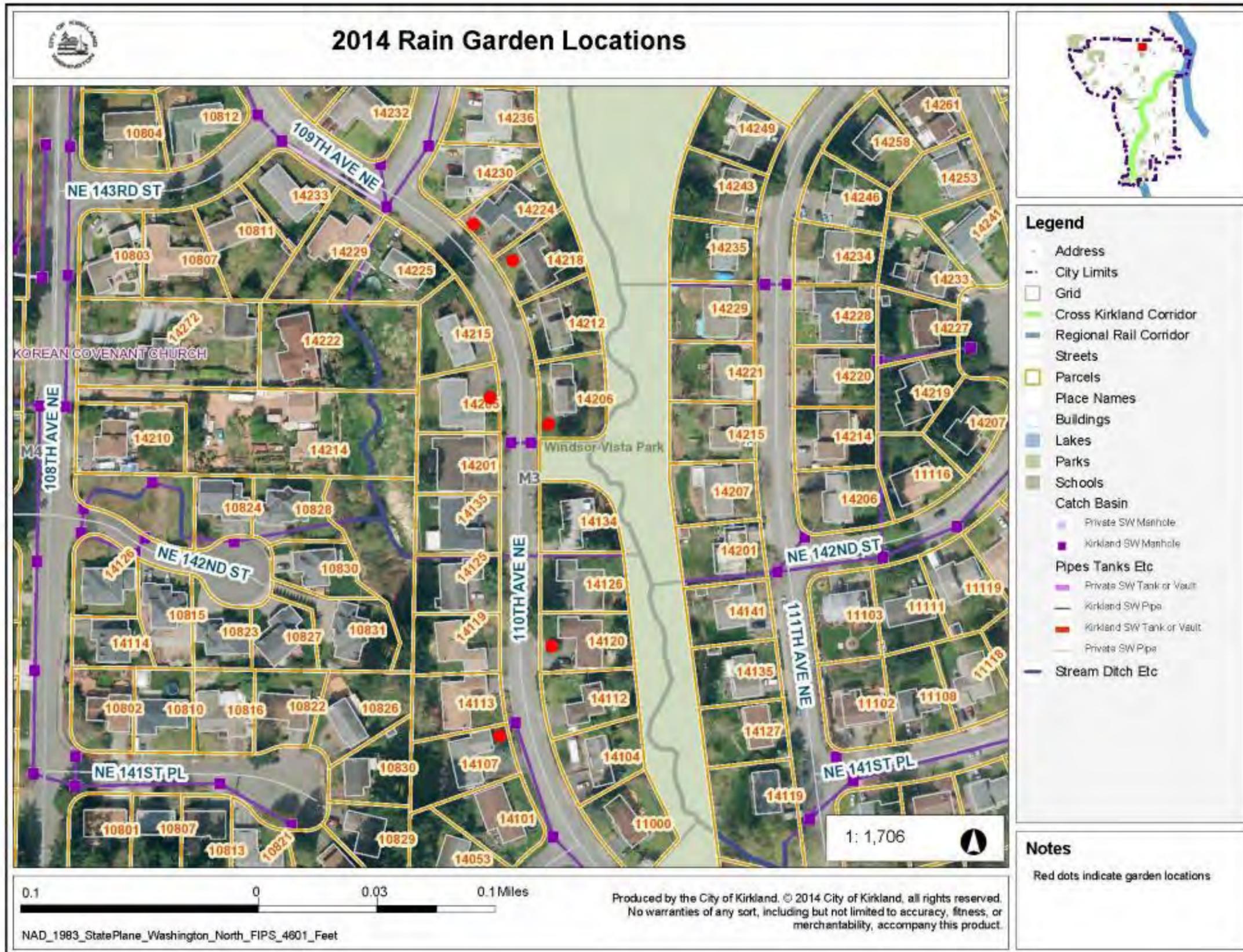
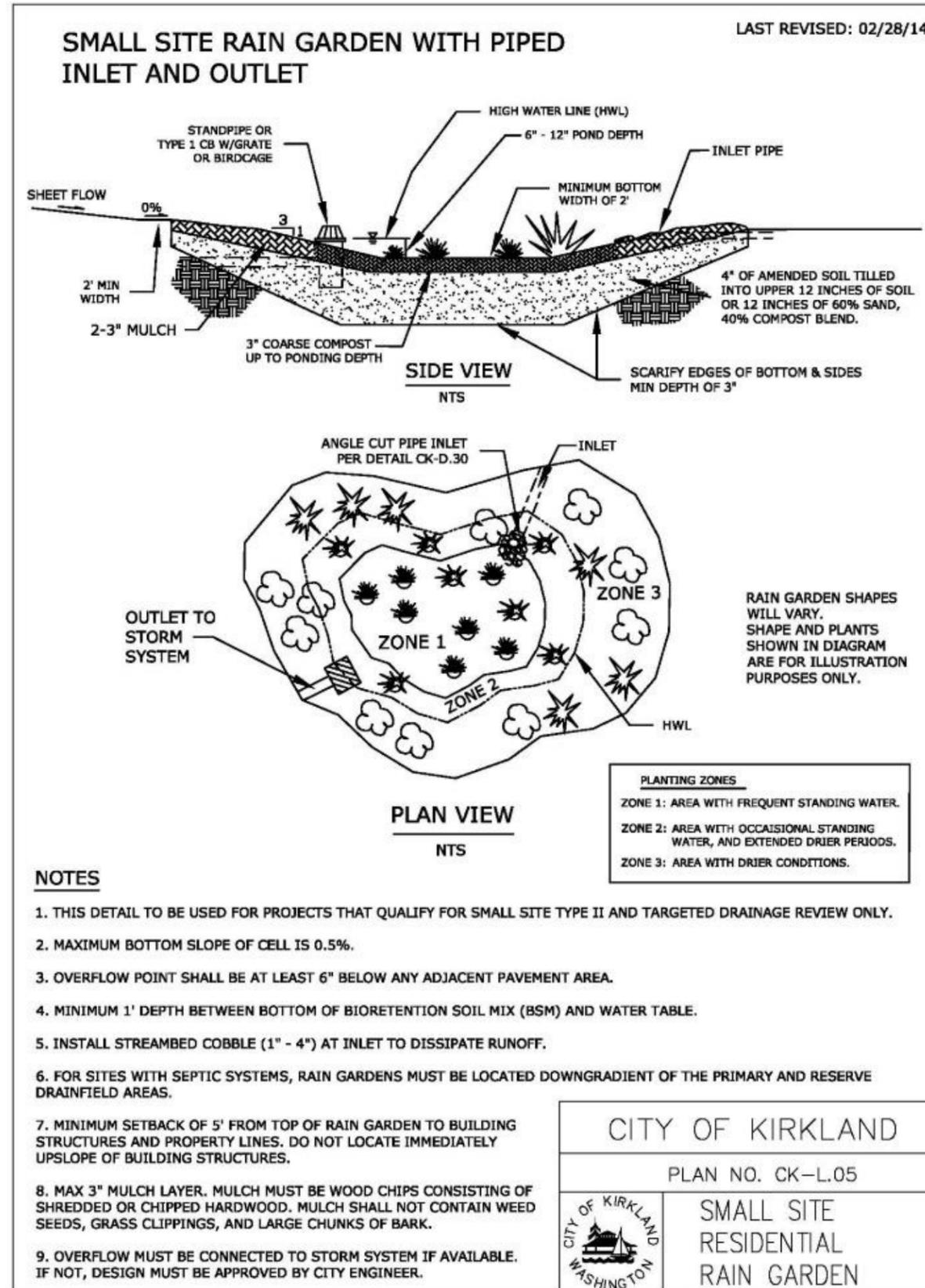
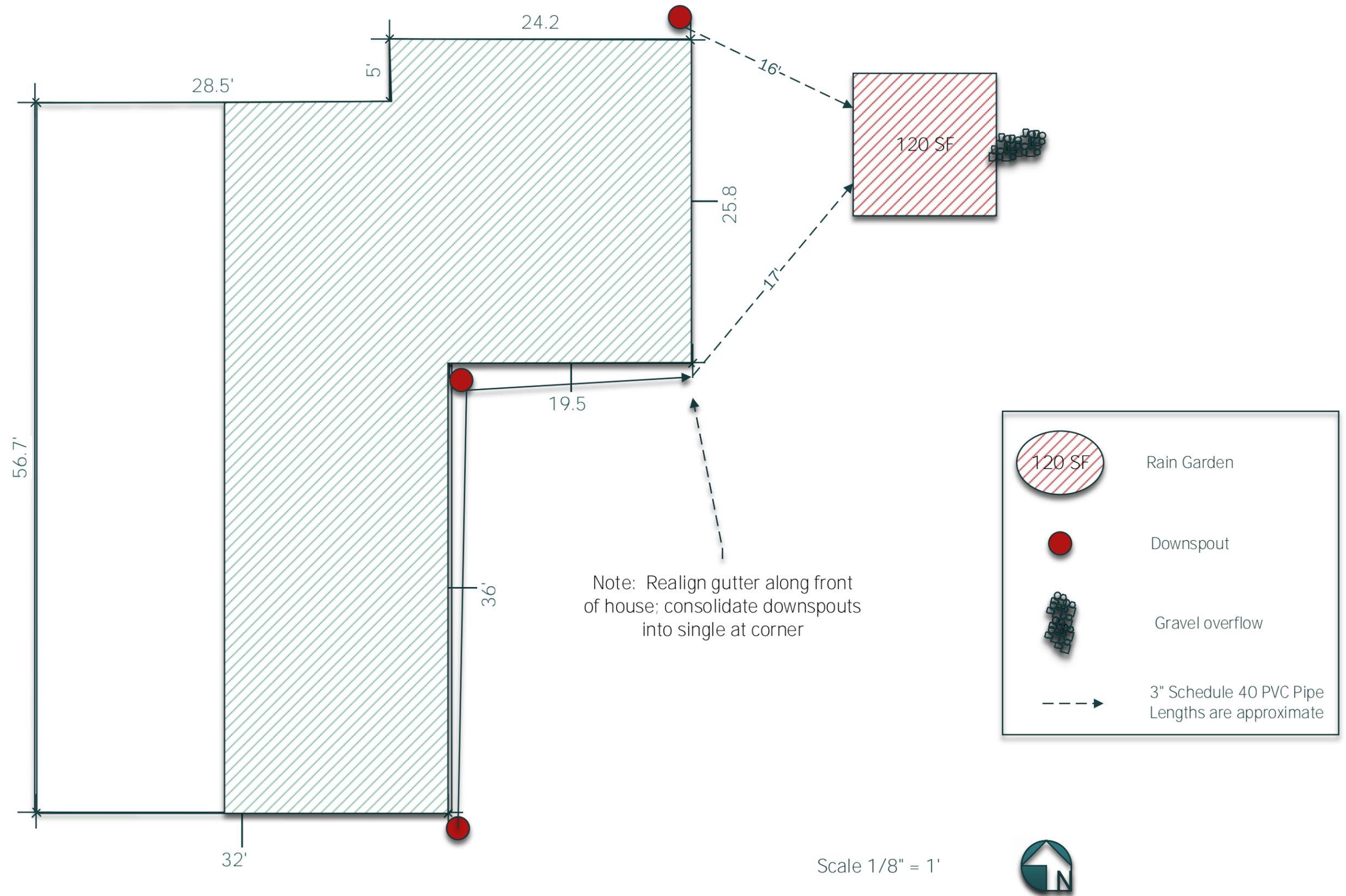


