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| AMENDMENT OF SOLICITATION/ MODIFICATION OF CONTRACT | | 1. CONTRACT ID CODE | PAGE OF PAGES 1 3 |
| 2. AMENDMENT/MODIFICATION NO. 2 | 3. EFFECTIVE DATE See Block 16C | 4. REQUISITION/PURCHASE REQ. NO. | 5. PROJECT NO. (If applicable) |
| 6. ISSUED BY NASA Lyndon B. Johnson Space Center 2101 NASA Parkway Attn: BG/Kelly L. Rubio Houston, TX 77058 | CODE | 7. ADMINISTERED BY (If other than Item 6) NASA Lyndon B. Johnson Space Center 2101 NASA Parkway Attn: BG/Sophia Mo Houston, TX 77058 | CODE |

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State, and ZIP Code)

| | |
|---|---------------------------------------|
| CODE | FACILITY CODE |
| 9A. AMENDMENT OF SOLICITATION NO. X NNJ15530582Q | 9B. DATED (SEE ITEM 11) 12/12/2014 |
| 10A. MODIFICATION OF CONTRACT/ORDER NO. | 10B. DATED (SEE ITEM 13) |

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

- (a) By completing Items 8 and 15, and Copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.(x)

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| A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A. |
| B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b). |
| C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: |
| d. OTHER (Specify type of modification and authority) |

E. IMPORTANT: Contractor is not, is required to sign this document and return _____ copies to the issuing office.

14. description of amendment/modification (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purpose of this amendment 2 is to (1) provide Questions and Answers ("Q&A") regarding the solicitation to all prospective offerors, and (2) update the Statement of Work (SOW), Section 5.0 "Accuracy."

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|---|---|
| 15A. NAME AND TITLE OF SIGNER (Type or print) | 16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Kelly L. Rubio, Contracting Officer |
| 15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign) | 15C. DATE SIGNED |
| 16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer) | 16C. DATE SIGNED 1/14/2015 |

Questions and Answers

1. The minimum order of 10 units, is that 10 units of varying sizes or is it 10 units of each size (so a total of 30 units minimum)?

The minimum order of 10 units can be any combination of the specified sizes. See Section II: Model Contract, Statement of Work (SOW) 1.0 "Requirement," page 4 of 16.

2. What data/CAD/Drawings of the items to be modeled are to be provided by NASA?

See Section II: Model Contract, SOW 5.0 "Accuracy," page 6 of 16.

3. What delivery timeline are you envisioning or expecting?

Delivery to Johnson Space Center is required within 90 days after receipt of signed order (ARO). See Section II: Model Contract, VII. "Deliverables," page 8 of 16.

4. What level of detail/functionality is expected in the modules? Put another way, are higher levels of detail and functionality valued and considered in the determination of vendors?

See 52.212-2 Evaluation – Commercial Items (Oct 2014), page 5 of 5.

5. Are models of higher durability, i.e. made of metal and durable materials, more desirable than wood, soft plastic?

See Section II: Model Contract, SOW 2.0 "Specification," page 4 of 16.

6. What is the expected level of use and lifetime of these models? Will they be assembled and disassembled regularly? Daily? This helps us to determine how robust the junctions need to be.

See Section II: Model Contract, VI. "Warranty," page 8 of 16 and SOW 8.0 "Transportability," page 6 of 16.

7. Is it possible to see a copy of the drawings NASA would be providing for the ISS model contract?

See Section II: Model Contract, SOW 5.0 "Accuracy," page 6 of 16.

8. Also, the time line for delivery is noted as 90 days ARO, but the period of performance extends three years. Is there flexibility in the 90 delivery?

See Section II: Model Contract, II. "Period of Performance" and III. "Supply Description," page 3 of 16.

9. The big unknown for us is the file you will be supplying of the ISS for us to make the model from. The amount of work we need to do on the file could greatly affect our ability to deliver on time and on budget. Is there a possibility of you sending us just a sample of the file, perhaps one component, so that we can assess what is involved?

See Section II: Model Contract, SOW 5.0 "Accuracy," page 6 of 16.

10. The exploded diagram supplied in the SOW shows every component being separate from every other one. Is it your desire to have each component removable and reconfigurable like this or can some of the components be attached to their adjacent ones permanently leading to a smaller number of sub-assemblies? If so can you give an indication of which pieces need to be detachable and which don't?

