

Phase I - Conservation Landscaping Project at the Vienna, Virginia Community Center
For VCAP Form 2
February 1, 2018

The Morton and Spapperi Family Foundation (Restore Nature) has prepared the enclosed information as a follow up from our meeting with Ms. Kristina Clarin of the Fairfax County Soil Water Conservation District (SWCD) on October 2, 2017 regarding the Phase I Conservation Landscaping Project at the Vienna, Virginia Community Center (Project). This document includes information requested as a part of the Virginia Conservation Assistance Program (VCAP). The format of the information provided in this document follows VCAP – Form 2 “Job Sheet.”

The purpose of the Project is to create a native plant buffer on each side of this Piney Branch Tributary in order to 1) reduce rainwater runoff velocity to the tributary and 2) improve overall downstream water quality. Additionally, native plants selected for the Project will provide habitat for small mammals and pollinator species. The project is located at 120 Cherry St SE, Vienna, VA 22180. The length of the Project is approximately 130 feet. The native plant habitat buffer would extend about 10 feet on each side of the Piney Branch Tributary; making the total Project area of approximately 2,600 square feet.

The Piney Branch Tributary leads into Difficult Run that is a tributary to the Potomac River and ultimately the Chesapeake Bay. Several ‘fingers’ of the Piney Branch Tributary are located in the same mapping area. Similar future projects could be completed in a “phased” approach.

Figure 1 below shows an aerial photograph of the site.

Sketch Layout: Attach aerial photo and practice layout



Figure 1 Site Aerial

Design Details: Dimensions, Sizing, Planting Plan

The Project can be divided into two distinct areas: 1) a depressed area adjacent to the Community Center gymnasium and football equipment annex building and 2) riparian corridor adjacent to a headwater of the Piney Branch tributary.

The depressed area adjacent to the Community Center gymnasium and football equipment annex building is approximately 5 feet wide by 60 feet long (*total 300 square feet*). This depressed area receives stormwater drainage via a gutter from the Community Center that eventually flows into the Piney Branch tributary. The proposed plan for this area includes planting 25 Dwarf Red switchgrass in the depression at a distance of approximately three (3) feet off the annex building wall so as to maintain a small maintenance path should workers be required to access the building wall. Figure 3 shows the layout of switchgrass adjacent to the building. Figure 5 shows a computer rendering of the area, including the location of the Dwarf Red Switchgrass.

The second Project area is directly adjacent to the Piney Branch tributary. This area extends about 115 linear feet from the triple pipe drainage to the steel bridge connecting Locust St. and the WO&D bike path. For purposes of our Project plan, we have divided the 115-foot area into two sections: pre-riprap and post-riprap. Figure 4 shows the Piney Branch Tributary Project design.

The pre-riprap section is about 50 feet in length with a moderate grass slope. Here we propose Soft Rush and Tufted Hair Grass within a 6-foot buffer from high water mark on each side of the Tributary (*total area 600 square feet*).

The post-riprap section is about 65 feet in length with a varying slope –initially steeper to a lip at the water's edge. Slopes lessen toward the steel bridge. The planting buffer in the post-riprap section will extend between 6 to 10 feet on either side of the high-water mark. Vegetation will include a variety of grasses, ferns and wildflowers that will provide visual and wildlife interest year-round. This post-riprap section is about *1940 square feet*.

Figures 6 thru 12 show computer renderings of the native plants adjacent to the Piney Branch Tributary. Table 1 provides a list of native plants that will be incorporated into the Project.

