



ALASKA RAILROAD CORPORATION
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Anchorage, AK 99501
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HopeM@akrr.com

May 10, 2021

Addendum Number 1
Request for Proposal 21-08-208877
Bird Creek Pony Truss CMGC

This addendum is being issued to provide information as follows:

Proposal Due Date has been changed to: 3:00 p.m., May 25, 2021

1. Remove and replace Section 6 Selection Process/Award Criteria with the attached 8-page Section 6 Selection Process/Award Criteria.

Questions/Answers:

2. **Q:** After the informative 05/03/21 site visit, and given the complexity of the project and RFP requirements, as well as the timing of the solicitation during the deadline week for federal taxes, we are concerned that the response period does not allow us the time needed to prepare an appropriately thoughtful submission. We respectfully request that the proposal submittal deadline be extended at least one week and preferably to Friday, May 28, 2021.

A: Proposal Due Date has been changed to 3:00 p.m., May 25, 2021.

3. **Q:** Is there a deadline for submission of pre-bid questions?

A: Yes, the Contractor shall have all questions submitted prior to 3:00 pm, May 14, 2021.

4. **Q:** During the COVID-19 pandemic, most organizations in Alaska changed their proposal procurement processes to allow for electronic submissions only. Page 2 and 39 of the RFP states that "One (1) original and one (1) electronic copy in a .pdf format of each proposal must be submitted." We respectfully request that only one (1) electronic copy in a .pdf format be required for the Technical Proposal, and one (1) electronic copy in a .pdf format be required for the Cost Proposal, thus removing the requirement for a printed/bound submission.

A: Reference RFP page 2, remove and replace with the following:

For safety reasons during the global pandemic, one original paper copy and one electronic copy of your firms offer must be submitted using one of the following formats:

- a. Offerors who prefer to use an electronic submittal, a Dropbox link will be provided via request, and the original copy will need to be mailed to the address provided above. The Dropbox submittal date/time will be used for the official receipt; or
- b. offerors may mail one original and electronic copy via thumb drive to the address provided; or
- c. offerors may hand-deliver one original and electronic copy via thumb drive to the ARRC office identified; Offerors must schedule a time for delivery with the Contract Administrator, at the Contract Administrator's convenience, as the ARRC building and doors are not open to the public due to COVID19 restrictions.

5. **Q:** Where does the Sub-Contractors List form (from Appendix E) get placed?

- a. The Technical Proposal, after the Questionnaire and Certifications;
- b. The Price Proposal, after the Preconstruction Services Price Proposal;
- c. With the "Required for Award" documents; **or**
- d. With the Post Award Documentation

A: Subcontractor's List Appendix E shall be submitted with the Required For Award documents if your firm is selected for negotiations. However, any information required within the criteria regarding subcontractors shall be submitted appropriately.

6. **Q:** Do all statements and certifications within Appendix D get included in the "Contractor's Questionnaire and Certifications" portion of the Technical Proposal, even if they are not listed in Appendix E – Proposal Forms [submittals]? Those not listed are:

- a. 17. Statement of Unavailability of US-Flag Air Carriers
- b. 21. FHWA Buy American Requirements; Certificate of Compliance with 23 CFR 635.410
- c. FRA Buy America Requirements – Supplies; Certificate of Compliance with 41 USC 10 a-d - Supplies
- d. 24. FRA Buy America Requirement – Construction; Foreign and domestic construction materials price comparison and Certificate of Compliance with 41 USC 10a-d – Construction
- e. 27. Certificate of Compliance with 49 CFR 26.49

A: The following sections from Appendix D are required to be submitted:

24. FRA BUY AMERICA REQUIREMENTS-41 USC 10-a-d; 48 CFR Part 25
25. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING-31 USC 1352, 49 CFR Part 20

7. **Q:** Does the Preconstruction Services Price Proposal criteria begin with “Cost Criteria” on page 5 of Section 6 of the RFP, include 6.1.10 Construction Fee Proposal, and end on page 7?

A: The Preconstruction Services Price Proposal criteria is one of two criteria used for Cost evaluation. Item 6.1.9 is the required format for the Preconstruction Services Labor Rates.

8. **Q:** In one section of RFP, the Pre-Construction Services Fee is required to be submitted with the Proposal. In another section, the RFP states PCS Fee will be submitted after award. Please clarify when the contractor should submit the Pre-Construction Services Fee Proposal.
- a. RFP page 38 requires the PCS Fee Proposal to be submitted on May 14th - “Contractor’s Pre-Construction Phase Services proposal in accordance with the provisions of Section 6, Part 1, Item E2”
- b. RFP page 7, Section 7.1, Pre-Construction Fee: RFP states the fee will be submitted and negotiated after award.

