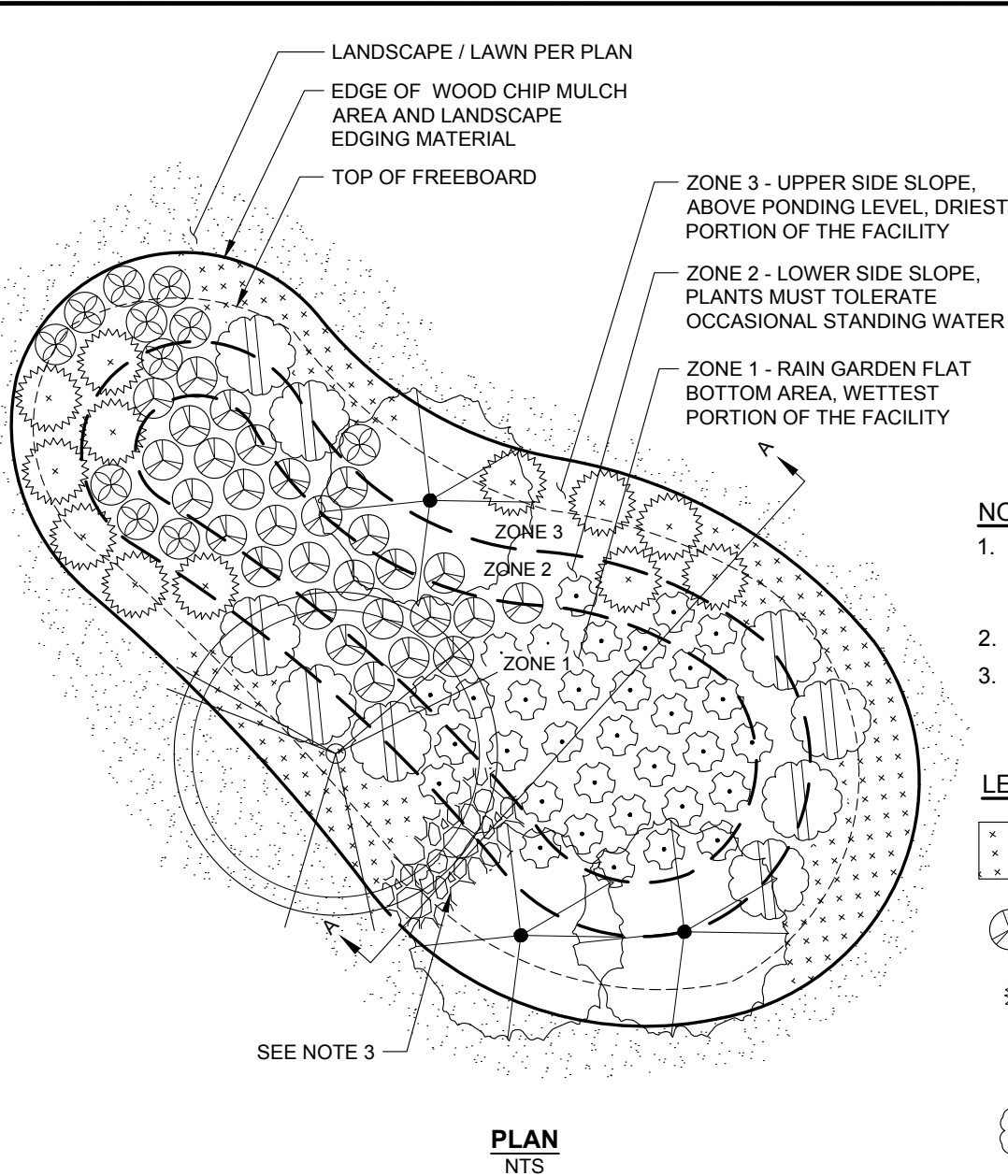
Figure 012 - Rain Garden Section

Figure 013 - Rain Garden Piped Inlet

Figure 014 - Rain Garden Inlet Swale

