SPECIFICATIONS AND SCOPE OF WORK

ARROWHEAD PARK FLOW TRAIL CONSTRUCTION

Section 1: Project Description and Scope

Section 2: Maps

Section 3: Project Details

Section 4: Finished Trail Construction and Maintenance Guidelines

Section 5: Unit Definitions and Detail Drawings

Section 6: Contractor Qualifications, Requirements, And Responsibilities

Section 1: Project Description and Scope

1.1 General Project Description

Macon / Bibb's Arrowhead Park Mountain Bike Trail currently has 9 miles of singletrack. The contractor shall provide design and construction services for a new flow trail style single track mountain bike trail at Arrowhead Park, Lizella, GA. The purpose of this project is to add an additional 1 – 2 miles of mountain bike specific flow trail with trail signage to a specific undeveloped section of Arrowhead Park. Update signage for the existing 9 miles of trail and replace an existing bridge.

1.2 Mountain Bike Specific Flow Trail

It cannot be more strongly emphasized that this project is for purpose-built mountain bike natural surface trail. Desired characteristics include: cambered trail surfaces, insloped turns, rolling tread, whop-de-dos, incorporation of native features (such as large rocks), and seamless transitions between trail types. The trail should be mostly downhill, with an emphasis on fun and speed, and less on rider fitness. There should be some more difficult features (rock garden, root garden, drops, jumps, etc), and those features should have an alternate easier line around them – but the difficult feature should be the main line. The trail should be constructed with sustainability in mind, with proper water drainage, and the design should adhere to generally accepted trail building best practices such as those advocated for by IMBA.

In partnership with the Ocmulgee Mountain Bike Association and Macon / Bibb, the contractor will be expected to maximize the potential of the landscape hosting the trail corridors. Creativity is encouraged but must be within the parameters of Section 4.

1.3 Signage

Signage for the flow trail should indicate start, finish, approaching difficult features, and trail obstacles. Signage for the existing trail should follow common trail difficulty rating signs. The existing trail should be segmented into color loops with area numbers, see Figure 2-3 in the maps section.

1.4 Bridge Replacement

One existing bridge will need to be replaced either by using wood construction or culvert pipe if possible. Bridges should be exterior grade wooden decked and spaced for self-cleaning, as non-slip as possible, of sufficient strength, thickness and width to support foot and bike traffic. Sub structure of steel or wood depending on the span. Approaches should ramp up to the bridge and be built of material not to erode. Handrails should not interfere with bike handle bars. Tire rail should be one inch above the decking to allow for self-cleaning.

1.5 Requirements for Contractor

Contractor and contractors on site staff shall have experience in the construction of built as well as hand built, natural surface, single track mountain bike trail. Experience required shall include, within the last 5 years, 3+ miles of machine built construction on at least three (3) mountain bike trail systems with a length of 8+ miles each, including Flow Trail, boulder causeways, rock drops, jump lines utilizing different trail building machines. Compliance with IMBA's (International Mountain Bicycling Association) sustainable trail principles required (grade reversals, outslope, etc).

1.6 Additions and Deletions

No extras or additional work will be allowed or paid for unless such extras or additional work are ordered in writing by the Macon / Bibb, and the price fixed and agreed upon before such work is performed. Macon / Bibb will not accept any overruns nor will it pay any quantities beyond those specified.

1.7 Discrepancies

Should the contractor or Macon / Bibb discover discrepancies in this and/or related documents (e.g., project details or specifications), the matter shall at once be brought to the attention of the other party, and the discrepancies corrected before proceeding further.