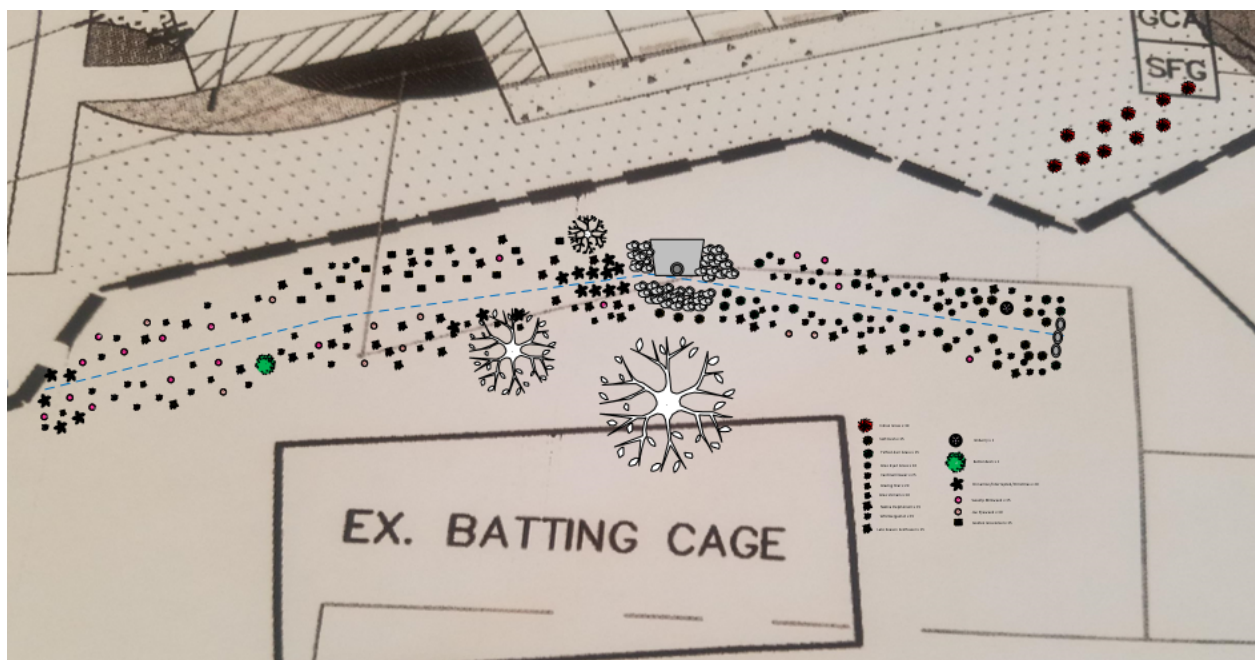


Figure 2 Preliminary Design

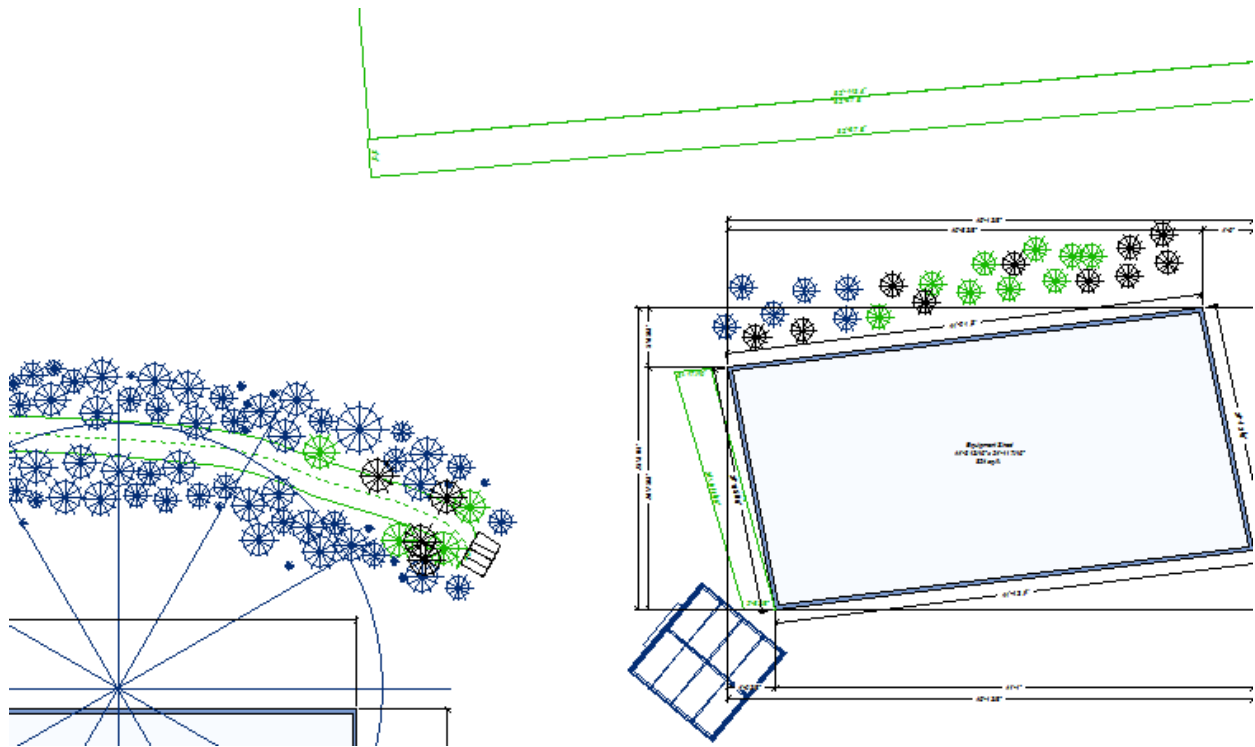


Figure 3 2D Grasses alongside annex

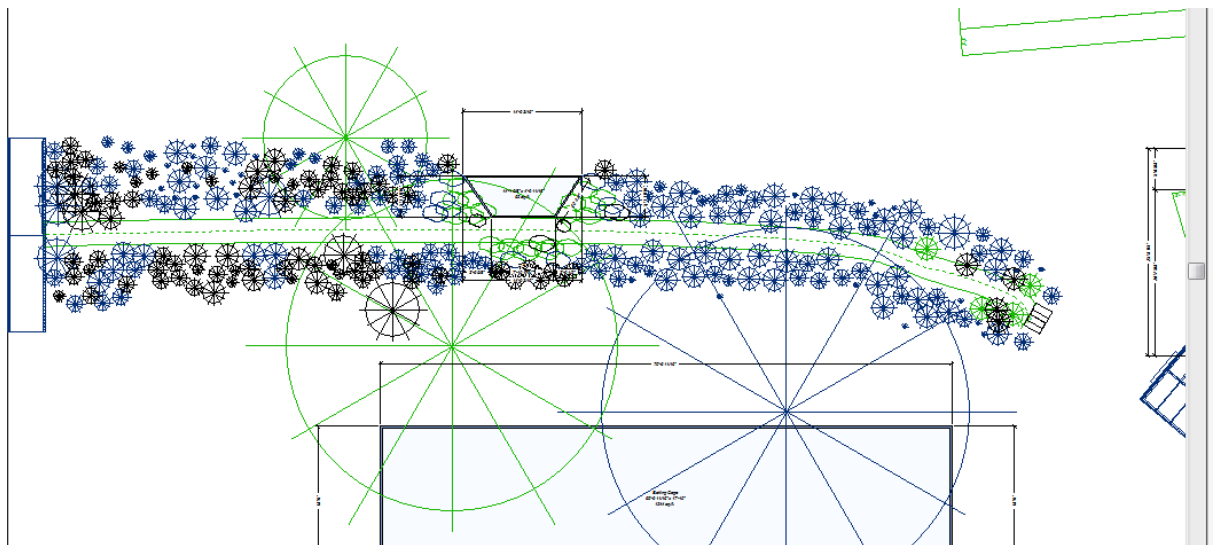


Figure 4 2D Stream Design



Figure 5 3D Dwarf Red Switch grass along equipment annex



Figure 6 Corner of annex looking towards shed and batting cage



Figure 7 Max growth Pre-riprap aerial



Figure 8 Post-riprap Christmas fern and Gayfeather on steep slopes

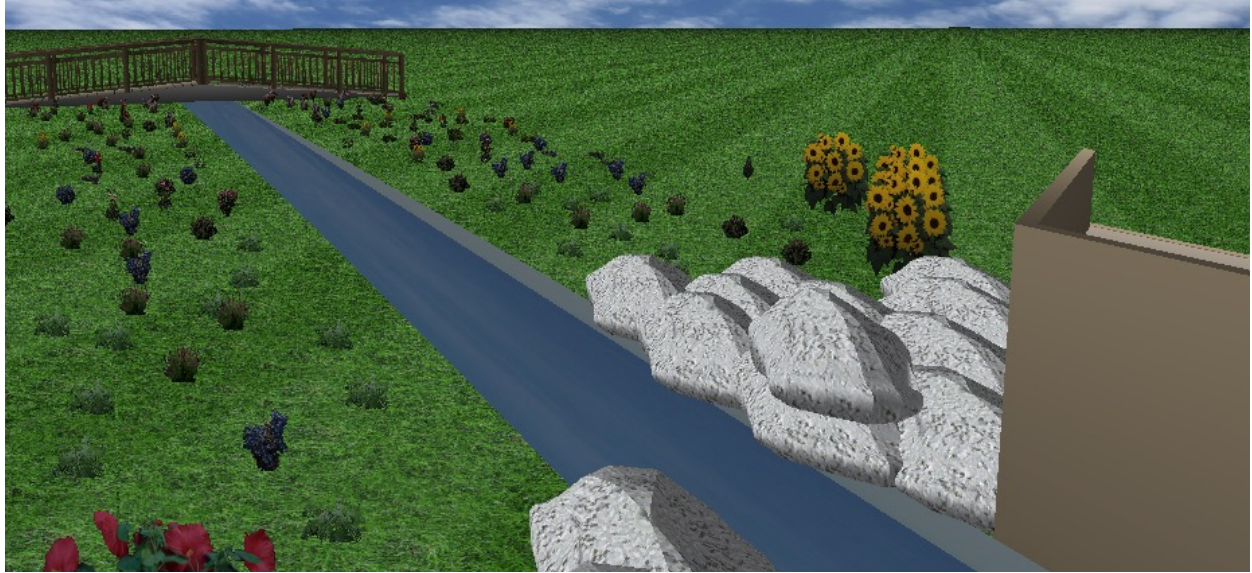


Figure 9 Post-riprap right after successful planting



Figure 10 Looking back towards riprap from bridge

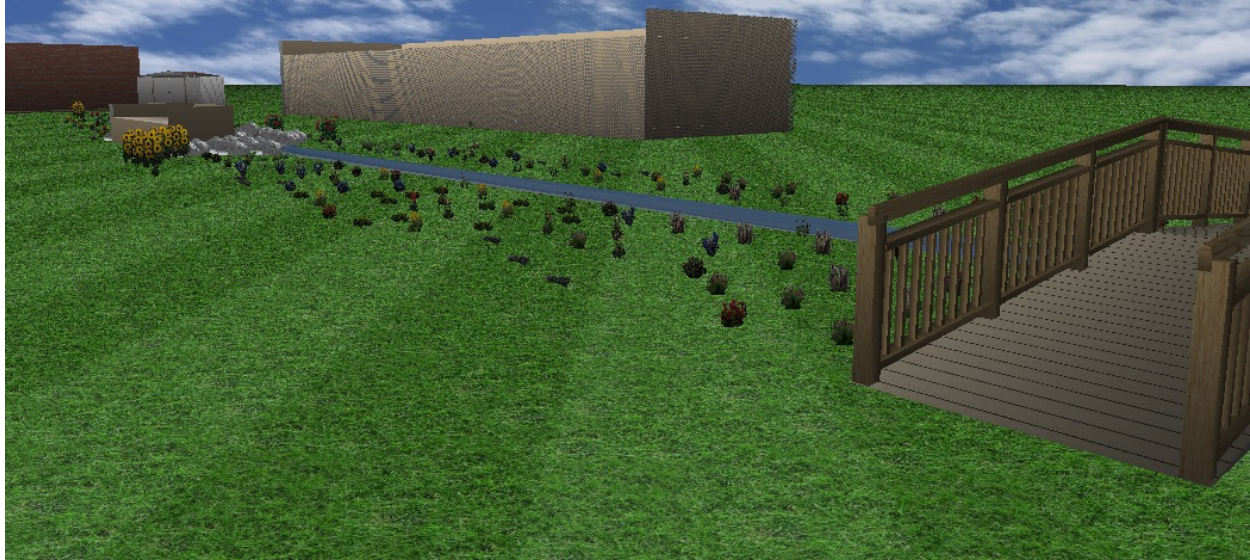


Figure 11 Right after succesful planting

Table 1 – Plant Species Selected for the Project

Plant Species	Quantity	Price in \$	Total Price in \$
Blazing Star (<i>Liatris aspera</i>)	25	3.75	93.75
