RAIN GARDEN INSTALLATION BASICS

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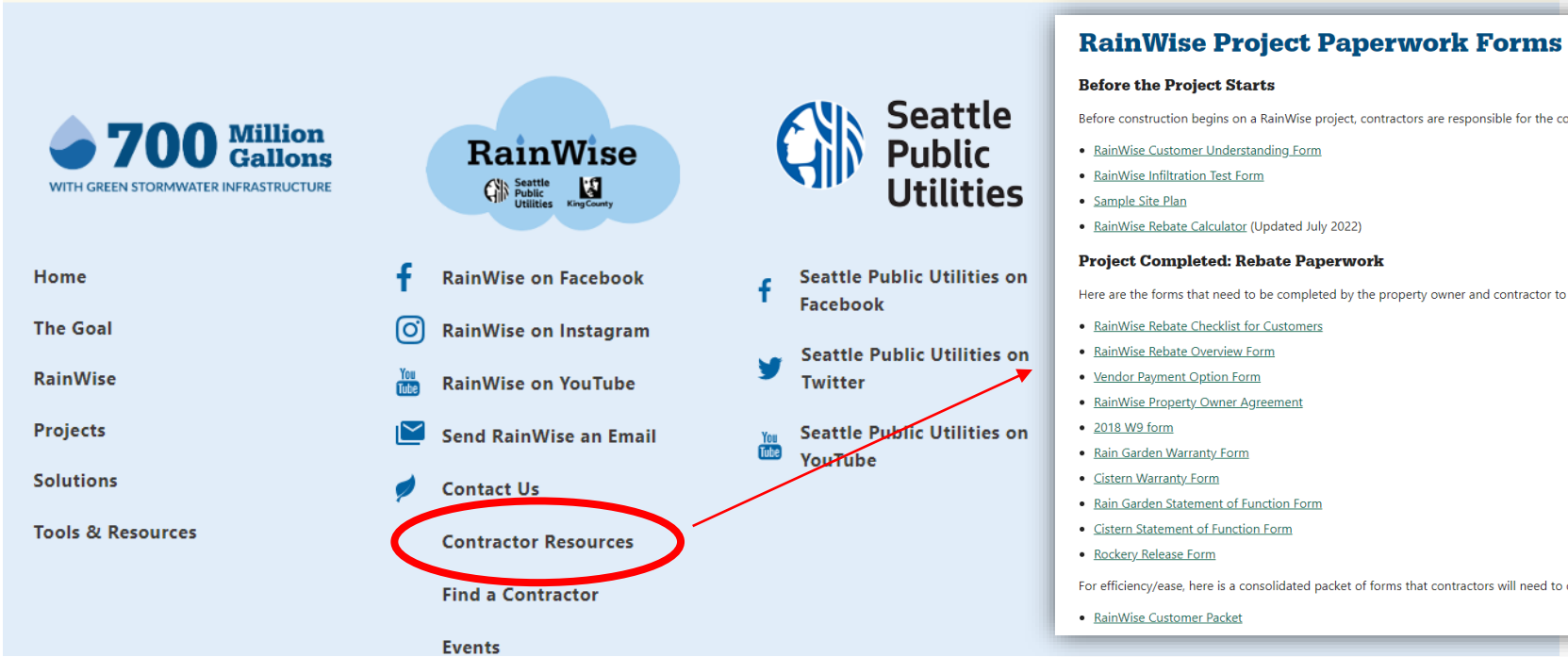
RAINWISE INSPECTORS

RainWise
Seattle Public Utilities
King County

CONTRACTOR RESOURCES

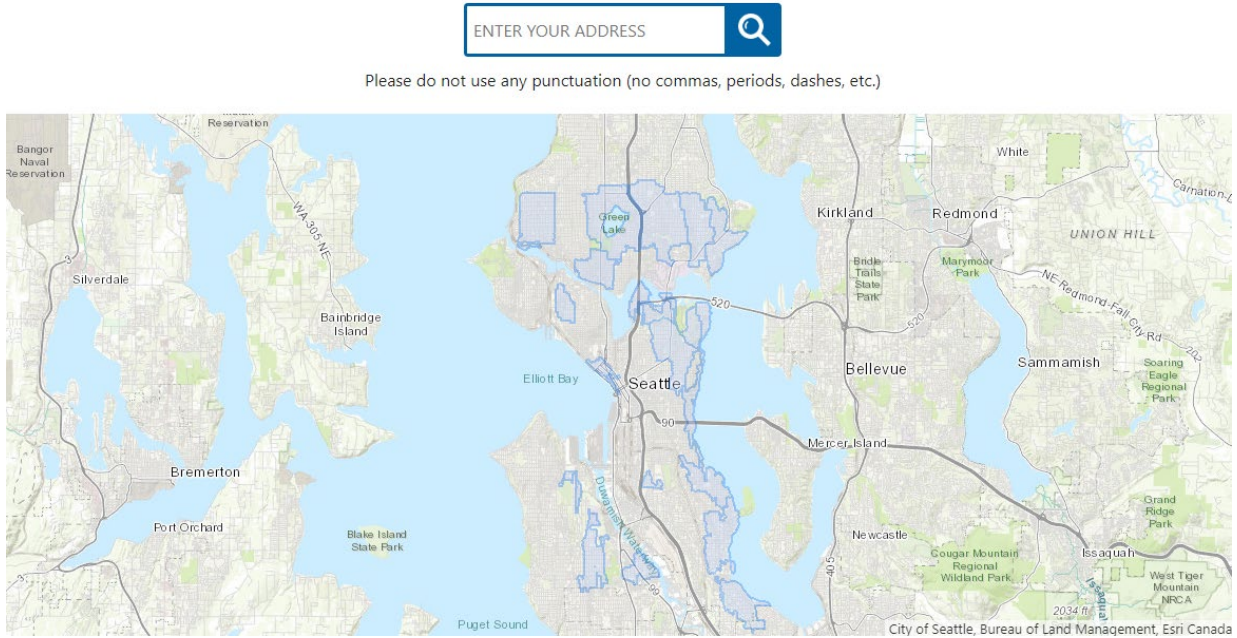


https://www.700milliongallons.org/rainwise/contractor-resources/

RAIN GARDEN INSTALLATION BASICS

1. **Ensure eligibility for rain garden**
2. Rain garden specifications for RainWise
   a) Site Requirements
   b) Calculating roof area
   c) Sizing
   d) RainWise Calculator
   e) Infiltration Test
   f) Location
   g) Structural Elements
3. Plant Selection

RAINWISE ELIGIBILITY MAP



https://www.700milliongallons.org/rainwise/eligibility/

RAIN GARDEN INSTALLATION BASICS

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2. Rain Garden Specifications for RainWise
   a) Site Requirements
   b) Calculating roof area
   c) Sizing
   d) RainWise Calculator
   e) Infiltration Test
   f) Location
   g) Structural Elements
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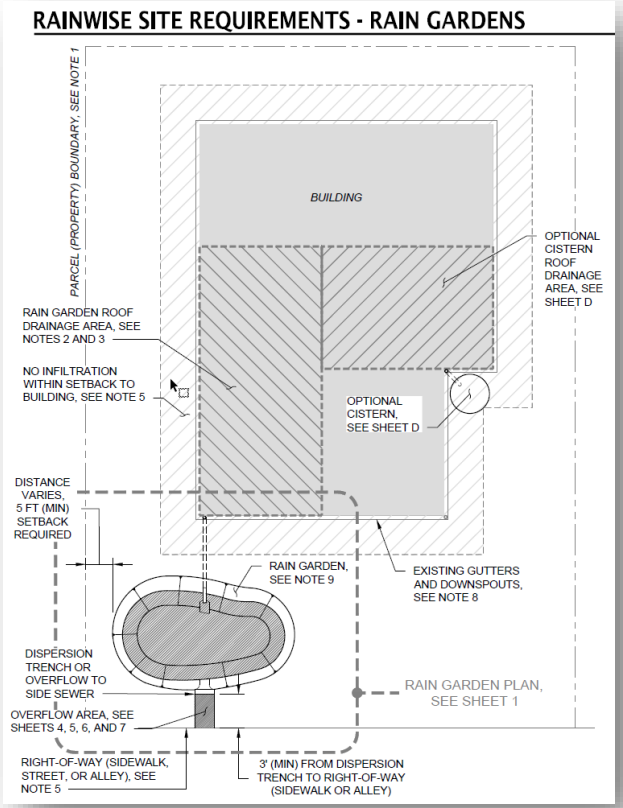
SITE REQUIREMENTS

