

#### STATE OF ALASKA

Department of Transportation & Public Facilities Statewide Contracting and Procurement P.O. Box 112500 (3132 Channel Drive, Suite 350) Juneau, Alaska 99811-2500

# REP 2517H004 Date of Issue: February 2, 2017

# Road Weather Information Systems (RWIS) Operations, Maintenance, and Equipment

To support ongoing Road Weather Information Systems (RWIS) operations and maintenance (O&M), Alaska Department of Transportation and Public Facilities (ADOT&PF), Information Systems and Services Division (ISSD) has identified the need to procure Contractual services to perform Physical RWIS Site Operations, Maintenance and Supply Environmental Sensor Station (ESS) Equipment.

Offerors Are Not Required To Return This Form.

**Important Notice**: If you received this solicitation from the State of Alaska's "Online Public Notice" web site, you must register with the procurement officer listed in this document to receive subsequent amendments. Failure to contact the procurement officer may result in the rejection of your offer.

Janice Neal Procurement Officer Department of Transportation & Public Facilities Telephone: 907-465-8446 Email: janice.neal@alaska.gov

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## SECTION ONE INTRODUCTION AND INSTRUCTIONS

# 1.01 Return Mailing Address, Contact Person, Telephone, Fax Numbers and Deadline for Receipt of Proposals

Offerors must submit one original, one (1) hard copy of their proposal, and one electronic copy of their proposal, in writing, to the procurement officer in a sealed package. The cost proposal included with the package must be sealed separately from the rest of the proposal and must be clearly identified. The sealed proposal package(s) must be addressed as follows:

Department of Transportation & Public Facilities Division of Statewide Procurement Attention: Janice Neal Request for Proposal (RFP) Number: 2517H004 Project name: Road Weather Information Systems (RWIS) Operations, Maintenance, and Equipment

> Mailing Address: P.O. Box 112500 Juneau, Alaska 99811-2500

Physical Address: 3132 Channel Drive, Suite 350 Juneau, Alaska 99801

Proposals must be received no later than 4:00 P.M., Alaska Time on **February 23, 2017**. Faxed or emailed proposals are not acceptable. Oral proposals are not acceptable.

There is no guaranteed overnight express mail delivery to Juneau, Alaska. Expedited mail service takes at least two nights.

An offeror's failure to submit its proposal prior to the deadline will cause the proposal to be disqualified. Late proposals or amendments will not be opened or accepted for evaluation.

PROCUREMENT OFFICER: Janice Neal - PHONE 907-465-8446 - FAX 907-465-3124

If you received this solicitation from the State of Alaska's "Online Public Notice" web site, you must register with the procurement officer listed in this document to receive subsequent amendments. Failure to contact the procurement officer may result in the rejection of your offer.

### 1.02 Contract Term and Work Schedule

The contract term and work schedule set out herein represents the State of Alaska's best estimate of the schedule that will be followed. If a component of this schedule, such as the deadline for receipt of proposals, is delayed, the rest of the schedule will be shifted by the same number of days.

The length of the contract will be from the date of award through March 31, 2021 with five (5) one-year optional renewals to be executed at the sole discretion of the State.

Unless otherwise provided in this RFP, the State and the successful offeror/contractor agree: (1) that any holding over of the contract excluding any exercised renewal options, will be considered as a month-to-month extension, and all other terms and conditions shall remain in full force and effect and (2) to provide written notice to the other party of the intent to cancel such month-to-month extension at least 30-days before the desired date of cancellation.

The approximate contract schedule is as follows:

•	Issue RFP	February 2, 2017,
•	Vendor questions due	February 13, 2017,
•	Deadline for Receipt of Proposals	February 23, 2017,
•	Proposal Evaluation Committee complete evaluation by	March 1, 2017,
•	State of Alaska issues Notice of Intent to Award a Contract	March 3, 2017,
•	State of Alaska issues contract	March 13, 2017,
•	Contract start	March 15, 2017,

#### 1.03 Purpose of the RFP

To support ongoing statewide Road Weather Information Systems (RWIS) operations and maintenance (O&M), Alaska Department of Transportation and Public Facilities (ADOT&PF), Information Systems and Services Division (ISSD) have identified the need to procure Contractual services to perform Physical RWIS Site Operations, Maintenance and Supply Environmental Sensor Station (ESS) Equipment.

### 1.04 Budget

The Department of Transportation and Public Facilities estimates a budget of between \$100,000.00 and \$250,000.00 dollars per year with a not to exceed amount of \$4 million for the completion of the entire project (initial term and optional renewals).

### 1.05 Location of Work

The location of work to be performed is at the environmental sensor stations (ESS) that are located on major arterials statewide. Please see Appendix B for the RWIS Network Communications Maps, displaying the ESS networks and communication modes.

The Alaska Department of Transportation & Public Facilities (ADOT&PF) will manage the project from Juneau, Alaska, the Department's Headquarters. The initial locations where the work is to be performed, completed and managed will be in several areas of Alaska. Due to the expansive geographic work area involved in this project, potential Contractor(s) are advised to carefully consider their logistics and travel requirements when preparing their proposal.

The State will not provide workspace or other logistical support for the contractor. The contractor must provide its' own workspace and logistical support, including storage areas, work areas, vehicles, equipment, tools, or any other item needed to perform the Scope of Work.

Travel expenses should not be included in the cost proposal. Contractor travel expenses will be reimbursed by the State per criteria identified in Section Six (6.09 Cost Proposal).

By signature on their proposal, the offeror certifies that all services provided under this contract by the contractor and all subcontractors shall be performed in the United States.

If the offeror cannot certify that all work will be performed in the United States, the offeror must contact the procurement officer in writing to request a waiver at least 10 days prior to the deadline for receipt of proposals.

The request must include a detailed description of the portion of work that will be performed outside the United States, where, by whom, and the reason the waiver is necessary.

Failure to comply with this requirement or to obtain a waiver may cause the state to reject the proposal as non-responsive, or cancel the contract.

### 1.06 Human Trafficking

By signature on their proposal, the offeror certifies that the offeror is not established and headquartered or incorporated and headquartered in a country recognized as Tier 3 in the most recent United States Department of State's Trafficking in Persons Report.

The most recent United States Department of State's Trafficking in Persons Report can be found at the following website: http://www.state.gov/j/tip/

Failure to comply with this requirement will cause the state to reject the proposal as non-responsive, or cancel the contract.

### 1.07 Assistance to Offerors with a Disability

Offerors with a disability may receive accommodation regarding the means of communicating this RFP or participating in the procurement process. For more information, contact the procurement officer no later than ten days prior to the deadline for receipt of proposals.

### 1.08 Required Review

Offerors should carefully review this solicitation for defects and questionable or objectionable material. Comments concerning defects and objectionable material must be made in writing and received by the procurement officer at least ten days before the deadline for receipt of proposals. This will allow time for the issuance of any necessary amendments. It will also help prevent the opening of a defective solicitation and exposure of offeror's proposals upon which award could not be made. Protests based on any omission or error, or on the content of the solicitation, will be disallowed if these faults have not been brought to the attention of the procurement officer, in writing, at least ten days before the deadline for receipt of proposals.

### 1.09 Questions Received Prior to Deadline for Receipt of Proposals

All questions must be in writing and directed to the issuing office, addressed to the procurement officer. The interested party must confirm telephone conversations in writing. No further questions will be allowed after 2:00 pm Alaska time on February 13, 2017.

#### Send questions to Janice.Neal@alaska.gov

Two types of questions generally arise. One may be answered by directing the questioner to a specific section of the RFP. These questions may be answered over the telephone. Other questions may be more complex and may require a written amendment to the RFP. The procurement officer will make that decision.

### 1.10 Amendments

If an amendment is issued, it will be provided to all who were mailed a copy of the RFP and to those who have registered with the procurement officer after receiving the RFP from the State of Alaska Online Public Notice web site.

### 1.11 Alternate Proposals

Offerors may only submit one proposal for evaluation.

In accordance with 2 AAC 12.830 alternate proposals (proposals that offer something different than what is asked for) will be rejected.

### 1.12 Right of Rejection

Offerors must comply with all of the terms of the RFP, the State Procurement Code (AS 36.30), and all applicable local, state, and federal laws, codes, and regulations. The procurement officer may reject any proposal that does not comply with all of the material and substantial terms, conditions, and performance requirements of the RFP.

Offerors may not qualify the proposal nor restrict the rights of the state. If an offeror does so, the procurement officer may determine the proposal to be a non-responsive counter-offer and the proposal may be rejected.

Minor informalities that:

- do not affect responsiveness;
- are merely a matter of form or format;
- do not change the relative standing or otherwise prejudice other offers;
- do not change the meaning or scope of the RFP;
- are trivial, negligible, or immaterial in nature;
- do not reflect a material change in the work; or
- do not constitute a substantial reservation against a requirement or provision;

may be waived by the procurement officer.

The state reserves the right to refrain from making an award if it determines that to be in its best interest.

A proposal from a debarred or suspended offeror shall be rejected.

### **1.13 State Not Responsible for Preparation Costs**

The state will not pay any cost associated with the preparation, submittal, presentation, or evaluation of any proposal.

### **1.14 Disclosure of Proposal Contents**

All proposals and other material submitted become the property of the State of Alaska and may be returned only at the state's option. AS 40.25.110 requires public records to be open to reasonable inspection. All proposal information, including detailed price and cost information, will be held in confidence during the evaluation process and prior to the time a Notice of Intent to Award is issued. Thereafter, proposals will become public information.

Trade secrets and other proprietary data contained in proposals may be held confidential if the offeror requests, in writing, that the procurement officer does so, and if the procurement officer agrees, in writing, to do so. The

offeror's request must be included with the proposal, must clearly identify the information they wish to be held confidential, and include a statement that sets out the reasons for confidentiality. Unless the procurement officer agrees in writing to hold the requested information confidential, that information will also become public after the Notice of Intent to Award is issued.

### 1.15 Subcontractors

Subcontractors may be used to perform work under this contract. If an offeror intends to use subcontractors, the offeror must identify in the proposal the names of the subcontractors and the portions of the work the subcontractors will perform.

If a proposal with subcontractors is selected, the offeror must provide the following information concerning each prospective subcontractor within five working days from the date of the state's request:

- (a) complete name of the subcontractor;
- (b) complete address of the subcontractor;
- (c) type of work the subcontractor will be performing;
- (d) percentage of work the subcontractor will be providing;
- (e) evidence that the subcontractor holds a valid Alaska business license; and
- (f) a written statement, signed by each proposed subcontractor that clearly verifies that the subcontractor is committed to render the services required by the contract.

An offeror's failure to provide this information, within the time set, may cause the state to consider their proposal non-responsive and reject it. The substitution of one subcontractor for another may be made only at the discretion and prior written approval of the project director.

### 1.16 Joint Ventures

Joint ventures are acceptable. If submitting a proposal as a joint venture, the offeror must submit a copy of the joint venture agreement which identifies the principals involved and their rights and responsibilities regarding performance and payment.

### 1.17 Offeror's Certification

By signature on the proposal, offerors certify that they comply with the following:

- (a) the laws of the State of Alaska;
- (b) the applicable portion of the Federal Civil Rights Act of 1964;
- (c) the Equal Employment Opportunity Act and the regulations issued thereunder by the federal government;
- (d) the Americans with Disabilities Act of 1990 and the regulations issued thereunder by the federal government;
- (e) all terms and conditions set out in this RFP;

- (f) a condition that the proposal submitted was independently arrived at, without collusion, under penalty of perjury;
- (g) that the offers will remain open and valid for at least 90 days; and
- (h) that programs, services, and activities provided to the general public under the resulting contract conform with the Americans with Disabilities Act of 1990, and the regulations issued thereunder by the federal government.

