



ALASKA RAILROAD CORPORATION
327 W. Ship Creek Ave.
Anchorage, AK 99501

August 6, 2020

INVITATION TO BID #20-31-208421

Whittier Yard: Lower 1 and Lower 2 Track Improvements – Heavy Duty Crossing Panels

Response Required: This page must be completed and returned to ensure receipt of future addenda or additional information. Please e-mail this form to GoemerG@akrr.com. All addenda will be forwarded to the contact name and number listed below.

Firms that have not returned the cover sheet will not be informed of addendums and will only be alerted to addendums by checking with the ARRC procurement officer or by checking ARRC's internet site: www.alaskarailroad.com, select Procurement and then Solicitations. Bidders must acknowledge the receipt of all issued addendums in their proposal/bid submittal.

Company _____

Address _____

Contact _____

Phone _____ Fax _____

Email _____



ALASKA RAILROAD CORPORATION
327 W. Ship Creek Avenue
Anchorage, AK 99501

August 6, 2020

INVITATION TO BID NUMBER #20-31-208421

EMAILED BIDS WILL BE RECEIVED AT:

GoemerG@akrr.com

**Alaska Railroad Corporation
327 W. Ship Creek Avenue
Anchorage, Alaska 99501**

**UNTIL 3:00 P.M. AKST ON September 2, 2020
AT WHICH TIME BIDS WILL BE PUBLICLY OPENED**

**Whittier Yard: Lower 1 and Lower 2 Track Improvements –
Heavy Duty Crossing Panels**

Emailed bids will be accepted on which the Solicitation number appears in the subject line. Bids shall be submitted on the forms furnished herein. Hand-delivered bids, amendments, or withdrawals must be received by ARRC's Contracts Section prior to the scheduled time of bid opening.

Your bid must be complete. See instructions and conditions enclosed.

An Alaska Business license is not a prerequisite to bid. Bidders who possess an Alaska Business license and also meet the other criteria of an Alaska Bidder shall receive a preference per the "Alaska bidder preference".

ARRC shall not be held responsible for bidder's lack of understanding of what is required by this bid. Should a bidder not understand any aspect of this bid, or require further explanation, or clarification regarding the intent or requirements of this bid, it shall be the responsibility of the bidder to seek guidance from the ARRC.

ARRC reserves the right to reject any and all bids, or any part thereof, negotiate changes in bids, accept any bids or any part thereof, waive minor informalities or defects in any bids, and not to award the proposed contract if it is in the best interest of the ARRC.

ARRC may award a contract resulting from this solicitation to the responsive offeror whose offer conforming to this solicitation will be the most advantageous to the ARRC. ARRC may reject any or all offers if such action is in the best interest of ARRC, and waive informalities and minor irregularities in offers received. Any resulting contract from this solicitation shall incorporate the Standard Instructions, and General Terms and Conditions for Construction incorporated in this solicitation.

This solicitation is not to be construed as a commitment of any kind nor does it commit the ARRC to pay for any costs incurred in the submission of an offer or for any other incurred cost prior to the execution of a formal contract

BIDDER/VENDOR TERMS AND CONDITIONS: PROSPECTIVE BIDDERS ARE CAUTIONED TO PAY PARTICULAR ATTENTION TO THIS CLAUSE. Bidder/contractor imposed terms and conditions which conflict with this Invitation for Bid terms and conditions are considered counter offers and, as such, will cause the Alaska Railroad Corporation to consider the bid non-responsive.

If a bidder attaches additional terms and conditions as part of the bid, such attachments must be accompanied by a disclaimer stating that in the event of conflict between the terms and conditions of this Invitation for Bid and the terms and conditions of the bidder/contractor, the terms and conditions of the Invitation for Bid will prevail.

ARRC Disadvantaged Business Enterprise (DBE) Program: ARRC is an equal opportunity corporation that encourages the participation of DBEs as prime contractors and subcontractors on its contracts funded in whole or in part by the Federal Transit Administration (FTA) or the Federal Highway Administration (FHWA). The ARRC has a race neutral DBE Program and does not set DBE goals on individual solicitations. Nonetheless, the ARRC aspires to achieve an overall DBE participation of 3.0% in federal fiscal years 2019-2021 on contracts funded by agencies within the U.S. Department of Transportation. If this contract is funded in whole or in part by funds from the FTA or the FHWA, it is imperative that you consult the Federal Terms and Conditions portion of this solicitation.



The Alaska Railroad is a member of Green Star (<http://www.greenstarinc.org/>). ARRC earned an initial Green Star Award in 1994 and a Green Star Air Quality Award in 2007. The Alaska Railroad considers Green Star membership to be a positive business attribute, and regards a Green Star award as a tangible sign of an organization's commitment to environmental stewardship and continual improvement within its operations.

The email used in submitting your offer shall contain the following information:

1. Offeror's Name -
2. Invitation to Bid Number 20-31-208421
3. Sealed Offer: Whittier Yard: Lower 1 and Lower 2 Track Improvements – Heavy Duty Crossing Panels

Please direct all responses and/or questions concerning this invitation to bid in writing to Greg Goemer, Alaska Railroad Corporation, Supply Management, 327 W. Ship Creek Avenue, Anchorage, AK 99501, telephone number 907-265-2593, email address GoemerG@akrr.com.

Sincerely,

Greg Goemer
Sr. Contract Administrator
Alaska Railroad Corporation

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APPENDIX A

REQUIRED DOCUMENTS

REQUIRED FOR BID Bids will not be considered if the following documents are not completely filled out and submitted at the time of bidding:

1. Supply Bid Form - [Form 395-0132]
2. Questionnaire - [Form 395-0136]
3. Cost Schedule – Appendix J

REQUIRED AFTER NOTICE OF APPARENT LOW BIDDER The apparent low bidder is required to complete and submit the following documents within **Five (5) Working Days** after receipt of written notification

2. Contractor's QA/QC Plan

REQUIRED FOR AWARD In order to be awarded the contract, the successful bidder must completely fill out and submit the following documents within the time specified in the intent to award letter:

POST AWARD DOCUMENTATION

1. QA/QC Reports

APPENDIX B

Bidders Instructions

BIDDERS INSTRUCTIONS & SPECIAL REQUIREMENTS (CONSTRUCTION)

To be considered for award, Bids must be made in accordance with the following requirements:

Duty to Seek Clarification: ARRC shall not be held responsible for a Bidder's lack of understanding of what is required by the Invitation to Bid. Should a Bidder not understand any aspect of the Invitation to Bid, or require further explanation or clarification regarding the intent or requirements of the same, it shall be the responsibility of the Bidder to seek clarification from ARRC prior to submitting his or her Bid.

Terms and Conditions: Any resulting contract from this Invitation to Bid shall incorporate the general terms and conditions contained in this bid package.

Contract Documents: Bidders shall familiarize themselves with the requirements of all of the Contract Documents which include, but are not limited to the "Bidders Instructions & Special Requirements", the Invitation to Bid, Bid and Contract Forms, General Conditions, Special Conditions, Specifications, Drawings, any Addenda issued prior to the receipt of Bids, and any other documents referenced or incorporated therein.

Examination and Interpretation of Documents: Each Bidder shall examine the Contract Documents carefully and shall make written requests to ARRC prior to Bid submission for interpretation or correction of any ambiguity, inconsistency, discrepancy, omission, or error therein which the bidder may discover. Any interpretation or correction will be issued in an Addendum by ARRC. Only a written interpretation or correction shall be binding. No Bidder shall rely on any interpretation or correction given by any other method.

Addenda: ARRC may modify the Invitation to Bid prior to the date fixed for opening of Bids by issuance of an Addendum to all parties who have been furnished the Bid Package for bidding purposes. Bidders must acknowledge receipt of all Addenda on the Construction Bid Form [Form 395-0121].

Qualification of Bidders: Pursuant to ARRC Procurement Rule 1600.3, before a Bid is considered for award, ARRC may request a Bidder to submit information regarding the Bidder's capability in all respects to fully perform the contract requirements or the individual integrity and reliability which will assure good faith performance. Such information shall include the Bidder's prior experience in performing comparable Work, the availability of necessary financing, equipment, facilities, expertise and personnel to perform the Work and whether he or she has ever been terminated or defaulted on construction work.

Bid Forms: Bids must be submitted on the forms provided by ARRC, completed in all respects as required by the Bid Forms and other Contract Documents and manually signed by an authorized official of the Bidder. Bidders may make copies of the Bid Forms for submission of Bids.

Submission of Bids: Bids must be sealed, marked, and addressed as directed in the Invitation to Bid and must be delivered to the office designated in the Invitation to Bid prior to the exact time set for opening bids. Late bids will not be considered.

Modification, Correction, Withdrawal of Bids: Modification, correction or withdrawal of Bids will be allowed only as provided in ARRC Procurement Rule 1200.8.

Bid Opening: Bids will be opened in public at the time set forth in the Invitation to Bid in accordance with ARRC Procurement Rule 1200.6. The contents of the Bids will be open for public inspection after the notice of intent to award a contract is given.

Evaluation of Bids: Bids will be evaluated in accordance with the provisions of ARRC Procurement Rule 1200.7. Alternative bids, if called for, are intended to provide ARRC a range of comparative costs which will allow identification of the combinations most responsive to ARRC's need. The order in which the alternatives are listed or set out in the Invitation to Bid should not be taken as any indication as to the order in which ARRC may elect to select the alternatives, if any. Bidders shall submit bid prices for all alternatives stated in the Invitation to Bid and are advised that the order in which the alternatives, if any, are chosen by ARRC, may affect which Bidder is the lowest responsive and responsible Bidder.

Rejection of Bids: ARRC reserves the right to waive minor defects or informalities in a Bid in accordance with the provisions of ARRC Procurement Rule 1200.8, or to reject any or all Bids in accordance with the provisions of ARRC Procurement Rule 1600.2.

Award of Contract: Unless the solicitation is canceled or all bids are rejected, the procurement officer shall award a contract based on the solicited bids with reasonable promptness by written notice to the lowest, responsible and responsive Bidder whose bid conforms in all material respects to the requirements and criteria set out in the Invitation to Bid.

Execution of Contract: A written contract must be signed by the Bidder to whom an award is made and returned to ARRC within ten (10) calendar days, together with all required and certificate required by the Invitation to Bid.

Aggrieved Bidder: An aggrieved bidder/offeror may protest an ARRC procurement action by filing a written protest with the procurement officer in accordance with the procedures and time limits specified in ARRC Procurement Rules 1800.1-1800.11

Offer Acceptance Period: For the purpose of award, offers made in accordance with this ITB shall be good and firm for a period of thirty (30) days from the date of bid opening.

APPENDIX C

MINIMUM QUALIFICATIONS & PREFERENCES

Any vendor who responds to this solicitation must meet the following minimum qualifications in order to be considered responsive:

1. Be in the business of manufacturing concrete crossing panels as part of its normal business operation.
2. Have the authority and capacity to provide full support for all product warranties, including technical "trouble shooting" support.
3. Be able to provide audited financial statements demonstrating the financial ability to meet the requirements of any order that may result from this solicitation.

The ARRC may conduct an inspection of the suppliers' facility to include its offices and inventory of the items being solicited prior to contract award. All offers submitted in response to this solicitation must be signed by an individual with the legal authority to submit the offer on behalf of the company. Offers from vendors/suppliers that do not meet these qualifications will not be considered for award.

1. **ALASKA BIDDER PREFERENCE:** Award will be made to the lowest responsive and responsible bidder after an Alaska bidder preference of five percent (5%) has been applied. The preference will be given to a person who: (1) holds a current Alaska business license at the time designated in the invitation to bid for bid opening; (2) submits a bid for goods or services under the name on the Alaska business license; (3) has maintained a place of business within the state staffed by the bidder, or an employee of the bidder, for a period of six months immediately preceding the date of the bid; (4) is incorporated or qualified to do business under the laws of the state, is a sole proprietorship and the proprietor is a resident of the state, is a limited liability company organized under AS 10.50 and all members are residents of the state, or is a partnership under AS 32.06 or AS 32.11 and all partners are residents of the state; and, (5) if a joint venture, is composed entirely of ventures that qualify under (1) - (4) of this subsection.

2. **ALASKA VETERAN PREFERENCE:** If a bidder qualifies for the Alaska bidder preference and is a qualifying entity as defined herein, they will be awarded an Alaska veteran preference of five percent (5%). The preference will be given to a (1) sole proprietorship owned by an Alaska veteran; (2) partnership under AS 32.06 or AS 32.11 if a majority of the partners are Alaska veterans; (3) limited liability company organized under AS 10.50 if a majority of the members are Alaska veterans; or (4) corporation that is wholly owned by individuals and a majority of the individuals are Alaska veterans, and may not exceed \$5,000. The bidder must also add value by actually performing, controlling, managing, and supervising the services provided, or for supplies, the bidder must have sold supplies of the general nature solicited to other state agencies, other governments, or the general public.

