

**Loon Echo Land Trust  
Request for Proposals (RFP)  
Rolfe Hill Phase 1 Trails Project**

**Proposal Due Date: *April 15<sup>th</sup>, 2026***

**Contact:  
Matt Markot ([matt@lelt.org](mailto:matt@lelt.org))**

**This project is contingent upon execution of a formal Maine Trails Program project agreement.**



## Table of Contents

<b>SECTION 1: PROJECT DESCRIPTION .....</b>	<b>5</b>
1.1 GENERAL PROJECT DESCRIPTION.....	5
1.2 PROJECT INTENT AND GOALS.....	5
1.3 CLIENT’S REPRESENTATIVE .....	<b>ERROR! BOOKMARK NOT DEFINED.</b>
1.4 ADDITIONS AND DELETIONS .....	5
1.5 DISCREPANCIES .....	6
<b>SECTION 2: SCOPE OF WORK.....</b>	<b>6</b>
2.1 SCOPE OF WORK.....	6
2.2 DRAWINGS AND SPECIFICATIONS .....	6
<b>SECTION 3: CONTRACTOR QUALIFICATIONS, REQUIREMENTS, AND RESPONSIBILITIES</b>	<b>7</b>
.....	7
3.1 EXPERTISE .....	7
3.2 PTBA MEMBERSHIP.....	<b>ERROR! BOOKMARK NOT DEFINED.</b>
3.3 INSURANCE.....	7
3.4 TOOLS.....	7
3.5 MECHANIZED CONSTRUCTION EQUIPMENT .....	8
3.6 MOTORIZED VEHICLES AND SITE ACCESS.....	8
3.7 BACKCOUNTRY PROTOCOL .....	8
3.8 FOOD AND WATER.....	8
3.9 PUBLIC SAFETY.....	8
3.10 FEES FOR LICENSES, PERMITS, AND INSURANCE.....	9
3.11 STAGING, MOBILIZATION, STORAGE, AND USE OF PREMISES .....	9
3.12 SUPERINTENDENCE BY CONTRACTOR.....	9
3.13 EMPLOYEE CONDUCT .....	10
3.14 EMPLOYEE COMPETENCE.....	10
3.15 COMPLIANCE WITH BEST PRACTICES .....	10
3.16 CONDITION OF MATERIALS AND EQUIPMENT .....	10
3.17 DISPOSAL OF MATERIALS & SUPPLIES NOT APPROVED.....	11
3.18 SIGNAGE .....	11
3.19 TRAIL CONSTRUCTION.....	11
3.20 USE OF SUBCONTRACTORS.....	11
3.21 INDEMNITY .....	11
<b>SECTION 4: REGULATIONS AND STANDARDS .....</b>	<b>12</b>
4.1 JURISDICTIONAL REGULATION .....	12
4.2 APPLICABLE LAWS AND COURTS.....	12
<b>SECTION 5: COMMUNICATION.....</b>	<b>12</b>
5.1 POINT OF CONTACT .....	12
5.2 CONTACT PROTOCOL .....	12
5.3 EMAIL COMMUNICATION .....	12
<b>SECTION 6: INSPECTION, MEASUREMENT, AND PAYMENT .....</b>	<b>13</b>
6.1 INSPECTION .....	13
6.2 MEASUREMENT .....	13
6.3 MEASUREMENT FOR PAYMENT.....	13
6.4 PAYMENT.....	14
6.5 LIQUIDATED DAMAGES .....	<b>ERROR! BOOKMARK NOT DEFINED.</b>
<b>SECTION 7: TIMELINE AND SCHEDULE .....</b>	<b>15</b>
7.1 SELECTION TIMELINE.....	15
7.2 TRAIL SCHEDULE.....	15

<b>SECTION 8: BASIS FOR AWARD .....</b>	<b>15</b>
8.1 BASIS FOR AWARD .....	15
8.2 RIGHT OF REJECTION .....	15
8.3 ADDITIONAL INFORMATION .....	15
8.4 PARTIAL AWARD .....	15
8.5 NO AWARD .....	15
8.6 PROFESSIONAL COMMUNICATION .....	16
8.7 COMPLETENESS OF BID PACKAGE .....	16
8.8 SCORING .....	17
<b>SECTION 9: SUBMISSION PACKAGE.....</b>	<b>18</b>
9.1 SUBMISSION PACKAGE.....	18
9.2 REQUIRED DOCUMENTS:.....	18
<b>SECTION 10: BID WORKSHEETS .....</b>	<b>19</b>
10.1 BID WORKSHEET A - PROPOSAL.....	19
10.2 BID WORKSHEET B – SCHEDULE.....	22
10.3 BID WORKSHEET C – PRICE .....	23
<b>APPENDIX A: DESIGN PACKAGE AND MAP .....</b>	<b>24</b>
(SEE ATTACHED) .....	24
<b>APPENDIX B: SPECIFICATIONS.....</b>	<b>25</b>
1 TREAD EXCAVATION AND GRADING (TRAIL 102).....	25
1.1 TRAIL CORRIDOR AND FLAGLINE .....	25
1.2 CORRIDOR CLEARING .....	26
1.3 GRADE REVERSALS .....	26
1.4 ROLLING GRADE DIP .....	26
1.5 ROLLER/RISE .....	27
1.6 BACKSLOPE.....	27
1.7 SPOILS .....	27
1.8 DEBRIS AND WOODY MATERIAL .....	28
1.9 HAZARDOUS TREES.....	28
1.10 ROCKS.....	28
1.11 TRAIL DRAINAGE.....	29
1.12 TRAIL FINISHED CONDITION .....	29
1.13 BORROW PITS .....	29
1.14 TURNPIKE .....	30
1.15 DITCH .....	30
1.16 CULVERT .....	30
1.17 PUNCHEON.....	31
1.18 TURN.....	31
1.19 ROCK RETAINING WALL.....	32
1.20 HUB.....	33
2 TREAD EXCAVATION AND GRADING (TRAIL 252).....	33
2.1.1 TRAIL CORRIDOR AND FLAGLINE.....	34
2.1.2 CORRIDOR CLEARING.....	34
2.1.3 GRADE REVERSALS.....	34
2.1.4 ROLLING GRADE DIP .....	34
2.1.5 ROLLER/RISE.....	34
2.1.6 BACKSLOPE.....	34
2.7 SPOILS .....	34
2.8 DEBRIS AND WOODY MATERIAL .....	34
2.9 HAZARDOUS TREES.....	34

2.10 ROCKS .....	34
2.11 TRAIL DRAINAGE.....	35
2.12 TRAIL FINISHED CONDITION .....	35
2.13 BORROW PITS .....	35
2.14 TURNPIKE .....	35
2.15 DITCH .....	36
2.16 CULVERT .....	36
2.17 PUNCHEON.....	36
2.18 DOWNHILL BIKE-ONLY TURN .....	36
2.19 ROCK RETAINING WALL.....	36
2.20 MERGE AND DIVERGE .....	37
3.1 TREAD EXCAVATION AND GRADING (TRAIL 253).....	37
3.1 TRAIL CORRIDOR AND FLAGLINE .....	38
3.2 CORRIDOR CLEARING .....	38
3.3 GRADE REVERSALS .....	38
3.4 ROLLING GRADE DIP .....	38
3.5 ROLLER/RISE .....	38
3.6 BACKSLOPE.....	38
3.7 SPOILS .....	38
3.8 DEBRIS AND WOODY MATERIAL .....	38
3.9 HAZARDOUS TREES.....	38
3.10 ROCKS.....	38
3.11 TRAIL DRAINAGE.....	39
3.12 TRAIL FINISHED CONDITION .....	39
3.13 BORROW PITS .....	39
3.14 TURNPIKE .....	39
3.15 DITCH .....	39
3.16 CULVERT .....	39
3.17 PUNCHEON.....	39
3.18 DOWNHILL BIKE-ONLY TURN .....	39
3.19 ROCK RETAINING WALL.....	40
3.20 MERGE AND DIVERGE .....	40

## SECTION 1: PROJECT DESCRIPTION

### **1.1 General Project Description**

Loon Echo Land Trust (herein referred to as “Client”) is seeking a Contractor or Contractors to provide natural surface trail construction at the Rolfe Hill Preserve in Casco, Maine. This project is partially funded by a Maine Trails Program grant administered by the Maine Bureau of Parks and Lands, Grants & Community Recreation Program

The Rolfe Hill Phase 1 Trails Project includes construction of approximately 2.00 miles of adaptive mountain bike optimized and mountain bike-specific trails and five (5) days of construction support on a volunteer trail build. The trails range from easiest to most difficult. Trails will be managed for pedestrians, mountain bikes, and adaptive mountain bikes.