If any offeror fails to comply with [a] through [h] of this paragraph, the state reserves the right to disregard the proposal, terminate the contract, or consider the contractor in default.

### 1.18 Conflict of Interest

Each proposal shall include a statement indicating whether or not the firm or any individuals working on the contract has a possible conflict of interest (e.g., currently employed by the State of Alaska or formerly employed by the State of Alaska within the past two years) and, if so, the nature of that conflict. The Commissioner of the Department of Transportation and Public Facilities reserves the right to **consider a proposal non-responsive and reject it or** cancel the award if any interest disclosed from any source could either give the appearance of a conflict or cause speculation as to the objectivity of the program to be developed by the offeror. The Commissioner's determination regarding any questions of conflict of interest shall be final.

### 1.19 Right to Inspect Place of Business

At reasonable times, the state may inspect those areas of the contractor's place of business that are related to the performance of a contract. If the state makes such an inspection, the contractor must provide reasonable assistance.

### **1.20 Solicitation Advertising**

Public notice has been provided in accordance with 2 AAC 12.220.

### 1.21 News Releases

News releases related to this RFP will not be made without prior approval of the project director.

### 1.22 Assignment

Per 2 AAC 12.480, the contractor may not transfer or assign any portion of the contract without prior written approval from the procurement officer.

### 1.23 Disputes

A contract resulting from this RFP is governed by the laws of the State of Alaska. If the contractor has a claim arising in connection with the agreement that it cannot resolve with the state by mutual agreement, it shall pursue the claim, if at all, in accordance with the provisions of AS 36.30.620 – AS 36.30.632. To the extent not otherwise governed by the preceding, the claim shall be brought only in the Superior Court of the State of Alaska and not elsewhere.

### 1.24 Severability

If any provision of the contract or agreement is declared by a court to be illegal or in conflict with any law, the validity of the remaining terms and provisions will not be affected; and, the rights and obligations of the parties will be construed and enforced as if the contract did not contain the particular provision held to be invalid.

### **1.25 Federal Requirements**

This RFP, and resulting contract, is subject to the Required Contract Provisions for Federal-Aid Contracts included in this RFP as Attachment A. The offeror must identify all known federal requirements that apply to the proposal, the evaluation, or the contract.

# SECTION TWO STANDARD PROPOSAL INFORMATION

### 2.01 Authorized Signature

All proposals must be signed by an individual authorized to bind the offeror to the provisions of the RFP. Proposals must remain open and valid for at least 90-days from the date set as the deadline for receipt of proposals.

#### 2.02 Site Inspection

The state may conduct on-site visits to evaluate the offeror's capacity to perform the contract. An offeror must agree, at risk of being found non-responsive and having its proposal rejected, to provide the state reasonable access to relevant portions of its work sites. Individuals designated by the procurement officer at the state's expense will make site inspection.

#### 2.03 Amendments to Proposals

Amendments to or withdrawals of proposals will only be allowed if acceptable requests are received prior to the deadline that is set for receipt of proposals. No amendments or withdrawals will be accepted after the deadline unless they are in response to the state's request in accordance with 2 AAC 12.290.

### 2.04 Supplemental Terms and Conditions

Proposals must comply with Section **1.12 Right of Rejection**. However, if the state fails to identify or detect supplemental terms or conditions that conflict with those contained in this RFP or that diminish the state's rights under any contract resulting from the RFP, the term(s) or condition(s) will be considered null and void. After award of contract:

- a) if conflict arises between a supplemental term or condition included in the proposal and a term or condition of the RFP, the term or condition of the RFP will prevail; and
- b) if the state's rights would be diminished as a result of application of a supplemental term or condition included in the proposal, the supplemental term or condition will be considered null and void.

### 2.05 Clarification of Offers

In order to determine if a proposal is reasonably susceptible for award, communications by the procurement officer or the proposal evaluation committee (PEC) are permitted with an offeror to clarify uncertainties or eliminate confusion concerning the contents of a proposal. Clarifications may not result in a material or substantive change to the proposal. The evaluation by the procurement officer or the PEC may be adjusted as a result of a clarification under this section.

### 2.06 Discussions with Offerors

The state may conduct discussions with offerors in accordance with AS 36.30.240 and 2 AAC 12.290. The purpose of these discussions will be to ensure full understanding of the requirements of the RFP and proposal. Discussions will be limited to specific sections of the RFP or proposal identified by the procurement officer. Discussions will only be held with offerors who have submitted a proposal deemed reasonably susceptible for award by the procurement

officer. Discussions, if held, will be after initial evaluation of proposals by the procurement officer or the PEC. If modifications are made as a result of these discussions they will be put in writing. Following discussions, the procurement officer may set a time for best and final proposal submissions from those offerors with whom discussions were held. Proposals may be reevaluated after receipt of best and final proposal submissions.

If an offeror does not submit a best and final proposal or a notice of withdrawal, the offeror's immediate previous proposal is considered the offeror's best and final proposal.

Offerors with a disability needing accommodation should contact the procurement officer prior to the date set for discussions so that reasonable accommodation can be made. Any oral modification of a proposal must be reduced to writing by the offeror.

### 2.07 Prior Experience

In order for offers to be considered responsive, offerors must meet these minimum prior experience requirements.

- 1) Proposals must clearly demonstrate that the Offeror has more than four (4) years of experience in RWIS that involves troubleshooting, preventive maintenance, repair, and replacement of field electronic equipment that involves electrical systems, supporting hardware equipment subsystems, remote sensing platforms, remote processing units, data loggers, and communication equipment.
- 2) Offeror's proposals shall demonstrate customer satisfaction; provide at least three (3) references to include client contact name, phone number, email address, and the type of work performed for each.

An offeror's failure to meet these minimum prior experience requirements will cause their proposal to be considered non-responsive and their proposal will be rejected.

### 2.08 Evaluation of Proposals

The procurement officer, or an evaluation committee made up of at least three state employees or public officials, will evaluate proposals. The evaluation will be based solely on the evaluation factors set out in Section SEVEN of this RFP.

After receipt of proposals, if there is a need for any substantial clarification or material change in the RFP, an amendment will be issued. The amendment will incorporate the clarification or change, and a new date and time established for new or amended proposals. Evaluations may be adjusted as a result of receiving new or amended proposals.

### 2.09 Vendor Tax ID

A valid Vendor Tax ID must be submitted to the issuing office with the proposal or within five days of the state's request.

### 2.10 F.O.B. Point

All goods purchased through this contract will be F.O.B. final destination. Unless specifically stated otherwise, all prices offered must include the delivery costs to any location within the State of Alaska.

#### 2.11 Alaska Business License and Other Required Licenses

Prior to the award of a contract, an offeror must hold a valid Alaska business license. Offerors should contact the Department of Commerce, Community and Economic Development, Division of Corporations, Business, and

Professional Licensing, P. O. Box 110806, Juneau, Alaska 99811-0806, for information on these licenses. Acceptable evidence that the offeror possesses a valid Alaska business license may consist of any one of the following:

- (a) copy of an Alaska business license;
- (b) certification on the proposal that the offeror has a valid Alaska business license and has included the license number in the proposal;
- (c) a canceled check for the Alaska business license fee;
- (d) a copy of the Alaska business license application with a receipt stamp from the state's occupational licensing office; or
- (e) a sworn and notarized affidavit that the offeror has applied and paid for the Alaska business license.

You are not required to hold a valid Alaska business license at the time proposals are opened if you possess one of the following licenses and are offering services or supplies under that specific line of business:

- fisheries business licenses issued by Alaska Department of Revenue or Alaska Department of Fish and Game,
- liquor licenses issued by Alaska Department of Revenue for alcohol sales only,
- insurance licenses issued by Alaska Department of Commerce, Community and Economic Development, Division of Insurance, or
- Mining licenses issued by Alaska Department of Revenue.

Prior the deadline for receipt of proposals, all offerors must hold any other necessary applicable professional licenses required by Alaska Statute.

### 2.12 Application of Preferences

No preferences will be applied to this Federally Funded Program.

#### 2.13 Formula Used to Convert Cost to Points AS 36.30.250 & 2 AAC 12.260

The distribution of points based on cost will be determined as set out in 2 AAC 12.260(c). The lowest cost proposal will receive the maximum number of points allocated to cost. The point allocations for cost on the other proposals will be determined through the method set out below. In the generic example below, cost is weighted as 40% of the overall total score. The weighting of cost may be different in your particular RFP. See section SEVEN to determine the value, or weight of cost for this RFP.

#### EXAMPLE

#### Formula Used to Convert Cost to Points

### [STEP 1]

List all proposal prices.

Offeror #1 -	Non-Alaskan Offeror	\$40,000
Offeror #2 -	Alaskan Offeror	\$42,750
Offeror #3 -	Alaskan Offeror	\$47,500

### [STEP 2]

Convert cost to points using this formula.

# $\frac{(Price of Lowest Cost Proposal \times Maximum Points for Cost)}{Cost of Proposal Being Evaluated} = POINTS$

The RFP allotted 40% (40 points) of the total of 100 points for cost.

#### Offeror #1 receives 40 points.

The reason they receive that amount is because the lowest cost proposal, in this case \$40,000, receives the maximum number of points allocated to cost, 40 points.

#### Offeror #2 receives 37.4 points.

\$40,000	х	40	=	1,600,000	÷	\$42,750	=	37.4
Lowest		Max				Offeror #2		Points
Cost		Points						

Offeror #3 receives 33.7 points.

\$40,000	х	40	=	1,600,000	÷	\$47,500	=	33.7
Lowest		Max				Offeror #3		Points
Cost		Points						

### 2.14 Contract Negotiation

**2 AAC 12.315 CONTRACT NEGOTIATIONS** After final evaluation, the procurement officer may negotiate with the offeror of the highest-ranked proposal. Negotiations, if held, shall be within the scope of the request for proposals and limited to those items which would not have an effect on the ranking of proposals. If the highest-ranked offeror fails to provide necessary information for negotiations in a timely manner, or fails to negotiate in good faith, the state may terminate negotiations and negotiate with the offeror of the next highest-ranked proposal. If contract negotiations are commenced, they may be held telephonically or in the ADOT&PF Headquarters Building located at 3132 Channel Drive, Juneau, Alaska.

If the contract negotiations take place in Juneau, Alaska, the offeror will be responsible for their travel and per diem expenses.

### 2.15 Failure to Negotiate

If the selected offeror

- fails to provide the information required to begin negotiations in a timely manner; or
- fails to negotiate in good faith; or
- indicates they cannot perform the contract within the budgeted funds available for the project; or
- if the offeror and the state, after a good faith effort, simply cannot come to terms,

the state may terminate negotiations with the offeror initially selected and commence negotiations with the next highest ranked offeror.

### 2.16 Notice of Intent to Award (NIA) — Offeror Notification of Selection

After the completion of contract negotiation the procurement officer will issue a written Notice of Intent to Award (NIA) and send copies to all offerors. The NIA will set out the names of all offerors and identify the proposal selected for award.

### 2.17 Protest

AS 36.30.560 provides that an interested party may protest the content of the RFP.

An interested party is defined in 2 AAC 12.990(a) (7) as "an actual or prospective bidder or offeror whose economic interest might be affected substantially and directly by the issuance of a contract solicitation, the award of a contract, or the failure to award a contract."

If an interested party wishes to protest the content of a solicitation, the protest must be received, in writing, by the procurement officer at least ten days prior to the deadline for receipt of proposals.

AS 36.30.560 also provides that an interested party may protest the award of a contract or the proposed award of a contract.

If an offeror wishes to protest the award of a contract or the proposed award of a contract, the protest must be received, in writing, by the procurement officer within ten days after the date the Notice of Intent to Award the contract is issued.