A: The actual fee for Pre-Construction services will be submitted and negotiated after award. However, rates as required per section 6.1.10 are required at time of submittal. Remove and Replace Section 4 General Requirements, Item 5 Required Submittals, letters (e), and (f) with the following:

- (e) Contractor’s Preconstruction Services Labor Billing Rates (Required Format) proposal in accordance with the provisions of Section 6.1.9.
- (f) Contractor’s Construction Fee Proposal (Required Format) proposal in accordance with the provisions of Section 6.1.10.

9. **Q:** There are conflicting completion dates in the RFP. Section 2.4 on page 12 states August 1, 2023 as the Complete Construction date. Section 3.9 on page 36 states “Substantially complete the construction no later than July 1, 2023”. Please confirm the date that construction is to be completed by.

A: The dates referenced above are correct. Construction of the superstructure is to be substantially completed by 01 July 2023 with all other construction related activities completed by 01 August 2023.

10. **Q:** Please provide “as-builts” and a weight of the existing MP86.6 Bridge.

A:

- a. The record drawings for the 123’ Span Through Truss (*War Dept. Surplus Bridge, Tech. Manual TM 5-373*) is attached herein. **Note:** Truss packages shown therein are representative of what is in-place at Bridge 086.6. (Attachment 2, BR147.5 Record Drawings)

- b. The total weight of the structure, with a 10% contingency, is estimated to be approximately 376,200 lbs as broken down in the table below:

Structural Steel (<i>legacy</i>)	262,000 lbs
Structural Steel (<i>retrofit</i>)	14,000 lbs
3"∅ PT Rods	6,000 lbs
Track Structure (<i>≈468 lbs/ft</i>)	60,000 lbs
Contingency (<i>10%</i>)	34,200 lbs

11. **Q:** Please confirm the extent/limits of ARRC's ROW.

A: Unless otherwise noted in the attachment provided (Attachment 3 BR086.6 ARRC ROW), ARRC Right-of-Way extends approximately 100' from the centerline of the rail in either direction (perpendicularly). It is however important to note that there are permitted features within ARRC's Right-of-Way such as AKDOT&PF's facilities (bike path, Seward Highway) and AKDNR's stairway(s). Contractor to verify all information provided by ARRC through a Licensed Professional Land Surveyor.

All other dates, terms, and conditions remain unchanged.

Another addendum is anticipated to answer questions already asked but not answered within this addendum.

Acknowledge receipt of this and all addenda in your firm's Service Bid Form (Form 395-0132).

Sincerely,



Michele Hope
Contract Administrator
Alaska Railroad Corporation

Attachments:

Attachment 1 Evaluation Criteria
Attachment 2 BR086.6 ARRC ROW
Attachment 3 BR147.5 Record Drawings

Section 6 – Selection Process/Award Criteria

The selection of a firm to perform the CM/GC services for the Project will be made by an ARRC Selection Committee that will evaluate and score the proposals in accordance with the criteria specified herein. ARRC may award a contract based solely on the initial scoring and proposals should be prepared with the intention of providing the best possible description of relevant experience, expertise, and Project approach. However, ARRC reserves the right to extend the evaluation process by selecting a short list of two or more of the highest ranked firms to provide oral presentations. In the event that oral presentations are required the selected firms will be provided with additional information about the format, length, content, and scoring to be used.

Section 6.1 – Evaluation Criteria **Technical Criteria**

Respondents will be evaluated based on their responses to the following criteria:

6.1.1 Project Approach

Weight: 15

Response must demonstrate your comprehension of the objectives and services for the proposed contract. Do not merely duplicate the Statement of Services provided with this RFP. State any assumptions made in formulating Criteria Responses.

Outline the methods for accomplishing the proposed contract during Stage 1 - Preconstruction Services, and Stage 2 - Construction. If methodology is contained in the proposed Statement of Services, address its adequacy.

For each Stage of services (as applicable),

- Describe what, when, where, how, and in what sequence the work will be done.
- Identify the amount and type of work to be self-performed and that which may be performed by Subcontractors.
- Identify the amount and type of services or interactions required from or with ARRC.
- Address any particular geographic familiarity, experience, and capabilities your firms have (i.e., the primary offeror and all proposed subcontractors), those of your proposed project staff, and how they might specifically contribute to the proposed methods.

Identify any **distinct and substantive qualifications** for undertaking the proposed contract such as the availability of specialized equipment or unique approaches or concepts relevant to the required services which you or your subcontractors may use. Focus on what sets you apart from others in doing the same work.