See Section II: Model Contract, SOW, 2.0 "Specification," page 4 of 16.

11. Can our offer be emailed to you or do you need a hard copy in the mail?

See Instructions to Offerors (52.212-1), Item 1, page 1.

12. In paragraphs 2.0 and 6.0 of the Model Contract there is mention of components such as Transport vehicles (e.g. CEV, ATV) and other such as Dragon, Soyuz that are not shown on the exploded diagram supplied on page 5 of the Model Contract. We need images, or a digital file of every component in order to produce an accurate offer. Can you provide guidance as to the discrepancies between the image and the listed components?

See Section II: Model Contract, SOW 5.0 "Accuracy," page 6 of 16.

3.0 Materials

The contractor is encouraged to be creative in their solution of the model and base material; however, the material proposed shall be appropriate for technical accuracy and enhance the overall aesthetics, and not detract from the model. The model shall be mounted on a base that permits the model to be firmly and independently secured on a desk. The models shall be guaranteed to maintain its shape and not droop, sag or hang through normal wear and tear.

4.0 Model Colors and Markings

Each module/element shall be identified in similar fashion as the actual flight module. Markings on each element shall include:

- Symbol of the appropriate national agency: National Aeronautics and Space Administration (NASA), European Space Agency (ESA), Canadian Space Agency (CSA), Russian Space Agency (RSA), Japan Aerospace Exploration Agency (JAXA)
- National symbols should be of proportionate size.
- Flags of country origin for US, Canadian, Japanese and Russian elements. All Flags should be of proportionate size
- Name of each module/element: example: US Lab Module/Destiny
- All modules, elements and components shall reflect accurate external colors and markings as viewed by the photography of components in orbit or in preparation for flight, as visible on the ground.

5.0 Accuracy

- Scales should be constant over the entire model and ~~precisely match provided drawings match Government provided CAD models, which will be provided after contract award.~~
- Detailing is uniform over the entire model
- Surface textures and details should replicate the surface finishes and details of the ISS colors
- Markings should replicate the appearance of ISS Markings should be accurately detailed to replicate NASA, US, ESA, Japanese, Russian, Canadian and other markings as they appear on the actual vehicle
- Each ISS element (module, truss segment, etc.) shall be labeled with its formal component name, e.g. Nodal/Unity. Component labels shall not detract from the scale appearance of the model
- Noticeable exterior details should be replicated

6.0 Functionality

Solar arrays, radiators and remote manipulators should swivel/turn/move permitting repositioning as on the real ISS. When moved to a position, the solar array, radiator or remote manipulator should maintain that position. Modules should be as on the real vehicle. Transport vehicles (Shuttle, Crew Exploration Vehicle (CEV), Autonomous Transfer Vehicle (ATV), Progress, Soyuz, H-II Transfer Vehicle (HTV)) shall be designed for scale appearance, secure attachment, ease of placement, and ease of removal.

7.0 Physical Support

The stand should be secure and permit the model to be displayed on a tabletop, and which permits movable components to be repositioned. The stand shall properly support the model and fork type side supports added so that components do not sag over time. The stand shall be professional in appearance but should not detract from the model. The stand should include a nameplate identifying the model by name and scale.

8.0 Transportability

The model shall be designed so that it can be transported safely and minimal disassembly should be required in order to move the model to and from locations. Components should be designed for quick disassembly and reassembly, and without causing any damage. Disassembly should be facilitated and components sized so that the model can be transported as checked baggage on airlines. Transportation cases/boxes should permit safe handling, shipping and transportation with no damage to the models.

9.0 Enhancements/Options

The contractor may identify enhancements to the basic requirements that can be provided and any costs associated with such enhancements. Examples include: Scale EVA astronauts, handrails, trunnion pins, docking targets and other small details, module interiors, functioning hatches, functioning docking/berthing systems, materials of enhanced durability (e.g. metal vs. plastic features), etc.

10.0 Custom Designed Transit Case

A Custom Designed Transit Case should be furnished for each model. Each model shall be packed in a shipping case. The shipping case should be durable and have appropriate packaging to protect the ISS models from regular shipping throughout the models life expectancy. Each case should come with wheels and handle for easy transport. The cases should NOT require