A protester must have submitted a proposal in order to have sufficient standing to protest the proposed award of a contract. Protests must include the following information:

- a. the name, address, and telephone number of the protester;
- b. the signature of the protester or the protester's representative;
- c. identification of the contracting agency and the solicitation or contract at issue;
- d. a detailed statement of the legal and factual grounds of the protest including copies of relevant documents; and the form of relief requested.

Protests filed by telex or telegram are not acceptable because they do not contain a signature. Fax copies containing a signature are acceptable.

The procurement officer will issue a written response to the protest. The response will set out the procurement officer's decision and contain the basis of the decision within the statutory time limit in AS 36.30.580. A copy of the decision will be furnished to the protester by certified mail, fax or another method that provides evidence of receipt.

All offerors will be notified of any protest. The review of protests, decisions of the procurement officer, appeals, and hearings, will be conducted in accordance with the State Procurement Code (AS 36.30), Article 8 "Legal and Contractual Remedies."

# SECTION THREE STANDARD CONTRACT INFORMATION

### 3.01 Contract Type

This contract is a Time and Materials type contract.

### 3.02 Contract Approval

This RFP does not, by itself, obligate the state. The state's obligation will commence when the contract is approved by the Commissioner of the Department of Transportation and Public Facilities, or the Commissioner's designee. Upon written notice to the contractor, the state may set a different starting date for the contract. The state will not be responsible for any work done by the contractor, even work done in good faith, if it occurs prior to the contract start date set by the state.

### 3.03 Standard Contract Provisions

The contractor will be required to sign and submit the attached State's Standard Agreement Form for Professional Services Contracts (form 02-093/Appendix A). The contractor must comply with the contract provisions set out in this attachment. No alteration of these provisions will be permitted without prior written approval from the Department of Law. Objections to any of the provisions in Appendix A must be set out in the offeror's proposal.

### 3.04 Proposal as a Part of the Contract

Part or all of this RFP and the successful proposal may be incorporated into the contract.

### 3.05 Additional Terms and Conditions

The state reserves the right to add terms and conditions during contract negotiations. These terms and conditions will be within the scope of the RFP and will not affect the proposal evaluations.

### 3.06 Insurance Requirements

The successful offeror must provide proof of workers' compensation insurance prior to contract approval.

The successful offeror must secure the insurance coverage required by the state. The coverage must be satisfactory to the Department of Administration Division of Risk Management. An offeror's failure to provide evidence of such insurance coverage is a material breach and grounds for withdrawal of the award or termination of the contract.

Offerors must review form APPENDIX B1, attached, for details on required coverage. No alteration of these requirements will be permitted without prior written approval from the Department of Administration, Division of Risk Management. Objections to any of the requirements in APPENDIX B1 must be set out in the offeror's proposal.

### 3.07 Contract Funding

The funding of the resultant contract will be provided by the U.S. Federal Highways Administration (FHWA). Federal funds are identified and appropriated for the first term of the contract. Payment and performance obligations for additional terms of the contract are subject to the availability and appropriation of funds.

### 3.08 Proposed Payment Procedures

The state will make payments based on a negotiated payment schedule. Each billing must consist of an invoice and progress report. No payment will be made until the progress report and invoice has been approved by the project director.

### 3.09 Contract Payment

No payment will be made until the contract is approved by the Commissioner of the Department of Transportation and Public Facilities or the Commissioner's designee. Under no conditions will the state be liable for the payment of any interest charges associated with the cost of the contract.

The state is not responsible for and will not pay local, state, or federal taxes. All costs associated with the contract must be stated in U.S. currency.

### 3.10 Informal Debriefing

When the contract is completed, an informal debriefing may be performed at the discretion of the project director. If performed, the scope of the debriefing will be limited to the work performed by the contractor.

### 3.11 Contract Personnel

Any change of the project team members or subcontractors named in the proposal must be approved, in advance and in writing, by the project director. Personnel changes that are not approved by the state may be grounds for the state to terminate the contract.

#### 3.12 Inspection & Modification - Reimbursement for Unacceptable Deliverables

The contractor is responsible for the completion of all work set out in the contract. All work is subject to inspection, evaluation, and approval by the project director. The state may employ all reasonable means to ensure that the work is progressing and being performed in compliance with the contract. The project director may instruct the contractor to make corrections or modifications if needed in order to accomplish the contract's intent. The contractor will not unreasonably withhold such changes.

Substantial failure of the contractor to perform the contract may cause the state to terminate the contract. In this event, the state may require the contractor to reimburse monies paid (based on the identified portion of unacceptable work received) and may seek associated damages.

### 3.13 Termination for Default

If the project director determines that the contractor has refused to perform the work or has failed to perform the work with such diligence as to ensure its timely and accurate completion, the state may, by providing written notice to the contractor, terminate the contractor's right to proceed with part or all of the remaining work.

This clause does not restrict the state's termination rights under the contract provisions of Appendix A, attached.

### 3.14 Contract Changes - Unanticipated Amendments

During the course of this contract, the contractor may be required to perform additional work. That work will be within the general scope of the initial contract. When additional work is required, the project director will provide the contractor a written description of the additional work and request the contractor to submit a firm time schedule for accomplishing the additional work and a firm price for the additional work. Cost and pricing data must be provided to justify the cost of such amendments per AS 36.30.400.

The contractor will not commence additional work until the project director has secured any required state approvals necessary for the amendment and issued a written contract amendment, approved by the Commissioner of the Department of Transportation and Public Facilities or the Commissioner's designee.

### 3.15 Contract Changes - Anticipated Amendments

During the course of this contract, the Contractor may be required to perform additional system work.

If this additional work is required, the Project Manager will provide the Contractor a written description of the additional work and request the Contractor to submit a firm time schedule for accomplishing the additional work and a firm price for the additional work based on hourly rates identified in the Offeror's Cost Proposal. Additional work will be authorized by a Notice to Proceed (NTP) to the contract issued by the Procurement Officer. The Contractor will not commence additional work without an NTP.

### 3.16 Contract Invalidation

If any provision of this contract is found to be invalid, such invalidation will not be construed to invalidate the entire contract.

### 3.17 Nondisclosure and Confidentiality

Contractor agrees that all confidential information shall be used only for purposes of providing the deliverables and performing the services specified herein and shall not disseminate or allow dissemination of confidential information except as provided for in this section. The contractor shall hold as confidential and will use reasonable care (including both facility physical security and electronic security) to prevent unauthorized access by, storage, disclosure, publication, dissemination to and/or use by third parties of, the confidential information. "Reasonable care" means compliance by the contractor with all applicable federal and state law, including the Social Security Act and HIPAA. The contractor must promptly notify the state in writing if it becomes aware of any storage, disclosure, loss, unauthorized access to or use of the confidential information.

Confidential information, as used herein, means any data, files, software, information or materials (whether prepared by the state or its agents or advisors) in oral, electronic, tangible or intangible form and however stored, compiled or memorialized that is classified confidential as defined by State of Alaska classification and categorization guidelines provided by the state to the contractor or a contractor agent or otherwise made available to the contractor or a contractor agent in connection with this contract, or acquired, obtained or learned by the contractor or a contractor agent in the performance of this contract. Examples of confidential information include, but are not limited to: technology infrastructure, architecture, financial data, trade secrets, equipment specifications, user lists, passwords, research data, and technology data (infrastructure, architecture, operating systems, security tools, IP addresses, etc).

If confidential information is requested to be disclosed by the contractor pursuant to a request received by a third party

and such disclosure of the confidential information is required under applicable state or federal law, regulation, governmental or regulatory authority, the contractor may disclose the confidential information after providing the state with written notice of the requested disclosure ( to the extent such notice to the state is permitted by applicable law) and giving the state opportunity to review the request. If the contractor receives no objection from the state, it may release the confidential information within 30 days. Notice of the requested disclosure of confidential information by the contractor must be provided to the state within a reasonable time after the contractor's receipt of notice of the requested disclosure and, upon request of the state, shall seek to obtain legal protection from the release of the confidential information.

The following information shall not be considered confidential information: information previously known to be public information when received from the other party; information freely available to the general public; information which now is or hereafter becomes publicly known by other than a breach of confidentiality hereof; or information which is disclosed by a party pursuant to subpoen or other legal process and which as a result becomes lawfully obtainable by the general public.

### 3.18 Contract Price Adjustments (applies to labor costs)

Contract hourly rate prices will remain firm for the initial 12 months of the contract. The Contractor may request a price adjustment, in writing to the Procurement Officer, 30 days prior to the contract renewal date. If a contractor fails to request a price adjustment 30 days prior to the renewal date, the adjustment will be effective 30 days after the state receives their written request.

Price adjustments for hourly labor rates will be made in accordance with the percentage change in the U.S. Department of Labor Consumer Price Index (CPI-U) for All Urban Consumers, All Items, Anchorage Area.

The price adjustment rate will be determined by comparing the percentage difference between the CPI in effect for the base year six month average July 2016 through December 2016 and each July through December six month average thereafter. The percentage difference between those two CPI issues will be the price adjustment rate. No retroactive contract price adjustments will be allowed.

The initial term of this contract expires March 31, 2021. The State may amend the contract to exercise five (5) oneyear renewal options through March 31, 2026. The prices for all job classifications shall be in effect for the initial term of this contract. The Contractor may request a Percentage Price Increase adjustment, in writing, 30 days prior to the contract expiration date of the initial contract and each year thereafter. The increase may not, under any circumstances, exceed two percent (2%) of any job class hourly rate in effect for the preceding 12 months.

### 3.19 Percentage Price Index (PPI) (applies to equipment cost)

**CONTRACT PRICE ADJUSTMENTS**: The Contractor may request a Percentage Price Increase adjustment, in writing, 30 days prior to the contract renewal date. If a contractor fails to request a Percentage Price Increase adjustment 30 days prior to the renewal date, the adjustment will be effective 30 days after the State receives their written request.

Said price increase may not, under any circumstances, exceed three (3) percent of the price of the contract for the preceding 12 months. No retroactive contract price adjustments will be allowed.

The contractor must provide the procurement officer clear and convincing evidence, satisfactory to the State, that all of the following conditions exist:

- 1. the increase is the result of increased costs at the manufacturer's level and not costs under the contractor's control, and that;
- 2. the increase will not produce a higher profit margin for the contractor than that on the original contract, and that;
- 3. the increase affects only certain items that are clearly identified by the contractor.

Some acceptable forms of the evidence referred to above may take the form of a certified invoice from the manufacturer. The price increase evidence provided by the contractor shall be independently verified and approved by the procurement officer or contract administrator prior to the effective date of the price increase.

# SECTION FOUR BACKGROUND INFORMATION

### 4.01 Background Information

Road Weather Information Systems (RWIS) typically refer to atmospheric, air quality, surface and sub-surface sensors; cameras, remote processing units, data loggers, communications, data collection, data management and accessibility. RWIS tools provide insight to the current and future weather and driving conditions, and are used by Departments of Transportation and other industries to assist in decision-making processes.

The State of Alaska, Department of Transportation and Public Facilities (ADOT&PF) implemented the Statewide RWIS to provide:

- 1) The Maintenance and Operations (M&O) personnel with road weather information for fact-based maintenance decisions, particularly snow and ice control;
- 2) The M&O engineers with vertical temperature profile information for administering the seasonal weight restriction program; and,
- 3) The media and traveling public with pre-trip and en route weather information for informed travel decisions.

ADOT&PF currently operates a statewide RWIS network as described by a series of metadata spreadsheets attached as Appendix C to this RFP. The RWIS external web site <u>http://roadweather.alaska.gov/</u> is the primary interface to make road weather information available to the traveling public and ADOT&PF / M&O staff.

