



Request for Proposals

Boardwalk Installation on the SHT; Hovland, MN

The Superior Hiking Trail Association (SHTA) seeks proposals from individuals and businesses with expertise and extensive experience in installing new puncheon and boardwalk according to modern, sustainable construction techniques and standards. The project may also include: clearing brush; renewing short sections of tread; and using local, on-site stone for hardening or other trail improvement features.

About the SHTA:

The SHTA is a non-profit organization tasked with the maintenance and renewal of the approximately 320-mile long Superior Hiking Trail that follows the rugged terrain along Minnesota's north shore of Lake Superior from the Wisconsin border at its Southern Terminus to the Canadian Border at the Northern Terminus.

About the Project:

The SHTA has secured funding to replace a significant amount of puncheon and boardwalk west of the Arrowhead Trail (CR 16) in Hovland, MN, for a total of 243' LF of elevated boardwalk and a total of 324' of puncheon in three separate locations at 108' (tied into the 243' of boardwalk), 63', and 153'. Puncheon should be 32 inches wide, and boardwalk should be 40 inches wide. Where Puncheon transitions into boardwalk, a smooth transition (gradual widening of the decking, for example) is preferable. Refer to #6 in the "Specifications" section for more details about construction.

Removal and Disposal of Materials:

All treated construction scrap and old structure must be hauled out and properly disposed of. It may be possible to reuse some of the lumber as sill or shim material if it is still in good condition.

Timeline for Completion:

It is expected that some of the project will be completed during the 2024 construction season, which is typically from June-October in northern Minnesota.

Access for the Project (see map in Appendix):

The access for this project will use the current alignment of the SHT. It is permissible to use light machinery, such as an ATV, but the contractor must not cause damage to the trail. Any damage must be repaired to pre-existing condition at the contractors expense.

Specifications:

1. **Duties and Responsibilities of Contractor.**
 1. Contractor is expected to possess the necessary experience, skills and craftsmanship to build high quality and sustainable natural surface hiking (or experience with similar) trails meeting or exceeding accepted industry standards.
 2. Contractor is expected to possess the necessary experience, skills and craftsmanship to construct and install trail hardening structures such as puncheon, boardwalk, stairs, etc., with lumber or other materials intended to take the place of lumber (fiberglass or other composites, etc.) or stone.
 3. Contractor, crew, and any subcontractors associated with this project are expected to conduct themselves in a professional manner at all times.
2. **Field Layout and Design.** The reroute has been carefully laid out, but some minor adjustments may be permitted. Certain parts of the alignment are more sensitive (see a and b below), while other parts will have more flexibility. Contractor and SHTA should discuss this in advance, preferably during the initial site visit, to identify these specific areas. If the contractor deviates from the established route, or outside any agreed upon buffer without permission, they may be required to fix the work without additional compensation.
 1. Corridor width shall be 6 feet wide, or 3 feet to either side of the centerline, and 8 feet high.
 2. Contractor should try to preserve large trees (8+” DBH) within this corridor and move the trail around them if possible
3. **Site Meeting/Visits.** Contractor will participate in an on-site construction meeting with the SHTA to discuss the project prior to commencement of work. SHTA will perform regular site visits as the project continues. Contractor needs to schedule a meeting with the SHTA any time there is uncertainty with the project.
4. **Trail Construction.** Contractor and all crew members shall be required to be knowledgeable of and have proven capability of meeting or exceeding the trail building standards as defined in the MN DNR’s Trail Planning, Design, and Development Guidelines along with all general standards and conditions defined in this RFP or otherwise adopted for this project prior to and during construction. Specifics include:
 1. **Trail building techniques.** The Contractor is expected to be fully versed in the techniques used to build sustainable hiking trails; this includes, but is not limited

to, understanding and applying rolling grades, inslope/outslope tread, knicks, grade reversals, rock armoring and trail hardening (including wooden structures), climbing/descending turns, water diversions, etc.

