

HERPTILE PROTECTION PLAN

**Salem Hunt Residential Development
June Road
Town of North Salem, New York**

Lead Agency: Town of North Salem Planning Board
North Salem Town Hall
266 Titicus Road
North Salem, New York 10560

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Herptile Protection Plan

Herpetological Associates, Inc. (HA) was contracted by the applicant at the request of the Town's environmental consultant to conduct an Eastern box turtle habitat evaluation of the subject property. The results of HA's evaluation concluded the project site contains foraging and potential hibernating sites for the species. However, the site does not provide suitable nesting locations for the Eastern box turtle. Along with a reduced site plan, additional mitigation measures, as recommended by HA, have been incorporated by the Applicant's engineer into a Herptile Protection Plan that was created to limit impacts to box turtles and other herptiles utilizing the project site. The primary intent of this plan is to protect turtles and secondarily some of the larger frogs and toads. These mitigation measures include:

- *Nesting Habitat Creation and Maintenance*

Eastern box turtle nesting habitat will be created on the site as a means to greatly improve the habitat quality outside the development area. A 1,200 square foot turtle nesting area will be created outside of the development area between Wetlands B and C. A second and much larger (approximately 5.05 acres) area that is suitable for eastern box turtle nesting will be created and maintained above the proposed SSTS area. The soil in these areas will be a soft/loamy mix conducive to digging by nesting females and will be planted with a conservation seed mix, which will include bunch grasses that leave open, exposed areas between clumps. Any regrowth of woody vegetation in either of the two created nesting areas will be cleared every other year to prevent the establishment of tree saplings or thick weedy plants that would shade the ground surface and make it difficult for turtles to dig and lay their eggs. The nesting areas will be mowed once a year and only between November 15th and March 15th to avoid potential harm to turtles.

- *Barriers and Fencing to Keep Turtles and Other Reptiles from Development Areas*

The entire development area will be bounded by a turtle fence to preclude turtles and other herptiles from entering the developed portions of the property. As detailed in Figure 1 - Reptile Protection Plan (attached), the turtle fence will consist of a three foot high post and rail fence with 12-18 inch-high wire mesh (with a maximum of one inch mesh opening) attached at the bottom and buried at least six inches into the soil. Burying the fence serves to keep turtles and other small wildlife from crawling under the fence. The primary intent of this plan is to protect turtles and secondarily some of the larger frogs and toads. It is possible that snakes, salamanders and some of the smaller frogs could pass through the wire fence as proposed. It is also noted that areas of the site that are under active construction will be enclosed to the extent practicable with silt fence, which will keep all herptiles out of the development area during the time they are most susceptible to impacts, i.e., during construction and earth movement. Access to the power line easement along the north boundary of the site will remain in case turtles are using this existing open area for movement. At the openings in the turtle fence for the proposed path, an 8-inch by 8-inch wooden beam or similar material will be placed across the opening to keep turtles from accessing areas that are open to the development.

- *Culvert Under the Roads*

A wildlife tunnel will be placed under the main access road that leads to and from the proposed development. A 24 inch diameter by 60 feet in length high density plastic (HDPE) pipe with a smooth interior will be placed under the entrance road as seen in Figure 1 - Reptile Protection

Plan. Corrugated pipe will not be used as it hinders the ease in which some herptiles, particularly turtles, can traverse under the road. The culvert location has been carefully engineered and positioned so that it does not serve for drainage during rain events. Due to the requirement that all runoff from road surfaces be captured and treated, the plan does not show a grate or other surface opening for this culvert. However, the distance from one side of the culvert is relatively short, and good light penetration is expected. The fence and rail turtle fencing will be placed flush with the opening of the pipe to direct turtles and other herptiles into the tunnel under the road. The construction of the tunnel, in conjunction with the turtle fencing, will greatly reduce road mortality of wildlife once the site is developed.

- *Long Term Monitoring of New Nesting Areas*

After completion of the nest site creation and the finalization of the development, the new nesting habitat will be monitored by an experienced biologist for a period of three years. The NYSDEC will be contacted for guidance on how to adequately protect box turtle nest sites from predation and to obtain any special licenses necessary to monitor and/or protect box turtles or their nest sites. This will include inspections of the nesting habitat and nest searches during June and early July, the optimal time of year to find eastern box turtle nests. Additional monitoring will include the monitoring/inspection of the exclusionary turtle fencing to point out breaches in the barrier where box turtles and other herptiles could enter the housing development and ensure these important barriers are repaired immediately. Following this three year monitoring period, it is proposed that the Town and the Homeowners' Association work with local conservation groups or the nearby school to inspect the nesting area during the spring nesting season to determine if nesting is occurring and protect any nests that may be found.