Wild Bergamot (<i>Monarda fistulosa</i>)	15	5	75
Native Delphinium (<i>Delphinium exaltatum</i>)	20	5	100
Blue Wood Sedge (<i>Carex flaccosperma</i>)	30	5	150
Culver's Root (<i>Veronicastrum virginicum</i>)	8	6.75	54
Dwarf Red Switchgrass (<i>Panicum virgatum</i>)	25	7.75	193.75
Tufted Hair Grass (<i>Deschampsia cespitosa</i>)	20	7.75	155
Blue- Eyed Grass (<i>Sisyrinchium angustifolium</i>)	20	7.75	155
Soft Rush (<i>Juncus effusus</i>)	25	7.75	193.75
Cardinal Flower (<i>Lobelia cardinalis</i>)	20	7.75	155
Great Blue Lobelia (<i>Lobelia siphilitica</i>)	8	7.75	62
New England Aster (<i>Aster novae angliae</i>)	10	7.75	77.50
Joe Pyeweed (<i>Eupatorium purpureum</i>)	6	7.75	46.5
Purple Coneflower (<i>Echinacea purpurea</i>)	20	7.75	155
Christmas Fern (<i>Polystichum acrostichoides</i>)	20	10	200
Blue Vervain (<i>Vervena hastata</i>)	17	10	170