### 4.02 Components of ADOT&PF's RWIS

The ADOT&PF RWIS can be described by defining four components:

 Environmental Sensor Station. The collection component of the RWIS site is known as the Environmental Sensor Station (ESS). The ESS includes sensors, closed circuit cameras, a remote processing unit, electrical support, and communications. The ESS sensors may include atmospheric, air quality, surface/sub-surface (i.e., either in-pavement or non-intrusive), and water height/snow level sensors. Deployed sensors may include air temperature, relative humidity, wind speed and direction, precipitation occurrence, precipitation type, precipitation rate, precipitation intensity, precipitation accumulation, visibility, visibility situation, station atmospheric pressure, snow depth, water level, pavement temperature, pavement grip (friction), pavement contaminant depth, soil sub-surface temperature, and soil temperature data probes (TDP).

Air quality sensors include measurement of Sulphur dioxide (SO<sup>2</sup>), carbon monoxide (CO), and particulate matter (PM<sup>2.5</sup>).

The number and type of sensors deployed at any ESS location varies by site. ADOT&PF ESS sites range from sites that include just pavement sensors or cameras to sites that include multiple sensors, cameras, and a tilt-down pole.

2) The Remote Processing Unit (RPU) or Data Logger (DL). The Remote Processing Unit (RPU) or Data Logger (DL) is the RWIS collection and processing component of the RWIS ESS. It collects data from each of the RWIS sensors and provides the observation when the central server initiates a polling request. It may process camera images, collect sensor data for the observation, or perform algorithm calculations for proprietary equipment.

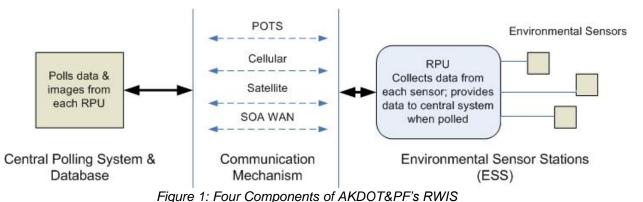
Some cameras function as network cameras. In these situations, the images captured by the camera are delivered directly to an ADOT&PF server directory, rather than being collected through the RPU or DL.

3) Central Polling System and Databases. Vaisala's ScanWeb software performs the data management and polling for all but one RWIS site (the Mitkof Highway RWIS site uses a DL). Selected Contractor will be expected to manage all RWIS sites including the Mitkof Highway.

ESS are polled by one of two servers (one in Juneau, one in Anchorage) at intervals of 10 to 20 minutes, depending on the communication mechanism. The RWIS TDP files are received by the polling server during each poll. The Anchorage server packages up the TDP data in a 24 hour file and sends to the Juneau server three times a day at approximately 4am, noon, and 6pm.

4) Commercial Communications Mechanisms. ADOT&PF relies upon commercial communication services to enable the central polling system and databases to retrieve data from each RPU or DL. The communication mechanism used varies by the location of the RWIS site. A combination of POTS (plain old telephone system) land-line phone systems, wireless radios, cellular, satellite, DSL (digital subscriber line), and State of Alaska (SOA) Wide Area Network (WAN) are used. Appendix B contains the RWIS Network Communication Maps, describing the ESS site locations and communications supporting each site.

The four components are illustrated in Figure 1, below.



#### 4.03 Maintenance and Operations of ADOT&PF's RWIS

To support ongoing RWIS maintenance and operations, ADOT&PF has identified the need to procure the services of a Contractor to perform physical RWIS site maintenance, data management, operations, and ESS equipment supply. Specifically, the selected Contractor will perform the following functions:

#### Function #1: Physical RWIS Site Maintenance and Operations

ADOT&PF has identified the need for a Contractor to perform:

- Regular monitoring (at least once weekly or when requested by ADOT&PF) by performing a remote web-based scan of all RWIS sites to verify if sites are operational, identify site and or sensor outages, and perform preliminary diagnostics of issues and remote troubleshooting.
- Preventive maintenance at each of the existing, and future, ESS sites.
- Random maintenance of ESS equipment or communication connectivity when one or more sensors or an entire site is down.
- Installation of new sensors or RPUs at existing, and/or future ESS sites, either to add sensors or to replace failed sensors.
- Management of device (e.g. ESS equipment) connectivity to power supply and communications mechanisms.

Physical RWIS Site Maintenance and Operations performed through the contract that results from this solicitation will <u>**not**</u> include construction of new ESS sites.

#### Function #2: Supply ESS Equipment:

In addition to the Physical RWIS Site Maintenance and Operations, ADOT&PF has identified the need for a Contractor to:

 Provide an indefinite supply of equipment to be installed at ESS sites, including sensors, cameras, wiring, RPUs, cellular modems, and mounting equipment as-needed to replace non-functioning devices, to upgrade sites, or add new ESS devices. Note: some sensors have been previously supplied by the National Weather Service (NWS) and the University of Alaska Fairbanks Geophysical Institute. ADOT&PF anticipates these agencies, research institutes, or local government could supply sensors in the future.

#### Function #3: Central RWIS Servers Polling and Data Management Software:

ADOT&PF has identified the need for a Contractor to operate and manage the software on ADOT&PF RWIS servers that:

- Poll the RWIS ESS
- Manage and collate data received from the ESS
- Distribute the data and camera images to an ADOT&PF directory and to other clients as needed.

#### 4.04 Goals

#### 4.04.1. Program Related Goals

The goals of the ADOT&PF Weather Program include:

- Measure and record weather and pavement conditions at roadside locations throughout the state.
- Quality control, assemble and archive weather and pavement condition data.
- Disseminate weather and road condition data to the ADOT&PF personnel, the traveling public, and external stakeholders, e.g., National Weather Service.
- Deploy and operate open architecture software that allows for interoperability with other sensors or applications.
- Maintain the ability to competitively procure RWIS equipment and services that is possible with an open architecture.
- Maintain a fully operational system with little down time.

#### 4.04.2. Goals of this Solicitation

In order to achieve the goals identified by the ADOT&PF Road Weather Program, ADOT&PF has identified the following goals for this solicitation:

- To enter into a contract with an experienced RWIS contractor that will provide timely RWIS site maintenance and operations, and provide an indefinite quantity of ESS equipment (i.e. RPUs, data loggers, environmental sensors, mounting devices, cameras, etc.) at either current or new RWIS sites.
- That the physical RWIS site maintenance and operations would include preventive maintenance in order to minimize downtimes;
- The contractor will provide timely random maintenance when equipment or entire ESS sites are not functioning (i.e. troubleshooting, repairing, replacing or upgrading equipment);
- The contractor will supply an indefinite quantity of ESS equipment using an approved equipment price list that results from this procurement process.

 Additional ESS equipment could be added to the price list during the contract period as new equipment and/or ADOT&PF needs are identified.

#### 4.04.3 Service Level Agreement

ADOT&PF expects the contractor to demonstrate a high level of service and quality control standards. The contractor is required to maintain high quality standards, and provide quality assurance, in order to meet or exceed the service levels outlined below. In addition, the contractor shall take timely and appropriate action in response to resources that are not performing to ADOT&PF expectations.

A Service Level Agreement (SLA) is set forth herein for the purpose of measuring contractor performance throughout the life of the Contract, and any renewals.

The contractor shall adhere to the following performance standards (note: ADOT&PF expects that it will use NOAA's Meteorological Assimilation Data Ingest System (MADIS) to monitor sensor performance sometime in 2017).

#### a) Remote Process Unit (RPU) or Data Logger (DL)

The contractor shall be responsible for maintaining power, communications, and data processing equipment and programming on each RPU / DL. An RPU / DL that fails to gather and/or transmit data to the Central Processing Unit would be considered out of tolerance.

#### b) Atmospheric Sensors

The contractor shall be responsible for maintaining visibility, precipitation, air temperature, and relative humidity sensors. An atmospheric sensor is considered to be out of tolerance under any of the following circumstances:

- i. Visibility or precipitation readings are inconsistent with current weather conditions, and/or another similar sensor reading or visual confirmation. For example, a precipitation sensor that reports 'rain' when no rain is present in the area.
- ii. Air temperature readings vary +/- 5 degrees Fahrenheit or more as compared to air temperature sensor readings from another similar sensor reading.
- iii. Relative humidity sensor readings are missing or in obvious error as compared to relative humidity sensor readings from another similar sensor reading.

#### c) Pavement Sensors

The contractor shall be responsible for properly maintaining all pavement sensors. A pavement sensor is considered to be out of tolerance under any of the following circumstances:

- i. It has a reading that is +/- 5 degrees Fahrenheit or more different from the average of other fully functioning pavement sensors at the same site, fully functioning pavement sensors at the next closest site, or portable infrared temperature measurement device.
- ii. No data report is received from the sensor.
- iii. An 'Error' message is received.

#### d) Central Processing Unit (CPU) (Polling Servers)

The contractor shall be responsible for setting up the power and communications connections for any new sites, and resuming maintenance and operations on existing infrastructure in place, ensuring connections to the CPU or Polling Servers. Contractor will ensure normal operations on a daily basis, maintaining normal communications between the polling servers and data processing equipment. The contractor shall perform regular software updates

to ensure the system is compliant with the latest industry technology and changes to ADOT&PF's IT environment. A CPU that fails to receive, store and/or transmit data shall be considered out of tolerance.

#### 4.05 Geographic Area Covered by this Project

The location(s) the work is to be performed, completed, and managed to include:

- The Environmental Sensor Stations (ESS) sites currently deployed and operational are shown in the RWIS Network Communications Maps attached as Appendix B to this RFP.
- Appendix C includes metadata for the ESS sites, including the Site ID and site description.
- ADOT&PF will manage the project from Juneau, Alaska, the Department's Headquarters.
- There may be additional ESS sites constructed during the contract period through regional ADOT&PF construction projects. The selected Contractor would be responsible for maintaining the sensors and equipment at these additional locations. The indefinite quantity of equipment portion of the contract that results from this solicitation may be used to purchase equipment for these new ESS sites.

Due to the expansive geographic work area involved in this project, potential Contractor(s) are advised to carefully consider their logistics and travel requirements when preparing their proposal. The State will not provide workspace or other logistical support for the contractor. The contractor must provide its own workspace and logistical support, including storage areas, work areas, vehicles, equipment, tools, or any other item. All authorized travel, including transportation, lodging, and per diem costs sufficient to pay for the staffing for single or multiple site visits will be reimbursed in accordance with state travel standards and restrictions. Contractor will need a valid passport to access the Klondike Highway RWIS site, as travel through Canada is required to reach the site.

### 4.06 Project Timeline

The initial period of performance for this contract is four (4) years, with the option of five (5) additional one-year renewal options to be exercised at the state's discretion.

### 4.07 Constraints to this Project

- 1. **Timeline for contract execution.** ADOT&PF requires that this solicitation process be completed and the selected Contractor is under contract to begin efforts no later than April 1, 2017.
- 2. **Travel to/from each ESS Site.** The Contractor will be responsible for travel to and from the ESS sites throughout the duration of this project. While the preventive maintenance may be scheduled at times when inclement weather is not occurring, there will be random maintenance that is required during periods of inclement weather. The Contractor shall plan for travel during inclement weather and include costs for any equipment and/or materials needed as part of the cost proposal.
- 3. Lack of Road Connectivity. Not all ESS are on the connected road system, e.g., the Kodiak Island and Southeast Panhandle ESS, and, as a result, the Contractor will be required to use other transportation modes (such as air or ferries) to travel if staff are not local to each community in which the ESS sites are located. Offerors shall consider this information when preparing the cost proposal.
- 4. **Response times Preventative Maintenance:** The Contractor shall submit to ADOT&PF an email written description of a site report within five (5) business days after performing preventive maintenance. Preventative maintenance will be done once a year at each site. In the event that the Contractor is traveling to a site for random maintenance or repairs, preventive site maintenance might be performed in conjunction with the other purpose of the visit (e.g. random maintenance or repair) with approval of the ADOT&PF Project Manager.
- 5. **Response times Random Maintenance:** The Contractor shall visit sites on the contiguous road system within ten-twenty (10-20) business days of being notified by ADOT&PF (or as agreed upon by ADOT&PF project manager). The Contractor shall visit sites not on the contiguous road system within thirty (30) days (or

as agreed upon by ADOT&PF project manager). The Contractor shall provide a site report within two (2) business days of completing random maintenance to ADOT&PF summarizing the issue that created the need for random maintenance, and any improvements or repairs performed.

