








Michael R. Bloomberg, Mayor
Christopher O. Ward, Commissioner

Walking Tour

Mill Pond Restoration



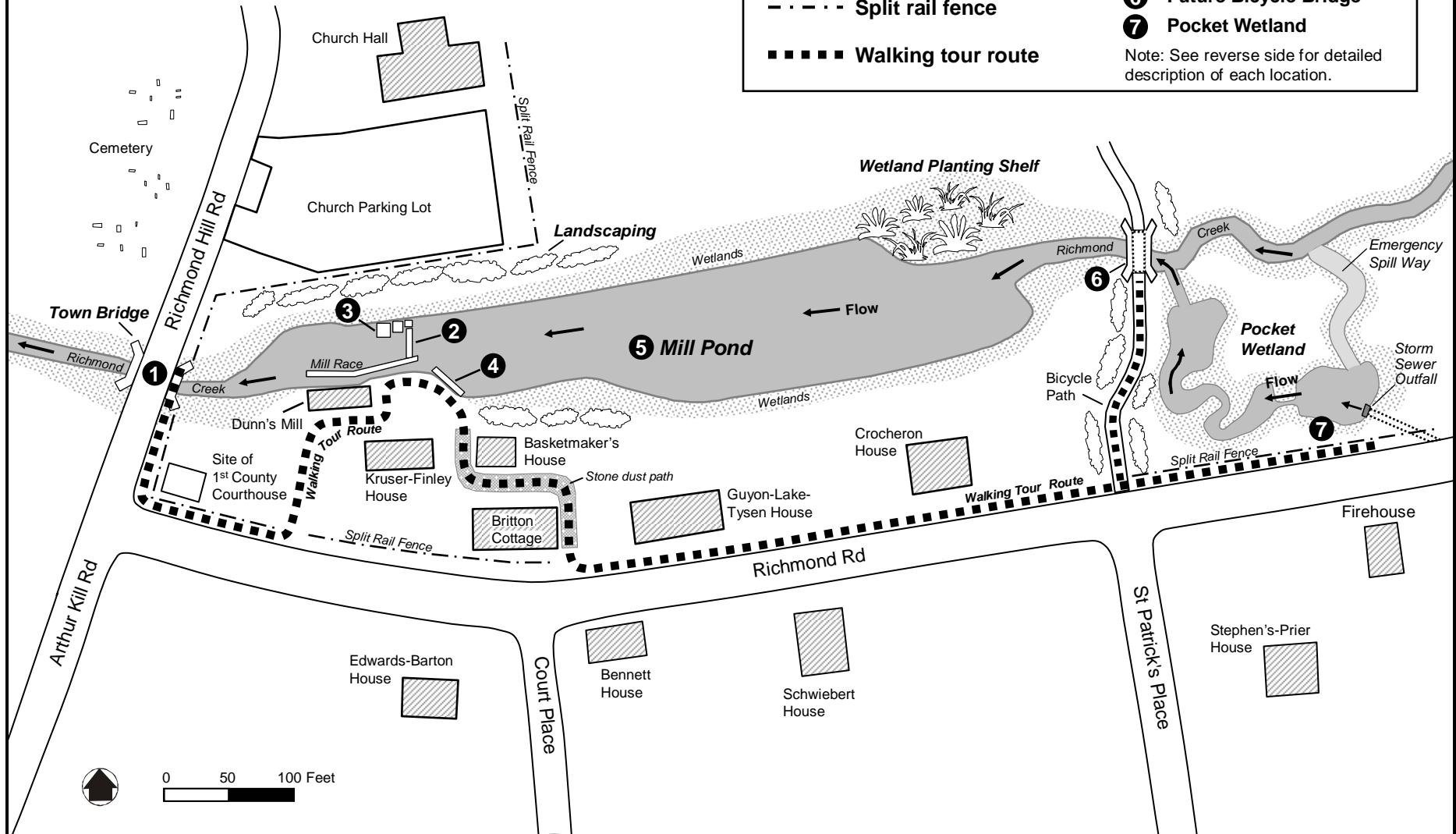
Legend

-  Wetlands
-  Surface water
-  Building
-  Split rail fence
-  Walking tour route

Points of Interest

- 1** Town Bridge
- 2** Main Weir & Mill Race
- 3** Fish Bypass
- 4** Side Weir
- 5** Mill Pond
- 6** Future Bicycle Bridge
- 7** Pocket Wetland

Note: See reverse side for detailed description of each location.