In order to receive the Alaska Bidder Preference and/or Alaskan Veteran Preference, the bid must also include a statement certifying that the bidder is eligible to receive said preferences. The application of preferences is for bid evaluation purposes only.

APPENDIX D

Scope of Work

Work completed under this contract includes, but is not limited to; the fabrication and shipment of the heavy duty crossing panels requested herein, to include, but not limited to, the following: engineered shop drawings, engineering calculations, and any ancillary items required to install the panels in the field.

Materials will be F.O.B. Seattle Dock

Shipping of materials will be required in April 2021, earlier delivery will not be accepted.

The selected fabricator must have direct experience fabricating modular railroad crossing panels on at least two (2) projects spanning in durations of at least five (5) years total experience. Please provide proof of experience with references.

APPENDIX E

GENERAL TERMS AND CONDITIONS

The following terms and conditions supersede the terms and conditions on the reverse side of ARRC's purchase order to the extent that they are inconsistent therewith and shall be deemed to have the same force and effect as though expressly stated in any such purchase order into which this document is incorporated.

1. Definitions.

"ARRC" shall mean the Alaska Railroad Corporation.

"Vendor" shall mean the person or entity entering into the contract to provide the supplies specified therein for ARRC.

"Contract" shall mean these General Terms and Conditions, the contract form to which they are annexed, and all other terms, conditions, schedules, appendices or other documents attached to the contract form or incorporated by reference therein.

"Supplies" shall mean the equipment, goods, materials or other items to be provided by Vendor to ARRC under the contract.

2. Inspection and Reports. ARRC may inspect all of the Vendor's facilities and activities under this contract in accordance with the provisions of ARRC Procurement Rule 1600.9. The Vendor shall make progress and other reports in the manner and at the times ARRC reasonably requires.

3. Claims. Any claim by Vendor for additional compensation or equitable adjustment arising under this contract which is not disposed of by mutual agreement must be made by Vendor in accordance with the time limits and procedures specified in sections 1800.12 et seq. of ARRC's Procurement Rules, which by this reference are hereby incorporated herein.

4. Nondiscrimination.

4.1 The Vendor may not discriminate against any employee or applicant for employment because of race, religion, color, national origin, ancestry, physical or mental handicap, sex, marital status, change in marital status, pregnancy or parenthood when the reasonable demands of the positions do not require distinction on the basis of age, physical handicap, sex, marital status, changes in marital status, pregnancy, or parenthood. To the extent required by law, the Vendor shall take affirmative action to insure that the applicants are considered for employment and that employees are treated during employment without unlawful regard to their race, color, religion, national origin, ancestry, physical or mental handicap, age, sex, marital status, changes in marital status, pregnancy or parenthood. This action must include, but need not be limited to, the following: employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training including apprenticeship. The Vendor shall post in conspicuous places, available to employees and applicants for employment, notices setting out the provisions of this paragraph.

4.2 The Vendor shall cooperate fully with ARRC efforts which seek to deal with the problem of unlawful discrimination, and with all other ARRC efforts to guarantee fair employment practices under this contract, and promptly comply with all requests and directions from the State Commission for Human Rights or any of its officers or agents relating to prevention of discriminatory employment practices.

4.3 Full cooperation in Paragraph 4.2 includes, but is not limited to, being a witness in any proceeding involving questions of unlawful discrimination if that is requested by any official or agency of the State of Alaska; permitting employees of the Vendor to be witnesses or complainants in any proceeding involving questions of

unlawful discrimination, if that is requested by any official or agency of the State of Alaska; participating in meetings; submitting periodic reports on the equal employment aspects of present and future employment; assisting inspection of the Vendor's facilities; and promptly complying with all State directives considered essential by any office or agency of the State of Alaska to insure compliance with all federal and state laws, regulations, and policies pertaining to the prevention of discriminatory employment practices.

4.4 Failure to perform under this section constitutes a material breach of the contract.

5. Cancellation/Termination.

5.1 ARRC may, for its sole convenience, cancel this contract in whole or in part, at any time by giving written notice of its intention to do so. In the event of such cancellation, Vendor shall be entitled to receive payment in accordance with the payment provisions of this contract for supplies delivered to ARRC and, as to work in progress prior to receipt of notice, ARRC shall pay Vendor only for direct expenditures on work specifically identified to this contract. Vendor shall not be paid for any work done after receipt of a notice of cancellation or for any costs incurred by Vendor's suppliers or subcontractors which Vendor could reasonably have avoided. However, in no event shall ARRC be liable for incidental, consequential, or punitive damages, overhead or other direct or indirect costs, or lost profits. Payments made under this contract shall not exceed the aggregate price specified in this contract.

5.2 In addition to ARRC's right to cancel this contract for its convenience, ARRC may, by written notice of default to Vendor, terminate the contract in whole or in part in the following circumstances:

(1) The Vendor refuses or fails to perform its obligations under the contract, or fails to make progress so as to significantly endanger timely completion or performance of the contract in accordance with its terms, and Vendor does not cure such default within a period of ten (10) days after receipt of written notice of default from ARRC or within such additional cure period as ARRC may authorize; or

(2) Reasonable grounds for insecurity arise with respect to Vendor's expected performance and Vendor fails to furnish adequate assurance of due performance (including assurance of performance in accordance with the time requirements of the contract) within ten (10) days after receipt of a written request by ARRC for adequate assurance; or

(3) Vendor becomes insolvent or makes an assignment for the benefit of creditors or commits an act of bankruptcy or files or has filed against it a petition in bankruptcy or reorganization proceedings.

5.3 Upon receipt of a notice of cancellation or termination, Vendor shall immediately discontinue all work and it shall immediately cause any of its suppliers or subcontractors to cease such work unless the notice directs otherwise. In the event of termination for default, Vendor shall be liable for any damage to ARRC resulting from the Vendor's nonperformance. The rights and remedies of ARRC provided in this section shall not be exclusive and are in addition to any other rights and remedies provided by law.

6. No Assignment or Delegation. The Vendor may not assign, subcontract or delegate this contract, or any part of it, or any right to any of the money to be paid under it, except with the prior written consent of ARRC. No such approval shall relieve Vendor from any of its obligations or liabilities under this contract.

7. Independent Contractor. The Vendor's relationship to ARRC in performing this contract is that of an independent contractor and nothing herein shall be construed as creating an employer/employee relationship, partnership, joint venture or other business group or concerted action.

8. Payment of Taxes. As a condition of performance of this contract, the Vendor shall pay all federal, state, and local taxes incurred by the Vendor and shall require their payment by any subcontractor or any other persons in the performance of this contract. Satisfactory performance of this paragraph is a condition precedent to payment by ARRC under this contract.

9. Governing Law. This contract, and all questions concerning the capacity of the parties, execution, validity (or invalidity) and performance of this contract, shall be interpreted, construed and enforced in all respects in accordance with the laws of the State of Alaska.

10. Alaska Executive Branch Ethics Act Requirements. No officer or employee of the State of Alaska or of the ARRC and no director of the ARRC or legislator of the state shall be admitted to any share or part of this contract or to any benefit that may arise therefrom. Vendor shall exercise reasonable care and diligence to prevent any actions or conditions which could be a violation of Alaska Statute 39.52 et seq. Vendor shall not make or receive any payments, gifts, favors, entertainment, trips, secret commissions, or hidden gratuities for the purpose of securing preferential treatment or action from or to any party. This obligation will apply to the activities of Vendor's employees and agents in their relations with ARRC employees, their families, vendors, subcontractors, and third parties arising from this contract and in accomplishing work hereunder. Certain gratuities may be given or accepted if:

- (1) there is no violation of any law or generally accepted ethical standards;
- (2) the gratuity is given as a courtesy for a courtesy received and does not result in any preferential treatment or action;
- (3) the gratuity is of limited value (less than \$150) and could not be construed as a bribe, payoff or deal; and
- (4) public disclosure would not embarrass ARRC.

ARRC may cancel this contract without penalty or obligation in the event Vendor or its employees violate the provisions of this section.

11. Covenant Against Contingent Fees. Vendor warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for Vendor, to solicit or secure this contract, and that it has not paid or agreed to pay any person, company, individual, or firm any commission, gift, percentage, fee, contingent upon or resulting from the award or making of this contract. For the breach or violation of this warranty, ARRC may terminate this contract without liability and, at its discretion, deduct from the contract price or otherwise recover the full amount of the commission, percentage, gift, or fee.

12. Warranty. Vendor warrants that the equipment, goods, materials or other supplies sold to ARRC under this contract: (a) shall be of good quality and free from all defects and deficiencies in workmanship, material and design; (b) shall be fit, suitable and operate successfully for their intended purpose; (c) shall be new; (d) shall be free from all liens, claims, demands, encumbrances and other defects in title; and (e) shall conform to the specifications, if any, stated in the contract. Vendor shall honor all guarantees and warranties offered by the manufacturer of the equipment, goods, materials or other supplies provided under this contract.

The rights and remedies provided for in this section are in addition to any other remedies provided by law.

13. Indemnification. The Vendor shall indemnify, save harmless and defend ARRC, its officers, agents and employees from all liability of any nature or kind, including costs and expenses, for all actions or claims resulting from injuries or damages sustained by any person or property arising directly or indirectly as a result of any error, omission, product defect, negligent or wrongful acts of the Vendor, its subcontractors or anyone directly or indirectly employed by them in the performance of this contract, provided that Vendor's aforesaid indemnity and hold harmless agreement shall not be applicable to any liability based upon the sole negligence of ARRC.

14. ARRC's Rights Not Waived by Payment. No payment made by ARRC shall be considered as acceptance of satisfactory performance of Vendor's obligations under this contract. Nor shall any payment be construed as acceptance of substandard or defective work or as relieving Vendor from its full responsibility under the contract.

15. Nonwaiver. A party's failure or delay to insist upon strict performance of any of the provisions of this contract, to exercise any rights or remedies provided by this contract or by law, or to notify the other party of any breach of or default under this contract shall not release or relieve the breaching or defaulting party from any of its obligations or warranties under this contract and shall not be deemed a waiver of any right to insist upon strict performance of this contract or any of the rights or remedies as to any subject matter contained herein; nor shall any purported oral modification or rescission of this contract operate as a waiver of any of the provisions of this contract. The rights and remedies set forth in any provision of this Agreement are in addition to any other rights or remedies afforded the nonbreaching or nondefaulting party by any other provisions of this contract, or by law.

16. Savings Clause. If any one or more of the provisions contained in this contract shall, for any reason, be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions of this contract, but this contract shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein.

17. Headings. The headings of sections and paragraphs of this contract are for convenience of reference only and are not intended to restrict, affect, or be of any weight in the interpretation or construction of the provisions of such sections or paragraphs.

18. Forum Selection. The parties shall not commence or prosecute any suit, proceeding or claim to enforce the provisions of the contract, to recover damages for breach or default under the contract, or otherwise arising under or by reason of the contract, other than in the courts of the State of Alaska for the Third Judicial District at Anchorage. The parties hereby irrevocably consent to the jurisdiction of said courts.

19. Conflict of Interest. Vendor shall act to prevent any actions or conditions which could result in a conflict with ARRC's best interests. This obligation shall apply to the activities of Vendor's employees and agents in their relationships with ARRC's employees, their families, vendors, subcontractors and third parties accomplishing work under this contract.

20. Publicity. Vendor shall not release any information for publication or advertising purposes relative to this contract or to the material, equipment and other supplies furnished under this contract without the prior written consent of the ARRC.

21. Audit. ARRC has the right to audit at reasonable times the accounts and books of the Vendor in accordance with the provisions of ARRC Procurement Rule 1600.10.

22. Internal Controls and Record Keeping. Vendor shall keep full and accurate records and accounts of all of its activities in connection with this contract, including, without limitation, reasonable substantiation of all expenses incurred and all property acquired hereunder.

23. Force Majeure. Neither ARRC nor Vendor shall be responsible for failure to perform the terms of this contract when performance is prevented by force majeure, provided that: (1) notice and reasonably detailed particulars are given to the other party and (2) the cause of such failure or omission is remedied so far as possible with reasonable dispatch. The term "force majeure" shall mean acts of God, earthquakes, fire, flood, war, civil disturbances, governmentally imposed rules, regulations or other causes whatsoever, whether similar or dissimilar to the causes herein enumerated, which is not within the reasonable control of either party and which through the exercise of due diligence, a party is unable to foresee or overcome. In no event shall force majeure include normal or reasonably foreseeable or reasonably avoidable operational delays.

24. Set Off. If ARRC has any claim against the Vendor related or unrelated to this contract, it may set off the amount of such claim against any amount due or becoming due under this contract.

25. Observance of Rules. The Vendor's personnel performing work hereunder on ARRC's premises shall observe all fire prevention, security, and safety rules in force at the site of the work.