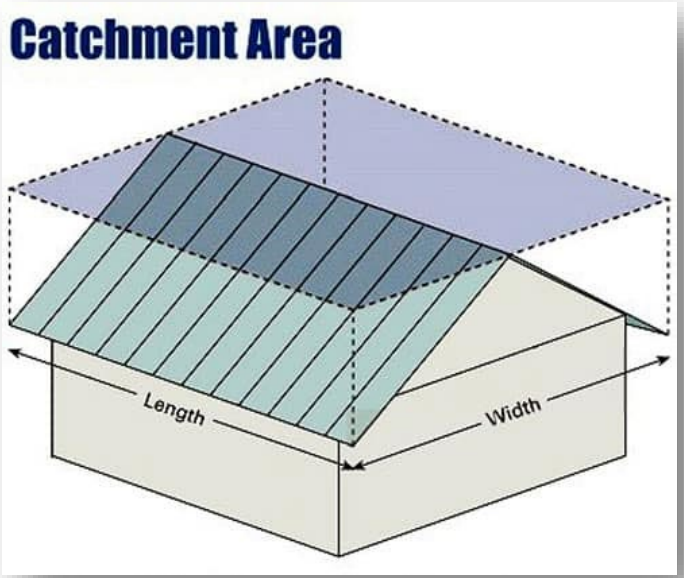
See RainWise design specifications



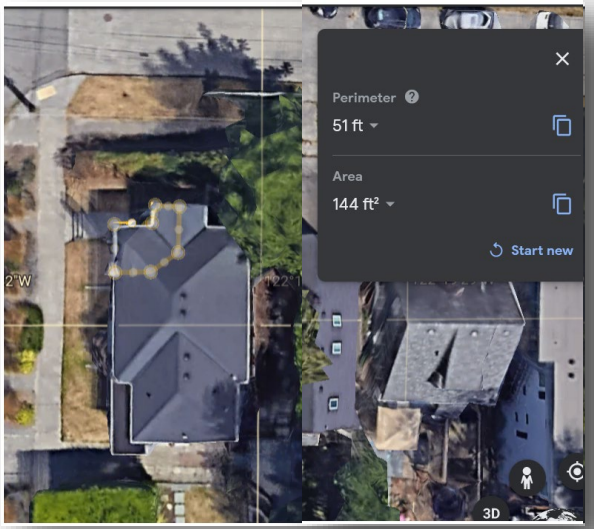
RAINWISE SITE REQUIREMENTS:

1. SUBJECT PARCEL MUST BE IN A QUALIFYING CSO BASIN.
2. A MINIMUM OF 400 SQUARE FEET OF ROOF DRAINAGE AREA MUST BE COLLECTED AND CONVEYED TO RAIN GARDEN OR CISTERN TO QUALIFY FOR REBATE.
3. ROOF DRAINAGE GREATER THAN 2,000 SQUARE FEET **REQUIRES CONSULTATION WITH RAINWISE INSPECTOR.**
4. PROJECTS INFILTRATING MORE THAN 2,000 SQUARE FEET OF IMPERVIOUS SURFACE MUST ADHERE TO THE SEATTLE STORMWATER MANUAL.
5. NO MORE THAN 1,000 SQUARE FEET OF CONTRIBUTING IMPERVIOUS SURFACE MAY OVERFLOW TO CITY SIDEWALK AT A SINGLE LOCATION. SYSTEMS IN EXCESS OF 1,000 SQUARE FEET SHALL HAVE TWO OR MORE OVERFLOWS (AS NECESSARY), EACH SEPARATED BY A DISTANCE OF 10 FEET OR MORE.

CALCULATING ROOF AREA



[How to Measure the Square Footage of a Roof - YouTube]



SIZING

Rain Garden Bottom Area Sizing
Utilize the RainWise Calculator

RainWise Sizing and Rebate Calculator Instructions

1. Enter project information.

2. Enter total contributing roof area in square feet.

3. Select Project Type

For CISTERN projects**

4. Enter total number of connected cisterns.

5. Select the cistern type or select "user defined" to enter a custom cistern.

6. If you entered "user defined" in step 5, enter the cistern overflow height, total cistern height and volume for a single cistern.

** If you are proposing to use multiple cisterns of different sizes and/or geometries in series, see the "Custom Cistern Sizing" tab for guidance on developing "user defined" inputs for an equivalent single cistern.

For RAIN GARDEN projects

4. Enter native soil infiltration rate in inches per hour.

For CISTERN TO RAIN GARDEN projects

4. Enter native soil infiltration rate in inches per hour.

5. Select the cistern configuration upstream of the rain garden.

INFILTRATION TEST

Seattle Public Utilities | King County | RainWise

Infiltration Test & Certification

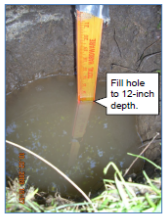
This test will help determine, 1) If soil conditions are suitable for a rain garden and 2) The size of garden.
If you have questions while executing this test, contact your contractor with questions.

Site Address: _____
(Use one certification form per rain garden.)

On-Site location (For multiple rain gardens, i.e., SW or NE): _____

Test Preparation:

- **Call before you dig!** Dial 811 for free utility pipeline location.
- Dig a hole **24 inches deep** and **at least 10 inches across.**
- Add a stake with a ruler attached and set the bottom of the ruler at the bottom of the hole. Duct tape works to attach the ruler.
- **Fill** and **drain the hole 2 times** to saturate the soil.
- **Each fill should be performed within 2 hours of the previous fill.** You are mimicking the saturated condition of the soil during the rainy season.



Cautionary Note:

Any one of the following conditions **disqualify** site for a rain garden:
* *hit hard pan soil* * hole fills with water
* *test hole does not drain at least .25" per hour*

****

Infiltration Test & Certification Form: (check all boxes)

A. Upon digging hole, did you hit hard pan? (hard pan is like concrete)
Yes ☐ No ☐

B. Upon digging hole, did the hole fill with water? Yes ☐ No ☐
If you answered "No" to A. and B., continue test.

1. Fill the hole (**1st fill**) to the **12-inch mark.** Done ☐ Not Done ☐
2. Let the hole drain completely. Done ☐ Not Done ☐
3. Fill the hole again(**2nd fill**) to the **12-inch mark.** Done ☐ Not Done ☐
4. Let the hole drain completely and **record** duration of time hole drains:
Amount of time to drain: ____hrs. ____ mins.

Be as accurate as possible!

5a. Fill the hole again (**3rd fill**) to the **12-inch mark**. Done ☐ Not Done ☐

5b. Record number of inches water has fallen **in 1 hour**: _____ inches

5c. Record number of inches water has fallen **from hour 1 to hour 2**: _____ inches
If hole is already empty, refill hole (4th fill) and skip to step 5e. (use the 15 minutes table).

5d. Record next entries on **appropriate table**. Determine which table and interval to use, by following these guidelines. **Select appropriate interval with a check:**

☐ >3" per hour fall, check at 15 minute intervals = Table 1

☐ 3" to 1" per hour fall, check at 30 minute intervals = Table 2

☐ <1" per hour fall, continue to check at hourly intervals = Table 3

5e. Now measure the fall of water **3 more times** on selected table below:
If hole empties prior to given time interval, refill and continue recording.

TABLE 1 (15 MINUTES)		
Time (15 min duration)	**Ruler Reading (Inches)**	**Hole Refilled 12" (Yes or No)**

TABLE 2 (30 MINUTES)		
Time (30 min duration)	**Ruler Reading (Inches)**	**Hole Refilled 12" (Yes or No)**

TABLE 3 (1 HOUR)		
Time (60 min duration)	**Ruler Reading (Inches)**	**Hole Refilled 12" (Yes or No)**

6. Contractor calculation of infiltration rate: _____ inches per hour

≥ 0.25 in/hr: use 0.25 RG size in table & replace soil with 'Bioretention' soil mix
≥ 0.5 in/hr: use 0.5 RG size in table & replace soil with 'Bioretention' soil mix
≥ 1.0 in/hr: use 1.0 RG size in table and replace soil with 'Bioretention' soil mix
> 1.0 use 1.0 in/hr RG size in table (You may not make your rain garden size smaller)

Signatures are required and must be included with your rebate materials, to be eligible for a RainWise Rebate.

I certify that I have followed the procedures outlined in this document to determine my rain garden sizing. I have chosen to size my rain garden in accordance with these results. I understand that rain gardens are sized for moderate rain events and that regardless of infiltration ability of my soil that my rain garden must have a clear and safe overflow path according to RainWise program details.

