

ROTHROCK STATE FOREST MUSSEY GAP TRAIL SPECIFICATIONS

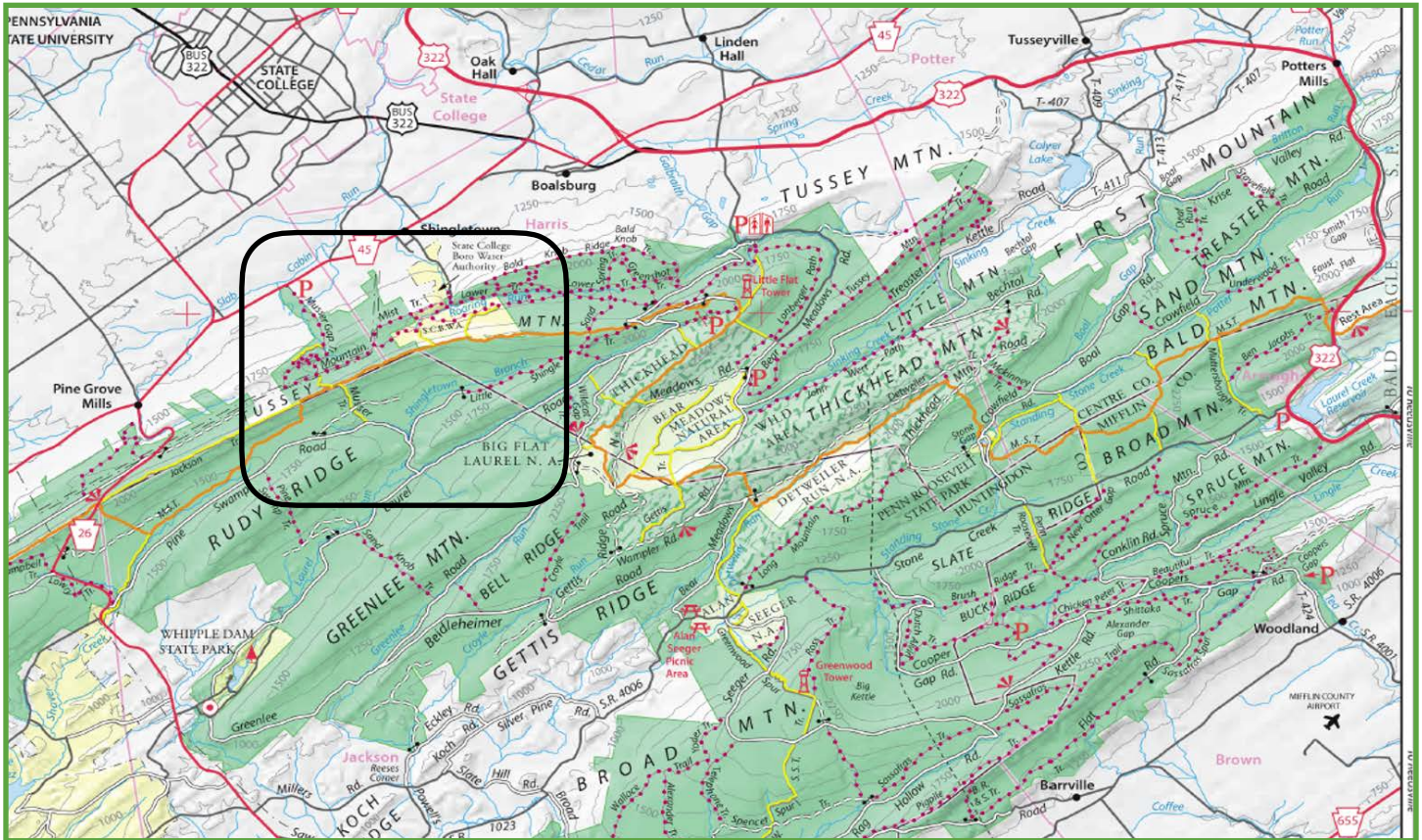


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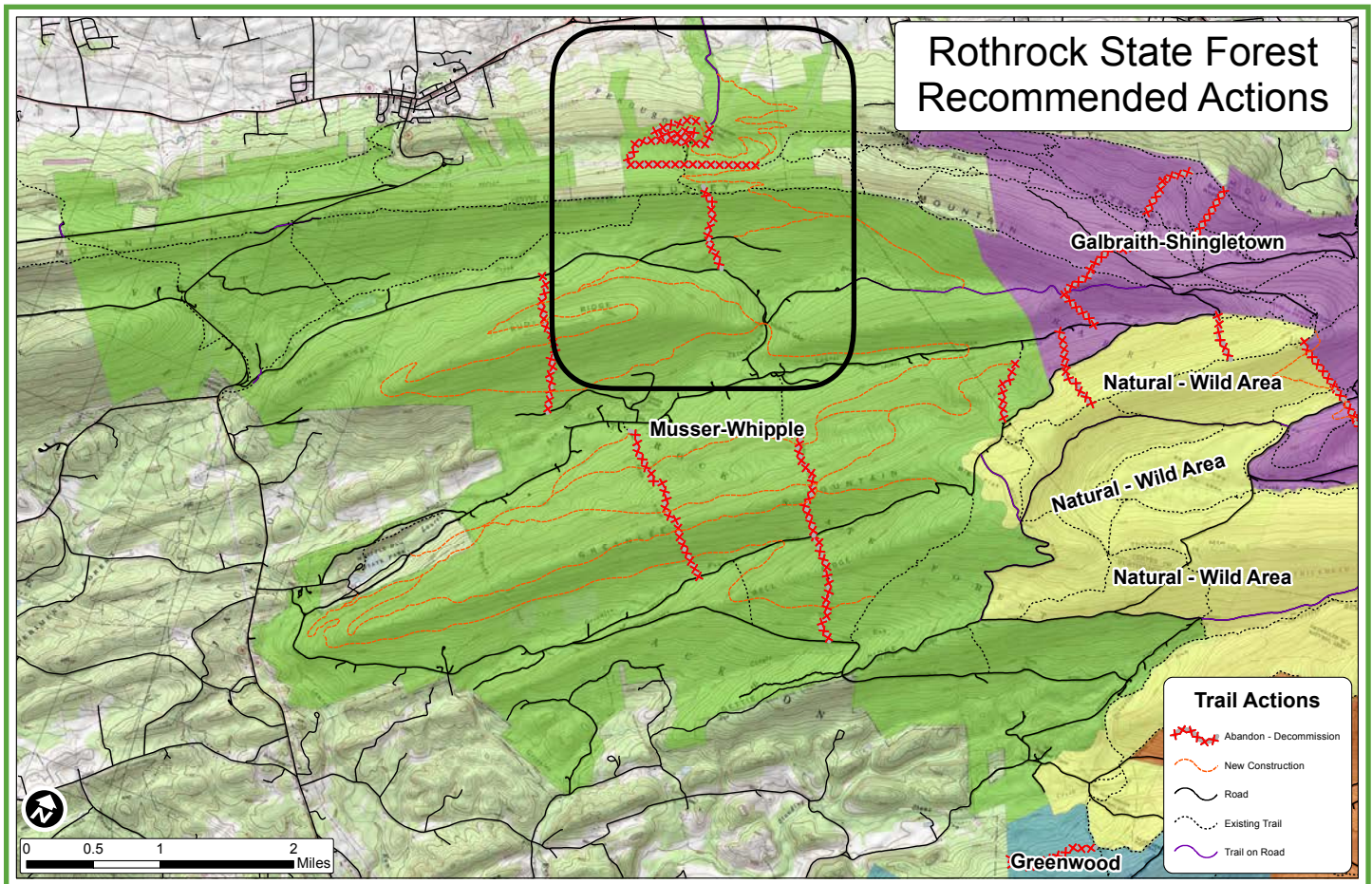
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PROJECT LOCATION



The Rothrock State Forest- Mussey Gap trail construction project is located in close proximity to State College, Pennsylvania. Construction access for the project is available at an existing trailhead along State Highway 45, as well as several graded forest roads.