6.1.2 Risk Management

Weight: 10

Response must include the following two parts:

Overall Risk Management Strategy

Describe your approach toward managing risk, and the strategy you propose to utilize:

- Explain how you will identify, price, and mitigate risk
- Discuss how your risk management strategy will support the team, provide the best value to the project, and deliver the project on or ahead of schedule

Project Specific Risks

Identify major risks to achieving the Project and CM/GC goals, including:

- Potential impacts to cost and schedule
- How your team proposes to mitigate the risks identified

6.1.3 Innovation

Weight: 10

In conjunction with your team’s Project Approach, you may have innovative ideas or creative efficiencies that may or may not meet the requirements of the RFP that could increase the likelihood for project success. Discuss your innovations as they relate to the Project and Contractor goals listed in Appendix B, Statement of Services.

Provide examples of cost reductions, improvements in schedule, or other benefits to requested services that may be used to augment your team’s Project Approach.

Provide up to five (5) proposed innovations and for each one, address the following elements:

Innovation Description	Estimated Cost (\$) or Time Savings (days)	Methods	Assumptions
Describe what the innovation is and how it relates to design or construction that may further improve reaching the Project Goals.	Provide a total estimated cost or time savings produced by implementing the innovation.	Describe the methods your team will utilize for implementing the innovation and how they are an improvement over traditional methods.	State all assumptions made, including unit costs used for comparison (e.g. traditional method cost of borrow = \$10/ton, innovative method cost of borrow = \$8/ton).

Additionally, describe the methods your team will use for developing, tracking, and proposing innovations to the Project Team.

6.1.4 Methods of Partnering and Claims Mitigation

Weight: 10

Response must describe your experience utilizing partnering methods and other techniques used to avoid claims. For partnering, ARRC is not simply interested in one day workshops but in how partnering techniques were executed throughout the design and/or construction process.

- Provide up to five (5) specific examples of partnering and claims mitigation from your Firm's past.
- Explain how these techniques improved project elements such as schedule, cost control, and customer satisfaction
- Explain how the practiced methods avoided claims and/or helped facilitate agreements between Owner and Contractor on construction contracts
- Describe your firm's approach to claim avoidance or mitigation

6.1.5 Proposed Project Staff

Weight: 15

Response must name the individuals to perform the following essential **FUNCTIONS** plus any other professional/technical functions you deem essential to perform the services:

1. Contract Manager
2. Project Manager
3. Project Superintendent
4. Project Cost Estimator

For each individual identified to perform an essential function,

- Provide at least 3 professional references (contact persons and telephone numbers).
- Describe the work they will perform, and their contributions to the project
- Detail their specific qualifications and substantive **experience directly related to the proposed contract.**
- Identify their:
 - employer,
 - professional discipline or job classification,
 - amount of experience in the stated discipline or job classification, and
 - state of residency.

A response prepared specifically for this proposal is required. Marketing resumes often include non-relevant information which may detract from the evaluation of proposal. Lists of projects are not useful. Focus on the individual's specific duties and responsibilities and how their experience is relevant to the proposed contract.

6.1.6 Management

Weight: 5

Response must address the following:

Describe the administrative and operational structures that will be used for performing the proposed contract for Stage 1 - Preconstruction Services, and Stage 2 - Construction:

- Identify who will have overall responsibility for the contract.
- Identify the lines of authority and provide an organization chart including pre-construction and construction personnel.
- Identify the location(s) where the various contract services will be performed, and how communications will be maintained between your Project Staff, ARRC, and (as applicable) any other government agencies or the public.
- Briefly address your Firm's capability to provide additional services and/or services under an accelerated schedule. Also address your Firm's capability to reassign personnel, equipment and facilities should the proposed contract either not require them or be delayed.
- Describe your proposed cost controls, and your managerial approach toward maintaining budgets negotiated with ARRC. Identify who will be responsible for managing costs and how potential cost issues will be communicated and addressed with ARRC.
- Describe how individuals on your management team will interact with ARRC and Engineer(s) of Record during performance of the contract.

6.1.7 Previous Projects

Weight: 15

Response must describe at least 3 previous projects the proposed project team has completed (or are substantially complete) that are related in size and scope to this project.