Golden Groundsel (<i>Packera aureus</i>)	12	10	120
Swamp Milkweed (<i>Asclepias incarnata</i>)	12	13	156
Swamp Mallow Hibiscus (<i>Hibiscus moschuetos</i>)	2	13	26
Perennial Sunflower (<i>Helipsis helianthoides</i>)	25	7.75	193.75
Inkberry (<i>Ilex glabra</i>)	2	40	80
Buttonbush (<i>Cephalanthus occidentalis</i>)	2	40	80
Total Plantings/Cost	344		\$2,692

Construction and Installation Details: Materials and Specifications

As a part of the recently completed Vienna Community Center Restoration Project, the Project area (including the Piney Branch Tributary and surrounding riparian corridor) was re-engineered and designed. As such, the construction and installation of this Project will focus on removing unwanted vegetation (primarily grass) and preparing the planting beds. The removal of unwanted vegetation will be done using one or more of the following techniques and will be done by a licensed landscape company:

- Organic herbicide application
- Smothering
- Tilling

Once this step is completed, the soil will be amended with compost and sand as necessary.

Live plants will be used for the Project (no seeds will be used). Plants may include: plugs, container stock and bareroot herbaceous plants. Mulch will be applied after planting and plants watered as necessary to support successful growth.

We anticipate this work to be conducted in late spring 2018.

Signage Requirement: (NO MOW/ WILDLIFE/ EDUCATIONAL)

Snow fencing will be installed after planting through Fall 2018 so as to keep people from traversing the Project area.

Signs will be installed indicating that the area is a native garden.

Permits: Confirm local policies, such as Land Disturbance, grass heights, etc.