26. No Third-Party Beneficiary Rights. No provision of this contract shall in any way inure to the benefit of

any third parties (including the public at large) so as to constitute any such person a third-party beneficiary of the contract or of any one or more of the terms hereof, or otherwise give rise to any cause of action in any person not a party hereto.

27. Entire Agreement. This contract represents the entire and integrated agreement between ARRC and the Vendor and supersedes all prior negotiations, representations, or agreements, either written or oral. This contract may be amended only by a written instrument signed by both ARRC and the Vendor.

28. Invalid Provision. The invalidity or unenforceability of any provision of this contract shall not affect the other provisions hereof, and this contract shall be construed in all respects as if such invalid or enforceable provisions were omitted.

29. Packing, Marking and Shipping. All supplies shall be properly packaged to prevent damage or deterioration and to obtain the lowest transportation rates. ARRC will pay no charge for preparation, crating, dunnage or other materials unless separately stated in this contract. Each packing slip, bill of lading, invoice, container, tag and correspondence shall bear the applicable contract number and the location to which the supplies are to be shipped. A waterproof Master Packing Slip shall accompany each shipment and shall be included in one of the packages marked "Packing Slip Inside" or in the case of a carload shipment, be conspicuously displayed on the inside of the freight car. The original Bill of Lading shall be mailed to the attention of ARRC Supply Management Department on date of shipment.

30. Improper Delivery. If for any reason the Contractor fails to make timely delivery, ARRC may, at its option, approve a revised delivery schedule, request shipment via air or expedited routing (at Contractor's expense) or terminate this contract without any liability. Contractor will not, however, be liable for damages resulting from delays in delivery due to causes beyond Contractor's reasonable control, provided Contractor promptly notifies ARRC in writing of any such delay or expected delay as soon as such delay or expected delay becomes or should have become apparent. The remedies provided in this paragraph shall be cumulative and in addition to any other or further remedies ARRC may have.

31. Shipping Release. The Contractor shall not ship any of the supplies covered by this contract, unless specific delivery dates or written instructions are furnished to Contractor by ARRC. ARRC shall have no responsibility for supplies for which delivery dates or other written instructions have not been provided. Shipments in excess of those authorized may be returned to Contractor and Contractor shall pay ARRC for all expenses incurred in connection with such shipments. ARRC may change or temporarily suspend shipping schedules specified in this contract or written instructions.

32. Inspection/Rejection. Notwithstanding prior shipment, all supplies are subject to inspection and acceptance by ARRC within a reasonable time after they arrive at destination. ARRC shall notify Contractor if any supplies are rejected for any reason or if there are shortages. At ARRC's election, rejected supplies may be held for Contractor's account or returned to Contractor at Contractor's risk and expense. No replacement or correction of defective or nonconforming supplies shall be made by Contractor without written authorization from ARRC. Contractor shall promptly ship any shortages after notification of the same by ARRC.

33. Compliance with Laws and Regulations. Contractor agrees that in the performance of this contract it will comply with the requirements of all applicable Federal, State and local statutes, regulations and orders and will indemnify and save ARRC harmless from any claim, loss or damage arising from Contractor's violation or alleged violation of them.

34. Reduction in Contractor's Cost. Any reduction in Contractor's costs resulting from a reduction in freight rates, custom duties, import taxes, excise taxes and/or sales taxes from those in force on the date of the contract is to be paid to ARRC by Contractor in reduction of the price of the ordered supplies.

35. Payments. Payments for supplies furnished under this contract will be due thirty (30) days after the later of (1) receipt of the supplies established in the contract, (2) receipt of proper billing for such supplies, and (3) receipt of all documents required by this contract. ARRC shall not be liable for interest charges on late payments.

APPENDIX F

CONSTRUCTION TERMS AND CONDITIONS

6.14 STRUCTURAL LOADING:

6.14.1 The Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall the Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.19 SHOP DRAWINGS AND SAMPLES:

6.19.1 After checking and verifying all field measurements and after complying with applicable procedures specified in the Contract Documents, the Contractor shall submit to the Owner for review and Approval in accordance with the accepted schedule of Shop Drawing submissions the required number of all Shop Drawings, which will bear a stamp or specific written indication that the Contractor has satisfied Contractor's responsibilities under the Contract Documents with respect to the review of the submission. All submissions will be identified as the Owner may require. The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials and similar data to enable the Owner to review the information as required.

6.19.2 The Contractor shall also submit to the Owner for review and Approval with such promptness as to cause no delay in Work, all samples required by the Contract Documents. All samples will have been checked by and accompanied by a specific written indication that the Contractor has satisfied Contractor's responsibilities under the Contract Documents with respect to the review of the submission and will be identified clearly as to material, Supplier, pertinent data such as catalog numbers and the use for which intended.

6.19.3 Before submission of each Shop Drawing or sample the Contractor shall have determined and verified all quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers and similar data with respect thereto and reviewed or coordinated each Shop Drawing or sample with other Shop Drawings and samples and with the requirements of the Work and the Contract Documents.

6.19.4 At the time of each submission the Contractor shall give the Owner specific written notice of each variation that the Shop Drawings or samples may have from the requirements of the Contract Documents, and, in addition, shall cause a specific notation to be made on each Shop Drawing submitted to the Owner for review and Approval of each such variation.

6.19.5 All variations of the proposed Shop drawing from that specified will be identified in the submission and available maintenance, repair and replacement service will be indicated.

6.19.6 The submittal will also contain an itemized estimate of all costs that will result directly or indirectly from acceptance of such variation, including costs of redesign and claims of other contractors affected by the resulting change, all of which shall be considered by the Owner in evaluating the proposed variation.

6.19.7 If the variation may result in a change of Contract Time or Amount, or Contract responsibility, and is not minor in nature, the Contractor must submit a written request for Change Order with the variation to notify the Owner of his intent.

6.19.8 The Owner may require the Contractor to furnish at the Contractor's expense additional data about the proposed variation.

6.19.9 The Owner may reject any variation request which the Owner determines is not in the best interest of the Owner.

6.20 SHOP DRAWING AND SAMPLE REVIEW:

6.20.1 The Owner will review with reasonable promptness Shop Drawings and samples, but the Owner's review will be only for conformance with the design concept of the Project and for compliance with the information given in the Contract Documents and shall not extend to means, methods, techniques, sequences or procedures of construction (except where a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents) or to safety precautions or programs incident thereto.

6.20.2 The review of a separate item as such will not indicate acceptance of the assembly in which the item functions.

6.20.3 The Contractor shall make corrections required by the Owner and shall return the required

number of corrected copies of Shop Drawings and submit as required new samples for review.

6.20.4 The Contractor shall direct specific attention in writing to revisions other than the corrections called for by the Owner on previous submittals.

6.20.5 The Owner's review of Shop Drawings or samples shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless the Contractor has in writing advised the Owner of each such variation at the time of submission as required by paragraph 6.19.4.

6.20.6 The Owner, if he so determines, may give written Approval of each such variation by Change Order, except that, if the variation is minor and no Change Order has been requested a specific written notation thereof incorporated in or accompanying the Shop Drawing or sample review comments shall suffice as a modification.

6.20.7 No Approval by the Owner will relieve the Contractor from responsibility for errors or omissions in the Shop Drawings or from responsibility for having complied with the provisions of paragraph 6.20.3.

6.20.8 Where a Shop Drawing or sample is required by the Specifications, any related Work performed prior to the Owner's review of the pertinent submission will be at the sole expense and responsibility of the Contractor.

6.26 CONSTRUCTION QUALITY CONTROL PLAN:

6.26.1 The Contractor shall establish and maintain an effective quality management system. The quality management system shall consist of plans, procedures, and the organization necessary to provide material, equipment, and workmanship to comply with the requirements of the contract documents. The system shall cover the proposed sequence of the work including both on-site and off-site operations. To meet this requirement, the Contractor shall prepare a Construction Quality Control (CQC) plan that addresses all quality control requirements specified in the contract documents. A complete, detailed CQC plan shall be submitted to the Project Manager at least 10 days prior to commencement of any Work on the Project. The CQC must be approved in writing by the Project Manager prior to proceeding with the Work. The Contractor shall not revise the CQC or the quality staffing levels or replace any of the key personnel specified therein without prior written approval from the Project Manager.

7.3 PATENTED DEVICES, MATERIALS AND PROCESSES:

7.3.1 If the Contractor employs any design, device, material, or process covered by letters of patent, trademark or copyright, the Contractor shall provide for such use by suitable legal agreement with the patentee or owner.

7.3.2 The Contractor and the Surety shall, defend, indemnify and save harmless the Owner and its agents, any affected third party, or political subdivision from any and all claims for infringement by reason of the use of any such patented design, device, material or process, or any trademark or copyright, and shall indemnify the Owner for any costs, expenses, and damages which it may be obliged to pay by reason of any infringement, at any time during the prosecution or after the completion of the Work.

7.4 COMPLIANCE OF SPECIFICATION AND DRAWINGS:

7.4.1 If the Contractor observes that the Specification and Drawings supplied by the Owner are at variance with any Regulatory Requirements, Contractor shall give the Owner prompt written notice thereof, and any necessary changes will be authorized by one of the methods indicated in paragraph 9.2. as determined appropriate by the Owner.

7.4.2 If the Contractor performs any Work knowing or having reason to know that it is contrary to such Regulatory Requirements, and without such notice to the Owner, the Contractor shall bear all costs arising therefrom; however, it shall not be the Contractor's primary responsibility to make certain that the Specifications and Drawings supplied by the Owner are in accordance with such Regulatory Requirements.

8.2 ACCESS, CUTTING, AND PATCHING:

8.2.1 The Contractor shall afford each utility owner and any other contractor who is a party to such a direct contract with the Owner (or the Owner, if the Owner is performing the additional work with the Owner's employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such work and shall properly connect and coordinate the Work

with the work of others.

8.2.2 The Contractor shall do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other Work, the Contractor shall not endanger any Work of others by cutting, excavating or otherwise altering their Work and will only cut or alter such other Work with the written consent of the Owner.

11.8 DELAY DAMAGES:

11.8.1 Whether or not the Contractor's right to proceed with the Work is terminated, he and his sureties shall be liable for damages resulting from his refusal or failure to complete the Work within the specified time. Liquidated damages for delay shall be paid by the Contractor or his Surety to the Owner in the amount as specified in the Supplementary Conditions for each Calendar Day the completion of the Work or any part thereof is delayed beyond the Contract Time required by the Contract, or any extension thereof. If such amount of liquidated damages is not established by the Contract Documents, then the Contractor and his Surety shall be liable to the Owner for any actual damages occasioned by such delay.

11.8.2 The Contractor acknowledges that the liquidated damages established herein are not a penalty but rather constitute an estimate of damages that the Owner will sustain by reason of delayed completion. These liquidated damages are intended as compensation for losses difficult to estimate, and include those items enumerated in the Supplementary Conditions.

11.8.3 These damages will continue to run both before and after termination in the event of default termination. These liquidated damages do not cover excess costs of completion or the Owner's costs, fees, and charges related to re-procurement.

11.8.4 If a default termination occurs, the Contractor or his Surety shall pay in addition to these damages, all excess costs and expenses related to completion as provided by Article 14.2.9.

12. ARTICLE 12 - QUALITY ASSURANCE:

12.1 WARRANTY AND GUARANTY:

12.1.1 The Contractor warrants and guarantees to the Owner that all Work will be in accordance with the Contract Documents and will not be Defective.

12.1.2 Prompt notice of all defects shall be given to the Contractor. All Defective Work, whether or not in place, may be rejected, corrected or accepted as provided for in this Article.

12.2 ACCESS TO WORK:

12.2.1 The Owner and the Owner's representatives, testing agencies and governmental agencies with jurisdiction interests will have access to the Work at reasonable times for their observation, inspecting and testing. The Contractor shall provide proper and safe conditions for such access.

12.3 TESTS AND INSPECTIONS:

12.3.1 The Contractor shall give the Owner timely notice of readiness of the Work for all required inspections, tests or Approvals.

12.3.2 If Regulatory Requirements of any public body having jurisdiction require any Work (or part thereof) to specifically be inspected, tested or approved, the Contractor shall assume full responsibility therefor, pay all costs in connection therewith and furnish the Owner the required certificates of inspection, testing or Approval.

12.3.3 The Contractor shall also be responsible for and shall pay all costs in connection with any inspection or testing required in connection with Owner's acceptance of a supplier of materials or equipment proposed to be incorporated in the Work, or of materials or equipment submitted for Approval prior to the Contractor's purchase thereof for incorporation in the Work.

12.3.4 The cost of all inspections, tests and Approvals in addition to the above which are required by the Contract Documents shall be paid by the Contractor.

12.3.5 The Owner may perform additional tests and inspections which it deems necessary to insure quality control. All such failed tests or inspections shall be at the Contractor's expense.