Certification Test Performed by:
❑ Homeowner or ❑ Contractor Print Name _____
Signature _____ Date _____

Infiltration Rate Calculated by:
❑ Contractor Print Name _____
Signature _____ Date _____

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This test will help determine, 1) If soil conditions are suitable for a rain garden and 2) The size of garden.
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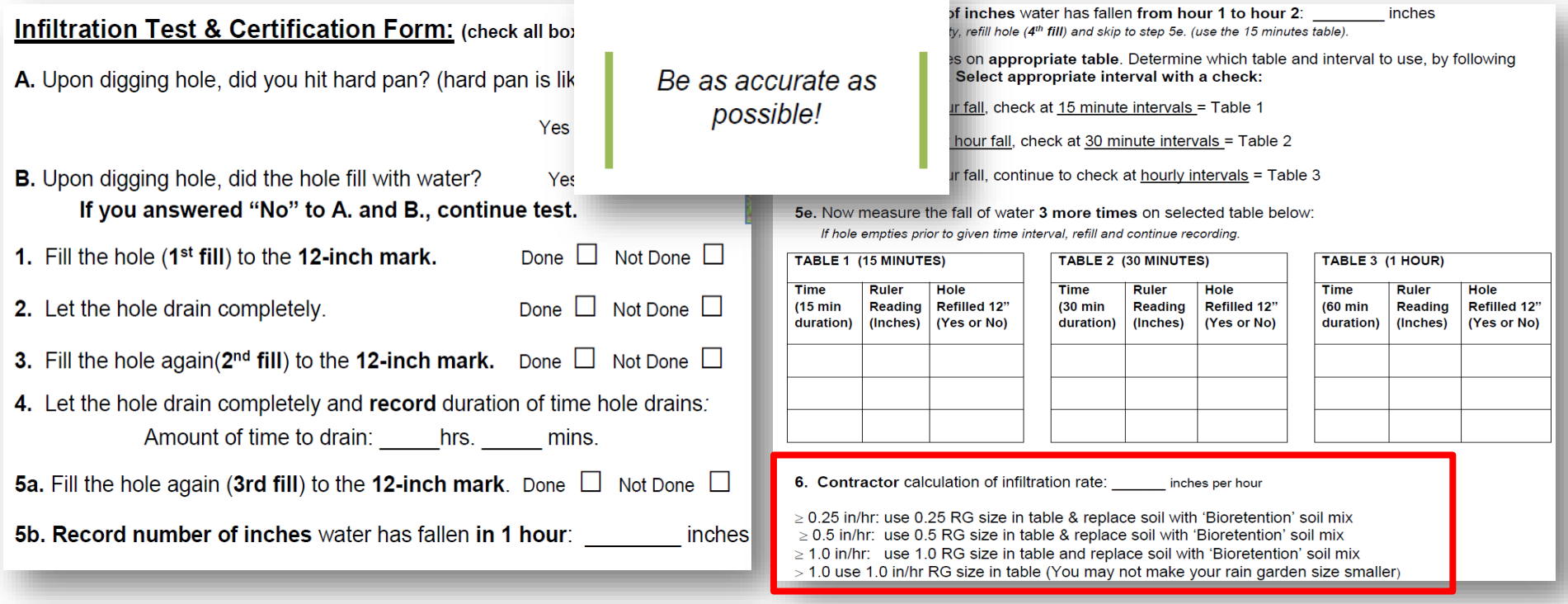
Cautionary Note:

Any one of the following conditions **disqualify** site for a rain garden:

* *hit hard pan soil* * hole fills with water

* *test hole does not drain at least .25" per hour*

INFILTRATION TEST



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Yes

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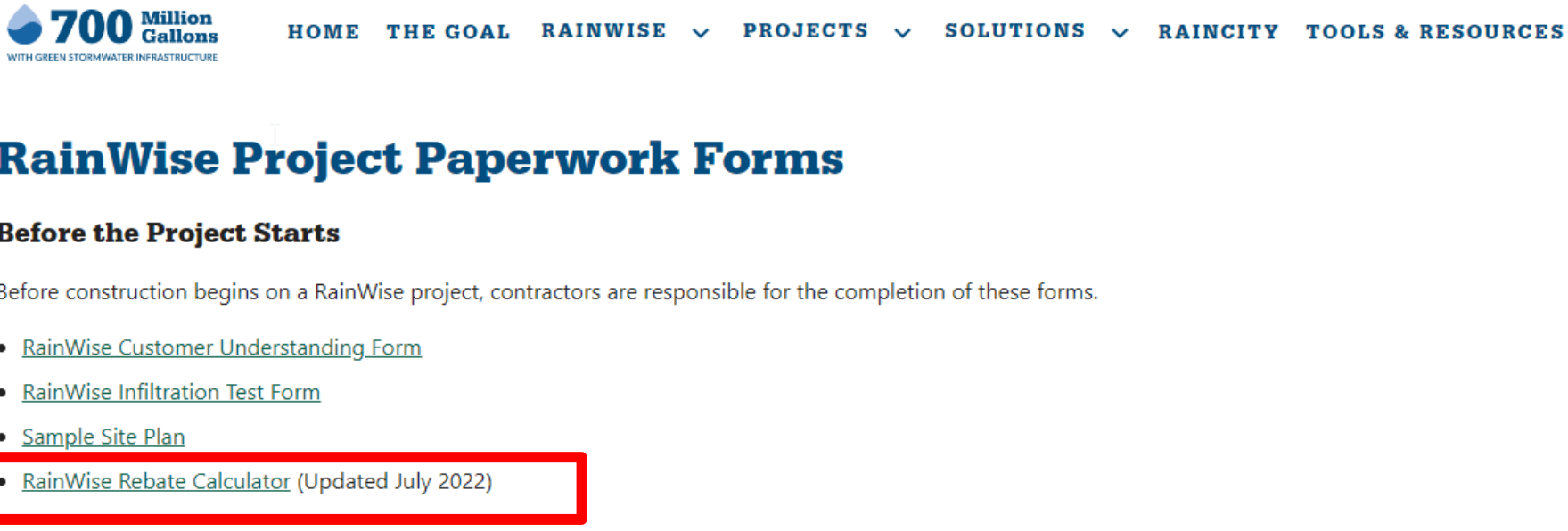
RAINWISE CALCULATOR



https://www.700milliongallons.org/rainwise/contractor-resources/

RainWise Sizing and Rebate Calculator

Contractor Name: EXAMPLE VENDOR

Client Name: Jane Doe

Project Address: EXAMPLE SW Seattle 98106

Notes:

1 Contributing Roof Area [1]: _____ sf

2 Project Type: Rain Garden

Rain Garden

3 Native Soil Infiltration Rate: _____ in/hr

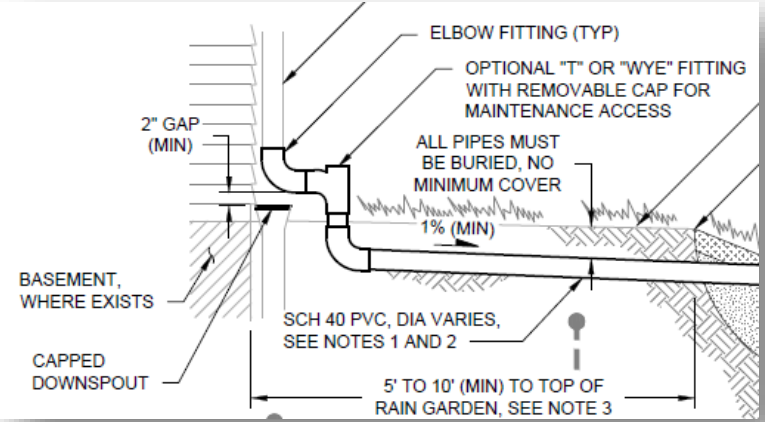
Rain Garden Bottom Area Required: _____ sf

RainWise Rebate

% Construction Rebate →	0%	Enter contributing roof area
Construction Rebate Rate [8,9] →	$0.00	per square foot contributing area
Total Rebate →	$0.00	
Gallons Managed Annually [10] →	0	gallons
Required Orifice Size [11] →	N/A	

LOCATION

- Use minimum footprint size from RainWise calculator
- Locate rain garden at least 5 ft from foundation walls (See NOTE 3 below)
- At least 3ft away from nearest walkway/right of way
- Downslope from the building and impervious surfaces
- Positive overflow from rain garden to ROW or side sewer
- DON'T locate over underground utilities or major tree roots



