## **MEPNN Supplier Scouting Opportunity Synopsis**

## Section 1: General Information

| Scouting Number          | 2025-142                             |
|--------------------------|--------------------------------------|
| Item to be Scouted       | Horizontal Fall Protection           |
| Days to be scouted       | 15                                   |
| Response Due By          | 05/16/2025                           |
| Description              | Fall protection cabling and anchors. |
| State item to be used in | New Mexico                           |

### Section 2: Technical Information

| Type of supplier being sought   | Contract manufacturer   |
|---|---|
| Reason  | BABA  |
| Describe the manufacturing processes (elaborate to provide as much detail as possible)        | Prefabricated composite components and cable coils.   |
| Provide dimensions / size / tolerances / performance specifications for the item              | See attached PDF specification for information.   |
| List required materials needed to make the product, including materials of product components | See attached PDF specification for information.   |
| Are there applicable certification requirements?  | No  |
| Are there applicable regulations?   | Yes   |
| Details   | Delegated design requiring professional engineer seal.  |
| Are there any other stndards, requirements, etc.?   | Yes   |
| Details   | CSA: Canadian Standards Association<br>ANSI: American National Standards Institute<br>OSHA: Occupational Safety and Health Administration<br>ASTM: American Society for Testing and Materials |
| Additional Technical Comments   | N/A   |

### Section 4: Business Information

| Estimated potential business volume                                     | 1 unit/ lump sum for project sites.        |
|---|--|
| Estimated target price / unit cost information (if unavailable explain) | \$70,000                                   |
| When is it needed by?   | Project dependent over next 8 years.       |
| Describe packaging requirements   | Palletized, wrapped, and boxed components. |
| Where will this item be shipped?  | Clovis, NM                                 |

## Additional Comments

| Is there other information you would like to include? | Agency Providing Funds: Bureau of Reclamation: Albuquerque Area Office |
|---|--|
|   | For all BABA related questions please contact:                         |
|   | Ken Richards   |
|   | krichards@usbr.gov   |

#### SECTION 11 81 29 HORIZONTAL FALL PROTECTION

#### PART 1 GENERAL

#### 1.01 REFERENCES

- A. The following is a list of standards which may be referenced in this section:
  - 1. American National Standards Institute (ANSI):
    - a. A10.32, Personal Fall Protection Used in Construction and Demolition Operations.
    - b. Z359.1, Safety Requirements for Personal Fall Arrest Systems, Subsystems and Components.
    - c. Z359.6, Specifications and Design Requirements for Active Fall Protections Systems.
  - 2. American Welding Society (AWS): D1.1/D1.1M, Structural Welding Code Steel.
  - 3. ASTM International (ASTM):
    - a. A123/A123M, Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
    - b. A747/A747M, Standard Specification for Steel Castings, Stainless, Precipitation Hardening.
    - c. A36, Standard Specification for Carbon Structural Steel.
    - d. A500, Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.
    - e. A666, Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
  - 4. CSA Group (CSA):
    - a. Z259.16, Design of Active Fall Protection Systems.
    - b. W55.3, Certification of companies for resistance welding of steel and aluminum.
    - c. W59, Welded steel Construction.
  - 5. Occupational Safety and Health Administration (OSHA):
    - a. 29 CFR 1926.502, Fall Prevention Systems and Criteria and Practices.
    - b. 29 CFR 1910.29, General Industry.

#### 1.02 SYSTEM DESCRIPTION

A. Horizontal Fall Protection Cable System: Design, build, and install system that allows the user to walk uninterrupted the entire length of the system and provide secure anchorage to arrest a fall by the users. Access to system shall be immediate upon entering roof from mobile lift from ground. All components shall be included for a complete and fully operational system.

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#### 1.03 DESIGN REQUIREMENTS

- A. Delegated Design: Provide professional engineering services needed to design roof safety system and assume engineering responsibility.
- B. System layout, design analysis, and calculations shall be prepared and certified by a licensed Professional Engineer registered in the State of New Mexico.
- C. Compatibility with roof assembly: Ensure horizontal fall protection system is compatible with the roof warranty.