The Rolfe Hill Preserve is ultimately expected to include over 10 miles of contemporary singletrack. The trails will range from easiest to extremely difficult and provide shared-use two-way and bike-only downhill.

### **1.2 Project Intent and Goals**

The Client wishes to create a trail system on their lands which provides meaningful low-impact human-powered experiences for all people. This Phase 1 Project includes shared-use trails for hikers and mountain bikers and bike-only downhill for mountain bikers.

Overall, the project should provide enjoyable trail experiences for hikers, runners, mountain bikers, and adaptive mountain bikers in a natural setting with minimal impacts to natural resources. The trail system should remind visitors of local and traditional New England trails.

LELT is committed to creating a contemporary trail system in a region of Maine with relatively little trail access. Phase 1 at Rolfe Hill should set the foundation for a successful project and trail system.

### **1.3 Additions and Deletions**

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

The Client shall have the right, without invalidating the contract, to make additions to or deductions from the work defined in this document, and in case such deductions or additions are made, an equitable adjustment of the addition to or deduction in cost shall be made between the Client and the Contractor but must be agreed to in writing.

## **1.4 Discrepancies**

Should the Contractor discover discrepancies in this document, the matter shall at once be brought to the attention of the Client, and the discrepancies corrected before proceeding further. Client shall not be responsible to compensate Contractor for work performed on matters where discrepancies exist.

## **SECTION 2: SCOPE OF WORK**

### **2.1 Scope of Work**

The Contractor shall provide all necessary personnel, equipment, tools, materials, and knowledge to successfully complete the construction of approximately:

- 0.45 miles of advanced bike-only downhill trail,
- 0.80 miles of intermediate bike-only downhill, and
- 0.75 miles of easiest adaptive mountain bike shared-use trail

Contractor shall complete above trail construction at Rolfe Hill Preserve as described within this document, including all attachments, all field markings on site, and the “Rolfe Hill Phase 1” design drawings dated June 2025 and Revised January 2026, produced by the Outdoor Sport Institute. Contractor shall complete construction of:

- A small section of Segment 100 (from the existing trailhead to Hub L),
- All of Segment 103,
- Approximately half of Segment 102 (north of the existing ATV trail),
- All of Segment 252, and
- All of Segment 253.

Complete and finished trail shall include all structures and work incidental to the construction to ensure the trail meets the guidelines of this document, the “Rolfe Hill Phase 1” design drawings, and LELT, IMBA, and USFS industry best practices. Trail must meet the intended narrative, character, and experience.

Contractor shall provide support for a volunteer trail project on Segment 255. LELT will manage and supervise all volunteers. Contractor is solely responsible for five (5) days of support with personnel, equipment, tools, materials, and knowledge as directed by LELT.

### **2.2 Drawings and Specifications**

The drawings and specifications for this project include “Rolfe Hill Phase 1” design drawings, all field markings on site, this RFP, and any contract documents. Collectively these are referred to as the design package.

The Contractor shall keep on the work site a copy of the design package and shall at all times give the Client access thereto.

Anything mentioned or shown in one document or field marking and not mentioned or shown in the other, shall be of like effect as if shown or mentioned in all documents and field markings. In case of differences between the documents the Client shall provide clarity on which document governs.

In case of discrepancy in the documents or field markings the matter shall be promptly submitted to the Client, who shall promptly make a determination in writing.

Any adjustment by the Contractor without such a determination shall be at its own risk and expense. The Client shall furnish from time to time such detailed drawings and other information as considered necessary, unless otherwise provided.

### SECTION 3: CONTRACTOR QUALIFICATIONS, REQUIREMENTS, AND RESPONSIBILITIES

#### **3.1 Expertise**

The Contractor shall have sufficient expertise and ability to complete the work in a professional manner. This expertise must be demonstrated by past work identified in a portfolio (see Sections 8, 9, and 10).

#### **3.2 Insurance**

The Contractor shall be required to provide proof of *General Liability, Workmen's Compensation, and Automobile Liability* insurance. Contractor shall provide insurance certificates prior to beginning construction. Contractor shall provide a minimum of thirty (30) days written notice before coverage can be changed; changes in coverage may result in Contractor being terminated from the project.

- General liability for a minimum of \$1,000,000 per combined single limit, \$1,000,000 general aggregate, with the inclusion of the following as an additional insured.
  - *Loon Echo Land Trust, 8 Depot St, Suite 4, Bridgton, Maine 04009*
- Workmen's Compensation Insurance for all employees and staff engaged in project work.
- Automobile liability insurance including non-owned and hired autos with the following limits:
  - *Bodily injury \$500,000 each person/\$500,000 each occurrence*
  - *Property damage \$100,000 each occurrence*

#### **3.3 Tools**

The Contractor shall perform the required work using hand tools and/or small mechanized equipment that is appropriate for the scope of work. Contractor shall furnish all necessary tools and equipment for the scope of work.

### **3.4 Mechanized Construction Equipment**

All mechanized equipment shall be in good mechanical condition, free of any fluid leaks, be equipped with spark arrestors if applicable, and have charged fire extinguishers mounted in an accessible location. A spill kit will be maintained on site with all mechanized equipment. A spill kit must be kept within 500 feet of each machine on site.

All equipment will be clean and free of debris before being introduced to the work site. Tracks, undercarriage, and digging implements shall all be free of soil and vegetation. Equipment is subject to inspection at the start and during the project.

All equipment will be fueled via 5 gallon or less hand containers. Containers will be filled at legal fueling stations and transported to the site via truck for the fueling of equipment. No fuel will be left on site unless it is properly stored in 5 gallon or less containers. Fuel may be stored on disturbed trail corridor or in the selected staging area.

An approved fuel storage container may be left on site at the discretion of LEELT.

Equipment maintenance will be conducted offsite, in a controlled indoor garage environment.

Any equipment that appears to not meet these criteria shall be removed from the project site at the request of the Client and at no additional cost to the Client.

### **3.5 Motorized Vehicles and Site Access**

Contractor shall only be permitted to access site on approved roads, trails, and travel ways. Contractor shall be allowed to access the site at will except when the Client provides written notice of site closure.

Contractor's motorized vehicles on site shall have appropriate insurance per Section 3.3. Contractor's motorized vehicles shall access the site per Sections 3.5, 3.6, and 3.11.

### **3.6 Backcountry Protocol**

The Contractor's crew shall be familiar with backcountry operation and safety protocols as well as be familiar and adept at "leave no trace" practices.

### **3.7 Food and Water**

The Contractor shall be responsible for providing food and water for themselves and their staff.

### **3.8 Public Safety**

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

Rolfe Hill Preserve is an active recreation site and the project occurs on an open trail system. Contractor shall utilize industry best practices to close trails during active construction. Trails shall remain closed until they are suitable for public use again. Closure of trails shall occur with a five (5) day notice to the Rolfe Hill Preserve manager.

### **3.9 Fees for Licenses, Permits, and Insurance**

The Contractor shall bear all costs for required licenses and insurance.

### **3.10 Staging, Mobilization, Storage, and Use of Premises**

Contractor shall make every effort to be a good neighbor and utilize the property in a low impact way such that no adverse conditions are created.

The existing trailhead and parking lot at Rolfe Hill Preserve shall be utilized for temporary staging area of materials and machines only. Permanent staging of materials and machines shall be allowed in the field near Hub H. Contractor shall delineate areas needed for temporary and permanent staging and coordinate with Client.

Mobilization of equipment and personnel shall occur on existing trails and roads only unless absolutely necessary. No vehicles shall be driven off improved roads, only construction equipment may be mobilized across natural terrain. Contractor shall repair any damages they create on trails, roads, and to the landscape.

Contractor shall confine its apparatus, storage of materials, and operation of its employees and charges to limits indicated by law, ordinance, permits, etc.; or directions of Client, and shall not unreasonably encumber the premises with its materials. Before any work is undertaken, Contractor shall consult with Client and secure from him/her the use of such space as may be available for the storage of materials and/or equipment. Contractor will be held responsible for any damage done in connection with the use of this location for storage.

### **3.11 Superintendence by Contractor**

The Contractor shall have a competent foreman or superintendent, satisfactory to the Client, on the Site at all times during the progress of the project. The superintendent or foreman shall be familiar with and be able to read and understand the design package and be capable of communicating orally and in writing with the Client's Representative and the Contractor's workers.

