

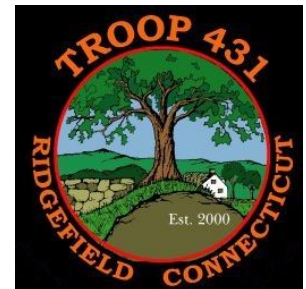


# Ridgebury Elementary School Educational Trail Update



**Joseph Isaac  
Troop 431**

**November 2020**



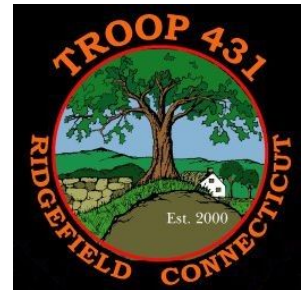
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# Purpose of the Educational Trail

- ❖ **To help students & the community appreciate the world around them**
  - Ridgebury School has a vast ecosystem
  - Many opportunities for learning
    - *Many different types of trees/shrubs*
      - ◆ including invasive species
    - *Home to numerous animals and insects*
- ❖ **Creation of educational trail**
  - Place laminated signs along one of the trails
  - Additional sign(s) at pond area
- ❖ **Trail information sources**
  - Extensive study in 2003 of Ridgebury School ecosystem
    - [http://ctert.org/pdfs/Ridgefield\\_RidgeburySchool.356.pdf](http://ctert.org/pdfs/Ridgefield_RidgeburySchool.356.pdf)
  - Numerous university extension services

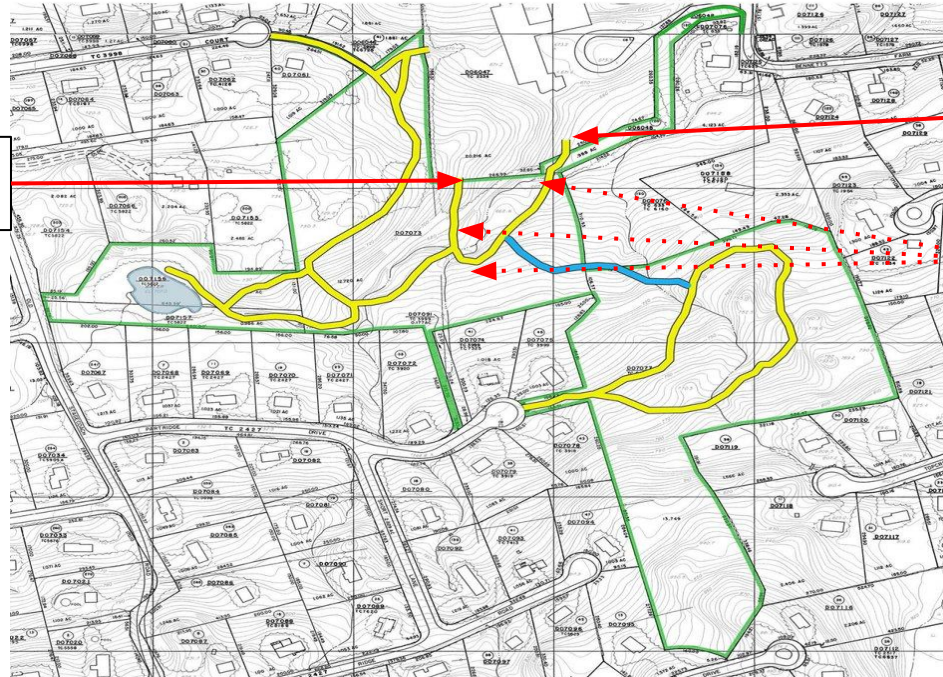




# Sign Placement

## Ridgebury Slopes/ Peterson Gorge

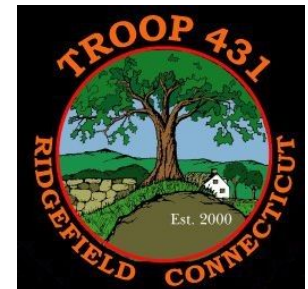
Large  
Sign at  
exit



Large Sign  
at entrance

Several signs  
along trail

- ❖ 2 large sign at entrance/exit
- ❖ 19 smaller signs along trail
  - originally 10-12
- ❖ Will be along horseshoe trail closest to school



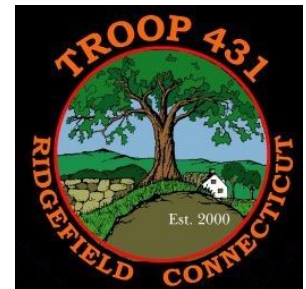




# Sign Placement at Pond



- ❖ 1-2 large signs at pond area
- ❖ Parks & Rec will carve out area
  - promise to maintain