#### 1.04 AMERICAN IRON AND STEEL (AIS)

A. This section contains materials that shall comply with the American Iron and Steel requirements of this Contract.

#### 1.05 BUILD AMERICA BUY AMERICA (BABA)

A. This section contains materials that shall comply with the Build America Buy America requirements of this Contract.

#### 1.06 SUBMITTALS

- A. Action Submittals:
  - 1. Product Data:
    - a. Manufacturer's data and product information indicating the sizes, descriptions, capacities, test certifications, and other descriptive data showing in sufficient detail that the product complies with the contract requirements.
    - b. Manufacturer's Instructions indicating the manufacturer's recommended method and sequence of installation shall be submitted for the following:
      - 1) Energy absorbing devices.
      - 2) Body harnesses.
      - 3) Horizontal fall protection cable system and associated components.
  - 2. Shop Drawings:
    - a. For fabrication showing the complete fall protection system. Layout drawings of each system in relation to the supporting structure indicating the locations of properly labeled components.
    - b. Delegated-Design Submittal: For fall protection system, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation; engineer to be licensed in State of New Mexico.

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- B. Informational Submittals:
  - 1. Installer's Certification: Furnish proof of installer's current certification approval by manufacturer in the form of the installer's current certificate issued by the manufacturer.
  - 2. Qualifications Statement: For engineer performing delegated design.
  - 3. Systems Manual:
    - a. Maintenance Procedures: Including parts list and maintenance requirements for all equipment.
    - b. Operation Procedures: Indicating proper use of equipment for safe operation of the systems.
    - c. Manufacturer's catalog data indicating the sizes, descriptions, capacities, test certifications, and other descriptive data showing sufficient detail that the product complies with the contract requirements.
  - 4. Record Documents: Include a copy of Record Drawings in the systems manual.
  - 5. Warranty: Submit manufacturer warranty. Certificate of compliance with the American Iron and Steel. See Section 01 33 00, Submittal Procedures.
  - 6. Certificate of compliance with Build America, Buy America Act. See Section 01 33 00, Submittal Procedures.

#### 1.07 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Minimum 25-year experience manufacturing similar products.
- B. Installer Qualifications:
  - 1. Minimum 5-year experience installing similar products, authorized, trained, and certified by manufacturer.
  - 2. Holds current insurances necessary for installation of fall protection systems.
- C. Engineer for Delegated Design: Licensed in the jurisdiction and with a minimum of 2 years engineering fall protection systems.
- D. Coordination: Coordinate the installation of horizontal fall protection system with structural supports and finish materials.

#### 1.08 PRE-INSTALLATION MEETINGS

- A. Convene minimum 2 weeks prior to starting work of this section.
  - 1. Before starting roof safety system installation, conduct a conference with Engineer, roof safety system installer, roof safety system materials Supplier, Project DCS Integrator, Owner's insurer, Subcontractors likely to be on roof, and installers whose work affects roof safety system installation.
  - 2. Items to be reviewed and discussed include the following items:
    - a. Examine roof conditions for acceptance of roof safety system.
    - b. Review structural loading limitations of roof deck during roofing installation.
    - c. Review attachment details of roof safety system and other construction and conditions that might affect metal roof system.
    - d. Review governing regulations and requirements for insurance, certificates, and testing and inspecting as applicable.

#### 1.09 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials in manufacturer's original unopened packaging. Store materials in original protective packaging. Prevent soiling, physical damage, or moisture.

#### 1.10 PROJECT CONDITIONS

- A. If required, coordinate layout and installation of framing and reinforcements for the fall protection system fixings and substrates.
- B. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.

#### 1.11 SEQUENCING

A. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

#### 1.12 SPECIAL GUARANTEE

- A. Product: Furnish manufacturer's extended guarantee or warranty, with Owner named as beneficiary, in writing, as Special Guarantee. Special Guarantee shall provide for correction or, at the option of the Owner, removal and replacement of product.
- B. Manufacturer's 10-year minimum corrosion resistance and product warranty.