Section 2: Maps

Figure 2-1 Map of Proposed Area with Red Border

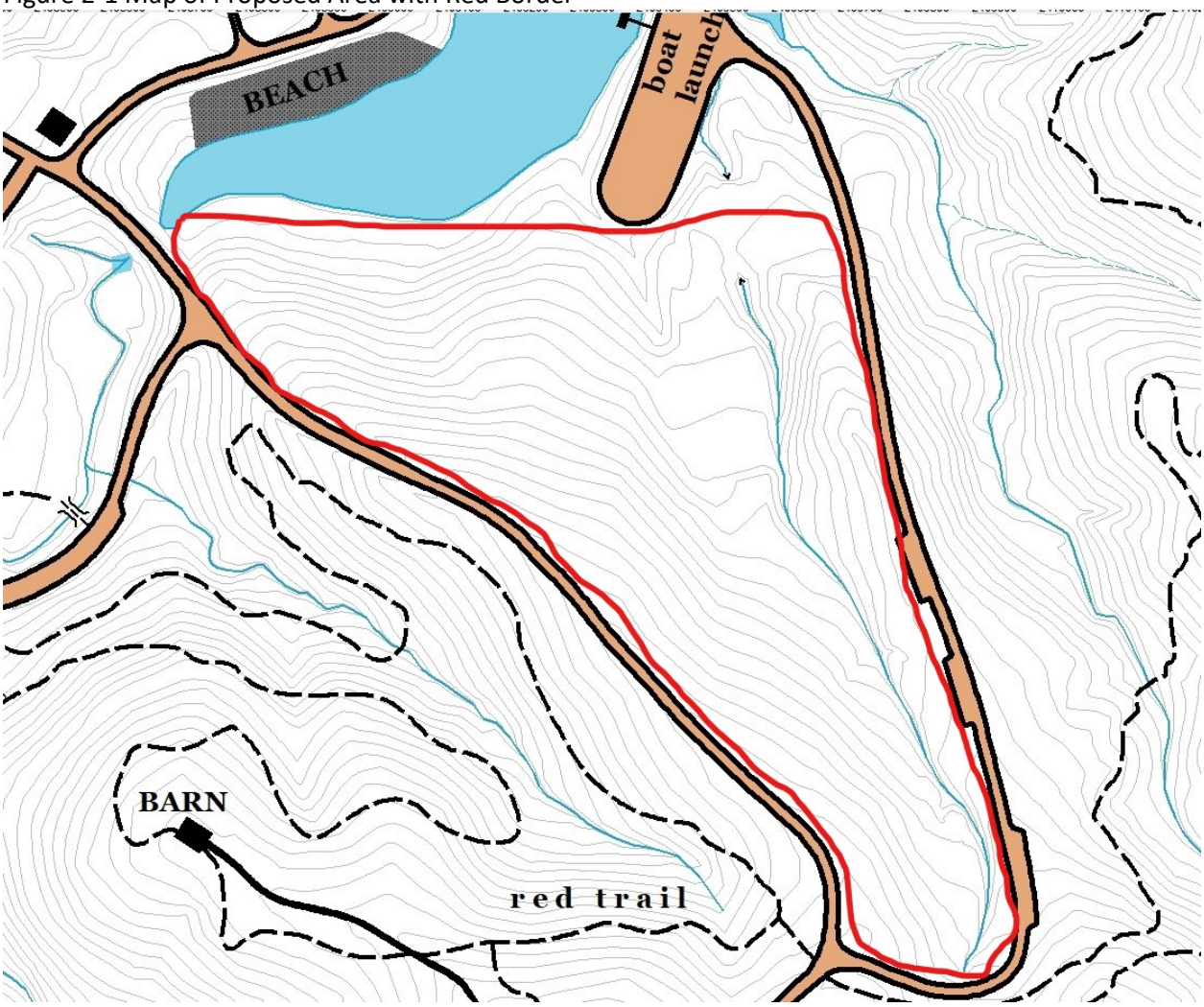


Figure 2-2 Satellite View

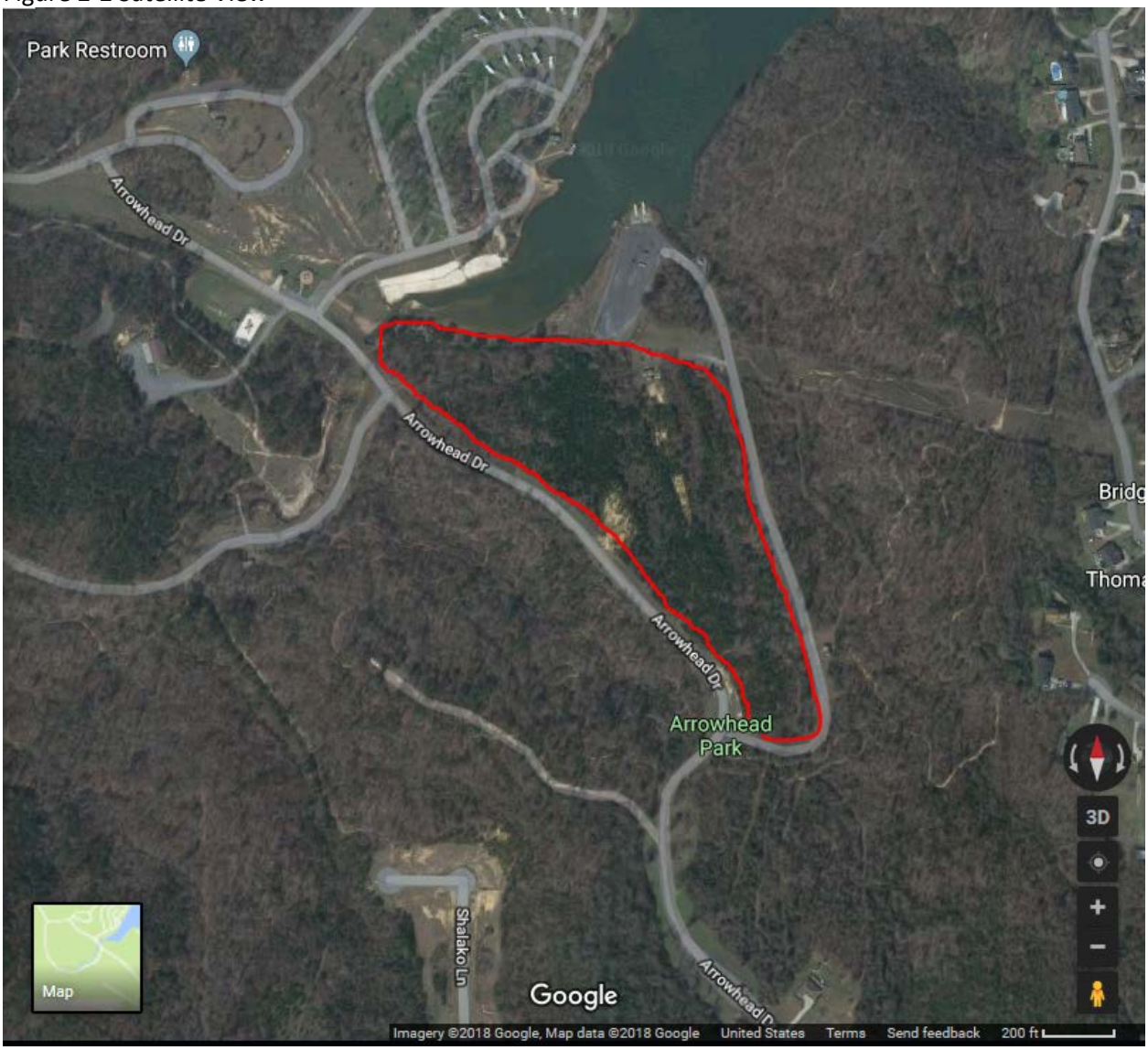
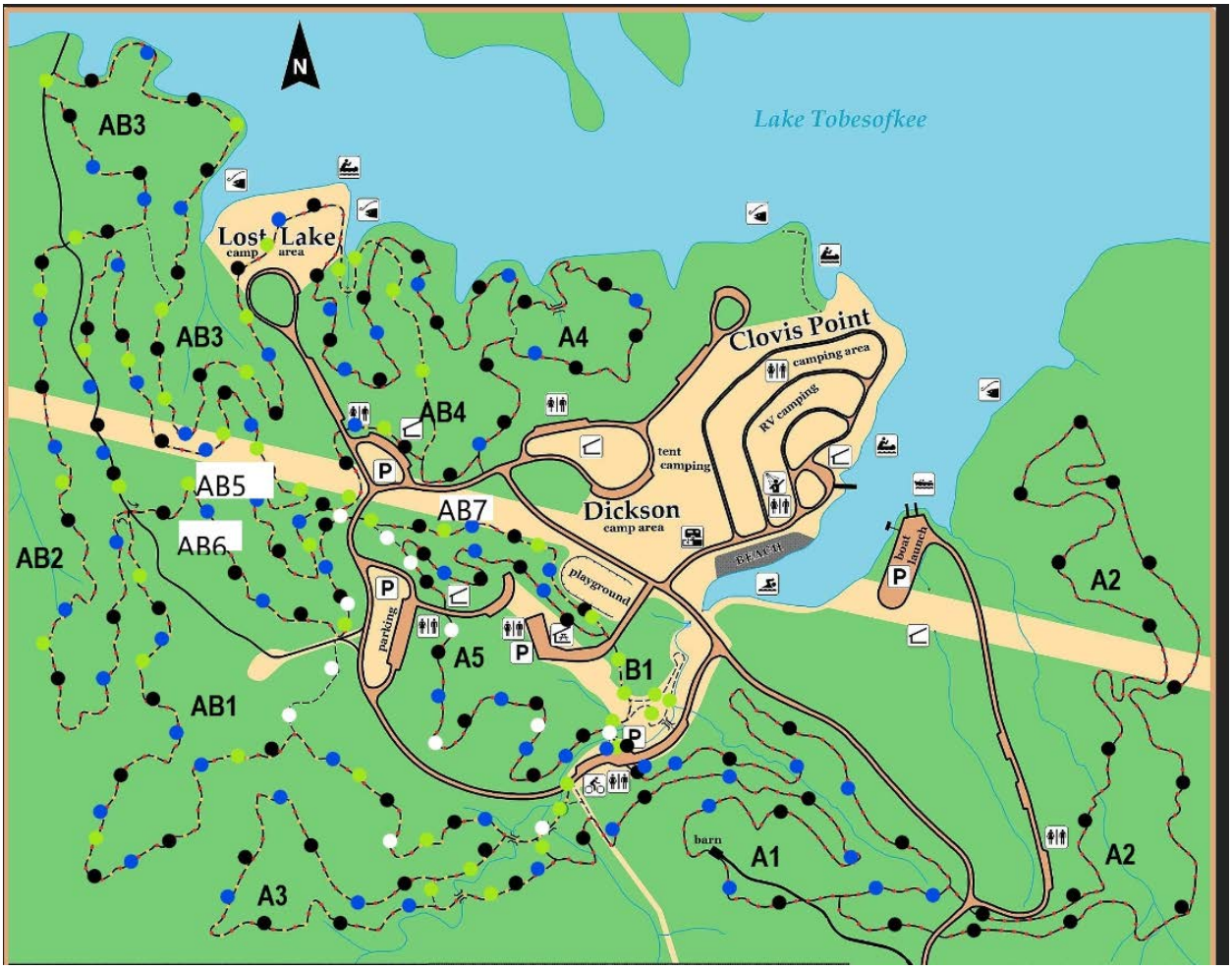


Figure 2-3 Map of Existing Sections and Trail Loops



Section 3: Project Details

3.1 Arrowhead Park Flow Trail

Approximately 1 to 2 miles of mountain bike specific flow trail per maps in Section 2 (this excludes existing roads). Must be design and build with the builder exercising discretion as to the final alignment with OMBA and Macon / Bibb final approval. In partnership with the Ocmulgee Mountain Bike Association and Macon / Bibb, the contractor will be expected to maximize the potential of the landscape hosting the trail corridors. Creativity is encouraged but must be within the parameters of Section 4.

3.2 Signage

Signage for the flow trail should indicate start, finish, approaching difficult features, and trail obstacles. Signage for the existing trail should follow common trail difficulty rating signs. The existing trail should be segmented into color loops with area numbers, see Figure 2-3 in the maps section.

3.3 Bridge Replacement

One existing bridge will need to be replaced either by using wood construction or culvert pipe if possible. Bridges should be exterior grade wooden decked and spaced for self-cleaning, as non-slip as possible, of sufficient strength, thickness and width to support foot and bike traffic. Sub structure of steel or wood depending on the span. Approaches should ramp up to the bridge and be built of material not to erode. Handrails should not interfere with bike handle bars. Tire rail should be one inch above the decking to allow for self-cleaning.

Section 4: Finished Trail Construction and Maintenance Guidelines

4.1 Trail Design

Design of any new segments or reroutes must be guided by the sustainable trail principles promulgated by accepted resources such as the current editions of the Trail Solutions; IMBA's Guide to Building Sweet Single-track, Managing Mountain Biking; IMBA's Guide to Providing Great Riding, Bike Parks; IMBA's Guide to New School Trails, and the USDA's Trail Construction and Maintenance Notebook.

