

Work on the trails in Mt. Gilboa

Eagle project
Henri Schuette

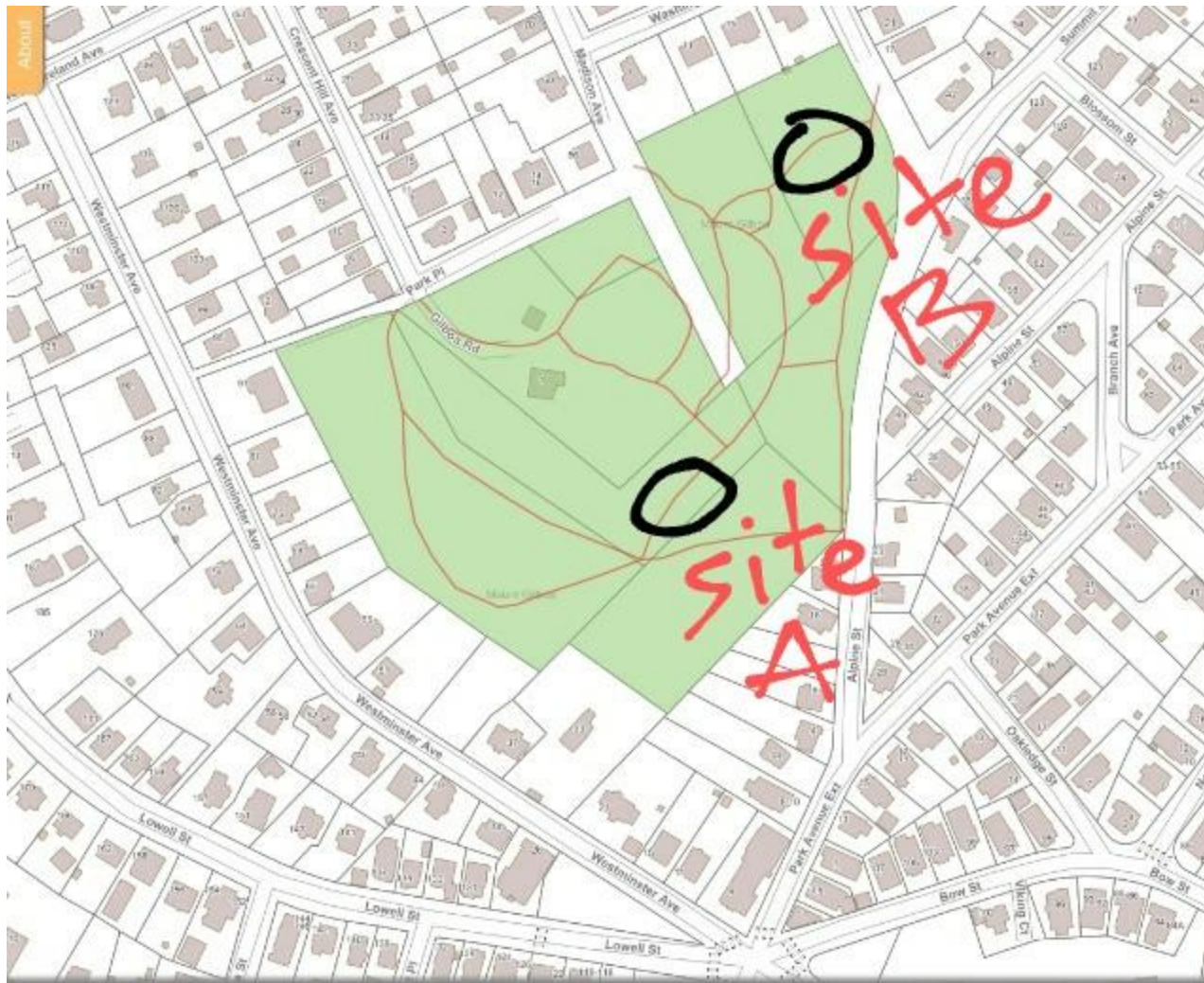
A little bit about myself

Problem: The trails are being damaged

- Erosion due to water
- Human impact

Why is this important?