The Contractor shall be responsible for all construction means, methods, techniques, sequences, and procedures, for coordinating all portions of the project under the Contract except where otherwise specified in the design package and for all safety and worker health programs and practices.

The Contractor shall notify the Client, in writing, of any proposed change in superintendent, including the reason, therefore, prior to making such change.

The Contractor shall, at all times, enforce strict discipline and good order among the workers on the project and shall not employ on the project, or contract with, any unfit person, anyone not skilled in the work assigned to him, or anyone who will not work in harmony with those employed by the Contractor, the Subcontractors, the Client or the Client's separate contractors and their subcontractors.

The Client may, in writing, require the Contractor to remove from the project any employee or Subcontractor's employee the Client deems to be incompetent, careless, not working in harmony with others on the Site, or otherwise objectionable.

### **3.12 Employee Conduct**

All of the Contractor's employees shall conduct themselves in a proper and professional manner at all times. Intoxication, unsafe, or unwelcoming 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 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. No such removal shall reduce the Contractor's obligation to perform all the work required under this contract.

### **3.13 Employee Competence**

The Contractor may be required to immediately remove from the worksite any employee 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 ability to satisfactorily perform the work. No such removal shall reduce the Contractor's obligation to perform all the work required under this contract.

### **3.14 Compliance with Best Practices**

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

### **3.15 Condition of Materials and Equipment**

All materials shall be new, and all equipment shall be 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 or equipment in question.

### **3.16 Disposal of Materials & Supplies Not Approved**

When materials, supplies, etc., have been delivered to the job that do not comply with specifications and have not been approved, upon notification, the Contractor shall immediately remove from the premises any such condemned material, supplies, etc., and replace them with material, supplies, etc., in full accordance with the specifications.

### **3.17 Signage**

Signage is not the responsibility of the Contractor.

### **3.18 Trail Construction**

All trail construction shall be done according to the design package. When field conditions do not pertain to specifications provided the work shall be done in accordance with the 2004 edition of the *IMBA Trail Solutions Guide*, the 2007 edition of *Managing Mountain Biking*, the 2007 edition of the *USDA Trail Construction and Maintenance Notebook*, and the 2020 edition of Kootenay Adaptive Sports Association's *Adaptive Trail Standards*.

Refer to these publications for details and descriptions of trail maintenance and construction. Deviation from these specifications will be allowed with the permission or at the direction of the Client.

### **3.19 Use of Subcontractors**

The Contractor shall be able to use subcontractors to complete the work if listed within their proposal and provided the subcontractors meet all the requirements of this bid package. Subcontractors shall submit project portfolio, references, and resumes as listed in Sections 8, 9, and 10.

Subcontractors not listed in the bidders proposal shall not be allowed.

### **3.20 Indemnity**

The Contractor shall indemnify, save, and hold harmless the Client, the Client's Representative, the landowner, and their employees and agents, against any and all claims, damages, liability and court awards including costs, expenses, and attorney fees and related costs, incurred as a result of any act or omission by the Contractor, or it's employees, agents, subcontractors, or assignees pursuant to the terms of this contract.

## SECTION 4: REGULATIONS AND STANDARDS

### **4.1 Jurisdictional Regulation**

The work shall comply with all laws, ordinances and regulations of all legally constituted authorities having jurisdiction over any part of this work. These requirements supplement the design package and shall take precedence in case of conflict.

### **4.2 Applicable Laws and Courts**

This solicitation and any resulting contract shall be governed in all respects by the laws of the State of Maine and any litigation with respect thereto shall be brought in the courts of the State.

## SECTION 5: COMMUNICATION

### **5.1 Point of Contact**

All communication regarding this project shall be sent to *Matt Markot* ([matt@jelt.org](mailto:matt@jelt.org)). Verbal responses to questions are not binding.

### **5.2 Contact Protocol**

Bidders shall not make any contact or communications with any member of the Evaluation Committee, or any other agent, officer, or representative of the Client or associated partners in regards to this solicitation. Inappropriate communication or past relationships with the Client that create a conflict of interest will make a bidder ineligible for this project. Bidders shall only communicate with *Matt Markot* or a designated representative.

### **5.3 Email Communication**

Email communication is the primary method of receiving and responding to written requests for clarification. It is solely the bidders' responsibility to ensure that they have received all emails distributed and that any emails they have sent to the Client have been received.

The Contractor must show professional use of email, including opening and sending attachments, responding in professional language, and using email as the sole method of communication. Failure to use email for communication purposes or failure to use email in a professional manner will make a bidder ineligible for this project.

## SECTION 6: INSPECTION, MEASUREMENT, AND PAYMENT

### **6.1 Inspection**

Contractor shall meet with Client on site prior to the start of any new trail, at the 50% completion point of each trail, and at the end of each trail. Contractor shall notify Client with 14 days' notice prior to any meeting.

Client shall be allowed inspection without notice or notification of the Contractor.

Contractor's selected Foreman or Lead Builder shall accompany Client on inspections only.

Client shall provide Contractor with verbal and written documentation after each inspection detailing where construction meets and does not meet the standards, design package, specifications, and intent of the project.

### **6.2 Measurement**

This design package provides Minimum Quantities for trail and trail structures. Measurement of these quantities will be taken only to ensure the trail meets the intended narrative, character, and experience.

No payment will be made for units except complete and finished trail.

Measurement of these units shall be taken with commonly accepted measuring tools such as measuring tape, measuring wheels, and rulers.

Client shall make every effort to provide an accurate and fair measuring tool.

Contractor may provide their own measuring tool and Contractor's selected Foreman or Lead Builder may measure units within the presence of the Client.

### **6.3 Measurement for Payment**

This project is a linear foot payment project and only complete and finished trail will be measured.

Client shall measure finished trail with a standard measuring wheel. Client shall make every effort to provide an accurate and fair measuring wheel.

Contractor may provide their own measuring wheel and Contractor's selected Foreman or Lead Builder may measure finished trail within the presence of the Client.

Trail measurements will be made down the centerline of the tread, except turns which may be measured along the commonly accepted "ride line". The Client has

final say on the alignment along which the measuring wheel travels for measurement.

In the case of a discrepancy between the Client's and Contractor's measuring wheel the approved payment amount shall be the mean (average) between the two numbers.

## **6.4 Payment**

Payment shall be made for completed and finished trail that is approved and measured by the Client.

Total linear feet for payment are listed in the design package for each trail and no payment shall be made for linear feet distances greater than 5% of the listed totals without prior written approval from the Client.

Contractor shall invoice according to the following procedure:

- Contractor shall email electronic copies of invoices to Matt Markot (matt@lelt.org) and will include "Invoice – Rolfe Hill Phase 1" in the subject line
- Contractor shall invoice no more frequently than every thirty (30) days. Client reserves the right to refuse to pay invoices not submitted within thirty (30) days of the completion of the Contractor's work effort.
- Client reserves the right to defer or refuse to pay any invoice or payment, or part thereof, if in its opinion, the amount submitted is not in reasonable proportion to the percentage of services and/or goods completed by Contractor.
- Contractor shall keep detailed daily records of work performed per individual and copies of all receipts and shall provide to Client if requested.

Each invoice must contain:

- Rolfe Hill Phase 1
- Segment number
- Completed trail feet for each segment since last invoice
- Total completed trail feet for each segment
- Expected trail finish date for each segment
- Billing period (e.g., "March 1<sup>st</sup>– March 31<sup>st</sup>, 2021)
- Work completed for the billing period:

Incomplete invoices will not be accepted.

## SECTION 7:TIMELINE AND SCHEDULE

### **7.1 Selection Timeline**

The project schedule is as follows:

- *April 3, 2026, 9 AM EST*– optional site visit, please confirm attendance via email: matt@lelt.org
- *April 6, 2026*– all requests for clarifications and questions due
- *April 10, 2026* - clarifications and answers distributed to bidders
- *April 15, 2026 11:59 PM EST* – all complete bid worksheets and proposal due
- *April 20, 2026* – selected bidders will be notified and interviews and negotiations will begin
- *April 27, 2026* – interviews and negotiations end

### **7.2 Trail Schedule**

All trails must be finished, stabilized, and naturalized by end of day on Friday October 31, 2027

## SECTION 8: BASIS FOR AWARD

### **8.1 Basis for Award**

The Client reserves the rights to eliminate for consideration for award any or all offers at any time prior to the award of the contract; to negotiate with selected bidders; and to award the contract to the bidders submitting the package determined to best meet the above specifications and qualifications.