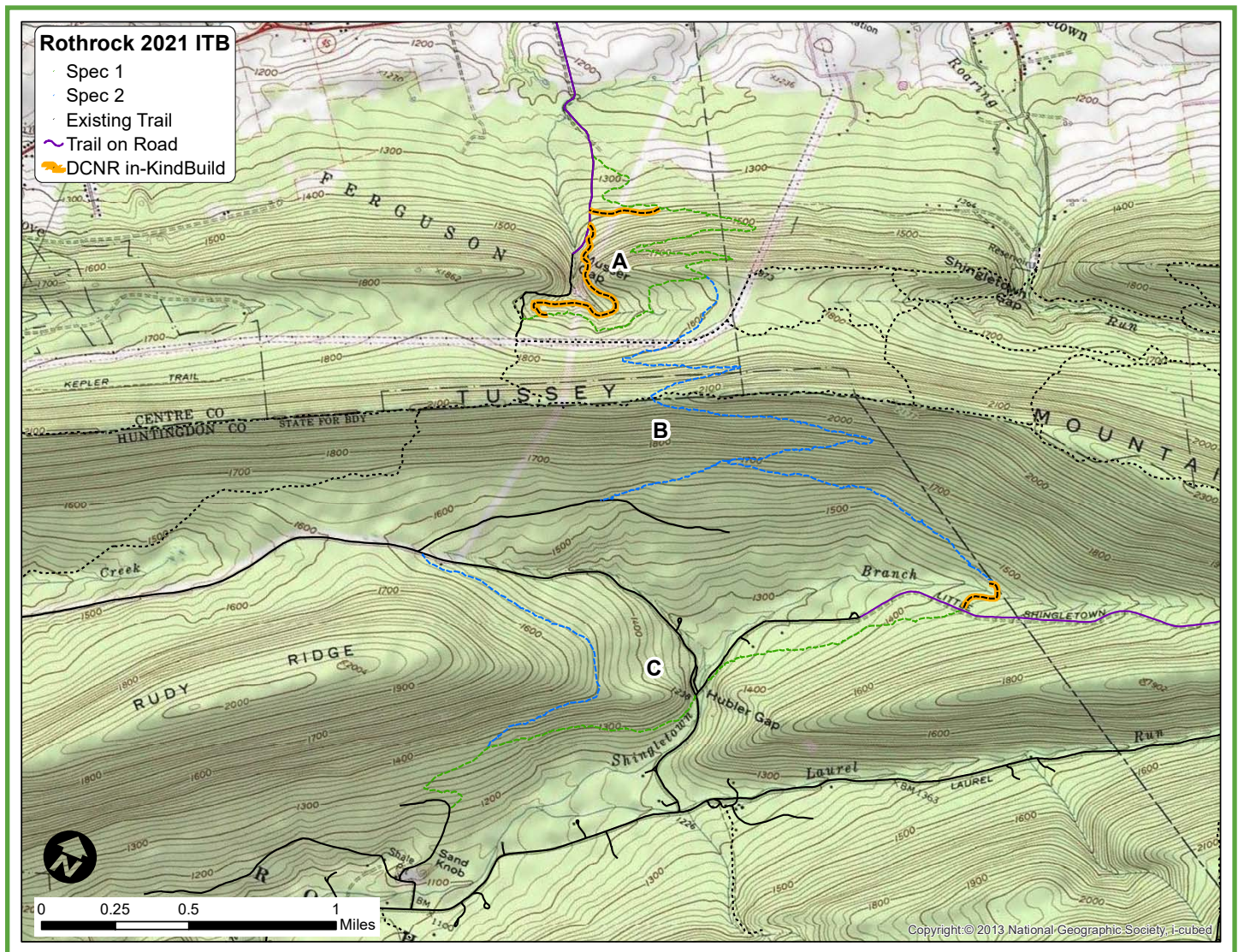
PROJECT PURPOSE



The Rothrock State Forest- Musser Gap trail construction project was developed through recommendations made in a forest-wide trail assessment, the purpose of which was to provide options and recommendations toward decreasing the natural surface trail density and visitor crowding in the Forest and creating a more manageable, sustainable trail system. When complete, this process will bring the Forest back within its management mandate of hosting dispersed, low-density recreation and achieving a more equitable balance between conservation, stewardship, forestry, and recreation, particularly in the portion of the Forest adjacent to the State College area.