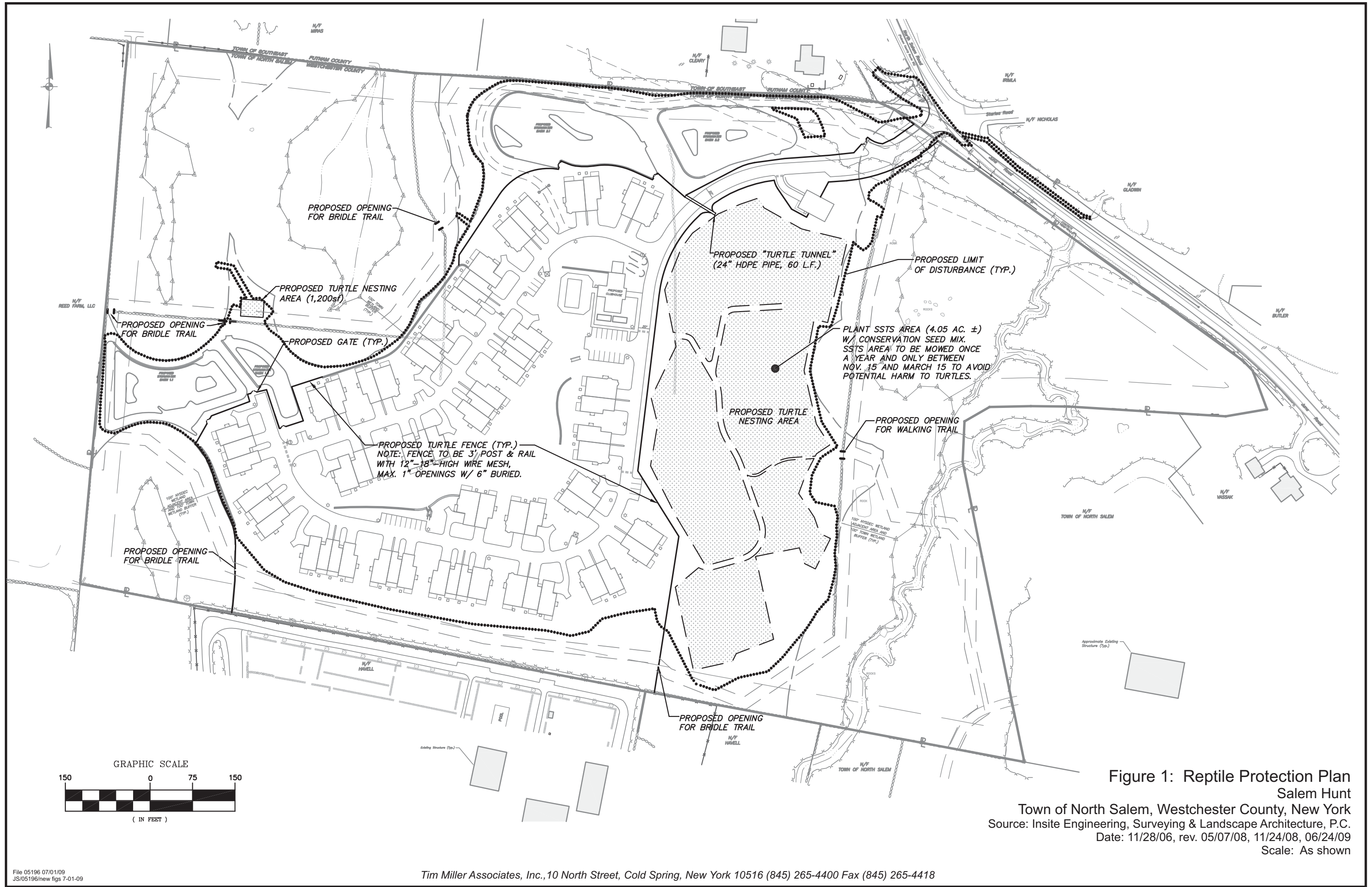


Figure 1: Reptile Protection Plan

Salem Hunt
 Town of North Salem, Westchester County, New York
 Source: Insite Engineering, Surveying & Landscape Architecture, P.C.
 Date: 11/28/06, rev. 05/07/08, 11/24/08, 06/24/09
 Scale: As shown