### **8.2 Right of Rejection**

The Client reserves the right to waive any informality in any bid, to reject any or all bids in whole or part, with or without cause, and/or to accept the proposal that in its judgment will be in the best interest of the citizens of Maine and the United States.

### **8.3 Additional Information**

The Client reserves the right to request that the bidder supply additional information prior to the award of the contract should such action be deemed in the Client's best interest.

### **8.4 Partial Award**

The Client reserves the right to award a partial award of only a portion of the projects contained within the solicitation or to award separate portions of the project to separate bidders.

### **8.5 No Award**

The Client reserves the right to make no award.

## **8.6 Professional Communication**

Contractor and their employees or representatives, must show professionalism in all interactions regarding this project. It is considered a Qualification for award to show professionalism in all work and communication regarding the project.

## **8.7 Completeness of Bid Package**

Incomplete bid packages will be ineligible for scoring or consideration. Bidders must provide all requested documents, forms, and paperwork within this Request for Proposals to be considered eligible for scoring. Scoring shall not occur for incomplete bid packages.

## 8.8 Scoring

### Experience (50 points)

- Maximum points awarded for a package that demonstrates the Contractor's experience constructing trails that exhibit a high-quality experience in a setting and landscape similar to Rolfe Hill Preserve in Casco, Maine.
- Contractor shall submit a portfolio with a minimum five (5) high-quality bike-only and/or shared use/bike optimized trails projects. Portfolios should include brief narratives and photographs.
  - Projects must be public trail systems. No private projects are allowed unless they are open to the public (fee-based trail systems open to the public, such as private bike park businesses are allowed).
  - Preference will be given to Contractors who can show experience in building high-quality shared-use and bike-only trails that provide fun and enjoyable experiences for adaptive mountain bikers, pedestrians, and mountain bikers.
  - Preference will be given to Contractors that show experience in constructing bike-only downhill trails in terrain with minimal soil and plentiful rocks, i.e. terrain similar to the Rolfe Hill site
  - Preference will be given to Contractors that show experience in constructing well-built advanced, bike-only downhill features including doubles, gap jumps, tables, drops and high-speed berms.
- The Contractor shall submit a minimum of three (3) references to corroborate their experience in constructing shared-use, adaptive mountain bike-optimized, or bike-only downhill trails. References must be from projects listed in the supplied portfolio.
- The Contractor shall submit a resume for the site foreman and each lead builder they propose to bring to the project.
  - Preference will be given to resumes that corroborate the submitted portfolio.
  - Preference will be given to foreman with at least three (3) years of experience.
  - Preference will be given to lead builders with at least five (5) years of experience.
  - Preference will be given to Contractors willing to ensure that one or more listed employees are present for the duration of the project.

### Schedule (25 points)

- Maximum points awarded for those Contractors who submit a project schedule accelerated from the provided Trail Schedule.

### Price (15 points)

- Maximum points will be awarded for the lowest price.

### Complete package (pass/fail 10 points)

- Pass (10 points) awarded for a complete package.
- Fail (0 points) and no scoring for incomplete packages.

## SECTION 9: SUBMISSION PACKAGE

### **9.1 Submission Package**

Proposals and bid worksheets (package) must be submitted by email. Each package must be attached as a single PDF, clearly marked in the subject line with "**ROLFE HILL PHASE 1 CONSTRUCTION PROPOSAL**" and delivered to *Matt Markot (matt@jelt.org)* prior to the deadline listed in the project timeline. Hand delivered, faxed, or mailed bids will not be accepted.

The package file must be named "Rolfe Hill Phase 1 Proposal \_*Contractor's Name*" (replace the italics with your Contractor name) and must not be larger than 25MB.

The Client reserves the right to reject any bid package due to incompleteness or illegibility.

### **9.2 Required Documents:**

- Bid worksheet A.
- Bid worksheet B.
- Bid worksheet C.
- Project portfolio:
  - Minimum five (5) high-quality shared-use and bike-only trail projects that highlight adaptive mountain bike-optimized trails.
  - For each project provide a short narrative, appropriate photos, client name, point of contact (POC), POC email, POC telephone, year constructed, designer, contract manager, and relevant supporting material.
- References:
  - Minimum three (3) references to corroborate the above portfolio.
  - References shall not be family or friends of the Contractor and shall be able to provide a reference for the Contractor be in good faith.
- Resumes:
  - One resume for the site foreman and each lead builder.
  - Include the total relevant experience, years with current Contractor, and anticipated role and schedule with this project.
- Schedule:
  - Provide a schedule for each trail (bid worksheet B)
  - Include kickoff dates and finish dates for each trail bidding on.
- Price:
  - Provide a price for each trail (bid worksheet C)

**SECTION 10: BID WORKSHEETS**

**10.1 Bid Worksheet A - Proposal**

**By Submission Of A Package, The Bidder Certifies** *(initial each line):*

\_\_\_\_\_The Contractor is fully informed about the site, the nature of the work, and the qualifications needed to perform this work.

\_\_\_\_\_Prices in this bid have been arrived at independently, without consultation, communication, or agreement for the purpose of restricting competition.

\_\_\_\_\_No attempt has been made nor will be by the bidder to induce any other person or firm to submit a bid for the purpose of restricting competition.

\_\_\_\_\_The person signing this bid certifies that he/she is authorized to represent the company and is legally responsible for the decision as to the price and supporting documentation provided as a result of this advertisement.

\_\_\_\_\_Bidder will comply with all applicable Federal, State, and local regulations, policies, guidelines and requirements.

**General Information:**

Company Name \_\_\_\_\_

Phone \_\_\_\_\_

Signatory's Name \_\_\_\_\_

Fax \_\_\_\_\_

Signature \_\_\_\_\_ (Date) \_\_\_\_\_

Title \_\_\_\_\_

Mailing Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Email Address \_\_\_\_\_

SSN/Employer Identification Number \_\_\_\_\_

**Ownership and Control:**

Bidder's Legal Structure:

- Sole Proprietorship  General Partnership
- Corporation  Limited Partnership
- Limited Liability  Other \_\_\_\_\_

If Bidder is a sole proprietorship, list:

Owner Name \_\_\_\_\_

Phone (\_\_\_\_) \_\_\_\_\_

Mailing Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

SSN/Employer Identification Number \_\_\_\_\_

Beginning date as owner of sole proprietorship \_\_\_\_\_

Provide the names of all individuals authorized to sign for the bidder:

NAME (printed or typed) TITLE

_____	_____
_____	_____
_____	_____

**VERIFICATION**

I certify under penalty of perjury, that I am a responsible official (as identified above) for the business entity described above as Bidder, that I have personally examined and am familiar with the information submitted in this disclosure and all attachments, and that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including criminal sanctions, which can lead to imposition of a fine and/or imprisonment.

\_\_\_\_\_  
*(signature)*

\_\_\_\_\_  
*(date)*

\_\_\_\_\_  
*(printed name)*

\_\_\_\_\_  
*(title)*

In a separate response please provide detailed answers to the following:

- A written proposal of why you best fit this project including the Client, community, and intent.
- A written approach to your trail building, including quality control and ensuring the goals of the Client are met.
- A list of the equipment and tools intended to be used in completing the scope of work.
- A written copy of your emergency action plan for this project.
- A list of subcontractors and all of their required documents.

By signing this, I certify that I have am fully aware of the site locations, their conditions, access restrictions and other constraints. I accept the terms and conditions expressed and contained in the specifications included in and attached to this document.

---

*(signature)*

*(date)*

---

*(printed name)*

*(title)*

## 10.2 Bid Worksheet B – Schedule

<b>Bidder's Proposed Schedule</b>			
<b>Trail Name</b>	<b>Proposed Start Date</b>	<b>Proposed Finished Date</b>	<b>Required Finish Date</b>
<b>Trails 100, 102, and 103</b>			<i>October 31, 2027</i>
<b>Trail 252</b>			<i>October 31, 2027</i>
<b>Trail 253</b>			<i>October 31, 2027</i>
<b>Trail 255*</b>			<i>October 31, 2027</i>

\*Contractor responsible for five (5) days of support only.

