



**STATE OF TENNESSEE  
REAL ESTATE ASSET MANAGEMENT**

**REQUEST FOR INFORMATION  
FOR  
PREFABRICATED, MODULAR BATH HOUSES**

**RFI # 321.07.007.16  
MARCH 3, 2016**

**1. STATEMENT OF PURPOSE:**

The State of Tennessee, Real Estate Asset Management issues this Request for Information ("RFI") for the purpose of identifying vendors who may be capable of satisfying the State's need for prefabricated, modular bath houses. We appreciate your input and participation in this process.

**2. BACKGROUND:**

The State has a current program to install prefabricated, modular bath houses in various State Parks. Currently, the State has identified only a single supplier for bath houses meeting the specifications set forth on Exhibit A attached hereto. The State desires to determine if there are other vendors capable of delivering bath houses meeting its specifications.

**3. COMMUNICATIONS/RESPONSE DELIVERY:**

3.1. Please submit your response to this RFI electronically to:

Tammy Robbins at Email: [tammy.robbins@tn.gov](mailto:tammy.robbins@tn.gov)

3.2. Please submit any questions, by the deadline in the RFQ Schedule of Events Item #4 below, to:

Tammy Robbins at Email: [tammy.robbins@tn.gov](mailto:tammy.robbins@tn.gov)

3.3. Please reference RFI #**321.07.007.16** with all communications to this RFI.

**4. RFI SCHEDULE OF EVENTS:**

EVENT		TIME (Central Time Zone)	DATE (all dates are State business days)
1.	RFI Issued		MARCH 1, 2016
2.	Written "Questions & Comments" Deadline	2:00 p.m.	MARCH 8, 2016
3.	State Response to Written "Questions & Comments?"		MARCH 11, 2016
4.	RFI Response Deadline	4:30 p.m.	MARCH 15, 2016

**5. GENERAL INFORMATION:**

- 5.1. Please note that responding to this RFI is not a prerequisite for responding to any future solicitations related to this project and a response to this RFI will not create any contract rights. Responses to this RFI will become property of the State.
- 5.2. The information gathered during this RFI is part of an ongoing procurement. In order to prevent an unfair advantage among potential respondents, the RFI responses will not be available until after the completion of evaluation of any responses, proposals, or bids resulting from a Request for Qualifications, Request for Proposals, Invitation to Bid or other procurement method. In the event that the state chooses not to go further in the procurement process and responses are never evaluated, the responses to the procurement including the responses to the RFI, will be considered confidential by the State.
- 5.3. The State will not pay for any costs associated with responding to this RFI.

**6. INFORMATIONAL FORMS:**

The State is requesting the following information from all interested parties. Please fill out the following forms:

<b>RFI #321.07.007.16</b>	
<b>TECHNICAL INFORMATIONAL FORM</b>	
1.	RESPONDENT LEGAL ENTITY NAME:
2.	RESPONDENT CONTACT PERSON: Name, Title: Address: Phone Number: Email:
3.	Brief description of bath house services provided to clients in Tennessee and locations where Respondent's bath houses are located in Tennessee. If Respondent provides bath houses in other states, please provide a brief description of services provided to other clients.
4.	Respondent's license number(s) issued by the Tennessee Department of Commerce and Insurance for the manufacture and installation of modular buildings as required by the Tennessee Modular Building Act:
5.	Provide a copy of the PCI certification (or equivalent) of the manufacturing plant(s) of Respondent.
6.	Provide photographs and copies of drawings of the layouts of the prefabricated, modular bath houses manufactured by Respondent with separate toilets and shower stalls for men and women and unisex units.
7.	Confirm that you can meet the specifications on Exhibit A or provide exceptions and alternates.
8.	Confirm you manufacture precast, concrete, whole building, modular structures in one or more modules that arrive on site in a completed condition ready to set and be used (after connection).

<b>ADDITIONAL CONSIDERATIONS</b>	
1.	Please provide input on alternative approaches or additional things to consider that might benefit the State:

EXHIBIT A  
PREFABRICATED, MODULAR BATH HOUSE SPECIFICATIONS

Part 2.0 Qualifications and Specifications

2.1 Qualifications

- A. Manufacturers of Modular Buildings must comply with all of the provisions of the Tennessee Modular Building Act Code Ann. 68-126-301 (2013)
- B. Manufacturers, contractors, and installers, involved in the sale or lease of modular building units in Tennessee shall comply with all sections of the Tennessee Department of Commerce & Insurance, Division of Fire Protection, Rule 0780-02-13 – Modular Building Units.
- C. Each Modular unit shall bear a label or insignia issued to the manufacturer by the Tennessee Department of Commerce & Insurance, Division of Fire Protection.
- D. Supplier shall submit copies of all current licenses (and renewal applications) as required by the Tennessee Modular Building Act.