Figure 015 - Rain Garden Piped Overflow

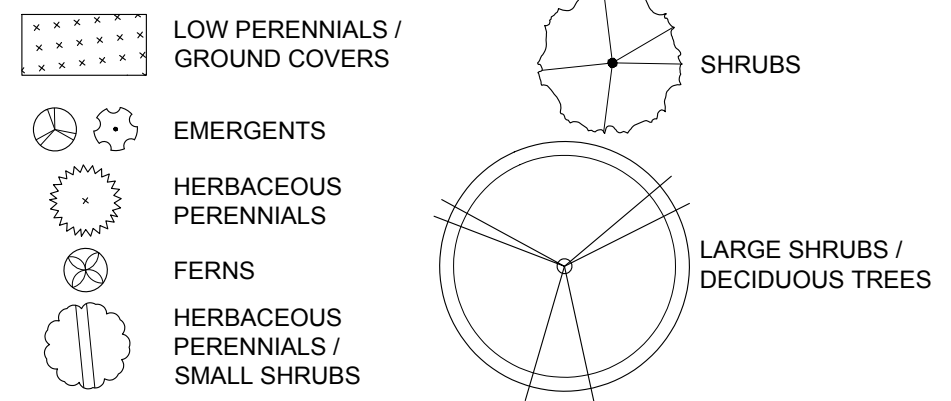
Figure 016 - Rain Garden with Swale Overflow

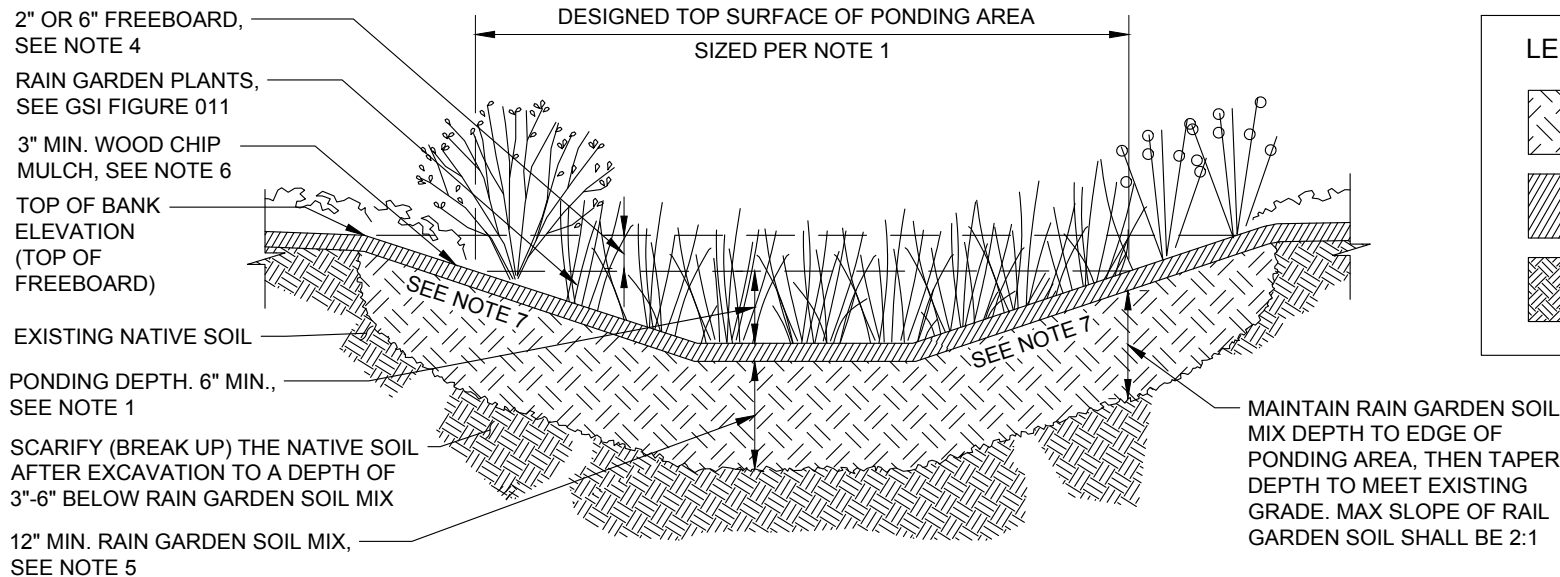


NOTES:

