MATANUSKA-SUSITNA BOROUGH
PARKS, RECREATION AND TRAILS ADVISORY BOARD

Chairperson – James Jones – At Large 1
Vice Chair – Ruth Wood – District 7
Ky Friedman – District 1
Steve Menard – At Large 2
Vacant – District 3
Vacant – District 4
Michael Rovito – District 2
Harry Hillman – At Large 4
Vacant – District 5
Maksim Revutskiy – District 6
Cachet Garrett – At Large 3

AGENDA

Lower-Level Conference Room and Teams
Meeting ID:258 440 394 545 55 Passcode: eb3AH9aG
350 EAST DAHLIA AVE, PALMER

REGULAR MEETING **6:00 PM** **February 23, 2026**

I. CALL TO ORDER

II. ROLL CALL

III. AGENDA APPROVAL

IV. PLEDGE OF ALLEGIANCE

V. MINUTES OF PRECEDING MEETING
- A. January 26, 2025

VI. STAFF REPORTS
- A. Hugh Leslie – Operational Branch Manager – Outdoor Recreation
- B. Adam Madson – Operational Branch Manager – Recreation Facilities

VII. PERSONS TO BE HEARD/AUDIENCE PARTICIPATION – (3 Minutes Per Person)

VIII. UNFINISHED BUSINESS
- A. Matanuska Valley Moose Range at Jonesville PUA
- B. Code of Ordinances for Parks and Recreation
- C. Electric Motorbikes

IX. NEW BUSINESS
- A. Rabideaux creek crossing (Menard)
- B. NLCC Cottonwood Lake (Hanson/Hillman)
- C. Commercial Permits for Talkeetna Lakes Park (Wood)
- D. GPRA Draft Management Plan (Metzger)

X. VOLUNTEER NOMINATIONS

XI. CORRESPONDENCE

XII. MEMBER COMMENTS

XIII. NEXT MEETING

- A. March 23, 2026

XIV. ADJOURNMENT

MATANUSKA-SUSITNA BOROUGH
PARKS, RECREATION AND TRAILS ADVISORY BOARD

Chairperson – James Jones – At Large 1
Vice Chair – Ruth Wood – District 7
Ky Friedman – District 1
Steve Menard – At Large 2
Vacant – District 3
Vacant – District 4
Michael Rovito – District 2
Harry Hillman – At Large 4
Jill Martinson – District 5
Maksim Revutskiy – District6
Kenni Psenak – At Large 3

MEETING MINUTES

Lower-Level Conference Room and Teams
Meeting ID: 235 322 904 252 Passcode: Gg7dK2qm
350 EAST DAHLIA AVE, PALMER

REGULAR MEETING **6:00 PM** **November 24, 2025**

I. CALL TO ORDER
A. Called to order at 6:04 pm

II. ROLL CALL
A. Present: James Jones, Ruth Wood (@ 6:09 pm), Ky Friedman, Steve Menard, Michael Rovito, Harry Hillman, Jill Martinson, Kenni Psenak.
B. Absent: Maksim Revutskiy

III. AGENDA APPROVAL
A. Mr. Hillman motioned to approve the agenda, unanimous consent.

IV. PLEDGE OF ALLEGIANCE
A. Pledge conducted

V. MINUTES OF PRECEDING MEETING
A. October 27, 2025 – Mr., Hillman motioned to approve the minutes, unanimous consent.

VI. STAFF REPORTS
A. Hugh Leslie – Recreation & Library Services Manager – Informed the board that the Big Lake Lions Recreation Center is being flooded to make ice as well as the outdoor rinks. Also, will be applying for a grant to replace and upgrade the stairs at West Butte. Live grooming reports are now available on the Borough website.

VII. PERSONS TO BE HEARD/AUDIENCE PARTICIPATION – (3 Minutes Per Person)

A. None

VIII. UNFINISHED BUSINESS

A. Meadow Lakes Community Council Trail Project
    1. Mr. Jones moved to have this agenda removed until more information becomes available, unanimous consent.
B. Matanuska Valley Moose Range at Jonesville PUA
    1. First meeting to discuss plans with the public was November 6 at Sutton Elementary. Another meeting is being planned.
C. Code of Ordinances for Parks and Recreation
    1. Currently awaiting final admin approval.
D. Electric Motorbikes
    1. Mr. Rovito moved to have a resolution drafted regarding limiting electric motorbikes on Borough trails, Ms. Psenak seconded. Unanimous consent.

IX. NEW BUSINESS

A. Officer elections
    1. James Jones was nominated by Kenni Psenak for Chair – no others were nominated. Unanimous consent.
    2. Ruth Wood was nominated by Kenni Psenak for Vice Chair – no others were nominated. Unanimous consent.
B. 2026 meeting schedule
    1. Accepted as proposed
C. Review budget drafts
    1. Presented – Mr. Jones motioned to approve a resolution supporting the proposed budget for FY27, unanimous consent.
D. Government Peak Rec Area management plan
    1. The first public meeting will be held on December 10 from 4 – 7 pm at the Government Peak Chalet.

X. VOLUNTEER NOMINATIONS

A. None

XI. CORRESPONDENCE

A. Letter from NLCC regarding Cottonwood Lake access, will be added to January 26, 2026 agenda.

XII. MEMBER COMMENTS

A. James Jones – Apologies for not being in person, will be back for January meeting.
B. Ruth Wood – Glad to be back, will be catching up.
C. Steve Menard – Will be bringing forward info about making the old railroad from Palmer to the Fairgrounds a walkable trail.
D. Michael Rovito – Hoping for more snow and wished everyone happy holidays.
E. Harry Hillman – Thanked staff for working on the budget and thanked James and Ruth for accepting their positions.

F. Jill Martinson – Wished everyone a happy Thanksgiving and enjoyed working with everyone on the board.
G. Kenni Psenak – Thanked the board and informed everyone about the wildfire resilience program that she's working on.

XIII. NEXT MEETING
A. January 26, 2026

XIV. ADJOURNMENT
A. Adjourned at 7:40 pm

MATANUSKA-SUSITNA BOROUGH
PARKS, RECREATION AND TRAILS ADVISORY BOARD
RESOLUTION SERIAL NO. 26-01

A RESOLUTION OF THE MATANUSKA-SUSITNA BOROUGH PARKS, RECREATION AND TRAILS ADVISORY BOARD, RESTRICTING THE USE OF SPECIFIED ELECTRIC MOTORBIKES ON BOROUGH OWNED AND MAINTAINED TRAILS.

WHEREAS, the Matanuska Susitna Borough has an extensive trail system that supports hiking, biking, skiing and other forms or outdoor recreation; and

WHEREAS, the Matanuska Susitna Borough's Parks Recreation and Trails Advisory Board is charged with monitoring new recreational trends and recommending new expanded use of our recreation facilities and trails; and

WHEREAS, the Matanuska-Susitna Borough's Parks, Recreation and Trails Advisory Board discussed the Electric motorbike usage during their regular meetings and sought public input;

NOW, THEREFORE, BE IT RESOLVED that the Parks, Recreation and Trails Advisory Board recommends restricting electric bikes that are pedal assist only "class 1 and 2 electric bicycles," or "low-speed pedal-assisted electric bicycle". A class 1 bicycle equipped with a motor that provides assistance only when the rider is pedaling, and that ceases to provide assistance when the bicycle reaches the speed of 20 miles per hour. Electric motorbikes that would be prohibited would include a bike that is a two-wheeled

vehicle equipped with an electric motor capable of propelling the vehicle without human power, typically operated via a throttle, and designed for speeds exceeding 20 mph. This includes electric dirt bikes, electric motorcycles, and similar motorized devices. Further, signs and information be produced and installed at trail heads indicating rules and etiquette for the use of electric bikes and motorbikes on Borough trails.