2. **Trail grades.** Grades shall not exceed guidelines as defined in referenced manuals, typically not exceeding ten percent (10%), unless approved by the SHTA. All trail grades must be sustainable, as determined by the Contractor.
3. **Surface water control features.** The trail shall use rolling contour or grade system, with the trail traversing hills or side slopes and incorporating natural grade reversals (which are typically required every 20 feet to 50 feet. If a grade reversal is not feasible, other surface water drainage structures at the same frequency to minimize the effects of water flow and erosion shall be required, such as rolling grade dips and knicks; the Contractor is expected to be fully versed in trail building techniques commonly used to prevent trail erosion and ensure long-term sustainability.
4. **Trail Construction in Flat Terrain.** Where the trail needs to be constructed on flat ground, Contractor needs to take added and adequate measures (trail hardening, including, but not limited to: boardwalk, stonework, or elevated tread and/or ditching) to ensure that the trail is sustainable and wetlands are protected.
5. **Tread Construction.** The Contractor shall typically follow these basic steps to construct a **full bench** cut sustainable trail, including:
 1. **Excavating the tread.** Cutting the entire specified trail width into the side slope; excess soil shall be broadcast down slope of the trail (failure to disperse material down slope and away from the trail tread will not be allowed).
 2. **Cutting the backslope.** Backslope shall be compacted and naturally blend into the slope above the trail; maximum backslope shall be at natural angle of repose, but not exceed 45-degree angle unless approved by Construction Manager.
 3. **Outslope the tread.** Typically 5 percent to ensure proper sheet flow of water across the trail tread, rather than down the trail tread; where the existing surface sideslope is less than 5 percent, the outslope shall conform to the existing sideslope; removed material shall be broadcast down slope of the trail in a thin layer; the critical point where the trail tread meets the downhill slope shall be rounded and well compacted.
 4. **Fine rake and compact the tread.** The entire width of the trail tread shall be evenly raked and then compacted by mechanized equipment furnished by the Trail Builder; soil compaction shall be completed with adequate soil moisture content to ensure proper compaction; fine raking shall leave the trail tread flat and even, with no areas for water runoff to pocket.
 5. **Finish the tread and trail corridor.** Remove any flagging and broadcast organic material originally raked off of the trail tread location down slope over the loose soil from the tread excavation; 'leave no trace' principles will apply; the area adjacent to the trail shall be restored to appear

undisturbed; restoration of disturbed areas shall include but not be limited to raking and leveling disturbed soil adjacent the trail tread, spreading leaves and other similar organic material over exposed soil, and removing all evidence of construction and equipment.

6. **Structure Construction (lumber).** Structures will be constructed using quality materials, built to withstand high use and the ravages of the elements. Substructure lumber (sills, stringers, posts, headers, etc.) will be treated, while preferred decking material is rough-sawn, and can be treated or natural. The design shall be simple and easy to maintain. Structures should be built to remain sturdy and level over time and through changing seasonal conditions. They must not obstruct the natural flow of surface water, and should have, on average, at least 4 to 6 inches of clearance between the bottom of the framing and the ground. SHTA will provide design specifications and plans for all wooden structures (puncheon and boardwalk) that are SHTA-preferred methods of construction. Other styles or construction methods are permissible (if they meet or exceed the standards of the designs provided) but must be discussed with SHTA prior to construction.

1. Puncheon is defined as having a sill on the ground which supports two stringers that run with the direction of travel. The decking is laid on top of the stringers, perpendicular to the direction of travel.

2. Boardwalk is defined as a structure that is supported on two upright posts that are connected with a horizontal ledger. The posts have a wide foot attached to the bottom that carries the weight of the structure over soft or saturated soils. The frame sits on top of the ledger, and the decking is attached to the frame, which is perpendicular to the direction of travel.

3. Timber steps are typically constructed with 6x6s and consist of a riser (front) and two side pieces that are dug into the hill. The pieces are lap joined and pinned together. The center is filled with native material if suitable soil can be found, otherwise they can be decked with wood.

7. **Mechanized Equipment Best Practices.** It is the intent of the SHTA to minimize the impacts of construction, especially mechanized equipment. As such:
 1. All equipment will be clean and free of debris before being introduced to the work site. Equipment is subject to inspection at the start and during the project.
 2. All mechanized equipment shall be in good mechanical condition, free of any fluid leaks and be equipped with spark arrestors if applicable.
 3. Each machine will be equipped with a readily accessible fully charged fire extinguisher.

4. Machine service and fueling is not permitted within 500 feet of a wetland or drainage.
5. A spill kit suitable for five gallons of fluid will be onsite and within 500 feet of mechanized equipment whenever equipment is being operated.
6. Using mechanized equipment equipped with tracks is strongly recommended. All track marks will be raked smooth and affected areas will be finished to have a natural shape, e.g., spoils piles rounded, smoothed and cleared of significant brush, blade edges blended.
7. Scarring of trees within and outside the corridor is to be avoided.
8. Machine access is restricted to the trail corridor, separate access routes may only be created and used with prior written permission of the SHTA. Any approved access route must be retired and reclaimed back to its original condition upon project completion. Any proposed turnarounds shall be approved prior to construction and must be retired and reclaimed back to its original condition upon project completion.

Any equipment that does not meet these criteria shall be shut down until in compliance. If not correctable, it will be removed from the project site at the request of the Owner and at no additional cost to the Owner. As part of their bid package, the contractor will be asked to supply the expected list of mechanized equipment required to complete the project.