The Musser- Whipple area of the forest, depicted above in green, currently has the few trails, primarily immediately adjacent to the Musser Gap Trailhead and Whipple Dam State Park. The trails that are present in this portion of the Forest are generally fall-aligned and actively eroding, but kept passable by human traffic. As part of the broader recommendations in the trail assessment, these unsustainable routes will be closed after the access and forest connectivity they provide is replaced by sustainable, low-maintenance trails. The closures in this area equate to approximately 8.25 miles, with replacement of approximately 42 miles.

DESIGNED TRAIL CORRIDORS



Phase 1 of the contracted trail redevelopment project includes the construction of approximately 7.3 miles of trail, depicted in green and blue in the map above. There will also be smaller trail segments of trail constructed by DCNR as part of the project, depicted in orange. 100-foot wide trail corridors have been flagged with inter visible ribbon flagging, with GPS tracks collected that represent the centerline of the trail corridor. Construction may occur within 50 lateral feet of the flag lines, as dictated by running alignments, subsurface conditions. Junctions with existing forest roads and DCNR-constructed segments should adhere to the mapped locations.

The area of this project has been demarcated in three sectors- A, and B- as they relate to different experience zones relative to forest and existing access and anticipated use density. Contracted construction of Sector A trails include approximately 2.79 miles, Sector B trails at 4.51 miles.

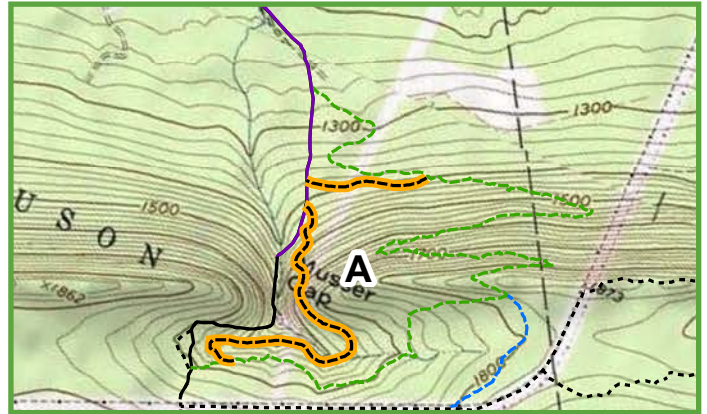
INTENDED TRAIL EXPERIENCES

Sector A Trails

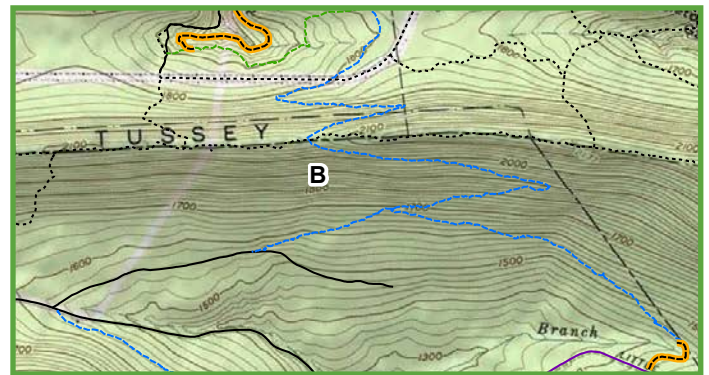
With direct access from State College (Mussey Greenway Trail) and the existing Mussey Gap Trailhead, the new trail, connecting to existing trail(road) at Mussey Gap will provide a destination experience for a broad subset of users, accessing great views of State College and Nittany Mountain. This loop will be completed on the west side by DCNR in-house construction efforts. In order to accommodate high use levels and users with potentially broad speed differentials, the designed trail corridor maintains low gradients, numerous turns, and long sightlines.