ADOPTED by the Matanuska-Susitna Borough Parks, Recreation and Trails Advisory Board this - day of -, 2026.

_____
James Jones, Chairperson

ATTEST:

_____
Sarah Thomas, Staff Support

Outlook

Fwd: Michelle LaRose at Curry Ridge Riders

From Steve Menard <nardsee@yahoo.com>
Date Fri 11/14/2025 11:21 AM
To Sarah Thomas <Sarah.Thomas@matsugov.us>

2 attachments (1 MB)
Curry Ridge Riders UAA Study for span bridge 2018 wm.pdf; Curry Ridge Riders Bridge Project 2018.pdf;

[**EXTERNAL EMAIL** - CAUTION: Do not open unexpected attachments or links.]

Sent from my iPhone

Begin forwarded message:

> **From:** Curry Ridge Riders <akcurryridgeriders@gmail.com>
> **Date:** November 14, 2025 at 10:34:03 AM AKST
> **To:** nardsee@yahoo.com
> **Subject: Michelle LaRose at Curry Ridge Riders**
>
> Hi Steve,
>
> As promised, here are documents regarding the UAA Project for a trailworthy span-bridge. Applicable construction application should be assigned at creek crossings in order of need as:
>
> 1. **Trapper Creek** (Chulitna Bluff Trail, MP114.7)
> 2. **Rabbideux & Sawmill Creeks** (Trapper Creek Winter Trail, MP109/110)
> 3. **Railroad Creek** (Chulitna Bluff Trail, MP128)

The attached project proposal was featured at the March 2, 2018 MatSu Regional Permitting Fair. The most significant reason for bridge placement would be ecological matters--particularly addressing Alaska Fish & Game permitting requirements for snow bridges as natural ice-only. "Pushing snow into creeks" is forbidden and with the changes in modern climate change and shorter winters, that can spell a *small window of opportunity to address public safety*. As written, Alaska environmental law for traversing unfrozen creeks can be strictly penalized particularly in fish-sensitive habitat---knowingly or not.

The attached project proposal was prepared in 2018 when the snow-grooming contractor utilized Pisten-Bully snow tracked vehicles for trail grooming purposes. This same contractor resigned when errant Walker administration vetoed the *self-funded* Snowtrac grooming pool under the mistaken guise as the General Budget--which was ultimately reversed but not without financial damages to the entire program.
As a result of this loss and with a sense of urgency to retain continued trail stewardship for governmental oversight requirements, Curry Ridge Riders reorganized by 2019 as a 501c3 and equipped itself with a fleet of three restored Bombardier snowcats requiring minimum 14' feet width (including blade attachment) at a gross weight of approximately 17,000 pounds.

Please let me know what else I can afford to make this Parks & Rec renewed interest a reality! You can always call our voicemail line 907-689-7669 or my personal cell 907-242-0808.

Michelle LaRose, Treasurer
Curry Ridge Riders, Inc., Friends of Denali State Park

Curry Ridge Riders Bridge Projects

Rabideux Crossing.

MatSu Property
Account Number25N05W17C001
Parcel ID: 41568
TRS: 25N05W17
Township 25N Range 5W Section 17 Lot C1 Tract D
5.75 miles North of Susitna Parks Hwy Bridge Crossing
1800 feet NE of Parks Hwy Crossing. Measured on Google Earth

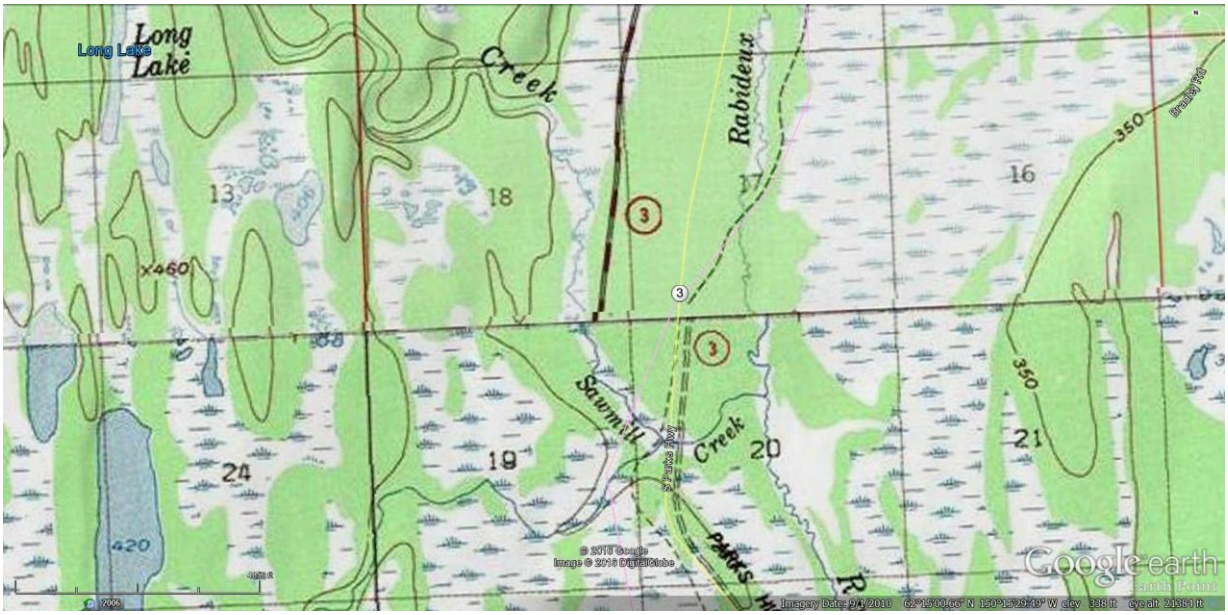
20 feet wide open water width.
Ground level 8 to 10 feet above water
50 to 150 feet swamp total width

Curry Ridge Riders Bridge Projects

Sawmill Creek Crossing

Parcel ID: 8762
TRS: 25N05W20
Township 25N Range 5W Section 20 Lot C1

10 to 12 feet wide open water width. Measured on Google Earth
Ground level 2 to 4 feet above water
300 feet swamp total width



UAA College of Engineering
University of Alaska Anchorage

Project E - Curry Ridge Riders Winter Bridge

DRAFT

CE A438

Spring 2018

Completed by:

Connor Eshleman

Tyler Byers

Kaylin Jones

Elizabeth Swan

PO Box 13218
Trapper Creek, Alaska 99683
907-689-7669
akcurryridgeriders@gmail.com
dba: Curry Ridge Riders, Friends of Denali State Park
public charity recognized as tax-exempt by the IRS under Section 501(c)(3)
FEIN 92-0160607

DISCLAIMER

This design was completed by students for a class project. It was not designed by a professional engineer and therefore should not be treated as a final design to be constructed without further inspection by a licensed professional engineer.

Letter of Submittal

April 6, 2018
Mr. Glenn Swan
Curry Ridge Riders President
PO Box 13218
Trapper Creek, AK 99683

Dear Mr. Swan,

I am writing to you to submit our Design Study Report (DSR) for the Curry Ridge Riders snow machine club modular bridge project for the South Denali area trail systems. Enclosed you will find details regarding the problem statement, scope of study, research approach, foundation & structural design description and rationale, budgetary cost analysis, fabrication drawings sets and our conclusions.

Thank you for taking the time to review our DSR. I would very much like to speak with you at your convenience to discuss your thoughts regarding the project and DSR. Please contact me anytime at my cell phone number 907-355-1890 or email me at caeshleman@alaska.edu.

Regards,

Connor Eshleman
Project Manager

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LIST OF FIGURES

ACKNOWLEDGMENTS

Thank you to Dr. Scott Hamel for mentoring the design team throughout the development of this design study report. Thank you to the Curry Ridge Riders, Dr. Rob Lang, Dr. Gennady Gienko, and Kurt Meehleis for providing the data necessary for the completion of the design. Thank you to Dr. Osama Abaza for running the class in an effective manner and for the opportunity to complete a holistic engineering project such as this one.