Kirkland 2014 Rain Garden Program 110th Ave NW - Final Report







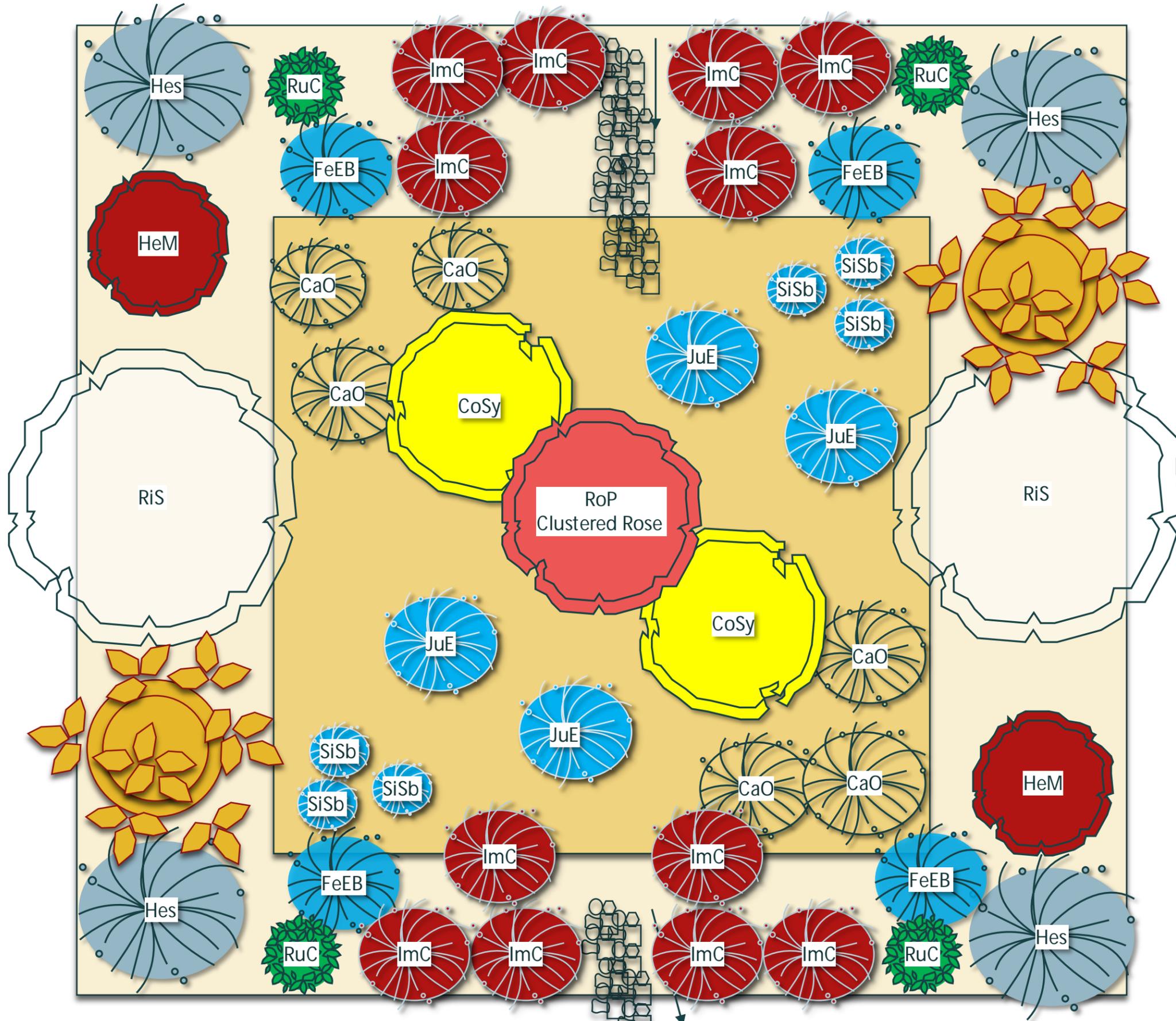




Aerial



Street View



11' x 11'