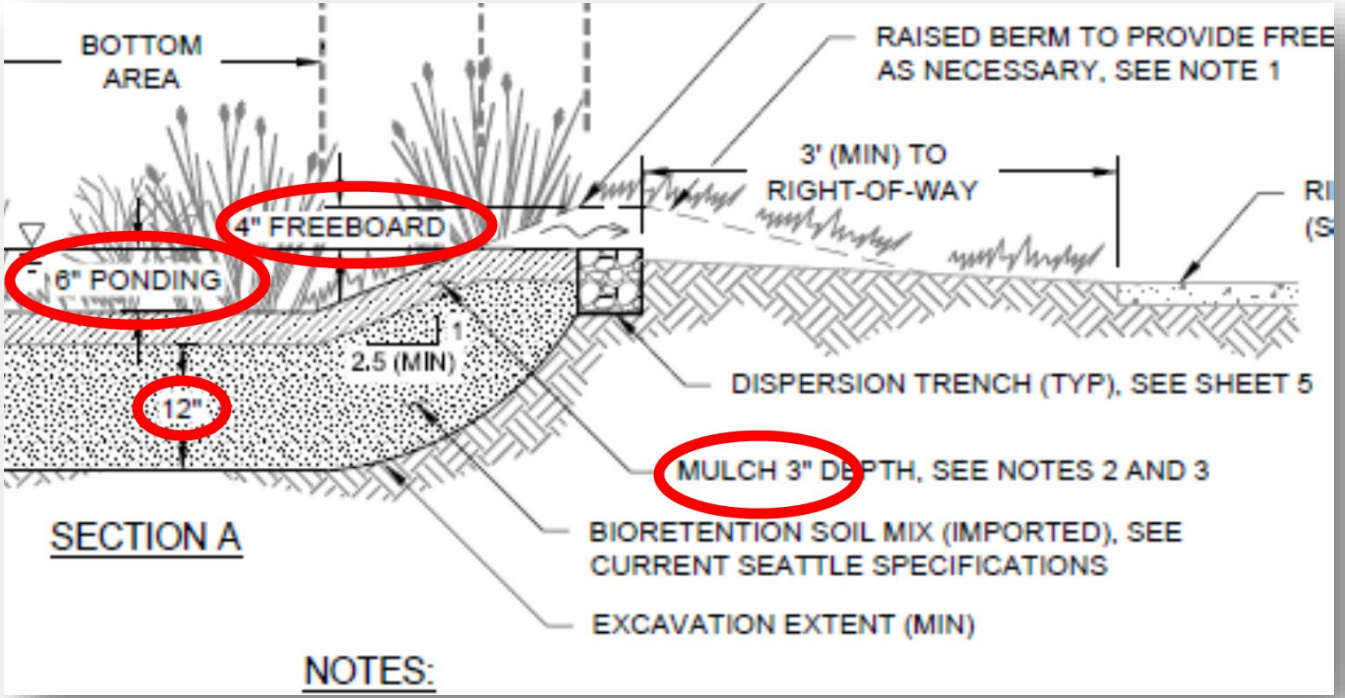
3. TOP OF RAIN GARDEN SHALL BE 5 FEET (MIN) FROM FOUNDATION WALL WITHOUT BASEMENT AND 10 FEET (MIN) FROM FOUNDATION WALL WITH BASEMENT UP TO 5 FEET DEEP. FOR BASEMENTS DEEPER THAN 5 FEET, TOP OF RAIN GARDEN SHALL BE A DISTANCE OF 2 TIMES THE BASEMENT DEPTH FROM FOUNDATION WALL.

LOCATION

Best Practices:

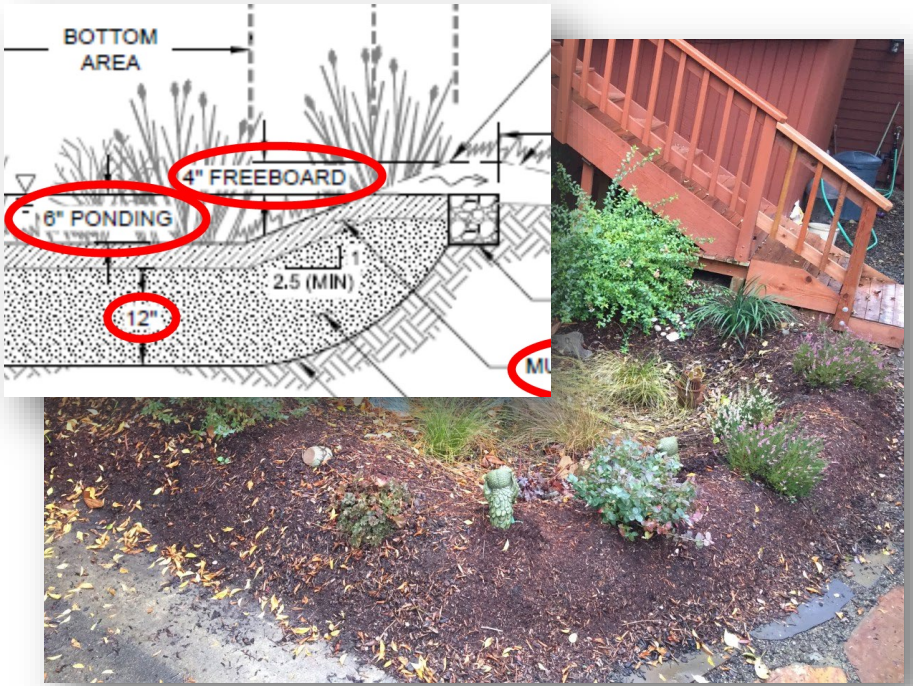
- Lay out your rain garden to see if it fits the area well.
- Rope, string, a hose, ground paint, or chalk are good ways to mark the area because the boundaries can be easily adjusted to your preference.

DEPTH


BOTTOM
AREA
RAISED BERM TO PROVIDE FREE
AS NECESSARY, SEE NOTE 1
3' (MIN) TO
RIGHT-OF-WAY
4" FREEBOARD
6" PONDING
2.5 (MIN)
12"
DISPERSION TRENCH (TYP), SEE SHEET 5
MULCH 3" DEPTH, SEE NOTES 2 AND 3
BIORETENTION SOIL MIX (IMPORTED), SEE
CURRENT SEATTLE SPECIFICATIONS
EXCAVATION EXTENT (MIN)
SECTION A
NOTES:

FREEBOARD

the space above ponding depth and below the top of the berm



- Berm must rise a minimum of 4 inches, at a minimum of 2.5:1 slope
- Good rule of thumb: from the outside of the top surface of the ponding area and the berm should be at least twice as wide as it is high

SIDE SLOPES

Slope ratio needs to be 2.5:1

*Additional requirements apply if designing for stormwater code compliance – contact DPD

BIORETENTION SOIL

Bioretention soil must be on the approved City list

- The City of Seattle has mandatory specifications for soil, including compost and bioretention soil, for all City-funded projects within city limits. See section 9-14 of the City Standard Plans and Specifications.
- Cedar Grove is an approved supplier/vendor of the City approved soil mix.

CEDAR GROVE®

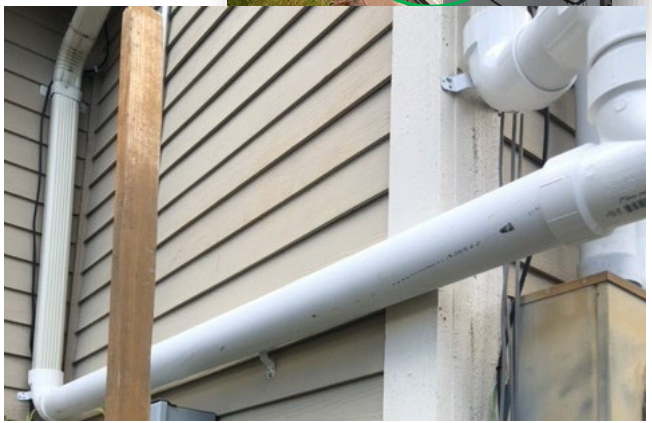
dirt EXCHANGE

Note: homeowners not seeking a RainWise Rebate can blend compost with their existing soil in a rain garden, but to qualify for a RainWise Rebate, rain garden contractors must use the "Bioretention soil mix" from these suppliers.