ABSTRACT

Several parts of the South Denali snowmachine trail system are only accessible by snow bridges in the winter. Due to warming temperatures, some of these bridges are no longer adequate and a solution is needed for continued usage of these trails. The solution proposed here is a steel bridge designed modularly to be able to fit the several necessary lengths. 15 ft x 10 ft truss-supported modules that may be connected up to 40 ft with spread-footing freeze-in foundations can support the loads present in these areas.

INTRODUCTION

In the South Denali area, temperatures have been warming, and winter no longer experiences freezing temperatures during the entire season. As a result, snow can melt unreliably and unpredictably.

The Curry Ridge Riders are a snowmachine club that maintains multi-use trails in this area. These trails cross several creeks, and their traditional snow bridges are no longer adequate due to high temperatures and melting that occurs before the end of the riding season.

Problem Statement

To ensure continued access to the entire trail system, an alternative to snow bridges is needed for these crossings.

Scope of Study

A steel bridge has been designed in 10 ft long modules that can be connected to span crossings of variable lengths. This design study report and a plan set including detailed bridge and foundation drawings has been provided to the client.

Research Approach

To ensure as accurate a design as possible, the project included several steps: site visit, public outreach and involvement, alternative development, and design.

Site Visit

On January 2, 2018, both crossings were visited to gather information necessary for design. This included a survey of the banks at each crossing. Photographs and observations of the area were taken. On the day of the site visit, temperatures were above freezing, and running water was encountered at both locations. Figure 1 shows Sawmill Creek on that day, the shorter of the two specific crossings being designed for, and Figure 2 shows the Rabideux crossing with the existing snow bridge in place.

Figure 1 - Sawmill Creek, January 2018

Figure 2 - Existing Snow Bridge at Rabideux Creek, January 2018

Public Outreach and Involvement

In order to design a solution that meets the needs of the club and those who use the trails, public outreach was made an important element in the design process. After an initial design was developed, the project team met with the board members of the Curry Ridge Riders to receive their feedback. Members of the team also attended the Curry Ridge Riders annual barbeque to receive feedback from people who use the trail system. The major concerns that the public had were uneven settlement of the bridge throughout the season, and the weight of the bridge. This feedback was taken into consideration upon completion of design.

Alternative Development

Due to the relatively unprecedented nature of the project, no direct approach was immediately clear, and thus multiple alternatives were designed in order to evaluate their potential performance.

Bridge Alternatives

Alternative development began with looking for existing products that could meet the needs of the Curry Ridge Riders. The military, oil industry, and fire and emergency services all have similar needs on occasion, and have devised different solutions which were examined to identify their potential applications to this project.

The military has two different solutions that were considered--the M60 Armored Vehicle Launch Bridge (AVLB), and the Bailey bridge. The AVLB is a rapid-deploy bridge that rides on the back of a tank, and has the ability to deploy within two minutes. This was overly complicated and expensive for the project requirements and was not considered for long. The other option is the Bailey bridge, developed to be transported in trucks and assembled without any heavy equipment. These bridges are currently used for emergency relief and construction purposes. Bailey bridges utilize an over-truss design which does not meet the needs of the client, and thus was excluded from further consideration.

The oil industry uses rig mats to support equipment during the construction and transportation of heavy oil rigs in the arctic. These mats are simple in design, capable of supporting the design loads of this project, and are fairly low cost. However, these are typically available in 40 foot lengths only, making transportation to the project site unreasonable.

Foundation Alternatives

It was determined that there are no existing products that will meet the project requirements, and a custom design would be needed. A custom bridge requires a custom foundation design, and to this end, different foundation types were reviewed. These types were steel grating as spread mat footing, concrete pier blocks, staked-in footings, freeze in footings, piles, and screw piles.

Steel grating was an attractive option due to availability, relatively cheap costs, and easy implementation.

Concrete pier blocks, while cheap and easy to install, would not work for the bridge due to minimal lateral support and their weight, which would be difficult to transport to the site and install with the small group while there. These were ultimately decided against.

Staked-in footings were a viable option for the bridge, but may have been difficult to install and require extra equipment. Since this project is in a relatively rural location, avoiding the need for heavy equipment is desired, and so staked-in footings were excluded from further design.

Freeze-in footings, while difficult to analyze, are a reasonable addition to the foundation since the project is meant to be in place in temperatures below freezing. These are not well-researched, so the capacity added by the ice will be hard to determine. However, this is a convenient way to increase capacity both with horizontal and lateral forces on the foundation, and may act as a way to increase our factor of safety with respect to vertical and horizontal capacity of the ultimate design.

Piles were briefly considered due to their large capacity, but their need for large heavy equipment to install made them unreasonable for this project.

Screw piles were studied at length for this bridge. Their ability to be installed by hand into any ground type was particularly attractive for this project. After calculations were completed, it was determined that using screw piles, while effective, would not only provide more strength than needed with no benefit other than extra price, they would also not be much support against lateral loads. Thus these were also not used in the final foundation design.

After reviewing and researching the options, the final foundation design included a combination of steel grating spread footing and freeze-in foundations. Details on the design are given in the Foundation Design section.

Design Options

Multiple options were considered for the bridge. Two, three, and four truss systems with a variety of configurations were considered, and aluminum, timber, and both galvanized and low carbon steel construction materials were all explored. Steel was chosen as the material to be used for the truss due to its strength, durability, and economic benefits. Different foundations, all discussed above, were also considered. Eventually, a three truss steel design with a mat on grade foundation was chosen.

Selected Design Criteria

After it was determined which alternatives would be the most effective, the chosen designs were optimized and improved to ensure an efficient design. The main measurement for efficiency was cost and labor intensity.

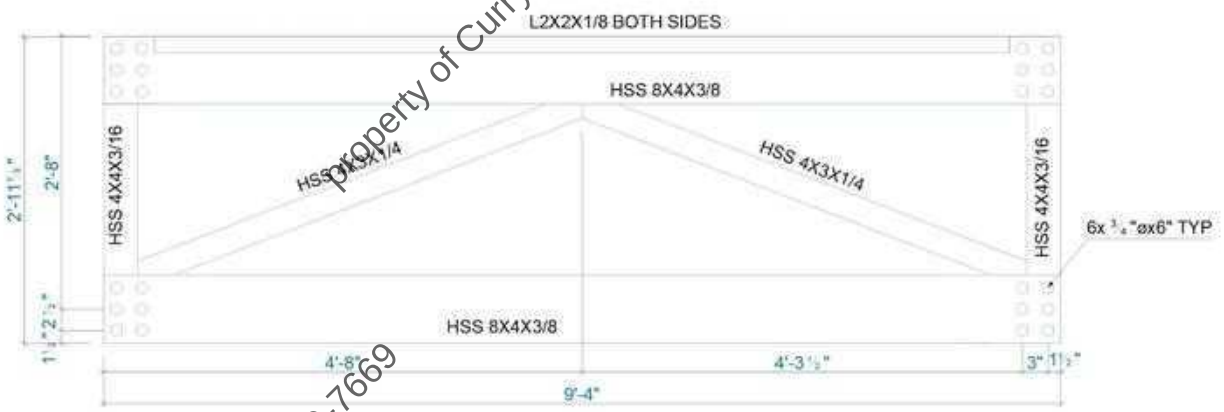
DESIGN

After alternative development, the following designs were chosen. This design simplifies labor through shared symmetry and functionality between various modular bridge lengths. This design will also facilitate other lengths of 20’ and 30’ bridge configurations. The 4 modular components consist of 10’ truss stringer assembly, 15’ truss transverse assembly, 6’ ramp frame and 16’ mat foundation frame. These 4 modular sections can be bolted together to create 10’, 20’, 30’ and 40’ bridge structures. For additional stability cross bracing will be added to each bay of the bridge to prevent against twisting.