### 10.3 Bid Worksheet C – Price

<b>Bidder's Proposed Price</b>			
<b>Trail Name</b>	<b>Linear Feet (LF)</b>	<b>Bidder's Price per Linear Foot (\$/LF)*</b>	<b>Trail Subtotal (\$)</b>
<b>Trails 100, 102, and 103</b>	3,961		
<b>Trail 252</b>	4,197		
<b>Trail 253</b>	2,416		
<b>Total**</b>		N/A	
<b>Trail 255 Support</b>	N/A	***	
<b>Mobilization****</b>	N/A	****	N/A

\*Construction of all trail features are included in the base linear foot trail cost and will not be bid or paid as separate feature units (ex. rollers, optional features, grade reversals, rock armor, rock walls, puncheons, etc.).

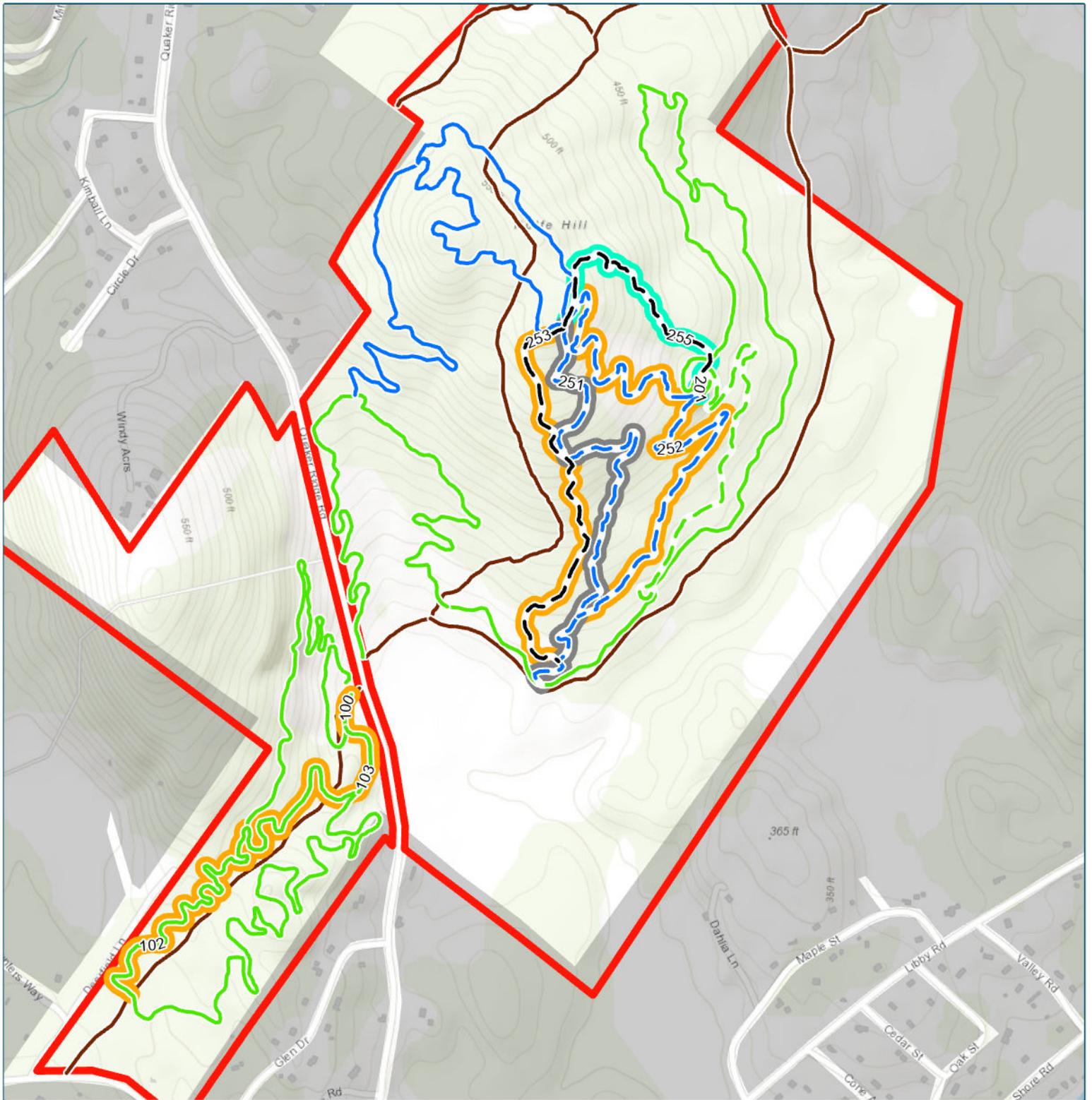
\*\*Bidders shall total the trails they wish to bid on, bidders do not need to submit bids on all trails. Please cross out all Trails not bidding on.

\*\*\*Bidders shall provide one (1) daily rate price line item for Trail 255 support. Assume five (5) days total for Trail 255 support to calculate the subtotal.

\*\*\*\*Bidders shall provide one (1) mobilization price line item for their entire proposed project.

APPENDIX B: DESIGN PACKAGE and MAP

**(See attached for Design)**



## RFP Trails for Construction

Rolfe Hill Preserve

Casco, ME

Prepared For:

Prepared By:



- RFP Trails for Construction
- RFP Volunteer Support
- Trails Under Construction
- Easiest, Bike-optimized shared-use;
- Easiest, Traditional shared-use
- Easiest/Beginner, Bike-specific gravity
- More difficult, Traditional shared-use
- More difficult, Bike-specific gravity
- Most difficult, Bike-specific gravity
- Existing Trails
- Rolfe Hill Boundary



## APPENDIX B: SPECIFICATIONS

### **1 Tread Excavation and Grading (Trail 102)**

Tread excavation and grading shall be inclusive of all excavation and grading regardless of soil conditions, landscape, terrain, and weather required to complete Trail 102 to a satisfactory condition as described within the design package and below.

Tread excavation and grading shall be inclusive of all related specifications below and all specifications within this document. Tread excavation and grading shall be inclusive of all optional features and trail structures as described within the design package.

Tread shall be mineral soil only and be completely free of organic duff, debris, trash, stumps, and trees. Rocks and roots shall remain or be placed such that they meet the requirements of the design package and this document.

Tread experience shall be similar in both directions of travel. Tread experience shall be enjoyable for adaptive mountain bikers as well as both hikers and mountain bikers. The trail should remind visitors of traditional New England trails. Tread experience shall not be overtly bike-optimized and shall be a tasteful blend of tread shaping while maintaining a natural feeling.

Tread shall be four (4) feet wide. Trail width specification applies to active tread only, backslope is not included. Backslope dimensions are derived from surrounding area such that they satisfy the 3:1 requirement within the design package. Constructed trail tread shall not exceed six (6) feet in width.

Tread variance of up to two (2) inches in height will be allowed in trail surface due to embedded rocks or roots. Unavoidable obstacles (greater than 50% of tread width) shall not protrude more than two (2) inches from the tread surface and avoidable obstacles (less than 50% of tread width) shall not be more than two (2) inches high unless approved by the Client.

All tread shall be constructed using a full bench excavation whenever possible and sufficient drainage where the terrain is flat. If fill is required, it shall be mechanically compacted in lifts of 6 inches and the fill slope should not exceed 3:1 slope.

Exceptions may be made at the discretion of the Client.

#### **1.1 Trail Corridor and Flagline**

The finished trail corridor shall extend horizontally five (5) feet from the centerline of the trail to both sides and shall be vertically ten (10) feet high.

The trail flagging delineates the downside edge or center of the approved trail corridor and desired trail alignment. The approved corridor extends 25

feet on each side of original flagline. Material, such as stone, may be harvested within this corridor as long as that harvesting does not negatively impact the trail experience or environment.

The Client may approve adjustments to the flagline within this corridor to improve sustainability, improve the trail experience, reduce impact, or improve build efficiency.

No turn shall be moved outside of the corridor without prior approval from the Client.

### **1.2 Corridor Clearing**

Corridor clearing shall be confined to within ten (10) feet of trail alignment centerline. Trees up to four (4) inches in diameter at breast height (DBH) shall be cleared and removed from the trail corridor. Trees exceeding 12 inches DBH require client approval prior to removal. Woody debris shall be placed such that it blends with the natural landscape.

### **1.3 Grade Reversals**

A designed grade reversal or constructed rolling grade dip shall occur at least every 150 feet along the trail alignment, preferably more frequently. Grade reversals are preferred over rolling grade dips. Frequency of grade reversals shall not negatively affect the trail experience. All grade reversals must be strongly anchored to discourage short cutting.

The minimum length along the trail alignment for a grade reversal is six (6) feet. The difference between the lowest elevation of the drain and highest elevation of the roller/rise shall be a minimum 12 inches.