12.3.6 If any Work (including the Work of others) that is to be inspected, tested or approved is covered without written concurrence of the Owner, it must, if requested by the Owner, be uncovered for observation.

12.3.7 Such uncovering shall be at the Contractor's expense unless the Contractor has given the Owner timely notice of Contractor's intention to cover the same and the Owner has not acted with reasonable

promptness in response to such notice.

12.3.8 Neither observations nor inspections, test or Approvals by the Owner of others shall relieve the Contractor from the Contractor's obligations to perform the Work in accordance with the Contract Documents.

12.4 UNCOVERING WORK:

12.4.1 If any Work is covered contrary to the written request of the Owner, it must, if requested by the Owner, be uncovered for the Owner's observation and replaced at the Contractor's expense.

12.4.2 If the Owner considers it necessary or advisable that covered Work be observed, inspected or tested, the Contractor, at the Owner's request, shall uncover, expose or otherwise make available for observation, inspection or testing as the Owner may require, that portion of the Work in question, furnishing all necessary labor, material and equipment.

12.4.3 If it is found that such Work is Defective, the Contractor shall bear all direct, indirect and consequential costs of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction, (including but not limited to fees and charges of engineers, architects, attorneys and other professional) and the Owner shall be entitled to an appropriate decrease in the Contract Amount.

12.4.4 If, however, such Work is not found to be Defective, the Contractor shall be allowed an increase in the Contract Amount or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction.

12.5 OWNER MAY STOP THE WORK:

12.5.1 If the Work is Defective, or the Contractor fails to supply suitable materials or equipment, or fails to furnish or perform the Work in such a way that the completed Work will conform to the Contract Documents, the Owner may order the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of the Owner to stop the Work shall not give rise to any duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other party.

12.6 CORRECTION OR REMOVAL OF DEFECTIVE WORK:

12.6.1 If required by the Owner, the Contractor shall promptly, as directed, either correct all Defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by the Owner, remove it from the site and replace it with Work which conforms to the requirements of the Contract Documents. The Contractor shall bear all direct, indirect and consequential costs of such correction removal (including but not limited to fees and charges of engineers, architects, attorneys and other professionals) made necessary thereby.

12.7 ONE YEAR CORRECTION PERIOD:

12.7.1 If within one year after the date of Final Completion or such longer period of time as may be prescribed by Regulatory Requirements or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any Work is found to be Defective, the Contractor shall promptly, without cost to the Owner and in accordance with the Owner's written instructions, either correct such Defective Work, or, if it has been rejected by the Owner, remove it from the site and replace it with conforming Work.

12.7.2 If the Contractor does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, the Owner may have the Defective Work corrected or the rejected Work removed and replaced, and all direct, indirect and consequential costs of such removal and replacement (including but not limited to fees and charges of engineers, architects, attorneys and other professionals) will be paid by the Contractor.

12.7.3 In special circumstances where a particular item of equipment is placed in continuous service for the benefit of the Owner before Substantial Completion of all the Work, the correction period for the item may begin on an earlier date if so provided in the Specifications or by Change Order.

12.7.4 Provisions of this paragraph are not intended to shorten the Statute of Limitations for bringing an action.

12.8 ACCEPTANCE OF DEFECTIVE WORK:

12.8.1 Instead of requiring correction or removal and replacement of Defective Work, the Owner may accept Defective Work, and in this event, the Contractor shall bear all direct, indirect and consequential costs attributable to the Owner's evaluation of and determination to accept such Defective Work (costs to include but

not be limited to fees and charges of engineers, architects, attorneys and other professionals).

12.8.2 If any such acceptance occurs prior to Final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work and the Owner shall be entitled to an appropriate decrease in the Contract Amount.

12.8.3 If the Owner has already made Final payment to the Contractor, an appropriate amount shall be paid by the Contractor or his Surety to the Owner.

12.9 OWNER MAY CORRECT DEFECTIVE WORK:

12.9.1 If the Contractor fails within a reasonable time after written notice from the Owner to proceed to correct Defective Work or to remove and replace rejected Work as required by the Owner in accordance with paragraph 12.6, or if the Contractor fails to perform the Work in accordance with the Contract Documents, or if the Contractor fails to comply with any other provision of the Contract Documents, the Owner may, after seven days' written notice to the Contractor, correct and remedy any such deficiency. In exercising the rights and remedies under this paragraph the Owner shall proceed expeditiously.

12.9.2 To the extent necessary to complete corrective and remedial action, the Owner may exclude the Contractor from all or part of the site, take possession of all or part of the Work, and suspend the Contractor's services related thereto, take possession of the Contractor's tool, appliances, construction equipment and machinery at the site and incorporate in the Work all materials and equipment stored at the site or approved remote storage sites or for which the Owner has paid the Contractor but which are stored elsewhere, the Contractor shall allow the Owner and his authorized representatives such access to the site as may be necessary to enable the Owner to exercise the rights and remedies under this paragraph.

12.9.3 All direct, indirect and consequential costs of the Owner or its agents in exercising such rights and remedies will be charged against the Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work and the Owner shall be entitled to an appropriate decrease in the Contract Amount.

12.9.4 Such direct, indirect and consequential costs will include but not be limited to fees and charges of engineers, architects, attorneys and other professionals, all court and arbitration costs and all cost of repair and replacement of Work of others destroyed or damaged by correction, removal or replacement of the Contractor's Defective Work.

12.9.5 The Contractor shall not be allowed an extension of the Contract Time because of any delay in performance of the Work attributable to the exercise by the Owner of the Owner's rights and remedies hereunder.

13. ARTICLE 13 - PAYMENTS TO CONTRACTOR AND COMPLETION:

13.1 SCHEDULE OF VALUES:

13.1.1 The Schedule of Values established as provided in paragraph 6.6 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to the Owner. Progress payments on account of Unit Price Work will be based on the number of units completed.

13.2 PRELIMINARY PAYMENTS:

13.2.1 Upon Approval of the Schedule of Values the Contractor may be paid for direct costs substantiated by paid invoices and other prerequisite documents required by the Contract Documents. Direct costs shall include the cost of Bonds, insurance, approved materials stored on the site or at approved remote storage sites, deposits required by a supplier prior to fabricating materials, and other approved direct mobilization costs substantiated as indicated above. These payments shall be included as a part of the total Contract Amount as stated in the Contract.

13.3 APPLICATION FOR PROGRESS PAYMENT:

13.3.1 The Contractor shall submit to the Owner for review an Application for Payment filled out and signed by the Contractor covering the Work completed as of the date of the Application for Payment and accompanied by such supporting documentation as required by the Contract Documents.

13.3.2 Progress payments will be made as the Work progresses on a monthly basis.

13.4 REVIEW OF APPLICATION FOR PROGRESS PAYMENT:

13.4.1 Owner will, either indicate in writing a recommendation of payment, or return the Application for Payment to the Contractor indicating in writing the Owner's reasons for refusing to recommend payment.

13.4.2 If the latter case, the Contractor may make the necessary corrections and resubmit the Application for Payment.

13.5 STORED MATERIALS AND EQUIPMENT:

13.5.1 If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice or other documentation warranting that the Owner has received the materials and equipment free and clear of all charges, security interests and encumbrances and evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect the Owner's interest therein, all of which will be satisfactory to the Owner.

13.5.2 No payment will be made for perishable materials that could be rendered useless because of long storage periods.

13.5.3 No progress payment will be made for living plant materials until planted.

13.5.4 The payment may be reduced by an amount equal to transportation and handling cost if the materials are stored offsite, in a remote location, or will require special handling.

13.6 CONTRACTOR'S WARRANTY OF TITLE:

13.6.1 The Contractor warrants and guarantees that title to all Work, materials and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to the Owner no later than the time of payment free and clear of any claims, liens, security interests and further obligations.

13.7 WITHHOLDING OF PAYMENTS:

13.7.1 The Owner may withhold or refuse payment for any of the reasons listed below provided it gives written notice of its intent to withhold and of the basis for withholding:

13.7.2 The Work is Defective, or completed Work has been damaged requiring correction or replacement, or has been installed without Approval of Shop Drawings, or by an unapproved subcontractor.

13.7.3 The Contract Amount has been reduced by Change Order.

13.7.4 The Owner has been required to correct Defective Work or complete Work in accordance with paragraph 12.9.

13.7.5 The Owner's actual knowledge of the occurrence of any of the events enumerated in subparagraphs 14.2.1.1 through 14.2.1.11 inclusive.

13.7.6 Claims have been made against the Owner or against the funds held by the Owner on account of the Contractor's actions or inactions in performing this Contract, or there are other items entitling the Owner to a set off.

13.7.7 Subsequently discovered evidence or the results of subsequent inspections or tests, nullify any previous payments for reasons stated in subparagraphs 13.7.1 through 13.7.5.

13.7.8 The Contractor has failed to fulfill or is in violation of any of his obligations under any provision of this Contract.

13.8 RETAINAGE:

13.8.1 At any time the Owner finds that satisfactory progress is not being made it may in addition to the amounts withheld under 13.7 retain a maximum amount equal to 10% of the total amount earned on all subsequent progress payments.

13.8.2 This retainage may be released at such time as the Owner finds that satisfactory progress is being made.

13.9 REQUEST FOR RELEASE OF FUNDS:

13.9.1 If the Contractor believes the basis for withholding is invalid or no longer exists, immediate written notice of the facts and Contract provisions on which the Contractor relies, shall be given to the Owner, together with a request for release of funds and adequate documentary evidence proving that the problem has been cured.

13.9.2 In the case of withholding which has occurred at the request of the Department of Labor, the

Contractor shall provide a letter from the Department of Labor stating that withholding is no longer requested.

13.9.3 Following such a submittal by the Contractor, the Owner shall have a reasonable time to investigate and verify the facts and seek additional assurances before determining whether release of withheld payments is justified.

13.10 SUBSTANTIAL COMPLETION:

13.10.1 When the Contractor considers the Work ready for its intended use the Contractor shall notify the Owner in writing that the Work of a designated portion thereof is substantially complete (except for items specifically listed by the Contractor as incomplete) and request that the Owner issue a certificate of Substantial Completion.

13.10.2 Within a reasonable time thereafter, the Owner, the Contractor and appropriate Consultant(s) shall make an inspection of the Work to determine the status of completion.

13.10.3 If the Owner does not consider the Work substantially complete, the Owner will notify the Contractor in writing giving the reasons therefor. If the Owner considers the Work substantially complete, the Owner will within fourteen days execute and deliver to the Contractor a certificate of Substantial Completion with a tentative list of items to be completed or corrected.

13.10.4 At the time of delivery of the certificate of Substantial Completion the Owner will deliver to the Contractor a written division of responsibilities pending Final Completion with respect to security, operation, safety, maintenance, heat, utilities, insurance and warranties which shall be consistent with the terms of the Contract Documents.

13.10.5 The Owner shall be responsible for all Owner costs resulting from the initial inspection and the first re-inspection, and the Contractor shall pay all costs incurred by the Owner resulting from re-inspections, thereafter.

13.11 ACCESS FOLLOWING SUBSTANTIAL COMPLETION:

13.11.1 The Owner shall have the right to exclude the Contractor from the Work after the date of Substantial Completion, but the Owner shall allow Contractor reasonable access to complete or correct items on the tentative list.

13.12 FINAL INSPECTION:

13.12.1 Upon written notice from the Contractor that the entire Work or an agreed portion thereof is complete, the Owner will make a Final inspection with the Contractor and appropriate Consultants and will notify the Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or Defective.

13.12.2 The Contractor shall immediately take such measures as are necessary to remedy such deficiencies.

13.12.3 The Contractor shall pay for all costs incurred by the Owner resulting from re-inspections.

13.13 FINAL APPLICATION FOR PAYMENT:

13.13.1 After the Contractor has completed all such corrections to the satisfaction of the Owner and delivered all maintenance and operating instructions, schedules, guarantees, bonds, certificates of payment to all laborers, subcontractors and Suppliers, certificates of inspection, marked-up record documents and other documents all as required by the Contract Documents, and after the Owner has indicated that the Work is acceptable (subject to the provisions of paragraph 13.16), the Contractor may make application for Final payment following the procedure for progress payments.

13.13.2 The Application for Final Payment shall be accompanied by all certificates, warranties, guaranties, releases, affidavits, and other documentation required by the Contract Documents.

13.14 FINAL PAYMENT AND FINAL COMPLETION:

13.14.1 If on the basis of the Owner's observation of the Work during construction and Final inspection, and the Owner's review of the Application for Final Payment and accompanying documentation all as required by the Contract Documents, the Owner is satisfied that the Work has been completed and the Contractor's other obligations under the Contract Documents have been fulfilled, the Owner will process Application for Final Payment.

13.14.2 Otherwise, the Owner will return the Application for Final Payment to the Contractor, indicating

in writing the reasons for refusing to process Final payment, in which case the Contractor shall make the necessary corrections and resubmit the Application for Final Payment.