HSS steel tubing was chosen as the predominant material of choice throughout the various modular sections because of its multiple axis strength characteristics, its utility, its availability and its relative economic benefits. Through design, a conscious effort was made to utilize similar materials in different modular sections to limit the materials required for fabrication and to allow for easier repairs if required in the future. Also, the materials chosen were purposefully pulled from standard sizes to keep material costs down. This will also reduce the complexity of any repairs that may be needed in the future of the project. Given below are drawings and specifications of the designs of the bridge and foundation.

Bridge Design

The bridge design is composed of three separate trusses, composing the stringers, ramps, and lateral frames. Figures 3, 4, and 5 give the details of each of these designs.



Detail View Stringer

Figure 3 - Stringer Design

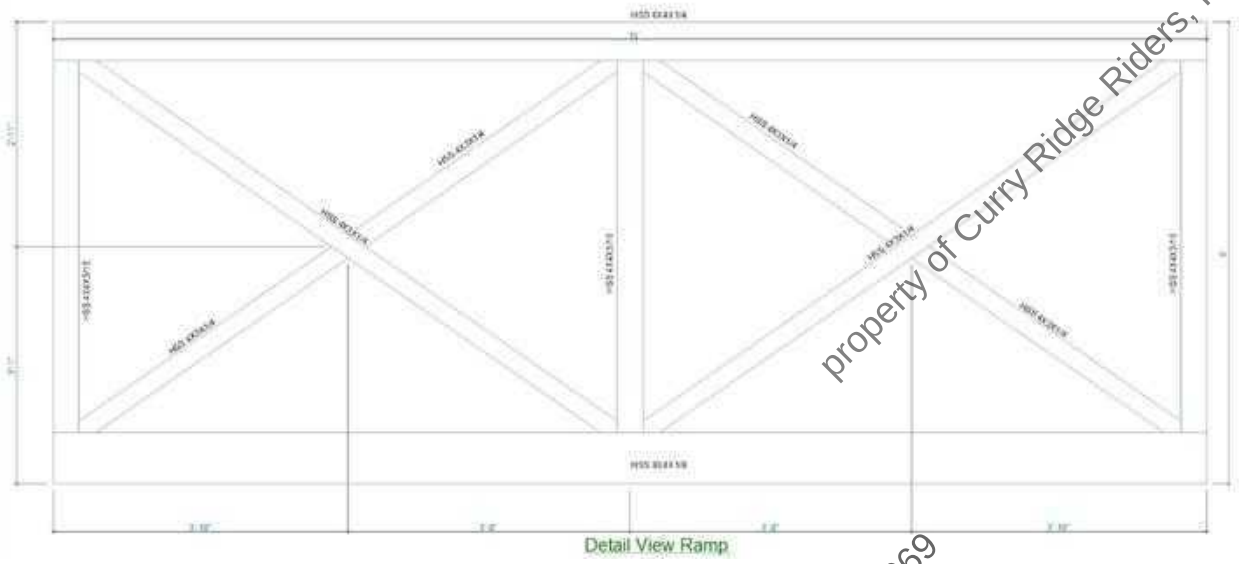


Figure 4 - Ramp Design

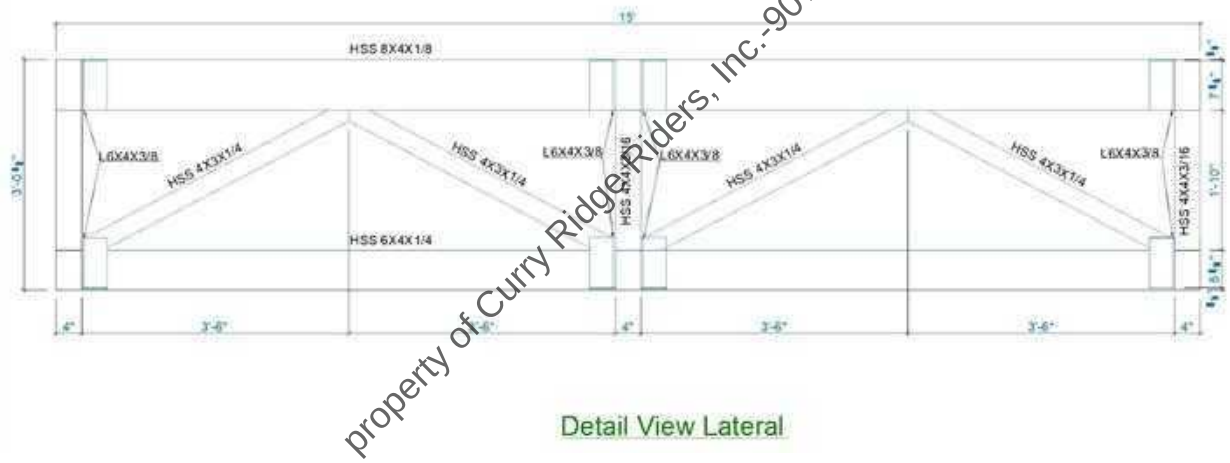


Figure 5 - Lateral Design

Figure 6 gives a rendered view of the lateral truss system and Figure 7 depicts the cross bracing.