For each previous project,

- Provide the project name and location
- Provide the name of the Project Manager or Project Engineer
- Provide the project duration (dates of Contract Award and Completion)
- Identify the client and provide a current reference contact name and phone number
- Describe the project

BIRD CREEK PONY TRUSS BRIDGE REPLACEMENT CONSTRUCTION MANAGER CM/GC
ADDENDUM 1 – ATTACHMENT 1

- List the firm(s) and staff involved as they relate to your Proposed Project Staff
- Provide cost performance – the initial Bid, final cost, and reasons for substantial change in cost
- Describe performance related to schedule; provide reasons for contract extensions (if any)
- Provide a brief narrative of the successes of the projects; include innovations implemented, and risks mitigated
- Identify specific experience gained from the described project that will help your team perform under this contract
- Describe any material changes, unresolved changes, claims, lawsuits, or litigation relating to the project

ARRC reserves the right to investigate referenced projects, other projects that the respondent has worked on, and contact references.

6.1.8 Approach to Fee and Price

Weight: 5

Explain how your approach to pricing work during this contract will be transparent and competitive, and how it will validate a fair price for the public's trust.

Describe the estimating process and tools you will use to communicate the cost of each bid item, the innovation cost savings, and the cost of any risk.

Identify the primary elements of cost for this project as you see them (e.g., labor, materials, indirect costs, etc.). Identify major temporary cost elements, such as haul roads, detours, temporary access, traffic control, and material site development. Specific numerical values are not required for your response, only identification of the elements.

Discuss your approach to schedule including hours of work, double or triple shifts, weather and winter considerations, and in general, duration of estimated work.

COST CRITERIA

CAUTION: Submittal of Offeror's or Subcontractor's "standard" rate schedules or other pricing documents which are not in required format will be non-responsive if they do not allow direct comparison with other responsive proposals.

Rates and costs proposed by the Offeror selected for contract negotiations may be investigated for reasonableness and allocability in accordance with the contract cost principles in 48 CFR Part 31. Unsupported rates and costs may be disallowed or result in termination of negotiations, or contract award. All proposed rates and the negotiated contract rates will be public information.

6.1.9 Preconstruction Services Labor Billing Rates (Required Format) Weight: 5

Provide a proposed total hourly Billing Rate (i.e. inclusive of Direct Cost of Direct Labor, all Indirect Costs, and Fee) only for each of the job **FUNCTIONS** listed below. Note: Some of these functions may be performed by one or more employees of the Offeror or Subcontractors; consequently, an individual might be billed under the contract at different rates appropriate to the functions performed. **Only the maximum rate paid to any individual for each listed job function** - regardless of employer (Offeror or Subcontractor) - **must be provided and will be considered for this response**. Rates for lower paid individuals or for other job functions, if any, will be addressed during contract negotiations.

- | | |
|---------------------------|--|
| 1. Contract Management | (Estimated at 10% of total labor effort) |
| 2. Project Management | (Estimated at 25% of total labor effort) |
| 3. Project Superintendent | (Estimated at 25% of total labor effort) |
| 4. Cost Estimating | (Estimated at 25% of total labor effort) |
| 5. Scheduling | (Estimated at 15% of total labor effort) |

Billing Rates must be signed and dated by the person who prepares it (may be different signatures for each Subcontractor)

Response will be scored as follows: The maximum hourly rates proposed for the job functions listed above will be multiplied by the percentage of total labor effort (estimated above) and then summed to obtain an aggregate rate for each Offeror. If more than one rate is provided for any job function, only the highest rate will be used. Each Offeror's score will be calculated using the following equation - except that the **score will be zero if a rate for each listed function is not provided by an Offeror**.

$$\frac{(\text{Lowest aggregate rate from all Offerors}) \times (\text{MPP}^*)}{(\text{Offeror's aggregate rate})} = \text{Offeror's Criterion Score}$$

$$*\text{MPP} = \text{Maximum Possible Points} = (5) \times (\text{Number of Evaluators}) \times (\text{Weight})$$

6.1.10 Construction Fee Proposal (Required Format) Weight: 10

Provide a separate price proposal for the fee portion of Stage 2 - Construction.

- Fee must be expressed as a percentage and consists of overhead, profit, and any other applicable indirect costs. Profit does not need to be identified separately; all three components should be combined to form a single percentage fee.
- This fee will be applied to all work directly performed by the prime contractor. The prime contractor will be permitted to a 5% fee (not the proposed fee) for subcontractor work or subcontractor-supplied materials.

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- Joint ventures or prime/subcontractor partnerships identified as the proposal team will be treated as one entity and entitled to the proposed fee.