13.14.3 If, through no fault of the Contractor, Final Completion of the Work is significantly delayed, the Owner shall, upon receipt of the Contractor's Final Application for Payment, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by the Owner for Work not fully completed or corrected is less than the retainage provided for in paragraph 13.8, and if Bonds have been furnished as required in paragraph 5.1, the written consent of the Surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Owner with the application for such payment.

13.14.4 Such payment shall be made under the terms and conditions governing Final Payment, except that it shall not constitute a waiver of claims.

13.15 FINAL ACCEPTANCE:

13.15.1 Following receipt of the Contractor's Release with no exceptions, and certification that laborers, subcontractors and material men have been paid, certification of payment of payroll and revenue taxes, and Final payment to the Contractor, the Owner will issue a letter of Final Acceptance, releasing the Contractor from further obligations under the Contract, except as provided in paragraph 13.16.

13.16 CONTRACTOR'S CONTINUING OBLIGATION:

13.16.1 The Contractor's obligation to perform and complete the Work and pay all laborers, subcontractors, and material men in accordance with the Contract Documents shall be absolute.

13.16.2 Neither any progress or Final payment by the Owner, nor the issuance of a certificate of Substantial Completion, nor any use or occupancy of the Work or any part thereof by the Owner, nor any act of acceptance by the Owner nor any failure to do so, nor any review and Approval of a Shop Drawing or sample submission, nor any correction of Defective Work by the Owner will constitute an acceptance of Work not in accordance with the Contract Documents or a release of the Contractor's obligation to perform the Work in accordance with the Contract Documents.

13.17 WAIVER OF CLAIMS BY CONTRACTOR:

13.17.1 The making and acceptance of Final payment will constitute a waiver of all claims by the Contractor against the Owner other than those previously made in writing and still unsettled.

13.18 NO WAIVER OF LEGAL RIGHTS:

13.18.1 The Owner shall not be precluded or be estopped by any payment, measurement, estimate, or certificate made either before or after the completion and acceptance of the Work and payment therefor, from showing the true amount and character of the Work performed and materials furnished by the Contractor, nor from showing that any payment, measurement, estimate or certificate is untrue or is incorrectly made, or that the Work or materials are Defective.

13.18.2 The Owner shall not be precluded or estopped, not with standing any such measurement, estimate, or certificate and payment in accordance therewith, from recovering from the Contractor or his Sureties, or both, such damages as it may sustain by reason of Contractor's failure to comply with requirements of the Contract Documents.

13.18.3 Neither the acceptance by the Owner, or any representative of the Owner, nor any payment for or acceptance of the whole or any part of the Work, nor any extension of the Contract Time, nor any possession taken by the Owner, shall operate as a waiver of any portion of the Contract or of the power herein reserved, or of any right to damages.

13.18.4 A waiver by the Owner of any breach of the Contract shall not be held to be a waiver of any other subsequent breach.

13.19 DEDUCTIONS:

13.19.1 The Owner may deduct from the amount of any payment made to the Contractor any sums owed to the Owner by the Contractor including but not limited to:

13.19.1.1 Past due sales tax,

13.19.1.2 port and harbor fees,

13.19.1.3 property tax or rent.

13.19.2 Before making any such deductions, the Owner shall have provided Contractor written notice of the amount claimed by the Owner to be due and owing from the Contractor.

14. ARTICLE 14 - SUSPENSION OF WORK, DEFAULT AND TERMINATION:

14.1 OWNER MAY SUSPEND WORK:

14.1.1 The Owner may, at any time suspend the Work or any portion thereof by notice in writing to the Contractor. If the Work is suspended without cause the Contractor shall be allowed an increase in the Contract Amount or an extension of the Contract Time, or both, directly attributable to any suspension if the Contractor makes an approved claim therefor as provided in Article 15.

14.1.2 However, no adjustment shall be made under this clause for any suspension, delay, or interruption to the extent that suspension is due to the fault or negligence of the Contractor, or that suspension is necessary for Contract compliance, or that performance would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the Contractor.

14.1.3 In case of suspension of Work, the Contractor shall be responsible for preventing damage to or loss of any of the Work already performed and of all materials whether stored on or off the site or approved remote storage sites.

14.2 DEFAULT OF CONTRACTOR:

14.2.1 If the Contractor:

14.2.1.1 Fails to begin the Work under the Contract within the time specified in the Contract Documents, or

14.2.1.2 Fails to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workmen or suitable materials or equipment or failure to adhere to the progress schedule established under paragraph 6.6 as revised from time to time), or

14.2.1.3 Performs the Work unsuitably or neglects or refuses to remove materials or to correct Defective Work.

14.2.1.4 Discontinues the prosecution of the Work, or

14.2.1.5 Fails to resume Work which has been discontinued within a reasonable time after notice to do so, or

14.2.1.6 Becomes insolvent or is declared bankrupt, or commits any act of bankruptcy or insolvency except as prohibited by 11 U.S.C. 363, or

14.2.1.7 Allows any final judgment to stand against him unsatisfied for period of 60 days, or

14.2.1.8 Makes an assignment for the benefit of creditors without the consent of the Owner, or

14.2.1.9 Disregards Regulatory Requirements of any public body having jurisdiction, or

14.2.1.10 Otherwise violates in any substantial way any provisions of the Contract Documents, or

14.2.1.11 For any cause whatsoever, fails to carry on the Work in an acceptable manner, the Owner may give notice in writing to the Contractor and his Surety of such delay, neglect, or default.

14.2.2 If the Contractor or Surety, within the time specified in the above Notice of Default, shall not proceed in accordance therewith, then the Owner may, upon written notification to the Contractor or Surety of the fact of such delay, neglect or default and the Contractor's failure to comply with such notice, have full power and authority without violating the Contract, to take the prosecution of the Work out of the hands of the Contractor.

14.2.3 The Owner may terminate the services of the Contractor, exclude the Contractor from the site and take possession of the Work and of all the Contractor's tools, appliances, construction equipment and machinery at the site and use the same to the full extent they could be used by the Contractor (without liability to the Contractor for trespass or conversion), incorporate in the Work all materials and equipment stored at the site or for which the Owner has paid the Contractor but which are stored elsewhere, and finish the Work as the Owner may deem expedient.

14.2.4 The Owner may enter into an agreement for the completion of said Contract according to the terms and provisions thereof, or use such other methods that in the opinion of the Owner are required for the completion of said Contract in an acceptable manner.

14.2.5 The Owner may, by written notice to the Contractor and his Surety or his representative, transfer the employment of the Work from the Contractor to the Surety, or if the Contractor abandons the Work undertaken under the Contract, the Owner may, at his option with written notice to the Surety and without any written notice to the Contractor, transfer the employment for said Work directly to the Surety.

14.2.6 The Surety shall submit its plan for completion of the Work, including any contracts or agreements with third parties for such completion, to the Owner for Approval prior to beginning completion of the Work. Approval of such Contracts shall be in accordance with all applicable requirements and procedures for Approval of subcontracts as stated in the Contract Documents.

14.2.7 Upon receipt of the notice terminating the services of the Contractor, the Surety shall enter upon the premises and take possession of all materials, tools, and appliances thereon for the purpose of completing the Work included under the Contract and employ by contract or otherwise any person or persons to finish the Work and provide the materials therefor, without termination of the continuing full force and effect of this Contract.

14.2.8 In case of such transfer of employment to the Surety, the Surety shall be paid in its own name on estimates covering Work subsequently performed under the terms of the Contract and according to the terms thereof without any right of the Contractor to make any claim for the same or any part thereof.

14.2.9 If the Contract is terminated for default, the Contractor and the Surety shall be jointly and severally liable for damages for delay as provided by paragraph 11.8, and for the excess cost of completion, and all costs and expenses incurred by the Owner in completing the Work or arranging for completion of the Work, including but not limited to costs of assessing the Work to be done, costs associated with advertising, soliciting or negotiating for bids or proposals for completion, and other re-procurement costs.

14.2.10 Following termination the Contractor shall not be entitled to receive any further balance of the amount to be paid under the Contract until the Work is fully finished and accepted, at which time if the unpaid balance exceeds the amount due the Owner and any amounts due to persons for whose benefit the Owner has withheld funds, such excess shall be paid by the Owner to the Contractor.

14.2.11 If the damages, costs, and expenses due the Owner exceed the unpaid balance, the Contractor and his Surety shall pay the difference.

14.2.12 If, after notice of termination of the Contractor's right to proceed under the provisions of this clause, it is determined for any reason that the Contractor was not in default under the provisions of this clause, or that the delay was excusable under the provisions of this clause, or that termination was wrongful, the rights and obligations of the parties shall be determined in accordance with the clause providing for convenience termination.

14.3 RIGHTS OR REMEDIES:

14.3.1 Where the Contractor's services have been so terminated by the Owner, the termination will not affect any rights or remedies of the Owner against the Contractor then existing or which may thereafter accrue.

14.3.2 Any retention or payment of moneys due the Contractor by the Owner will not release the Contractor from liability.

14.4 CONVENIENCE TERMINATION:

14.4.1 The performance of the Work may be terminated by the Owner in accordance with this section in whole or in part, whenever, for any reason the Owner shall determine that such termination is in the best interest of the Owner.

14.4.2 Any such termination shall be effected by delivery to the Contractor of a Notice of Termination, specifying termination is for the convenience of the Owner the extent to which performance of Work is terminated, and the date upon which such termination becomes effective.

14.4.3 Immediately upon receipt of a Notice of Termination and except as otherwise directed by the Owner the Contractor shall:

14.4.3.1 Stop Work on the date and to the extent specified in the Notice of Termination;

14.4.3.2 Place no further orders or subcontracts for materials, services, or facilities except as may be necessary for completion of such portion of the Work as is not terminated;

14.4.3.3 Terminate all orders and subcontracts to the extent that they relate to the performance of Work terminated by the Notice of Termination;

14.4.3.4 With the written Approval of the Owner, to the extent he may require, settle all outstanding liabilities and all claims arising out of such termination of orders and subcontracts, the cost of which

would be reimbursable, in whole, or in part, in accordance with the provisions of the Contract;

14.4.3.5 Submit to the Owner a list, certified as to quantity and quality, of any or all items of termination inventory exclusive of items the disposition of which had been directed or authorized by the Owner;

14.4.3.6 Transfer to the Owner the completed or partially completed record Drawings, Shop Drawings, information, and other property which, if the Contract had been completed, would be required to be furnished to the Owner;

14.4.3.7 Take such action as may be necessary, or as the Owner may direct, for the protection and preservation of the property related to the Contract which is in the possession of the Contractor and in which the Owner has or may acquire any interest.

14.4.4 The Contractor shall proceed immediately with the performance of the above obligations.

14.4.5 When the Owner orders termination of the Work effective on a certain date, all Work in place as of that date will be paid for in accordance with the Basis of Payment clause of the Contract.

14.4.6 Materials required for completion and on hand but not incorporated in the Work will be paid for at cost plus 15% with materials becoming the property of the Owner or the Contractor may retain title to the materials and be paid an agreed upon lump sum.

14.4.7 Materials on order shall be canceled, and the Owner shall pay reasonable factory cancellation charges with the option of taking delivery of the materials in lieu of payment of cancellation charges.

14.4.8 The Contractor shall be paid 10% of the cost, freight not included, of materials canceled, and direct expenses only for Contractor chartered freight transport which cannot be canceled without charges, to the extent that the Contractor can establish them.

14.4.9 The extra costs due to cancellation of Bonds and insurance and that part of job start-up and phase-out costs not amortized by the amount of Work accomplished shall be paid by the Owner.

14.4.10 Charges for loss of profit or consequential damages shall not be recoverable except as provided above.

14.4.11 The termination claim shall be submitted promptly, but in no event later than 90 days from the effective date of termination, unless one or more extensions in writing are granted by the Owner upon request of the Contractor made in writing within the 90 day period.

14.4.12 Upon failure of the Contractor to submit his termination claim within the time allowed, the Owner may determine, on the basis of information available to him, the amount, if any, due to the Contractor by reason of the termination and shall thereupon pay to the Contractor so determined.

14.4.13 The Contractor and the Owner may agree upon whole or any part of the amount or amounts to be paid to the Contractor by reason of the total or partial termination of the Work pursuant to paragraph 14.4.

14.4.14 The Contract shall be amended accordingly, and the Contractor shall be paid the agreed amount. In the event of the failure of the Contractor and the Owner to agree in whole or in part, as provided heretofore, as to the amounts with respect to costs to be paid to the Contractor in connection with the termination of the Work the Owner shall determine, on the basis of information available to him, the amount, if any, due to the Contractor by reason of the termination and shall pay to the Contractor the amount determined as follows:

14.4.14.1 All costs and expenses reimbursable in accordance with the Contract not previously paid to the Contractor for the performance of the Work prior to the effective date of the Notice of Termination;

14.4.14.2 So far as not included above, the cost of settling and paying claims arising out of the termination of the Work under subcontracts or orders which are properly chargeable to the terminated portions of the Contract;

14.4.14.3 The reasonable costs of settlement with respect to the terminated portion of the Contract heretofore, to the extent that these costs have not been covered under the payment provisions of the Contract.