Sector B Trails

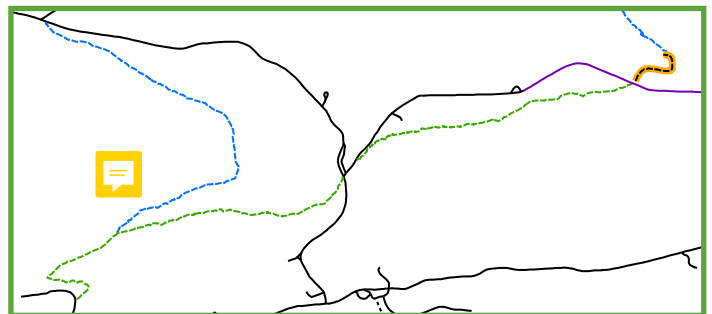
These trails connect to the top of A Loop to existing trails further south in the Forest. A somewhat rocky climb and descent over Tussey Mountain ties into a gated road accessing Pine Swamp Road, with an additional trail heading east after the descent from Tussey Mountain to tie into Little Shingle Town Trail (gated road). Providing for longer distance trail options in a rocky environment, this Sector will provide a more typical “Rothrock Singletrack Experience” with narrower, rocky tread that discourages high speeds and provides visitors with the feeling of entering into the backcountry of the Forest.



Specification: Frontcountry
Length: 2.79 miles



Specification: Backcountry
Length: 4.51 miles



SPECIFICATIONS

Trail Type Name: Frontcountry

Difficulty Rating: Less Difficult/Green Circle

Typical Tread Width: 36"- 48"

Typical Corridor Width: 48"-72"

Tread Rugosity: Relatively smooth, some roots or rocks, protrusions <6" above trail tread

Average Gradient: <7%

Maximum Sustained Grade: 15%

Maximum Grade: 15%

Typical Tread Materials: Native mineral soil and rock materials. Excavated material, free of rocks, to be used to create small rollers and insloped turns

Sideslope Steepness: Flat to 45%

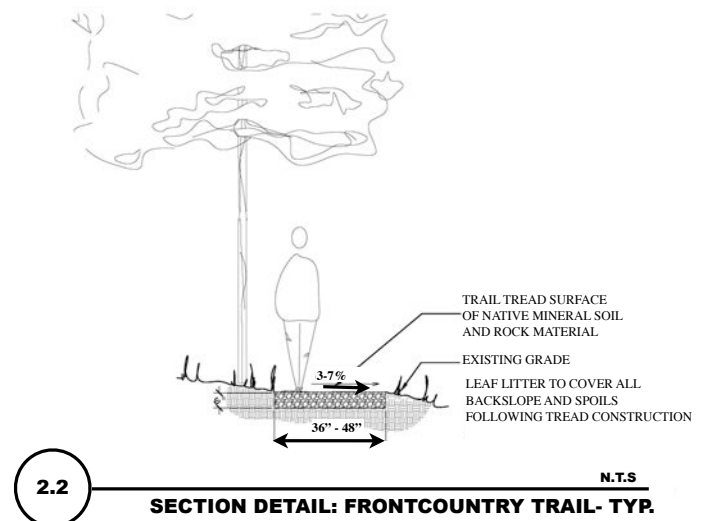
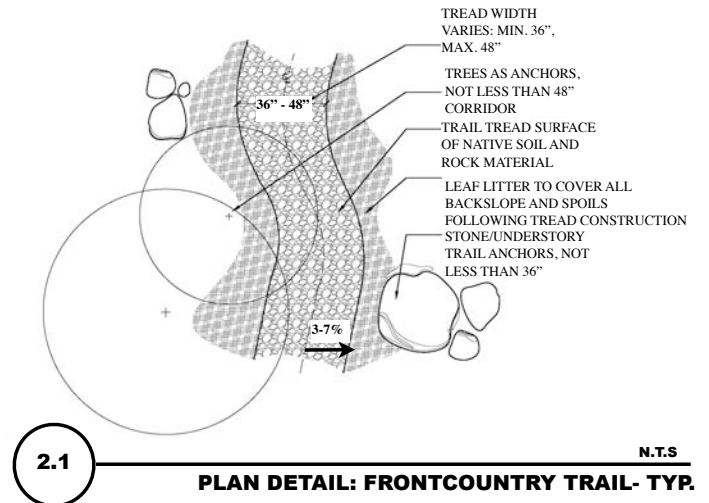
Turn Radius: Wide and open, superelevated (< 2') with grade reversals before and after