Response will be scored as follows:

$$\frac{(\text{Lowest fee from all Offerors}) \times (\text{MPP}^*)}{(\text{Offeror's Fee})} = \text{Offeror's Criterion Score}$$

$$*\text{MPP} = \text{Maximum Possible Points} = (5) \times (\text{Number of Evaluators}) \times (\text{Weight})$$

Section 6.2 – Evaluation of Proposals

6.2.1. Competitive Sealed Proposals will be evaluated by a committee. Evaluation of responses to criteria set forth in Section 6.1 results in a numerical score for each proposal. Each criterion has an assigned weight for this RFP which demonstrates its relative importance. The total of all weights is 100 (100%). Each one- percent weight equates to a range of 0-5 points per Evaluator. The maximum points (score) obtainable for any proposal is equal to the product of 500 multiplied by the number of Evaluators.

6.2.2. Scoring of proposals will be accomplished as follows:

6.2.2.1 Each Evaluator will individually read and rate each Offeror's response to each criterion described in Section 6.1 - Technical Proposal. Ratings will be based solely on contents of proposal and in compliance with the ARRC's Instructions for Evaluation Committee. Except as may be stated within any criterion description, a rating of "5" = Best Response from all Offerors; "4" to "1" = Progressively Less Responsive; "0" = Non-Responsive. Ratings are multiplied by the assigned weights for each criterion to obtain criteria scores.

6.2.2.2 After completion of individual ratings, the Evaluation Committee will meet to discuss proposals. Evaluators may then alter their ratings; however, any changes shall be based solely on the criteria set forth in Section 6.1.

6.2.2.3 After scoring Section 6.1 - Technical Proposal, criteria scores - Cost (if applicable), will be calculated based on criteria descriptions.