1. For guidance on plants for each zone and for example planting plans see the 2013 Rain Garden Handbook for Western Washington, available at CityofTacoma.org/raingardens.
2. Choose a minimum 50% evergreen plants.
3. Keep plants clear of inlet, outlet and/or overflows.

LEGEND:





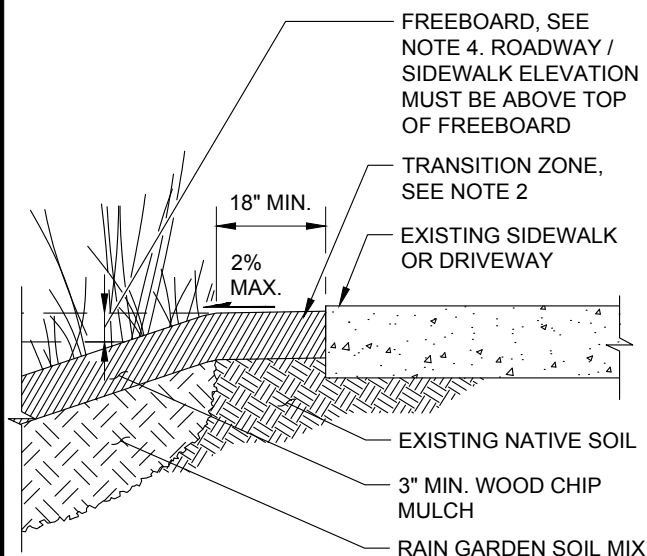
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RAIN GARDEN SECTION NTS

NOTES:

- Rain gardens sized for compliance with MR #5 shall be in accordance with SWMM BMP L601, available at www.cityoftacoma.org/stormwatermanual. Rain gardens not required to comply with SWMM can be sized per the Rain Garden Handbook for Western Washington, available at cityoftacoma.org/raingardens - where sizing is based upon depth of either 6-inches or 12-inches of ponding.
- Transition zone
 - 1-inch grade change from edge of sidewalk, curb and/or other hard surface.
 - 2% max. slope.
 - Transition shall be amended soils per BMP L613 (Std. Plan GSI-01) if applicable or per note 3.
- Scarify or till subgrade to 3-inch depth. Place 3-inches of topsoil on surface and till into 5-inches of site soil. Install 3-inches woodchip mulch or as specified on plans.
- Freeboard shall be a minimum of 2-inches for contributing areas under 1,000 square feet, or 6-inches for contributing areas 1,000 square feet or greater per SWMM.
- Do not compact the rain garden soil mix.
 - Do not operate heavy equipment within the the rain garden.
 - Do not place or amend rain garden soil when the ground is frozen or when the soil is excessively wet.
- Continue mulch for a minimum of 2-feet past the top of bank elevation or install landscape edging if rain garden is adjacent to turf.
- Maximum side slope (2:1 or 3:1) varies with size of contributing area. See SWMM BMP L601 or the Rain Garden Handbook for Western Washington, as applicable.