6. **Performance and Progress Assessment.** If the SHTA feels that the project is not moving according to schedule, or that the work is not up to industry standards, Contractor will be notified and must take steps to remedy the matter. If improvements are not made satisfactorily, the SHTA reserves the right to remove the Contractor from the project.
7. **Quality Control and Crew Expectations.** As previously defined, the Contractor shall employ workers skilled and experienced for the specific task required. The Contractor and crew leaders are responsible for the performance and professional manner of all crew members. Any crew or crew member acting in a nonprofessional or inappropriate manner that jeopardizes the health, safety and welfare of other crews working on the site, or the public at large, will be cause for dismissal of that member or the entire crew, at the discretion of the SHTA. Failure to immediately address such issues may be cause for cancellation of the contract.
8. **Backcountry Protocol/Safety.** The Contractor and crew members shall be familiar with backcountry operation and safety protocols as well as be familiar and adept at "leave no trace" practices. Cell reception is spotty. Having back-up communication and navigation devices is strongly recommended. Contractor is responsible for providing all necessary Personal Protective Equipment. Crew members operating machinery or a chainsaw should work in close proximity with at least one other person. Each crew should have an OSHA-compliant first aid kit readily available.
9. **Construction Facilities and Site Protection.** The Contractor is responsible for maintaining the work site in a safe and responsible manner. This includes erecting and maintain fences and barricades when necessary to provide adequate protection for their

own and other crews, and other authorized project members. The Contractor shall secure, properly cover and protect his own equipment, materials and work against damage of any kind until this project is complete and the SHTA takes possession. The Contractor shall maintain a neat and orderly job site and shall promptly remove all debris and dispose of the debris legally off site. The Contractor shall remove all temporary fences, barricades, signs, etc. upon completion of the work.

10. **Tree and plant protection.** The Contractor shall protect trees and root systems outside of the defined trail tread, front slope, and back slope area from damage from construction equipment or damage due to soil compaction. The Contractor shall erect snow fences or flagging around any trees or plants designated by the SHTA to be protected or at other locations as directed.

11. **Working with Volunteers.** Volunteers may be involved with this project in some capacity; Contractor must indicate whether they are willing and able to work with, or supervise, volunteers, and how that affects bid pricing.

Invasive Species Prevention.

Contractors must follow Minnesota DNR's Operational Order 113, which requires preventing or limiting the introduction, establishment and spread of invasive species during activities on public waters and DNR administered lands. This applies to all activities performed on all lands under this grant-funded contract and is not limited to lands under DNR control or public waters. Duties are listed under Sections II and III (p. 5-8) of Operational Order 113 which may be found at: http://files.dnr.state.mn.us/assistance/grants/habitat/heritage/oporder_113.pdf.

Prevailing Wage

All State funded or partially State funded work against this contract is subject to the prevailing wage requirements pursuant to Minnesota Statutes 177.41 to 177.44 and corresponding Minnesota Rules 5200.1000 to 5200.1120 as established by the Minnesota Department of Labor and Industry. Specifically, all contractors and all tiers of subcontractors must pay all laborers and mechanics the established prevailing wages for work performed under the contract. Failure to comply with the aforementioned may result in civil or criminal penalties. The Department of Labor and Industry has a web page with Frequently Asked Questions about prevailing wages at:

<http://www.dli.mn.gov/business/employment-practices/prevailing-wage-information>.

Labor Codes applicable to this project, taken from the **Highway/Heavy** wage rates (for the most up-to-date information on wage rates, please visit

https://workplace.doli.state.mn.us/prevwage/highway_data.php?region=01. Complete job description can be found at: <https://www.revisor.mn.gov/rules/5200.1101/> and <https://www.revisor.mn.gov/rules/5200.1102/>):

- As of April 4, 2023 these job descriptions and wage rates apply:
 - **101 – Laborer, common:** Loading, unloading and staging construction materials; clearing and grubbing with hand tools; using a chainsaw to clear trees and brush; removing materials to be discarded.
 - **Basic Rate: 35.53 Fringe Rate: 22.67 Total Rate: \$58.20**

- **703 – Bricklayers (includes stonemasonry):** Laying all riprap, rubble work, with or without mortar, setting all cut stone, marble, slate, or stone work.
 - Basic Rate: \$31.83; Fringe Rate: \$35.32; Total Rate: 67.15
- **704 – Carpenter:** Constructing, erecting, installing, and repairing structures, structural members, and fixtures made of wood, plywood, and materials that take the place of wood, such as metals, composites, and fiberglass, using carpenter hand tools and power tools.
 - Basic Rate: 38.21 Fringe Rate: 27.58 Total Rate: \$65.79
- **313 – Hydraulic backhoe (track or wheel mounted):** and/or similar equipment with shovel type controls up to 3 cubic yards including all attachments.
 - Basic Rate: 42.81 Fringe Rate: 25.00 Total Rate: \$67.81

If the contractor anticipates performing tasks that are not covered by this list, please contact the project manager (SHTA).