14.4.15 The Contractor shall have the right of appeal under the Owner's claim procedures, as defined in Article 15, for any determination made by the Owner, except if the Contractor has failed to submit his claim within the time provided and has failed to request an extension of such time, Contractor shall have no such right of appeal. In arriving at the amount due the Contractor under this section, there shall be deducted:

14.4.15.1 All previous payments made to the Contractor for the performance of Work under the Contract prior to termination;

14.4.15.2 Any claim for which the Owner may have against the Contractor;

14.4.15.3 The agreed price for, or the proceeds of sale of, any materials, supplies, or other things acquired by the Contractor or sold pursuant to the provisions of this section and not otherwise recovered by or credited to the Owner; and,

14.4.15.4 All progress payments made to the Contractor under the provisions of this section.

14.4.16 Where the Work has been terminated by the Owner said termination shall not affect or terminate any of the rights of the Owner against the Contractor or his Surety then existing or which may thereafter accrue because of a default.

14.4.17 Any retention or payment of monies by the Owner due to the Contractor under the terms of the Contract shall not release the Contractor or his Surety from liability.

14.4.18 Unless otherwise provided for in the Contract Documents, or by applicable statute, the Contractor, from the effective date of termination and for a period of three years after final settlement under this Contract, shall preserve and make available to the Owner at all reasonable times at the office of the Contractor, all its books, records, documents, and other evidence bearing on the cost and expenses of the Contractor under this Contract and relating to the Work terminated hereunder.

APPENDIX G

Supplemental Conditions

SC - 01 Basis of Payment: Payment will be made for work performed in accordance with project drawings and these specifications. Payment shall be made only for the actual quantity of work completed. Fabricator shall provide invoices with sufficient detail to support progress payments and include ARRC assigned contract number. Final payment will be made upon final acceptance of the work by ARRC, receipt of warranties and Alaska Department of Labor Notice of Completion.

Monthly progress payments to the Fabricator based on estimate of the value of work performed and materials on hand under subsection 109-1.07 of the 2020 edition of the Alaska Department of Transportation and Public Facilities **Standard Specifications for Highway Construction**. At the Owner's discretion, a progress payment may be made twice monthly if the value of the estimate exceeds \$10,000.00. Request for payments must be made to the Owner via an approved format and bi-monthly payment requests must be made in writing on, or before, the pre-construction meeting.

END OF SUPPLEMENTAL CONDITIONS

APPENDIX H

Special Conditions

Work shall be completed in accordance with the General Conditions, Supplemental Conditions, and these Special Conditions, and the suggested installation procedures provided by the manufacturers of items not being fabricated under this Contract.

All construction and fabrication shall meet the current industry standards for the work being performed. The Fabricator will help the Owner or its representative perform observation and oversight as required to complete the project and provide quality assurance for the project. All work shall meet all the stipulations stated herein.

ARRC Coordination: The Fabricator must coordinate with the Project Manager to coordinate on-site visits by the Owner or its designated representative. Furthermore, the Fabricator shall keep the Project Manager apprised of the status of the panels shipping status so that the ARRC can coordinate shipping from the designated location stated herein to their final destination.

Quality Control: The Fabricator shall be responsible for controlling the quality of the fabrication of the work herein. The work noted herein requires documentation of conformance with material and installation specifications. Material documentation shall be furnished to the Owner prior to fabrication. Installation quality documentation shall be furnished to the Owner prior to any request for payment. Fabricator is to supply quality control procedures for approval fifteen (15) days prior to commencing fabrication that is in compliance with the ARRC's installation requirements noted in the Contract Documents.

Welding: All welding performed under this Contract is to comply with all applicable provisions of the most current version of the American Welding Society (AWS) D1.1 Structural Welding Code - Steel. Prior to commencing welding activities, the Fabricator is to submit all welding procedures, in accordance with AWS D1.1 that it intends to use for the work specified within the Contract Documents. Additionally, submit welder certificates that include a statement that specifically certifies that each proposed welder has been qualified as specified in the applicable AWS for the particular process or processes that said welder will perform under this Contract. With each proposed welder's certificate(s), the Fabricator shall also specifically certify that said welder's qualifications remain in effect in accordance with AWS and provide evidence that the proposed individual has satisfactorily passed the AWS qualification tests for the welding processes submitted and, if pertinent, has undergone recertification.

Unless noted otherwise herein, the 2020 edition of the Alaska Department of Transportation and Public Facilities Standard Specifications for Highway Construction shall be referenced as the **SSHC**. Furthermore, unless explicitly noted, "Section" or "subsection" shall be in reference to the SSHC. The aforementioned reference manual can be found at <http://dot.alaska.gov/stwddes/dcsspecs/assets/pdf/hwyspecs/sshc2020.pdf>.

Contract extensions for the reasons listed in subsection 108-1.06.3 "*Reasons for Suspension of Work and Extension of Contract Time*" will be reviewed on a case-by-case basis.

Substantial Completion: Substantial Completion shall be on or before **March 15, 2021**, unless accepted and agreed upon otherwise by the Owner. This completion scope includes all work items contained within the Contract Documents, properly completed, approved by the Owner and ready for shipment to the location designated herein.

Final Completion: Final Completion shall be considered the date at which the panels have arrived at the located designated herein. The completion date shall be on or before **April 30, 2021**.

Liquidated Damages: If the Owner and the Fabricator cannot agree on amenable terms of an extension in accordance with subsection 108-1.06, then liquidated damages will be deducted from the Fabricator as outlined in subsection 108-1.07 for the amounts outlined in Table 108-1 therein.

BASE BID ITEMS:

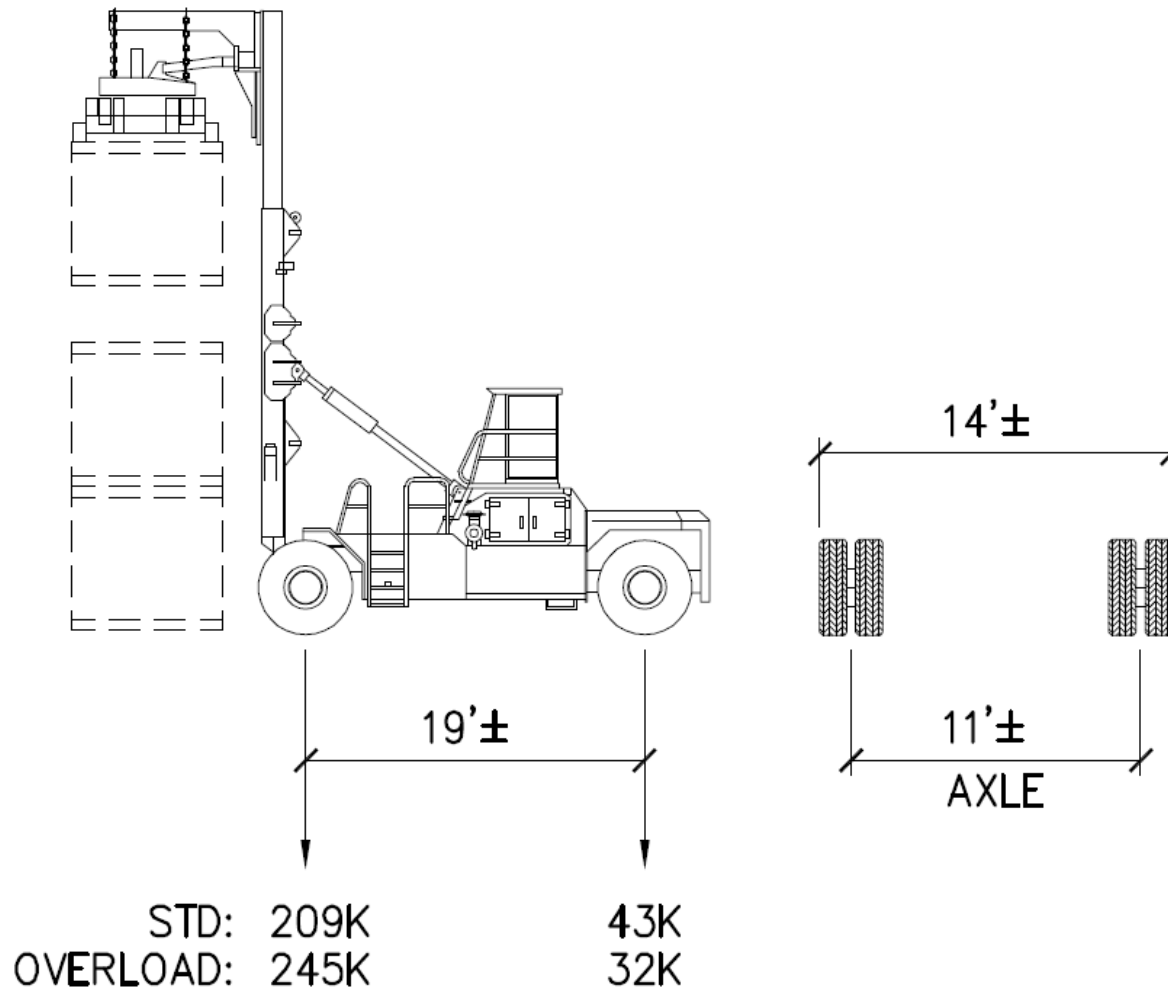
Item No. 1 – Engineered Shop Drawings

Provide all labor, equipment, materials, and oversight to produce design calculations and plans for the fabrication of heavy duty modular crossing panels utilizing the parameters below:

- Accept 115# RE rail utilizing a Pandrol e-Brand Clip (e-2055) system with embedded shoulders.
- All steel materials; to include any angles, embeds, anchors, plates, clips, etc.; are to be hot dip galvanized, as well as all Pandrol system components (*where applicable*).
- Design panels to withstand the loads, perpendicular to the rail, outlined in

- 3 – Design Vehicle

DESIGN VEHICLES



CONTAINER HANDLER

STD GVW= 252K IMPACT=20%
 OVERLOAD GVW= 277K IMPACT=10%

-
-
- Cooper E80 Live Loading plus a 60% impact load factor, or AASHTO HS-25 with a 30% impact load factor; whichever is greater.
- Assume panels begin as close as practicable to the “Frog Angle” as shown in **2 - ARRC - Standards Turnout Data.pdf** of the Lower 1 and Lower 2 tracks.
- Assume geometry shown in the abovementioned is to be used in the fabrication of the panels.
- Lower 1 and Lower 2 tracks are assumed to be returned to the ARRC standard, **15.0'** on center.
- Assume panels end as close practicable to the point of switch of the Lower 2 and Lower 3 Tracks.
- End panels shall have an end section that slopes from the top of the panels to the bottom of rail at a 45° angle.

- The driving surface shall have a tread plate pattern.
- The camber of each individual panel is to be minimized, if not practically possible to eliminate, such that when any panel is laid next to another similar panel on level grade, the deviation of the bearing surface for each rail does not exceed that which is permitted by the American Railway Engineering and Maintenance-of-Way Association (AREMA).
- Individual panel weights should not exceed 10,000 pounds (*individual panels between the "Frog Angle" and the 13.5' "Clearance Point" as shown in 2 - ARRC - Standards Turnout Data.pdf may deviate from the aforementioned upon approval from the Owner.*)
- Four-way rigging is to be utilized to lift the panels in place in the field; Fabricator is to supply lifting plans utilized to load the panels for shipment.
- Panels are to be monolithic (*i.e. single pour*) unless otherwise approved by the Owner and are to be self-supporting on an aggregate foundation (*i.e. without the use of ties*).

Method of measurement for payment will be in accordance with subsection 640-4.01 and Supplemental Condition SC-01.

Item No. 2 – Heavy Duty Crossing Panels

Fabricate and furnish a complete set of modular heavy duty crossing panels per the approved shop drawings. Improvements are to be made between the frog angle (*as close as practical*) of ARRC's No. 9 Righthand Turnout of Lower 1 and Lower 2 to approximately the point of switch of the Lower 2 and Lower 3 tracks, on both the Lower 1 and Lower 2 tracks.

The selected fabricator must have direct experience fabricating modular railroad crossing panels on at least two (2) projects spanning in durations of at least five (5) years total experience. Provide proof of experience with references.

Class P concrete, with a minimum 28-day compressive strength of 6,000psi, shall be provided and placed in accordance with Section 501 "CONCRETE FOR STRUCTURES". Reinforcing steel, galvanized and of the sizes shown in the approved shop drawings, shall be provided in accordance with subsection 709-2.01(1) and placed in accordance with Section 709 "REINFORCING STEEL AND WIRE ROPE".