4.2 Bike-Specific Trail Flow

All trails constructed as part of this project shall be natural surface single-track trail that is purpose built for mountain bicyclists, commonly referred to as flow trails. A subset of the larger family of rolling contour trails, flow trails share the following basic characteristics: Synergy with the landscape: Making the most of what the natural terrain provides by using the trail to explore the topography and features (rocks, trees, waterways) present. Some describe a trail with good flow as one that has been revealed, not so much as constructed. Opposition to user forces: Flow trails maximize the efficiencies afforded by using a bicycle, and are designed to counteract forces that direct a user off the trail. Bermed turns and cambered tread surfaces, for example, promote traction, safety, sustainability, and enjoyment. Conservation of momentum: The ideal trail avoids "flow killers" such as sharp turns, incongruent features, and disjointed climbs and descents. Instead, it utilizes undulations and cambered turns to rewards smooth, deliberate riding and maximize forward motion. A flow trail encourages a better understanding of the bicyclist/bicycle interface, allowing riders to reach that unique sensation of floating through the

landscape. Leading the user forward: A sense of discovery, combined with a design that maximizes a rider's forward momentum, helps to draw the user forward. The trail is never repetitive or predictable, nor is it "awkward", with variety and innovation combining to create an intuitive feel.

4.3 Trail Construction Best Practices

To satisfy erosion and sediment control requirements, the trail must be finished as the project advances. Ideally, all roughed-in corridor will be finished the same day. Any segments requiring delayed finishing must be approved in advance by Macon/Bibb, and may result in delayed final payment.

4.4 Corridor Clearing

Corridor clearing shall be confined to within five (5') feet of trail and backslope edges. Refer to section 5.2 for new construction clearing specifications. Trees under 6" may be cut without permission.

4.5 Debris

Cut and scatter all branches and brush cut as part of the trail development. No debris shall be left within ten (10) feet of the trail. Butt-ends of any sawed limbs must face away from trail.

4.6 Tread

All tread should be constructed as full bench whenever possible. If fill is required, it should be supported by a stone retaining wall sufficient to support the proposed use. Specific tread widths are a function of their location in the system. Specific values are enumerated in the attached Coos County Forest Trails Experience Construction Guidelines. Narrower gateways through natural obstacles (trees, rock outcrops) are encouraged. Tread widths in areas of dynamic flow, jump landings, and insloped turns, for example, may be wider to accommodate the full range of riding experiences. Significant deviations from these examples require approval from Macon/Bibb.

4.7 Rocks

Maximum size rock material to be left in the trail is a function of its location in the system. All rock embedded in the trail surface should be stable. Excess tool marks on rocks is not acceptable.

4.8 Woody Material

Woody material such as stumps, logs, and brush shall be removed from the trail tread. No stumps less than twelve (12) inches in diameter shall be left within five (5) feet of the trail tread.

4.9 Fall Zone Clearing

Areas adjacent to dynamic trail segments where visitors have a greater potential to exit the immediate trail corridor will be cleared of impact focusers; butt-end branches, stumps, and rocks under six (6) inches in diameter.

4.10 Backslope

Backslope of trail should be graded to three-to-one (3:1) slope or until it matches the existing slope. In areas where the backslope has the potential to become part of the active tread it must be finished to trail tread specifications.

4.11 Trail, Finished Condition

Hand finishing and grading of the trail tread, backslope, down-slope spoils, and drainage features shall result in a surface that matches the texture of the surrounding forest floor while enabling water to drain off the trail.

4.12 Spoils Stabilization

All excavated materials not used in the trail tread or other trail structures must be stabilized. Spoils shall be distributed in a thin layer adjacent to the trail tread. Spoils may not be placed in drainages or swales. When possible, spoils should be mulched with native materials to discourage erosion while native seed stocks reestablish. In certain circumstances, installation of formal erosion control measures may be required. At all times, spoils stabilization must satisfy the terms of the project approval and local regulations.

4.13 Turns

All turns are insloped ("bermed"). Insloped turns should be constructed to have good flow for wheeled trail users. When possible, turns should include an entrance and exit rolling grade dip. If conditions warrant, a traditional rolling crown switchback may be constructed with prior approval.

4.14 Grade Reversals

A designed grade reversal or constructed rolling grade dip should occur at least every sixty (60) feet and preferably more frequently. Any grade reversal must be strongly anchored to discourage short cutting. In mountain bike-specific trails, grade reversals also double as flow elements: rollers, jumps, and pump/rhythm sections. In this context grade reversal shape, size, and placement should reflect its placement within the system. Specific details will be determined by the contractor in partnership with the client.

4.15 Above-Grade Earthen Structures

If soil is scarce, a rock core may be used so long as it provides less than fifty percent (50%) of the total volume of the structure. Use of organic materials, duff, woody materials, etc., is prohibited. Fill structures must have a fill slope of at least two-to-one (2:1) or the angle of repose of the local soil, whichever is greater. A retaining wall may be substituted for a fill slope. Fill structures must be completely stabilized and compacted. Acceptable techniques include trackpacking or compaction via a dedicated tamping unit. Hand tamping is not acceptable. Raw soil faces that do not become tread must be mulched and seeded in the same fashion as spoils and satisfy the terms of the project erosion control methodologies. Examples of above-grade earthen structures include aggressive grade reversals ("rollers", "jumps") and turn pads on insloped switchbacks.

4.16 Water Diversions

The majority of the tread should be outsloped at five percent (5%). When not possible or desirable due to purpose-built insloping, resource concerns, or obstruction, water can be directed down the trail for up to six (6) inches before a water diversion location.

4.17 Mechanized Equipment Best Practices

All track marks will be raked smooth. Affected area will be finished to have a nature shape, e.g., spoils piles rounded, smoothed and cleared of significant brush, blade edges blended, etc.

Section 5: Unit Definitions and Detail Drawings

Any accompanying figures are for illustrative purposes only and do not relieve contractor of the need to satisfy written requirements

5.1 Trail Flagging

Trail flagging encapsulates final trail design. Final design must reside within the approved corridor. Corridor is marked with flagging and/or pin flags. Flags indicate centerline; the approved corridor is +/- 50 feet on either side of centerline. Placing the trail within the corridor does not alleviate the contractor from utilizing generally accepted practices for sustainable trail construction.

5.2 Trail Construction (figures 1 - 4)

Trail width guidelines apply to active tread only; backslope and any fill slopes are not included. If necessary, the trail may be cleared of all woody plants larger than six (6) inches DBH other than crop trees, which shall not be removed without approval from Client. The extent of corridor clearing will meet the requirements for the specific trail type. Any stumps resulting from the clearing should be excavated and removed. Any woody debris not used in trail closure should be removed from sight of the trail or arranged to blend into the landscape. The trail tread shall consist of packed earth or rock. If not allowed by the trail design characteristics then all stumps and/or roots should be excavated and removed from the trail tread. Backslope dimensions are derived from surrounding area such that they satisfy the earlier stated three-to-one (3:1) definition. In areas where the backslope has the potential to become part of the active tread it must be finished to trail tread specifications. The trail should contain frequent grade reversals. To encourage self-cleaning, the grade of the drains at the bottom of the grade reversals must be sloped to drain in an aggressive manner while simultaneously resisting user forces. In some cases this will require insloping with a drainage basin placed into the hillside. If grade reversals result in a fill slope, these slopes and the associated feature(s) will be finished to satisfy the above-grade earthen structure guidelines. Any downslope spoils must be distributed such that no berm is present. Spoils must be stabilized with a covering of forest duff. In areas with insufficient duff, seed-free straw may be substituted for forest materials. Excess soil shall not be distributed into drainages or adjacent to streams. If borrow pits are created in the course of trail construction they will be finished to satisfy the requirements of the trail and its surroundings: slopes graded to the local angle of repose, stumps and roots trimmed, spoils stabilized and covered with forest duff. Borrow pits may not form a potential injury hazard.

5.3 Armored Tread/Stone Pitching (figure 5)

Width of armored tread should be at least 1.5 times the width of the local trail specification to permit users to find their line as the trail matures, and at least two (2) times in areas where more variation is likely (e.g., jump landings, insloped turns). Stone pitching must extend at least ten (10) inches deep with a minimum of two-thirds (2/3) of the rock buried below the surface of the surrounding grade. Stones should be stable and aligned perpendicular to the direction of travel. Each end of a pitched section shall be supported by larger “bookend” stones embedded in the ground. Stones used for armoring should be a minimum of four (4) inches thick and a minimum of twenty-four (24) inches wide. Voids shall be filled with compacted native soil, crushed rock, and/or crusher fines. Client may require additional guide stones along the edges of the trail if the final surface of the trail appears more rugged than the adjacent landscape.