Plant Key

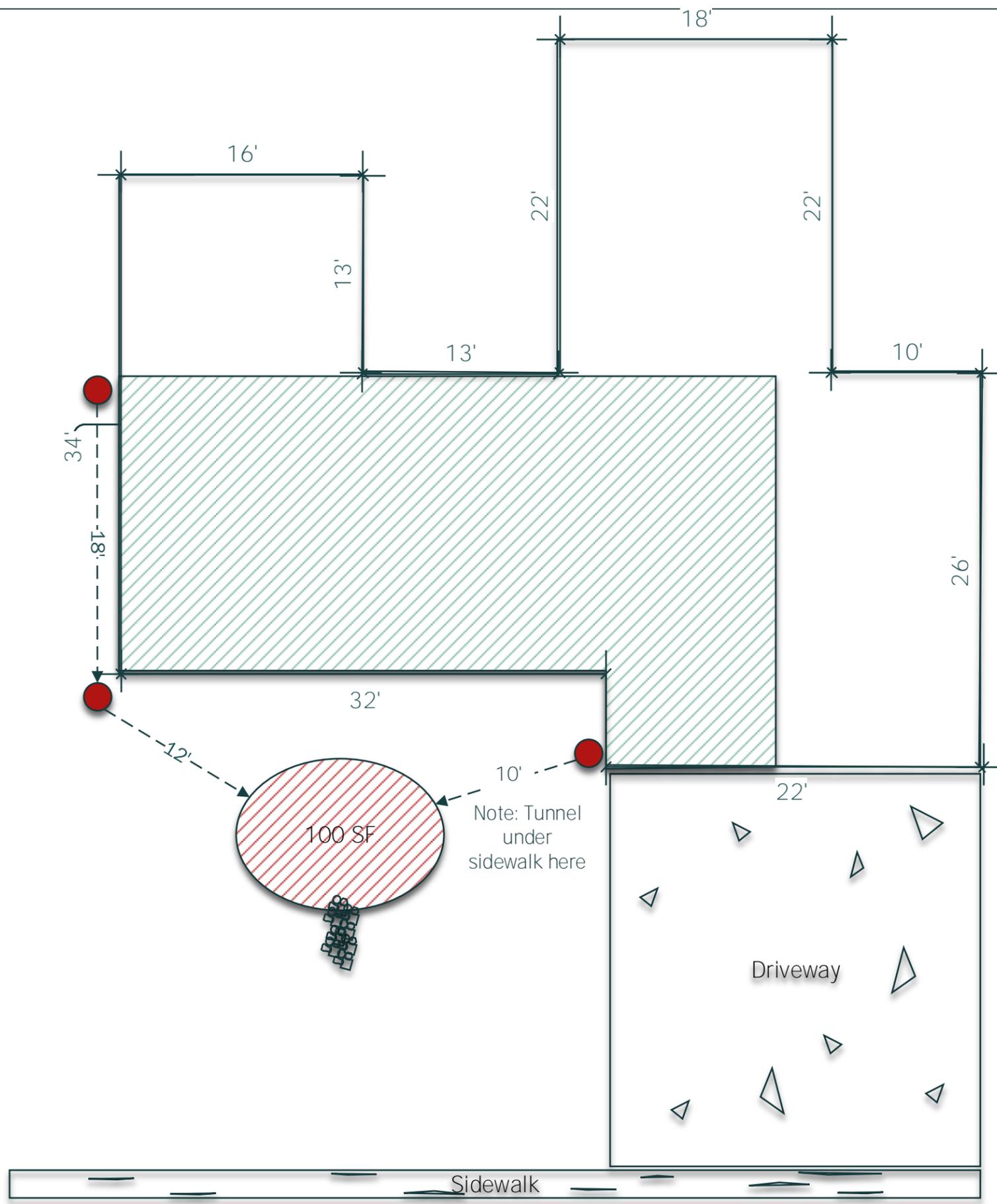
- 1 RoP Clustered Rose
- 4 Hes Blue Oat Grass
- 6 CaO Slough Sedge
- 4 JuE Dagger Leaved Rush
- 2 RiS Red Flowering Currant
- 6 Sis Blue Eyed Grass
- 2 HeM Daylilies
- 2 RuD Black Eyed Susan
- 4 FeEB Blue Fescue
- 2 CoSy Yellow Twig Dogwood.
- 4 RuC Rubus, more as needed





Dimensions and Installation Details

Outside Dimensions	120 SF
Bottom Dimensions	100 SF
Side Slopes	3:1
Downspouts Connected	2
Infiltration Rate	>3" per hour – well draining
Total Roof Area	2240 SF
Roof Area Treated	1485 SF
Excavation Depth	18 inches
Ponding Depth	6 inches
Soil Mix	60 % sand; 40% compost
Mulch Maintenance (4" Depth)	0.5 CY
Comments	Realigned gutters and downspouts to maximize the roof area treated. Native soil replaced with bioretention soil mix.



	100 SF Rain Garden
	Downspout
	Gravel overflow
	3" Schedule 40 PVC Pipe Lengths are approximate



Scale 1/8" = 1'