RAIN GARDEN ADJACENT TO SIDEWALK OR DRIVEWAY NTS



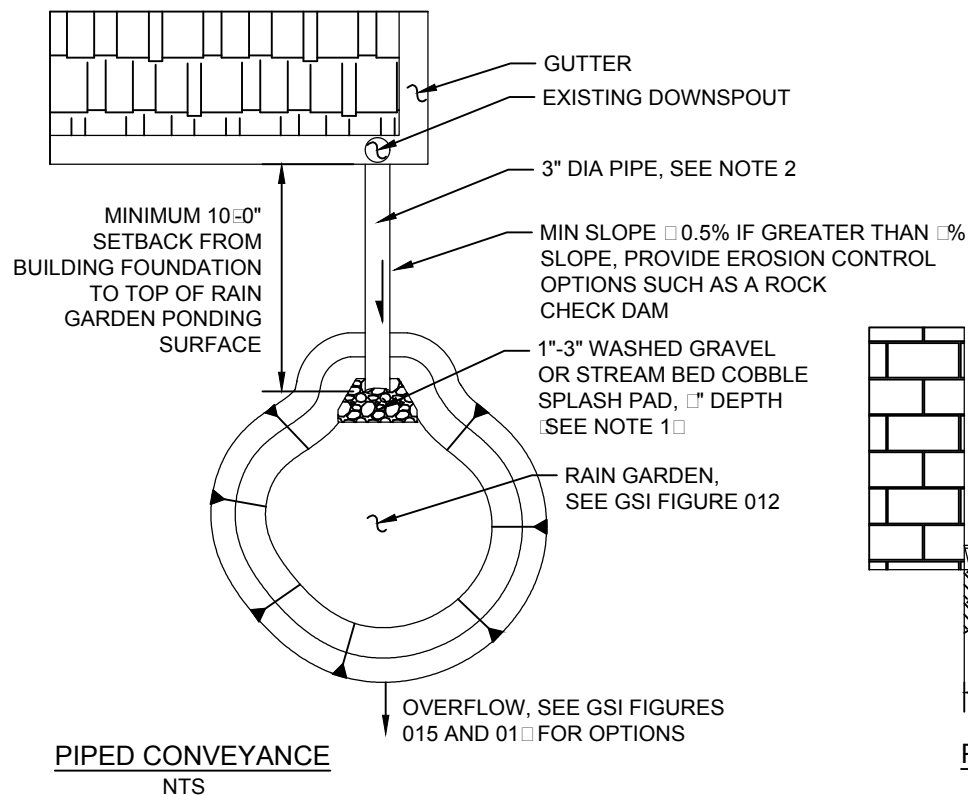
CITY OF TACOMA GREEN STORMWATER INFRASTRUCTURE TYPICAL DETAILS

RAIN GARDEN SECTION

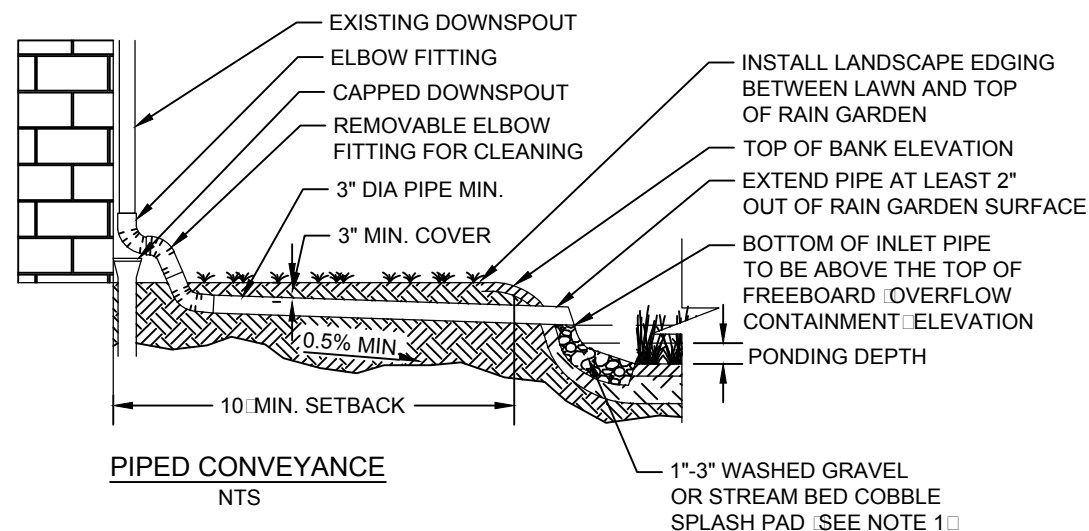
FIGURE NO.