- 6. **Response times Installing ESS Sensors or Other ESS Equipment:** The Contractor shall provide a site report within five (5) business days of completing sensor or other ESS equipment installation. If this work is completed along with random maintenance, the reports may be combined.
- 7. VPN Access for Remote Access to ESS Site: Remote access to some ESS sites is only possible from within the State of Alaska (SOA) network. Therefore, the Contractor will need to establish Virtual Private Network (VPN) access to the SOA network to enable connectivity to ESS sites. ADOT&PF will initiate the VPN access application for the Contractor. Offerors shall consider this as they plan for automated or manual monitoring and connectivity to ESS sites.
- 8. **RWIS Site Architecture & Desire an Open Architecture:** The ADOT&PF RWIS network includes the polling server, database server, ESS components, and communications to each ESS. One constraint to this project is the fact that the current RWIS network includes ESS proprietary remote processing units (RPUs) and software that links the sensors and the processor. RPUs from Vaisala and Campbell Scientific Data Loggers are deployed. ADOT&PF desires to move toward open architecture as feasible and effective as possible. Offerors are encouraged to address how they can help ADOT&PF achieve an open architecture design, i.e., polling and managing data from multiple vendors.

# SECTION FIVE SCOPE OF WORK

### 5.01 Scope of Work

The scope of work includes all labor, parts, materials, technical expertise and traffic control to maintain and operate new and existing ESS sites (aka RWIS) within ADOT&PF's RWIS network for a period of four (4) years, with the option of five (5) additional one-year renewal options to be exercised at the state's discretion. RWIS Network Communications Maps attached as Appendix B to this RFP show existing ESS sites. The number and exact location of new sites to be added is subject to funding levels and other programmatic considerations. ADOT&PF does not guarantee that it will install any new ESS sites.

In addition to the requirement for a US Passport to access the Klondike Highway RWIS site, the contractor will need to have someone who is a certified tower climber for a few of our sites that do not have a Millerbernd Tiltdown pole.

### 5.02 Tasks

#### 5.02.1. Task 1: Preventive maintenance at each of the existing ESS sites

Under this task, the Contractor would perform preventive maintenance at the existing sites (and any new sites that may be built through Regional ADOT&PF contracts). The Contractor will perform preventative maintenance at least one (1) time each year at each ESS site in order to keep the site running efficiently. The annual preventive maintenance includes tasks such as cleaning and/or replacing equipment, testing and calibrating sensors, updating software/hardware, and checking telephony modems, cables or wiring for operational performance. ADOT&PF staff will visit ESS sites periodically throughout the year, but is limited to checking to see if the site is getting power and/or communication is working properly (checking phone line, lights on CDMA modem, cycle the power). As time permits, M&O personnel will assist in removing brush, debris, and/or snow around the sites to allow contractor access and visual inspection for any apparent equipment damage.

#### 5.02.1.1. Subtask 1.1: Develop Preventive Maintenance Checklist

The Contractor will meet with ADOT&PF and work together to develop a checklist of preventive maintenance activities. The checklist will include detailed actions that can be 'checked off' as the Contractor is on-site, and delivered to ADOT&PF together with any notes describing issues encountered on-site. The checklist shall also include written descriptions of safety reminders and policies/procedures to ensure that all personnel performing on-site maintenance do so in a safe manner. Upon request, ADOT&PF will assemble as many of the user/maintenance manuals for the sensors and equipment currently installed in the field as possible.

The activities to be included in the checklist must (at a minimum) include the following:

- External inspection of all sensor mountings, the equipment cabinet, and connections;
- Inspection (and replacement if needed) of all locks;
- Inspection of all power connections, phone lines, modems, and visible cabling;
- Open and inspect the insides of all cabinets, removing any debris;
- Inspect and tighten all connections;
- Seal any holes or gaps in the equipment;
- Check the operation of and calibrate sensors if needed. As a minimum, the sensors requiring checks and calibration will include: wind sensors (direction and speed), relative humidity sensor, air temperature sensor, precipitation sensor
- Cleaning and aligning cameras;
- Calibrating non-intrusive sensors;

- Perform a safety inspection of the entire sight, including checking for unused and ungrounded wires, correcting all issues found;
- Vendor specific maintenance required for the RPU, data logger, and/or sensors as provided by each vendor (this will include specific checks and actions that may vary at each site depending upon the vendor product installed);
- Installation of software upgrades to the RPUs or data loggers as needed;
- Inspection and maintenance of Solar Panels (clearing off any snow);
- Physical inspection and replacement of sensor parts (e.g. bearings on wind sensors).

#### 5.02.1.2. Subtask 1.2: Perform Preventive Maintenance on each ESS

Using the checklist(s) developed in Subtask 1.1, the Contractor shall perform preventive maintenance on each ESS site at least one (1) time per year, and performed in groups so as to minimize travel costs. However, if random maintenance is required at a site and the Contractor visits the site to perform the random maintenance, the Selected Contractor may also perform the preventive maintenance while on-site. The Contractor shall perform maintenance visits to each ESS site in preparation for the winter season, prioritizing the most remote ESS sites first.

All preventive maintenance shall be performed by staff that are trained to perform the requested duties, and who have been trained in all required safety procedures. Previous experience and skill set will be demonstrated in the experience and qualifications section of the proposal. This shall include experience on specific makes and models of sensor(s) and camera(s).

The Contractor would <u>not</u> be responsible for maintaining the <u>air quality sensors and related modems</u> installed at the five ESS located in Fairbanks.

The Contractor shall submit to ADOT&PF an email written description of a site report within five (5) business days after performing preventive maintenance. The site report shall include:

- A description of any communication or power failures to allow ADOT&PF to contact the appropriate utility company (ADOT&PF should be notified immediately if communications or power failures are noted);
- A description of any property damage observed at the site including photos of reported damage;
- A description of any recommendations for improvements or equipment updates at the site;
- The status of equipment at the site;
- A summary of any repairs or improvements made while at the site; and
- Report of vegetation growth that may interfere with sensors getting a proper reading or cameras getting an open view.

#### 5.02.1.3. Task 1 Deliverables:

- Preventative Maintenance Checklist(s) completed before routine maintenance begins.
- Preventive maintenance performed at least once annually at each ESS site.
- Site reports prepared and submitted to ADOT&PF within five (5) business days after each preventive maintenance visit.

#### 5.02.2. Task 2: Random maintenance of ESS equipment

Under this task, the Contractor would perform maintenance at any ESS location when one or more sensors or an entire site is down. ESS site "down time" is defined as any time that the site is non-operational, fails to produce the required observations, or produces inaccurate data when the site is polled.

#### 5.02.2.1. Subtask 2.1: Develop Random Maintenance Service Plan

In Subtask 2.1, the Contractor shall prepare a random maintenance service plan that outlines the procedures to be executed (remote and onsite) to diagnose, troubleshoot and respond to issues with the ESS site. This includes replacement of any equipment (RPUs, data loggers, environmental sensors, or mounting devices). The equipment to use as replacements will be supplied through this contract, and ADOT&PF and the Contractor will make decisions together about the type and number of ESS devices to procure in advance and have available to be used for quick deployment vs. the equipment that is only procured once a need is identified.

The Contractor and ADOT&PF will work together to finalize the random maintenance service plan to be performed when issues are detected at ESS sites. The plan will include detailed actions that can be 'checked off' as the Contractor initially diagnoses the problem remotely, then (if needed) as the Contractor diagnoses and resolves the problem on-site. Similar to the preventive maintenance checklist, the maintenance service plan shall also include written descriptions of safety reminders and policies/procedures to ensure that all personnel performing on-site maintenance do so in a safe manner.

#### 5.02.2.2. Subtask 2.2: Perform Random Maintenance as Needed

In Subtask 2.2, the Contractor shall perform random maintenance to respond to issues and/or outages at any of the ESS sites, in accordance with the Random Maintenance Plan developed in Subtask 2.1. The Contractor will be responsible for diagnosing and resolving issues at the ESS site in the most cost effective manner possible (e.g. if remote diagnosis and correction is possible without going to the site, this is the preferred approach).

The Contractor shall be responsible for troubleshooting the issues remotely first by dialing in to the ESS site through the modem to establish an initial understanding of the problem and attempting to restart the RPU / data logger remotely. This may require VPN access inside the State of Alaska firewall.

Contractor shall be responsible for the connection between the RPU / data logger and the polling servers. If this communication link is down, it is the responsibility of the Contractor to diagnose the potential cause of the outage and reset or replace the modems if they are the cause of the outage. However, the Contractor would not be responsible for phone lines, cellular, or satellite outages.

Upon notification of ESS equipment or RPU failures, the Contractor shall visit the site of the failure within 10 - 15 business days if on the contiguous road system and within 30 calendar days for those locations off the contiguous road system (or as agreed to by the ADOT&PF Project Manager). The Contractor shall group site maintenance as much as possible in order to keep costs down.

Within two (2) business days of completing random maintenance, the Contractor shall send a site report to ADOT&PF summarizing the issue that created the need for random maintenance, and any improvements or repairs performed, as well as any preventative maintenance performed, if applicable. The Contractor shall contact ADOT&PF immediately of any power or communication outages.

Power at most sites is provided by commercial or third party power source (e.g., General Services Administration GSA for the Alcan Border RWIS, or shared power with a local luminaire pole power supply). ADOT&PF also has six power module RWIS sites that are maintained and operated through a separate contract. These sites are remote and off the grid. They use several types of power sources such as Fuel Cell, Thermoelectric Generator (TEG), propane generator, and wind / solar only sites. Contractor coordination between this contract and the power modules contract is necessary.

#### 5.02.2.3. Subtask 2.3: Training

Contactor will be required to provide training to Maintenance and Operations staff in various parts of the state. ADOT&PF have personnel willing to help with onsite troubleshooting of the ESS equipment, when remote monitoring and troubleshooting does not work. This could range from checking the phone or the power, or other basic visual inspections. Training will be conducted on a time and materials basis and a cost should be provided in the cost proposal for the hourly rate.

#### 5.02.2.4. Task 2 Deliverables:

- Delivery and ADOT&PF approval of the Random Maintenance Service Plan.
- Random maintenance performed as needed and requested by ADOT&PF.
  - $\circ$  Within 10 15 business days on the contiguous road system.
  - Within 30 calendar days not on the contiguous road system.
- Site reports prepared and submitted via email to ADOT&PF within two (2) business days after each random maintenance visit, including any site photos.
- Immediate contact to ADOT&PF regarding power or communication outages.
- Training of Maintenance and Operations Personnel as needed

#### 5.02.3. Task 3: Installing ESS Sensors or other ESS equipment

Under this task, the Contractor shall install ESS Sensors or other ESS equipment at locations where equipment is needed. The sensors shall be mounted per manufacturer's recommendations at the standard meteorological height. All equipment will be installed following established electrical codes and best practices. The following scenarios for equipment install include:

Scenario #1:	Replacement of existing sensors that are no longer operating with sensors procured through this RFP.
Scenario #2:	Upgrade of existing ESS equipment procured through this procurement process.
Scenario #3:	Provide and install new ESS sensors to existing ESS sites procured through this procurement process.
Scenario #4:	Install new ESS sensors and/or other equipment provided from other sources such as NWS.
Scenario #5	Commission new ESS equipment (e.g. establish the electrical connections, communications equipment and connections, and software necessary for full operation of the environmental station, also establish polling of the ESS) where the construction phase has been done at the ADOT&PF Region level.