5.4 Armored Tread/Turf Block Pavers (figure 6)

Turf block pavers are an alternate armoring technique to stone pitching where it is difficult to source appropriate native stone. As turf block pavers allow a more predictable tread surface they are particularly appealing for easier trails or for flow elements where excessive tread variance is not desired (e.g., high-speed insloped turns, some constructed jump elements). Width of armored tread should be at least 1.5 times the width of the local trail specification to permit users to find their line as the trail matures, and at least two (2) times in areas where more variation is likely (e.g., jump landings, insloped turns). Turf blocks pavers must be installed as directed by manufacturer’s instruction. Final installation should be nominally at-grade with the surrounding landscape. Individual paver blocks should be completely supported to reduce the chance of breakage. Height variance and joint spacing should both be less than one-half (0.5) inch. Blocks should be laid in a pattern to minimize joint lines parallel to the direction of travel. Paver voids are to be filled with local materials, compacted to reduce settling.

5.5 Rolling Grade Dip (figure 7)

The minimum length of the drain portion shall be six (6) feet and the ramp must be at least ten (10) feet long; the height differential between the bottom of the dip and the top of rise shall be approximately eight (8) inches to twenty-four (24) inches. The sides of the rise must have a slope of at least two-to-one (2:1) or the angle of repose of the local soil, whichever ratio is greater (e.g., whichever slope is more gentle). To encourage self-cleaning, the grade of the drains at the bottom of the grade reversals must be sloped to drain in an aggressive manner while simultaneously resisting user forces. In some cases this will require insloping with a drainage basin placed into the hillside. If grade reversals result in a fill slope, these slopes and the associated feature(s) will be finished to satisfy the above-grade earthen structure guidelines. Rolling grade dips must be sited at least twenty (20) feet uphill from significant turns in order to reduce the effects of unweighting on higher speed users. Exceptions on these dimensions and requirements may be made on a site-by-site basis to accommodate terrain constraints or to enhance the user experience. In certain locations the client may approve smaller structures reinforced with large rocks that fit the character of the trail to be an acceptable substitute.

5.6 Terrace (figure 8)

A terrace is a combination of landing, drain, retaining wall, and step useful for creating sustainable shared-use trails in steeper corridors than would be supported by the natural surface tread alone. Steps are used to accelerate the climb/descent while the use of landings between risers allows continued use by bicycles. Terraces may be incorporated in new trail construction or applied as a corrective maintenance measure. Step risers should be constructed out of stone; rot-resistant wood may be substituted with the approval of the client. Maximum riser height is determined from the step height requirements of the trail segment. The riser shall be battered (sloped) in the direction of uphill travel. A riser may be assembled from multiple stones with the understanding it must withstand the dynamic loading of climbing and descending users. The landing must have a minimum length of at least 1.5 times the stride or wheelbase of the longest users. Each landing must contain a drain off to the side, preferably to the downhill side; it is not acceptable for a landing to drain over its riser. The drain differential must be at least six (6) inches. The fill required to create the landing is considered part of this unit. The downhill edge of the landing must be supported by a retaining wall of stone; rot resistant wood may be substituted with the approval of the client. The landing's retaining wall must satisfy all the requirements of a stand-alone wall (see 5.7).

5.7 Rock Retaining Wall (figure 9)

The measurement unit of a rock retaining wall is square feet, calculated from the exposed vertical face. Rock retaining walls should be stable and battered (inclined back into the slope) a minimum of fifteen percent (15%) from vertical. All walls should have rubble backfill of at least six (6) inches in depth behind the wall to allow for drainage and to prevent damage from frost heaves. The base of the wall should be placed on firm compacted mineral soil or rock outcroppings. Any small stones used to "chink" larger stones in place should be placed in the back of the wall. The top of the wall shall not be counted in the width of the trail tread. The top layer of stones shall be installed in a manner to avoid being accidentally dislodged by trail users. Deadmen (stones that extend from the wall into the slope) should be used to ensure integrity. There should one deadman for every half (0.5) square yard of wall.

5.8 Rock Armored Ford (figure 10)

Grade reversals will be created in the trail tread prior to the crossing on each bank. Maximum grade on each approach is thirty percent (30%) for a maximum distance of fifty (50) feet. Armored tread surface will extend through the stream and up the banks until a grade of less than fifteen percent (15%) can be achieved. The armored tread will be flush with the stream

bottom to discourage failures from cavitation. Armoring will extend downstream one-half (1/2) the required maximum tread width of trail tread to discourage headcutting.

5.9 Constructed Turn/Insloped Turn (figure 11)

The insloped turn unit includes armoring and drainage features associated with the structure. Each insloped turn requires a Grade Reversal or Rolling Grade Dip before and after; these shall not be counted as separate units for cost estimating or payment purposes. The dips for these drainage features should be a minimum of six (6) feet long. To encourage self-cleaning, the grade of the drains at the bottom of the grade reversals must be sloped to drain in an aggressive manner while simultaneously resisting user forces. In some cases this will require insloping with a drainage basin placed into the hillside. If grade reversals result in a fill slope, these slopes and the associated feature(s) will be finished to satisfy the above-grade earthen structure guidelines. The uphill dip should be sited to minimize unweighting effects for higher speed users except where warranted and desired on expert or advanced trails. Specifications for radius and cross slope across the turn are enumerated in the attached Coos County Forest Trails Experience Construction Guidelines. Turning radii should be consistent. Turns with a running grade of twenty percent (20%) or greater in the apex should have a rock armored drain twentyfour (24) inches wide following the inside the turn. If multiple turns are required, they will be sited to minimize “stacking”.

5.10 Constructed Turn/Insloped Switchback

The switchback unit includes any walls, armoring, and drainage features associated with the structure. Each insloped switchback requires a Grade Reversal or Rolling Grade Dip before and after; these shall not be counted as separate units for cost estimating or payment purposes. The dips for these drainage features should be a minimum of six (6) feet long. To encourage self-cleaning, the grade of the drains at the bottom of the grade reversals must be sloped to drain in an aggressive manner while simultaneously resisting user forces. In some cases this will require insloping with a drainage basin placed into the hillside. If grade reversals result in a fill slope, these slopes and the associated feature(s) will be finished to satisfy the above-grade earthen structure guidelines. The uphill dip should be sited to minimize unweighting effects for higher speed users except where warranted and desired on expert or advanced trails. All switchbacks will be constructed with an insloped turnpad. Specifications for radius and cross slope across the turn are defined in the attached Coos County Forest Trails Experience Construction Guidelines. Turning radii should be consistent. Turns with a running grade of twenty percent (20%) or greater in the apex should have a rock armored drain twenty-four (24) inches wide following the inside of the turn. Interior of legs shall be anchored by and filled with large rocks and/or woody debris to discourage shortcutting. Fill structure for turnpads will comply with composition, compaction, and fill slope requirements of an Above-Grade Earthen Structure. Client may require that a retaining wall be employed in place of a fill slope. Any retaining structures will be constructed of stone and comply with all Rock Retaining Wall specifications. If multiple switchbacks are required, they will be sited to minimize “stacking”

5.11 Technical Trail Feature Boardwalk N/A.

5.12 Reconstruct Tread

Any tread reconstruction should match the new trail construction listed above.

5.13 Rock Rip-Rap

Rock Rip-Rap is a six (6) inch deep layer of placed stone intended to stabilize slopes with concentrated storm flow. Typically this technique will be used to protect drains of rolling grade dips and drainage channels below an armored crossing. Individual stones should be gabion-class or equivalent. Rock Rip-Rap is measured by the square yard.

5.15 Modifications

Modifications to the specifications may be allowed but must be made by the client in writing.