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January 2016



LEGEND:



NOTES:

1. Gravel or stream bed cobble splash pad minimum depth of 4 inches. Rock splash pad shall be minimum of 1 foot wide and extend beyond the pipe outlet by a minimum of 1 foot.
2. Pipe shall be per SWMM Volume 3.



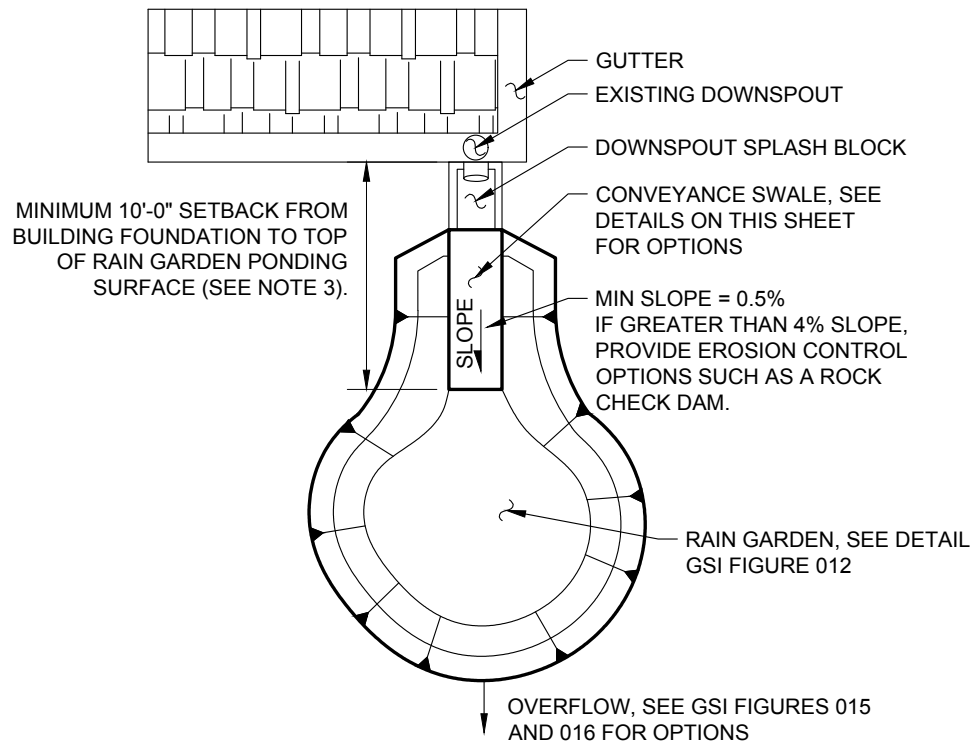
**CITY OF TACOMA
GREEN STORMWATER INFRASTRUCTURE
TYPICAL DETAILS**

RAIN GARDEN PIPED INLET

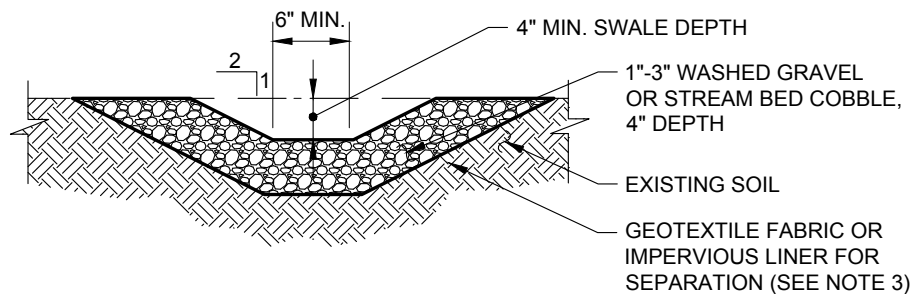
FIGURE NO.