The Mill Pond Restoration and Pocket Wetland

Introduction

The NYC Department of Environmental Protection (DEP) is pleased to announce the completion of the first *Bluebelt* watershed, the *Richmond Creek Bluebelt*. Located in the midst of Historic Richmond Town, the recently restored *Mill Pond* and the newly constructed *Pocket Wetland* serve as a habitat for local flora and fauna. Completion of the Mill Pond project culminates eight years of flood control and wetland construction in the Richmond Creek system. DEP can now rely on this system for storm water management and flood control while protecting and enhancing the natural surroundings.

Throughout the project, significant effort was made to replicate details and techniques seen in 1800's-era Staten Island stonework, thus respecting the historic integrity of Historic Richmond Town. Examples of this are found in the *Main* and *Side Weirs*. Local fieldstone, retrieved from old stone piles that existed on-site, were used for constructing the new stone walls for the weirs. Decorative old-style metal grilles, which screen the side weir openings, prevent large objects from becoming lodged within.

All of the plant species chosen for the project are native to New York State, and most are indigenous to Staten Island. During the restoration of the wetlands, DEP designers selected and transplanted native species already growing on-site in order to increase plant survival. In addition, the upland areas – the vegetative zones above the wetlands – were planted with ecologically appropriate tree species such as White Oak, Tulip Tree and American Holly.

To create habitat diversity and interest in the landscape, wetland fringe areas were created adjacent to the main water body. Birds such as the Snowy Egret and Red-winged Blackbird can be seen frequenting these shallow wetland areas, where vegetation includes Pickerel Weed and Blue Flag Iris.

Self-Guided Walking Tour

Follow the map (on reverse side) for a self-guided tour of the improvements made by DEP at the *Mill Pond* and *Pocket Wetland* sites. **Please note that during severe storm events, it is strongly advised that you avoid the wetland shorelines as water levels can rise rapidly.**

As you begin your walk, notice the “split-rail” fence with lumber hewn from indigenous trees. The posts are from Black Locust trees while the rails are of White Oak. The detail is authentic, and the four-rail construction is reminiscent of Staten Island’s agrarian past.

Points of Interest

1 Town Bridge

The Town Bridge, circa 1845, is Staten Island’s oldest example of stone arch bridge construction. To preserve the historic bridge, as well as safely convey large storm flows, the **Side Weir** was installed.

2 Main Weir and Mill Race

The Main Weir, or dam, serves to maintain the historic shoreline elevation of Mill Pond, as well as convey dry weather flow and storm flows downstream and to the Mill Race. The Mill Race serves to direct water into a dedicated channel to drive a mill wheel, to be installed by Historic Richmond Town in the future.

3 Fish Bypass

Certain species of fish and other aquatic life migrate upstream and downstream. The Fish Bypass provides access around the Main Weir by allowing aquatic life to advance upstream through a series of stepped pools set at comfortable elevation changes. This Bypass allows for the continued presence of species such as American Eel and Eastern Banded Killifish in Richmond Creek.

4 Side Weir

DEP recognized that the historic Town Bridge under Richmond Hill Road would not be large enough to carry the storm water flow from future development. Therefore, it became necessary to construct a “by-pass” pipe to handle this extra flow. This creative design step allowed the bridge to retain its integrity while allowing future excess flows to pass over the new Side Weir to prevent flooding.

5 Mill Pond

The habitat value and storm water holding capacity of Mill Pond had been seriously reduced over the years due to sedimentation. To repair this condition, the pond was dredged to a depth of four feet below water level. Clusters of logs and tree roots were then embedded into the pond’s new bottom at various locations to create protective habitat for newly spawned fish and other aquatic life.

6 Future Bicycle Bridge

In the near future, a new bridge will be installed allowing pedestrian and bicycle access across Richmond Creek at St. Patrick’s Place. The bridge will be part of a bicycle path system designed to link various trails in the Greenbelt.

7 Pocket Wetland

Called “pocket” because of its small size, this constructed wetland serves to store storm water runoff received from a 53-acre drainage area. The storm water meanders through low and high marsh wetland fringes, dropping sediment as it flows. The roots of wetland plants act to biodegrade pollutants in the water, improving the quality of water before it flows into Richmond Creek.