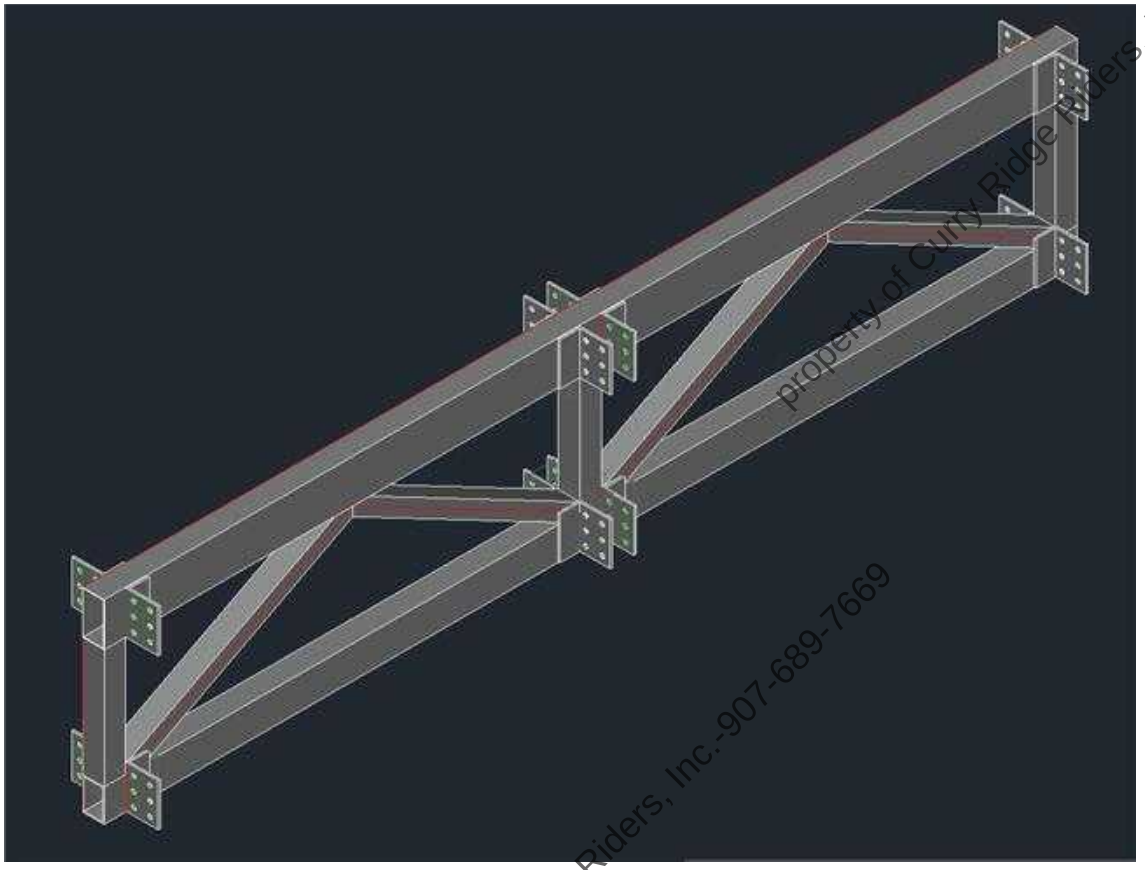


Figure 6 - Lateral Frame Rendering

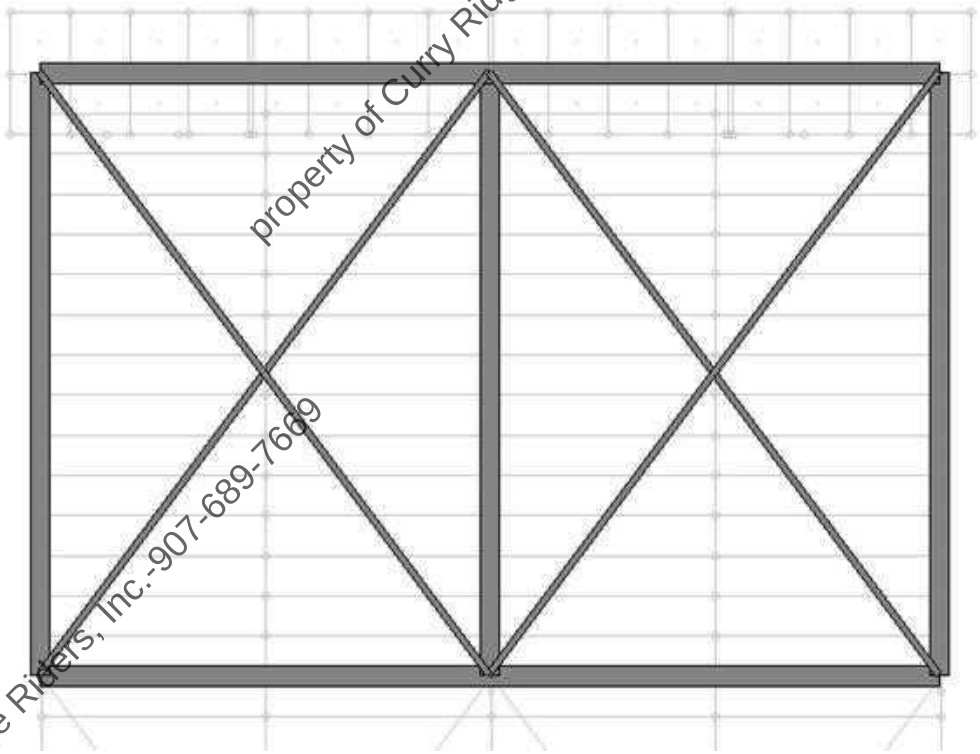


Figure 7 - Cross Bracing Rod

Figure 8 shows a rendering of 40 ft bridge assembly

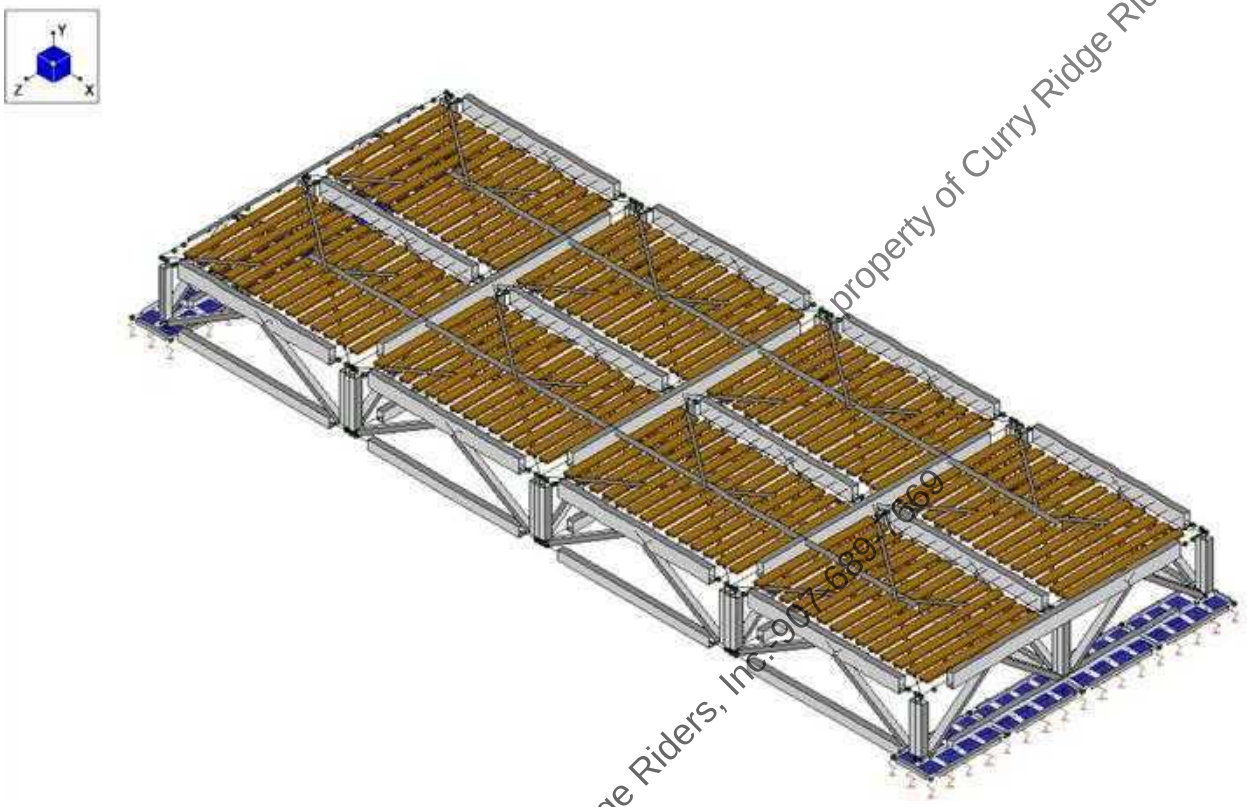


Figure 8 - Bridge Rendering

The recommended assembly sequence for the bridge is given in Construction Plans below.

Foundation Design

Figure 9 gives the design of the foundation.

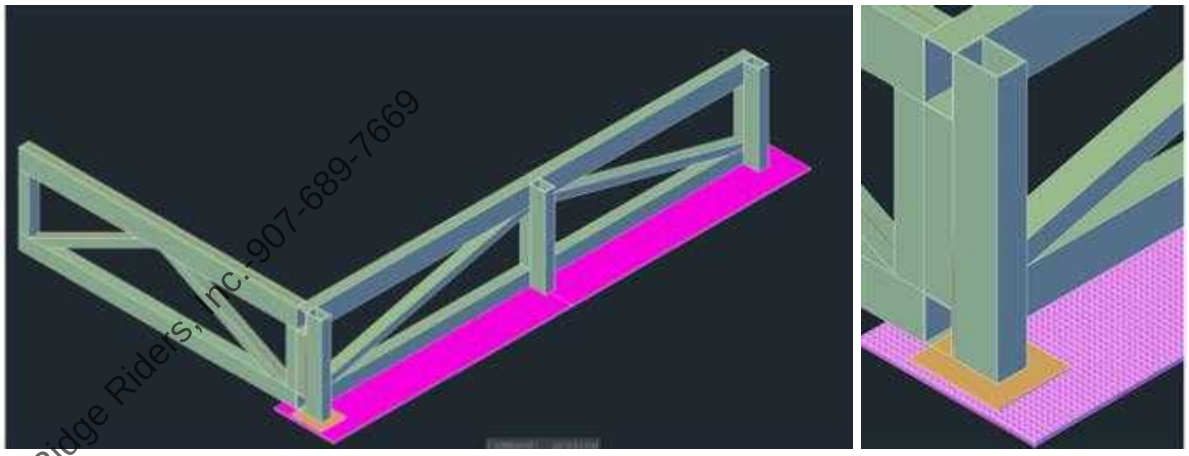


Figure 9 - Foundation Design

The foundation consists of metal grating attached to the footing of the bridges. On each end of the bridge, an angle iron frame consisting of four 2' x 4' 1-¾" steel bar grating sections will span the transverse modular section and be attached to each of the footings. This large area will ensure that the load is spread out enough to be less than the capacity of the frozen winter soil, as well as the grating providing some resistance against sliding in the form of static friction. Plywood will be placed vertical against the bridge and snow will be piled and compacted against this plywood. The snow's capacity will provide the further necessary resistance against sliding. Appendix C gives the calculations and justification for this foundation design.