INFLOW & OVERFLOW

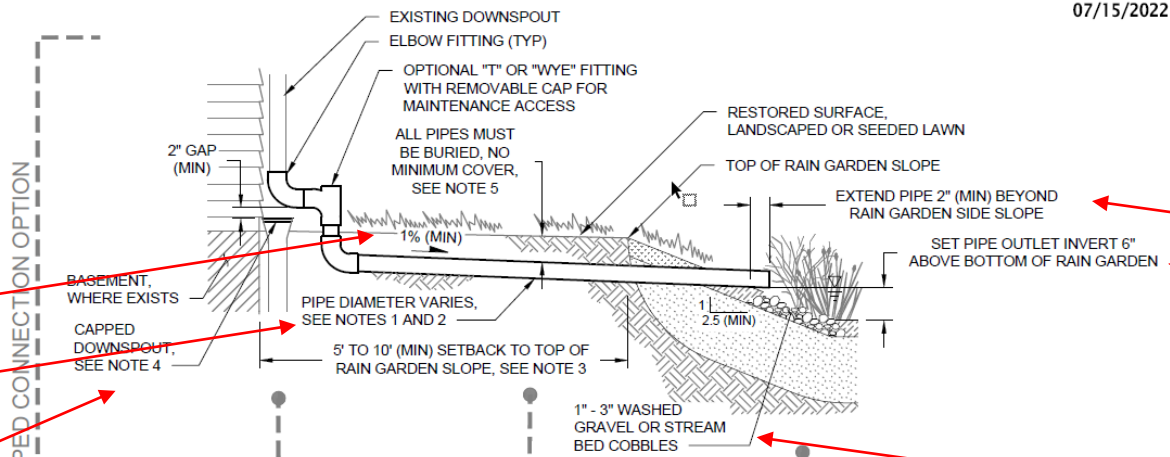
PIPE MATERIAL & SUPPORT

- Pipes in contact with the ground shall be schedule 40 PVC or approved equal
- Pipes not in contact with the ground shall be PVC schedule 40, SDR 35, or ABS
- All pipe and fitting joints shall be watertight and glued, bonded, or mechanically secured.
- Pipes shall be **supported** every 4 ft Horizontal, at changes in direction, and every 8 ft vertical



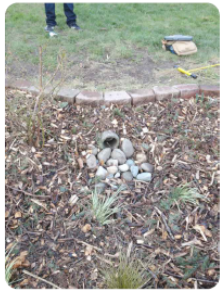
DOWNSPOUT TO RAIN GARDEN CONNECTIONS (1 OF 2)

STANDARD RAINWISE DETAILS
07/15/2022



ELBOW FITTINGS AND CAPPED DOWNSPOUT AT EXISTING DOWNSPOUT

DOWNSPOUT TO RAIN GARDEN PIPED CONNECTION UNDER CONSTRUCTION

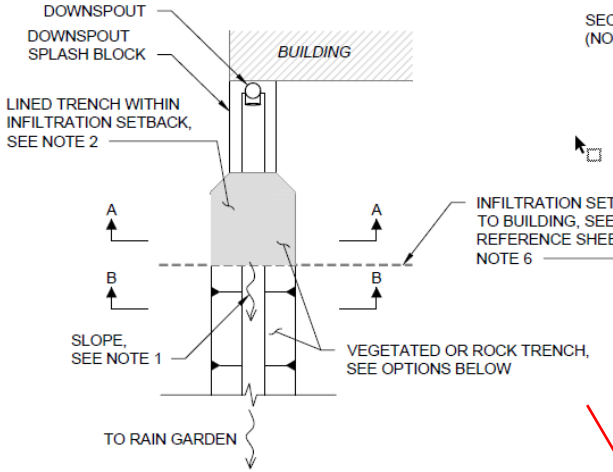


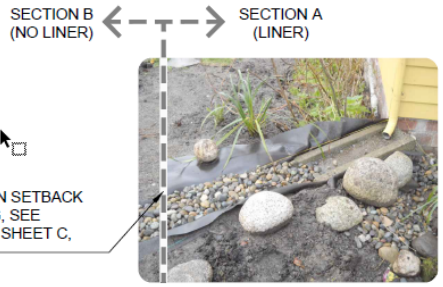
WASHED GRAVEL OR STREAM BED COBBLES AT PIPE OUTLET

NOTES:

1. MINIMUM PIPE DIAMETER AND ASSOCIATED FITTING SIZE VARIES BASED ON CONTRIBUTING AREA AS FOLLOWS:
   - UP TO 2,000 SQUARE FEET: 3 INCH DIAMETER
   - 2,000 TO 5,000 SQUARE FEET: 4 INCH DIAMETER
2. ALL PIPES MUST MEET THE GENERAL PIPING REQUIREMENT ON REFERENCE SHEET B. PIPE MATERIAL MUST BE APPROPRIATE FOR THE LOCATION AND ALL PIPE CONNECTIONS MUST BE SECURED.
3. RAINGARDEN LOCATION MUST MEET THE REQUIREMENTS ON REFERENCE SHEET C.
4. DOWNSPOUT CAP SHALL BE REMOVABLE.
5. DOWNSPOUT PIPED CONNECTION SHALL BE INSPECTED BEFORE PIPE IS BURIED.

DOWNSPOUT TO RAIN GARDEN CONNECTIONS (2 OF 2)

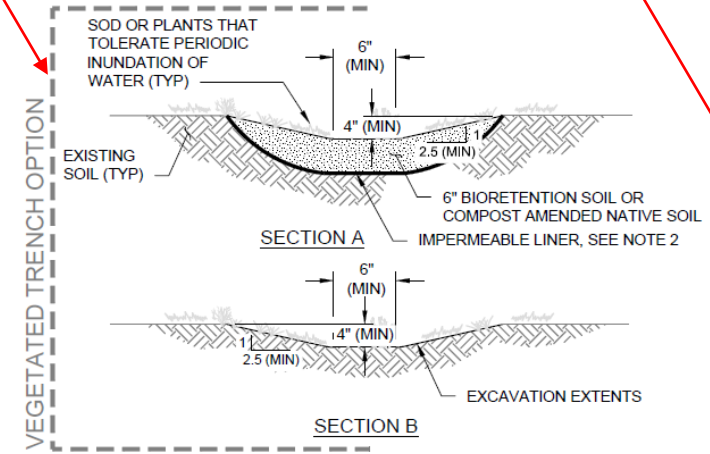


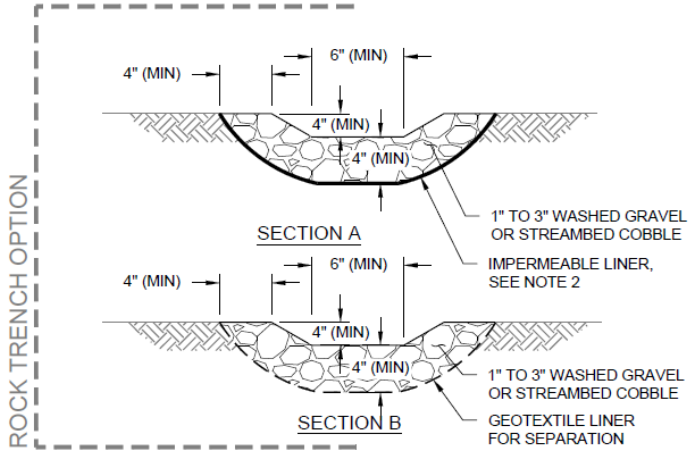


EXAMPLE DOWNSPOUT TO RAIN GARDEN ROCK TRENCH CONNECTION

NOTES:

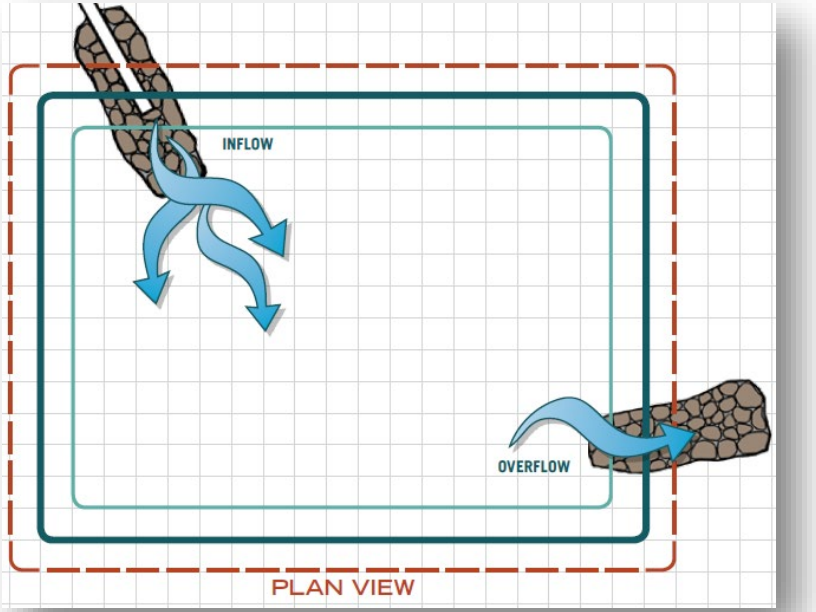
1. MINIMUM TRENCH SLOPE SHALL BE 1%. MAXIMUM SLOPE SHALL BE 4%. INSTALL CHECK DAMS PER SEATTLE STORMWATER MANUAL BMP E2.35 (VOLUME 2, FIGURE 9) FOR SLOPES GREATER THAN 4%.
2. IMPERMEABLE LINER SHALL COMPLY WITH REQUIREMENTS FOR "DITCH LINING" IN SEATTLE STANDARD SPECIFICATION 9-37.2, TABLE 4.





