



# INTERIOR TRAILS PRESERVATION COALITION

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## ITPC

### **Equinox Marathon Trail – Ester Dome**

#### **Section Line Trail Plan**

#### **December 2016**

No issue has been more challenging to the Fairbanks trails community than the summit of Ester Dome. The Equinox Marathon Trail crosses Alaska Ski Corporation land, but the corporation will not grant year-round public access to the trail. For over 30 years people have worked to find a resolution to this trespass issue, but after years of negotiating no permanent solution has been found.

The ITPC examined the following options.

1. We looked for a route E of Ullrhaven Subdivision. Being on Mental Health Trust land made such an alignment problematic and the residents of the subdivision opposed the alignment.
2. We examined a route N of Alaska Ski Corporation land. That area has permafrost issues. It was determined to not be feasible.
3. We designed the “West Reroute,” which traverses Ester Dome from the bottom of the Alder Chute to the Tri-Con Mine road. This would be a great alignment, but permission from the landowner, Mental Health Trust, has not been forthcoming.
4. We searched for a route on the S side lower on the dome on State land. No route could be found that did not cross some Mental Health Trust land. Feasible routes reached far down the side of the dome.
5. The FNSB suggested looking at the section line that parallels the Alder Chute. The borough hired Kalen Surveyors to determine if an easement exists. Pat Kalen determined that there is a N-S easement. The ITPC hired RCH surveyors to flag the easement. RCH concurred that an easement exists and flagged the center and both sides. The easement is 66 feet wide crossing Alaska Ski Corporation land and 100 feet wide crossing Mental Health Trust land.

The ITPC wants to construct a trail along the section line in order to connect the Equinox Marathon Trail in a way that allows for year-round public access. On the S side of Ester Dome the section line connects to the Farmers Mine Road, an unasserted but well documented RS 2477 trail. No work is needed along the old roadbed. The current Equinox Marathon Trail meets the Farmers Mine Road at the bottom of the Alder Chute and follows it downhill to Henderson Road. The new trail would meet the Farmers Mine Road West of the Alder Chute. The proposed trail goes North between T1N R2W sections 30 and 31 and T1N R3W sections 25 and 36 until entering State land where it contours around the hill on State land to join Nugget Creek Trail and the Equinox Marathon Trail.

The South portion is challenging due to the steepness of the terrain and having only 100 and 66 feet of easement to work with. But the S facing slope is dry and free of permafrost. The soils are rocky helping to keep erosion potential low. The historic Alder Chute is steeper (33 to 38 %

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## Section Line Trail Plan

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grade), goes straight down the fall line, and is used by 4 wheelers and motorcycles. Erosion on the Alder Chute, while certainly present, is not excessive. We plan to build the new section line trail with switchbacks, which keeps the trail grade down to a maximum of 27%. We also intend to discourage motorized vehicles from using the trail with signage and design features. A narrow trail going across the slope would be hard to negotiate with 4-wheelers.

We are considering various options for the steps. One option would be to use reclaimed railroad ties and construct box steps pinned in place with rebar. Another option would be steps made with railroad ties or pressure treated logs. (Examples of both are shown below.)

**Demonstration Phase** – Initially we would brush out the alignment and rake material to the low side. Stumps would be hacked out or cut flush with the ground. The root mat would remain. This initial phase will allow us to start using the alignment while we apply for grants to construct the full trail.