The contractor must also submit Department of Labor certified payroll forms with each invoice (forms can be found at:

https://www.dli.mn.gov/sites/default/files/pdf/pw_certified_payroll_form.pdf)

For questions regarding the Prevailing Wage Laws, contact the Department of Labor and Industry at 651.284.5091.

Please include the following information with your proposal:

1. Cost estimates for the project, broken down into mobilization costs, labor, travel and lodging.
2. Labor costs should be broken down into:
 1. Bringing in materials
 2. Structure construction, can be split into boardwalk and puncheon costs
 3. Removal and disposal of old/scrap lumber
3. Your availability, or potential start date.
4. Your qualifications for installing puncheon and boardwalk and your past experience building and maintaining hiking trails or other recreational trails, including creating accurate cost estimates.
5. Documented evidence (photos, organizational newsletters or other material) of trail construction or repair projects you have overseen or participated in.
6. At least two references from customers of your work. (If you work for a nonprofit organization, please provide testimonials or references from volunteers who have worked with you.)
7. A list of all equipment (make, model, year and width) that will be used on this project must be submitted with bid for approval.
8. A list of all equipment operators with hours of experience on each piece of equipment must be supplied with bid.

PLEASE SUBMIT YOUR PROPOSAL NO LATER THAN Friday, April 19th. If your proposal is selected, contract details can be made final following your on-site review of the project, if needed.

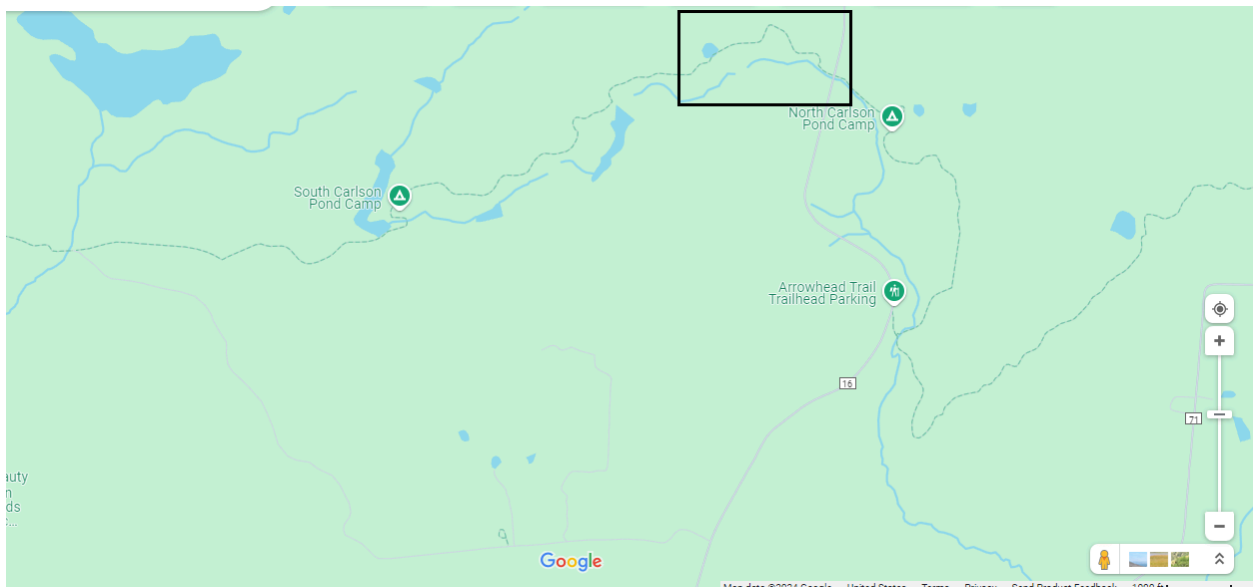
Send Proposal, or questions to:

Tamer Ibrahim, Trail Operations Director
Superior Hiking Trail Association
tbrahim@superiorhiking.org
218-370-8393

This project is funded by the Federal Recreational Trails Program.

Appendix A: Project Maps

Project location, overview



Project is located in Hovland, MN, 17 miles northeast of Grand Marais, MN on Highway 61. SHT Trailhead is 4 miles north of Hovland, MN on the Arrowhead Trail (County Road 16). SHT trail crossing of the Arrowhead Trail is 4.8 miles from Hovland, MN (0.8 miles north of the Trailhead). Black rectangle shows the project location, detail (next map).

Project Location, detail:



Map zoomed in to show actual structure locations:

1. 243' Elevated Boardwalk and 108' puncheon (gps coordinates on map above refer to this point). Approximately $\frac{1}{2}$ a mile from the Arrowhead Trail (CR16).
2. 63' puncheon
3. 153' puncheon