5.16 Figures

Figure 1: Rolling Contour Trail

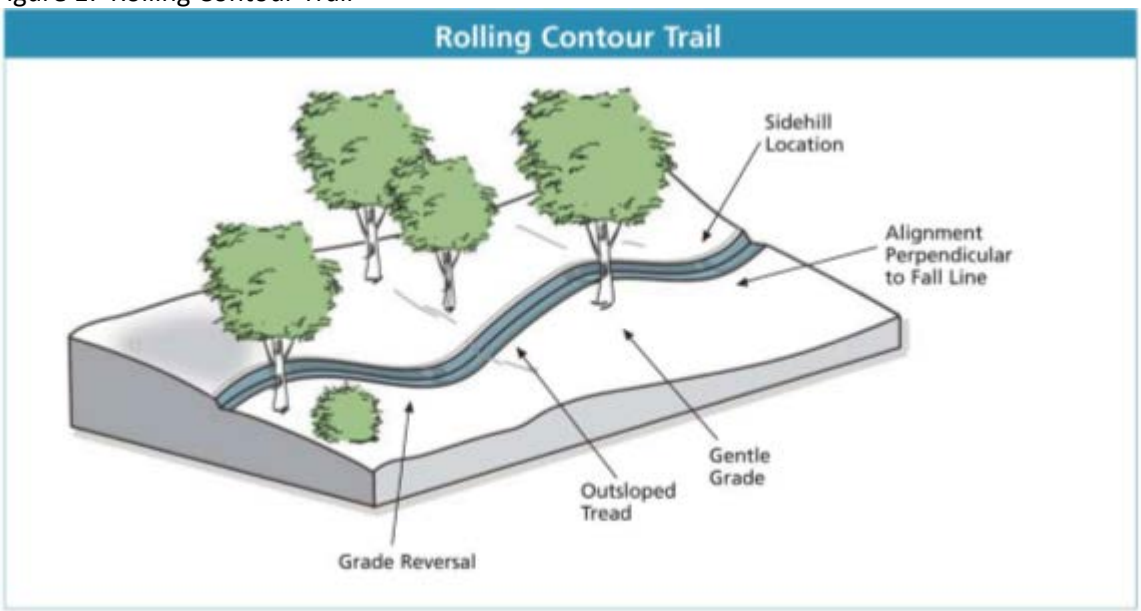


Figure 2: Illustration of The Half Rule

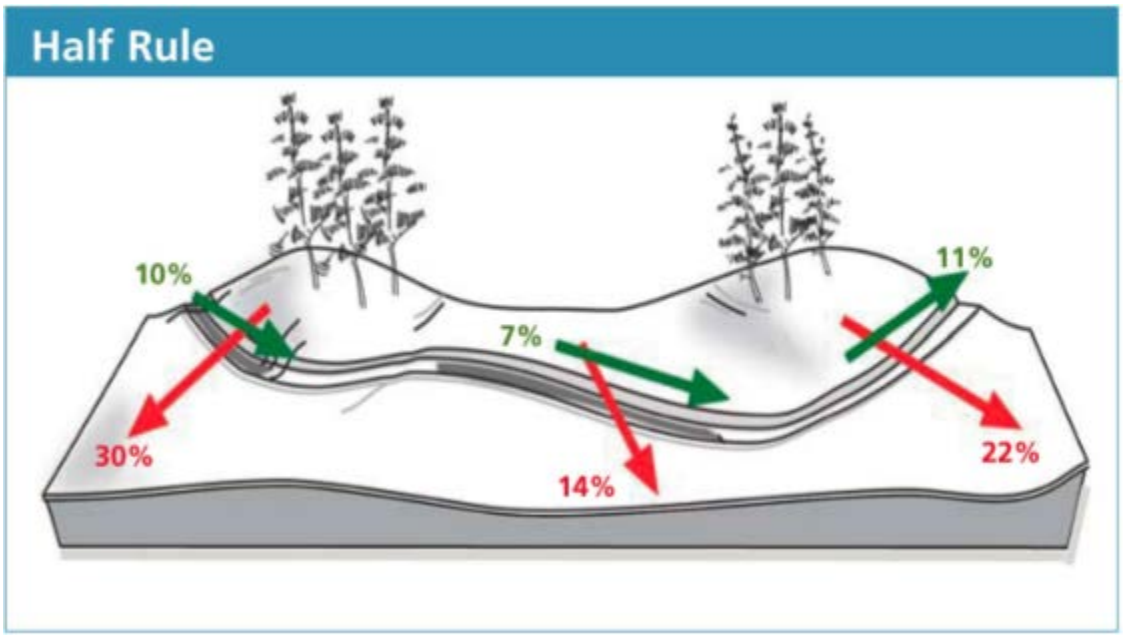


Figure 3: Full Bench Trail

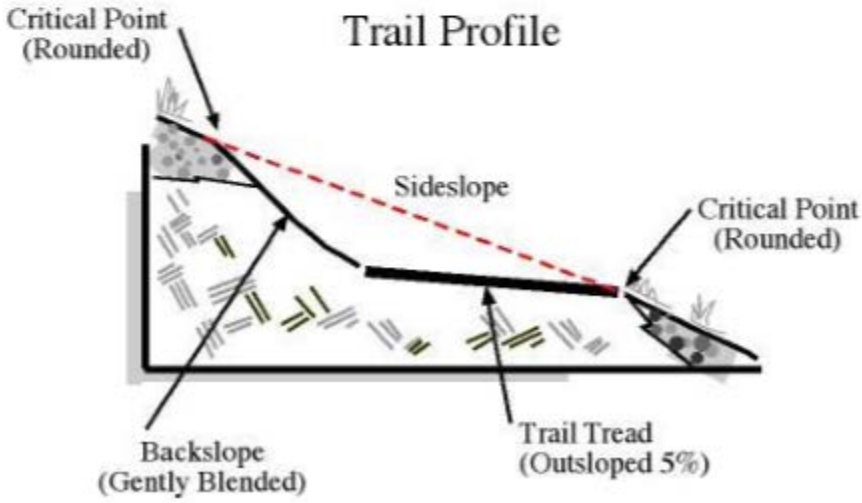


Figure 4: Clearing Limits

CLEARING LIMITS

NOT TO SCALE

Clearing Limits (mm)

Location	Uphill	Downhill	Height
Stock Trails	1200 mm (4')	1200 mm (4')	3000 mm (10')
Hiker Only Trails	900 mm (3')	900 mm (3')	2400 mm (8')

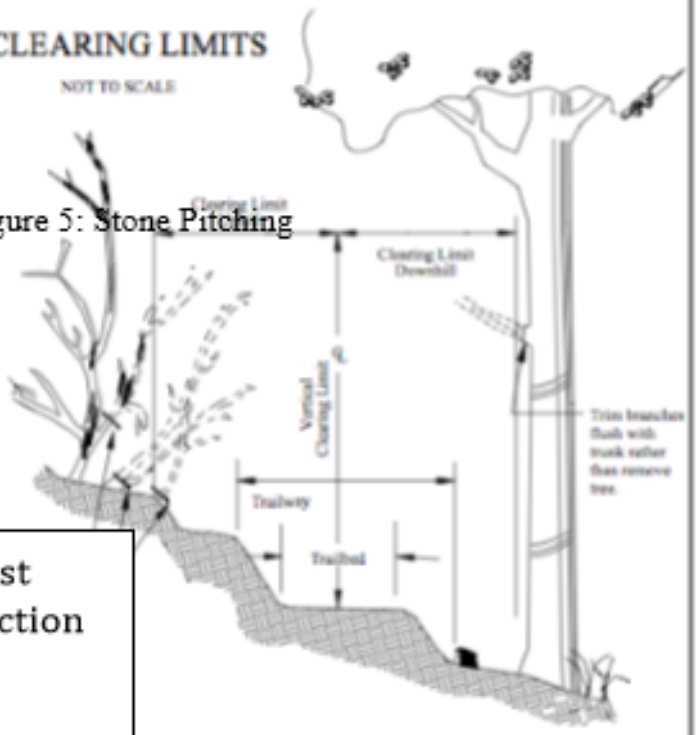


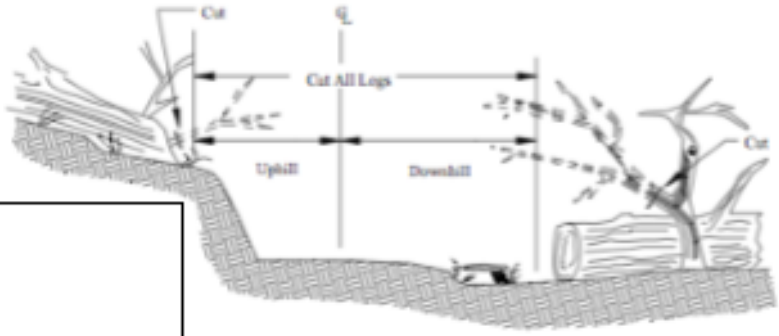
Figure 5: Stone Pitching

Refer to Coos County Forest Trails Experience Construction Guidelines

Stump Height Requirements* (mm)

Stump Position	Side Slope	Uphill	Downhill
Stumps between the trailway and clearing limits.	Side slope less than or=to 10%	50mm	50mm
	Side slope over 10%	50mm	50mm
Stumps outside the clearing limits	Side slope less than or=to 10%	N/A	N/A
	Side slope over 10%	N/A	N/A

*All heights measured on uphill side of stumps.