OVERFLOW

- Freeboard/berm should be a minimum of 4 inches higher than the top surface of the ponding area
- Do not direct overflow towards adjacent properties or structures.
- Overflow needs to be directed back into storm or toward right-of-way
- Overflow area shall be vegetated or discharge to 1” – 3” washed gravel or stream bed cobbles

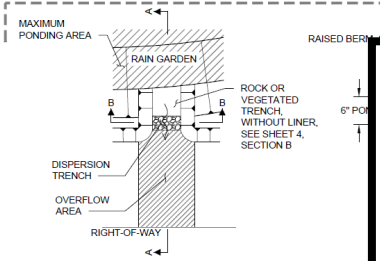


RAIN GARDEN OVERFLOW TYPE 1 - SURFACE OVERFLOWS (1 OF 2)

SHEET 5
STANDARD RAINWISE DETAILS
07/15/2022

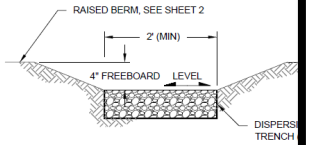
Rain Wise
Managing Storm Water at Home

DISPERSION TRENCH OPTION



NOTES:

1. MINIMUM TRENCH SLOPE SHALL BE 1%. MAXIMUM SLOPE SHAL
CHECK DAMS PER SEATTLE STORMWATER MANUAL BMP E2.35
FIGURE 9) FOR SLOPES GREATER THAN 4%.
2. OVERFLOW AREA SHALL BE VEGETATED OR ARMORED WITH M
1 INCH TO 3 INCH WASHED GRAVEL OR STREAM BED COBBLES

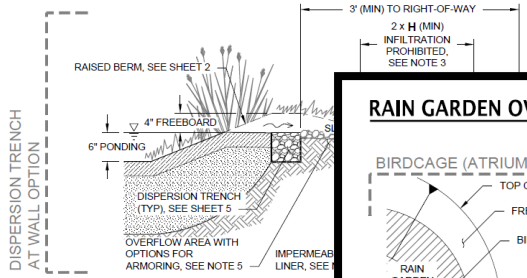


SECTION B

RAIN GARDEN OVERFLOW TYPE 1 - SURFACE OVERFLOWS (2 OF 2)

SHEET 6
STANDARD RAINWISE DETAILS
07/15/2022

Rain Wise
Managing Storm Water at Home



NOTES:

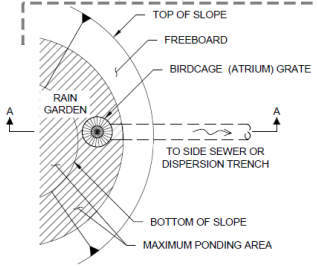
1. MINIMUM OVERFLOW AREA SLOPE SHALL BE 1%. MAXIMUM SLOPE SHALL BE 4%
INSTALL CHECK DAMS PER SEATTLE STORMWATER MANUAL BMP E2.35 (VOLUM
FIGURE 9) FOR SLOPES GREATER THAN 4%.
2. IMPERMEABLE LINER SHALL COMPLY WITH REQUIREMENTS FOR "DITCH LINING
SEATTLE STANDARD SPECIFICATION 9-37.2, TABLE 4. SECURE LINER TO TOP O
WALL WITH CONSTRUCTION ADHESIVE APPROPRIATE FOR LINER AND WALL
MATERIALS.
3. INFILTRATION PROHIBITED WITHIN A DISTANCE OF 2 TIMES THE WALL HEIGHT,
OF A RETAINING WALL AS MEASURED FROM THE FACE OF THE WALL.
4. GRAVEL OR COBBLES SHALL BE SET 1 INCH (MIN) ABOVE BOTTOM OF SIDEWAL
SLAB TO AVOID UNDERMINING SIDEWALK.
5. OVERFLOW AREA SHALL BE VEGETATED OR ARMORED WITH 1 INCH TO 3 INCH
WASHED GRAVEL OR STREAM BED COBBLES.
6. RETAINING WALL HEIGHT MEASURED FROM VISIBLE TOE OF WALL TO TOP OF W
7. FOR DISCHARGE OVER RETAINING WALLS, MAXIMUM ALLOWABLE DROP FROM
OF WALL TO TOE OF WALL IS 18 INCHES.

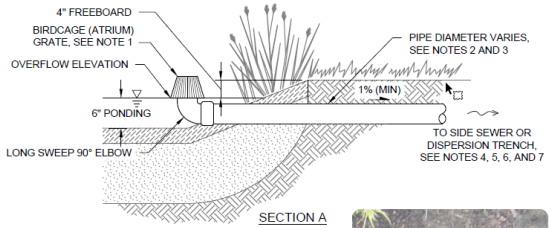
RAIN GARDEN OVERFLOW TYPE 2 - SUBSURFACE OVERFLOWS

SHEET 7
STANDARD RAINWISE DETAILS
07/15/2022

Rain Wise
Managing Storm Water at Home

BIRDCAGE (ATRIUM) GRATE OVERFLOW





SECTION A

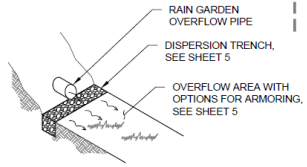
BIRDCAGE OVERFLOW

NOTES:

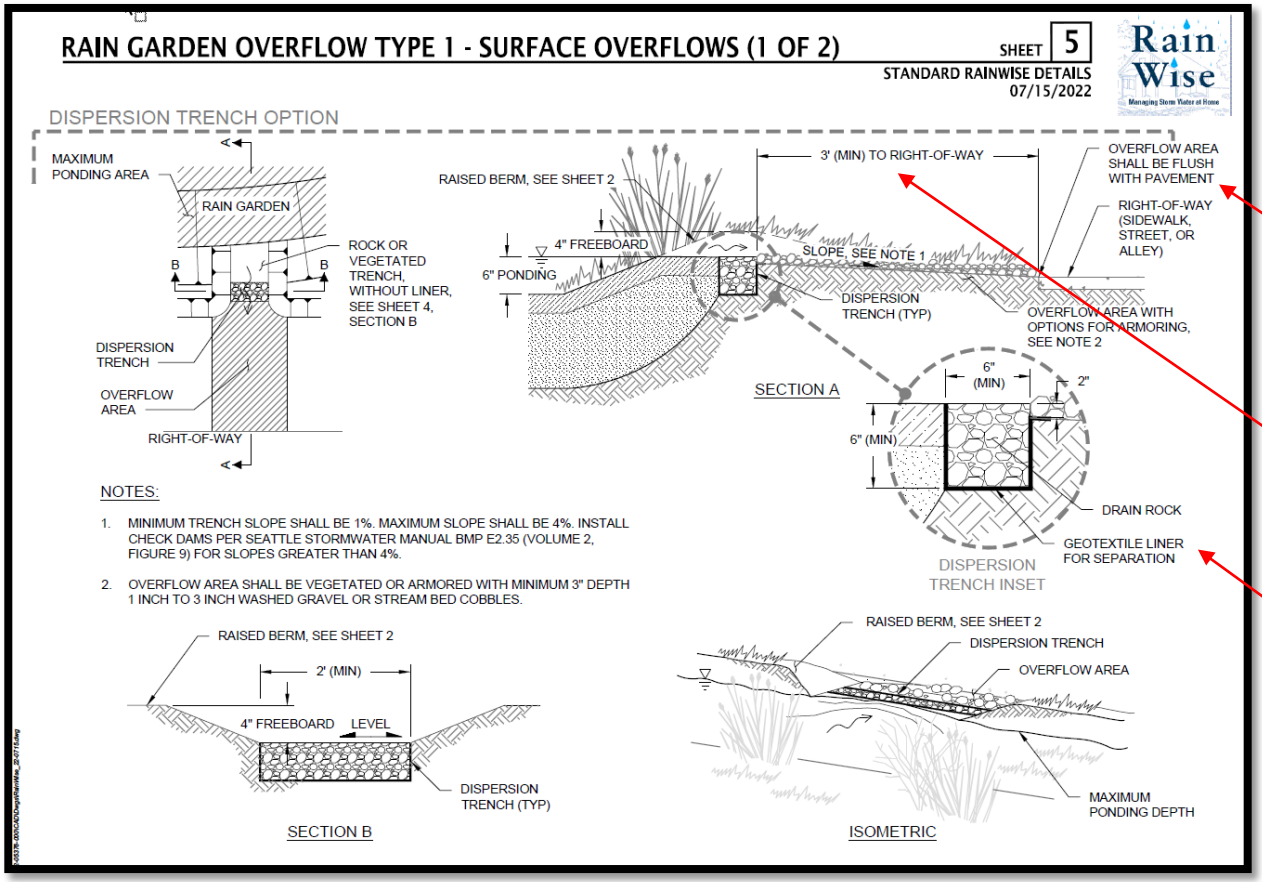
1. BIRDCAGE (ATRIUM) GRATE AND ANY EXPOSED PIPES AND FITTINGS SHALL BE MADE OF UV STABILIZED MATERIAL.
2. MINIMUM PIPE DIAMETER AND ASSOCIATED FITTING SIZE VARIES BASED ON CONTRIBUTING AREA AS FOLLOWS:
   - UP TO 2,300 SQUARE FEET: 4 INCH DIAMETER PIPE AND 4 INCH BIRDCAGE (ATRIUM) GRATE
   - 2,300 to 5,000 SQUARE FEET: 4 INCH DIAMETER PIPE AND 6 INCH BIRDCAGE (ATRIUM) GRATE