2.2 Specifications:

ASTM Sections: C33, C39, C94, C143, C150, A185, C192, C231, C309, C494, A615, C979

ACI Sections: 211.1, 306, 318

PCI Sections: MNL 116

Part 3 - Manufacturer Criteria: PCI certified at the time of bidding; manufacturer shall provide a **20 year warranty.**

Part 4 - Design Criteria

4.1 The building shall be designed to withstand the effects of the following:

Material = concrete

Roof pitch= 3/12

Roof Snow Load = 100 lbs/sq-ft

Floor Load = 400 lbs/sq-ft

Wind Load = 150 mph (3 second gust) wind exposure C.

Earthquake = Seismic Group 2, 3 or 4, depending on placement location

4.2 The building shall be designed to meet the requirements of the American Disabilities Act (ADA) and Uniform Federal Accessibility Standards as of the date of these specifications.

Part 5 – Materials of Construction

5.1 Concrete

- A. The concrete mix design will be to ACI 211.1, containing a minimum 505 pounds of cementitious material per cubic yard. Cement will be a low alkali type I or III, conforming to ASTM C150.

- B. Coarse aggregates shall conform to ASTM C33 with the designated size of coarse aggregate #67.
- C. Minimum water – cement ratio shall not exceed 0.45.
- D. Air-entraining admixtures shall conform to ASTM C260. Water reducing admixtures shall conform to ASTM C494, Type A.

5.2 Colored Concrete roof panels, walls, and screen panels shall contain colored concrete. Color additives shall conform to ASTM C979. The same brand and type of color additive shall be used throughout the manufacturing process with ingredients weighed to ensure adequate and uniform color dispersion.

### 5.3 Reinforcement

- A. All reinforcing steel shall conform to ASTM A615, and all welded wire fabric shall conform to ASTM A185. All steel must new, clean, scale-free, and rust-free, when placed. Details not otherwise shown will be in conformity with ACI318.
- B. Reinforcement shall be centered in walls will have a minimum of 1” of cover on the under surface of floors and roofs. Full lengths of reinforcing steel shall be used to the full extent possible, with any splicing alternated from opposite sides. Lap bars of #4 or less shall have a minimum 12” lap. Reinforcing to be bent cold.

### 5.4 Sealers and Compounds

- A. Curing compounds, if used, will be colorless and comply with ASTM C309 Type I or I-D.
- B. Weather proofing sealer for the exterior shall be clear water repellent penetrating sealer.

### 5.5 Caulking, Grout, Adhesive

- A. Caulking service temperatures from -40 to 194° F. Interior and exterior joints shall be caulked with a paintable polyurethane sealant.
- B. Grout shall be non-shrink type and painted to match color of surrounding concrete.
- C. Cement based coating shall be formulated with a very fine aggregate system and a built in bonding agent.

### 5.6 Paint

- A. All paints shall be lead-free.
- B. Interior floors shall be gray colored, 2-component, catalyzed, water borne polyamide epoxy with micronized polymer additive for slip resistance.
- C. Interior walls and ceilings shall have a white color, modified acrylic, water repellent penetrating stain overlain by a clear acrylic anti-graffiti sealer.
- D. Metal surfaces, both inside and out, will be covered with two coats of Direct to Metal Alkyd Enamel paint.
- E. Clear sealer shall be applied to exterior concrete slabs.

F. Water repellent penetrating stain in the same color as the walls or roof shall be applied to the exterior walls and roof and overlain with a clear acrylic anti-graffiti sealer.

5.7 Grab Bar shall be 18 ga., type 304 stainless steel with 1-1/2" clearance and able to withstand 300 lbs top loading.

#### 5.8 Doors and Hardware

A. Doors shall be flush panel type, 1-3/4" thick 16 ga. Galvanized doors, or equal. Frames shall be galvanized and width to suit concrete wall width with three rubber door silencers. Hinges (3 per door) shall be chrome plated 4-1/2" x 4-1/2", adjustable tension and automatic closing or a separate closer.

B. Locksets shall meet ANSI A156.2 /series 4000, Grade 1 lockset for exterior door with lever handles inside and out. Either handle shall operate unless locked from the inside push button, which will automatically release when inside lever is turned or door is closed.

C. Emergency slot on outside such that a coin, screwdriver, etc. can unlock. Inside lever shall always be active.

D. Hardware to have U.S. 26D finish.

E. Dead bolt shall be a Lori Lock Standard model, or equal, with a double cylinder, 2 3/4" backset, and US26D finish. The cylinder shall be a standard 1-1/8" Schlage Mortise cylinder with compression ring and 626 finish, to match Park's master.

F. Door stop shall be dome style meeting ANSI 156.16 standards, with sweeps provided at the bottom of the door, adjustable brush type.

5.9 Mirrors shall be 18" x 36" stainless and positioned at each sink.

5.10 Wall Vents shall be removable crank operated. Frames shall be screened and cast into concrete and made of C3 x 4.1 channel steel. Louver frames and louvers shall be 18 gauge zinc coated steel with baked enamel finish.