911-1 NBS - 4/2008

Figure 5: Stone Pitching

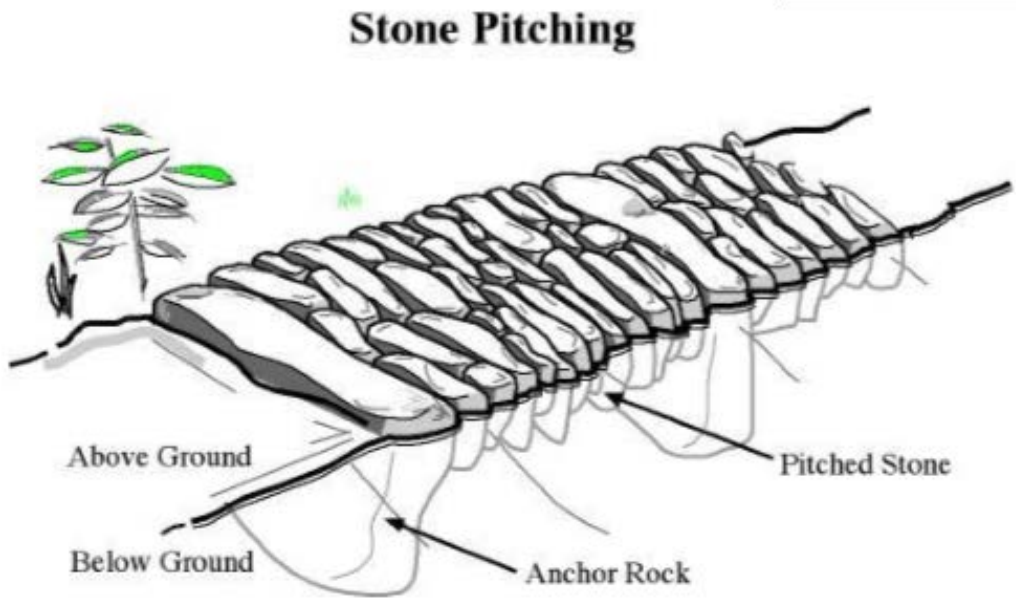


Figure 6: Turf Block Pavers

Figure 7: Rolling Grade Dip

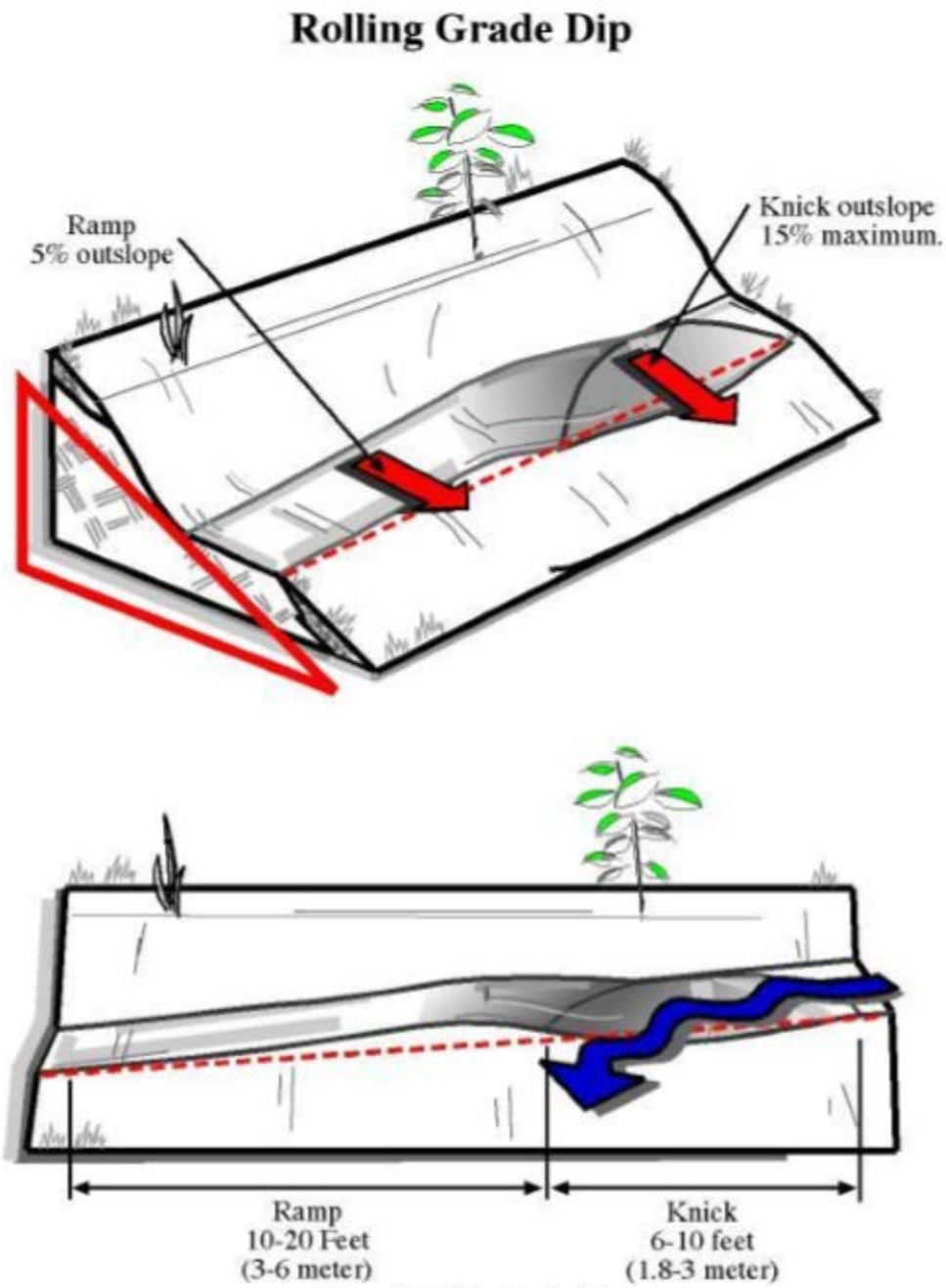


Figure 8: Terrace

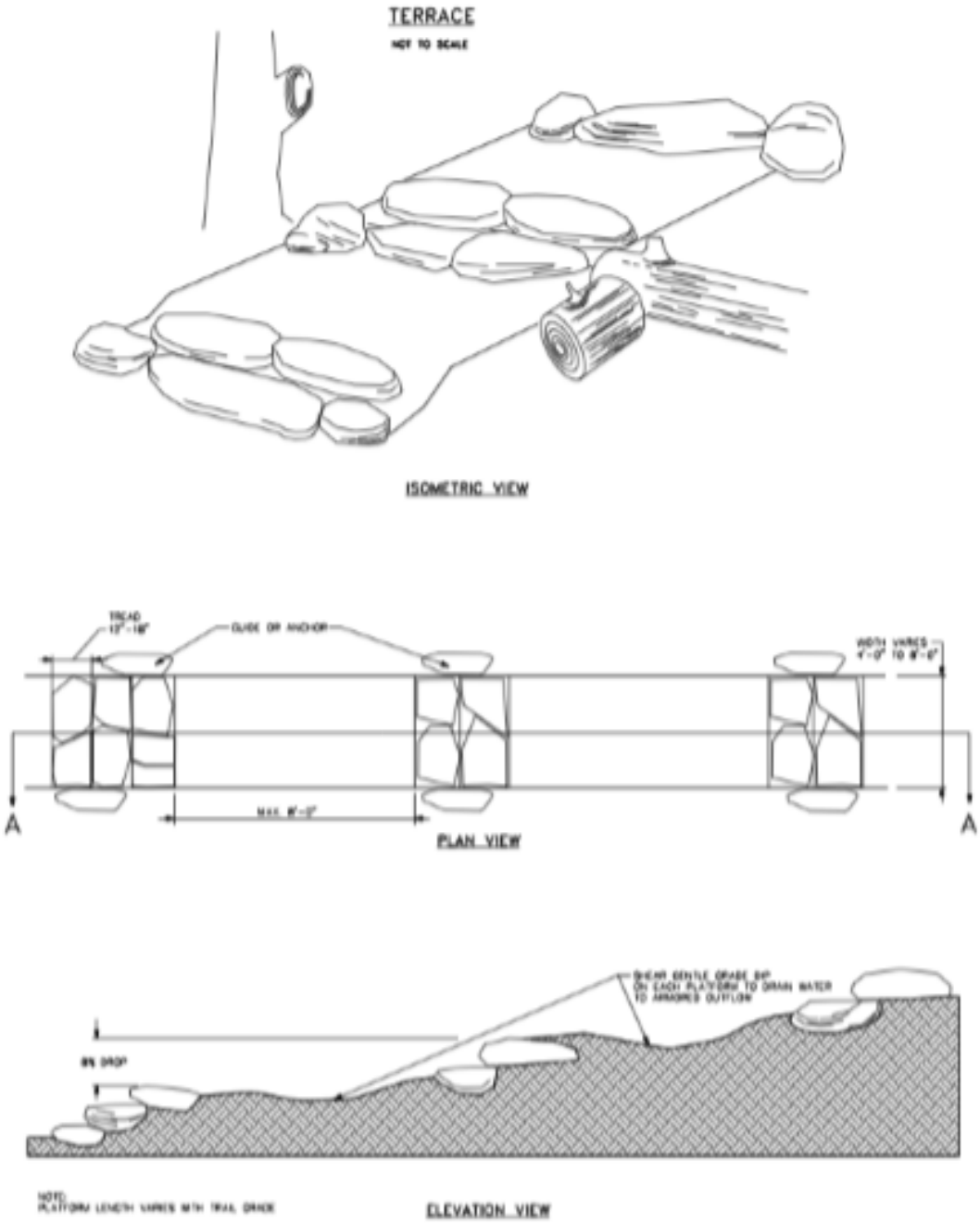


Figure 9: Rock Retaining Wall

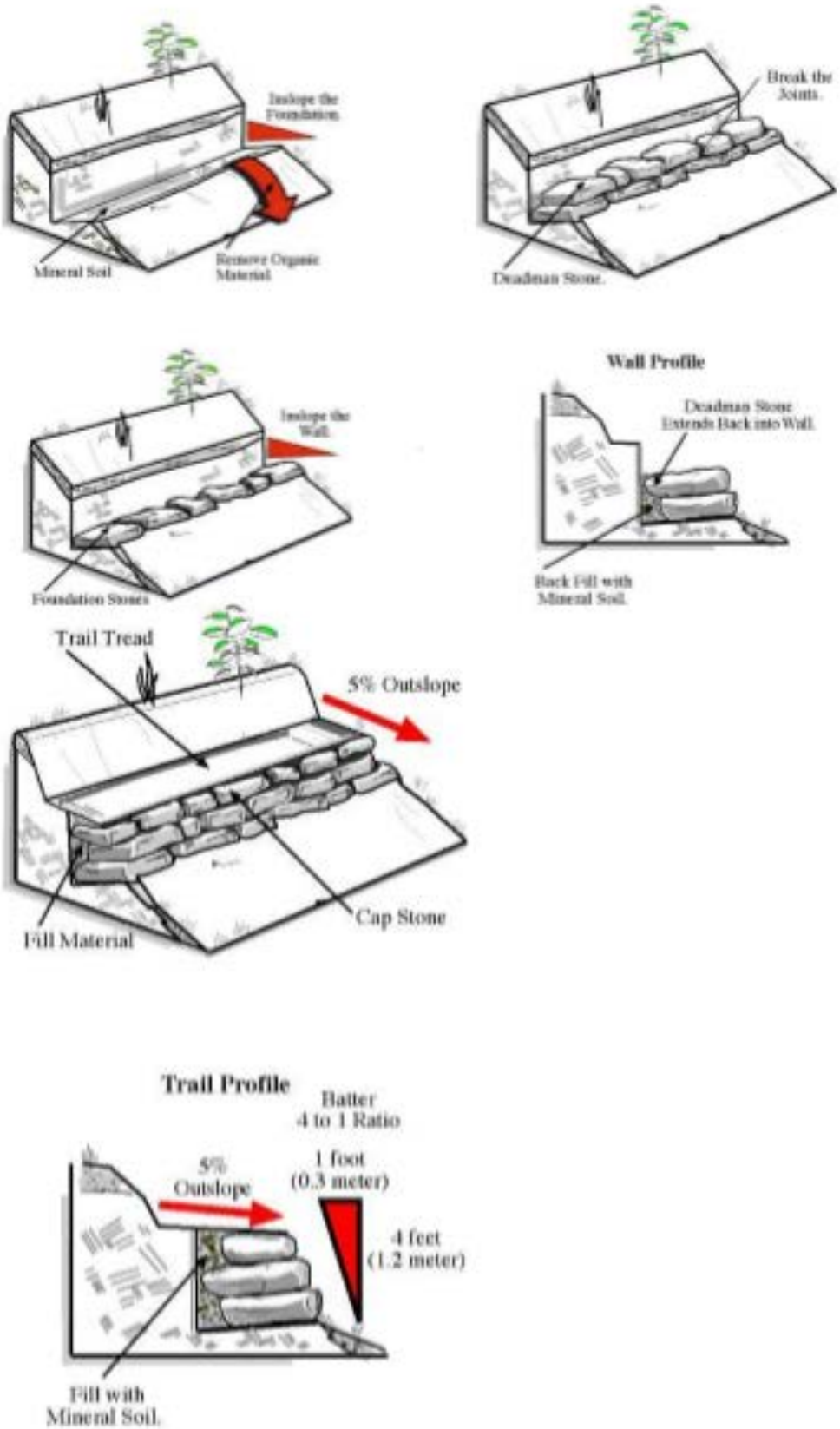


Figure 10: Rock Armored Ford

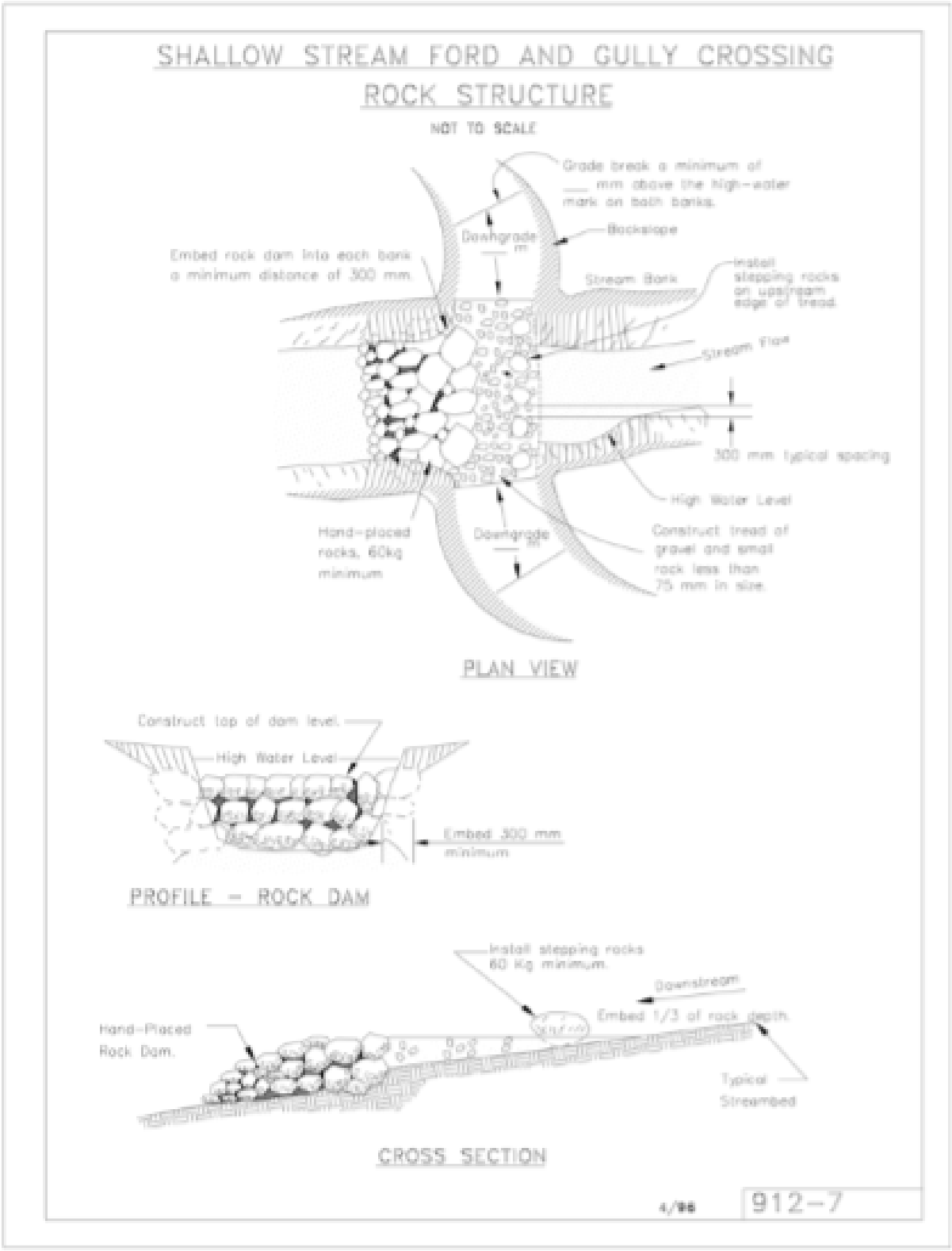
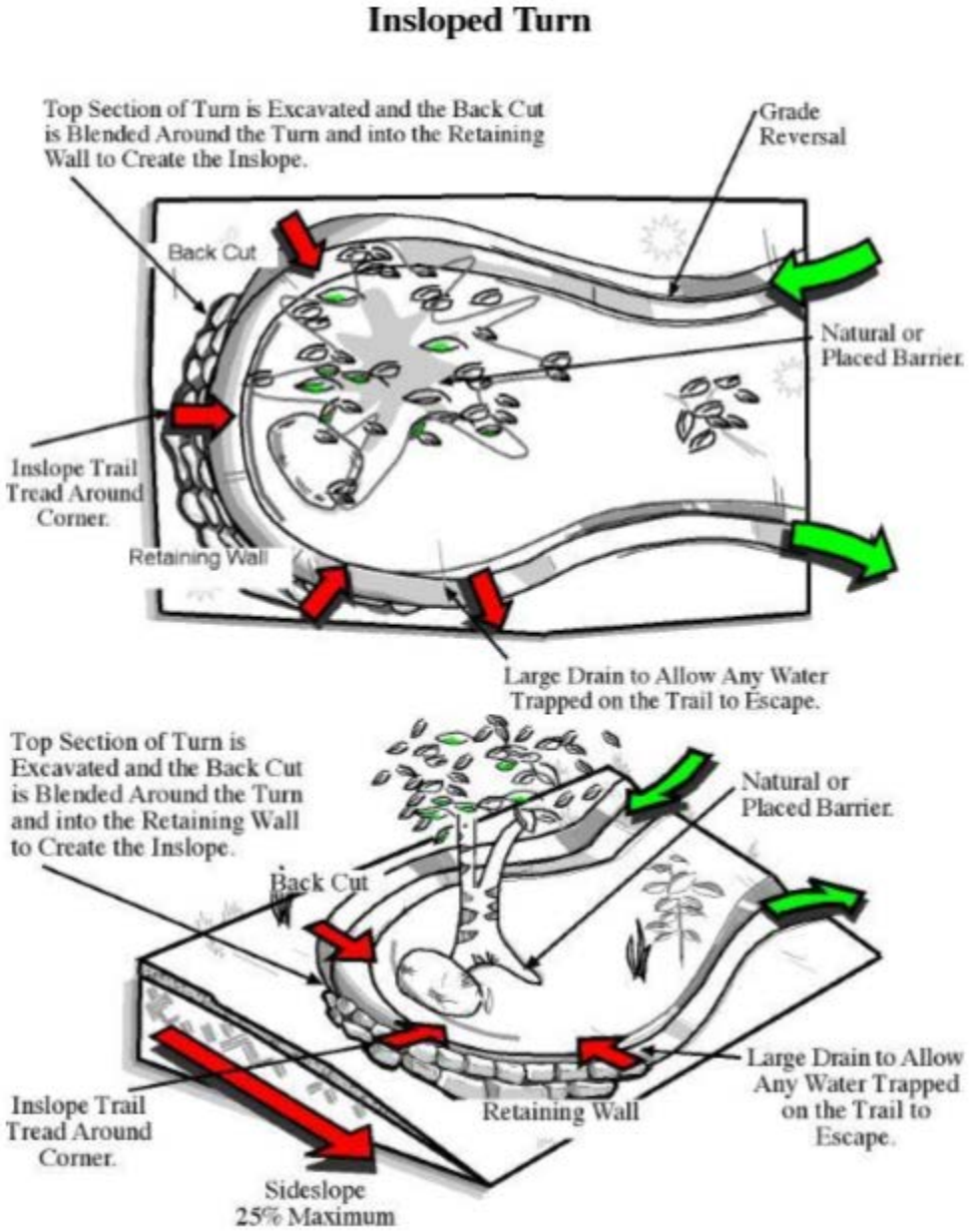


Figure 11: Insloped Turn



Section 6: Contractor Qualifications, Requirements, and Responsibilities

6.1 Mountain Bike-Optimized Experience

This project is a mountain bike-specific natural surface trail. Mountain bike-specific trail is that which maximizes the fun and efficiency of the bicycling experience through the provision of trail features and macro- and micro-design techniques. Desired characteristics include: cambered trail surfaces to counter user forces, insloped turns, aggressively rolling terrain, incorporation of native rock features, and seamless transitions between trail types. Trail features and flow should progress as a user gets deeper into the system; larger, tighter, more narrow examples of similar elements moving from “green” (easier) to “blue” (more difficult) to “black” (most difficult) areas. Along segments intended for more skilled trail users, optional lines available as an easier bypass for less skilled riders are highly desirable. In partnership with the client, the contractor will be expected to maximize the potential of the landscape hosting the trail corridors. Creativity is encouraged. Client is the final arbiter of the correctness of completed work. Inspection of work will be both visual and dynamic. The client will validate the riding experience of each sub-project as a prerequisite to final approval. Sections that do not ride properly will be improved and/or rebuilt until they are deemed acceptable to client; contractor will not be paid for partial or incomplete work, or work that does not meet the requirements, implicit and explicit of this contract.