   INSTALL 6"x4" REDUCER ON OVERFLOW PIPE IF USING 6 INCH BIRDCAGE GRATE ON 4 INCH OVERFLOW PIPE.
3. ALL PIPES MUST MEET THE GENERAL PIPING REQUIREMENTS ON REFERENCE SHEET B. PIPE MATERIAL MUST BE APPROPRIATE FOR THE LOCATION AND ALL PIPE CONNECTIONS MUST BE SECURED.
4. CONNECTIONS TO SIDE SEWER MAY REQUIRE A SEPARATE SIDE SEWER PERMIT AND INSPECTION.
5. ALL CONNECTIONS TO A SIDE SEWER SHALL COMPLY WITH REQUIREMENTS FOR DESIGN AND CONSTRUCTION OF DRAINAGE WATER DISCHARGES IN DIRECTOR'S RULES 4-2011 AND 5-2011 AND SIDE SEWER INSTALLATION REQUIREMENTS IN SEATTLE STANDARD PLAN NO. 283.
6. SIDE SEWER FUNCTION MUST BE CONFIRMED FOR ABOVE GROUND OR BELOW GROUND DISCHARGE TO A SIDE SEWER. TESTING OR VIDEO SCOPING OF SIDE SEWER MAY BE REQUIRED TO CONFIRM FUNCTIONING SIDE SEWER.
7. A PRE-INSPECTION SHOULD BE REQUESTED WHEN A PIPED SUBSURFACE OVERFLOW IS PLANNED.

DISPERSION TRENCH OPTION



DISPERSION TRENCH TO OVERFLOW



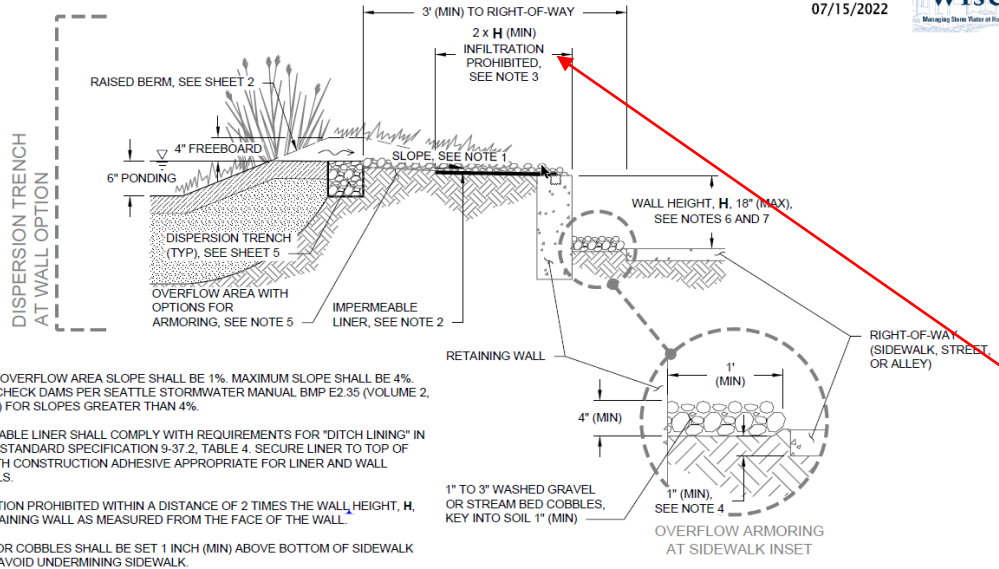
DISPERSION TRENCH TO OVERFLOW

DISPERSION TRENCH TO OVERFLOW AT A WALL

RAIN GARDEN OVERFLOW TYPE 1 - SURFACE OVERFLOWS (2 OF 2)

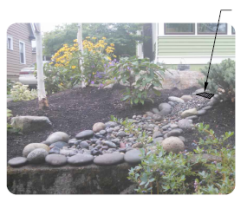
SHEET 6

STANDARD RAINWISE DETAILS
07/15/2022



NOTES:

1. MINIMUM OVERFLOW AREA SLOPE SHALL BE 1%. MAXIMUM SLOPE SHALL BE 4%. INSTALL CHECK DAMS PER SEATTLE STORMWATER MANUAL BMP E2.35 (VOLUME 2, FIGURE 9) FOR SLOPES GREATER THAN 4%.
2. IMPERMEABLE LINER SHALL COMPLY WITH REQUIREMENTS FOR "DITCH LINING" IN SEATTLE STANDARD SPECIFICATION 9-37.2, TABLE 4. SECURE LINER TO TOP OF WALL WITH CONSTRUCTION ADHESIVE APPROPRIATE FOR LINER AND WALL MATERIALS.
3. INFILTRATION PROHIBITED WITHIN A DISTANCE OF 2 TIMES THE WALL HEIGHT, **H**, OF A RETAINING WALL AS MEASURED FROM THE FACE OF THE WALL.
4. GRAVEL OR COBBLES SHALL BE SET 1 INCH (MIN) ABOVE BOTTOM OF SIDEWALK SLAB TO AVOID UNDERMINING SIDEWALK.
5. OVERFLOW AREA SHALL BE VEGETATED OR ARMORED WITH 1 INCH TO 3 INCH WASHED GRAVEL OR STREAM BED COBBLES.
6. RETAINING WALL HEIGHT MEASURED FROM VISIBLE TOE OF WALL TO TOP OF WALL.
7. FOR DISCHARGE OVER RETAINING WALLS, MAXIMUM ALLOWABLE DROP FROM TOP OF WALL TO TOE OF WALL IS 18 INCHES.



OVERFLOW AREA WITH ARMORING (VIEW FROM RIGHT-OF-WAY)

OVERFLOW AREA WITH ARMORING (VIEW FROM RAIN GARDEN)

DISPERSION TRENCH TO OVERFLOW AT A WALL

SUBSURFACE OVERFLOWS (AKA: BIRDCAGES)

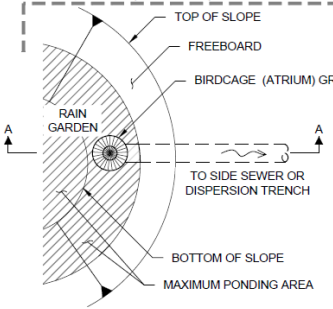
RAIN GARDEN OVERFLOW TYPE 2 - SUBSURFACE OVERFLOWS

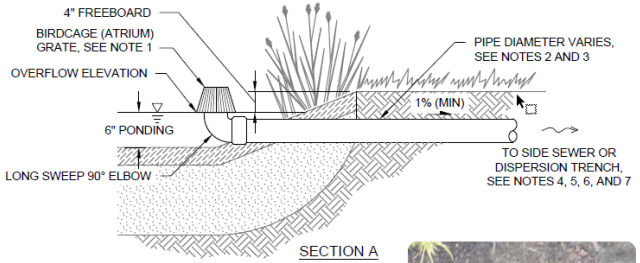
SHEET 7

STANDARD RAINWISE DETAILS
07/15/2022

Rain Wise
Managing Storm Water at Home

BIRDCAGE (ATRIUM) GRATE OVERFLOW

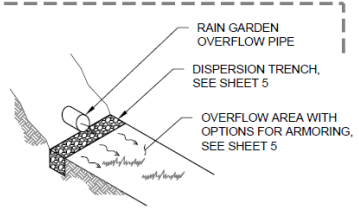




SECTION A

BIRDCAGE OVERFLOW

DISPERSION TRENCH OPTION



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https://700milliongallons.org/wp-content/uploads/2020/08/RainWise_PlantingPlan_16.pdf

