



# A Proposal for Trail System Feasibility & Concept Planning

Prepared for  
Board of Commissioners,  
Monroe County, OH  
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Prepared by

**LINEARACTIVE**  
TRAIL DEVELOPMENT PROFESSIONALS

# Trail System Feasibility & Concept Planning

## About Us

Founded in 2012, Linear Active LLC is Ohio's premier trail specialist. Our areas of expertise are non-paved and natural surface recreational trails and related facilities. We plan, design and build the full gamut of hiking, cycling, equestrian, and motorized-use trails. Working as a prime or subcontractor we have completed trail projects in eight states, with clients ranging from federal agencies to state and local organizations, as well as private landowners. In 2015 Linear Active was the first business in Ohio to be granted membership to the Professional Trail Builders Association.

We embrace the notion that trails are both art and science, and a design-build mentality is central to our success. Understanding the characteristics and interactions of design parameters, terrain, soils, and user impacts is crucial to creating a long lasting trail. But so are the aspects of crafting a trail that is fun but challenging, one that helps users develop skills but also mitigates risks.

At its core, trails are about people and crafting an experience for the end user. But as you know, trails also exist in the context of agencies, budgets, timelines, laws and legal structures. We understand this context and are comfortable working within these systems to help our clients meet the trail needs of the communities they serve.

## Capabilities

Linear Active has the tools, equipment, and training to handle every step of the trail development process. From interaction with A&E professionals to field data collection, layout, construction and maintenance. We have the right tools for the job:

- ✓ In-house planning & design with hardware and software from ESRI ArcGIS, Trimble and AutoCAD.
- ✓ Field survey and layout with both traditional clinometers and optical levels as well as modern total stations, high-accuracy GNSS receivers, and slope lasers.
- ✓ Excavation and grading equipment sized or adapted for trail construction, including three mini-excavators, full size and mini tracked skid steers with various attachments, plate compactors and articulating double drum compactors
- ✓ Rigging equipment for high-point, drag, and overhead highline systems; rope access equipment for steep terrain or accessing tree canopy for rigging anchors.



## Proposed Scope of Work

Linear Active starts with a proven framework for planning and developing trails and tailors this framework to each client and project. These are the steps we propose using to complete the planning process:

### 1. Kick-off meeting & client questionnaire

Action: Meet on site, gather background information

Outcome: Understand the client's goals and available resources, develop initial project scope

### 2. Create Project GIS

Action: Gather and compile available geospatial data into a project-specific GIS

Outcome: A digital model of the terrain and a basemap for planning documents and maps

### 3. Determine trail corridor alignments

Action: Use the GIS terrain model to determine what trails can go where, identify alternative alignments as appropriate

Outcome: A design narrative and draft concept plan/map showing trail locations, lengths, and how they connect to trailheads or other destinations

### 4. Draft Plan Review

Action: Circulate draft plan to client and solicit feedback

Outcome: Determine what options or alternates to move forward with, a more refined plan

### 5. Ground Truthing and GPS data collection

Action: Determine if/how actual conditions on the site impact the concept plan, flag the trail corridor and record high-accuracy GPS data

Outcome: A marked trail corridor center line, a planning map with accurate trail locations

### 6. Final Planning Documents

Action: Compile updated trail data into GIS map, determine construction costs and time frame, determine funding options and impacts on project development

Outcome: Final Concept Plan



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### **Deliverables**

1. **Summary Document** – The summary document contains a narrative covering the design process, the terrain, and the chosen trail alignments. This document will cover any alternative alignments and their pros/cons.
2. **Plan Map** – This map shows the terrain, property boundaries, hydrology, elevation, and proposed trail corridors.
3. **Concept-level trail sectional drawings** – These drawings show typical trail profiles and trail features pertinent to the types of trails selected in the plan.
4. **Construction Cost Estimate** – We will provide cost estimates for the final design and construction of the trail system as well as any contingencies or factors that could impact the cost estimate moving forward.
5. **Implementation strategy** - This strategy will cover options for the funding and build out of the trail system as well as estimated maintenance needs once the trail is built.

### **Cost**

The proposed scope of work and deliverables are offered for a lump-sum fee of \$4,450.