#### For a list of current ESS equipment by site, see the metadata spreadsheet in Appendix C.

Upon notification from ADOT&PF that an ESS sensor or other ESS equipment will be installed, the Contractor shall perform the installation within sixty (60) calendar days if on the contiguous road system and within ninety (90) days for those locations off the contiguous road system (or as agreed upon by ADOT&PF project manager).

#### 5.02.3.1. Task 3 Deliverables:

- ESS sensors installed, as needed.
  - Within sixty (60) calendar days for those ESS on contiguous road system.
  - Within ninety (90) calendar days for those ESS not on the contiguous road system.
- Test new sensors to ensure they are working properly and are commissioned. The contractor shall notify ADOT&PF when new sensors are commissioned.
- The timeframe for replacing and installing pavement sensors is seasonal (spring/summer only) and does not follow the timeframe mentioned above.

#### 5.02.4. Task 4: Provision of indefinite quantities of Equipment and Software.

Under this task, the Contractor shall supply hardware or software to be installed at ESS sites. This may include, but is not limited to: sensors, poles, cameras, data loggers, servers, RPU/DL software, modems, etc.

One result of this RFP will be an agreed upon price list for equipment to be included in the contract executed between ADOT&PF and the Contractor. Offerors shall identify and describe the models of each ESS sensor or

camera proposed for delivery, together with a price (as detailed in the Cost Proposal Section). Each Offeror is encouraged to include at least two different manufacturers' products, if possible, for each of the equipment required.

ADOT&PF anticipates entering into a contract with the Selected Contractor and finalizing the price list for equipment to be provided in 5.03 during the negotiation phase.

In addition to the price list for equipment to be provided on an indefinite quantity throughout the project, ADOT&PF reserves the right to request the Contractor to provide additional equipment not included in the price list, and to negotiate the price. This is to allow ADOT&PF to benefit from new equipment that becomes available and/or changes in the ADOT&PF needs for equipment.

This contract will establish a price list for equipment prices only. Construction of new sites will be completed under a different contract.

### 5.03 Description of Equipment to be Included

Task 4 describes the process that the Contractor will provide an indefinite quantity of ESS equipment based on a price list proposed in this proposal. This section describes the equipment needs of ADOT&PF to assist Offerors in preparing responses to this solicitation.

#### 5.03.1. Types of Equipment to be Included

Offerors shall include equipment to measure:

- Air temperature
- Relative humidity
- Wind speed
- Wind direction
- Precipitation occurrence
- Precipitation type estimated forward scatter technology
- Precipitation rate estimated forward scatter technology
- Precipitation intensity estimated forward scatter technology;
- Precipitation accumulation: measured tipping buckets (both heated and non-heated)
- Precipitation accumulation: estimated forward scatter technology
- Visibility
- Visibility situation (including non-precipitation obstructions to visibility)
- Station atmospheric pressure
- Snow depth
- Water level
- Solar radiation
- Pavement temperature
- Pavement grip (friction)
- Pavement contaminant depth
- Soil / sub-surface pavement temperature (point or probe)
- Visual observations (e.g. cameras)

Offerors shall include associated equipment:

- Infrared Illuminators
- Remote processing Units
- Data Loggers

- Support structures (poles/towers to hold equipment). ADOT&PF prefers the Millerbernd Tilt-down Surveillance camera pole (specifications available upon request)
- Temperature acquisition cable
- Equipment cabinets
- Pyranometer (measuring solar radiation)

Offerors shall propose the specific technologies (make and model) they propose for each type of equipment. ADOT&PF reserves the right to negotiate with the Selected Vendor to add additional equipment to the list of equipment available for purchase.

ADOT&PF will not accept 'all-in-one' weather stations. However DOT understands that the combination of two or more measurements to be performed by one sensor is logical and can be an efficient way to accomplish the needs while minimizing the sensor costs. Therefore, Offerors are allowed to propose sensors that perform multiple functions.

All sensors must be compatible with existing RPUs or data loggers operated by ADOT&PF. They include:

- 1) Campbell Scientific CR6
- 2) Vaisala Linux and RWS200

Note\* in the past, ADOT&PF has received donated equipment not directly furnished by a vendor. This is always a possibility. If / when this occurs, the selected vendor would work with ADOT&PF to install the donated equipment if they have knowledge about the equipment and it is within their skillset.

#### 5.03.2. Desired Measurement Specifications for Environmental Sensors

Appendix C to this RFP contains a metadata spreadsheet describing the current ESS sensors in use by ADOT&PF. ADOT&PF wishes to procure sensors with equal or improved sensing range, resolution, survivability, and accuracy. Offerors are asked to propose a minimum of two models of each type of sensor.

#### 5.03.3. Desired Data Classification for Rain Sensors

In addition to describing the desire for precipitation rate specifications to meet or exceed the parameters of sensors currently in use, ADOT&PF desires that the precipitation rate sensors perform the following classification.

Rain Intensity	Rate-of-fall in 6 minutes	Rate-of-fall in one hour
Light	<0.01 inch	≤ 0.10 inch
Moderate	0.01 to 0.03 inches	0.11 to 0.30 inches
Heavy	>0.03 inches	> 0.30 inch

#### 5.03.4. Survivability of Sensors

ADOT&PF wishes to procure sensors and infrastructure with equal or improved survivability. ADOT&PF desires the Millerbernd tilt-down surveillance pole described in paragraph 5.03.11. If Millerbernd tilt-down poles are not available, a substitute with the same functionality, survivability, and accessibility would be acceptable if it meets the requirements of paragraph 5.03.12a.

#### 5.03.5. Camera Specifications

ADOT&PF currently operates the following cameras within the RWIS network:

Cohu fixed, color

- Cohu fixed-zoom, color, low-light
- Cohu dome pan-tilt-zoom (PTZ), color, low-light
- Mobotix network IP addressable
- Axis network dome camera
- WTI Sidewinder

ADOT&PF desired cameras that are equal to or better than the cameras listed above. Offerors are requested to provide (as a minimum) the following types of network cameras to be included in the pricing list:

Camera Type #1:Dome Pan-tilt-zoom (PTZ) camera, color, with low light;Camera Type #2:Fixed zoom, color, and low-light;Camera Type #3:Camera to produce quality night-time images (e.g. thermal or infrared).

#### 5.03.6. Infrared Illuminators

ADOT&PF uses infrared illuminators in conjunction with infrared cameras to provide the illumination needed to enable the infrared camera to capture high quality images when there is little or no ambient lighting. Infrared illuminators must function in a manner that is coupled to the cameras. This includes the focal point matching the distance to the road that the camera is imaging and functioning at all times when cameras capture images during dark conditions.

#### 5.03.7. Wind

ADOT&PF currently has ultrasonic, prop-vane, and prop-cup anemometers. The specific anemometer deployed will be location-specific because of wind and icing conditions.

#### 5.03.8. Precipitation type

ADOT&PF has a need for precipitation type determination in order to allow RWIS users to understand whether precipitation is falling in the form of rain, snow, freezing rain, or hail. Precipitation type determination is performed either by indirect correlation (e.g. relating near surface temperatures to precipitation) or direct measurement (e.g. using such techniques as latent heat, conductivity, opacity, fall speed, or impact noise).

#### 5.03.9. Snow depth, water height

ADOT&PF has a need for snow depth/water height to be measured using non-intrusive technologies. ADOT&PF requires snow depth measurement ranges accurate to at least 1 cm with a resolution of 3 mm.

#### 5.03.10. General ESS Polling

Each sensor must have the ability to detect and provide the associated information to the ESS. Each microprocessor-controlled ESS shall report data on request to the polling server(s) and ultimately to the network server at the appropriate ADOT&PF building. The environmental information from each ESS shall comply with NTCIP standards. See Section 5.03.14 NTCIP Compliance Requirements.

#### 5.03.11. Remote Processing Units and Data Loggers

Existing ESS sites have one of the following installed:

- Campbell Scientific CR6 (polled using LoggerNet)
- Vaisala Linux
- Vaisala RWS200

ADOT&PF desires that the Selected Vendor provide the option of an RPU or a data logger that is equal to or better than the current systems. The Selected Vendor may be required to set up a demonstration to show that the hardware and software they propose to install will ultimately communicate with the existing network server.

Any cabinet utilized with the RWIS site shall be a National Electrical Manufacturers Association 4 (NEMA 4) certified cabinet.

Any RPU or data logger delivered through this contract shall be compliant with the current version of NTCIP 1204.

RPU or data logger shall:

- Ensure circuitry, the voltage inputs, and all communications ports are designed and tested to provide transient and surge protection.
- Incorporate "watchdog" circuitry that monitors its own operation and resets itself if the software enters an indeterminate state.
- Provide the capability to reset by a "user administrator" from the central processing unit.
- Provide stable operation over a temperature range of -40 degrees C to 70 degrees C and 0% to 90% relative humidity non-condensing.

Fit all NEMA certified cabinets with locks using a 2001 Master key padlock.

#### 5.03.12. Support Structures

#### 5.03.12.a Tilt-Down Pole

ADOT&PF has a standard design drawing for a Millerbernd Manufacturing tilt-down camera surveillance pole and a standard design drawing for the pole base. If Millerbernd tilt-down spec surveillance camera poles are not available, a substitute with the same functionality, survivability, and accessibility options would be acceptable, if:

- The pole requires only one person to perform the act of tilting down the pole to enable access to the camera
- The pole tilts to a level where the on-site individual can have full access to the camera
- The pole is easily tilted up after performing action to the camera, and locks securely (again requiring only one person to raise and lock the pole)
- The pole and base require roughly the same footprint base size as the Millerbernd camera pole and has a standard design base.
- Contractor must have a certified tower climber on staff for our RWIS sites that do not use a Millerbernd Tiltdown pole, or alternately, have access to the use of a bucket truck.

#### 5.03.12.b Equipment Enclosure

The equipment enclosure must be NEMA 4X lockable aluminum or stainless steel enclosures that are resistant to damage by weather and vandals. The enclosures must have standoffs for mounting an included aluminum or stainless steel back panel for equipment mounting. The enclosures must be sized to house equipment and provide working clearances for maintenance\_with these minimum specifications:

Parameter	Specification
External Dimensions (HxWxD)	24x24x8 inches
Back Panel Thickness	0.125 inch
Hardware	Stainless Steel
Mounting	Pole mountable (as shown in plans)

#### 5.03.12.c Sensor Mounting Arm

The sensor mounting arms must be approved for use with the sensor, and installed on the tower in the manner recommended by the tower manufacture. The arms must be made of weather resistant aluminum. Each sensor type may have different mounting requirements and arms must be selected to accommodate the needs of each sensor according to the sensor manufacture's recommendations. You are responsible to provide all mounting components needed to install each sensor or camera.

#### 5.03.13. Materials

The Selected Vendor shall furnish industry standard materials.

- Materials shall be produced by a company that has been engaged in the manufacture of such types of materials for a period of at least five (5) years. All equipment must be factory manufactured and come with a minimum 1 year manufacturer's warranty from commissioning.
- The Contractor is responsible for protecting materials before and during shipment of materials until such time that materials have reached the appropriate storage facility. Storage and maintenance of the material is officially transferred to the Department upon signed delivery by ADOT&PF personnel. In the event of damage, the Contractor will make all repairs and/or replacement necessary to restore the material to its original state within the timeframe agreed upon with ADOT&PF and at no additional cost.
- The Contractor shall supply the most recent version of all equipment hardware and software. A prior and/or old
  version of equipment is not acceptable, unless specifically identified as an exception to this requirement and/or
  approved by ADOT&PF. In cases where a newer version of the equipment is available at the time of
  installation, the Contractor must request a clarification from ADOT&PF on which equipment is to be used.
- The Contractor shall deliver all material to the appropriate ADOT&PF office or to a job site (if requested) in
  original unopened containers, where applicable, with all labels intact and legible at time of use. Store all
  materials in accordance with manufacturers' recommendations.
- The Contractor shall provide and install all software patches, updates and upgrades through final acceptance. The Contractor shall notify ADOT&PF of such installations before they occur and report whether or not the install will compromise functionality of the data network.
- The Contractor shall furnish and install all patch cables to cross connect all available equipment.
- Transient voltages, surges and sags shall not affect the equipment operations.
- The equipment shall be modular in design to allow major portions to be readily replaced in the field.
- The equipment design and construction shall utilize the latest available techniques with a minimum number of different parts, subassemblies, circuits, cards, and modules to maximize standardization and commonality.
- The equipment shall be designed for ease of maintenance. All equipment parts shall be readily accessible for inspection and maintenance. Test points shall be provided for checking essential voltages and waveforms.
- The Contractor shall provide equipment specification sheets for all new equipment.