Grade reversals shall have cross slopes that promote positive drainage off trail and down slope of the tread. The cross slope of the grade reversal must be at least 10% to encourage self-cleaning. If the cross slope of tread exceeds 25%, grade reversal must be armored to discourage headcutting. Grade reversals must be sited at least 15 feet uphill from turns.

### **1.4 Rolling Grade Dip**

A constructed rolling grade dip or designed grade reversal shall occur at least every 150 feet along the trail alignment, preferably more frequently. Grade reversals are preferred over rolling grade dips. Frequency of rolling grade dips shall not negatively affect the trail experience. All rolling grade dips must be strongly anchored to discourage short cutting.

The minimum length along the trail alignment for a rolling grade dip is six (6) feet. The difference between the lowest elevation of the drain and highest elevation of the roller/rise shall be a minimum 12 inches.

Rolling grade dips shall have cross slopes that promote positive drainage off trail and down slope of the tread. The cross slope of the rolling grade dip must be at least 10% to encourage self-cleaning. If the cross slope of tread exceeds 25%, drain must be armored to discourage headcutting. Rolling grade dips must be sited at least 15 feet uphill from turns.

### **1.5 Roller/Rise**

A drain shall occur at least every 150 feet along the trail alignment, preferably more frequently.

Accompanying each drain shall be a roller or rise. The minimum length along the trail alignment for a roller is six (6) feet. The difference between the lowest elevation of the drain and highest elevation of the roller/rise shall be a minimum 12 inches.

Rollers shall be mechanically compacted. If constructed with fill they shall be mechanically compacted in 6 inch lifts.

Roller shall meet the trail narratives and guidelines and not create a “kicker”, “jump”, or other feature which forces riders into the air at typical trail speeds unless part of the trail guidelines and narrative.

### **1.6 Backslope**

Backslope of trail should be graded to minimum 3:1 slope. The edge between existing ground surface and backslope shall be smooth and not impede the flow of water or create a vertical drop between the existing ground surface and backslope. Any backslope that is created by fill shall be mechanically compacted in lifts of 6 inches.

Exceptions may be made at the discretion of the Client.

### **1.7 Spoils**

The trail tread shall consist of compacted native mineral soil or rock. All stumps shall be excavated and removed from the trail tread. Stumps resulting from the corridor clearing should be excavated and removed at Client’s discretion.

All downslope spoils must be distributed and flattened to encourage drainage off the trail. Spoils may be distributed upslope on hillsides with a slope less than 30%.

Spoils and disturbed areas outside of the trail tread must be stabilized with a covering of native forest mulch or leaves. In areas with insufficient duff, weed-free straw may be substituted for forest materials. Soil shall not be distributed into drainages or adjacent to streams. All woody debris shall be removed from sight of the trail or arranged to blend into the landscape.

## **1.8 Debris and Woody Material**

All woody debris and material should be removed from sight of the trail or arranged to blend into the landscape. Cut and scatter all branches and brush to maximum height of 12 inches above the existing ground surface. No debris shall be left within 20 feet of trail, unless placed as anchors or stabilization. Butt-ends of any sawed limbs shall be placed facing away from trail. All branches trimmed shall be cut to a main branch or trunk to prevent stubs or "coat hangers".

Woody material such as stumps, logs, and brush shall be removed from the trail tread. Stumps within five (5) feet of the trail tread will be removed or flush cut to existing ground surface.

## **1.9 Hazardous Trees**

Contractor is not required to fell hazard trees, but is allowed to mitigate any hazard trees they feel are needed to ensure a safe work area. There is no additional payment for hazard tree mitigation as it is an expected part of trail construction in a forested landscape.

Contractor shall not fell live trees over 12 inches DBH without Client approval.

## **1.10 Rocks**

Rocks shall be a minimum of 100 pounds and no dimension of a rock shall be less than 3 inches. Rocks shall be embedded in the tread or adjacent corridor a minimum of 2/3 of the rock height. All rock used in the trail and trail corridor shall be stable and resistant to moving.

Rock used in structures or used in combination with other rocks shall be stable, solid, and resistant to movement. Rocks shall make contact on a minimum of three (3) faces to create a stable unified structure.

Rocks smaller than 100 pounds shall be used only to fill gaps (chinking). Filling gaps shall not take the place of minimum size, depth, or contact faces for rocks. Filling gaps shall only be used when needed to shore up rock features or to prevent holes, cracks, or similar in the tread.

Rock placed or left in trail shall not protrude more than two (2) inches from the tread surface and avoidable obstacles (less than 50% of tread width) shall not protrude more than two (2) inches unless approved by the Client.

Exceptions may be made in scree fields or where a portion of the tread is obstructed by natural rock fields.

When used in structures, care shall be taken to match rock to the immediate surroundings (grain patterns, lichen growth, etc.). Rock

armored tread shall be constructed such that the desirable path of travel is the tread and not the surrounding forest floor. Additional anchor stones may be required if the final surface of the trail appears more rugged than the adjacent landscape.

Excess tool marks on rocks are not acceptable. Non-native rock may only be imported into a work area with approval of Client. Non-native rock should match existing rock on site in coloration, texture, and composition.

Exceptions may be made at the discretion of the Client.

### **1.11 Trail Drainage**

All finished tread must provide positive drainage off of the trail. The finished tread shall show no signs of puddling or erosion prior to final payment. Drainage shall promote sheet flow off of the tread, rilling from shallow concentrated flow shall not occur on trail tread or below drains.

### **1.12 Trail Finished Condition**

Finish and grading of backslope, down slope spoils, and drainage features shall leave a surface that matches the texture and appearance of the surrounding forest floor.

Finished tread should be firmly compacted and provide positive drainage off trail. Runoff shall be diverted during sheet flow prior to shallow concentrated flow. Cross slopes may vary, including cambering of turns, but water must exit the trail in sheet flow without causing erosion or puddling on, the trail. Locations intended to drain water from the trail shall have a minimum slope of 10%, unless approved by the Client.

### **1.13 Borrow Pits**

Borrow pits shall be used when sufficient soil cannot be obtained from the tread construction itself. Borrow pits shall be dug a minimum of four (4) feet from the edge of the trail tread and within the trail corridor. Borrow pits may be dug outside the trail corridor with Client approval.

Borrow pits shall be no deeper than six (6) feet and no wider than six (6) feet across in any direction. Borrow pits shall be dug outside wetlands, vernal pools, and all protected natural resources.

All borrow pits shall be lower in elevation than the adjacent trail tread. All borrow pits must be filled to within ten (10) inches of the native ground elevation. Fill for borrow pits may include woody debris and organic material, as well as unsuitable soil and rocks.

Borrow pits must be filled and compacted such that the ground is stable, firm, and will not significantly subside over time. All closed borrow pits must be able to be walked on without sinking. No woody debris, organic

material, or rocks may protrude through the surface of the closed borrow pit.

### **1.14 Turnpike**

All turnpike shall be used to cross wet areas. Rock in turnpikes shall meet all specifications for rocks in trail unless more stringent requirements are provided within this specification or the design package.

Fill for turnpikes shall be gravel or crushed stone, all gravel must meet the requirements of tread fill. Fill or crushed stone shall be mechanically compacted.

### **1.15 Ditch**

Ditches shall be used in wet areas to provide positive drainage off trail tread and prevent saturation of trail tread from seeps.

Ditches shall be a minimum two (2) feet deep and have a minimum bottom width of six (6) inches. The top width shall be such that the ditch walls do not exceed 3:1. Construction of ditches does not relieve the Contractor from trail width guidelines for active tread.

Uphill ditches (those between the trail tread and backslope or those above the backslope) shall be sited and constructed such that they do no impact visitor experience, create undue risk, or destabilize the trail tread and constructed trail.

All uphill ditches shall include a culvert or drain in order to ensure runoff and water are removed from the trail tread and do not collect, puddle, or flood the trail tread.

All ditches shall be free of obstacles and diversions including roots, rocks, debris, stumps, branches, and leaves.

### **1.16 Culvert**

Culverts shall be used to convey flows from uphill ditches below the trail tread to ensure positive drainage.

Culverts shall be a minimum 12 inches in diameter and shall be constructed of High Density Poly Ethylene (HDPE) unless approved by Client.

Culverts shall be a minimum six (6) feet in length. Each culvert shall be placed on firm mechanically compacted earth or crushed stone such that the gradient of the culvert is 2% in the positive direction (below trail).