COST ANALYSIS

The overall budget for the project is $200,000. Working to this goal, The cost for the 40' modular bridge is estimated to be approximately $99,500, and the cost for the 10' modular bridge is approximately $30,500. The total price of the two bridges is around $130,000. Appendix A gives the details of this analysis. The simplified cost estimate is given below in Table 1.

Table 1 - Price Estimate

Item	*Cost*
Engineering	$0
Materials	$65,500
Fabrication	$52,500
Assembly	$0
Total	**$130,000**

CONSTRUCTION PLANS

Construction of the bridge will take place in three general steps: permitting, fabrication, and actual construction. Details of each section are provided below.

Permitting

To determine what permitting is needed for the project, the design team attended the Mat-Su Borough Permitting Fair and got in contact with several specialists in the area. More information on these are provided below.

Mat-Su Borough Permitting Fair

On March 2, 2018 the design team visited the Matanuska Susitna Borough permitting fair and met with multiple agencies to discuss the permitting requirements for the project.

At the fair, the team met with representatives of the Alaska Department of Transportation and Public Facilities (AKDOT), United States Army Corps of Engineers (USACE), and with the Alaska Department of Fish and Game (ADFG). The AKDOT and USACE both indicated that permits by the respective agencies would not be required. The ADFG stated that permits would be required but that coordination with the Mat-Su Borough on the requirements for each of these permits should take place. Below is a list of the permits that would be required before installation of the modular bridges on Borough land.

- MatSu Borough Construction Permit & Floodplain Development Permit
- ADFG Anadromous & Salmon Waterbodies; Fish Habitat Permits
- Flood Hazard Development Permits (Ordinary Water Line Abutment Requirements)

Additionally, the project team was warned against using pressure treated lumber over waterways with Salmon and anadromous fish present, as this is a violation of ADFG code. The team understands that the decking lumber must comply with ADFG standards.

Mat-Su Borough Permitting Meeting & Contacts

During the fair, the team met with Mat-Su Borough representative Tauney Boothby to discuss the project scope. After a brief discussion it was determined that there would be several requirements for permitting the project.

Mrs. Boothby suggested a joint meeting with her and with George Hoden of the Land Management Division of the Mat-Su Borough to determine what the Curry Ridge Riders would need for permits before any physical work could begin on Borough land. As this falls outside the scope of this DSR, this meeting has yet to be scheduled. Following is a list of contacts at the Mat-Su Borough for the Curry Ridge Riders club future correspondence and permitting work.

Mat-Su Borough Contacts:

Taunnie Boothby, CFM
Matanuska-Susitna Borough
350 E Dahlia AVE
Palmer, AK 99645
taunnie.boothby@matsugov.us
907-861-8526

Michelle Olsen
Matanuska-Susitna Borough
350 E Dahlia AVE
Palmer, AK 99645
michelle.olsen@matsugov.us

George Hoden
Matanuska-Susitna Borough
350 E Dahlia AVE
Palmer, AK 99645
george.hoden@matsugov.us

ADFG Contacts:

Sarah Wilber
Habitat Biologist II
State of Alaska Dept of Fish and Game
Division of Habitat
1800 Glenn HWY, Suite 6
Palmer, AK 99645-6736
907-861-3206

Jess Johnson
Habitat Biologist III
State of Alaska Dept of Fish and Game
Sport Fish - Research & Technical Services
333 Raspberry RD
Anchorage, AK 99518-1565
907-267-2403

USACE Contacts:

Regulatory Division
CEPOA-RD
PO Box 6898
JBER, AK 99506
regpagemaster@usace.army.mil.
907-753-2712

Fabrication

The Curry Ridge Riders will use the drawings provided in this report to engage a fabricator to source materials and fabricate the modular sections required to construct a 40’ and 10’ bridge. It will be the responsibility of the club to ensure the materials the fabricator will use for fabrication comply with federal guidelines of the grant, such as the requirement for US steel in all aspects of the bridge and foundation. It is the project team's recommendation that any purchase orders with potential fabricators explicitly state that US steel is a requirement of the fabricator’s deliverables. In other words, if the fabricator cannot prove that all materials comply with this guideline, then the fabricator shall be responsible with replacing the non US steel accordingly.

It is recommended that the bridge be test fit prior to paint and or mobilization to the Rabideux and Sawmill creek crossings. This will allow the assembly crew to practice the assembly process in a more controlled environment. It will also allow the club to address any issues with fit up at the fabrication facility and serve as a commissioning quality assurance check prior to final acceptance of the finished bridge sections.

Assembly Sequence

The actual assembly of the bridge by the Curry Ridge Riders club will follow the guidelines laid out by the project team where specified. These guidelines are there to ensure the proper sequencing and to minimize the potential for damage to the bridge structure and bodily harm to the assembly crew.

The assembly crew should analyze the fabrication and assembly sequence drawings well ahead of bridge build up. It is the project team's recommendation that the assembly crew discuss all aspects of the assembly work and agree on a methodology for erection, to be understood by everyone on the crew prior to work starting what they are trying to do and how the process will go. As such, every member of the crew is responsible to be on the lookout for any potential safety issues prior to work starting and during the erection process. It is recommended that all members of the crew be aware that they are responsible to stop any work they see as unplanned or unsafe. During stoppage, all members should discuss options to mitigate the issue and agree on the plan before work commences. It is paramount that good communication practices be implemented during assembly to minimize potential damage to the bridge structure and harm to the assembly crew.

Bridge disassembly shall be performed during the Spring ahead of breakup. It is the project team's strong recommendation that the bridge be broken down completely and transported to an offsite location for storage. This step will ensure that the bridge is stored properly during the summer season and ensure that the bridge will not suffer from random acts of vandalism or theft.

CONCLUSIONS AND RECOMMENDATIONS

The bridge and foundation designs, found in the design section above, have been designed to accommodate the loading given by the environment that they will be placed in as well as the loading applied to the bridge through vehicular use.

These structures have been designed to be in place on frozen ground. Thus, it is strongly recommended that the Curry Ridge Riders remove them each spring and reinstall them at the end of each Fall. Since the river banks are marshland in the summer, failure to do so may result in the bridge being damaged, sinking into the extremely wet soil that it rests on, which could potentially freeze into the soil in that position and become difficult to maneuver into a usable position, or being swept down the river altogether.