#### 5.03.14. NTCIP Compliance Requirements

All components and equipment supplied by the Selected Vendor shall be in compliance with the most current National Transportation Communications for Intelligent Transportation Systems Protocol (NTCIP) ESS standards (http://www.ntcip.org/) and, must remain compliant throughout the contract period.

- The ESS shall conform to NTCIP 1201 NTCIP Global Object (GO) Definitions
- The ESS shall conform to NTCIP 1204 NTCIP Environmental Sensor Station Interface Standard

The Selected Vendor will provide ADOT&PF with the information necessary to ensure compliance and compatibility with the existing systems.

#### 5.03.15. Factory Acceptance Testing

ADOT&PF requires that all equipment supplied by the Selected Vendor provide manufacturer's calibration and certification specifications.

# 5.04 Warranty

ADOT&PF requires that all equipment supplied by the Selected Vendor shall include the manufacturer's warranty, and that ADOT&PF be identified as the owner of the equipment in regards to the warranty. As a minimum, a one-year (1) warranty is required of all equipment from the time of commissioning.

# 5.05 Monthly Maintenance and Operations

### TYPES OF MAINTENANCE

1. Operation of Network

This includes all activities required to keep the active RWIS network (all software and hardware related to; sensors, facilities, utilities, data transmission, central processing, administration) in a fully operational status.

2. Maintenance of Data Integration Network

This includes maintenance of all software and hardware related to the central server, encompassing polling and data processing activities for the RWIS system. This includes replacement of any equipment under warranty. This also includes necessary software and hardware updates required to maintain system-wide compliance with the most recent version of applicable NTCIP protocols. Rates per site shall be billed at the beginning of the quarter for only those sites operational during the previous three months.

Monthly invoices for network and data integration costs shall be billed only for those sites that were operational during the previous three months. ADOT&PF will not pay monthly operating costs for sites that were not operating.

Down time due to non-warranty causes, such as road maintenance, vandalism, natural disasters, theft, or accidents must be reported immediately to ADOT&PF. ADOT&PF may dispatch in-house maintenance to research site damage. If contract services are necessary, the Contractor shall provide a written estimate of the cost of repairs to ADOT&PF. ADOT&PF. ADOT&PF may request more information and/or initiate its own investigation to determine the cause of the damage or equipment loss. In the event of the discovery of damage due to theft, vandalism or accident, ADOT&PF will notify law enforcement.

# SECTION SIX PROPOSAL FORMAT AND CONTENT

# 6.01 Proposal Format and Content

The state discourages overly lengthy and costly proposals, however, in order for the state to evaluate proposals fairly and completely, offerors must follow the format set out in this RFP and provide all information requested.

## 6.02 Introduction

Proposals must include the complete name and address of offeror's firm and the name, mailing address, and telephone number of the person the state should contact regarding the proposal.

Proposals must confirm that the offeror will comply with all provisions in this RFP; and, if applicable, provide notice that the firm qualifies as an Alaskan bidder. Proposals must be signed by a company officer empowered to bind the company. An offeror's failure to include these items in the proposals may cause the proposal to be determined to be non-responsive and the proposal may be rejected.

# 6.03 Understanding of the Project

Offerors must provide comprehensive narrative statements that illustrate their understanding of the scope of work and the project schedule. Do not merely duplicate the Scope of Work provided within this RFP. Identify any pertinent issues or problems with the Scope of Work, as stated, together with proposed solutions. Also consider if the scope of work is sufficient enough to provide the requested services. Are there changes to the scope that might be useful in accomplishing the goals of this solicitation? Describe your understanding of the technologies and field work required to complete the project.

# 6.04 Methodology Used for the Project

Offerors must provide comprehensive narrative statements that set out the methodology they intend to employ and illustrate how the methodology will serve to accomplish the work and meet the state's project schedule. Offers shall describe their approach to respond to random maintenance requests such that maintenance is performed within the time limits specified in the Scope of Work while also minimizing travel costs. Offerors shall describe their approach for delivering and storing the ESS sensors and ESS equipment. Offerors shall also include a narrative on potential risks associated with the scope of work and how they might be addressed.

# 6.05 Project Constraints

Offerors shall respond in detail to each 'Constraint' identified in section 4.07 of this RFP, demonstrating that they understand each constraint and describing if the constraint will be a barrier to accomplishing the project tasks.

# 6.06 Experience and Qualifications

Offerors shall submit documents in their proposals that demonstrate an established background in maintenance of field devices, including the connectivity of field devices to power supplies and communication mechanisms (POTS, cellular modems, satellite, DSL). Offerors must provide an organizational chart specific to the personnel assigned to accomplish the work in this RFP; illustrate the lines of authority; designate the individual(s) responsible and accountable for the completion of each component and deliverable of the RFP.

Proposals must include the names and locations of the individual / individuals assigned to perform the following functions, plus any additional professional/technical job class not listed below that is deemed essential to perform the services on this contract:

- 1. Project Manager
- 2. Field Technician 1 (Repair and maintenance)
- 3. Field Technician 2 (Support personnel)
- 4. Administrative Support

All site work shall be performed by a general Contractor licensed in the State of Alaska for the type of work being performed. All field work that can be classified as construction (such as replacing current or installing new pavement sensors) shall conform to the requirements of the Alaska Department of Labor, regarding rates of pay, benefits, and other requirements. <u>http://labor.state.ak.us/lss/pamp600.htm</u>

The evidence submitted with your proposal in support of prior experience is a required part of the proposal which will be forwarded to the Procurement Evaluation Committee members for their consideration during the evaluation process. Offerors will be evaluated on their level of involvement with the projects offered as examples. Therefore, a complete description of the offeror's role/level of involvement in the example projects must be included in the proposal.

Offerors must provide a narrative description of the organization of the project team and a personnel roster that identifies each person who will actually work on the contract and provide the following information about each person listed:

- title,
- resume,
- location(s) where work will be performed (if not all RWIS sites statewide)

Offerors must provide reference names and phone numbers for similar projects the offeror's firm has completed.

## 6.07 Summary of Prior Equipment Deployment and Use

Offeror's shall submit descriptions of the ESS devices and other equipment proposed to be delivered as part of this project (see Section 5.03 Description of Equipment to be Included), together with information about other public agencies currently operating the sensors and technologies. It is desirable that the vendors that produced the equipment have previously sold similar technologies to public agencies for the purpose of recording weather conditions.

# 6.08 Quality Control

Offerors shall provide a brief overview that describes the steps they will take to ensure the activities performed on field equipment will lead to successful ADOT&PF acceptance testing and operations.

# 6.09 Cost Proposal

Cost proposals must include an itemized list of all direct and indirect costs associated with the performance of the contract, to include a total number of hours at various hourly rates.

Cost proposals shall not include travel expenses. The State will reimburse the Contractor's preapproved actual travel expenses per the following criteria in compliance to the State of Alaska Travel Policies:

- Airfare is limited to coach fare.
- Lodging

- Reimbursement for meals will not exceed \$60.00 per day.
- Rental vehicles are limited to midsize, make and model as opposed to premium options.
- Receipts must be provided with the invoice for all travel expenses.
- Vehicle mileage reimbursement as of January 1, 2017 = \$0.535/mile. Rates based upon State of Alaska, DOA, Finance website: http://doa.alaska.gov/dof/travel/resource/pov\_rate\_table.pdf
- All travel costs must be shown as separate line items on the invoice.

State of Alaska Travel Policies: http://fin.admin.state.ak.us/dof/ak\_admin\_manual/resource/60t.pdf

All travel must be pre-approved by the Project Director.

# 6.10 Evaluation Criteria

All proposals will be reviewed to determine if they are responsive. Proposals determined to be responsive will be evaluated using the criterion that is set out in Section SEVEN.

An evaluation may not be based on discrimination due to the race, religion, color, national origin, sex, age, marital status, pregnancy, parenthood, disability, or political affiliation of the offeror.

# SECTION SEVEN EVALUATION CRITERIA AND CONTRACTOR SELECTION

All proposals will be reviewed for responsiveness and then evaluated using the criteria set out herein.

Person or Firm Name \_\_\_\_\_

Name of Proposal Evaluation (PEC) Member \_\_\_\_\_

Date of Review \_\_\_\_\_

RFP Number \_\_\_\_\_

**EVALUATION CRITERIA AND SCORING:** 

THE TOTAL NUMBER OF POINTS USED TO SCORE THIS PROPOSAL IS 1000

## 7.01 Understanding of the Project (15 Percent)

Maximum Point Value for this Section - 150 Points 1000 Points x 15 Percent = 150 Points

Proposals will be evaluated against the questions set out below:

[a] How well has the offeror demonstrated a thorough understanding of the purpose and scope of the project?

EVALUATOR'S NOTES \_\_\_\_\_

[b] How well has the offeror identified pertinent issues and potential problems related to the project? Does the offeror propose strategies to mitigate those issues/problems?

EVALUATOR'S NOTES \_\_\_\_\_

[c] To what degree has the offeror demonstrated an understanding of the deliverables the state expects it to provide? How well has the Offeror described their understanding of the project and their approach to meet the constraints?

EVALUATOR'S NOTES \_\_\_\_\_

[d] Has the offeror demonstrated an understanding of the state's time schedule and can meet it? Has the offeror demonstrated that they have the capabilities to reach each of the ESS sites within a reasonable response time?

EVALUATOR'S NOTES \_\_\_\_\_

[e] Has the offeror demonstrated that they understand the complexities of having different types of communication, polling locations and servers, data distribution options, cameras, and sensors that can operate in harsh weather conditions?

operate in harsh weather conditions?
EVALUATOR'S NOTES
[f] Has the offeror demonstrated an understanding of the technologies and field work described for the project?
EVALUATOR'S NOTES
EVALUATOR'S POINT TOTAL FOR 7.01
<b>7.02 Methodology Used for the Project (10 Percent)</b> Maximum Point Value for this Section - 100 Points 1000 Points x 10 Percent = 100 Points
Proposals will be evaluated against the questions set out below:
[a] Has the offeror clearly defined an approach that will accomplish the work and meet the state's maintenance and equipment needs?
EVALUATOR'S NOTES
[b] Has the offeror defined an approach to respond to Random Maintenance requests such that maintenance is performed within the response times listed in the Scope of Work while also minimizing travel costs?
EVALUATOR'S NOTES
[c] How well does the approach for supplying ESS sensors and equipment match with the needs of ADOT&PF
EVALUATOR'S NOTES
[d] How well has the Offeror described potential risks and described how they will address the risks?
EVALUATOR'S NOTES
EVALUATOR'S POINT TOTAL FOR 7.02

## 7.03 Experience and Qualifications (15 Percent)

Maximum Point Value for this Section - 150 Points 1000 Points x 15 Percent = 150 Points

Proposals will be evaluated against the questions set out below:

[a] Do the individuals assigned to the project have the necessary level of experience and skills, with at least four years' experience, to successfully manage this project?