All culverts shall have a minimum 12 inches of cover over the top of the pipe. All cover shall be appropriate fill and shall be mechanically

compacted. Ends of culvert may be cut such that they meet the existing or constructed slopes.

Anchor rocks shall be used and shall meet all specifications for rocks in trail unless more stringent requirements are provided within this specification or the design package.

Headwalls may be necessary and shall meet all requirements for rocks in trail and rock retaining walls.

### **1.17 Puncheon**

All puncheons shall be used to cross wet areas.

All lumber used in puncheon construction shall be cedar, black locust, or other rot resistant tree species as approved by the Client. Native on-site timber may be harvested and used with written approval from Client.

Dimensional lumber may be substituted at the approval of the Client. All dimensional lumber shall be similar in rot resistance and quality to cedar.

Puncheons shall consist of mud sills, stringers, and decking. Mud sills shall be a minimum 12 inches round, 70 inches in length, and provide one (1) four (4) inch wide bearing surface. Stringers shall be a minimum eight (8) inches round with two (2) opposite planed two (2) inch wide surfaces. Decking shall be 2x6 inch sawn timber. Decking gaps shall not exceed ½ inch.

Mud sills shall be spaced a maximum six (6) feet. Where stringer butt ends meet mud sills shall be spaced a maximum three (3) feet and a tie stringer shall be used. Mud sills shall be secured to the earth with #4 rebar embedded a minimum 12 inches in the ground. Three (3) stringers shall be used and shall be spaced 27 inches.

All fasteners shall be stainless steel unless approved by Client. 20D ring shanks or similar shall be used to fasten decking to stringers. 90D ring shanks or similar shall be used to fasten stringers to mud sills and end board to stringers.

Puncheon shall be level across its entire length and shall meet the trail tread at a level and smooth transition. Ramps to the puncheon shall meet all trail narratives and guidelines.

### **1.18 Turn**

All turns shall be an insloped platform turn unless slope and site conditions allow a climbing turn. No berms, rolling crown switchbacks, switchbacks, or any other type of turn shall be constructed.

All turns shall contain a drain (rolling grade dip or grade reversal) before and after the turn platform. The drains shall be a maximum of 15 feet from the end of the upper platform and lower ramp. The drains shall meet all requirements of a rolling grade dip or grade reversal. The uphill drain shall be sited to minimize the unweighting effects of mountain bikers.

The turning radius should be consistent and smooth and shall meet the trail at a tangent on both the upper platform and lower ramp. Turn radii shall be a minimum of 14 feet.

The cross slope or camber of the turn platform shall be a maximum of five (10%) percent. Running grade of the turn platform along the trail alignment shall not exceed seven (7%) percent. Turn platform shall be a consistent inslope, no concave berms.

The upper platform running grade shall not exceed five (5%) percent. The lower ramp running grade shall not exceed seven (7%).

All fill slopes shall be 3:1 and shall be mechanically compacted in 12 inch lifts.

The top of the fill slope shall be a minimum two (2) feet wide and the outer fill slope shall blend into the natural terrain. The outside fill slope of the turn shall be naturalized and stabilized with native material.

No turn shall be moved outside of the corridor without prior approval from the Client.

### **1.19 Rock Retaining Wall**

Rock in retaining walls shall meet all specifications for rocks in trail unless more stringent requirements are provided within this specification or the design package.

Rock retaining walls shall not exceed four (4) feet in height.

Rock retaining walls shall be stable. Rock retaining walls shall have a batter (incline back into the slope) a minimum of two (2) inches horizontal for every 12 inches vertical.

All rock retaining walls shall have a crushed stone/rubble backing of at least six (6) inches in depth behind the wall to allow for drainage and to prevent damage from frost heaves.

All rock retaining walls shall be placed on firm compacted mineral soil or rock outcroppings. Footing rocks shall be embedded a minimum 12 inches into native earth.

Any small stones used to fill gaps (chink) of larger stones in place shall be placed in the back of the wall. The top of the wall shall not be counted in the width of the trail tread. All joints between rocks shall be staggered. When used to support tread, a minimum depth of eight (8) inches of crushed stone shall be used as tread material.

The top layer of stones shall be stable and large enough (150 pounds minimum) to avoid being dislodged by shared use traffic. Deadmen (stones that extend from the wall into the slope) shall be used to ensure overall wall integrity and shall have a minimum 12" embedment in the earth. There shall be one (1) deadman for every 10 square feet of wall face when the rock retaining wall is over three (3) feet in height.

### **1.20 Hub**

Intersections where two or more trail or trail segments meet shall be constructed to allow visitors to stop and congregate minimally. Intersections shall be large enough to reasonably accommodate four (4) adults (roughly 10 feet by 10 feet).

Intersections shall be constructed such that visitor speed is mitigated and slowed upon approach. Gentle grade reversals, anchor rocks, gateways, rock armor, etc. are acceptable methods for speed reduction.

## **2 Tread Excavation and Grading (Trail 252)**

Tread excavation and grading shall be inclusive of all excavation and grading regardless of soil conditions, landscape, terrain, and weather required to complete Trail 252 to a satisfactory condition as described within the design package and below.

Tread excavation and grading shall be inclusive of all related specifications below and all specifications within this document. Tread excavation and grading shall be inclusive of all optional features and trail structures as described within the design package.

Tread shall be mineral soil only and be completely free of organic duff, debris, trash, stumps, and trees. Rocks and roots shall remain or be placed such that they meet the requirements of the design package and this document.

Tread experience shall be maximized for downhill travel only. Tread experience shall be enjoyable for mountain bikers. The trail should remind visitors of traditional New England trails. Tread experience shall not be overtly developed and shall be a tasteful blend of tread shaping while maintaining a natural feeling.

Tread shall be three (3) feet wide. Trail width specification applies to active tread only, backslope is not included. Backslope dimensions are derived from surrounding area such that they satisfy the 3:1 requirement within the design package. Constructed trail tread shall not exceed six (6) feet in width.

Tread variance of up to 15 inches in height will be allowed in trail surface due to embedded rocks or roots. Unavoidable obstacles (greater than 50% of tread width) shall not protrude more than eight (8) inches from the tread surface and avoidable obstacles (less than 50% of tread width) shall not be more than 15 inches high unless approved by the Client.

All tread shall be constructed using a full bench excavation whenever possible and sufficient drainage where the terrain is flat. If fill is required, it shall be mechanically compacted in lifts of 6 inches and the fill slope should not exceed 3:1 slope.

Exceptions may be made at the discretion of the Client.

### **2.1.1 Trail Corridor and Flagline**

*(See 1.1 Trail Corridor and Flagline)*

### **2.1.2 Corridor Clearing**

*(See 1.2 Corridor Clearing)*

### **2.1.3 Grade Reversals**

*(See 1.3 Grade Reversals)*

### **2.1.4 Rolling Grade Dip**

*(See 1.4 Rolling Grade Dip)*

### **2.1.5 Roller/Rise**

*(See 1.5 Roller/Rise)*

### **2.1.6 Backslope**

*(See 1.6 Backslope)*

### **2.7 Spoils**

*(See 1.7 Spoils)*

### **2.8 Debris and Woody Material**

*(See 1.8 Debris and Woody Material)*

### **2.9 Hazardous Trees**

*(See 1.9 Hazardous Trees)*

### **2.10 Rocks**

Rocks shall be a minimum of 100 pounds and no dimension of a rock shall be less than 3 inches. Rocks shall be embedded in the tread or adjacent

corridor a minimum of 2/3 of the rock height. All rock used in the trail and trail corridor shall be stable and resistant to moving.

Rock used in structures or used in combination with other rocks shall be stable, solid, and resistant to movement. Rocks shall make contact on a minimum of three (3) faces to create a stable unified structure.

Rocks smaller than 100 pounds shall be used only to fill gaps (chinking). Filling gaps shall not take the place of minimum size, depth, or contact faces for rocks. Filling gaps shall only be used when needed to shore up rock features or to prevent holes, cracks, or similar in the tread.

Rock placed or left in trail shall not protrude more than eight (8) inches from the tread surface and avoidable obstacles (less than 50% of tread width) shall not protrude more than 15 inches unless approved by the Client.

Exceptions may be made in scree fields or where a portion of the tread is obstructed by natural rock fields.

When used in structures, care shall be taken to match rock to the immediate surroundings (grain patterns, lichen growth, etc.). Rock armored tread shall be constructed such that the desirable path of travel is the tread and not the surrounding forest floor. Additional anchor stones may be required if the final surface of the trail appears more rugged than the adjacent landscape.