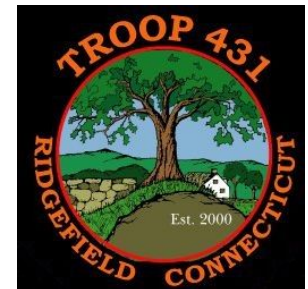
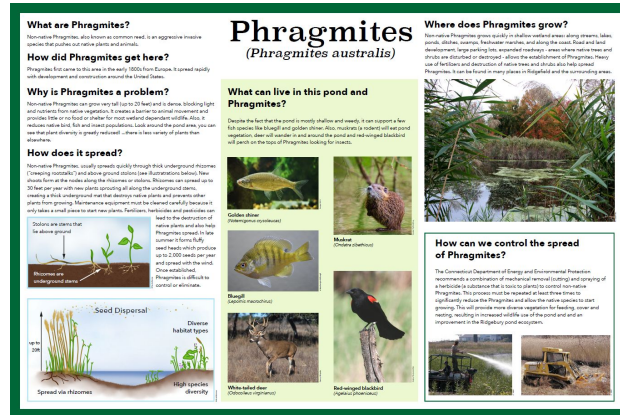




# Examples Of Large Sign

❖ Large signs to be placed at both entrances of the trail.

❖ Size 2' x 3'



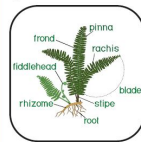


# Examples of Smaller Signs

## Ferns

(Division: Pteridophyta)

There are roughly 12,000 species of ferns in the world today, with about 100 species found in the Northeastern US. Mostly found in the tropics, as they prefer shady, damp environments, ferns are plants that do not have flowers. Like flowering plants, ferns have roots, stems and leaves.



Unlike flowering plants, however, ferns do not have flowers or seeds; instead, they usually reproduce by tiny spores.



From: Robert and Barbara Schumann & Barbara, et al. (2010) Ferns: Ecology and Evolution. (2nd ed.)

### Did You Know...

Ferns were already very old when they flourished over 300 million years ago during what has been called "The Age of Ferns." Today, there are many kinds of ferns in North America, and they are adapted to nearly all environments - forests, deserts, tropics, alpine and aquatic.

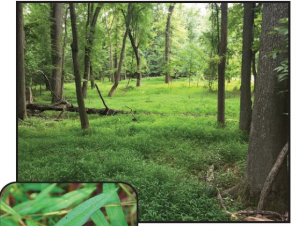
### Parts of a Fern

Ferns can have some very unusual forms and structures. The illustration on the left shows the parts of a fern. The leaves of the fern are called fronds. The leaf shape, size, texture and complexity can vary considerably as you can see from some of the frond illustrations above.

## Japanese stiltgrass

(*Microstegium vimineum*)

Stiltgrass is considered one of the most damaging invasive plant species in the country. With its seeds carried by water, it's often found invading marshy areas. The small seeds can also be carried on boot treads and tires, bringing the plant to other trails and roadsides. Because the plant produces so many seeds, it can quickly take over an area, displacing native plants and vegetation. Its seed can remain viable in the soil for up to five years!



By: Michael Wills - Own work, CC BY-SA 4.0. [https://commons.wikimedia.org/wiki/File:Microstegium\\_vimineum.jpg#/media/File:Microstegium\\_vimineum.jpg](https://commons.wikimedia.org/wiki/File:Microstegium_vimineum.jpg#/media/File:Microstegium_vimineum.jpg)

### Did You Know...

*Microstegium vimineum* is native to Asia and was accidentally introduced into North America sometime around 1920. It was previously used as packing material for porcelain, a possible explanation for its accidental introduction.

### Is it Stiltgrass?

The leaves are well spaced apart. Japanese Stiltgrass has narrow leaves that are 2-4 inches long with pointed ends and smooth edges. The leaves are well spaced apart. Surprisingly, it has weak roots that are easily pulled out of the ground. The plant turns purplish and then brown in the fall.

## Sugar Maple

(*Acer saccharum*)

Sugar maple is widely planted as a decorative or shade tree. Flowering in April and May, it produces the "helicopter" winged seeds that mature in autumn. Its leaves are dark green with five distinct sections, and go from green to brilliant yellow, orange, and red in autumn. It is valued for its hard, heavy, and strong wood, used to make furniture and flooring, as well as for tool handles, bowling pins, and musical instruments. Red, gray, and flying squirrels feed on the seeds, buds, twigs, and leaves. Songbirds, woodpeckers, and cavity nesters nest in sugar maple.



By: David P. - Own work, Public Domain. [https://commons.wikimedia.org/wiki/File:Acer\\_saccharum.jpg#/media/File:Acer\\_saccharum.jpg](https://commons.wikimedia.org/wiki/File:Acer_saccharum.jpg#/media/File:Acer_saccharum.jpg)

### Did You Know...

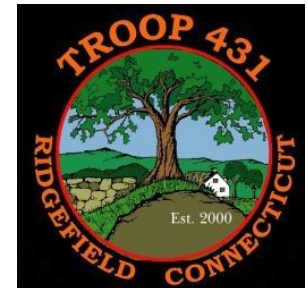
It takes about 40 parts maple sap to produce 1 part maple syrup, depending on the sugar content of the sap. This translates into 40 gallons of sap to produce 1 gallon of syrup. The first written account of maple syrup production was the early 1600's near the state of Maine.