6.2.2.4 The total score for each Offeror will be obtained by summing the scores determined for each criterion in Section 6.1. The order of ranking for negotiations shall be as follows: highest scored Offeror will be ranked first, next highest scored second, and etcetera.

6.2.3. Evaluators may discuss factual knowledge of, and may investigate Offerors' and proposed Subcontractors' prior work experience and performance, including projects referenced in proposal, available written evaluations, etcetera, and may contact listed references or other persons knowledgeable of a Contractor's and/or a Subcontractor's past performance. Factors such as overall experience relative to the proposed contract,

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quality of work, control of cost, and ability to meet schedules may be addressed. If any issues of significant concern to the proposed contract are discovered, the Committee may:

6.2.3.1 Provide written recommendations for consideration during contract negotiations;

6.2.3.2 Conduct discussions in accordance with paragraph 6.2.4, below.

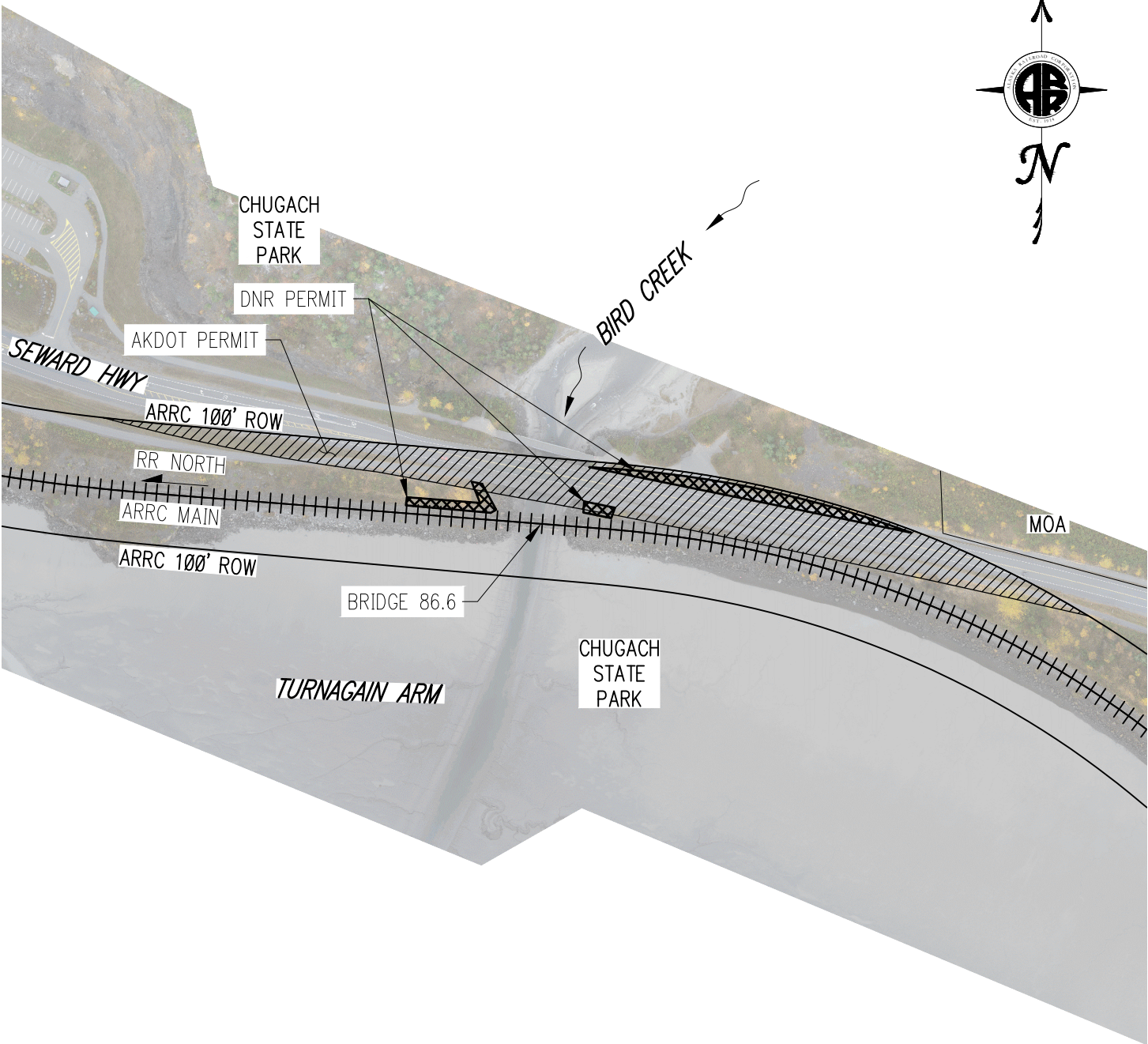
6.2.4. The Committee may decide to conduct discussions (or "interviews") with responsible Offerors whose proposals are determined to be reasonably susceptible of being selected for award for the purpose of clarification to assure full understanding of, and responsiveness to, the solicitation requirements. Offerors selected by the Committee for discussions may be permitted to submit Best and Final Offers (BAFO) for final Committee Evaluation. After discussions and any BAFO's, Evaluators will determine the final scoring and ranking for contract negotiations by evaluating written and oral responses using only the criteria set forth in Section 6.1.