5.11 Windows shall be constructed of steel with 1/4" translucent pebble finished polycarbonate glazing.

5.12 Skylights shall be provided in each individual room.

#### 5.13 Plumbing & Fixtures

A. All fixtures shall meet ANSI A112.19.2 standards

B. Waste and vent material shall be ABS or PVC and plumbed to meet the International Building Codes and other codes as adopted by the State of Tennessee.

C. Water pipe material shall be copper tubing Type L, hard drawn with a gate valve at the inlet end of the line. All lines are to be sized to provide proper flush action based on a nominal pressure of 40 psi.

D. All plumbing shall be concealed in the service area, with a hose bib available in the chase.

- E. A main shut off valve and drain will be provided.
- F. Toilets will be constructed of stainless steel, wall hung, with siphon jet action. Toilets shall have a back spud for a concealed flush valve connection and shall be mounted such that the top of seat is 17" above the finished floor. Flush valve will be auto-flush concealed closet flush-o-meter. Valve shall be equipped with integral vacuum breaker and wall mounted push button with water consumption not to exceed 1.6 gallons per flush.
- G. Sink shall be stainless steel with back splash guard, front overflow opening and equipped with brass trap and drain pipe without stopper. Sink shall be 20" wide x 18" front to back x 5 ¾" deep with ADA trap cover. Water valve shall be self-closing water set with indexed push button.
- H. Shower control unit shall be 14 ga 304 stainless steel recessed shower panel with 2.5 gpm flow rate, pressure balancing valve, recessed soap dish, and integral stainless steel shower head.
- I. ADA shower control shall contain high low diverter valve, and high low integral stainless steel shower head.
- J. Each bathhouse unit shall be equipped with two (2) – 80 gallon commercial grade water heaters.

#### 5.14 Electrical

- A. All components shall be UL listed, with all wiring in conduit surface mounted in the service area, concealed in the user compartments, of copper.
- B. A minimum 400 amp breaker panel shall be provided in the chase area.
- C. Interior lighting shall be provided by wall mounted vandal resistant LED lighting
- D. Exterior illumination shall be provided by 3 – 35 watt vandal resistant HPS lights per building side, controlled by photo-cell
- E. GFI outlets will be located next to each sink and within the plumbing chase.
- F. Each shower shall have an exhaust fan of adequate size.
- G. Hand dryers shall be air compression type with remote motor unit with push button switch located in cast nozzle housing with flexible hose connecting blower motor, housing and nozzle.

5.15 Shower benches shall be heavy duty 304 satin finish stainless steel with phenolic slats.

5.16 Rigid insulation providing a minimum R-19 rating shall be placed under roof panels, which must be suitable for moist/humid environment.

#### Part 6 – Manufacture

6.1 Concrete Mixing/delivering, Placing/consolidating, Finishing, Patching shall be in accordance with ASTM C94, 10.60-010.9 plus aggregate and water adjustment to compensate for differences in saturated surface-dry condition, and discharged after concrete is mixed in under 30 minutes.

6.2 Finishing/Fabrication at structural joints shall be joined with two welded plate pairs at each joint, 6" long and located one pair in the top quarter and one pair in the bottom quarter of the seam, continuously welded, with inside seams sealed with a paintable caulk, and outside sealed with a clear

caulk or coordinated caulk color. Walls & roofs will be joined with 3" x 6" weld plates at each corner. Floors and walls will be joined with a grout mixture on the inside and matched color caulk on the outside and two weld plates 6" long per wall.

6.3 Painting/Staining shall only be allowed after appropriate curing, with some applications requiring acid etching (30% solution of hydrochloric acid flushed with water and allowed to thoroughly dry). Painting shall be done in an interior non-dusty environment at above 50° F. Inside floors shall be finished with one coat of 1-part water based epoxy with silica sand suspension for uniform texture. Walls and ceilings shall be finished with two coats of modified acrylic, water repellent penetrating stain, followed by one coat of clear sealer. Metal surfaces inside and out will be covered with two coats of Direct to Metal Alkyd Enamel paint. The exterior slab shall be sealed with one coat of clear sealer. Two coats of water repellent penetrating stain in the same color as the walls and roof followed by one coat of clear acrylic anti-graffiti sealer shall be applied to the exterior walls and roof.

Part 7 – Testing - The following test will be performed on the concrete in the manufacturer's laboratories: air content per ASTM C231 on the first batch with air content in the range of 5% +/-2%; compression strength cylinders tested to ASTM C39, one for release, one in 7 days, and one for 28 days, with a minimum strength of 2,500 psi, 4,500 psi, and 5,000 psi respectively.

Part 8 - Installation - Installation must be by a licensed (Rule 0780-02-13-.03) and pre-approved installer, installing only modules bearing the proper label(s), on a prepared gravel foundation to proper level, on a site free of obstruction for crane movement and setting.

Part 9 - Warranty - Manufacturer warrants that all goods conform as set forth above, with a corrective inspection to be held with the owner, owner's designer, Building Representative, licensed installer and major subs for any corrective work. Twenty year warranty required.