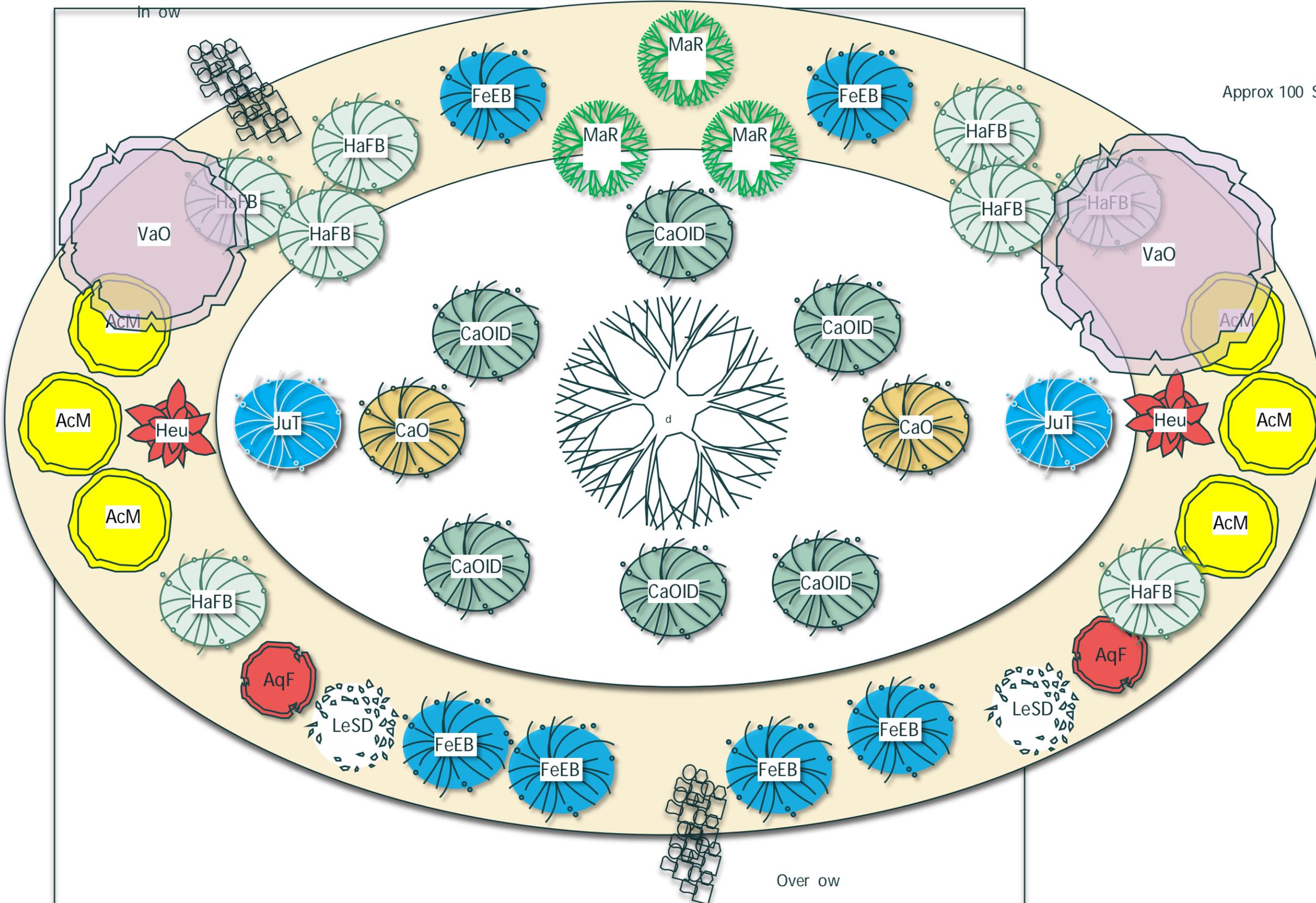
Street View



Aerial

House

Approx 100 SF, 5' out from the front of the house



Plant Key

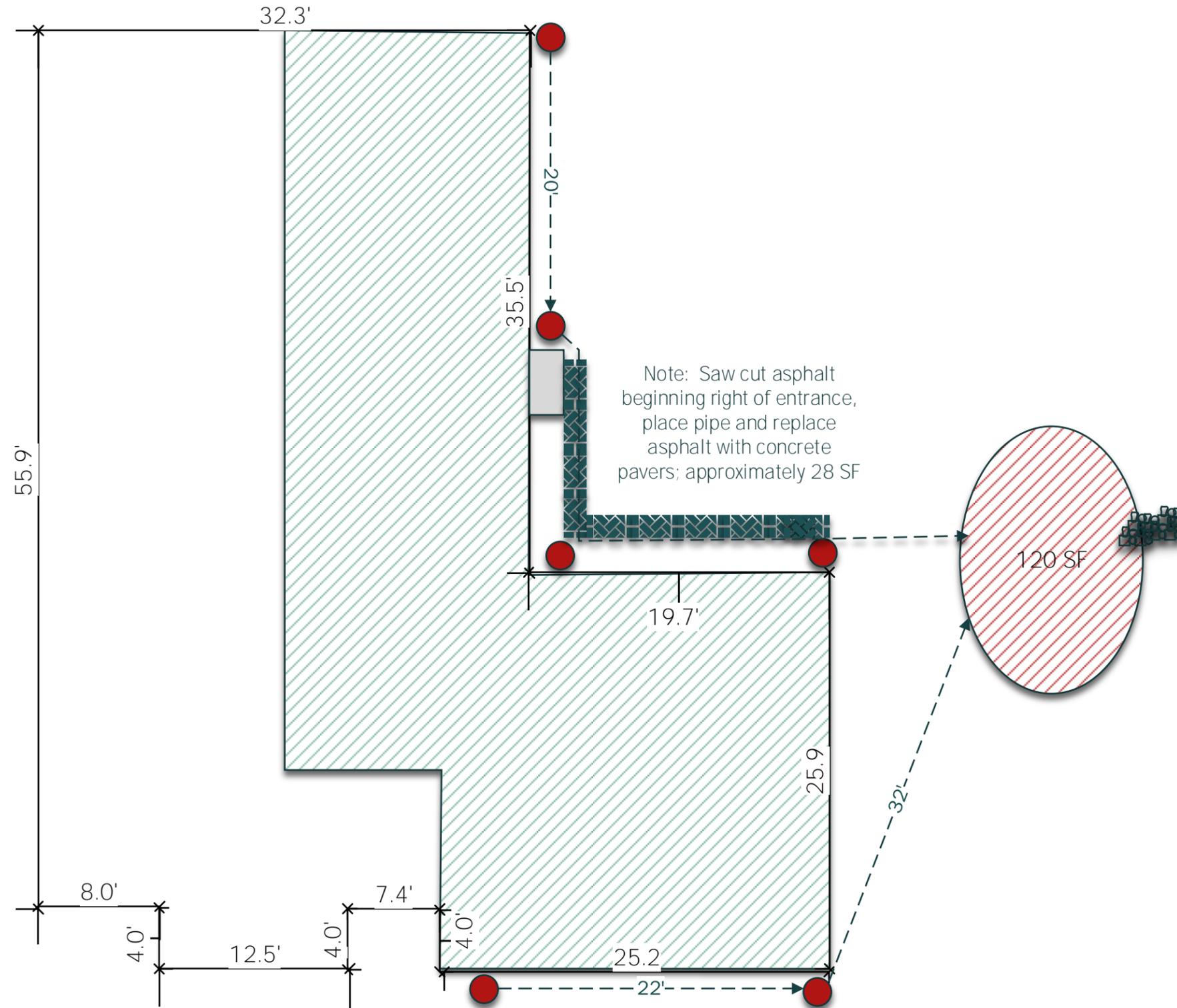
- 6 AcM Yarrow
- 1 PhN Ninebark Diabalo
- 8 FrCLD Strawberry(not shown)
- 6 FeEB Blue Fescue
- Dogwood Keleysi
- 2AqF Columbine
- 2 CaO Slough Sedge
- 6 CaOID Ice Dance Sedge
- 2 VaO Evergreen
- Huckleberry
- 2 HeU Coralbells
- 2 LeSd Dwarf Shasta
- Daisies
- 8 HaFB Forrest Grass
- 2 JuT Corkscrew Rush





Dimensions and Installation Details

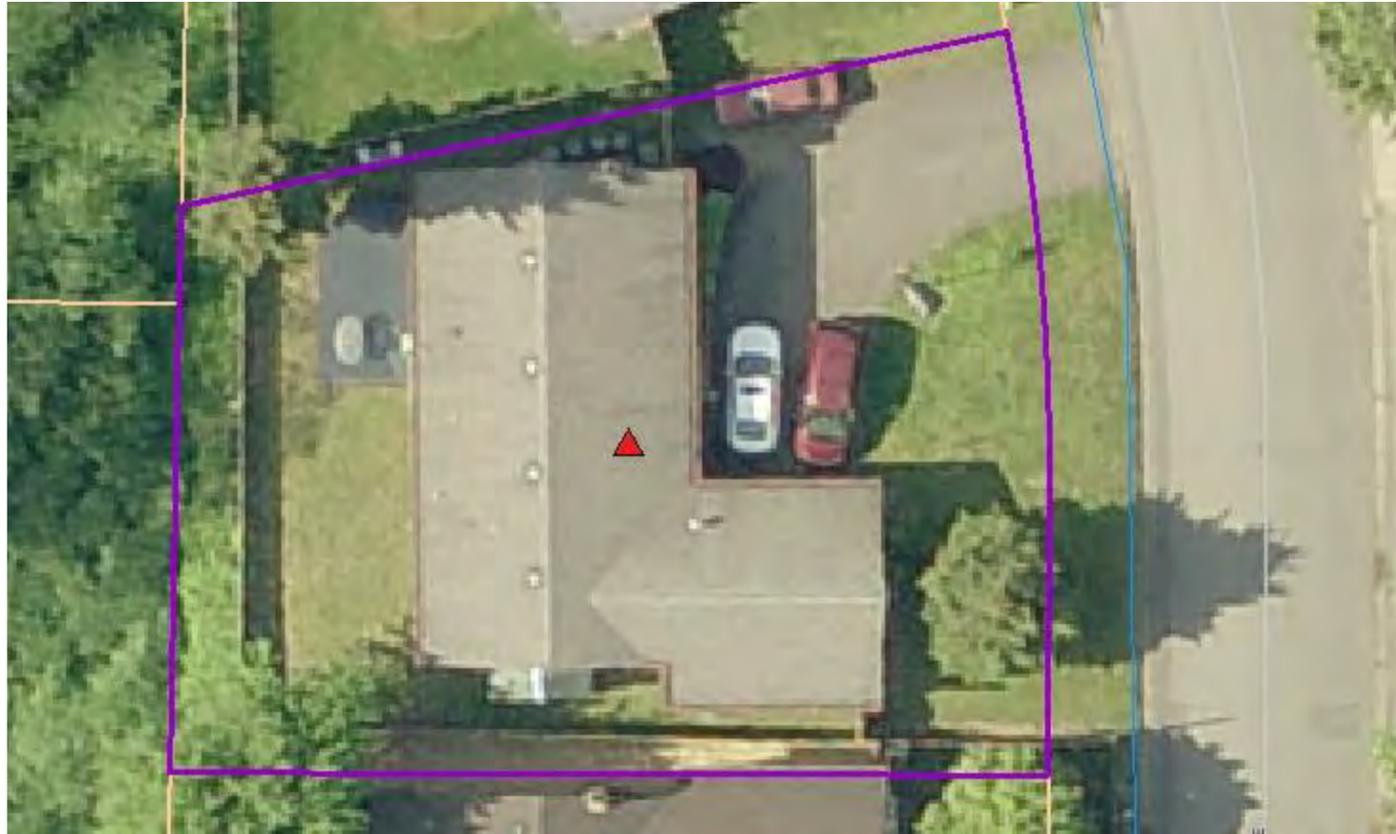
Outside Dimensions	100 SF
Bottom Dimensions	80 SF
Side Slopes	2.5:1
Downspouts Connected	2
Infiltration Rate	>3" per hour – well draining
Total Roof Area	2056 SF
Roof Area Treated	810 SF
Excavation Depth	18 inches
Ponding Depth	6 inches
Soil Mix	60 % sand; 40% compost
Mulch Maintenance (4" Depth)	0.5 CY
Comments	Realigned gutters and downspouts to maximize the roof area treated. One pipe under sidewalk. Native soil replaced with bioretention soil mix.



	120 SF Rain Garden
	Downspout
	Gravel overflow
	3" Schedule 40 PVC Pipe Lengths are approximate
	Concrete pavers

Scale 1/8" = 1'

