



Plan and Design

PLANNING & DESIGNING HIGH QUALITY SINGLE TRACK TRAILS

Vision

Regions, communities, and destinations will increasingly rely upon high quality singletrack trail systems to provide recreation opportunities for citizens and visitors. Trail systems that are professionally planned and designed can be optimized to:

- Provide High-quality trail experiences for visitors
- Connect communities and destinations
- Protect resources
- Reduce maintenance costs
- Evolve with demand
- Contribute to the economy
- Encourage active healthy lifestyles

Background

When trail systems are well planned, thoughtfully designed, and expertly built they can have significant effects upon the economy, health, and identity of nearby communities. Without good planning and design, trail system development often relies upon ad hoc processes and unclear vision, resulting in unpredictable experience outcomes for trail users, natural resource impacts, and management challenges. Professional Planning and design provides a focused, ordered, thoughtful process which delivers a roadmap to developing high quality singletrack trails for the public.

Process

TRAIL SYSTEM FEASIBILITY STUDY

Assessing the feasibility of optimizing or developing a trail system is an important first step. The study serves to verify that a project has potential to be realized, the estimated costs, and the potential effects. Fieldwork is usually focused on 5 main areas: community & land manager support, market demand, terrain suitability, existing trail infrastructure, and economic opportunity. By surveying the existing conditions, experts can identify the key strengths, weaknesses, opportunities, and threats affecting a potential project.

TRAIL SYSTEM PLANNING

Good planning allows land managers to efficiently develop the right trails, in the best locations. Terrain opportunities and desired experience outcomes are the most important factors that guide the creation of a trail system plan. Professional trail planners identify zones where terrain opportunities form a foundation for

the varied experience outcomes desired by mountain bikers. These "Experience Zones" are mapped and used as the foundation layer for designing concept trail corridors, identifying trail access points, and envisioning community connectivity. These concepts can be refined by overlaying natural resource data, development plans, and management plans. This allows planners to develop strategies for mitigating concerns, prioritizing trail development, and outlining management concepts.

TRAIL DESIGN

A well-designed trail can minimize impacts to the surrounding landscape, require very little maintenance, and minimize conflict between user types. That trail can also provide mountain bikers the experience outcome they are seeking. Melding these parameters is challenging but success is easier to achieve by designing trails which follow a well-made trail plan. Individual trails are laid out by trail experts who use tools

and the terrain to mark a clear “ground truthed” route. They follow trail industry best practices to set the trail grade, mark locations for intersections & turns, identify points of interest, and avoid negative control points. The flagging marked route is GPS’ed and is referred to as a corridor. The width of this corridor is usually defined by land managers who will work with resource specialists to survey the corridor for anything that might be impacted by trail construction.

Results

A trail system that provides the healthy and challenging activity that mountain bikers want, minimizes resource impacts while maximizing value, and creates an opportunity for a positive economic impact!

Representative Projects

SANDY RIDGE TRAIL SYSTEM —

Brightwood, Oregon

IMBA Trail Solutions Planned, designed, and constructed this mountain bike specific flow trail system named by Mountain Bike magazine as one of the “new generation

of trails”. Progressive trails allow beginners to expert riders to experience pump-and-jump gravity trails, road-to-trail conversions with drops and jumps, and backcountry singletrack in a landscape of third-generation industrial timberlands. The trails see over 250,000 users annually.

NORTHWOODS URBAN FOREST PARK —

Hot Springs, Arkansas

The Trail Solutions planning team analyzed multiple locations around Hot Springs looking at trail system expansion potential and connection corridors between trail systems. A top priority project area was identified where our staff designed over 16 miles, of a 45 mile, bike-optimized trail system on a City of Hot Springs parcel.

PAMO VALLEY TRAILS MASTER PLAN —

Ramona, California

In partnership with the Cleveland National Forest and the San Diego Mountain Biking Association, Trail Solutions created a trails master plan for the Pamo Valley. A conceptual trail system that envisions nearly 100 miles of new trails will allow mountain bikers to explore over 23,000 acres of wild public lands less than an hour drive from downtown San Diego.

Who We Are

IMBA Trail Solutions is the international leader in developing singletrack trails, with experience in over 500 projects in North America, South America, Europe, Scandinavia, and Asia. Our team excels at planning, design, and construction of trail systems that provide high-quality experiences for local riders and destination visitors while minimizing resource impacts and reducing required maintenance.

Our wealth of experience has allowed us to develop professional trail industry recognized guidelines for creation of sustainable and enjoyable singletrack trails. We pride ourselves on the positive experiences we have provided to the millions of active trail users around the world and in the economic independence that communities have achieved through the development of destination trail systems.

Questions?

Go to our website, www.imba.com/explore-imba/trail-creation-and-enhancement/trail-solutions

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Publications

**GUIDELINES FOR QUALITY TRAIL EXPERIENCES,
BUREAU OF LAND MANAGEMENT (2017)**

[www.imba.com/resource/
guidelines-quality-trail-experience-gqte](http://www.imba.com/resource/guidelines-quality-trail-experience-gqte)

BIKE PARKS:

IMBA’s Guide to New School Trails (2014)

MANAGING MOUNTAIN BIKING:

IMBA’s Guide to Providing Great Riding (2007)

TRAIL SOLUTIONS:

IMBA’s Guide to Building Sweet Singletrack (2004)