These trails get a lot of use, and if we want the area to be both sustainable and accessible, good trail design is important. The problems I bring up now will only grow larger if left unchecked.



Site A

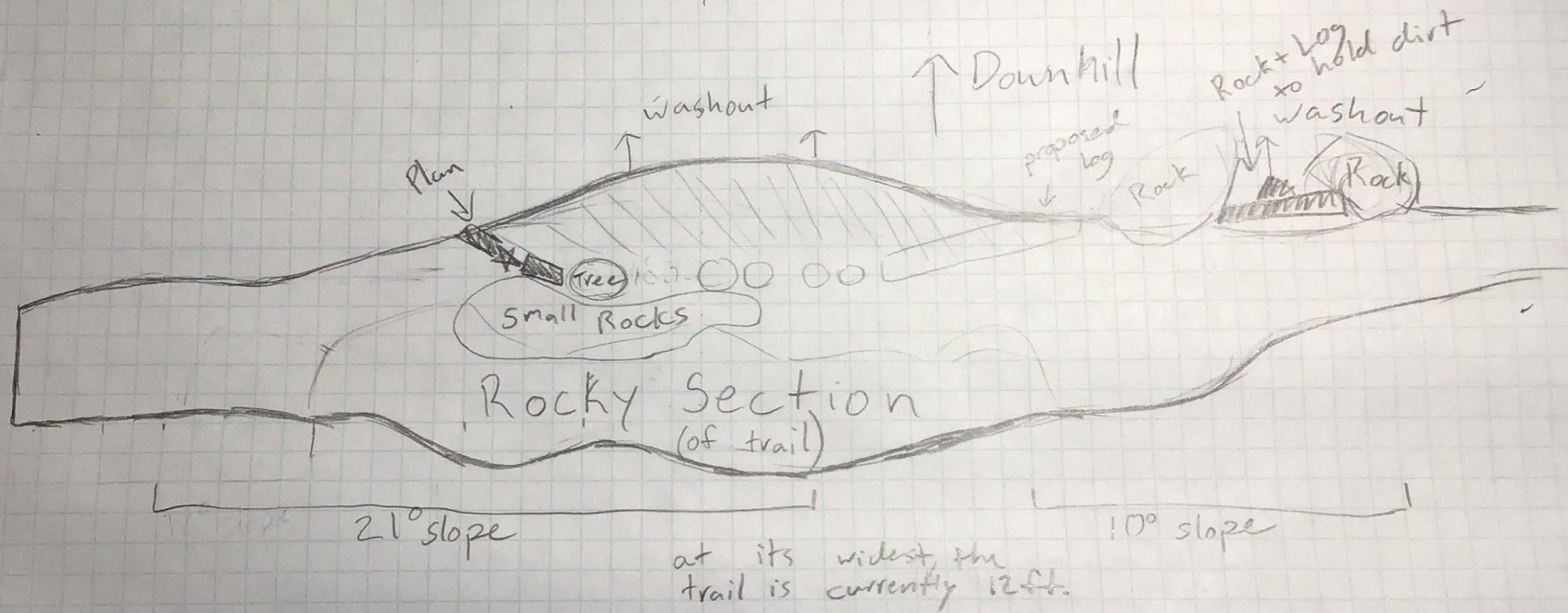
The problem: The trail has widened due to human usage.

This has led to the plants on the slope of the hill getting trampled, and now the hillside is suffering from washout.

The original trail went over a number of large rocks, and as people moved to avoid said rocks, they widened the trail.



(A)



Solution: Redefine the trail, and control the washout.

Part 1: Redefining the trail- I will remove some of the small rocks that deter people from following the original trail. I will also place logs, and rocks to define where the boundaries are. (see sketch of site A)

Part 2: Controlling the washout. The aforementioned logs and rocks will do a decent job at preventing further washout. I also plan to purchase native grasses/plants, and seed the areas. This will both remind people where the trail is, and provide a natural method for holding dirt on the slope.