Trail/Structure Formality: Formal, 48" width

Wet Area Crossing Formality: Formal bridges for minor/major crossings, 60" minimum width

Duty of Care: Moderate

Intended Experience: This frontcountry-style trail should provide a constantly reversing grade and low sinuosity. Excavated soil material will be utilized to form small rollers, slightly insloped trail segments on outside turns, and low superelevated turns. The trail tread will be well defined and contain avoidable obstructions that can be easily rolled over.



SPECIFICATIONS

Trail Type Name: Backcountry Trail
Difficulty Rating: More Difficult/Blue Square

Typical Tread Width: 12" - 36"

Typical Corridor Width: 36"-48"

Tread Rugosity: Uneven, with regular rock and root protrusions, <12" above trail tread

Average Gradient: < 10%

Maximum Sustained Grade: 15%

Maximum Grade: 30%, with armored tread

Typical Tread Materials: Mostly natural surface (native soils) with some rock armoring

Sideslope Steepness: Flat to 75%

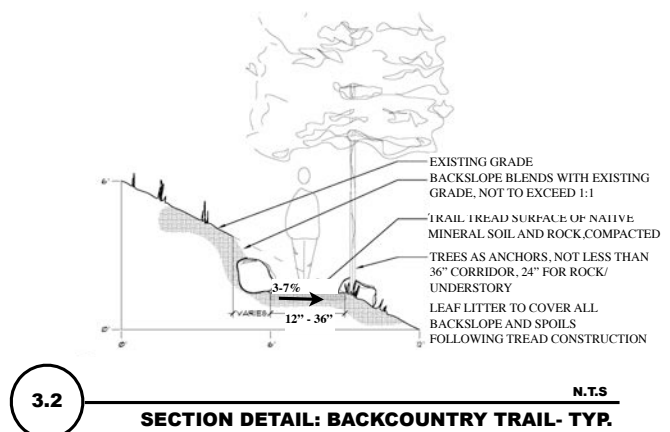
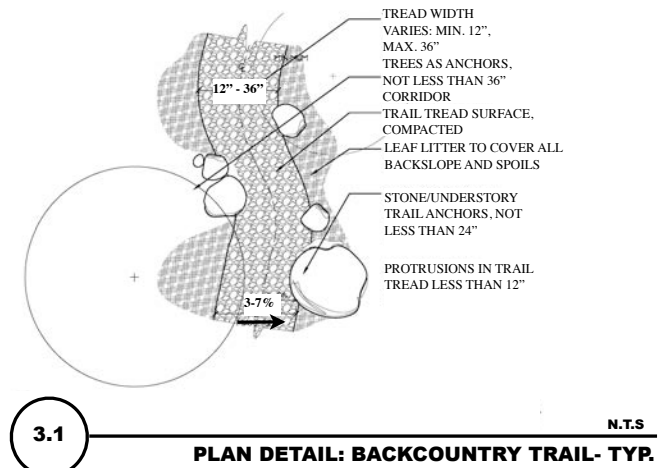
Turn Radius: Tight turns with possible switchbacks

Trail/Structure Formality: Low formality, 36" minimum width

Wet Area Crossing Formality: Armored crossings at grade where possible, bridges less formal with low level engineering

Duty of Care: Low

Intended Experience: The backcountry-style trail will provide a constantly reversing grade and moderate sinuosity. Tread will be moderately defined by the cleared corridor and presence of native rock material. Excavated material will be utilized to enhance access to and through existing rock features, but will not be used to create rollers, insloped or superelevated turns.



SPECIFICATIONS

Typical 1.1: Rolling Contour Trail



Typical 1.2: Grade Reversals