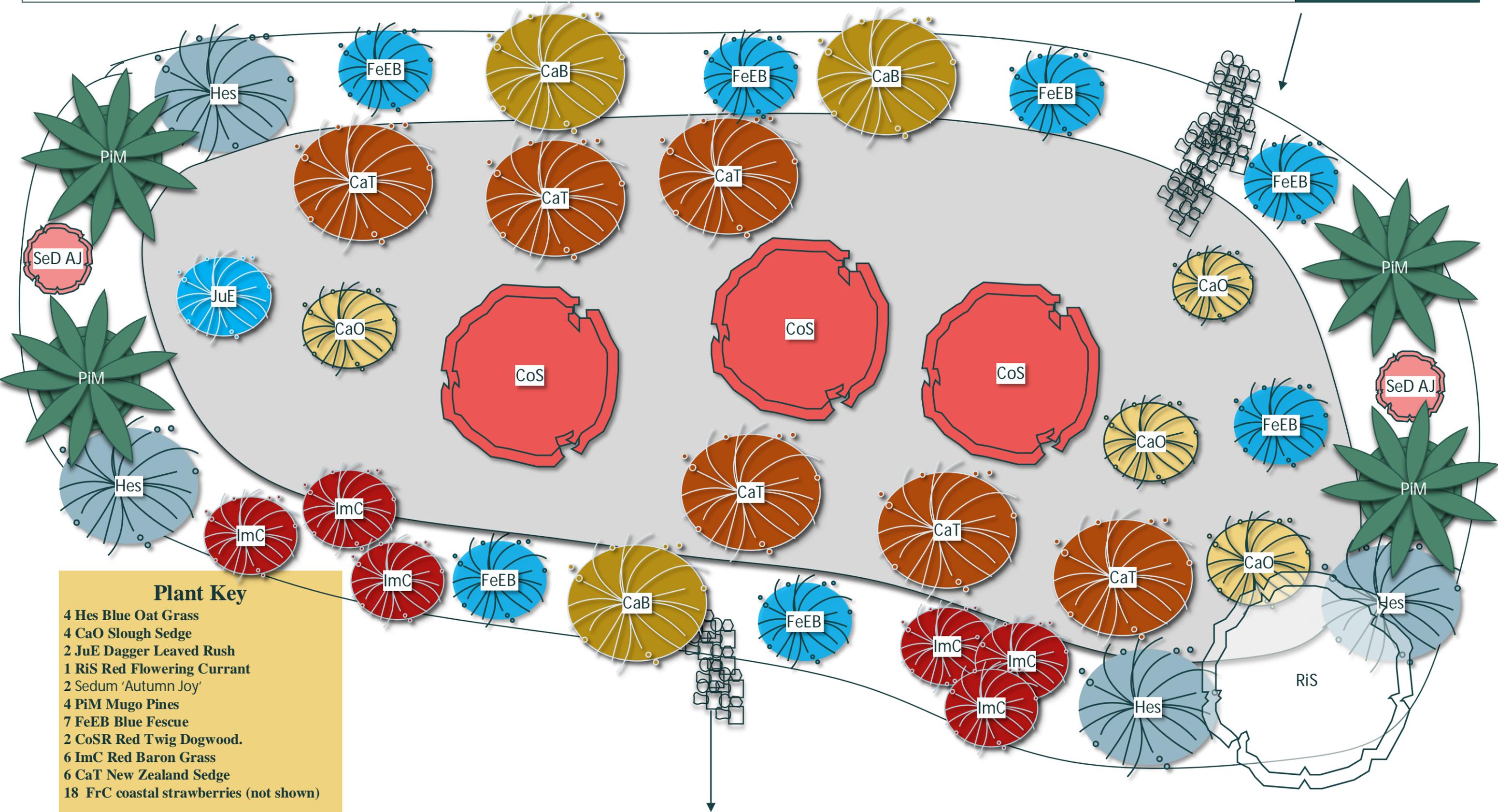




Aerial



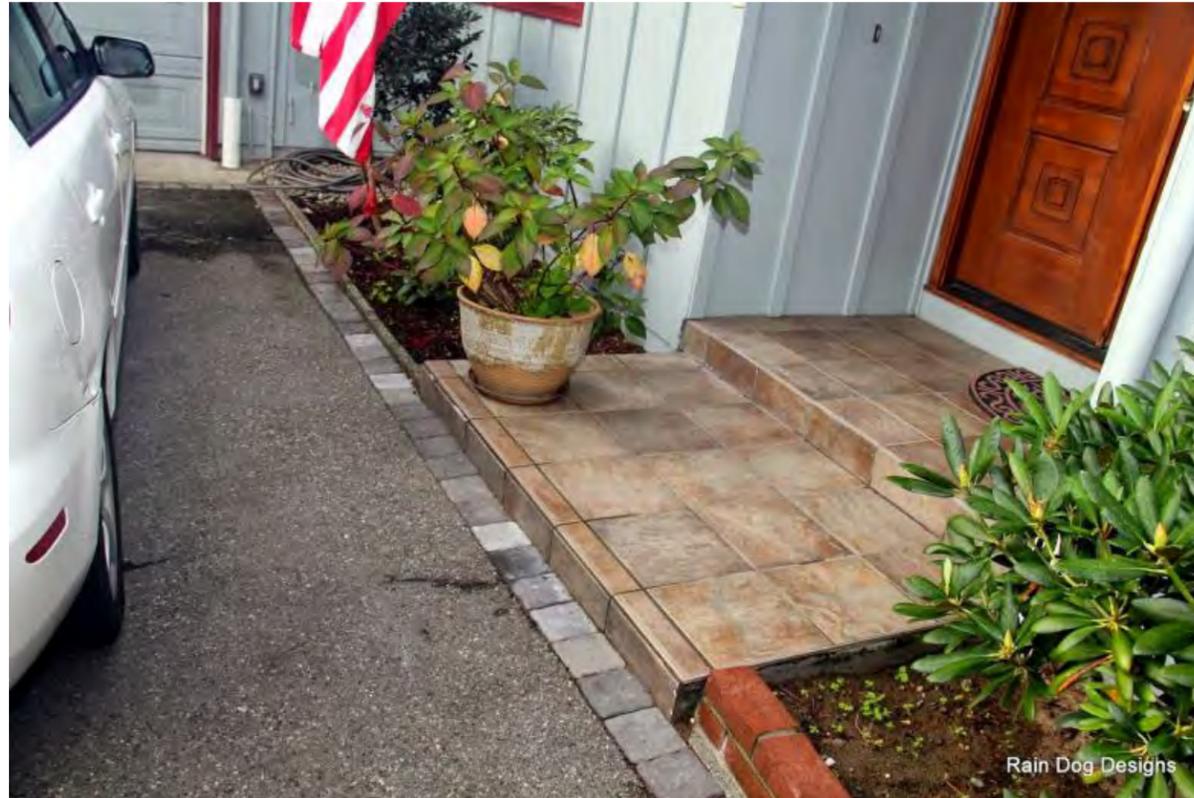
Street View



Plant Key

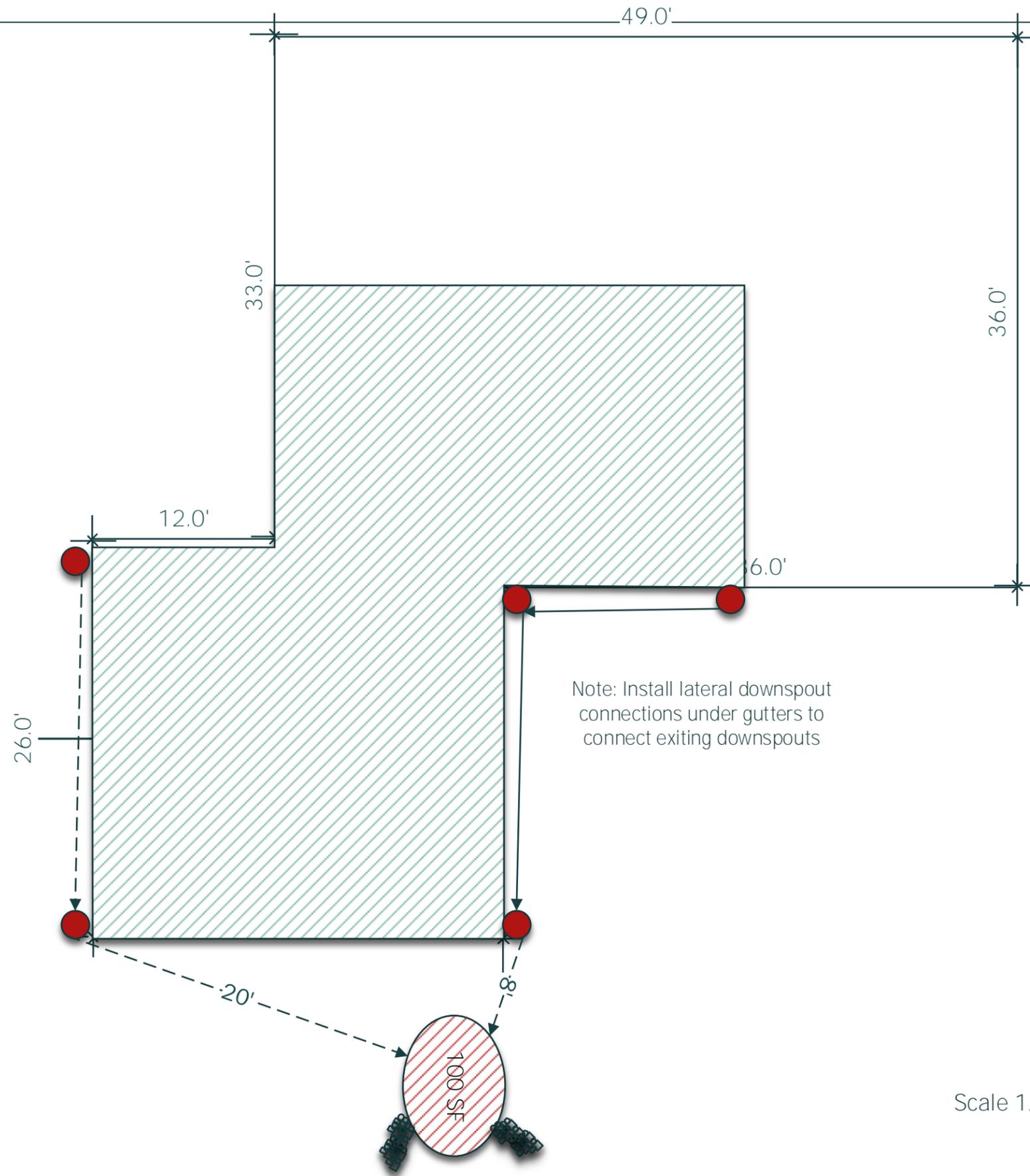
- 4 Hes Blue Oat Grass
- 4 CaO Slough Sedge
- 2 JuE Dagger Leaved Rush
- 1 RiS Red Flowering Currant
- 2 Sedum 'Autumn Joy'
- 4 PiM Mugo Pines
- 7 FeEB Blue Fescue
- 2 CoSR Red Twig Dogwood.
- 6 ImC Red Baron Grass
- 6 CaT New Zealand Sedge
- 18 FrC coastal strawberries (not shown)