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APPENDIXES

Appendix A - Cost Analysis

Labor for 40' Bridge Sections

	Count	hrs to fab		cost/hr		Cumulative Cost
Stringer Section	12	5	$	150	$	9,000
Transverse Section	5	8	$	150	$	6,000
Ramp Section	2	8	$	150	$	2,400
Foundation Section	1	8	$	150	$	1,200
				subtotal	$	18,600

Labor for 10' Bridge Sections

	Count					
Stringer Section	3	5	$	150	$	2,250
Transverse Section	2	8	$	150	$	2,400
Ramp Section	2	8	$	150	$	2,400
Foundation Section	1	8	$	150	$	1,200
				subtotal	$	8,250

Material for Stringer Sections

Stringer Section	Size	Count [each]	Length [ft]		Cost Material		Cumulative Cost
Top Stringer	HSS8x4x6	1	10	$	317.50	$	317.50
Bottom Stringer	HSS6x4x4	1	10	$	130.43	$	130.43
Bracing	HSS4x3x4	2	5.83	$	55.79	$	111.57
Column	HSS4x4x3	2	3	$	27.89	$	55.79
2" x 6" Wood Decking	2x6x8'	40	8	$	15.55	$	622.00
3x3x1/4" Angle Iron	AN 3x3x1/4x20	4	10	$	33.98	$	135.92
					subtotal	$	1,373.21
					40' Grand Total Materials	$	16,478.52
					10' Grand Total Materials	$	4,119.63

Material for Transverse Sections

Transverse Section	Size	Count [each]	Length [ft]		Cost Material		Cumulative Cost
Top Stringer	HSS8x4x2	1	15	$	635.00	$	635.00
Bottom Stringer	HSS6x4x4	1	15	$	260.86	$	260.86
Bracing	HSS4x3x4	4	4.83	$	41.84	$	167.36
Column	HSS4x4x3	3	3	$	27.89	$	83.68
					subtotal	$	1,146.90
					40' Grand Total Materials	$	28,672.50
					10' Grand Total Materials	$	2,293.80

Material for Ramp Sections

		[each]	[ft]				
Top Stringer	HSS8x4x2	1	15	$	635.00	$	635.00
Bottom Stringer	HSS6x4x4	1	15	$	260.86	$	260.86
Bracing	HSS4x3x4	4	7.08	$	55.79	$	223.15
Column	HSS4x4x3	3	6	$	55.79	$	167.36
2" x 6" Wood Decking	2x6x8'	24	8	$	15.55	$	373.20
3x3x1/4" Angle Iron	AN 3x3x1/4x20	8	6	$	33.98	$	271.84
					subtotal	$	1,931.41
					Grand Total per bridge	$	3,862.81

Material for Foundation Sections

2" Galvanized Steel Grating		1	18	$	1,250.00	$	1,250.00
3x3x1/4" Angle Iron	AN 3x3x1/4x20	2	18	$	33.98	$	67.96
Pipe Collars for Screw Piles		1	N/A		250.00	$	250.00
					subtotal	$	1,567.96
					Grand Total per bridge	$	3,135.92

40' SUBTOTAL	$	70,749.75
40' Paint	$	10,612.46
40' Section Consumables	$	1,500.00
40' Section Contingency (20%)	$	16,572.44
40' TOTAL COST	**$**	**99,434.66**
10' SUBTOTAL	$	21,662.16
10' Paint	$	3,249.32
10' Section Consumables	$	375.00
10' Section Contingency (20%)	$	5,057.30
10' TOTAL COST	**$**	**30,343.79**

Appendix B - Steel Price Quote

STEELFAB
STEEL SOURCE FOR ALASKA
2132 Railroad Ave.
Anchorage, Alaska 99501
(907) 264-2800

March 21, 2018
5:52:44PM
Page 1 of 2
Rev:3

Quotation # 0118605

Quoted To: U.A.A. CIVIL ENGINEERING

Ship To: U.A.A. CIVIL ENGINEERING
attn: TYLER BYERS
@ (281) 638-4934
U.A.A., ANCHORAGE, AK

Customer P.O.	QUOTATION ONLY	F.O.B. U.A.A. ANCH.	Ship VIA S/F TRUCK
Terms:	No Terms	Quote Date:	3/21/2018
Salesperson:	Terry Walker 907-264-2801	Expire Date:	3/28/2018
Domestic Req:	NO		

Line #	Order Qty	Description	CWT Price	Weight	Price	UM	Extension
1	1	*RT8438-20 RECT. TUBE 8" x 4" x 3/8" x20' APPROX. 1 WEEK A.R.O.			635.00	EA	635.00
2	1	*RT84316-20 RECT TUBE 8" x 4" x 3/16" x20' 3/16" IS THE THINNEST AVAILABLE APPROX. 1 WEEK A.R.O.			371.40	EA	371.40
3	1	RT-64250-40 RT 6 x 4 x .250 x 40 A-500 SHIP 1 EA. @ 20' NOMINAL, HOTSAW STEELFAB TO KEEP DROP	41.74	625	260.86	EA	260.86

Continued

UAA College of Engineering
UNIVERSITY of ALASKA ANCHORAGE

STEELFAB
STEEL SOURCE FOR ALASKA

2132 Railroad Ave.
Anchorage, Alaska 99501
(907) 264-2800

March 21, 2018
5:55:34PM
Page 2 of 2
Rev:3

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Terms:	No Terms		Quote Date:	3/21/2018	
Salesperson:	Terry Walker 907-264-2801		Expire Date:	3/28/2018	
Domestic Req:	NO				

Line #	Order Qty	Description	CWT Price	Weight	Price	UM	Extension
4	1	RT-43250-20 RT 4 x 3 x .250 x 20 A-500	79.70	210	167.36	EA	167.36
5	1	ST-4188-20 ST 4 x .188 x 20 A-500	105.52	189	198.91	EA	198.91
6	1	AN-314 AN 3 x 3 x 1/4 x 20 A-36	69.35	98	67.96	EA	67.96

Total Weight: 1,122

Total: $1,701.49

Page 2 of 2

Appendix C - Foundation Calculations

$$F := 3391\ lbf$$

$$F_{grating} := \frac{F}{2} + 12.62\ psf \cdot 32\ ft^2 = \left(2.099 \cdot 10^3\right)\ lbf$$

$$F_{fric} := F_{grating} \cdot .03 = 62.98\ lbf$$

$$W_{groomer} := 18000\ lbf$$

$$V_{groomer} := 5\ \frac{ft}{s}$$

$$G := 32.2\ \frac{ft}{s^2}$$

$$D := 2\ ft$$

$$F_{impact} := W_{groomer} \cdot \frac{V_{groomer}^{\ 2}}{(G \cdot D)} = \left(6.988 \cdot 10^3\right)\ lbf$$

$$F_{impact} - F_{fric} = \left(6.925 \cdot 10^3\right)\ lbf$$

$$A_{snow} := 45\ ft^2$$

$$Snow_{neededcap} := \frac{\left(\left(F_{impact}\right) - \left(F_{fric}\right)\right)}{A_{snow}} = 153.88\ psf$$