This cost is inclusive of travel (3 round trips to the Woodfield area), preparation of meeting materials, marking and layout materials, and any other incidentals.

Additional work beyond the proposed scope is invoiced at \$135/hr.

### **Schedule**

Based on our current work load we anticipate this process taking 6-10 weeks to complete.



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### **Background & Experience**

Founded in 2012, Linear Active is based in Zanesville, Ohio and is a registered Limited Liability Corporation wholly owned by Ben Appleby. In 2015 Linear Active was the first business in Ohio to be granted membership to the Professional Trail Builders Association, and remains one of only two in the state. Our areas of expertise are natural surface recreational trails and related facilities. We plan, design and build all types of hiking, mountain biking, equestrian, accessible-use (ADA/ABA) and motorized-use trails. Working as a prime or subcontractor we have completed trail projects in eight states, with clients ranging from federal agencies to state and local organizations, as well as private landowners. Our favorite types of projects are mountain bike trails and traditional stone masonry.

### **Key Personnel:**

Ben Appleby: Ben grew up in a family-owned construction business and holds a BA in Philosophy and Environmental Studies and a Masters of Public Administration-Planning and Development. He worked as a GIS analyst and transportation planner for a regional MPO while in graduate school, and his academic research and thesis focused on development models for shared use trails in urban parks. Sharing his love for trails, he has presented at the Ohio Parks and Recreation Association conference, Professional Trailbuilders Association conferences, and the American Trails International Trails Symposium.

Ben has been the owner and full time builder for Linear Active from 2012 to present. He has designed hundreds of miles of trails and has decades of experience on midsize and mini excavators, mini-track loaders, skid steers, dozers, etc. Ben has designed and built projects ranging from waterfall overlooks and bike parks to destination-level trail systems. His favorite projects focus on getting youth and mobility-challenged people into the woods to have fun.

Jason Jalutkewicz: Jason is our field manger and has been on staff at Linear Active since 2018. Before working at Linear Active Jason managed environmental and geotechnical drilling projects for clients across the northeast United States. Jason is a life-long mountain biker, is an avid outdoorsman who spends his off-seasons as a professional hunting guide, and has operated a wide variety of heavy equipment with thousands of hours experience on our own fleet of trail building machines.

### **Reference Projects**

#### **Baileys Trail System, Wayne National Forest & Outdoor Recreation Council of Appalachia**

Linear Active was a design/build contractor for the first and third phases of trail construction for the Baileys Trail System in 2019 and 2021, and was recently awarded a contract to build the fourth phase starting August 2022.

The following trails were built by Linear Active: Coal Train (segment from Chauncey Depot to bottom of Salt Works), Salt Works, The Underground, Thrillium, and Gorges Curves.

### **Reference Projects -continued**

#### **Mohican State Park**

Project Type: Trail Planning, Design and Construction

Client: Ohio Department of Natural Resources

Contact: Jenny Roar, Park Manager (419) 296-6528

Linear Active was contracted to design and build approximately 5.5 miles of new mountain bike trails to connect the park lodge to the existing mtb trail system. Our planning efforts helped the park see the need for more kid and family-friendly trails and we were able to design and construct a dedicated bike park area to serve this population along with the more traditional mountain biker.

#### **Prairie Creek Park**

Project Type: Master Plan, Trail Construction

Client: Mid-Indiana Trails

Contact: Dave Bradway, M.IN.T. President [midindianatrails@gmail.com](mailto:midindianatrails@gmail.com)

Linear Active completed a trails master plan for a portion of Prairie Creek Park in Muncie, Indiana in 2016. The client used this plan to raise funds to pay for the construction of the trails, Linear Active was contracted in 2018, and began construction in 2019, to build approximately 4.5 miles of mountain bike trails at this park.

#### **Camp Tuscazoar**

Project Type: Trails Master Plan, East-Side Trails & Skills Area Construction

Client: Camp Tuscazoar Foundation

Contact: Jason Ricker, Economic Development Alliance of Tuscarawas County (330) 204-2726

Linear Active completed a Trails Master Plan for this 650 acre camp in 2015 that included 45 miles of hiking, mountain biking, and equestrian trails. We assisted in writing a RTP grant that was awarded in 2016 to construct 3.2 miles of new mountain bike trail and a small skills area on the camp property.