6.2.5. All Offerors will be advised of the Offeror selected for negotiation and, after completion of negotiations, a Notice of Intent to Award will be provided to all Offerors. If contract negotiations are unsuccessful with Offeror(s) selected for negotiation, the Contracting Agency may either cancel the solicitation or negotiate with other Offerors in the order of ranking.

6.2.6 Award under this RFP is anticipated to be announced within 30 calendar days of the submission date; all offers must be complete and irrevocable for 60 days following the submission date.

6.2.7 ARRC reserves the right to award a CM/GC contract solely on the basis of written proposal responses and reserves the right to award a contract to the successful firm without further communication.



The form of Agreement between ARRC and the selected CM/GC will be substantially equivalent to the sample GM/GC Contract form provided in Section 8 of this RFP. A contract or any subsequent agreement resulting from this RFP is not valid until executed by ARRC.

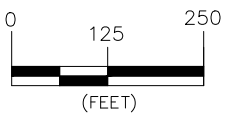



NOTES:

1. ALL INFORMATION SHOWN IN THIS FIGURE IS APPROXIMATE AND FOR PLANNING PURPOSES ONLY. CONTRACTOR MUST VERIFY LAND OWNERSHIP.

LEGEND:

-  AKDOT PERMIT
-  DNR PERMIT

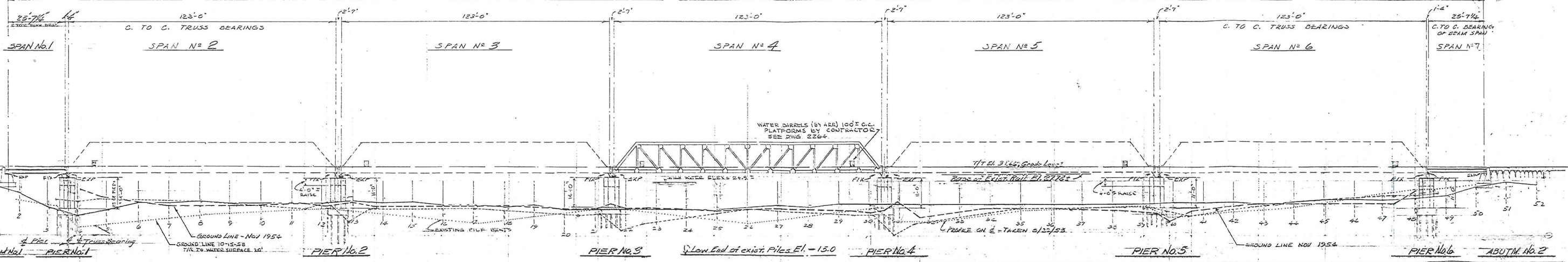


 ALASKA RAILROAD CORPORATION ENGINEERING SERVICES P.O. BOX 107500, ANCHORAGE, ALASKA 99510-7500		
PROJECT : MP 86.6 BIRD CREEK BRIDGE		
TITLE: LAND OWNERSHIP FIGURE		
DESIGNED BY: RJB DRAWN BY: RJB CHECKED BY: BAO APPROVED BY: BJA	SCALE: AS NOTED DATE: 5/6/2021	AFE NO.: 10943 ACAD FILE: DWG NO. 1 OF 1

TO SEWARD

TO FAIRBANKS

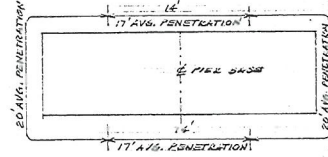
579'-2 1/2" C. TO C. BEARING ON ABUTMENTS



PIER NO.	HEIGHT
1	14'-0"
2	14'-0"
3	11'-0"
4	11'-0"
5	11'-0"
6	11'-0"

AS-BUILT DATA - BRIDGE 147.5

PIER NO.	ELEV. TOP OF PIER BASE	ELEV. 3TH OF RAIL PILES
1	+15.66	-19.84
2	+15.66	-19.84
3	+15.24	-20.24
4	+15.49	-20.01
5	+15.41	-20.01
6	+15.25	-20.05



SHEET PILING PENETRATION

NOTE: PENETRATION MEASURED FROM TOP OF PIER BASE

ELEVATION

Scale: 1" = 20'

NOTE: PIERS 2, 4, 5 & 6 ARE NOT TO SCALE IN ELEVATION VIEW ABOVE

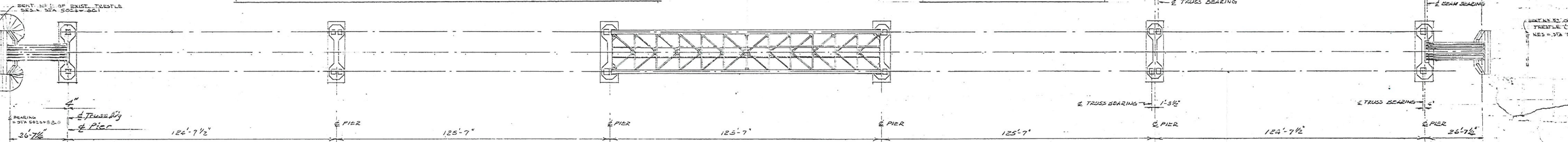
ESTIMATED QUANTITIES

CONCRETE:			
ABUTMENT NO. 1	30.0	CY	
ABUTMENT NO. 2	30.0	CY	
PIER NO. 1	79.4		
PIER NO. 2	70.5		
PIER NO. 3	82.2		
PIER NO. 4	76.5		
PIER NO. 5	70.5		
PIER NO. 6	76.5		
TOTAL CONCRETE	579.6	CY	
REINFORCING STEEL:			
3/8" - 10000	LF = 3800	LB	
1/2" - 500	LF = 340		
5/8" - 8500	LF = 3710		
3/4" - 2500	LF = 3500		
TOTAL REIN. STEEL	11,650	LB	
LUMBER:			
1400 LF OF 2x8		3,734	FSH
TIES: 12-8x10x10		12.80	
50-8x10x10		34.54	
66-4x8x10		2,600	
		42,448	
SEE DWG 2244 FOR MATL FOR WATER BARREL PLATFORMS			
BY 2-BEAM RAILWAY BRIDGES AS PER DWG E 7.9, T = 15.6 TONS			
ARKS THRU TRUSS SPANS (123' @ 151T)		655	TONS
176 PILES (SEE DETAIL ON SHEET NO. 3)			
SHEET PILING FOR COFFER DAMS (BASED ON AVG. LGTH. OF 22.5')			
235 TYPE DP-2 (FURNISHED BY ARK)			
24 TYPE CP-41 (FURNISHED BY CONTRACTOR)			
80-1/2" x 2'-0" ANCHOR BOLTS WITH NUTS			
32-7/8" x 2'-0" ANCHOR BOLTS WITH NUTS			