### EVALUATOR'S NOTES \_\_\_\_\_

[b] How well does the company's experience with maintaining field devices match the needs of this project?

EVALUATOR'S NOTES \_\_\_\_\_

[c] Has the offeror provided an organizational chart of personnel assigned to accomplish the tasks and included resumes?

#### EVALUATOR'S NOTES \_\_\_\_\_

[d] Have the individuals who will be installing and maintaining the equipment demonstrated adequate expertise and experience installing and maintaining equipment similar to the equipment on the price list, and does this experience include challenging weather conditions?

EVALUATOR'S NOTES \_\_\_\_\_

#### **EVALUATOR'S POINT TOTAL FOR 7.03**

## 7.04 Prior Equipment Deployment and Use (15 Percent)

Maximum Point Value for this Section - 150 Points 1000 Points x 15 Percent = 150 Points

Proposals will be evaluated against the questions set out below:

[a] How well does the equipment proposed on the Price List integrate with ADOT&PF existing RPUs/DLs? Did the offeror adequately describe any potential risks with existing systems and proposed equipment?

EVALUATOR'S NOTES \_\_\_\_\_

[b] Has the offeror provided examples of their experiencing working with other public agencies using the ESS equipment in ways that are similar to ADOT&PF?

EVALUATOR'S NOTES \_\_\_\_\_

[C]	Has the offeror provided references to	validate examples	of other publ	ic agencies	successfully	using	the ESS
	equipment installed and maintained by	/ offeror?					

#### EVALUATOR'S NOTES \_\_\_\_\_

[d] Do the specifications of ESS equipment proposed meet or exceed the specifications of current ADOT&PF ESS equipment?

EVALUATOR'S NOTES \_\_\_\_\_

#### **EVALUATOR'S POINT TOTAL FOR 7.04**

## 7.05 Quality Control (5 Percent)

Maximum Point Value for this Section - 50 Points 1000 Points x 5 Percent = 50 Points

Proposals will be evaluated against the questions set out below:

[a] Does the Quality Control overview describe an approach to acceptance testing and operations that can be accomplished with the budget for the project?

EVALUATOR'S NOTES \_\_\_\_\_

#### **EVALUATOR'S POINT TOTAL FOR 7.05**

### 7.06 Contract Cost (40 Percent)

Maximum Point Value for this Section - 400 Points 1000 Points x 40 Percent = 400 Points

Overall, a minimum of 40% of the total evaluation points will be assigned to cost.

#### **Converting Cost to Points**

The lowest cost proposal will receive the maximum number of points allocated to cost. The point allocations for cost on the other proposals will be determined through the method set out in Section 2.16.

# SECTION EIGHT ATTACHMENTS

## 8.01 Attachments

#### Attachments

- 1. Standard Contract Form
- 2. Notice of Intent to Award

#### Appendices

- 1. Appendix A Federal Aid Provisions
- 2. Appendix B RWIS Network Communications Maps
- 3. Appendix C RWIS Metadata Spreadsheet

# CHECKLIST

IMPORTANT NOTE TO OFFERORS: This checklist is provided to assist offerors and the Procurement Officer in addressing and/or locating specific requirements identified in the RFP for the offeror's proposal. <u>Offerors must</u> <u>complete and return this form</u>. There may be additional requirements beyond those listed on this checklist. Offerors are responsible for thoroughly reviewing the RFP to make sure that they have met all the requirements and have provided all necessary information.

Completion of this form does not guarantee a declaration of responsiveness.

Offeror Name: \_\_\_\_\_

REQUIREMENTS:	Indicate proposal page number(s) where evidence of the requirements has been provided:
Location of Work Certification per Section 1.05	
Human Trafficking Certification per Section 1.06	
Proposal not qualified or restricts the rights of the State per Section 1.12	
Offeror listed Subcontractor information per Section 1.15	
Offeror submitted copy of Joint Venture agreement per Section 1.16.	
Offeror's Certification per Section 1.17	
Conflict of Interest Statement per Section 1.18	
Authorized Signature per Section 2.01	
Minimum Prior Experience evidence per Section 2.07	
Contractor Tax ID per Section 2.09	
Alaska Business License per Section 2.11	
The complete name and address of offeror's firm and the name, mailing & email address, and telephone number of the person the state should contact regarding the proposal per Section 6.02	
Project Understanding per Section 6.03	
Methodology per Section 6.04	
Project Constraints per Section 6.05	
Experience / Qualifications & Organizational Chart per Section 6.06	
Summary of Prior Equipment Deployment and Use per Section 6.07	
Quality Control per Section 6.08	
One (1) original copy of proposal, plus one (1) CD-ROM or flash drive of proposal per Section 1.01	
One (1) copy of Cost Proposal in sealed separate envelope per Section 6.08	

# **COST PROPOSAL**

Note: The purpose of the cost formula is to provide a mechanism for offerors to submit costs per each deliverable in a manner that ADOT&PF can evaluate and score. Please enter your cost in the spaces provided below for completing each deliverable.

The successful offeror must provide a cost proposal that is inclusive of **ALL COSTS** to provide the goods and services outlined in this RFP.

<u>Offerors must complete and submit</u> all portions of this cost proposal for the purpose of proposal scoring. Failure to do so will result in the proposal being declared non-responsive and rejected. No cost information shall be included in the body of the proposal.

The cost proposal is split into three sections. Section one covers the vendors fully loaded labor rates. Section two covers costs for equipment and materials. Section three provides an evaluation cost summary for the purpose of proposal cost evaluation.

### Section One

1. Labor Costs - offerors shall complete the following table, estimating the total costs based on the Estimated Annual Hours provided in the table.

Job Class	Employee Name	Estimated Annual Hours	Fully-loaded Hourly Rate	Est. Annual Hrs x Hourly Rate
Project Manager		150	\$	\$
Technician- Weekly scanning and troubleshooting		105	\$	\$
Field Technician 1 -		600	\$	\$
Field Technician 2 – Support Personnel		300	\$	\$
Administrative Support		50	\$	\$
Other		50	\$	\$
Total Estimated Annual Labor Cost (For Evaluation Purposes)				\$

# 2. Training – including instructor, travel, facility and all training materials. The state does not guarantee any minimum or maximum number of training sessions will be required.

Training	Cost per Training
One 4-hour Operator Interface Training for up to 15 people	\$
One 8-hour training on Field Equipment and Components (equipment identification and operation) for up to 4 people	\$
One 8-hour field training on Field Equipment and Components (high-level diagnosing, troubleshooting and preventative maintenance) at an existing Anchorage ESS for up to 4 people	\$
One 8-hour Installation and Data Integration training session for up to 3 people	\$
Total Training Costs (For Evaluation Purposes)	\$

#### 3. Maintenance and Operations – per RFP Section 5.05 for each of the 49 existing sites.

Maintenance X 49 sites				
1. Operation of Network		\$		
2. Data Integration Network		\$		
3. Preventative		\$		
4. Random Maintenance (does not include equipment purchases)		*T&M		
TOTAL MAINTENANCE COSTS (For Evaluation Purposes)				

\*T&M = Time and Materials with Travel Expenses

Total points for cost will be calculated using the formula as stated in Section 2.13 based on the following TOTAL COST:

1. Total Estimated Annual Cost for Hourly Services	\$
2. Total Training Costs	\$
3. Total Maintenance Costs	\$
TOTAL COST	\$

### Section Two – Costs for Equipment

Offerors shall propose a fixed fee for each equipment make and model proposed to be supplied as part of this contract. ADOT&PF does not commit to any minimum number of purchases of equipment. The following table is provided as a guideline. Offerors shall include a minimum of two types of each equipment, however additional rows may be added to include additional devices. In addition, offerors may combine rows on this table, for situations when one device performs multiple measurements.

In order to calculate a total cost for use in evaluating proposals, ADOT&PF will sum the total costs of the two models proposed for each measurement type. If an offeror includes additional models beyond two for each measurement, the additional models will not be included in the analysis of cost proposals. If an offeror only includes one model, the cost of the one model will be counted two times. The performance and quality of the two proposed equipment (for each device) will be used in the evaluation of prior performance.

While ADOT&PF has stated that 'all-in-one' RWIS stations will not be accepted as solutions for this solicitation, ADOT&PF understands that the combination of two or more measurements to be performed by one sensor is logical and can be an efficient way to accomplish the needs while minimizing the sensor costs. Therefore, Offerors are allowed to adjust the table below to indicate those situations where two or more measurements are to be accomplished by one sensor.

Measurement	Equipment Proposed (make & model)	Notes	Price per unit
Air Temperature <sup>1</sup>	1. 2.		\$ \$
Relative Humidity <sup>1</sup>	1. 2.		\$ \$
Wind Speed <sup>2</sup>	1. 2.		\$ \$
Wind Direction <sup>2</sup>	1. 2.		\$ \$
Precipitation Occurrence <sup>3,4</sup>	1. 2.		\$ \$
Precipitation Type <sup>4</sup>	1. 2.		\$ \$
Precipitation Rate <sup>4</sup>	1. 2.		\$ \$
Precipitation	1.		\$
	2.		\$
Precipitation Accumulation – Measured (heated)	1.       2.		\$ \$
Precipitation Accumulation –	1.		\$
Measured (not heated)	2.		\$
Precipitation Accumulation <sup>4</sup> –	1.		\$
Estimated Visibility <sup>4</sup>	2. 1.		\$ \$
Visibility Situation <sup>4</sup>	2. 1.		\$ \$
Station Atmospheric	2. 1.		\$ \$
Pressure Snow Dopth	2. 1.		\$ \$
Snow Depth	2.		\$

Measurement	Equipment Proposed (make & model)	Notes	Price per unit
Water Level	1. 2.		\$ \$
Solar Radiation	1. 2.		\$ \$
Pavement Temperature	1. 2.		\$ \$
Pavement Grip (friction)	1. 2.		\$ \$
Pavement Contaminant Depth	1. 2.		\$ \$
Soil Temperature 18" Sub-Probe	1. 2.		\$ \$
Temperature Acquisition Cables <sup>7</sup>	1.		\$
Visual Observation	2. 1.		\$ \$
(e.g. cameras) Infrared Illuminators	2. 1. 2.		\$ \$ \$
Remote Processing Unit (RPU) <sup>5</sup>	2. 1. 2.		\$ \$ \$
Support Structures <sup>6</sup>	1. 2.		\$ \$ \$
Weather Cabinet	1. 2.		\$ \$ \$
	Te	otal Equipment Cost Evaluation Purposes)	\$

Notes:

- 1. One combined sensor package providing temperature and relative humidity
- 2. One combined sensor package providing wind direction and speed. One offering shall be in a heavy duty configuration.
- 3. ADOT&PF's preference is not a YES/NO sensor but rather a sensor that provides multiple sensor precipitation outputs, i.e., accumulation, intensity, rate, type, etc.
- 4. One sensor package providing electronic estimation of precipitation occurrence, type, rate, intensity, and accumulation plus visibility and visibility situation.
- 5. One RPU offering must be a Campbell Scientific data logger that is appropriate for the sensor array. ADOT&PF currently use CR1000 and CR6 dataloggers.
- 6. Pole/tower. ADOT&PF has used the Millerbernd 30' Surveillance Camera Pole specification and has pole base design drawings. A second offering should be a pole designed to mount a side fire radar non-intrusive pavement temperature sensor.
- A. One offering should be a 6' thermistor string with thermistors placed at 3", 6", 9", 12", 18", 24", 36", 42", 48", 54", 60", 66", 72", and provisions on in-pavement pigtail.
  - B. A second offering should include customized spacing and thermistor string length.

# Section Three – Total Costs from Sections 1-2

Cost Section	Costs (from above)
1. Total Labor/Training/Maintenance Costs	
2. Total Equipment Cost	
TOTAL EVALUATED COST	