### Sweet Sugar Maple

The sugar maple is best known for being the largest source of maple syrup - its sap has twice the sugar content of other maple species - and for its brightly colored fall foliage.

❖ 19 Small Signs to be placed along trail adjacent to school

❖ Size: 8" x 11"





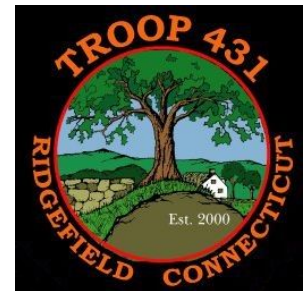


# Sign Supplier & Mounting

- ❖ **Signs will be purchased from Pannier Graphics**
  - Large Signs ~ \$265
  - Small Signs ~ \$45
    - <https://panniergraphics.com/>
- ❖ **Sign costs will be taken care of by the Ridgebury Elementary School PTA and private donors**
  - Majority of material cost covered by Ridgefield Conservation Commission



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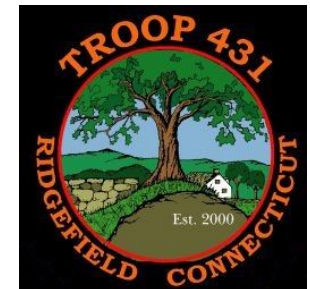
# Pricing for Educational Trail

AMT.	MATERIALS - A	PRICE	TOTAL
14	4"x4"x12' treated posts	39.59	554.26
1	Ceramic coated screws	9.89	9.89
1	Post Hole Digger	39.99	39.99
	<b>Materials Subtotal</b>		<b>604.14</b>
	<b>SIGNS - A</b>		
4	36x24x 3/16" plate with 2 4"x4"x7" sleeves	384.00	1536.00
4	36" w x 24" h FE panels	265.00	1060.00
19	12" x 9" FE panels	45.00	855.00
19	12" x 9" x 3/16" plate with 4"x4"x7" sleeve	130.00	2470.00
1	Shipping	200.00	200.00
	<b>Option A Sign Total</b>		<b>6725.14</b>

**Option A**  
"Luxury Option"

	MATERIALS - B	PRICE	TOTAL
14	4"x4"x12' treated posts	39.59	554.26
1	Ceramic coated screws	9.89	9.89
1	Post Hole Digger	39.99	39.99
2	Corner Brace Aluminum	12.99	25.98
	<b>Materials Subtotal</b>		<b>630.12</b>
	<b>SIGNS - B</b>		
4	36x24x 3/16" plate with 2 4x4x7" sleeves	384.00	1536.00
4	36" w x 24" h FE panels	265.00	1060.00
19	12" x 9" FE panels	45.00	855.00
19	12x9x 3/16" plate with 1 4x4x7" sleeve	15.00	285.00
1	Shipping	200.00	200.00
	<b>Option B Sign Total</b>		<b>4566.12</b>

**Option B**  
"Basic Option"

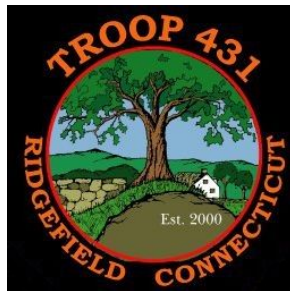




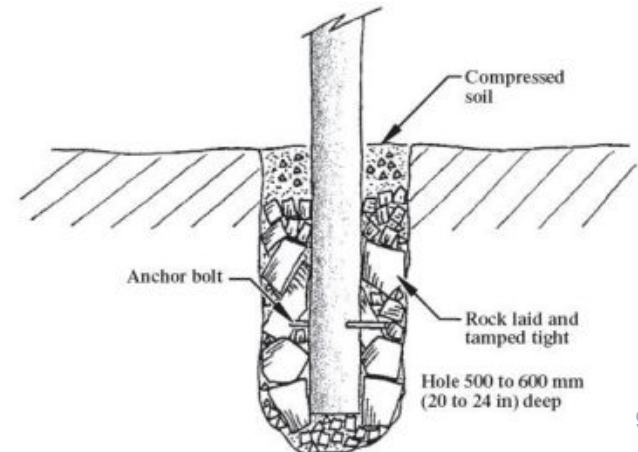


# Sign Installation

- ❖ Small signs will have one 4x4 support
- ❖ Large signs will have two 4x4 supports
- ❖ **Posthole**
  - 2-3 feet deep
  - filled with rocks and gravel
  - medium stones around top
- ❖ **Mounting**
  - Weather resistant hardware
  - Theft-resistant



Signpost Installation





# Timeline

- ❖ April - July 2020 > Prepare sign information
- ❖ August - Sept. 2020 > Graphic design work
- ❖ September 2020 > Work on sign placement
- ❖ October 2020 > Finalize design & wording
  - walk trail with Conservation Commission
- ❖ November 2020 > Order signs
- ❖ November 2020 > Prepare & install sign posts
- ❖ November - Dec. 2020 > Prep & install signs

