STANDARD SHELTER SPECIFICATIONS

RFP 12-02, ATTACHMENT A

Morongo Basin Transit Authority
Lead Agency for the
California Association for Coordinated Transportation
Local Government Purchasing Schedule

April 2012
Technical Specifications

9’ Shelter

1. Roof dimensions: 8’ 7 7/8” x 4’8” Height: 7’ to bottom of roof perimeter

2. The roof design features two circular shapes running horizontally. One is used as a rain gutter, the other allows for optional electrical wiring for lighting and/or conduit for ‘real-time’ transit information.

3. The one piece roof shall be welded from four lengths of aluminum extrusion: No snap together corners which can be vandalized.

4. Two roof beams shall be welded to the roof perimeter for placement of the supporting legs. These beams also house the lighting in those shelters, which feature optional electric lighting.

5. Roof beams are pre-drilled contain alignment channel for supporting legs to facilitate field installation

6. Dome roof shelter with bronze or white Lexan Thermoclear roof panels engaged within the roof perimeter and secured to the welded roof bow with extruded aluminum flat bars and rubber gaskets, attached by Tek screws, with rubber washers. roof panels are secured with extruded aluminum flat bars and rubber gaskets, attached by Tek screws. No silicone sealer is require.

   1. Optional roofs include aluminum dome roof
   2. Aluminum low peak roof-gable style
   3. Aluminum high peak roof-gable style
   4. Aluminum high peak roof with earth stone coated Gerard simulated roof tile, terracotta in color

       Proposer to offer above roof styles at buyer’s choice, with no extra charge to the purchasing agency.

7. Powder coated perforated metal panels in steel frames at the rear and 1/2 end walls, are constructed from 16 ga galvanized steel sheets with ¼” diameter holes on 3/8” staggered centers with protected edges centers and attached to square steel tube frames with drive rivets. Walls shall be supported with adjustable stainless steel assemblies, which anchor to the concrete pad or sidewalk.

   1. Optional full end wall panels should be available
   2. Optional front windscreen to be available
   3. Optional “Victorian” style perforated metal panels should be available
4. Optional “Herringbone” style perforated metal panels should be available

   Perforated metal framed in a rectangular shape with array of diagonally arranged flat bars symmetrical thru theoretical vertical centerline of rectangle.

8. Two 3” steel pipe legs support the roof at each end of the structure. Four adjustable shoes allow for up to 12” grade variation.
   1. An aluminum post options should be available

9. Walls shall be supported with adjustable stainless steel assemblies, which anchor to the concrete pad or sidewalk.

10. All materials shall be top quality – only ASTM A-36 grade 3” schedule 40 pipe for structural steel members and 6063-T6 grade aluminum extrusion with a minimum thickness of 1/8 inch.

11. Steel welding shall conform to American welding society standard D1. 1-80. Electrodes conform to ASTM A233, class E70S-6. All aluminum components shall be welded in accordance with AWS/SFA 5.10 CLASS ER4043. All welding shall be performed by certified welders.

12. All of the structure’s metal surfaces shall feature a durable baked polyester powder coat finish, 4-5 ml thick. The powder coating process produces no volatile organic compounds (VOCs). Powder coat finish was created for durability in outdoor use and to withstand graffiti removal solvents. Color is to be selected from the standard RAL color chart.
   1. Proposer shall provide an outline of their powder coat finish process including sandblast, cleaning, pretreat, top coat and quality check.

13. Shelter shall be constructed of modular, interchangeable components to allow for ease of installation and parts replacement. Shelters shall be shipped knock-down (k.d.) for ease of handling and installation. This also allows of easy site adaptation.

14. The shelter shall be supplied with all hardware and ground anchors necessary for site installation.

15. All detail shop drawings, details of materials, fabrication, assembly and framing details, erection drawings, parts list and field installation instructions shall be to be included.

16. Stamped and sealed engineering calculations from a licensed CA engineer confirming compliance with building codes in the municipalities of Twentynine Palms and Yucca Valley in San Bernardino County, California including wind and snow loads to be provided to MBTA with submission of bid for the base 9,13 & 17 foot shelter include solar fixture and mounting details.

17. Stamped and sealed engineering calculations from a licensed CA engineer confirming with local building codes including wind and snow loads to be provided to each purchasing agency if requested.
18. The shelter shall be fabricated by a manufacturer with a minimum of 10 years experience designing and fabricating transit shelters.

19. This shelter shall carry a minimum three-year warranty. Proposer to describe warranty in detail with submission and summarize on product information sheet.

Shelter Illumination: (Ref. Unit Urban Solar RMS 50 or approved equal)

1. Solar units must be capable of mounting to the specified 9’, 13’ and 17’ shelters. Solar panels to be of low profile design for aesthetic and vandal resistant purposes and use security hardware to fasten to the shelter roof. Each solar unit will have a serial number assigned and visible from the interior of the shelter.

2. Solar units to be designed to include vandal resistant hardware and designed to withstand abuse from potentially damaging individuals. Security fasteners will be used for any exposed points.