PLANT SELECTION

Planting Zones

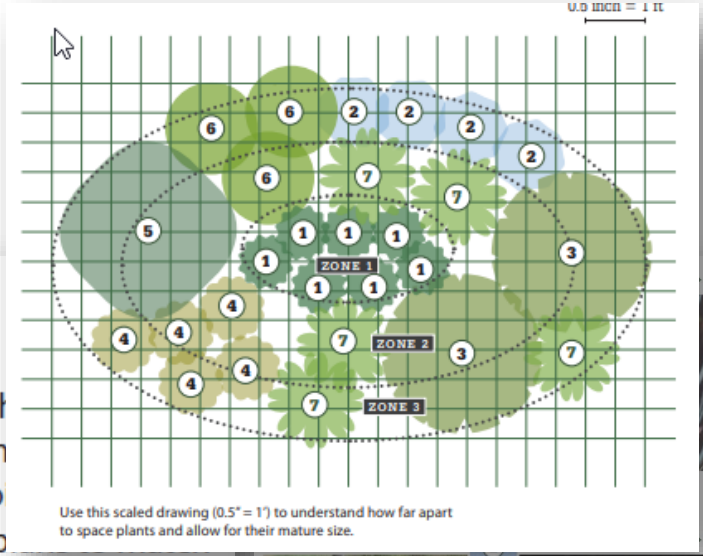
Critical when choosing and placing plants

Rain gardens are built to soak up stormwater. During the rainy season, th
will stay wet and must be filled with plants that thrive in these condition
the upper slopes and top of the rain garden drain faster, leaving drier so
the summer. These areas require different plants. Use the plant list and p
the appropriate plants for the following zones:

ZONE 1 Areas of periodic, or frequent, standing or flowing water in the bottom of the garden. Zone 1 plants should also tolerate the seasonally dry summers in Western Washington without extra watering beyond the first two to three year establishment period.

ZONE 2 Periodically moist or saturated soils during larger storms. Plants are typically planted on the side slopes in this zone and can help protect against erosion.

ZONE 3 Drier soils found at the top of the rain garden. This zone can blend with the existing landscape.



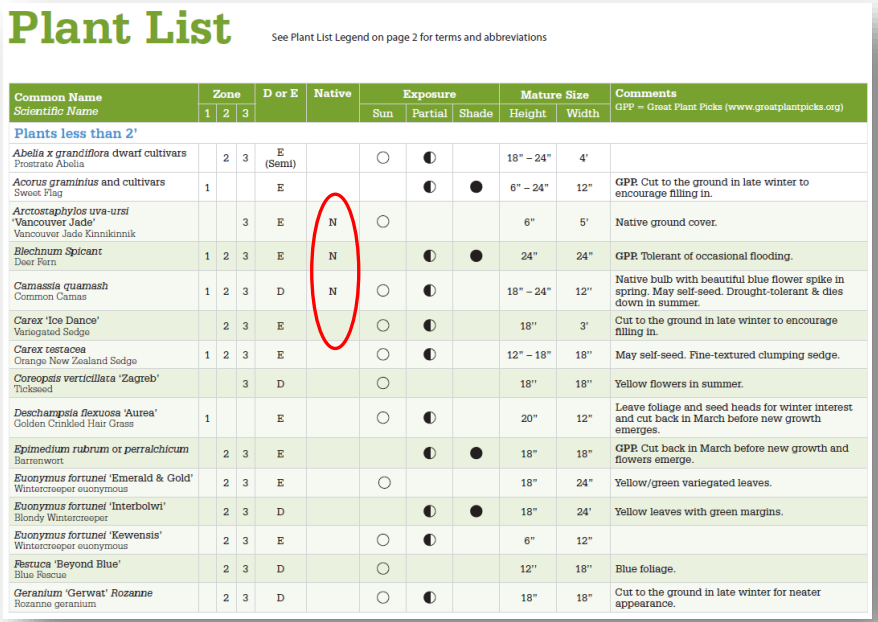
Use this scaled drawing (0.5" = 1') to understand how far apart to space plants and allow for their mature size.

Pacific Coast Iris *Iris douglasiana* (E)

ZONE 2 ZONE 3 3

Little Heath Lily of the Valley *Pieris japonica* 'Little Heath' (E)

PLANT SELECTION



Plant List

See Plant List Legend on page 2 for terms and abbreviations

Common Name / *Scientific Name*	Zone 1	Zone 2	Zone 3	D or E	Native	Exposure: Sun	Exposure: Partial	Exposure: Shade	Mature Size: Height	Mature Size: Width	Comments (GPP = Great Plant Picks (www.greatplantpicks.org))
Plants less than 2'											
Abelia x grandiflora dwarf cultivars Prostrate Abelia		2	3	E (Semi)		○	◐		18" – 24"	4'	
Acorus graminius and cultivars Sweet Flag	1			E			◐	●	6" – 24"	12"	GPP. Cut to the ground in late winter to encourage filling in.
Arctostaphylos uva-ursi 'Vancouver Jade' Vancouver Jade Kinnikinnik			3	E	N	○			6"	5'	Native ground cover.
Blechnum Spicant Deer Fern	1	2	3	E	N		◐	●	24"	24"	GPP. Tolerant of occasional flooding.
Camassia quamash Common Camas	1	2	3	D	N	○	◐		18" – 24"	12"	Native bulb with beautiful blue flower spike in spring. May self-seed. Drought-tolerant & dies down in summer.
Carex 'Ice Dance' Variegated Sedge		2	3	E		○	◐		18"	3'	Cut to the ground in late winter to encourage filling in.
Carex testacea Orange New Zealand Sedge	1	2	3	E		○	◐		12" – 18"	18"	May self-seed. Fine-textured clumping sedge.
Coreopsis verticillata 'Zagreb' Tickseed			3	D		○			18"	18"	Yellow flowers in summer.
Deschampsia flexuosa 'Aurea' Golden Crinkled Hair Grass	1			E		○	◐		20"	12"	Leave foliage and seed heads for winter interest and cut back in March before new growth emerges.
Epimedium rubrum or *perralchicum* Barrenwort		2	3	E			◐	●	18"	18"	GPP. Cut back in March before new growth and flowers emerge.
Euonymus fortunei 'Emerald & Gold' Wintercreeper euonymous		2	3	E		○			18"	24"	Yellow/green variegated leaves.
Euonymus fortunei 'Interbolwi' Blondy Wintercreeper		2	3	D			◐	●	18"	24'	Yellow leaves with green margins.
Euonymus fortunei 'Kewensis' Wintercreeper euonymous		2	3	E		○	◐		6"	12"	
Festuca 'Beyond Blue' Blue Fescue		2	3	D		○			12"	18"	Blue foliage.
Geranium 'Gerwat' *Rozanne* Rozanne geranium		2	3	D		○	◐		18"	18"	Cut to the ground in late winter for neater appearance.

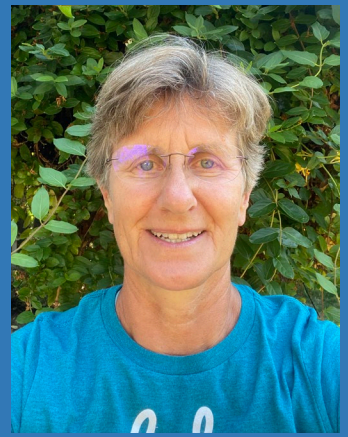
- Consider a mix of native plants and evergreen plants
- Avoiding planting within the root zones of existing trees and shrubs
- Evergreens will provide year-round greenery and shade, which will reduce weed growth and maintenance
- Edging around the rain garden provides separation from lawn and other landscaped areas while allowing access for maintenance

RAIN GARDEN INSTALLATION BASICS SUMMARY

1. Ensure eligibility for rain garden
2. Rain garden specifications for RainWise
    a) Site Requirements
    b) Calculating roof area
    c) Sizing
    d) RainWise Calculator
    e) Infiltration Test
    f) Location
    g) Structural Elements
        i. Depth
        ii. Inflow/Outflow
3. Plant Selection

RAIN GARDEN INSTALLATION BASICS

Rex Davis
Seattle Public Utilities
Inspections Lead



Sabine Jessel
King County
Inspections Lead

Natasha Bailey
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206.586.2297

Q&A