Excess tool marks on rocks are not acceptable. Non-native rock may only be imported into a work area with approval of Client. Non-native rock should match existing rock on site in coloration, texture, and composition.

Exceptions may be made at the discretion of the Client.

## **2.11 Trail Drainage**

*(See 1.11 Trail Drainage)*

## **2.12 Trail Finished Condition**

*(See 1.12 Trail Finished Condition)*

## **2.13 Borrow Pits**

*(See 1.13 Borrow Pits)*

## **2.14 Turnpike**

*(See 1.14 Turnpike)*

## **2.15 Ditch**

*(See 1.15 Ditch)*

## **2.16 Culvert**

*(See 1.16 Culvert)*

## **2.17 Puncheon**

*(See 1.17 Puncheon)*

## **2.18 Downhill Bike-only Turn**

All turns shall be a bermed bike-only descending turn. No platform, rolling crown switchbacks, switchbacks, or any other type of turn shall be constructed.

All turns shall contain a drain (rolling grade dip or grade reversal) before and after the turn platform. The drains shall be a maximum of 15 feet from the end of the upper platform and lower ramp. The drains shall meet all requirements of a rolling grade dip or grade reversal. The uphill drain shall be sited to minimize the unweighting effects of mountain bikers.

The turning radius should be consistent and smooth and shall meet the trail at a tangent on both the upper platform and lower ramp. Turn radii shall be a minimum of eight (8) feet.

The cross slope or camber of the turn platform shall be a maximum of five (50%) percent. Running grade of the turn platform along the trail alignment shall not exceed ten (10%) percent. Turn platform shall be a concave berm. Concave riding surface shall be a smooth and even radius.

The upper platform running grade shall not exceed ten (10%) percent. The lower ramp running grade shall not exceed 20%.

All fill slopes shall be 3:1 and shall be mechanically compacted in 12 inch lifts.

The top of the fill slope shall be a minimum two (2) feet wide and the outer fill slope shall blend into the natural terrain. The outside fill slope of the turn shall be naturalized and stabilized with native material.

No turn shall be moved outside of the corridor without prior approval from the Client.

## **2.19 Rock Retaining Wall**

*(See 1.19 Rock Retaining Wall)*

## **2.20 Merge and Diverge**

Mergers and diverges, where two or more trail or trail segments meet or split, shall be constructed to allow visitors to seamlessly transition to their next trail choice.

Mergers and diverges shall be constructed such that visitor speed is mitigated and slowed upon approach. Gentle grade reversals, anchor rocks, gateways, rock armor, etc. are acceptable methods for speed reduction.

## **3.1 Tread Excavation and Grading (Trail 253)**

Tread excavation and grading shall be inclusive of all excavation and grading regardless of soil conditions, landscape, terrain, and weather required to complete Trail 253 to a satisfactory condition as described within the design package and below.

Tread excavation and grading shall be inclusive of all related specifications below and all specifications within this document. Tread excavation and grading shall be inclusive of all optional features and trail structures as described within the design package.

Tread shall be mineral soil only and be completely free of organic duff, debris, trash, stumps, and trees. Rocks and roots shall remain or be placed such that they meet the requirements of the design package and this document.

Tread experience shall be maximized for downhill travel only. Tread experience shall be enjoyable for mountain bikers. The trail should remind visitors of traditional New England trails. Tread experience shall not be overtly developed and shall be a tasteful blend of tread shaping while maintaining a natural feeling.

Tread shall be three (3) feet wide. Trail width specification applies to active tread only, backslope is not included. Backslope dimensions are derived from surrounding area such that they satisfy the 3:1 requirement within the design package. Constructed trail tread shall not exceed six (6) feet in width.

Unlimited tread variance will be allowed in trail surface due to embedded rocks or roots. Unavoidable obstacles (greater than 50% of tread width) shall not protrude more than 15 inches from the tread surface and avoidable obstacles (less than 50% of tread width) shall be unlimited unless approved by the Client.

All tread shall be constructed using a full bench excavation whenever possible and sufficient drainage where the terrain is flat. If fill is required, it shall be mechanically compacted in lifts of 6 inches and the fill slope should not exceed 3:1 slope.

Exceptions may be made at the discretion of the Client.

### **3.1 Trail Corridor and Flagline**

*(See 1.1 Trail Corridor and Flagline)*

### **3.2 Corridor Clearing**

*(See 1.2 Corridor Clearing)*

### **3.3 Grade Reversals**

*(See 1.3 Grade Reversals)*

### **3.4 Rolling Grade Dip**

*(See 1.4 Rolling Grade Dip)*

### **3.5 Roller/Rise**

*(See 1.5 Roller/Rise)*

### **3.6 Backslope**

*(See 1.6 Backslope)*

### **3.7 Spoils**

*(See 1.7 Spoils)*

### **3.8 Debris and Woody Material**

*(See 1.8 Debris and Woody Material)*

### **3.9 Hazardous Trees**

*(See 1.9 Hazardous Trees)*

### **3.10 Rocks**

Rocks shall be a minimum of 100 pounds and no dimension of a rock shall be less than 3 inches. Rocks shall be embedded in the tread or adjacent corridor a minimum of 2/3 of the rock height. All rock used in the trail and trail corridor shall be stable and resistant to moving.

Rock used in structures or used in combination with other rocks shall be stable, solid, and resistant to movement. Rocks shall make contact on a minimum of three (3) faces to create a stable unified structure.

Rocks smaller than 100 pounds shall be used only to fill gaps (chinking). Filling gaps shall not take the place of minimum size, depth, or contact faces for rocks. Filling gaps shall only be used when needed to shore up rock features or to prevent holes, cracks, or similar in the tread.

Rock placed or left in trail shall have no limit to their protrusion from the tread. Avoidable obstacles (less than 50% of tread width) shall not protrude more than 15 inches unless approved by the Client.

Exceptions may be made in scree fields or where a portion of the tread is obstructed by natural rock fields.

When used in structures, care shall be taken to match rock to the immediate surroundings (grain patterns, lichen growth, etc.). Rock armored tread shall be constructed such that the desirable path of travel is the tread and not the surrounding forest floor. Additional anchor stones may be required if the final surface of the trail appears more rugged than the adjacent landscape.

Excess tool marks on rocks are not acceptable. Non-native rock may only be imported into a work area with approval of Client. Non-native rock should match existing rock on site in coloration, texture, and composition.

Exceptions may be made at the discretion of the Client.

### **3.11 Trail Drainage**

*(See 1.11 Trail Drainage)*

### **3.12 Trail Finished Condition**

*(See 1.12 Trail Finished Condition)*

### **3.13 Borrow Pits**

*(See 1.13 Borrow Pits)*

### **3.14 Turnpike**

*(See 1.14 Turnpike)*

### **3.15 Ditch**

*(See 1.15 Ditch)*

### **3.16 Culvert**

*(See 1.16 Culvert)*

### **3.17 Puncheon**

*(See 1.17 Puncheon)*

### **3.18 Downhill Bike-only Turn**

All turns shall be a bermed bike-only descending turn. No platform, rolling crown switchbacks, switchbacks, or any other type of turn shall be constructed.

All turns shall contain a drain (rolling grade dip or grade reversal) before and after the turn platform. The drains shall be a maximum of 15 feet from the end of the upper platform and lower ramp. The drains shall meet all

requirements of a rolling grade dip or grade reversal. The uphill drain shall be sited to minimize the unweighting effects of mountain bikers.

The turning radius should be consistent and smooth and shall meet the trail at a tangent on both the upper platform and lower ramp. Turn radii shall be a minimum of eight (8) feet.

The cross slope or camber of the turn platform shall be a maximum of five (5%) percent. Running grade of the turn platform along the trail alignment shall not exceed 15% percent. Turn platform shall be a concave berm. Concave riding surface shall be a smooth and even radius.

The upper platform running grade shall not exceed 15% percent. The lower ramp running grade shall not exceed 30%.

All fill slopes shall be 3:1 and shall be mechanically compacted in 12 inch lifts.

The top of the fill slope shall be a minimum two (2) feet wide and the outer fill slope shall blend into the natural terrain. The outside fill slope of the turn shall be naturalized and stabilized with native material.

No turn shall be moved outside of the corridor without prior approval from the Client.

### **3.19 Rock Retaining Wall**

*(See 1.19 Rock Retaining Wall)*

### **3.20 Merge and Diverge**

*(See 2.20 Merge and Diverge)*