3. Solar illumination for shelters is to be for the interior seating area of the shelter only.

4. Illumination is to be provided from dusk to dawn.

5. Minimum illumination level will be 3.0 ft candles to be measured at 3 feet above the concrete shelter pad at or near the shelter bench area and illuminate approximately 40 square feet. Greater illumination levels may be provided as options.

6. Solar units must be of modular design to allow for independent replacement of solar collector, light bar, light fixtures/bulbs, batteries and lighting control module. Replacement part numbers to be provided.

7. Light source to be high intensity, white light emitting diodes (LED)

8. Solar unit must be capable of providing 5 days of full brightness, from a full charge, with no additional charging.

9. Battery component shall be industry approved rechargeable, non spillable, sealed, AGM (absorbed glass mat). Batteries must be capable of providing three to five years of trouble free charging and discharging and warranted for a three year pro-rated period.

10. Solar units will have a five year minimum warranty on all major components, excluding batteries.

10. Wherever possible all exposed metalwork will be powder coated to match shelter color and the finish is to be warranted for a minimum of 5 years.
The bench proposed should include:

- Perforated metal
- 8 feet x 1.5‘ feet. No back
- Legs and 3 anti-vagrant bars shall be constructed from 1.25” schedule 40 pipe
- Horizontal supports constructed from ¾” schedule 40 pipe.
- Perforated metal is 12 gauge galvanized sheet with ¼” holes on 3/8” centers, staggered.
- Finish is powder coated approximately 5 ml thick
- Secured to concrete with 4, ½” diameter zinc anchor bolts
- Powder coat finish approximately 5 ml thick.
- Proposer shall offer additional bench options and pricing

Trash receptacle proposed:

- 20 gallon capacity
- 20 gauge steel drum approximately 19 ½” tall and 16 1/2” in diameter
- Trash receptacle capable of attaching to shelter end leg pole
- Mounting hardware
- 100% welded unit including the hinge latch mechanism.
- Dome lid cover capable of reducing the deposit of oversized items and reducing water buildup in the receptacle.
- Heavy duty welded hasp
- Powder coat finish approximately 5 ml thick.
- Proposer shall offer additional trash receptacle options

MAP CASES AND ADVERTISING KIOSKS
Proposer shall outline additional advertising kiosk, map case and schedule holder options.
13' Shelter

20. Roof dimensions: 12’7 7/8” x 4’8” Height: 7’ to bottom of roof perimeter
21. All specifications as stated above for 9’ shelter apply to 13’ shelter.

17’ Shelter

22. Roof dimensions: 16’7 7/8” x 4’8” Height: 7’ to bottom of roof perimeter
23. All specifications as stated above for 9’ shelter apply to 17’ shelter.

MAP CASES AND ADVERTISING KIOSKS
- Proposer shall outline additional advertising kiosk, map case ad schedule holder options.

Delivery:
Offeror shall propose base pricing and delivery (mileage charges) on releases of 3, 6, 12 and 24 shelters. Proposer to charge delivery costs of shelters and price without markup for freight, documentation to be provided to purchasing agency.

Submittals upon delivery:
- Shop drawings and documentation that indicate wall and roof panels, details of materials, fabrication and assembly, framing profiles, fastener types and locations, flashing and seal details.
- Erection drawings providing instruction, erection drawings and method to allow field installation or repair of shelter.
- Data for wall and roof panels including literature from manufacture.
Standalone Solar Stop Option:

Quantities: (Minimum 10 per year, maximum 150 per year)

Proposer is requested to provide pricing, on option requested below:

Solar stop should be an autonomous, self-contained solar LED bus stop lighting system designed specifically for bus stops and zones. No external wiring is required. The Solar Stop should be easy to operate, low maintenance and vandal resistant. Reference unit is Urban Solar PV stop or Approved Equal. Minimum Features:

- Automatic or on demand operation through an ADA compliant button
- Color finishing options to be described in a separate attachment
- Must have dedicated pole bracket options for 1.75 through 2.5” OD poles
- Contain a smart controller which has a self-test feature and data collection capabilities
- Must be fully assembled and can be installed on an existing or new post in minutes. All components are standard off the shelf products manufactured and or assembled by to exceed NEC requirements and meet minimum Buy America conditions.
- If automatic light must remain on for 6 hours after dusk; or for a total of 6 hours split night profile. Example: Spilt night may be defined as dusk plus 4, dawn minus 2 hours
- Provide lead acid, A.G.M. or Gel cell, battery requiring minimal maintenance with a minimum three-year life span and re-usable or recyclable
- Battery autonomy or reserve should allow system to operate for 5 days minimum from full charge with zero solar charge
- Must turn on a). Automatically at dusk (and remain on for at least six hours) or b). Have an ADA approved button for operation up to 15 minutes per activation.
- Meet ISO 9001 standards (provide certificate)
- Light must be Light Emitting Diode (L.E.D.) technology with minimum 50,000 hour lifespan
• Proposer to provide separate Buy America cost certification and breakdown from light supplier and cost documentation in support of same

• Unit to be warrantied for a minimum of 5 years.