013

September 2016

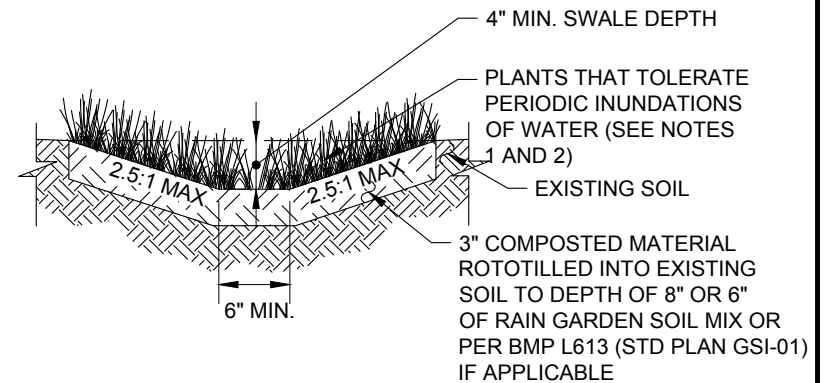
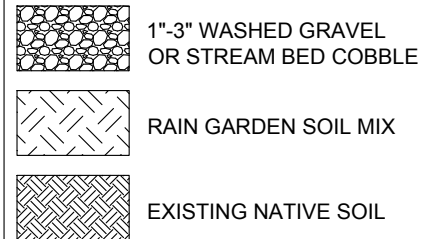


CONVEYANCE SWALE
NTS



ROCK-LINED CONVEYANCE SWALE
NTS

LEGEND:

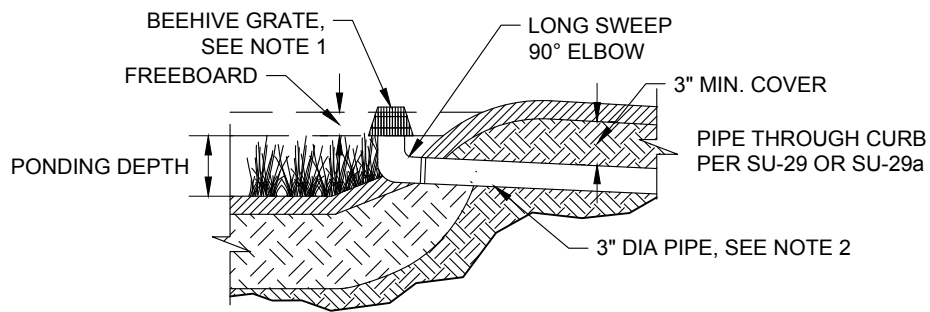


VEGETATED CONVEYANCE SWALE
NTS

NOTES:

1. Do not place plants that will restrict or concentrate the flow of water in the bottom of the swale.
2. Choose well rooted plants suitable for Zone 2 per 2013 Rain Garden Handbook for Western Washington, available at City of Tacoma.org/raingardens.
3. Use impervious liner instead of geotextile fabric if you have observed flooding issues in your basement or near your building foundation.