Dimensions and Installation Details

Outside Dimensions	120 SF
Bottom Dimensions	100 SF
Side Slopes	3:1
Downspouts Connected	3
Infiltration Rate	>3" per hour – well draining
Total Roof Area	2315 SF
Roof Area Treated	1278 SF
Excavation Depth	18 inches
Ponding Depth	6 inches
Soil Mix	60 % sand; 40% compost
Mulch Maintenance (4" Depth)	0.5 CY
Comments	Realigned gutters and downspouts to maximize the roof area treated. Native soil replaced with bioretention soil mix. Installed pervious pavers at driveway to convey water from front of house into rain garden.



	100 SF	Rain Garden
		Downspout
		Gravel overflow
		3" Schedule 40 PVC Pipe Lengths are approximate

Note: Install lateral downspout connections under gutters to connect exiting downspouts

Scale 1/8" = 1'

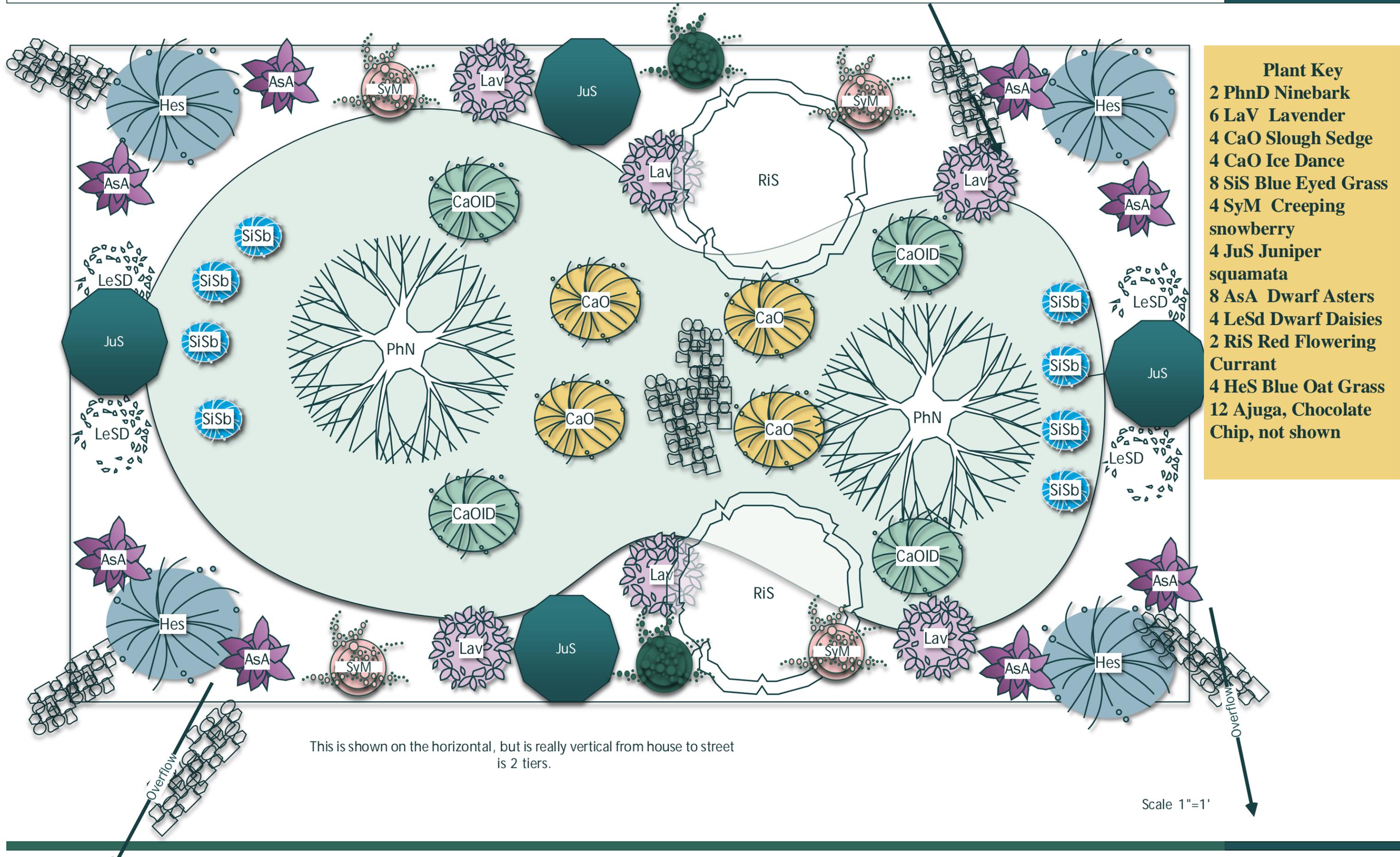




Aerial



Street View



- Plant Key**
- 2 PhnD Ninebark
 - 6 LaV Lavender
 - 4 CaO Slough Sedge
 - 4 CaO Ice Dance
 - 8 SiS Blue Eyed Grass
 - 4 SyM Creeping snowberry
 - 4 JuS Juniper squamata
 - 8 AsA Dwarf Asters
 - 4 LeSD Dwarf Daisies
 - 2 RiS Red Flowering Currant
 - 4 HeS Blue Oat Grass
 - 12 Ajuga, Chocolate Chip, not shown

This is shown on the horizontal, but is really vertical from house to street is 2 tiers.