Appendix D - Groomer Technical Data

MOGUL Master
MULTI-BLADE PLANERS

MODEL #	WEIGHT (with standard hitch)	LENGTH (does not include hitch or wheels)	WIDTH	NO. of BLADES
MBP 18-08	3,660 lbs	17' 6"	8' 4"	11
MBP 18-09	3,800 lbs	17' 6"	9' 4"	11
MBP 18-10	4,000 lbs	17' 6"	10' 4"	11
MBP 18-12	4,250 lbs	18'	12'	11
DS MBP 18-08	3,060 lbs	17' 6"	8' 4"	6
DS MBP 18-09	3,410 lbs	17' 6"	9' 4"	6
DS MBP 18-10	3,610 lbs	17' 6"	10' 4"	6
DS MBP 18-12	3,810 lbs	18'	12'	6
MBP 08-08	2,180 lbs	10' 6"	8' 4"	4
MBP 08-09	2,480 lbs	10' 6"	9' 4"	4
MBP 08-10	2,680 lbs	10' 6"	10' 4"	4
MBP 08-12	3,030 lbs	10' 6"	12'	4
XLMBP 16-07	2,655 lbs	15' 3"	7' 4"	7
XLMBP 16-08	2,785 lbs	15' 3"	8' 4"	7
XLMBP 16-09	2,905 lbs	15' 3"	9' 4"	7
XLMBP 16-10	3,035 lbs	15' 3"	10' 4"	7
XLMBP 16-07 HD	3,000 lbs	15' 3"	7' 4"	7
XLMBP 16-08 HD	3,130 lbs	15' 3"	8' 4"	7
XLMBP 16-09 HD	3,250 lbs	15' 3"	9' 4"	7
XLMBP 16-10 HD	3,380 lbs	15' 3"	10' 4"	7
ULMBP 14-06	1,450 lbs	12' 3"	6' 4"	4
ULMBP 14-07	1,575 lbs	12' 3"	7' 4"	4
ULMBP 14-08	1,700 lbs	12' 3"	8' 4"	4
ULMBP 9-06	940 lbs	9'	6' 3"	7
ULMBP 9-07	1020 lbs	9'	7' 3"	7
ULMBP 9-08	1100 lbs	9'	8' 3"	7
ULMBP 8-04	360 lbs	8'	4' 3"	4
ULMBP 8-04 ST	419 lbs	8'	4' 3"	4
ULMBP 8-06	575 lbs	8'	6' 3"	4

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705 682-1221 fax
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Appendix E- Pisten Bully Technical Data

Technical data

Engine	Mercedes Benz OM 924 LA turbocharged, after cooled, diesel. EPA Tier 3	
Displacement	4.8 liter	4 cyl
Output (SAE)	197 horsepower	
Maximum torque	520 ft lb @ 1,200—1,600 rpm	
Fuel tank capacity	62 gallons	235 liters
Transmission	Rexroth hydrostatic; infinitely variable	
Steering	Half moon steering wheel, electronic	
Brakes	Hydrostatic; dynamic feedback	
	Two multi-disk parking brakes	
Alternator	28 V / 100 Amps	
Batteries	2 x 12 V / 92 Ah	
Speed, low range	0-12 mph	0-19 km/h
Speed, high range	0-18 mph	0-29 km/h
Fuel usage	From 2.25 gal/hr	8.5 liter/hr
Suspension	5 axle independent, torsion bar	
Wheels	14 inch; solid rubber in 3 durometers	
Tracks	X track high performance rubber track	
	2.5m / 2.8 m steel track, closed profile	
Ground clearance	14 in	350 mm
Vehicle weight	12,800 lbs	5800 kg
Payload on rear deck	2,200 lbs	1000 kg

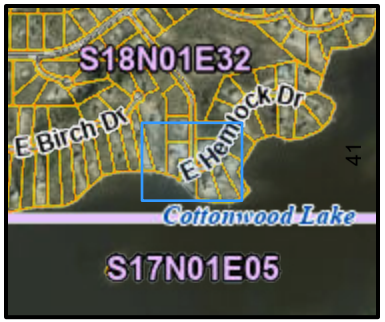
Pisten Bully
TrailBully

Standard equipment
Deluxe drivers cabin features wide based hydrofluid mount suspension, heat/noise insulation, integral rollover protection
Electric over hydraulic tilt for cabin and deck
Deluxe comfort operator's seat with 16 point adjustments; heated backrest, seat cushion and left armrest; seatbelt
Passenger seat with seat belt
Customized heat/defrost system for optimum fresh/warm air flow
Heated side windows, heated outside mirrors
Heated front windshield, heated rear window
Full instrumentation, backup alarm, 2 warning beacons
High performance halogen working lights in front and rear
Telltale warning lights for major components with audio buzzer
AM/FM radio with CD player, Blaupunkt stereo speakers
Interior rear view mirror
Modular frame constructed from high strength cold resistant steel
110 volt engine coolant heater
Slot-in removable tubular deck rails
Front hydraulics: 6 circuits controlled via ball handle (proportional)
Rear hydraulics: 3 circuits controlled via rocker switch panel
Full brush guard; escape hatch
Rear draw bar with pintle hitch
Switch panel for drag control, remote control for passenger
Cruise control; odometer

Kässbohrer All Terrain Vehicles, Inc.
Tel. 775 857-5000
Email contact@pistenbullyusa.com
www.pistenbullyusa.com

Matanuska-Susitna Borough, AK

Parcel Map



Legend

- Minor Road
- Mat-Su Borough Boundary
- Address Numbers
- Parcels
- Lot and Block Numbers

Layer

- ROW Easement
- 3p ROW Easement
- Lakes and Rivers
- Section Lines

World Imagery

- World Imagery
- Low Resolution 15m
- High Resolution 60cm
- High Resolution 30cm
- Citations

THIS MAP IS NOT TO BE USED FOR NAVIGATION

0 100 200 300 400 ft

N

NAD 1983 State Plane Alaska 4 FIPS 5004 Feet

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Notes

Generated on 02.12.2025 (dd/mm/yyyy)

Hugh and Sarah,

I would like to request that commercial permits in MSB parks be put on our Parks & Rec Board agenda for January. A permit for commercial use in Talkeetna Lakes Park and on the Ridge Trail in Talkeetna is being considered (and may be close to being issued) by Land Management. I have many concerns as does our community as evidenced at the Talkeetna Community Council Last night (12/1/2025.)

1. Land Management contacted he Talkeetna Parks Advisory Committee (TPAC) about the permit. TPAC meets only bi-monthly and is a committee of the Talkeetna Community Council (TCCI.) TCCI was not notified of the Talkeetna Gear Shop's application for a commercial use permit for both the Ridge Trail and Talkeetna Lakes Park.

2. I do not understand why Land Management rather than Parks and Recreation would be dealing with a permit for Talkeetna Lakes Park. The Ridge Trail is not in a Park, so Land Management would deal with that application. Evidently there is one application that is for commercial use of both the park and the ridge trail.

3. I do not understand why the proposed application was not shared with the Parks & Rec board nor with me as the District 7 representative.

4. Land Management indicated to TCCI Chair in a follow-up email that a public notice was soon to be issued but if it has been, our board did not receive a notice.

5. The application, as shared with the Council for last night's meeting, is vague and fails to address important operational issues:

"We propose to offer small-group guided tours, seasonally adjusted for the following activities:
- Summer (May–September): Biking tours (mountain and e-bike) & Paddle Board tours
- Winter (November–March): Snowshoe tours, Nordic Ski Tours and Fat Bike Tours"

The trails in Talkeetna Lakes Park are very different from the Ridge Trail, and are not suitable for tour groups with e-bikes. Plus the Talkeetna Lakes Park Management Plan, on page 21, specifically notes: "Bicycles…Commercial and winter use would remain prohibited."

What does 'small' mean? There are additional sections of the Talkeetna Lakes Park Management Plan that are relevant to this permit, and there are additional issues concerning the application (e.g., there is already a commercial operator offering kyayk and paddle board rentals operating out of the Talkeetna Lakes parking lot at Comsat. The parking lot is often full. So where would this operation be located?) How will the commercial operator contribute to maintenance and grooming of the trails?

6. The application does not address the type of e-bikes they plan to use (pedal assist, e-bikes equiped with a throttle assist, or electric motored, and only indicate 'small' as the tour group sizes. This is relevant to the e-bike issue our board already plans to have on the January agenda.

7. Although it is late in the process, I am wondering if the proposed Parks & Rec Ordinance needs to address how commercial permit applications in our parks will be handled, and if it should include more information defining e-bikes and restrictions on their use. Should permit fees include repair, maintenance, and grooming?

8. The errors in dealing with this permit were not just the borough's. TPAC does not meet monthly; there was a lack of a quorum for one TPAC meeting; and the chair being out of town

for the next led to it not being on the agenda. TPAC, however, is a committee that can only recommend to the Council that does meet monthly.

Thanks,
Ruth Wood