

Trail Materials Analysis and Comparison Matrix

For many years, agencies, trail consultants, land managers and trail stewards have sought the perfect trail surface for sustainable multi-use trails. The ongoing search has led to the development of new alternative surfacing products and the realization that there may be several suitable options depending on the unique characteristics of the area. The best trail materials are determined by trail use, local soils, hydrology, topography, vegetation, availability and local familiarity with the trail material.

Trail materials are compared based on a variety of factors. Relative to the Arana Gulch Master Plan criteria, the trail surfacing must meet a variety of requirements:

- Safe, in all types of conditions for public use
- All weather accessible for wheelchairs, per Americans with Disabilities Act (ADA)
- Protect water quality and subsurface drainage
- Permeable
- Context sensitive
- Low construction impacts and maintenance

The City of Santa Cruz is proposing to use integral colored Porous Concrete or Porous Asphalt for surfacing the multi-use trails in Arana Gulch. Features that the City considered in selecting porous concrete or asphalt include:

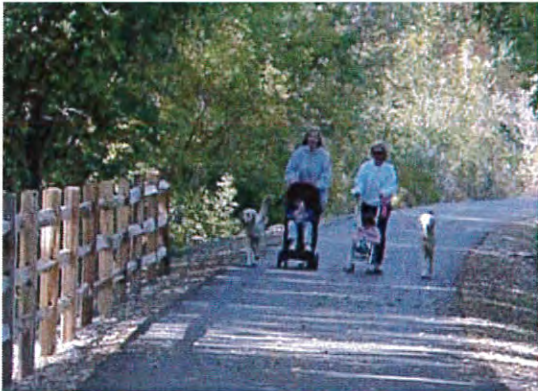
- Durable; does not rut, ravel or crack easily
- Strong; stays firm, level and safe
- Long life expectancy
- Low glare
- Integral color of native earth
- Low maintenance
- Good for wheelchairs, strollers etc.
- Less inviting for skateboards and fast traffic
- Accommodates light maintenance vehicles
- Rustic appearance
- Porous
- Cost effective

Porous Concrete: This material is durable and has free flowing drainage characteristics. Porous concrete pavement has a 15-25% void structure, allowing 3-8 gallons of water per minute to pass through each square foot. When it rains, porous concrete drains, putting water back in the ground. It is being used more frequently locally and in this type of environment. Porous concrete provides a safe, firm, level, nonskid surface; its ability to maintain this safe surface in all conditions including heavy rain; its durability and its low maintenance requirements meet the project requirements. Its appearance is more "rustic" than asphalt or conventional concrete due to the voids that allow water infiltration, i.e. a better visual fit for a natural setting. Colors are available similar to the color of the native soil and the adjacent environment in Arana Gulch. This material was reviewed by our



Trail condition during winter and spring at Agnes Street entrance

Trail Material Examples



PorousAsphalt



Porous Concrete



Filter-Pave ®



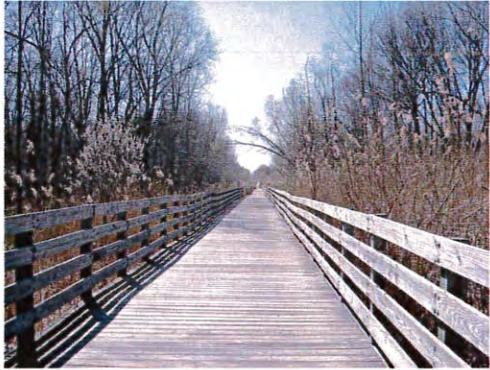
Natural-Pave ®



Gravel-Pave ®



Decomposed Granite with Binder



Boardwalk