



Building a trail can not only highlight a landscape of breathtaking beauty, but also provide a setting for learning, discovery, and inspiration. This example, one of three different trails at the newly opened Alabama Nature Center in Millbrook, Alabama, employs the natural surroundings to emphasize the remarkable biological diversity of our state.

Photo courtesy of Alabama Wildlife Federation

Building Trails to Treasure

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Walking trails are most often thought of as being a recreational asset. With proper planning, a trail can be a beneficial component of the overall management practices on your property. In addition to the normal recreational benefits, trails may be used as fire breaks and access corridors to sensitive areas, as well as delineate stand boundaries and property lines.

Having easily-walked access through various stands provides an opportunity to evaluate the health and composition of the forests that a landowner may not routinely see. Trails may allow the landowner to find insect or disease infestations as well as unique plant, tree, or animal species or communities that he or she may not have known existed on the property.

Like any forestry operation, planning is critical to ensure an adequate outcome. The purpose of the trail should be the

first consideration. There are numerous questions you should ask when deciding the trail's purpose. Is it to be used for walking, horseback riding, ATVs (all-terrain vehicles), light vehicles, or a combination of traffic uses? Will the trail be used during all seasons or to gain access to wetlands or other sensitive areas? Does it need to be handicap accessible? Is the trail for private use by family members and guests, or will it be open to the public such as scout troops, picnickers, campers, and others? Having an objective for the trail and knowing how it will be used is the first stepping stone in locating where to place the trail.

Location is the second consideration. Generally, trails should follow the contour of the terrain with a gradual change in slope. The initial trail layout should be flagged before the clearing starts. Global positioning (GPS) devices can also be beneficial in laying out a trail. The trail route can be digitalized, as well as spe-

cific points along the trail that may need to be noted.

Heavy use of a trail can cause damage to the surrounding area. There are two primary processes that can cause trail and site degradation: erosion and saturation. Erosion is a natural process that occurs in degrees. As soils are walked on, they will lose the pore space between particles and the ability to absorb water. Compacted soils on a trail act as a gutter, and water will be channeled downhill. Run-off occurs when the soils can no longer absorb water, which is one of the primary trail-building problem areas. Locating trails on gentle slopes, providing adequate water bars and turnouts, designing proper crowning, and using other such techniques is vital.

Slope is measured by percentage. A simple way to determine slope is to divide the vertical distance by the hori-

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zontal distance, then multiply by 100. There are various leveling tools such as clinometers and the Abney level that may be used to measure slope. GPS devices also measure elevation that can be helpful. To lessen erosion problems, trails should have less than 15% slope. In sandy soils, less than 10% slope is preferred. On steeper terrain, switchbacks may be necessary. Switchbacks are used to change the direction of travel in order to follow the contour with the required slope gradient. Normally, switchbacks take the shape of an “S” as the contour elevation changes.

Saturation is another trail and site degradation process of concern, generally occurring in low-lying terrain near streams, drainages, ponds, springheads, and bogs. Areas that have saturation problems should be avoided. *Alabama's Best Management Practices for Forestry* (BMPs) should be referenced and the best management practices followed when wetland and streams are affected. There is also useful information on proper water diversion installation. However, if the purpose of the trail is to gain access to these areas, additional measures such as foot bridges, fords, and/or fill material may be needed to protect the surrounding landscape. When determining if a bridge is to be built, consider the flooding that may occur after a heavy rainfall. The guidelines in the BMP manual will be helpful. Another consideration for wet or saturated areas is to have an alternate route to be used during wet periods.

Other trail location factors may include locating and identifying timber stand types, sensitive areas, historic sites, scenic areas, springs, endangered plants and wildlife, property lines, and hazard areas such as cliffs, dumps, and others. Decisions should be made as to which areas to include along the trail and which to avoid.

Once the trail has been planned and flagged out, clearing may begin. The clearing process to be used hinges on the purpose of the trail, determined during the planning stage. Width and over hanging vegetation height should be factored into the clearing. If foot traffic is to be the main use, hand-clearing with weed

trimmers, axes, and chainsaws may be all that is needed. The minimum width for a walking trail is four feet wide, but it should be cleared to a height of eight feet. An overhead canopy is desirable to reduce the growth of grasses and shrubs that thrive in the sunlight. Width and height will need to be increased for horseback riding and vehicular traffic.

Trail clearing should be performed in stages as time allows. First, remove blown down trees that may block the trail. These trees may be disposed of, or in some cases, used to line the trail or restrict traffic from sensitive areas. Second, cut the small trees and brush to the appropriate width and height. Cut off stems as close to flush with the ground as possible. Prune branches as close to the main trunk or at forks to make their removal look more natural. Follow proper pruning techniques to encourage faster healing over. Toxic plants such as poison ivy and stinging nettle may need to be chemically controlled along the edge of the trail. Herbicides may be used to reduce vegetation re-growth, control encroaching aggressive shrubs and vines, and maintain an open walkway. Always follow the product label when applying herbicides.

Normally, trail maintenance should be performed twice a year. Spring and late fall are considered preferable times, when temperatures are moderate. Trail signage can range from none to excessive. Signage may be used to identify different trails, trail direction, and intersections, as well as indicate points of interest, hazards, and educational features. Signs should be kept to a minimum, as small as necessary, concisely worded, and placed where best to achieve the intent of the sign while minimizing its visual impact.

With the best of planning, there will be areas along the trail that can be improved upon. Continue to identify these areas and work them into the maintenance plan.

Finally, once the trail has been established, use it. Spend time with your family and friends, sharing your property and the TREASURE Forest concept. 🌲

A new trail of trees, located at Town Creek Park in Auburn, offers a walk through nature and history at the same time. The approximately one-quarter mile trail is lined with 34 trees connected to important people or events in American history. Each tree is accompanied by a plaque which gives a brief description of why the person or event is “historically significant,” as well as the tree’s Latin name, approximate life span, growth rate, and mature height and spread.

The idea for the project originated in 2003 with the Auburn Tree Commission. They developed a plan in collaboration with the City of Auburn Parks and Recreation Department, then Dyas Toyota offered considerable financial support to purchase the trees and plaques. James Jennings, Auburn’s urban forester and City Arborist, cared for the seedlings until they could be planted. On Arbor Day in 2005, a number of volunteers joined the Tree Commission for a tree planting party. Also, Auburn’s Forestry Club students planted 50 one-year-old longleaf pine seedlings all along the perimeter of the main trail that were donated by the Nursery Cooperative of Auburn University’s School of Forestry. Finally, in September of 2006 the community celebrated the ribbon cutting and grand opening of the new trail

These young trees are actually direct descendants of the original trees tied to some of our nation’s most memorable moments in history, such as the still-living honey locust near which President Abraham Lincoln delivered the Gettysburg Address in 1863. While some of the trees were donated by community members, the majority were purchased from the Historic Tree Nursery of American Forests, a national non-profit conservation organization that in 1917 began collecting, nurturing, and documenting seeds and cuttings from historical trees. A Certificate of Authenticity is issued for each specimen purchased from American Forests.

According to George Bengtson, project coordinator and Tree Commission member, the organizers were sensitive regarding issues of gender and race when selecting the trees for the trail. Plus, about one third of the trees are