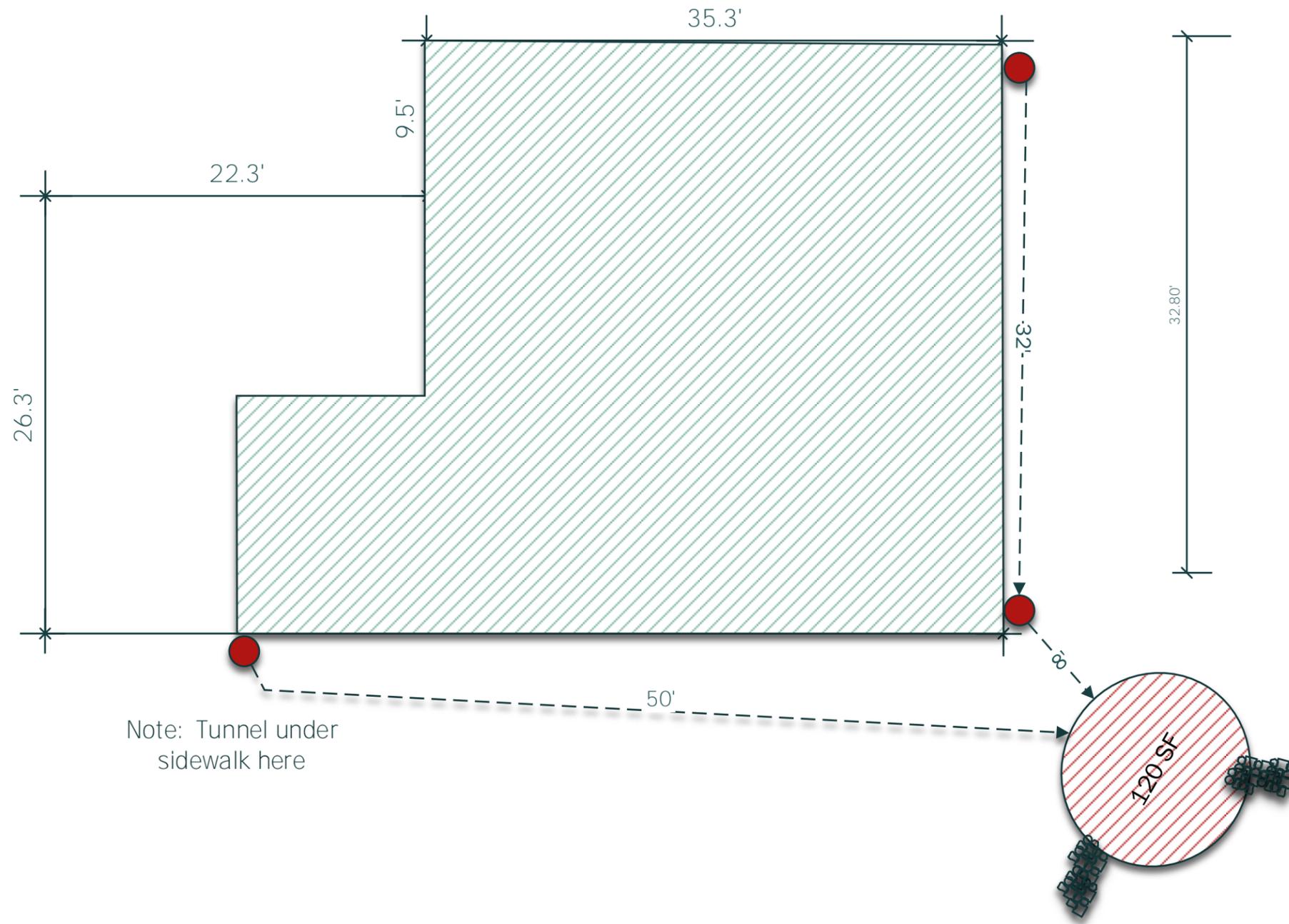
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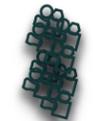




Dimensions and Installation Details

Outside Dimensions	100 SF
Bottom Dimensions	80 SF
Side Slopes	2.5:1
Downspouts Connected	2
Infiltration Rate	>3" per hour – well draining
Total Roof Area	2338 SF
Roof Area Treated	1330 SF
Excavation Depth	18 inches
Ponding Depth	6 inches
Soil Mix	60 % sand; 40% compost
Mulch Maintenance (4" Depth)	0.5 CY
Comments	Realigned gutters and downspouts to maximize the roof area treated. Unique terraced rain garden design – upper cell flows into lower cell. Native soil replaced with bioretention soil mix.



	120 SF Rain Garden
	Downspout
	Gravel overflow
	3" Schedule 40 PVC Pipe Lengths are approximate



Scale 1/8" = 1'

Street View

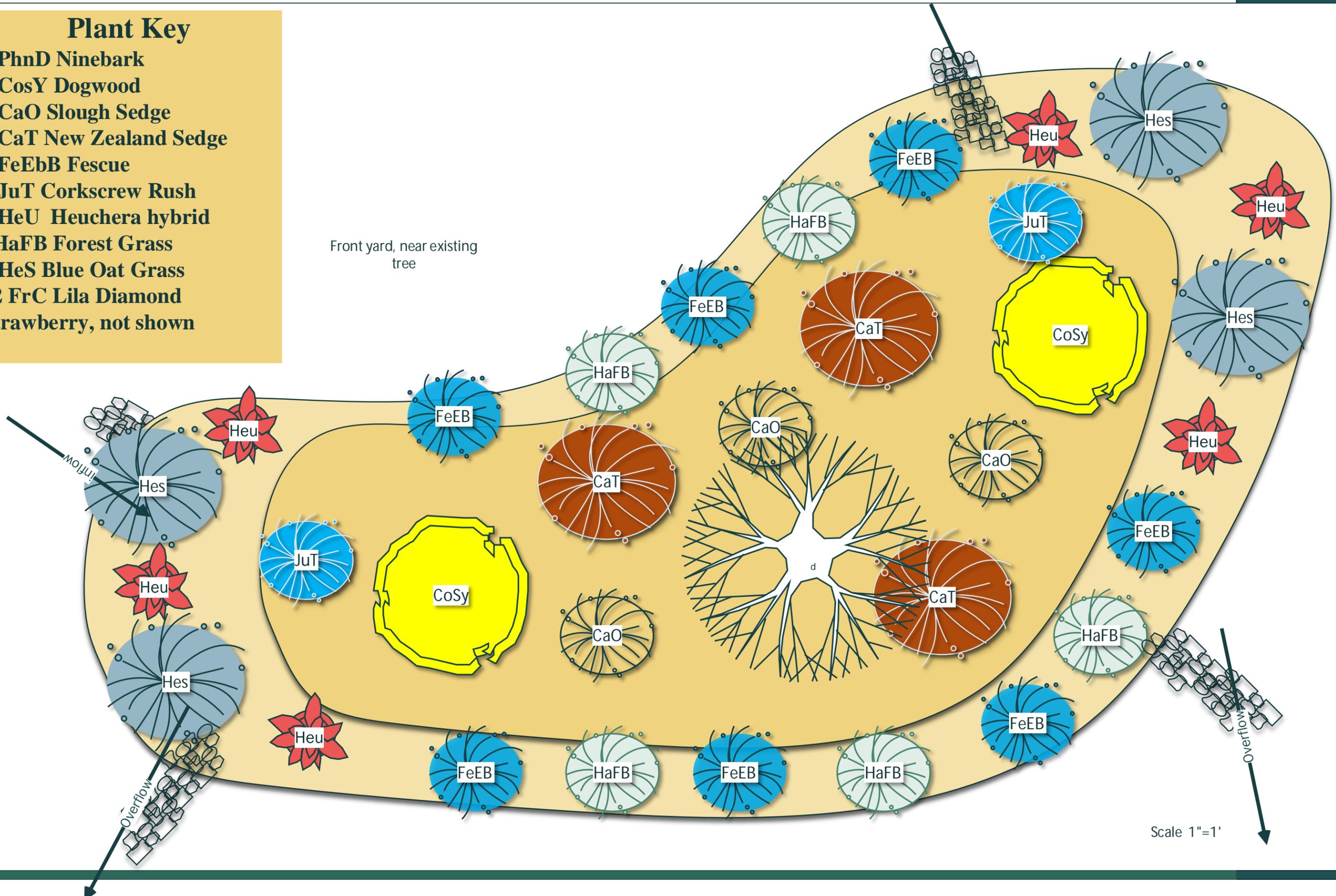


Aerial

Plant Key

- 1 PhnD Ninebark
- 2 CosY Dogwood
- 3 CaO Slough Sedge
- 3CaT New Zealand Sedge
- 7 FeEbB Fescue
- 2 JuT Corkscrew Rush
- 6 HeU Heuchera hybrid
- 5HaFB Forest Grass
- 4 HeS Blue Oat Grass
- 12 FrC Lila Diamond
- Strawberry, not shown