Provide a job mix design for approval that utilizes Class I/II Portland Cement and a maximum of 10% of Silica Fume (percent of total cementitious material by weight), and chemical admixtures in accordance with subsections 701-2.01, 701-2.06 and 711-2.02; respectively.

Forms are to be constructed in accordance with subsection 512-3.03 "FORMS" and form liners for a tread pattern finish surface are to be utilized in accordance with the same. Forms are to be coated with a commercial quality form release agent designed specifically to release forms and that will not discolor the concrete, prior to use.

Mix and deliver concrete to the site in accordance with subsection 501-3.02 "MIXING AND DELIVERY".

The fabricator is to acquire the services of a third party testing facility to perform quality control testing of the concrete in accordance with subsection 501-3.03 "EVALUATION OF MATERIAL FOR ACCEPTANCE." Quality control testing of the concrete shall be performed at a frequency of no less than one (1) set of tests per half days pour. Sampling and testing of aggregate, in accordance with the aforementioned subsection, used in the approved mix design shall not be required if the concrete tests yield acceptable results

In addition to the testing of concrete, the third party inspector shall inspect the forms and the placement of all reinforcing steel, anchor points, lift points, and any other ancillary items to be placed within the concrete in accordance with subsection 501-3.04 "PREPARATION FOR CONCRETE PLACEMENT,".

The placement, consolidation, finishing, repair, curing, and protection concrete shall in accordance with the applicable subsections of Section 501. Materials for curing shall be in accordance with subsection

711-2.01. All pre-cast structures are to be fabricated such that their tolerances are within those allowable by AREMA and shall not deviate from the approved shop drawings without approval from the Owner.

Forms may be removed after the concrete has a minimum compressive strength equal to 70 percent of the approved job mix design's specified compressive strength or after a minimum of ten (10) days curing in accordance with this pay item. Compressive strength for this purpose is to be determined by informational field test cylinders cured on-site under temperature and moisture conditions similar to that of the modular panels themselves,

The fabricator is to supply a quality control plan that addresses all phases of the work outlined herein, on the approved shop drawings, and in Section 501.

Payment for precast panels includes materials and work for the following items: Class P concrete, reinforcing steel contained in the member, bolts, studs, anchor bars, block-outs, grout, drains, Pandrol base plates, Pandrol e-clips, insulators, rail pads, and all other miscellaneous steel embedded in or attached to the precast members themselves.

Compensation will be made for panels; accepted by the Owner, or its designated representative; upon inspection on-site, prior to shipment; in accordance with Section 109 and Supplemental Condition SC-01; under:

PAY ITEM		
Item Number	Item Description	Unit
2.1	Heavy Duty Crossing Panels - Tangent	Lump Sum
2.2	Heavy Duty Crossing Panels - Curve	Lump Sum
2.3	Heavy Duty Crossing Panels - #9 RH Switch	Lump Sum
2.4	Heavy Duty Crossing Panels - End	Each

Item No. 3 – Shipping

Deliver all fabricated items, and the required ancillary items, FOB Seattle, Washington.

Compensation shall be made per the agreed upon lump sum; and in accordance with Section 109 and Supplemental Condition SC-01.

ADDITIVE ALTERNATE BID ITEMS:

Item No. A1 – Rail Flangeway Filler, Rubber

Provide a complete rubber Flangeway filler system, for both the field and gauge inserts, that is compatible with the fabricator's panels, the specified 115# RE rail, and a Pandrol e-Brand Clip (e-2055) system. Fillers shall be similar in design to those produced by Performance Polymers Innovations, Inc.'s, which can be found at the link below:

https://www.ppirubber.com/userContent/documents/PDFs/PPI_Panel_Inserts.pdf

Compensation shall be made per the agreed upon lump sum; and in accordance with Section 109 and Supplemental Condition SC-01.

END OF SPECIAL CONDITIONS

APPENDIX G –

Construction Quality Control (CQC) Plan

1. SUBMITTAL AND GENERAL REQUIREMENTS

- 1.1. The Contractor shall establish and maintain an effective quality management system. The quality management system shall consist of plans, procedures, and the organization necessary to provide material, equipment, and workmanship that comply with the requirements of the contract documents. The system shall cover operations both onsite and offsite, and shall be keyed to the proposed sequence of the work.
- 1.2. The Contractor shall prepare a Construction Quality Control (CQC) plan compliant with the requirements of this appendix and all other contract documents. A complete detailed CQC plan shall be submitted to the Owner's Representative within 10 days of intent to award and shall be approved in writing by the Owner's Representative prior to proceeding with the work.
- 1.3. The CQC plan shall be capable of ensuring that the procurement, shipping, handling, fabrication, installation, cleaning, inspection, construction, testing, storage, examination, repair maintenance, and required modifications of all materials, equipment, and elements of the work comply with the requirements of the contract documents and that all materials incorporated in the work will perform satisfactorily for the purpose intended.
- 1.4. If Contractor does not provide an acceptable CQC plan, ARRC may, at its sole discretion, elect to award the contract to others.

2. AUTHORITY AND RESPONSIBILITY

- 2.1. Authority: The persons and organizations performing quality control and quality assurance functions shall have sufficient authority and organizational freedom to identify quality problems and to initiate, recommend, provide, and verify implementation of the solution.
- 2.2. Changes in Plan or Personnel: The Contractor shall not revise the CQC or the quality staffing levels or replace any of the key personnel specified herein without prior written approval from the Owner's Representative.
- 2.3. Contractor's Responsibility: The Contractor is solely responsible for achieving project quality and shall have overall responsibility for the quality of all construction work. The contractor shall conduct quality management activities, which include inspection, materials testing, and other activities specifically developed and/or chosen by the Contractor.
- 2.4. Owner's Responsibility: ARRC reserves the right to, and will, conduct inspections, testing, sampling, and evaluation associated with quality assurance and independent quality assurance. ARRC's role in construction is to provide the following.
 - 2.4.1. Quality assurance and independent assurance of construction activities, inspection, and materials testing. ARRC will do this with either its staff or a consultant acting as the owner's representative.
 - 2.4.2. Oversight of the Contractor's quality management activities to ensure adherence to the CQC plan and compliance with the contract documents.
 - 2.4.3. Notifying the Contractor promptly of irregularities or deficiencies observed in the work.
 - 2.4.4. Oversight of the Contractor's construction management, including scheduling, invoicing, shop drawing review, document control, etc.

3. CONSTRUCTION QUALITY CONTROL (CQC) PLAN

- 3.1. Objectives: Quality in the construction phase is the program of policies, procedures, and responsibilities required to provide confidence that the desired characteristics have been obtained to help ensure the project will perform its intended function for its design life. Quality control in the construction phase shall consist of those actions necessary to assess production and construction processes so as to control the level of quality being produced in the end project. The Contractor's quality control actions shall include examining, checking, and inspecting in-process and completed work, and materials sampling and testing during production and construction, as a means of controlling and measuring the characteristics and conformity of an item, process, or feature to established requirements.
- 3.2. The Contractor's CQC plan shall be capable of:
 - 3.2.1. Ensuring that the design, procurement, shipping, handling, fabrication, installation, cleaning, inspection, construction, testing, storage, examination, repair, maintenance, and required modifications of all materials, equipment, and elements of the work comply with the requirements of the contract documents.
 - 3.2.2. Ensuring that all materials incorporated in the work, all equipment, and all elements of the work will perform satisfactorily for the purpose intended.
- 3.3. Contents of the CQC Plan: The CQC plan shall delineate the type and frequency of inspection, sampling, and testing deemed necessary to measure and control the various properties of material and workmanship of all construction processes within the tolerances governed by the drawings and specifications, applicable codes and regulations, permit conditions, and other contract requirements as contained herein. The CQC plan shall include the following, at a minimum.
 - 3.3.1. Construction activity and item inspection plans.
 - 3.3.2. Schedule of materials control including materials to be tested, test methods, and frequency of testing.
 - 3.3.3. Sampling locations and techniques.
 - 3.3.4. Control of workmanship
 - 3.3.5. Identification and qualifications of key quality control personnel, including the quality control manager, inspectors, and technicians. Include an organization chart with reporting lines.
 - 3.3.6. Name and location of testing laboratories.
 - 3.3.7. Documentation procedures, including inspection and test records; accuracy and calibration checks; nature, number, and type of deficiencies found; nature of corrective actions; and quantities of work tested and sampled.
 - 3.3.8. Mandatory inspection points.

4. CONSTRUCTION QUALITY ORGANIZATION

- 4.1. The construction CQC shall describe the Contractor's quality management organization for all of the project construction processes. At a minimum, the CQC shall identify the following positions.
 - 4.1.1. Construction Manager or Superintendent: The Construction Manager shall be the individual responsible for the overall project construction, quality management, and contract administration for this project.
 - 4.1.2. Construction Quality Manager: The Construction Quality Manager may work directly for the Contractor or may be contracted from an independent firm or organization. The Construction Quality Manager shall work under the direct supervision of the Construction Manager. It shall be the responsibility of the Construction Quality Manager to perform workmanship inspections, implement quality planning, oversee quality control testing, and coordinate with Owner's QA testing and independent assurance testing. The Construction Quality Manager shall also cooperate with the Owner's Representative in compiling a statistical correlation of

materials and workmanship data. The Construction Quality Manager shall be responsible for submitting requested inspection, testing, and other data to the Owner's Representative on a daily basis or as determined by the Construction Quality Manager and ARRC's field representative.. The Construction Quality Manager shall have at least two years (within the last five years) of experience in inspection and materials testing for similar projects.

- 4.1.3. Construction Testing Technicians: The construction testing technicians may work directly for the Contractor or may be contracted from an independent firm or organization. They shall work under the direct supervision of the Construction Quality Manager and perform inspections as indicated in the construction CQC. Each Construction Testing Technician shall have training and/or technical certification, as appropriate, for the specific type and level of work that they will be testing; e.g., asphalt certification, welding, concrete strength, etc.

5. PRECONSTRUCTION MEETING: Before the start of construction, the Contractor shall meet with ARRC or its authorized representative in a pre-construction meeting. A topic of the pre-construction meeting shall be the Contractor's proposed quality management system. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the Contractor's quality control operations, control activities, testing, administration of the system for both onsite and offsite work, and the Contractor's quality control program. Minutes of the meeting shall be prepared and signed by both the Construction Manager and the Owner's Representative. The minutes shall become a part of the contract file. Additional conferences may be called at any time to reconfirm mutual understandings.

6. INSPECTIONS AND TESTS

- 6.1. Except where they are specifically indicated to be the Owner's responsibility, or are provided by another identified entity, the Contractor shall provide inspections, tests, and similar quality control services in accordance with the approved CQC plan. Costs for these services shall be included in the contract price, whether performed by the Contractor's personnel or an independent firm.
- 6.2. Associated Services: The Contractor shall cooperate with organizations performing required inspections, tests, and similar services and shall provide reasonable auxiliary services as requested. Auxiliary services required include, but are not limited to:
 - 6.2.1. Providing access to the work and furnishing incidental labor and facilities necessary to facilitate inspections and tests.
 - 6.2.2. Taking adequate quantities of representative samples of materials that require testing or assisting the Owner in taking samples.
 - 6.2.3. Providing facilities for storage or curing of test samples, and delivery of samples to testing laboratories.
 - 6.2.4. Providing the Owner with a preliminary design mix proposed for use for materials mixes that require control.
 - 6.2.5. Security and protection of samples and test equipment at the project site.
- 6.3. Coordination: The Contractor, the Owner's Representative, and any independent testing agencies shall coordinate the sequence of activities to accommodate required inspection and testing services with a minimum of delay. In addition, the Contractor and ARRC shall coordinate activities so that removing and replacing construction to accommodate inspections and tests will not be required.
- 6.4. The Contractor is responsible for scheduling times for inspections, tests, taking samples, and similar activities.
- 6.5. Mandatory Inspection Documentation Points: Documentation points are mandatory verification and inspection points that shall be identified in the CQC plan and the project schedule. Documentation points should be points at which critical characteristics are to be measured and documented by the Construction Quality Manager. It will be the responsibility of the Construction Quality Manager to certify that the design and construction have met the requirements of the plans and specifications and to sign all inspection documentation. Inspection documentation shall be submitted to ARRC or

its representative when requested. It shall be the responsibility of the Contractor to determine inspection documentation point criteria and required documentation. ARRC will not prescribe the inspection criteria.