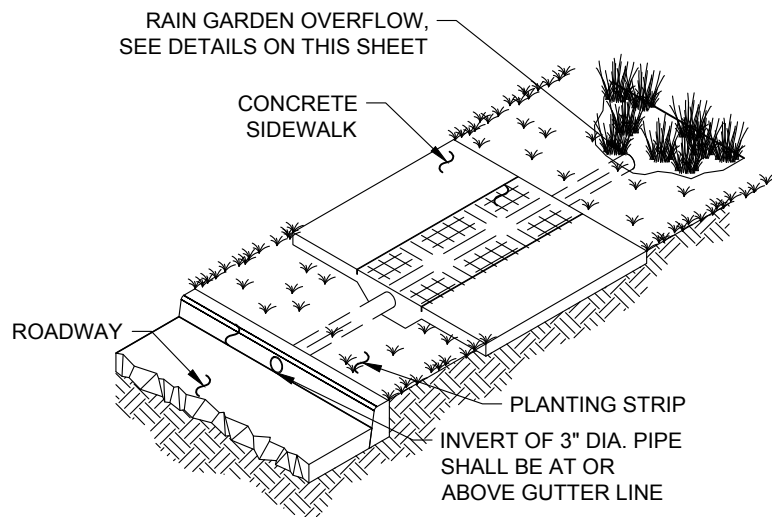




BEEHIVE OVERFLOW
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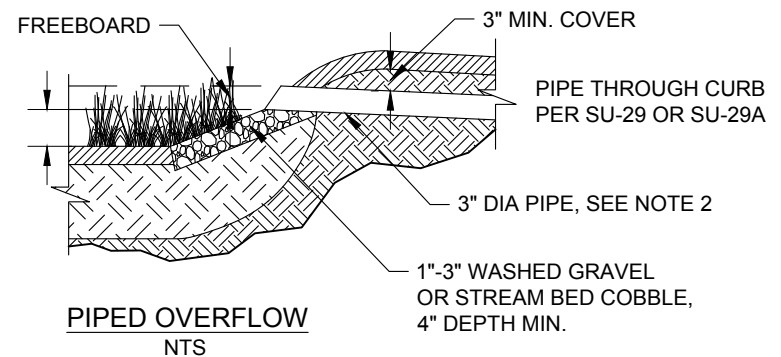
LEGEND:

	WOOD CHIP MULCH AND/OR PLANTED AREA
	RAIN GARDEN SOIL MIX
	EXISTING NATIVE SOIL



SEE STD PLAN SU-29 OR SU-29A FOR CONSTRUCTION REQUIREMENTS.

OVERFLOW PIPE THROUGH SIDEWALK TO CURB
NTS

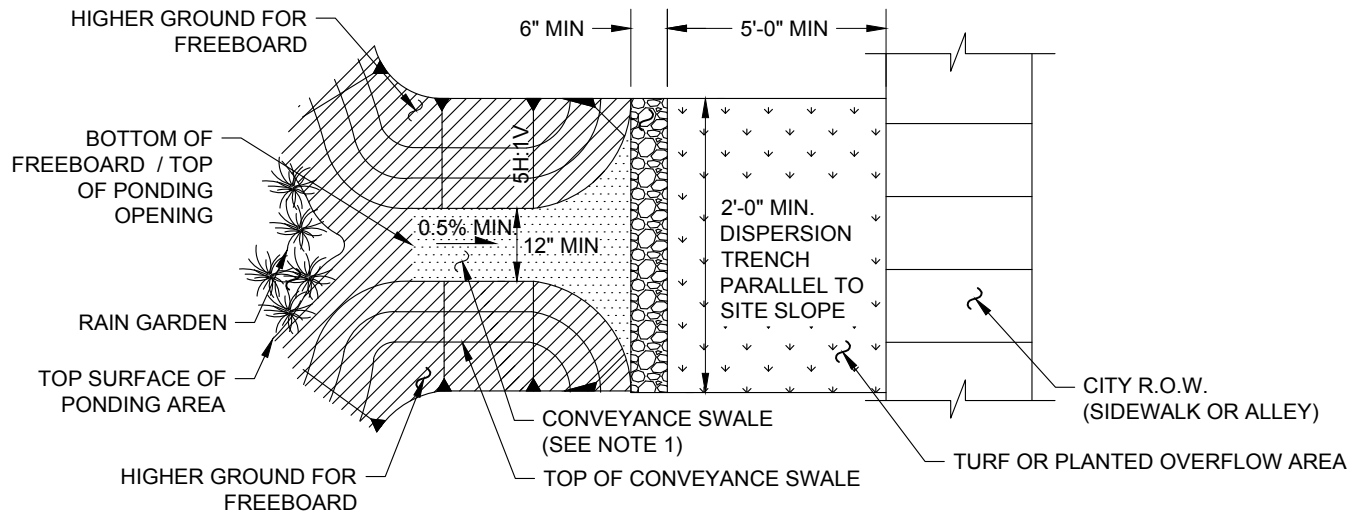


PIPED OVERFLOW
NTS


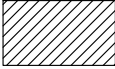
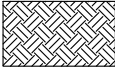