Front yard, near existing tree



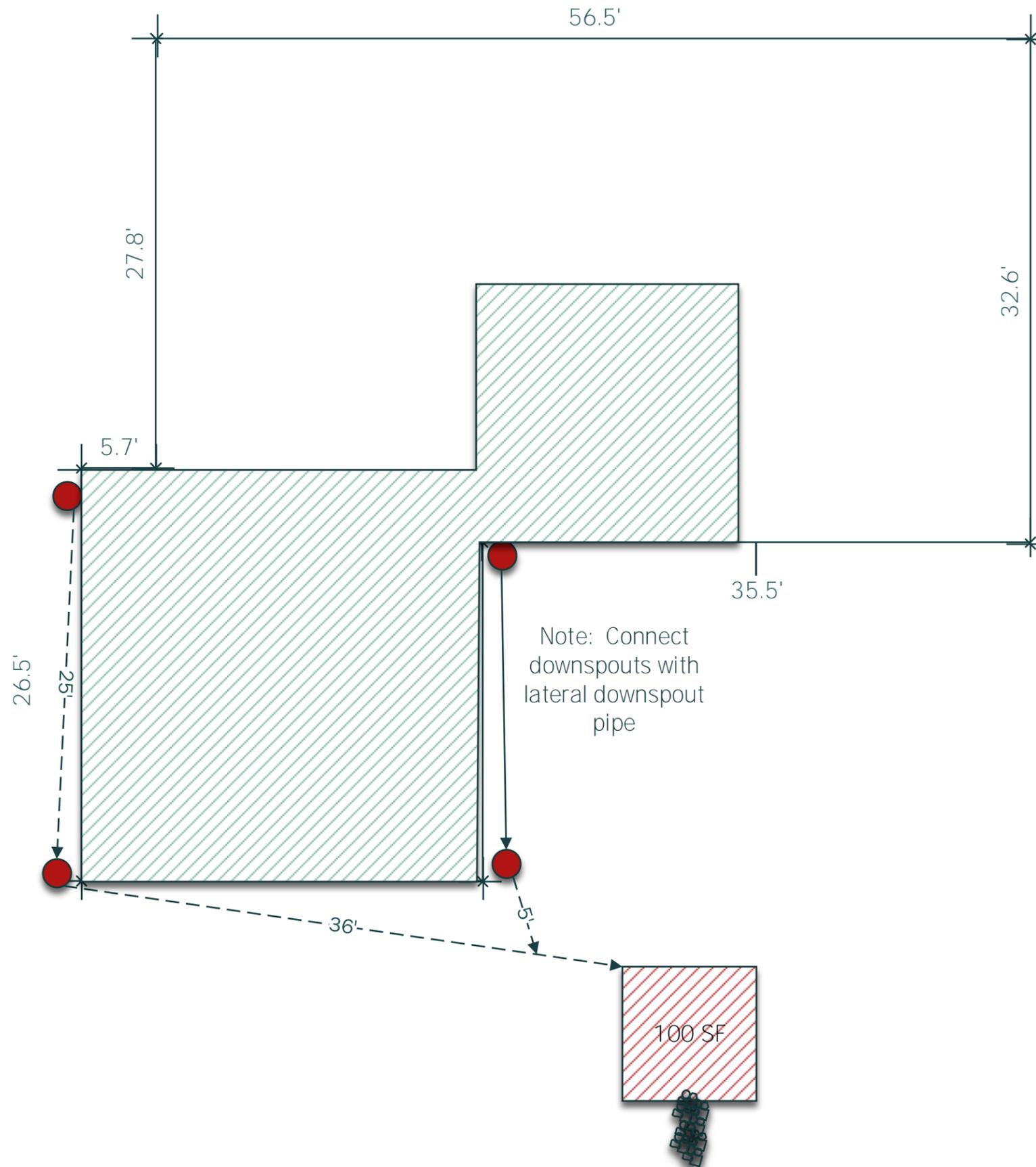
Scale 1"=1'





Dimensions and Installation Details

Outside Dimensions	120 SF
Bottom Dimensions	100 SF
Side Slopes	2.5:1
Downspouts Connected	3
Infiltration Rate	>3" per hour – well draining
Total Roof Area	1716 SF
Roof Area Treated	1310 SF
Excavation Depth	18 inches
Ponding Depth	6 inches
Soil Mix	60 % sand; 40% compost
Mulch Maintenance (4" Depth)	0.5 CY
Comments	Realigned gutters and downspouts to maximize the roof area treated. Native soil replaced with bioretention soil mix. Installed pipe under sidewalk and into rain garden.



	Rain Garden
	Downspout
	Gravel overflow
	3" Schedule 40 PVC Pipe Lengths are approximate





Aerial

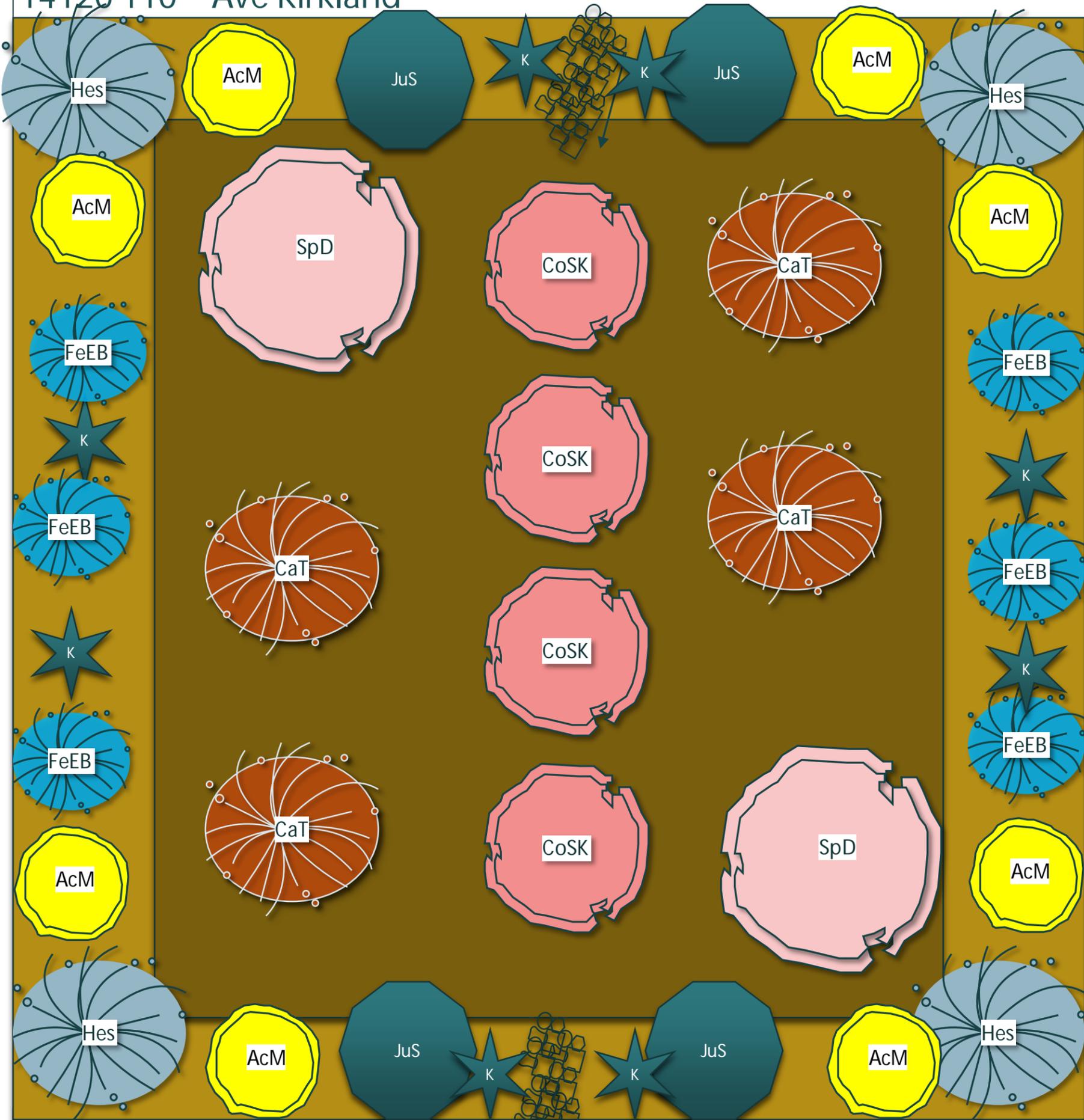


Street View



Rain Dog Designs

Rain Dog Designs



Plant Key

- 4 Hes Blue Oat Grass
- 8 AcM Yarrow
- 4 JuS Juniper Squamata
- 8 K Kininkinnick
- 6 FeEB Blue Fescue
- 4 CoSK Red Twig Dogwood Keleysi
- 2 SpD Alpine Spirea
- 4 CaT New Zealand Sedge





Dimensions and Installation Details

Outside Dimensions	100 SF
Bottom Dimensions	80 SF
Side Slopes	3:1
Downspouts Connected	3
Infiltration Rate	>3" per hour – well draining
Total Roof Area	2387 SF
Roof Area Treated	845 SF
Excavation Depth	18 inches
Ponding Depth	6 inches
Soil Mix	60 % sand; 40% compost
Mulch Maintenance (4" Depth)	0.5 CY
Comments	Realigned gutters and downspouts to maximize the roof area treated. Connected horizontal pipe across top of garage door to connect to rain garden. Native soil replaced with bioretention soil mix.

110th Avenue NE Rain Gardens

What is a Rain Garden?

Rain gardens function like native forests to help slow down, soak up and filter polluted runoff from downspouts, driveways and other hard surfaces. A rain garden is a shallow depression planted with a variety of flowers, shrubs, and grasses that tolerate wet winters and dry summers. When planted with the right types of plants, rain gardens also attract birds and butterflies.

These rain gardens were built through a partnership between participating homeowners on 110th Ave NE, the City of Kirkland, Rain Dog Designs, Landmark Landscape Services and the 12,000 Rain Gardens Campaign.

Benefits

- Absorb rainwater runoff
- Filter oil, grease and toxic materials
- Replenish groundwater
- Provide wildlife habitat