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#### PART 2 PRODUCTS

#### 2.01 MANUFACTURERS

- A. Source Limitation: Obtain fall protection system and components from a single manufacturer.
- B. The basis of design Manufacturer and Product is provided to establish the design intent. This is not intended to limit products from other acceptable manufacturers. Products from other acceptable manufacturers with equal quality and performance may be used provided they meet the intent of the design. If changes to the Drawings are needed, such as required space, structural support, piping, electrical or instrumentation connections, and similar, any such required revisions must be submitted as proposed red-lined Drawing changes at the time the proposed Product is submitted.
- C. Manufacturer and Products:
  - 3M Fall Protection Business, located at: 3833 Sala Way; Red Wing, MN 55066-5005; Toll Free Tel: (800) 328-6146.
    - a. Basis of Design Product: DBI-SALA RoofSafe Anchor and Cable System.
  - Flexible Lifeline Systems, located at: 2437 Peyton Road, Houston, TX 77032, Phone: (855) 353-3444, Email: <u>info@flexiblelifeline.com</u>. Product: FLS Horizontal Lifeline Systems.

# 2.02 FALL PROTECTION CABLE SYSTEMS; FORCE MANAGEMENT ROOF ANCHOR AND CABLE

- A. Basis of Design: DBI-SALA RoofSafe Anchor and Cable System as manufactured by 3M Fall Protection. Rooftop horizontal cable fall protection system for rooftop maintenance including end anchors, intermediate cable supports, variable cable supports, traveler and corner cable supports as required.
  - 1. Maximum span of 40 feet between anchors and provides continuous hands-free access for the user of the roof fall protection system.
  - 2. Allow for multiple users, based on required system calculations.
  - 3. Simultaneous Users: Up to four per sub span based on system design.
  - 4. System shall not be used as a tieback anchor for facade maintenance.

- B. Performance Requirements:
  - 1. Structural Performance:
    - a. Fall protection systems shall withstand the effects of loads and stresses within limits and under conditions required by:
      - 1) CSA Z259.16.
      - 2) ANSI Z359.6.
      - 3) OSHA 1926.502.
      - 4) Allow for multiple users, based on required system calculations.
      - 5) Simultaneous Users: Up to four per sub span based on system design.
      - 6) System capable of spanning 50 feet (15 m) between intermediate supports.
      - 7) Allowable Force on Structure: 1,686 pounds (7.5 kN) maximum.
- C. Components:
  - 1. Cable: 7 by 7, 5/16-inch (8 mm) Type 316 Stainless Steel Wire, Breaking Strength 8,542 pounds (38 kN) minimum.
  - 2. End Anchorage Connector: Type 316 stainless steel, electro-polished and lot numbered.
  - 3. Tensioner: 180 pounds (0.8 kN) Type 316 stainless steel.
  - 4. Dampener: 180 pounds (0.8 kN) Type 316 stainless steel with thermal cyclic loading.
  - 5. Intermediate Guide: Type 316 stainless steel, electro-polished.
  - 6. 90 Degrees and 45 Degrees Corners: Type 316 stainless steel, electropolished. Other angles are achieved using variable guide, spot welded.
  - 7. Variable Guide: Type 316 stainless steel, electro-polished, spot welded.
  - 8. Swage Toggles: Type 316 stainless steel, electro-polished.
  - 9. Detachable Traveller: 8 mm. ASTM A747/A747M Precipitation Hardening Stainless Steel Casting, electro-polished and numbered. Double Locking for installation and removal, compatible D-ring for use with Snaphook in accordance to ANSI Z359.1.
  - 10. Finish Type for Modular End, Corner, and Intermediate Anchors:
    - a. Anchorage Baseplates: Anodized aluminum plates designed and tested to be used with modular end, corner and intermediate anchors.
    - b. Anodized for standing seam roofs.