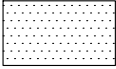
NOTES:

1. Beehive grate must be made of UV stabilized material.
2. Pipe per the City of Tacoma SWMM Volume 3 for privately maintained pipe to edge of ROW. Pipe within ROW shall be per SU-29 or SU-29a.



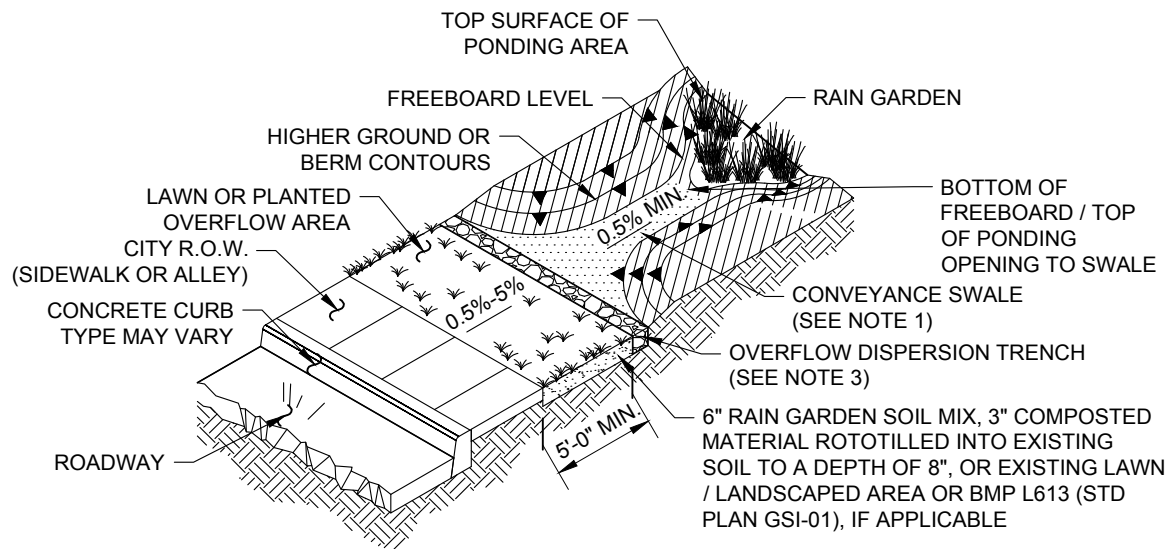


LEGEND:

-  RAIN GARDEN SOIL MIX
-  WOOD CHIP MULCH AND/OR PLANTED AREA
-  EXISTING NATIVE SOIL
-  LAWN OR PLANTED OVERFLOW AREA
-  CONVEYANCE SWALE (SEE NOTE 1)

OVERFLOW THROUGH CONVEYANCE SWALE TO R.O.W.

NTS



OVERFLOW THROUGH CONVEYANCE SWALE TO R.O.W.

NTS

NOTES:

1. See GSI Figure 015 for conveyance swale detail.
2. Minimum slope = 0.5%. If greater than 0.4% slope, provide erosion control options such as a rock check dam.
3. Overflow dispersion trench consists of a minimum 6" wide by 6" deep by 24" long drain rock layer lined with geotextile fabric on the sides and bottom for separation.



**CITY OF TACOMA
GREEN STORMWATER INFRASTRUCTURE
TYPICAL DETAILS**

RAIN GARDEN WITH SWALE OVERFLOW

FIGURE NO.

016

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