The Project will be conducted entirely on Town of Vienna property. Adjacent land is owned by Fairfax County and will not be a part of this Project. Figure 13 below shows the location of the property from the County Tax map.

Permits are not required for this Project.

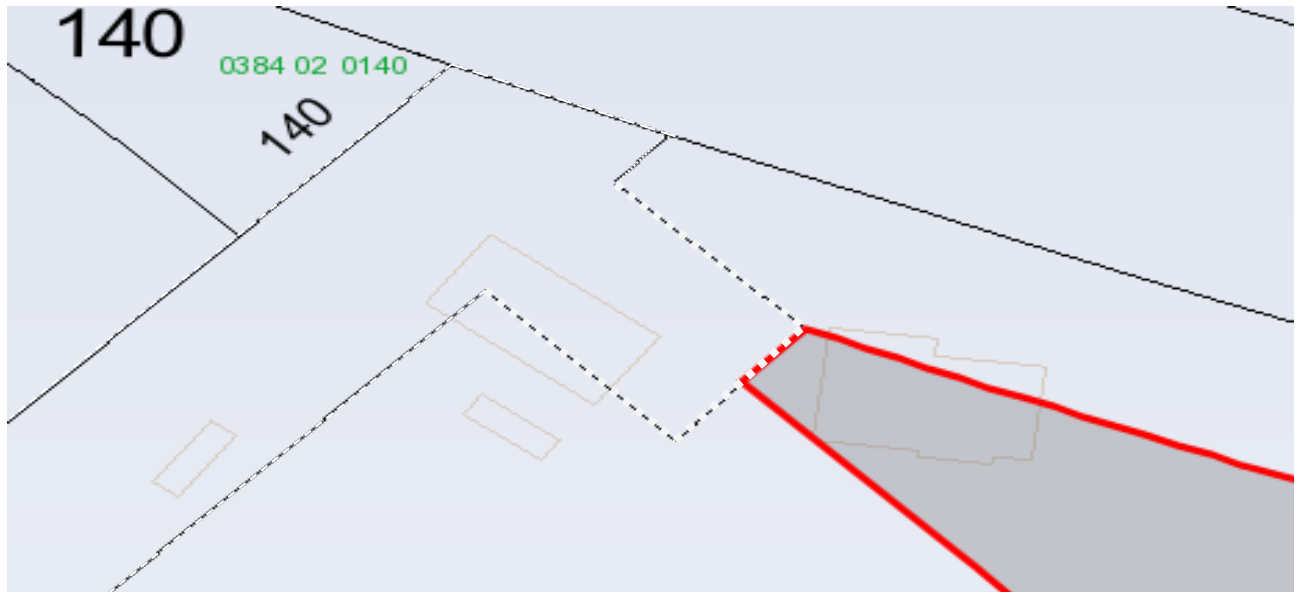


Figure 12 Shaded- Town of Vienna – Rec Center __ Dashed- Town of Vienna – Locust St. right of way

Operation and Maintenance Plan:

Newly installed plants will be irrigated weekly throughout the growing season. The site will be hand weeded weekly and mulched annually. Flowering plants will be pruned of dead flowers regularly to promote maximum flowering count and duration. No herbicides or insecticides will be applied at the site do to its close proximity to a water way.

All operation and maintenance work will be performed in-house by the Town of Vienna with assistance as needed by the Foundation.

Project Costs

Project costs include application preparation (native garden design and consultation), native plants, construction and installation activities.

Application preparation (native garden design and consultation): \$1,000

Native Plants (purchase of plants, delivery, assistance with plant layout): \$2,992

Plants: \$2,692

Delivery and Plant Layout: \$300

Construction and Installation (including site preparation, plant installation, mulch): \$4545.50

Landscape work - Bid provided by B. Rushing Lawn and Landscaping: \$4045.50

Site Preparation prior to B. Rushing work (smothering of existing grass and vegetation): \$500

Total project cost: \$8,537.50