- 6.6. ARRC should be notified a minimum of 24 hours prior to any mandatory inspection.
 - 6.6.1. The mandatory inspection points for this project shall be established through coordination between the contractor and the Owner's Representative...
- 6.7. Completion Inspection: At the completion of all work or any increment thereof established by a completion time stated in the schedule or in the CQC plan, the Construction Quality Manager shall conduct a completion inspection of the work and develop a punch list of items that do not conform to the contract documents. Such a list of deficiencies shall be included in the QC documentation as required herein, and shall include the estimated date by which the deficiencies will be corrected. The Construction Quality Manager shall make a second completion inspection to make certain that all deficiencies noted on the punch list have been corrected and so notify ARRC. The completion inspections and any deficiency corrections required by this paragraph shall be accomplished within the time stated for completion of the entire work or any particular increment thereof if the project is divided into increments by separate completion dates.

7. DOCUMENTATION

- 7.1. The Contractor shall maintain daily records of quality control operations, activities, and tests performed, including the work of suppliers and subcontractors. These records shall be on an acceptable form and shall include factual evidence that required activities or tests have been performed, including, but not limited to, the following.
 - 7.1.1. Type and number of control activities and tests involved.
 - 7.1.2. Results of control activities or tests.
 - 7.1.3. Nature of non-conformances, defects, causes for rejection, etc.
 - 7.1.4. Proposed remedial action.
 - 7.1.5. Corrective actions taken.
 - 7.1.6. Description of trades working on the project, the number of personnel working, the weather conditions encountered, any delays, and acknowledgement of any instruction given by ARRC.
- 7.2. The daily quality control report records shall cover both conforming and defective or deficient features and shall include a statement that supplies and materials incorporated in the work and workmanship comply with the contract. The Construction Quality Manager shall sign the daily quality control report and furnish legible copies to ARRC by the end of the following workday.
- 7.3. Monthly quality control reports that summarize project status, work completed related to funds expended, any nonconformance, and any necessary corrective actions shall be provided.

END OF CONSTRUCTION QUALITY CONTROL (CQC) PLAN

APPENDIX I – Forms

ALASKA RAILROAD CORPORATION – SUPPLY BID FORM
of:

NAME _____
ADDRESS _____

To the CONTRACTING OFFICER, ALASKA RAILROAD CORPORATION:

In compliance with your Invitation to Bid Number, Invitation to Bid 20-31-208421 the Undersigned proposes to furnish and deliver all the materials and do all the work and labor required in the construction of the Whittier Yard: Lower 1 and Lower 2 Track Improvements – Heavy Duty Crossing Panels, located at or near Whittier, Alaska according to the plans and specifications and for the amount and prices named herein as indicated on the Cost Schedule, which is made a part of this Bid.

The Undersigned declares that he/she has carefully examined the contract requirements and that he/she has made a personal examination of the site of the work; that he/she understands that the quantities, where such are specified in the Cost Schedule or on the plans for this Project, are approximate only and subject to increase or decrease, and that he/she is willing to perform increased or decreased quantities of work at unit prices bid under the conditions set forth in the Contract Documents.

The Undersigned hereby agrees to execute the said contract and bonds within **Ten (10) Calendar Days**, or such further time as may be allowed in writing by the Contracting Officer, after receiving notification of the acceptance of this Bid, and it is hereby mutually understood and agreed that in case the Undersigned does not, the accompanying bid guarantee shall be forfeited to the Alaska Railroad Corporation as liquidated damages, and said Contracting Officer may proceed to award the contract to others.

The Undersigned agrees to commence the work within **Ten (10) Calendar Days** after the effective date of the Notice to Proceed and to complete the work by _____, unless extended in writing by the Contracting Officer.

The Undersigned proposes to furnish a Payment Bond in the amount of One Hundred Percent (100%) and a Performance Bond in the amount of One Hundred Percent (100%) (of the contract), as surety conditioned for the full, complete and faithful performance of this contract.

The Undersigned acknowledges receipt of the following addenda to the drawings and/or specifications (give number and date of each).

Addenda No.	Date Issued	Addenda No.	Date Issued	Addenda No.	Date Issued
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

NON-COLLUSION AFFIDAVIT

The Undersigned declares, under penalty of perjury under the laws of the United States, that neither he/she nor the firm, association, or corporation of which he/she is a member, has, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this Bid.

The Undersigned has read the foregoing proposal and hereby agrees to the conditions stated therein by affixing his/her signature below:

Signature

Name and Title of Person Signing

Telephone Number

Facsimile Number

Form 395-0132

BIDDER QUESTIONNAIRE

QUESTIONNAIRE

Note: Failure to provide the information requested in this questionnaire may be cause for rejection of your bid or offer on the grounds of non-responsiveness and/or non-responsibility.

Solicitation Number _____

Business Name: _____

Street Address: _____

Mailing Address if Different: _____

City: _____ State: _____ Mailing Zip: _____

Telephone: _____ Fax: _____ E-Mail: _____

Date Firm Established: _____

How many years has the business been under the above name? _____

Previous business name(s)if any: _____

Federal Tax ID Number: _____

Business License Number: _____

Contractor License Number (For Construction: _____

Bid Acceptance Period _____ Days. (Bids providing less than thirty-day (30) calendar days for acceptance may be considered nonresponsive and may be rejected.)

Discount for prompt pay _____ % _____ days.

Veteran Owned Business _____ Disabled _____

List any variations from or exceptions to the Terms, Conditions or Specifications of the Solicitation

Continued on the next page

Page 1 of 2
Form 395-0136

List the three most recent contracts performed by your company where the commodity or service requested in this solicitation was the primary commodity or service supplied. Include the client's name, contract amount, the contract date, person to contact regarding performance, their telephone, facsimile number and e-mail.

Clients name, Contact person, Contact info. (telephone, and email)	Description of Work and Contract Amount
<u>List any other business related experience:</u>	Please attach on additional Sheets

Are you acting as a broker or the primary supplier in this transaction?

- Broker
- Primary Supplier

Business Information (Please check all that apply):

- The business is Individual
- The business is a Partnership
- The business is a Non-Profit
- The business is a Joint-Venture
- The business is a Corporation incorporated under the laws of the State of _____
- The business is full-time
- The business is part-time
- The business is not a certified Disadvantaged Business (DBE)
- Business is a certified DBE
- DBE was certified by State DOTPF
- DBE was certified by the Municipality of Anchorage
- Business is an 8(a)/WBE/MBE and is certified by SBA
- B business was certified by _____
- DBE Certification # is _____

Firms Annual Gross Receipts:

- <\$500,000
- \$500,000 - \$999,999
- \$1,000,000 - \$4,999,999
- \$5,000,000 - \$9,999,999
- \$10,000,000 - \$16,999,999
- >\$17,000,000

Completed by: _____ Title: _____

Signature: _____ Date: _____

APPENDIX J – Cost Schedule

COST SCHEDULE: A Bidder's Failure to provide the information requested in this Appendix may be cause for rejection of the bid on the basis on non-responsiveness. Cost shall be bid in accordance to all specifications in Appendix C, and any Technical Specifications incorporated herein.

AWARD CRITERIA: A contract award resulting from this solicitation may be made to the low, responsive, responsible bidder who meets the requirements as set forth in the plans and specifications and compliance thereof. An award may be made in the aggregate of Base Bid and or any combination of Base Bid and Add Alternates, whichever is deemed by the Contract Administrator to be in the best interest of the ARRC. The successful bidder shall hold unit prices of all additives firm for a period of thirty (30) days from the date of bid opening. Award is contingent on the availability of ARRC funds

BASE BID ITEMS					
Item No.	Item Description	Unit	Quantity	Unit Bid Price	Amount Bid
1	Engineered Shop Drawings	Lump Sum	1		
2.1	Heavy Duty Crossing Panels - Tangent	Lump Sum	1		
2.2	Heavy Duty Crossing Panels - Curve	Lump Sum	1		
2.3	Heavy Duty Crossing Panels - #9 RH Switch	Lump Sum	1		
2.4	Heavy Duty Crossing Panels - End	Each	2		
Total Base Bid :					

ADDITIVE ALTERNATE BID ITEMS ¹					
Item No.	Item Description	Unit	Quantity	Unit Bid Price	Amount Bid
A1	Rail Flangeway Filler, Rubber	Lump Sum	1		
Total Additive Alternate Bid :					:

Notes:

¹ Award of Additive Alternate Bid items is dependent on Owner finances. The successful bidder will be notified of the Owner's intent to award additional work prior to receiving a Purchase Order.

NON-COLLUSION AFFIDAVIT: The Undersigned declares, under penalty of perjury under the laws of the United States, that neither he/she nor the firm, association, or corporation of which he/she is a member, has, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this Bid.

The Undersigned has read the foregoing proposal and hereby agrees to the conditions stated therein by affixing his/her signature below:

BIDDERS NAME AND ADDRESS

COMPANY NAME

SIGNATURE BY AND FOR THE BIDDER

COMPANY MAILING ADDRESS

PRINTED NAME OF ABOVE BIDDER

CITY, STATE ZIP CODE

DATE OF BID

CONTACT PHONE NUMBER

CONTACT E-MAIL

ATTACHMENTS

1 - ARRC – Lower 1 and Lower 2 Track Improvements Site Plan.pdf



ARRC – Lower 1
and Lower 2



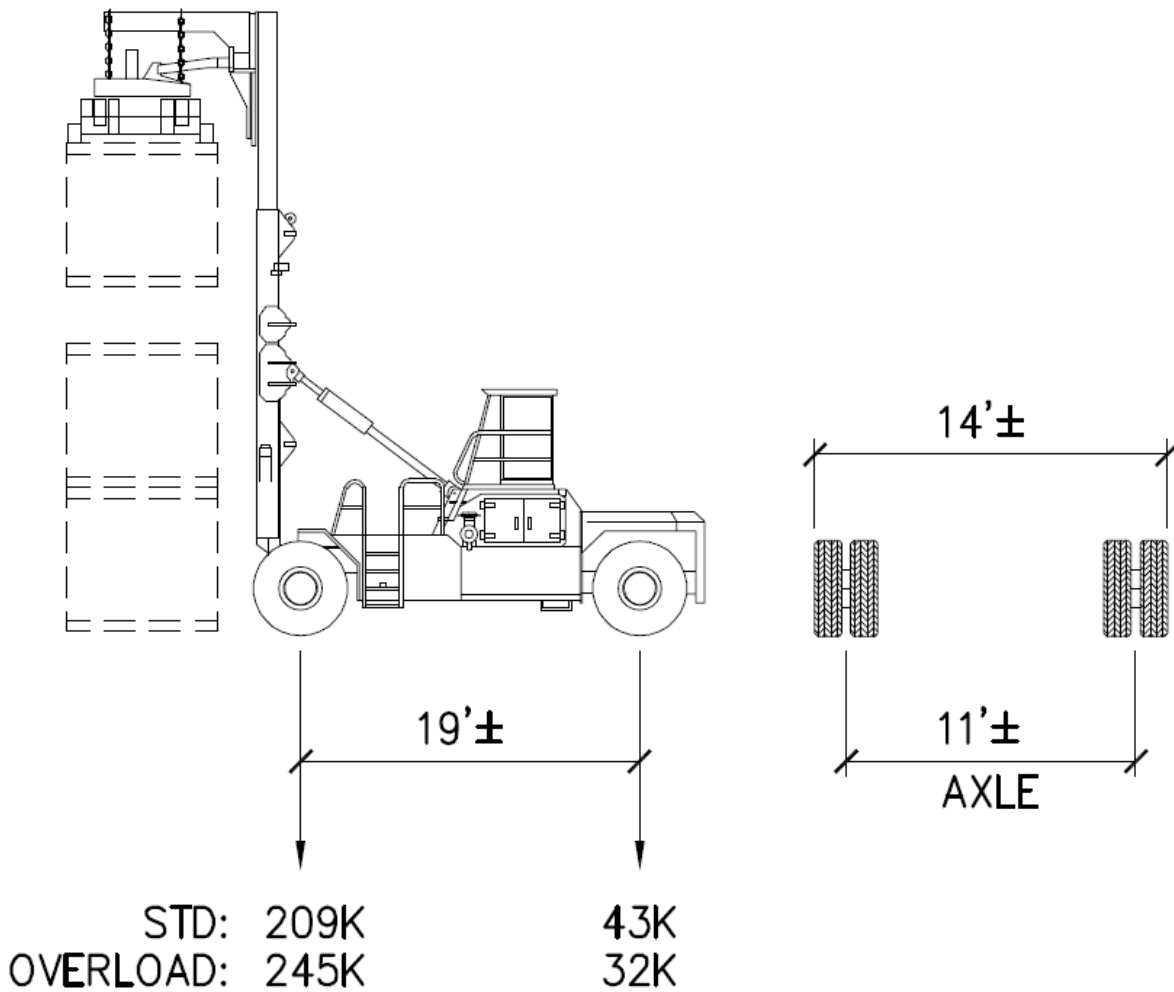
Coordinates

2 - ARRC - Standards Turnout Data.pdf



ARRC - Standards
Turnout Data

DESIGN VEHICLES



CONTAINER HANDLER

STD GVW= 252K IMPACT=20%
OVERLOAD GVW= 277K IMPACT=10%