6.2 Tools

The contractor shall perform the required work using hand tools and mechanized equipment. Permanent modification of trail outside the scope of work to accommodate equipment access (e.g., widening of an existing trail or creation of a permanent access route) is not desirable and must be specifically approved by in advance by the client.

6.3 Mechanized Equipment

All mechanized equipment shall be in good mechanical condition and free of any fluid leaks.

6.6 Meetings and Progress Reviews

The contractor shall meet with the Macon / Bibb and OMBA as agreed upon by both parties to review progress and project expectations.

6.7 What Contractor Provides

The contractor shall provide the necessary supervision, equipment, materials, and tools to perform specified trail maintenance and trail construction on identified trails and sites, including fuel for any mechanized equipment/tools and any and all personal protection and safety equipment.

6.8 Food and Water

The contractor shall be responsible for providing food and water for self and staff.

6.9 Public Safety

The contractor shall ensure that reasonable precautions are taken to protect the public at all times where work is being performed.

6.10 Employee/Subcontractor Conduct

All of the contractor’s employees and subcontractors shall conduct themselves in a proper manner at all times. Intoxication or any unsafe behavior by the contractor’s employees while performing duties related to this contract is strictly prohibited. The contractor will be required to remove from the site any individual whose continued employment or retainer is deemed to be contrary to the public interest or inconsistent with the best interests of this trail construction project and will not use such individual to perform services under this contract.

6.11 Competence

The contractor may be required to immediately remove from the worksite any employee or subcontractor of the contractor who is incompetent or who endangers persons or property or whose physical or mental condition is such that it would impair the employee's/subcontractor's ability to satisfactorily perform the work. Notification to the contractor shall be made by telephone promptly and confirmed in writing as soon as possible. No such removal shall reduce the contractor's obligation to perform all work required under this contract.

6.12 Compliance with Modern Practices

All work shall be performed and completed in a thoroughly skillful, efficient, and professional manner in accordance with best modern practices, regardless of any omissions from the attached specifications and/or drawings.

6.13 Condition of Materials and Equipment

All materials and equipment incorporated into the trail shall be new or otherwise in good working order and shall comply with the applicable standard in every case where such a standard has been established for the particular type of material in question.

6.14 Disposal of Materials and Supplies

Not Approved Materials, supplies, etc., that have been delivered to the job but do not comply with specifications and have not been approved shall be immediately replaced by the contractor at the contractor's expense. The contractor shall replace goods with material, supplies, etc., in full accordance with the specifications.

6.15 Disposal of Materials and Supplies

Not Used Materials, supplies, etc., have been delivered to the job but are not used shall be removed from the site and properly disposed by the contractor at the contractor's expense.