Work on the trail itself

- People want to avoid the rocky sections
- Part of the work to keep people on the trail would be to make the trail easier.
- To do this, I would remove many of the fist-sized rocks that litter the proper trail.
- (I believe that these are what are making people stray)
- (these rocks could be used in other parts of the project)



Site B

Problem: Water is causing a channel to be dug in the trail.





The two types of structures I'm
planning to use

Check dams

These are basically logs, embedded in the trail, and surrounding earth.

Works especially well here, because the trail already dips below the normal surface level, allowing me to secure the logs well

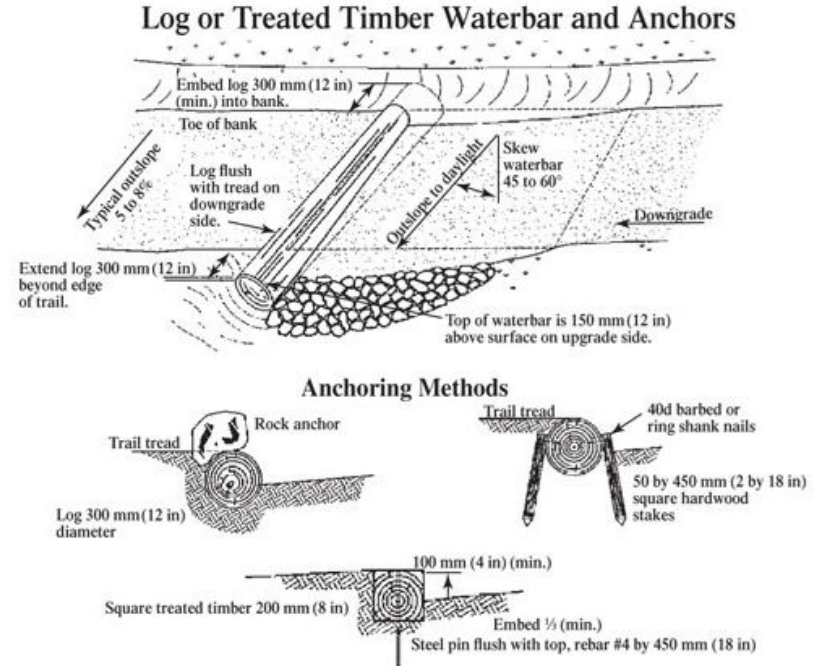
Quote from an AMC source;

“Check dams, a.k.a. check steps, are a way of slowing down erosion, and, building up the tread. The dams tend to slow and hold surface water long enough for the water to deposit the sediment it was otherwise carrying down hill. Eventually, this helps fill in what was once a gully.”



Water bars

These are intended to divert water off the trail. I believe that if I place one water bar at the base of the steep section, it will be enough to keep the rest of the trail from becoming a streambed.

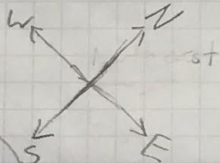


(B)

□ = 1 ft³

shaded section = erosion channel

steeper section



start of visible erosion

at its widest,
Trail is
≈ 6 ft

grade decreases to 5%

Trail continues
for 20 or
50 ft

10° slope

15° slope

logs would
serve to retain
particles and slow
water

angled waterbar

Down hill

Trail



Materials

I would like to take most of the materials I am using from on site.

There are many fallen trees, and boulders that I could take and use, without affecting the wildlife.

I want to be sure not to negatively affect the ambiance of the place, So I would like to only bring in the materials I need.

I have done work on trail crews in the white mtns, and have taken inspiration for my designs from trail building manuals



Materials cont.

When it comes to site B, I have a few questions for the committee.

I could aim to take materials from on site, or I could bring in things such as treated lumber, and gravel. The materials I bring in would definitely last longer, and may lead to a better trail, but they would also have more of an impact on the area.

Is there a preference one way?