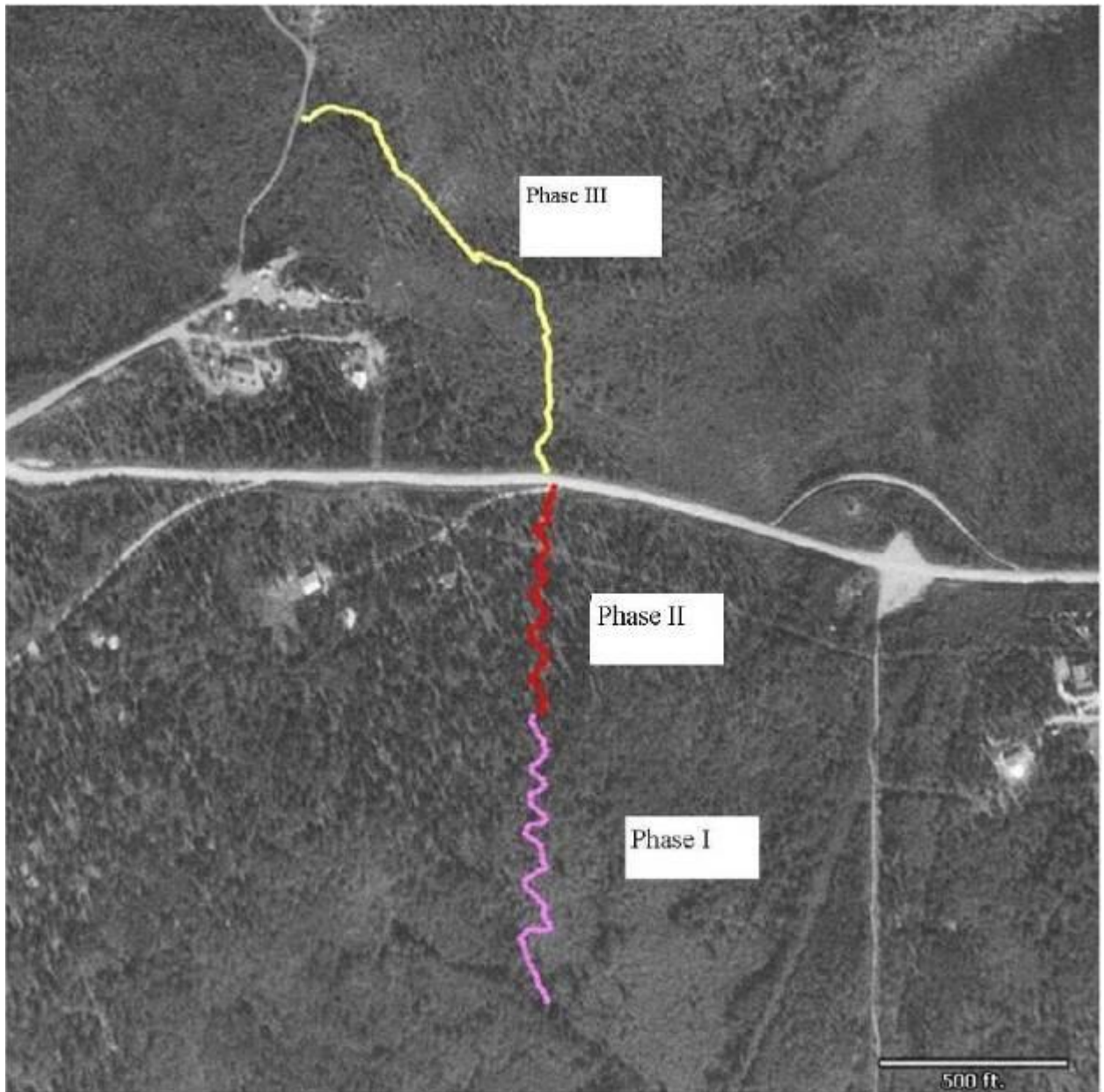
**Phase I** – This is the steepest section needing steps. Mechanized equipment would be used to cut a narrow bench. Steps would be installed by hand.

**Phase II** – This section is less steep but still needing some steps.

**Phase III** – This section would be a contour trail with a grade 10% or less and constructed with mechanized equipment and hand-finished.

### Design Criteria:

1. Design width – 3 feet
2. Step width – 4 feet
3. Steps constructed from railroad ties or treated timbers
4. 5/8" diam rebar, 2 feet long for anchors
5. Max grade 20% between steps
6. Out slope 3-4%
7. No sharp turns
8. No sharp grade changes, humps, or dips
9. Natural materials used (only RR ties, rebar, etc. hauled in)
10. Designed only for foot traffic only
11. Signs and other features to block motorized users.



## Boxed Stairs Using Railroad Ties



Two examples of boxed stairs using railroad ties. The stairs on the section line would not be as long as those to the right. Rather, they would be used in short sections, mostly at switchback corners.





## Stairs Using Pressure Treated Logs



Example of step construction using pressure treated turned logs. This is on Green Mountain in Boulder Mountain Parks in Colorado.