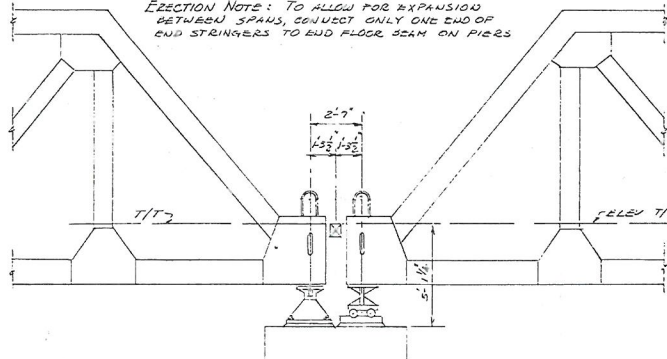
131 TONS PER SPAN

PLAN

SCALE: 1" = 30'



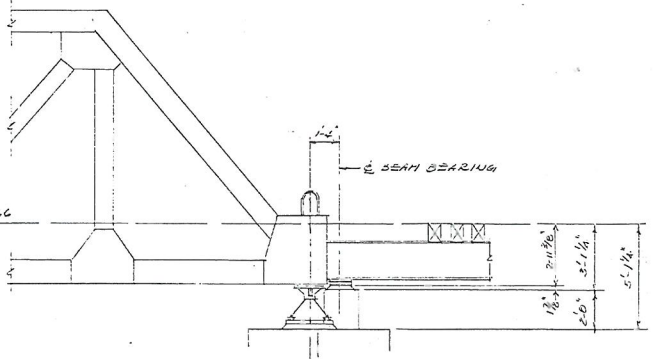
ERECTION NOTE: TO ALLOW FOR EXPANSION BETWEEN SPANS, JOINT ONLY ONE END OF END STRINGERS TO END FLOOR BEAM ON PIERS



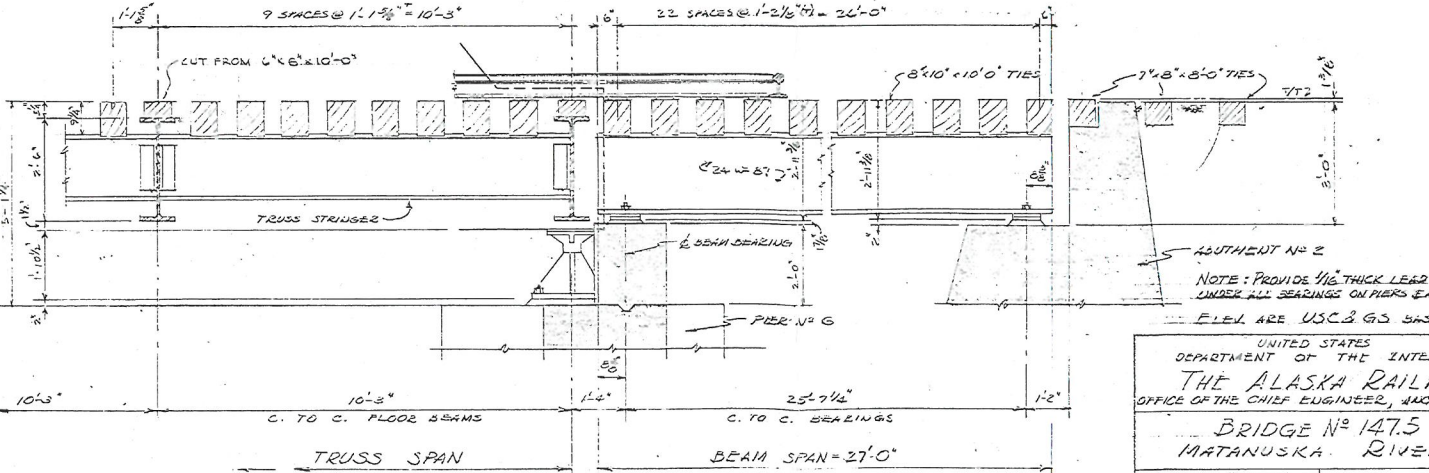
PIER NO. 5

TRUSS BEARING DETAILS

SCALE: 1/2" = 1'-0"



PIER NO. 6



TIE SPACING AND DETAILS

SCALE: 1/2" = 1'-0"

UNITED STATES DEPARTMENT OF THE INTERIOR
THE ALASKA RAILROAD
 OFFICE OF THE CHIEF ENGINEER, ANCHORAGE

BRIDGE NO. 147.5
 MATANUSKA RIVER

DESIGNED: HOLMELU
 RECOMMENDED:
 ASSISTANT CHIEF ENGR
 APPROVED:
 CHIEF ENGINEER

SCALE: AS SHOWN
 DATE: JUNE 1952
 FILE NO. 147.5