- D. Materials:
  - 1. Primary Cable Assembly Components: Stainless steel, ASTM A666, Type 316 stainless steel.
  - 2. Aluminum: 6061 aluminum alloy.
  - 3. Aluminum: 6082 aluminum alloy.
- E. Fabricated Supports:
  - 1. Carbon steel with corrosion resistant finish. Steel Plates, Shapes.
  - 2. Bars: ASTM A36 Steel Tubing: ASTM A500, cold formed.
  - 3. Welding Rods and Bare Electrodes: Select according to AWS specifications or metal alloy welded.
- F. Connectors:
  - 1. Comply with:
    - a. OSHA regulation 1926.502.
    - b. ANSI Z359.1.
    - c. CSA Z259.12-11.
- G. Fabrication:
  - 1. Fabricate anchoring devices as recommended by the manufacturer to provide adequate support for intended use.
  - 2. Shop fabricate required anchorage posts using structural steel with material test certificates for full material traceability.
- H. Welding:
  - 1. AWS structural specification D1.1 by certified welders.
  - 2. Fabricate joints in a manner to discourage water accumulation.
- I. Finishes:
  - 1. Stainless Steel: Electropolished for corrosion resistance.
  - 2. Structural Steel: Zinc-galvanized for corrosion resistance.
  - 3. Aluminum: Anodized.
  - 4. Aluminum: PVC-coated.

- J. Fasteners:
  - 1. Toggle Fixings: Bolt lengths 6-inch (150 mm) by 4, 12-inch (300 mm) by 4, 20-inch (500 mm) by 4, Steel, Zinc-Coated, includes cup washer, toggle foot and PVC alignment tube.
  - Concrete Fixings: Lengths 6-inch (150 mm) by 4, 12-inch (300 mm) by 4, 20-inch (500 mm) by 4, Steel, Zinc-Coated, includes cup washer, Wedge Anchor foot and PVC alignment tube.
  - 3. Clamps: Nonpenetrative clamping system. May be fitted to a variety of standing seam roof systems.
  - Rivets: Aluminum, 0.30-inch (7.7-mm) diameter, bulb type, ASTM B221. Single Rivet-shear Strength equals 1528.70 lbf (6.8 kN)/Tensile Strength equals 1124.04 lbf (5 kN)/Grip 0.04-inch to 0.37-inch (1 mm to 9.5 mm) range.

#### K. Accessories:

- 1. Signage: Signs and system identification tags.
- 2. Flashing: Comply with requirements of Section 07 40 00, Roofing Panels.
- 3. Sealant: Comply with requirements of Section 07 92 00, Joint Sealants.

#### PART 3 EXECUTION

#### 3.01 EXAMINATION

- A. Examine areas and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of fall protection equipment.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.02 PREPARATION

A. Coordinate location of fall protection equipment indicated to be attached to structural substrate or surface of roofing system and furnish anchoring devices with templates and diagrams.

#### 3.03 INSTALLATION

A. Only Certified Installers authorized in writing by supplier may make installation/repairs to this equipment. If the horizontal fall protection cable system has been subject to fall force or inspection reveals an unsafe or defective condition, remove the system from service and contact supplier or a Certified Installer regarding replacement or repair.

- B. Install according to approved shop drawings and manufacturer's instructions. Coordinate with work of other trades.
- C. Install anchorage and fasteners in accordance with manufacturer's recommendations to obtain the allowable working loads published in the product literature and in accordance with this section.
- D. Exposed work shall be true to line and level with accurate angles, surfaces and with straight square edges. Coordinate anchorage system with supporting structure.
- E. Do not load or stress system until materials and fasteners are properly installed and ready for service.

#### 3.04 FIELD QUALITY CONTROL

A. Provide manufacturer's certified installer to inspect installed fall protection system. Ensure that system components operate as specified.

#### 3.05 ADJUSTING

A. Adjust fall protection components to function smoothly and safely.

#### 3.06 CLEANING

- A. Clean the systems metal components with a soft brush, warm water, and a mild soap solution if needed after initial installation.
- B. Ensure all components are thoroughly rinsed with clean water after cleaning.

#### 3.07 CLOSEOUT ACTIVITIES

- A. Demonstration: Demonstrate operation of system to Owner's personnel. Briefly describe function, operation, and maintenance of each component
- B. Training: Train Owner's personnel on operation and maintenance of system.
  - 1. Use operation and maintenance manual as training reference, supplemented with additional training materials as required.
  - 2. Provide minimum of 2 hours of training.
  - 3. Provide training at the lifeline installation site.
  - 4. Training to take place at the completion of the installation.
- C. Do not use until trained in the use of the system.

#### **END OF SECTION**